

Q m/f



VOLUME I

A REVIEW AND ASSESSMENT OF TELECOMMUNICATIONS PLANNING IN THE 50 STATE PLANNING AGENCIES

PRODUCT OF PROJECT THIRTEEN

of the

ASSOCIATED PUBLIC-SAFETY COMMUNICATIONS OFFICERS, INC.

Prepared by

BOOZ, ALLEN & HAMILTON, INC.

LAW ENFORCEMENT ASSISTANCE ADMINISTRATION

Grant No. 74 SS 99 3310

30785 V.I

VOLUME I

A REVIEW AND ASSESSMENT OF TELECOMMUNICATIONS PLANNING IN THE 50 STATE PLANNING AGENCIES

NOVEMBER 1 1975

**PRODUCT OF PROJECT THIRTEEN
of the
ASSOCIATED PUBLIC-SAFETY COMMUNICATIONS OFFICERS, INC.**

**Prepared by
BOOZ, ALLEN & HAMILTON, INC.**

The material contained in this report has been produced using financial support provided by the Law Enforcement Assistance Administration, United States Department of Justice. The fact that LEAA furnished financial support to the activity described in this publication does not necessarily indicate its concurrence in the statements or conclusions contained therein.

**LAW ENFORCEMENT ASSISTANCE ADMINISTRATION
Grant No. 74 SS 99 3310**

EXECUTIVE SUMMARY

The Associated Public-Safety Communications Officers, Inc., (APCO), a not-for-profit corporation and a voluntary association of public-safety communications employees of tax-supported agencies, was awarded Grant #74 SS 99 3310 by the Law Enforcement Assistance Administration (LEAA) in the amount of \$592,994 on May 6th, 1974. The purposes of this grant were to review and assess the telecommunications planning of the 50 State Planning Agencies (SPA) and to develop a set of planning guidelines for use by state, county and municipal-level individuals involved in law enforcement telecommunications planning. The title of the APCO project to attain these objectives is "Project 13".

In accordance with the terms and schedules of the grant, APCO conducted a competitive source selection activity that culminated in the award of an LEAA approved contract with the Applied Research Division of Booz, Allen & Hamilton Inc., on August 14, 1974, for the provision of consulting contractor services in support of this project.

The project involved a national survey, conducted by APCO and contractor teams, designed to obtain the data used as the basis for the conclusions contained in the Project 13 report. As a prelude to this survey, four regional meetings were conducted by APCO. Representatives of LEAA, the SPAs, state Divisions of Communications (DOC), and APCO attended these meetings. The objectives of the project were discussed and the plans of the survey and the information sought were described.

Teams of contractor and APCO representatives visited each of the SPAs of the 50 states and the District of Columbia. The law enforcement telecommunications planning activities of the cities of New York, Chicago and Los Angeles were also surveyed. These teams completed questionnaires that covered approximately 180 questions of each SPA and 170 questions of each DOC. They inspected 7686 telecommunications grants issued during the period July 1, 1971 through January 1, 1975. This survey produced approximately 100,000 items of information.

Based upon the results of this survey, a Planning Guidelines document for use by local-level telecommunications planners has been prepared. The raw data collected during the survey and the drafts of these guidelines were sent to each of the SPAs for their corrections and comments prior to inclusion in the final report.

The data collected by the survey teams were codified, keypunched and placed on magnetic tape for computer-aided analysis. The data analysis has been reviewed and contributed to by the contractor and each of the APCO Task Groups participating in the project.

The results of APCO's survey of the planning activities of the SPAs indicates a need for additional guidance and assistance to the SPAs in the specialized field of law enforcement telecommunications planning. Evaluation of the survey data shows that:

- . Many of the state comprehensive law enforcement plans are not sufficiently comprehensive nor adequately detailed in the area of telecommunications. As a result, they often fail to provide the basis for the full utilization of existing resources in the accomplishment of law enforcement objectives. Many do not provide priorities for allocation of funds. Some have little or no provisions for interstate or intra-state coordination of frequencies or systems. In some plans, basic planning factors such as the assignment of responsibilities, designation of tasks, establishment of schedules, allocations of funds, etc., are not covered in sufficient detail to provide a basis for the development of state law enforcement telecommunications capabilities or the exploitation of the new technologies being developed by the LEAA.
- . SPAs vary in the quantity and quality of telecommunications staffing available for the planning and management of telecommunications grants. The lack of technical telecommunications skills severely handicaps those SPAs affected in providing detailed analysis of the technical content and feasibility of telecommunications grant applications. It further makes difficult the development of technically adequate comprehensive state plans.

- . Lack of telecommunications detail in many of the plans can make it impossible to adequately determine whether grant applications for telecommunications projects are in consonance with the objectives of the plan. It can result in a fractionalization of the grant process and subsequent dilution of the effectiveness of the block grant program.

The recommendations include:

- . Develop a detailed, comprehensive manual for use by SPA and Regional LEAA staff personnel that describes the necessary contents of the telecommunications portion of the state comprehensive law enforcement plan
- . Provide guidance to the State Planning Agencies on recommended levels of technical staffing
- . Develop, at the national level, a policy encouraging a total public-safety approach to communications, command and control.

Law enforcement telecommunications guidelines are incorporated as part of this report. These guidelines provide the basis for a rational, standardized approach to telecommunications planning at the local level. They ensure the consideration of key planning factors in the development of plans, and provide a common level of understanding of plan content by the planner and the reviewer.

FOREWORD

On May 6, 1974, the Law Enforcement Assistance Administration (LEAA) of the U. S. Department of Justice issued a grant in the amount of \$592,994 to the Associated Public-Safety Communications Officers, Inc. (APCO) to conduct a review and assessment of the Law Enforcement Telecommunications Planning activities of the 50 states and the District of Columbia. The study also included a review of the law enforcement telecommunications planning within the cities of New York, Chicago, and Los Angeles. It was known as Project 13.

A second objective of the grant was the development of a set of planning guidelines for use by local-level law enforcement personnel engaged in planning for law enforcement telecommunications systems.

APCO was established in 1934 as a voluntary association of public-safety communications officers. Its membership has been in the forefront of the development, implementation and operation of public-safety communications and information handling systems since its inception, and has been deeply involved in programs throughout the public safety field. The development of the State Planning Agency (SPA) concept under the "Omnibus Crime Control Act of 1968" (hereafter called "the Act") and the resulting mandated statewide comprehensive law enforcement plans have therefore, had great impact on its members. Further, the APCO membership has been intimately involved in the implementation of these plans.

The modernization of the nation's law enforcement agencies that has been stimulated by the Act has imposed increasing dependence upon new technologies, particularly in the field of telecommunications. This reliance upon more complex, higher speed and wider area communications systems has brought with it new sets of problems.

Telecommunications, as defined by APCO Project 13, are land mobile law enforcement voice and data communications systems including their dispatch, command and control facilities wherein the terminals of such systems are located. The term includes the interfaces of such systems with those of common carrier, wide-area criminal justice information and other public-safety communications systems but not the total complex of these systems themselves.

Telecommunications are, by their nature, complex technological systems. The engineering, system design, integration and procedural skills needed to implement and operate such systems are highly specialized and not routinely inherent in the criminal justice profession.

These systems follow physical laws, not political boundaries; therefore, systems design and operation cannot be effected unilaterally. Interagency cooperation requires interagency planning. Technical oversights or undisciplined operation within one system can cause destructive interference in another. Failure to properly plan a system can result in its technological isolation and the inability to reap the benefits of wide-area information flow and interagency communications.

Recognizing the role of telecommunications in the modern law enforcement environment, LEAA, charged by Congress with the responsibility for administration of the Act, chose APCO to assess the present status of telecommunications planning by the SPAs and to develop guidelines for the assistance of those at the municipal, county and state level involved in the development of telecommunications plans.

The specific objectives of this project were:

- To conduct a detailed survey of the SPAs of the 50 states and the District of Columbia. In addition, the law enforcement telecommunications planning activities of the cities of New York, Chicago and Los Angeles were to be surveyed to offer additional insight into the planning activities of these agencies. APCO selected a consulting contractor, Booz, Allen & Hamilton Inc., to participate in this project, and teams of APCO and contractor personnel conducted the required surveys by personally visiting the SPAs of the states and cities.

To ensure complete insight into the SPA telecommunications planning activity, Divisions of Communications (DOC) were surveyed in those states where such divisions have been established. Where such divisions exist, and where their activities either contribute to or provide a part of the SPAs telecommunications planning, such information was incorporated to provide a completely comprehensive view of the total planning picture in that state.

To prepare an analysis of the data collected. These surveys yielded a massive volume of data. Approximately 180 questions were asked of each SPA and of each DOC. All telecommunications grants issued between July 1, 1971, and January 1, 1975, a total of 7,686 grants, were reviewed for content, scope, objectives and application. To make the content of this volume of data comprehensible, an analysis of the data was performed. This analysis involved entering the survey results into machine processing systems and selecting the various matrix ordinates and abscissae necessary to yield insights into the implications of the results. The results of this analysis provided insight into national trends in law enforcement telecommunications development and a factual picture of the resources being applied to the development of the telecommunications portions of the statewide comprehensive plans. This analysis shows the scope and contents of these plans, and the objectives and methodology of the plans. It also yields information regarding the overall impact of the activities, objectives, and execution of grant programs since July 1971.

To develop a set of guidelines for use by law enforcement telecommunications planners at the state and local level. The present approaches to telecommunications planning at local and state levels are almost as varied as the number of practitioners. The third task of Project 13 was to synthesize, from the data and experiences acquired during the survey and analysis phases of the project, a set of planning guidelines that would provide a basis for a standardized approach to telecommunications planning. The objective of these guidelines is to ensure a rational, orderly process of plan development, from identification of goals and objectives through implementation to evaluation. In addition to ensuring that all relevant factors are considered in the development of plans, these guidelines are intended to provide a channel of communication between the developer of the plan and the reviewer of the plan. When these guidelines are accepted, the planner will know what steps the reviewing agency will be seeking in the plan, and the reviewing agency will know what items should be addressed in the plan. To assist in their use, the guidelines contain a model situation and the plan resulting from that situation as an example of the development of a municipal-level law

enforcement telecommunications plan. The guidelines also contain checklists against which a reviewer can compare the plans he receives for completeness and comprehensiveness.

The management and execution of a project of this scope has relied upon a time-tested and proven procedure used by APCO in many of its other project series. Because of the breadth of skills represented by its membership and their geographic dispersion, full use of APCO's abilities is best accomplished by selecting members with outstanding qualifications in the various disciplines needed and assigning them to working task groups. These voluntary task group members met periodically throughout the project to contribute to the end product during its various phases of development.

The specific approach used in Project 13 was to have the consulting contractor, Booz, Allen and Hamilton, develop drafts of the various deliverable documents. These drafts were provided to the task group members several weeks before task group meetings. After this individual pre-meeting review, the task groups met with the contractor and provided inputs to the final documents, both from an overall standpoint and on a page by page basis.

APCO established three task groups to accomplish Project 13. Task Group I was comprised of the Board of Officers of APCO. It received assistance and advice from APCO's legal counsel, a representative of the International Association of Chiefs of Police (IACP), the APCO Executive Secretary and the Project Director. This group provided overall project policy guidance and exercised approval authority on each phase of the program.

Task Group II represented the technical and professional skills of the APCO active membership. Nine highly qualified professional communications specialists from various parts of the United States met for days at a time to provide the professional and technical insights upon which this report is based. During the survey phase of this project, the APCO survey team members who participated at the state level also reported to this task group.

Task Group III was composed of six commercial members of APCO. These volunteer representatives of the commercial interests of the law enforcement telecommunications profession followed the same procedures as Task Group II, thereby ensuring that the knowledge and experience of all aspects of the law enforcement telecommunications community were fully represented.

Mr. J. Rhett McMillian, Jr., APCO Executive Secretary, provided overall program supervision of the execution of the project. Mr. Donal D. Kavanagh acted as the project manager.

LEAA administration of Project 13 was provided by Mr. S.S. Ashton, Jr., and Mr. William H. Bailey, systems specialists in the Systems Division of headquarters of LEAA, Washington, D.C.

ACKNOWLEDGEMENTS

Major contributions to Project 13 were provided by the following individuals:

LEAA

S.S. Ashton, Jr. — Grant Monitor, LEAA

William H. Bailey — Grant Monitor, LEAA

TASK GROUP I

Frank J. Devine — APCO President — New York City Police Department

Alan L. Armitage — President-Elect — Hunterdon County, New Jersey
Communications System

B. J. Campbell — First Vice President, Chairman Task Group II —
San Bernadino County, California Communications
Department

Nathan D. McClure — Second Vice President — Winnebago County,
Illinois Civil Defense

Joseph M. Kittner — McKenna, Wilkinson & Kittner, Attorneys at Law

Roger Reinke — IACP Representative

William L. Miller — APCO Past President (Ex-Chairman, Task
Group I), Chicago Police Department

TASK GROUP II

Donald R. Allen — Division of Communications, Tallahassee, Florida

Frank Bland — Texas Department of Public Safety, Austin, Texas

Phillip Y. Byrd — Division of Communications, Tallahassee, Florida

Donald G. Feliz — Office of Emergency Services, Sacramento, California

Joseph D. Hamilton—Montgomery County, Pennsylvania Police Radio

M. Allison Talbott—Division of Telecommunications, Springfield,
Illinois

Curt Wheeling—Department of Administration, Helena, Montana

TASK GROUP III

J. Steven Adler—Motorola Corporation

M. Steven Blosser—General Electric Corporation

Steven Guzy—American Telephone & Telegraph Corporation

Stuart Meyer—Radio Corporation of America

Ernest F. Schwabe—Aerotron Corporation

Robert Tall—Washington Radio Reports

APCO PAST PRESIDENTS

Irv McAndrews

John Simmons

BOOZ, ALLEN & HAMILTON, Inc.

Kenneth C. Mundell—Senior Vice President, Booz, Allen Applied
Research Division

Donn J. Barnhart—Director, State and Local Telecommunications
Department

Charles A. Hauer—Program Manager

Benjamin F. Lohr—Project Engineer

Charles F. McMorrow—Project Engineer

George A. Praul—Consultant

J. Rhett McMillian, Jr.
Executive Secretary, APCO

The number of dedicated and energetic people who participated in this project is too great to fully recognize all that are so deserving. The APCO survey team members, the SPA executives and planners, the state DOC representatives and the LEAA Regional Offices personnel, all of whom gave so unstintingly of their time, their knowledge and their cooperation, merit the utmost of appreciation for their contributions. Without their efforts, cooperation and understanding, this project would have been impossible. To each one the entire law enforcement telecommunications community owes a debt of gratitude.

Donal D. Kavanagh
Director, Project 13

TABLE OF CONTENTS

	<u>Page Number</u>
EXECUTIVE SUMMARY	iii
FOREWORD	vi
ACKNOWLEDGEMENTS	xi
VOLUME I	
I. INTRODUCTION	1
1. Background	1
2. The Grant	3
3. The Report	4
II. NATIONAL TRENDS AND RECOMMENDATIONS	9
1. National Trends	9
2. Recommendations	14
III. NATIONAL PROFILE	19
1. Planning Agencies and Their Organizations	19
2. Status of Present Law Enforcement Telecommunication Systems	31
3. Law Enforcement Telecommunications Plans and Planning Activities	39
4. Grant Administration and Procurement Policies	62
5. Summary of LEAA Law Enforcement Telecommunications Projects	74
6. Regional Summaries	84

VOLUME II

IV. SUMMARY OF STATE LAW ENFORCEMENT TELECOMMUNICATIONS SYSTEMS PLANNING ACTIVITIES

1. Divisions of Communications	145
2. Survey Data	146

V. STATE SUMMARIES

1. Alabama	255
2. Alaska	267
3. Arizona	279
4. Arkansas	289
5. California	299
6. Colorado	313
7. Connecticut	327
8. Delaware	337
9. District of Columbia	347
10. Florida	357
11. Georgia	373
12. Hawaii	387
13. Idaho	397
14. Illinois	409
15. Indiana	425
16. Iowa	437
17. Kansas	449
18. Kentucky	461
19. Louisiana	473
20. Maine	485
21. Maryland	499
22. Massachusetts	509
23. Michigan	521
24. Minnesota	533
25. Mississippi	547
26. Missouri	557
27. Montana	567
28. Nebraska	581
29. Nevada	593

Page Number

30. New Hampshire	
31. New Jersey	605
32. New Mexico	617
33. New York	629
34. North Carolina	643
35. North Dakota	655
36. Ohio	665
37. Oklahoma	677
38. Oregon	689
39. Pennsylvania	703
40. Rhode Island	713
41. South Carolina	723
42. South Dakota	735
43. Tennessee	747
44. Texas	759
45. Utah	771
46. Vermont	781
47. Virginia	793
48. Washington	805
49. West Virginia	819
50. Wisconsin	831
51. Wyoming	841
52. Los Angeles	853
53. Chicago	865
54. New York City	873

Page Number

605
617
629
643
655
665
677
689
703
713
723
735
747
759
771
781
793
805
819
831
841
853
865
873
879

INDEX OF FIGURES

	<u>Page Number</u>
1. Distribution of Grants as a Function of Dollar Value	11
2. States with Divisions of Communications or Equivalents	20
3. Law Enforcement Telecommunications Planning Personnel	22
4. SPA In-House Capabilities for Law Enforcement Telecom Planning	24
5. Areas of Telecommunications Planning Assistance Provided to Law Enforcement Agencies by SPA	26
6. Assistance Received by SPAs from Other Planning Agencies	26
7. In-House Capabilities—SPAs & DOCs	28
8. Areas of Telecommunications Planning Assistance Provided to Law Enforcement Agencies by DOC	29
9. Agencies Which DOCs Serve	29
10. Major Activities of DOCs in Law Enforcement Telecommunications	30
11. Centralized Dispatch Centers	33
12. Dispatch Centers Serving One Law Enforcement Agency	34

	<u>Page Number</u>
13. Agencies Addressed by SPA LEAA Comprehensive Plan	41
14. Elements of SPA LEAA Comprehensive Law Enforcement Plan	41
15. Statewide Law Enforcement Telcom Plans	43
16. Agencies Addressed by Statewide Telecommunications Plan	44
17. Elements of Statewide Tele- communications Plan	45
18. Elements Contained in Either the Comprehensive Plan or the Law Enforcement Telecommunications Plan	46
19. Statewide Frequency Plan	47
20. Channel Sharing Approach Recommended by SPA	49
21. Command and Control Concept Recommended by SPA	49
22. Channel Sharing Approach Recommended by DOCs	49
23. Command and Control Concepts Recommended by DOCs	50
24. SPAs' Frequency Band Policy for Urban Areas	50
25. SPAs' Frequency Band Policy for Suburban Areas	50

	<u>Page Number</u>
26. SPAs' Frequency Band Policy for Rural Areas	51
27. SPAs' Criteria for Establishing Number of Required Channels	52
28. Channel Configurations Recommended by SPA	52
29. SPA Recommendations on Tone-Controlled Squelch	53
30. SPA Recommendations on Selective Call Systems	54
31. SPAs' Basis for Establishing Requirements for Law Enforcement Radio Systems	54
32. SPAs' Recommendations for Improved Citizen Access to Public Safety Agencies	54
33. Coordination Channels Recommended by SPA	56
34. Approaches Recommended by SPA for Interagency Point-to-Point Coordination	56
35. Approaches Recommended by SPA for Communications Coordination between State Police, Highway Patrol, and Local Law Enforcement Agencies	56
36. Methods Recommended by SPA for Remote Control of Base Stations	57
37. Recommendations for Improved Access to Criminal Justice Information	57

	<u>Page Number</u>
38. Recommended Digital Systems	59
39. SPAs' Recommended Use of Personal Portables	59
40. SPAs' Recommended Maintenance Approach	59
41. Areas Covered by State Statutes that Affect Law Enforcement Telecommunications Planning	61
42. Most Significant Constraints On Police Telecommunications Systems	61
43. SPAs' Requirements for Telecommunications Grant Application	63
44. Topics Addressed on Grant Application Review Checklists (as Checklists Examined)	64
45. Agency Responsible for Coordination of Grants with Adjacent States	65
46. Major Source of Specifications	66
47. SPAs' Standard Telecommunications Equipment Specifications	67
48. State Centralized Purchasing	68
49. Procurement Instructions Used by SPAs	70
50. Competitive Bid Policies of SPAs	71
51. Bid Requirements of SPAs	72
52. SPA Pre-Bid Conference Requirements	73
53. LEAA Regions	76

INDEX OF TABLES

	<u>Page Number</u>
III-1. Ratio of the Number of Telecommunications Grants Surveyed and Ratio of State Population to Each Full-Time Telecommunications Professional Person in SPAs.	23
III-2. Ratio of Population to the Number of Law Enforcement Mobile Units	38
III-3. Project Expenditures	75
III-4. Law Enforcement Telecommunications Projects — Project Objectives	78
III-5. Law Enforcement Telecommunications Projects — Project Types	78
III-6. Law Enforcement Telecommunications Projects — Communication Categories	79
III-7. Law Enforcement Telecommunications Projects — Equipment Purchased and Grant Recipients	80
III-8. Law Enforcement Telecommunications Projects — Coordination Methods	82
IV-1. Classification of State Divisions of Communication	147
IV-2. Authority and Level of Participation of DOCs	149
IV-3. Summary of State DOCs	156

	<u>Page Number</u>
IV-4. State Planning Agencies	156a
IV-5. Divisions of Communications	214
V-1. Alabama Law Enforcement Agencies Below State Level of Government	257
V-2. Comparison - All Grant Awards vs Tele- Communications Awards 7/1/71 through 6/30/74, State of Alabama	263
V-3. Comparison - All Grant Awards vs Tele- Communications Awards 7/1/71 through 6/30/75, State of Alaska	274
V-4. Arizona Law Enforcement Agencies Below State Level of Government	281
V-5. Comparison - All Grant Awards vs Tele- Communications Awards 7/1/71 through 6/30/75, State of Arizona	285
V-6. Arkansas Law Enforcement Agencies Below State Level of Government	290
V-7. Comparison - All Grant Awards vs Tele- Communications Awards 7/1/71 through 6/30/75, State of Arkansas	295
V-8. Comparison - All Grant Awards vs Tele- Communications Awards 7/1/71 thru 6/30/75, State of California	308
V-9. Colorado Law Enforcement Agencies Below State Level of Government	315
V-10. Comparison - All Grant Awards vs Tele- Communications Awards 7/1/71 to 6/30/75, State of Colorado	322

	<u>Page Number</u>
V-11. Comparison - All Grant Awards vs Tele- Communications Awards 7/1/71 to 6/30/74, State of Connecticut	333
V-12. Comparison - All Grant Awards vs Tele- Communications Awards 7/1/71 to 6/30/74, State of Delaware	344
V-13. Comparison - All Grant Awards vs Tele- Communications Awards 7/1/71 to 6/30/74 District of Columbia	353
V-14. Comparison - All Grant Awards vs Tele- Communications Awards 7/1/71 thru 6/30/74 State of Florida	367
V-15. Georgia Law Enforcement Agencies Below State Level of Government	375
V-16. Comparison - All Grant Awards vs Tele- Communications Awards 7/1/71 to 6/30/75, State of Georgia	382
V-17. Comparison - All Grant Awards vs Tele- Communications Awards 7/1/71 through 6/30/75, State of Hawaii	393
V-18. Idaho Law Enforcement Agencies Below State Level of Government	399
V-19. Comparison of All Grant Awards vs Tele- Communications Awards 7/1/71 to 6/30/75, State of Idaho	405
V-20. Comparison - All Grant Awards vs Tele- Communications Awards 7/1/71 to 6/30/74 State of Illinois	419

	<u>Page Number</u>
V-21. Comparison of All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of Indiana	432
V-22. Iowa Law Enforcement Agencies Below State Level of Government	439
V-23. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of Iowa	445
V-24. Comparison - All Grant Awards vs Communications Awards 7/1/71 to 6/30/75, State of Kansas	456
V-25. Kentucky Law Enforcement Agencies Below State Level of Government	462
V-26. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75 - State of Kentucky	468
V-27. Louisiana Law Enforcement Agencies Below State Level of Government	476
V-28. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/74, State of Louisiana	482
V-29. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75 - State of Maine	494
V-30. Maryland Law Enforcement Agencies Below State Level of Government	500
V-31. Comparison of all Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/74, State of Maryland	505

	<u>Page Number</u>
V-32. Massachusetts Law Enforcement Agencies Below State Level of Government	511
V-33. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of Massachusetts	517
V-34. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of Michigan	529
V-35. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of Minnesota	542
V-36. Mississippi Law Enforcement Agencies Below State Level of Government	548
V-37. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of Mississippi	554
V-38. Missouri Law Enforcement Agencies Below State Level of Government	558
V-39. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of Missouri	564
V-40. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of Montana	575
V-41. Nebraska Law Enforcement Agencies Below State Level of Government	583
V-42. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of Nebraska	589

	<u>Page Number</u>
V-43. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of Nevada	600
V-44. New Hampshire Law Enforcement Agencies Below State Level of Government	607
V-45. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of New Hampshire	613
V-46. New Jersey Law Enforcement Agencies Below State Level of Government	619
V-47. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of New Jersey	624
V-48. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of New Mexico	638
V-49. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of New York	651
V-50. North Carolina Law Enforcement Agencies Below State Level of Government	656
V-51. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of North Carolina	662
V-52. North Dakota Law Enforcement Agencies Below State Level of Government	667
V-53. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/74, State of North Dakota	673

	<u>Page Number</u>
V-54. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of Ohio	684
V-55. Oklahoma Law Enforcement Agencies Below State Level of Government	691
V-56. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of Oklahoma	698
V-57. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of Oregon	708
V-58. Pennsylvania Law Enforcement Agencies Below State Level of Government	715
V-59. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of Pennsylvania	720
V-60. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of Rhode Island	730
V-61. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of South Carolina	743
V-62. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/74, State of South Dakota	755
V-63. Tennessee Law Enforcement Agencies Below State Levels of Government	760

	<u>Page Number</u>
V-64. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/74, State of Tennessee	766
V-65. Texas Law Enforcement Agencies Below State Level of Government	772
V-66. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/74, State of Texas	778
V-67. Vermont Law Enforcement Agencies Below State Level of Government	795
V-68. Comparison - All Grant Awards vs Telecommunication Awards 7/1/71 to 6/30/75, State of Vermont	801
V-69. Virginia Law Enforcement Agencies Below State Level of Government	807
V-70. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of Virginia	814
V-71. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of Washington	826
V-72. West Virginia Law Enforcement Agencies Below State Level of Government	832
V-73. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of West Virginia	837
V-74. Wisconsin Law Enforcement Agencies Below State Level of Government	843

	<u>Page Number</u>
V-75. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of Wisconsin	848
V-76. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of Wyoming	860

I. INTRODUCTION

I. INTRODUCTION

1. BACKGROUND

In 1968, the Congress of the United States passed and the President signed Public Law 90-315, entitled the "Omnibus Crime Control and Safe Streets Act of 1968", hereinafter referred to as "the Act." In this Act, the Congress stated that its policy was "to assist the state and local governments in strengthening and improving law enforcement at every level by national assistance."

This Act, in addition to other provisions, specifically:

- . Established, within the Department of Justice, a Law Enforcement Assistance Administration (LEAA) to administer the provisions of the Act.
- . Provided funds for grants to the states for the establishment and operation of State Planning Agencies (SPA) for the preparation, development and revision of State Comprehensive Law Enforcement plans. The Act specified the scope and content of these plans to be developed by the SPAs. It stated that the plans would, among other things:
 - "adequately take into account the needs and requests of the units of general and local government in the state and encourage local initiative in the development of programs and projects for improvements in law enforcement, and provide for an appropriately balanced allocation of funds between the state and the units of general local governments..."
(Part B, Section 303(3))
 - "incorporate innovations and advanced techniques and contain a comprehensive outline of priorities for the improvement and coordination of all aspects of law enforcement dealt with in the plan, including descriptions of (a) general needs and problems; (b) existing systems; (c) available resources;

(d) organizational systems and administrative machinery for implementing the plan; (e) the direction, scope and general type of improvements to be made in the future; and (f) to the extent appropriate, the relationship of the plan to other relevant state or local law enforcement plans and systems." (Part B, Section 303 (4))

- "Provide for effective utilization of existing facilities and permit and encourage units of general local government to combine or provide for cooperative arrangements with respect to services, facilities and equipment" (Part B, Section 303 (5))
- "demonstrate the willingness of the states and units of the general local government to assume the costs of improvements funded under this part..." (Part B, Section 303 (8))
- "Set forth policies and procedures designed to ensure that Federal funds made available under this title will be so used as not to supplant state or local funds but to increase the amounts of such funds that would, in the absence of such Federal funds, be made available for law enforcement." (Part B, Section 303 (10)).

The Act further provided that "The Administration shall make grants under this title to a state planning agency if such agency has on file with the Administration, an approved comprehensive state plan (not more than one year in age) which conforms with the purposes and requirements of this title." (sic) (Part B, Section 303.)

Since the inception of this Act, the LEAA has allocated funds to the SPAs, prorated on a population basis, for the implementation of programs defined in the LEAA approved annual Statewide Comprehensive Law Enforcement plans. These funds are referred to as "Block Grant Funds" or "Part C funds".

As the law enforcement agencies increased their sophistication due, in many cases, to the effective implementation of the policies of the LEAA, their dependence upon modern, high speed, integrated, widearea telecommunications systems increased. During the same period, this growing dependency was more than matched by rapid evolution in the capabilities that technological developments were permitting.

These evolutionary trends resulted in a greatly increased role for telecommunications in the law enforcement field. The basic efficiency and performance of law enforcement agencies became keyed to the speed, accuracy and comprehensiveness of its communications. Funding for modern communications systems began to consume an ever increasing share of the law enforcement budget. Although these funds represented but a fraction of the overall law enforcement expenditures, the complexity of their conception often made their development and implementation an art unfamiliar to the law enforcement profession. The technological options available often made the simple bid process of procurement impractical, with the resulting increase in procurement complexities. The role of Federal regulation in the allocation of frequencies and the mandatory needs for adjacent area coordination generated new motivations for cooperation.

With these managerial problems came operational opportunities. Highly reliable, sophisticated control and command equipment offered the opportunity for consolidation and cooperation between adjacent jurisdictions. This offered the possibilities for increased law enforcement capabilities in these areas at the same or lower cost.

The development of automated information handling systems put the technological capability for instantaneous records search at the fingertips of the patrol officer. Machine-assisted dispatch systems provided resource allocation and control capabilities unthought of only years ago.

Successful exploitation of these capabilities and the solutions to the attendant problems both are contingent upon the accuracy and the comprehensiveness with which the systems are planned for and implemented.

2. THE GRANT

In recognition of the growing role of telecommunications in the law enforcement field and its highly specialized demands for comprehensive planning, the LEAA issued a grant to APCO in May 1974 to review and assess the status of telecommunications planning by the 50 SPAs and the District of Columbia. A further objective of this grant was to develop a set of planning guidelines for those at the state and local level involved in the development of law enforcement telecommunications planning.

3. THE REPORT

The following report constitutes APCO's response to the objectives of the LEAA grant. It is divided into three volumes.

(1) Volumes I and II. A Review and Assessment of Telecommunications Planning in the 50 State Planning Agencies

These volumes also include the District of Columbia and the cities of New York, Chicago, and Los Angeles. These three cities were included to provide insight into the comparative aspects of planning for large centralized law enforcement establishments as encountered in major metropolitan communities versus the planning for a similar, or smaller number of people, when distributed throughout that geographic and political subdivisions of a state.

This document was prepared in a manner designed to satisfy the needs of the detailed research specialist, the law enforcement planner, and the policy making executive. Its organization is intended to make key points readily accessible and also to provide ready access to all of the data acquired. The report is presented in five chapters, organized as follows:

I. Introduction

II. National Trends and Recommendation

This chapter presents summaries of the broad picture emerging from the data. In summary form it shows the technological and managerial concepts that have evolved to date. It shows how LEAA grants have been applied to telecommunications over the past years and the broad areas of technology toward which these funds have been directed.

Chapter II also lists the recommendations that APCO feels are appropriate for submission to the LEAA. These recommendations are based upon the analysis of the data accumulated during the course of the grant. They are intended to provide assistance to those involved in the management of the development

of telecommunications plans for law enforcement. They are primarily directed at the role of telecommunications planning within the SPA, its position in the statewide comprehensive plan and the evaluation and administration of telecommunications grants issued under the LEAA program.

III. The National Profile

Chapter III represents an analysis and summary of the facts and statistics accumulated during the surveys. The information is presented under six headings:

- Section 1—State Planning Agencies and Their Organizations, describes the staffing levels and organizational relationships of the SPAs. It shows the role of DOCs and the interface with other activities.
- Section 2—Status of Present Law Enforcement Telecommunications Systems, provides a broad description of the status of law enforcement telecommunications systems. It presents information relating to the development of new systems concepts such as consolidated dispatch centers, frequency plans, and spectrum usage and shows the present trends in technology.
- Section 3—Law Enforcement Telecommunications Plans and Planning Activities, describes the telecommunications aspect of the statewide comprehensive plans. It gives data about the contents of these plans and the source of this content. It describes the role of DOCs and provides a picture of the various systems approaches recommended by the SPAs.
- Section 4—Grant Administration and Procurement Policies, presents insights into the degree of standardization and the procedures in use throughout the states for the implementation of the programs described in the comprehensive plans.

- Section 5—Summary of the LEAA Telecommunications Projects, presents the results of the analysis of 7686 telecommunications grants reviewed in the course of this project. It shows where the grants have been concentrated, the funds allocated and what the objectives of the grants have been.
- Section 6—Regional Summaries, presents a brief summary of the law enforcement telecommunications planning in each of the ten LEAA regions.

IV. Summary of State Law Enforcement Telecommunications Systems and Planning Activities

Chapter IV presents the statistical data accumulated during the Project 13 survey. Shown here are the actual questions asked of each SPA during the survey and the answers received, on a state-by-state basis. Also shown in a separate section, are the questions asked and the answers given by each of the State DOCs.

This section also presents the statistical data accumulated during the grant-by-grant review of the 7686 telecommunications grants issued since July 1, 1971.

V. State Summaries

Chapter V is a state-by-state discussion of the law enforcement telecommunications planning organizations, their relationship and activities. It provides a reference type guide book to the procedures in practice in each of the states as of the time of the survey, April 1975.

The information contained in chapters IV and V was obtained by personnel visits to the respective states. This information was then returned to the SPAs and the DOCs for their review and comments. Any needs for correction suggested by the states at that time have been incorporated into the information presented.

(2) Volume III. Planning Guidelines for Law Enforcement Telecommunications Systems

This document has been developed in response to the needs of the many thousands of law enforcement telecommunications planners throughout the United States. It is an attempt to provide an orderly process by which local-level personnel can develop useful, technologically feasible, cost-effective, telecommunications programs in response to the goals and objectives developed within their law enforcement environment. It is also an attempt to bridge the gap that exists between the grant applicant at the local level and the grant approval authority at the SPA level. It is intended to provide a standardized approach to plan development that, when used by all, will assure the planner that he has included the relevant considerations and will assure the reviewing authority that the relevant considerations have been included.

These guidelines have been developed in thirteen chapters that lead the reader in an orderly manner through the process of developing realistic telecommunications plans. The contents are basic; they are also general. It is intended that they be used as principles, and therefore must be tailored to suit the user. They are designed to be expanded upon in the case of a major cosmopolitan project, and simplified in the case of a straightforward community task. But the principles presented should be applied to both.

As an assistance to the user, the guidelines incorporate a sample telecommunications plan developed as a result of a hypothetical situation. This model is presented in an attempt to illustrate how a real case situation can be analyzed in accordance with the principles presented, decisions arrived at, and a course of action defined.

Each chapter of the guidelines incorporates a checklist designed to assist the user in ensuring that the key aspects of that phase of the planning effort have been addressed. This checklist is also summarized in the appendix as a tool for use by planners and those reviewing plans.

These three volumes represent the final report to the LEAA on APCO's Project 13. They do not represent the final

word on law enforcement telecommunications planning. They present the current status of telecommunications planning and they give insight into what has been accomplished to date. Of most importance, they point in the direction that we must go from here.

II. NATIONAL TRENDS AND RECOMMENDATIONS

II. NATIONAL TRENDS AND RECOMMENDATIONS

This chapter summarizes the major findings of the survey and presents a series of recommendations for consideration by LEAA. The main thrust of the recommendations is to expand and improve law enforcement telecommunications planning and grant management within the SPAs.

The first section of this chapter summarizes the major findings and the national trends in law enforcement telecommunications planning.

1. NATIONAL TRENDS

Identification of the national trends was based upon analysis of the 7686 law enforcement telecommunication projects funded by LEAA during the period July 1, 1971 to January 1, 1975. While this time period is relatively short for purposes of trend analysis, it nevertheless was sufficient to identify those areas receiving primary interest for funding by State Planning Agencies and identified the general areas, types and objectives of telecommunications projects receiving emphasis. In addition, major findings and conclusions obtained through interview and survey of the telecommunications personnel within the State Planning Agencies are included.

(1) Expenditures by the State Planning Agencies on Law Enforcement Telecommunications Grants Are Increasing

The total expenditures for law enforcement telecommunications by the SPAs were \$143 million during the period July 1, 1971 to January 1, 1975, not including matching funds. This represents approximately 11.5 percent of the total block grant budget for the period reviewed. The annual expenditures for law enforcement telecommunications grants were approximately as follows:

FY 72	-	\$38.5 Million
FY 73	-	\$42.7 Million
FY 74	-	\$44.9 Million
FY 75	-	\$17.0 Million (through January 1, 1975)

It is significant to note that 45 percent of the projects were for less than \$5,000, and 59 percent were for less than \$10,000. The average grant award value was approximately \$15,000. Figure 1 shows the distribution of grant values. The median grant value was \$6,000. The large number of small grants is partially attributable to the fact that over half of the telecommunications grants were awarded to law enforcement agencies serving municipalities with populations under 20,000 persons; however, the project dollars for these small agencies amounted to less than 10 percent of the total LEAA dollars allocated to telecommunications. The bulk of the telecommunications grant dollars (42 percent) were awarded to regional systems including central dispatch centers. Large municipalities (with populations over 500,000) and county law enforcement agencies each received approximately 10 percent of the LEAA grant dollars expended on telecommunications. On an approximate basis, the per capita expenditures in large municipalities (greater than 500,000 population) and in small municipalities (less than 20,000 population) are roughly 50 percent greater than those for medium size municipalities (20,000-500,000).

(2) There is a National Trend Toward the Implementation of Cooperative or Centralized Dispatching Systems

There were 338 LEAA grants awarded over the past three and one-half years for the implementation of cooperative or central dispatching systems. In addition, over 1,000 LEAA grants have been in support of regional communication systems. This trend has presumably been fostered by the fact that 44 of the 50 SPAs recommend and encourage cooperative dispatching for law enforcement service.

(3) The Provision of Interagency Communications Coordination Capability has Received High Priority Throughout All Parts of the Country

Over 90 percent of the telecommunications grants have incorporated some aspect of interagency coordination. The implementation of statewide coordination channels, for example, has been most prevalent with half of the projects having such provisions.

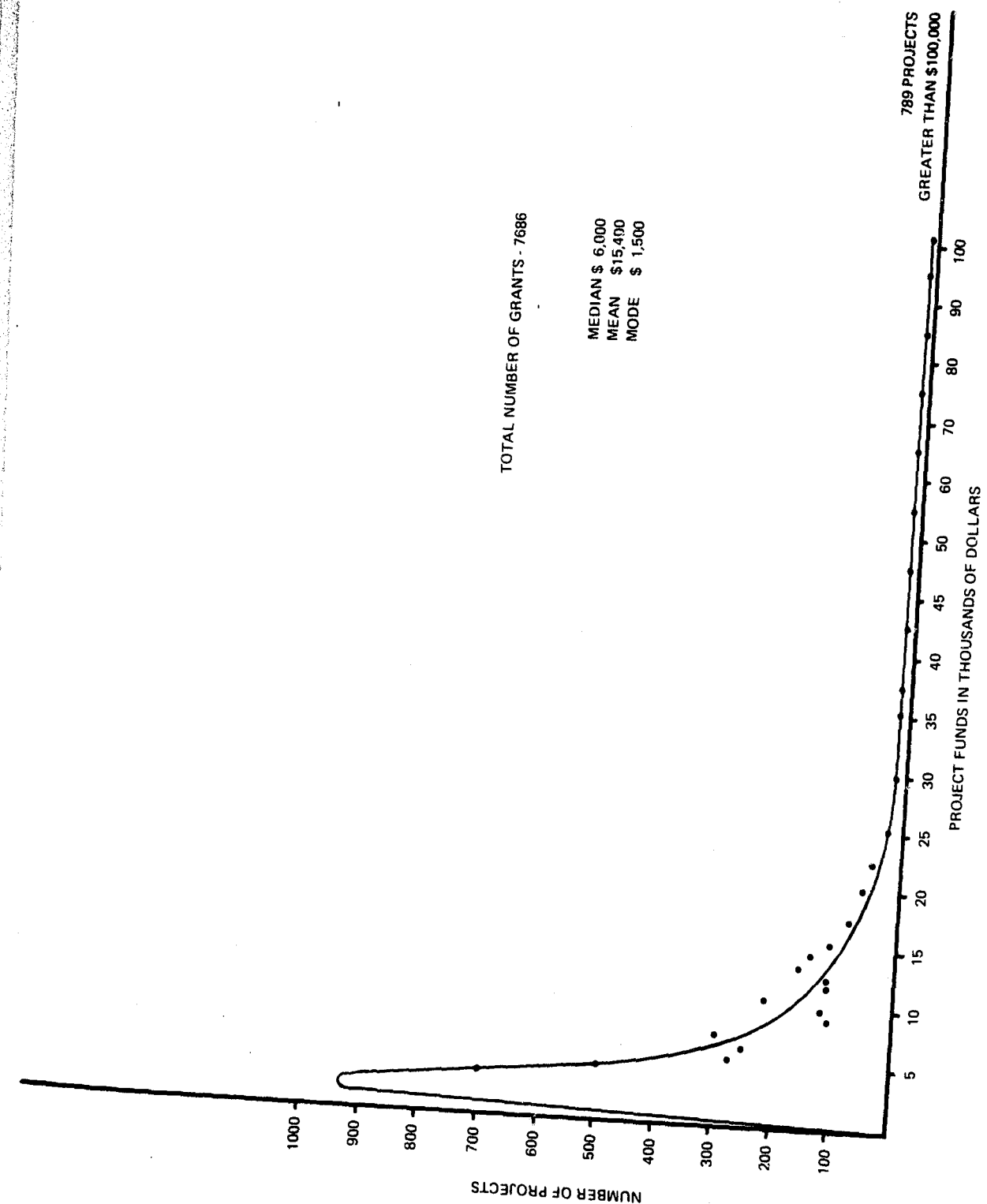


FIGURE 1
Distribution of Grants as a Function of Dollar Value

Interstate telecommunications capability is being provided primarily through the use of point-to-point voice and data channels. However, only 14 percent of the projects involve provision of a mobile capability for interstate coordination.

(4) The Use of Personal Portables by Law Enforcement Agencies is Increasing as Evidenced By the High Percentage of Grants Involving Their Procurement

The procurement of personal portables in 69 percent of the LEAA projects is in consonance with recommendation by the majority of the SPAs for the extensive use of personal portables in law enforcement telecommunications systems. Base stations and mobile radios were included in 63 percent and 76 percent of the telecommunications grants respectively. Over 99 percent of the projects involved purchase of some type of telecommunications equipment.

(5) The Majority of the Law Enforcement Telecommunications Projects Were Directed Toward Basic Intra- and Inter-Law Enforcement Agency Telecommunications With Relatively Little Emphasis on Citizen Access

While 911 implementation continues throughout the country, a relatively small number of 911 projects were funded by LEAA. Only 50 of the 7,686 grants involved 911 implementation. On the other hand, over two-thirds of the grants involved procurement of base stations, mobile units or portable equipment.

(6) There is a Trend Toward the Use of Advanced Technology in Law Enforcement Telecommunications Systems

There is evidence by virtue of 31 grants for computer-aided dispatch systems, 11 for digital mobile terminals, 19 for automatic vehicle monitoring and 51 for scramblers, that the use of advanced technology is increasing in law enforcement telecommunications. However, the majority of SPAs have not yet formulated recommendations with respect to these more advanced systems.

(7) The Development of Statewide Law Enforcement Telecommunications Plans Has Been Undertaken by the Majority of the States

Twenty four of the 50 states have completed development of a statewide law enforcement telecommunications plan, and 19 additional SPAs are currently preparing or plan to prepare telecommunications plans. These telecommunications plans are frequently incorporated by reference in the LEAA Comprehensive Plans, prepared by the SPAs, and they frequently address the telecommunications requirements of all state agencies as well as those of law enforcement agencies. While the elements of these telecommunication plans vary, it is evident that the majority of the SPAs in the country have recognized the need for statewide planning in order to provide guidance in the implementation of individual law enforcement telecommunications systems and to ensure a fully coordinated statewide system. Twenty-five states have prepared frequency plans while an additional nine states are currently preparing such plans.

The planning elements and subjects addressed by the telecommunications plans and by the SPA comprehensive plans vary considerably among the states. While considerations such as organization of radio nets, interagency coordination, cooperative dispatch, data retrieval and finances are covered by 75 percent or more of the states, considerations of citizen access, frequency allocations, interstate coordination, training, maintenance and disaster operations are covered by less than half of the states.

(8) The Establishment of DOCs in Some States Has Had an Impact on Law Enforcement Telecommunications System Development

There has been a trend toward the establishment of DOCs at the state level in recent years. Capabilities and resources within the DOCs tend to complement the SPA capabilities. In 23 states, the DOCs provide positive assistance to the State Planning Agencies. In addition, the DOCs assist local public safety agencies in their system design, preparation of grant request, preparation of specifications and other related areas.

2. RECOMMENDATIONS

It has become evident through analysis of the survey results that the SPAs have a significant impact on the direction and nature of telecommunications systems implementation. In those areas of technology where definite recommendations and policies have been established by the SPAs, there is a clear indication of a significant trend. Of those trends mentioned in the previous section, for example, most are in consonance with the SPAs' recommendations or lack of recommendations on the particular subject. Future developments and trends in law enforcement telecommunications therefore, will depend to a large extent upon the direction and philosophy provided by the SPA planners. The recommendations that follow are the outgrowth of the facts developed during this project.

(1) LEAA Should Establish the Requirement That Each State Develop a Comprehensive Telecommunications Section in Its Comprehensive Plan

It is further recommended that LEAA:

- . Establish law enforcement telecommunications goals which would serve as the basis for development of the state telecommunications plans. These goals should reflect the capabilities inherent in the technologies being developed by the LEAA.
- . Develop a comprehensive manual for use by SPAs and regional LEAA offices describing the essential contents and elements of the telecommunications plan and providing guidance for its development.

These recommendations will ensure that all 50 states have the necessary planning tools and guidance for the management and implementation of the telecommunications plans among the states. The need for greater uniformity and greater comprehensiveness is evidenced by the wide degree of variability in the contents of the existing 24 law enforcement telecommunications plans. The recommended manual will serve also to assist those states having telecommunications plans to update, improve and expand their existing plans.

(2) LEAA Should Support the Use of the APCO "Planning Guidelines for Law Enforcement Telecommunications Systems" by State and Local Agencies Using LEAA Funds

These planning guidelines provide a working tool for executive-level personnel involved in the planning, development and implementation of law enforcement telecommunications systems at the state and local level. They also provide a checklist which can be used by the planner to ensure that all elements of system planning having been appropriately addressed.

(3) LEAA Should Establish Policy to Encourage the Development of Criteria for the Number and the Qualifications of Personnel Required in Each SPA for Telecommunications Grant Management

There is presently wide variance in the number of persons assigned within the SPAs to law enforcement telecommunications planning. There are from 0 to 16 full time personnel within the SPAs with an average of less than two full time professional planners assigned to law enforcement telecommunications planning. It is significant that 17 of the State Planning Agencies do not have a full time planner assigned to law enforcement telecommunications planning. The variance in personnel staffing among the SPAs for telecommunications planning is also evidenced by the fact that the number of telecommunications grants administered per SPA planner in a year ranges from one to 429 grants in the various states. Each telecommunications planner, on the average, administers 32 telecommunications grants per year. Also significant is the fact that 30 of the 50 SPAs do not have in-house engineering capabilities.

(4) LEAA Should Develop and Promulgate Recommended Minimum Standards for State Grant Application Forms for Telecommunications Systems

There is considerable variance in the requirements for grant applications among the State Planning Agencies. The use of a grant application form with more comprehensive requirements and a checklist for use by the SPA and the subgrantee will ensure that each grant is in conformance with other grant applications.

It is further recommended that all grant-supported telecommunications projects include a mandatory evaluation phase and that the appropriate evaluation planning be incorporated in the grant application.

(5) LEAA Should Require Each SPA to Develop a Formal List of Priorities for Telecommunications Grant Application Evaluation

The survey revealed that 23 SPAs currently are using formal procedures for assessing priorities for telecommunications grant applications. The establishment of priorities will serve to provide an equitable basis for selection of applications for funding.

(6) LEAA Should Sponsor Annual Telecommunications Seminars at the Working Level to Increase the Interchange of Information, Technology, Experiences and Activities Among the State Planning Agencies and Divisions of Communications

While the interchange of technology and information can be achieved to a large extent by the dissemination of reports and documents through, for example, the National Criminal Justice Reference Service, there is nevertheless the need for personal interface through seminars and/or conferences for working level personnel to further increase this interchange of information and ideas. Such seminars will also serve to enhance coordination and cooperation between states in the development of their overall criminal justice planning activities.

(7) LEAA Should Develop a Procurement Handbook for Use by Those Agencies Expending LEAA Funds

There is presently a wide diversity of procurement approaches and procedures followed by many states and the local agencies within those states. There is a need for a procurement handbook based upon existing LEAA procurement guidelines and the federal procurement procedures which could be used at the

local level for procurement on LEAA-funded projects. This handbook should provide guidance to the local planner on the principles of procurement by tax supported agencies, types of contracts and their advantages and disadvantages, the responsibilities of the procuring agency and the vendor under different types of contracts, the role of competition, techniques for procurement of personal service, hardware and systems, preparation of specifications, identification of system performance criteria, step-by-step description of the procurement process, management of the contract and test and acceptance activities.

(8) LEAA Should Undertake, with the FCC, to Develop a Procedure by Which State and Local Frequency Plans Can be Subject to Effective Review and Implementation

The FCC has the statutory responsibility to assign radio frequencies for use by state and local law enforcement agencies. Coordination with the FCC will ensure that the State and Local Frequency Plans are in conformance with the FCC Rules and Regulations and with the emerging FCC policies and practices.

(9) LEAA Should Establish an Office of Telecommunications Planning Coordination to Deal with Telecommunications Matters Subject to these Responsibilities

This office should monitor the content of state telecommunications plans and the compliance of the telecommunications grants with plan objectives to the extent necessary to fulfill LEAA responsibilities. The office should coordinate its efforts closely with the FCC and the Office of Telecommunications Policy.

(10) LEAA Should Make a Positive Policy Statement Encouraging a Total Public Safety Approach to Communications and to Command and Control

While LEAA funds have been used effectively to implement total public-safety dispatching systems in some instances, there is currently little consideration given in the majority of the state plans to the interface between law enforcement, fire and emergency medical service. Further, the majority of the SPAs have not formulated

recommendations with respect to total public-safety communications, or to the emergency telephone number 911. Less than 25 percent of the existing law enforcement dispatching centers are part of the total public-safety system serving law enforcement, fire and emergency medical service. On the premise that a total public-safety system is more advantageous to the public, LEAA's policy should ensure consideration of the public safety interface in the implementation of law enforcement telecommunications systems. LEAA should also encourage coordination of funding sources.

(11) LEAA Should Establish Minimum Standards for the Training of Law Enforcement Radio Dispatchers and Radio Technicians and Encourage SPA Funding of Training Programs

Minimum standards and training of the operating personnel will ensure the most efficient utilization of the law enforcement telecommunications systems and further ensure proper channel discipline and conservation of frequency resources. Such standards should be reflected in grant applications that involve implementation of new or expanding technology.

(12) LEAA Should Encourage Utilization of Existing DOC Resources in Support of Telecommunications Planning

Recognizing the need for and trend toward a coordinated telecommunications system plan at state level where DOCs are in existence and effectively functional, LEAA should encourage full utilization of those resources.

(13) LEAA Should Develop a Standard Policy with Respect to the Kinds of Agencies Eligible for LEAA Grants Consistent with State Statutes

There is currently nonuniformity among the states regarding the eligibility of many types of agencies. This includes for example, state game and fish agencies (eligible in 16 states), marine patrol (eligible in 8 states), environmental protection agencies (eligible in 4 states), and liquor control boards (eligible in 11 states). Campus police are funded in 26 states. Eight SPAs in the 26 states which have park police fund these agencies.

III. NATIONAL PROFILE

III. NATIONAL PROFILE

The survey of law enforcement telecommunications planning in the 50 states has resulted in the compilation of an extensive data base which is presented on a state-by-state basis in Chapter IV. In this chapter an overview and summary of the survey data are presented. This overview and summary, based upon analysis of the survey data, represent the national profile of law enforcement telecommunications planning in the United States.

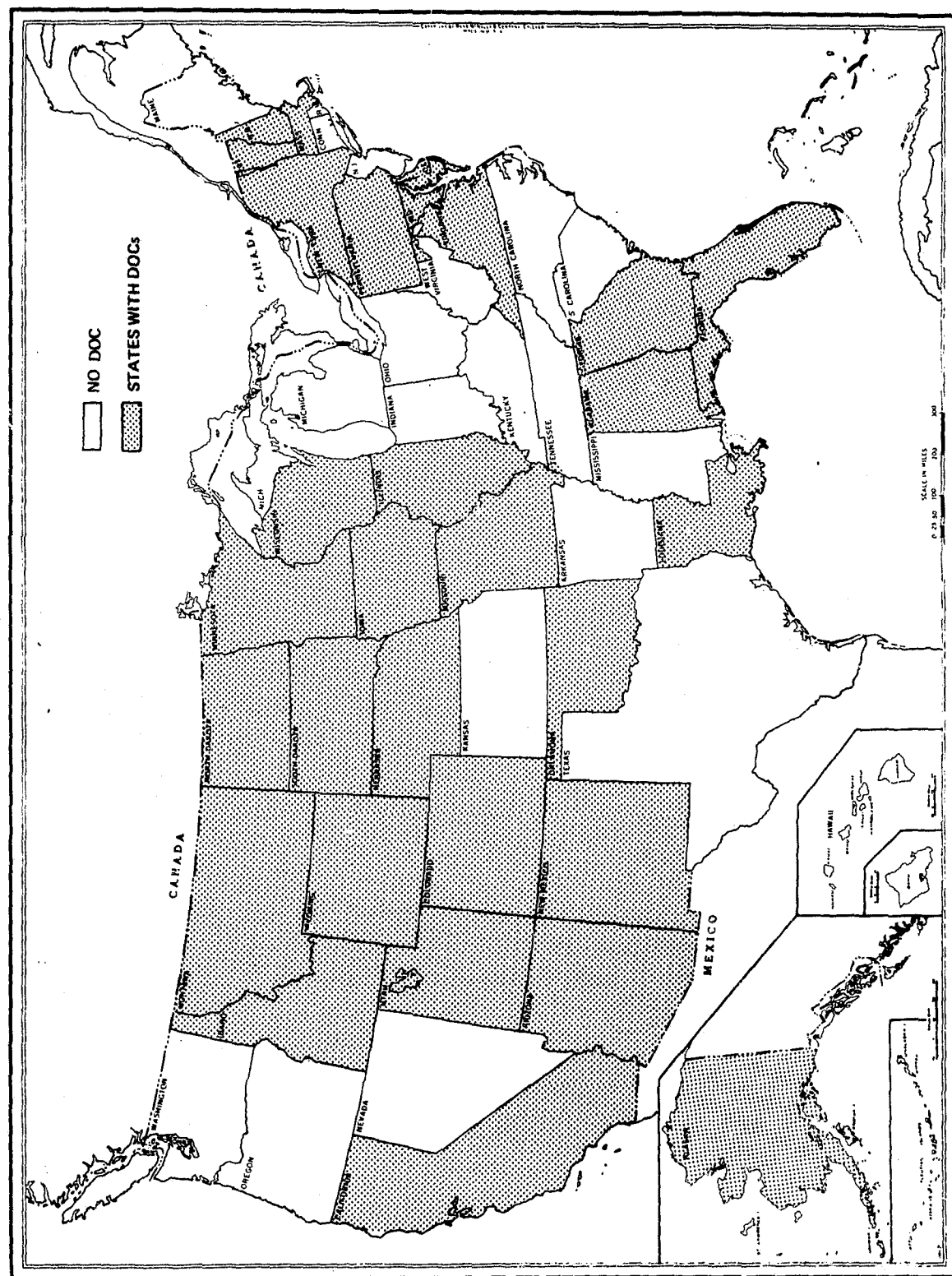
1. PLANNING AGENCIES AND THEIR ORGANIZATIONS

This section summarizes the nature and characteristics of the State Planning Agencies and the Divisions of Communications which are usually the two major planning agencies for law enforcement telecommunications systems in most states. While all 50 states and the District of Columbia have State Planning Agencies, Divisions of Communications as defined earlier in this report exist in only 30 of the 50 states. Identification of those states having DOCs is shown in Figure 2 and the nature of the DOC in each state is presented in Chapter IV.

The findings with respect to the planning agencies and their organizations have revealed the need both for improvement in the staffing in the SPAs and for improved planning coordination, particularly with the FCC, in order to obtain more effective telecommunications planning. Specifically as noted in the findings below, there are many SPAs having planning personnel assigned only part-time and many SPAs having no engineering capability for administering a large volume of technically complex telecommunications grants.

These deficiencies have been alleviated to a degree in about 20 states where an established DOC assists the SPA in law enforcement telecommunications planning.

In many instances, the DOC may be able to aid the SPA by providing coordination with the FCC.



Following are the major findings of the survey with respect to the planning agencies and their organizations.

- (1) The Majority of the SPAs Report to the Executive Branch of State Government.

In 40 of the 50 states, the SPA reports directly to the Office of the Governor. In the remaining states, the SPAs are within the administrative branch of state government. It appears evident, therefore, that the SPAs generally are located in a prominent position within state government. In terms of the number of professional personnel, the size of the SPAs varies from 6 to 110 full-time professional personnel. These SPAs are responsible for administering LEAA funds ranging from 1.2 million to 51.9 million dollars per year.

- (2) There is Wide Variance in the Number of Personnel Assigned to Law Enforcement Telecommunications Planning.

For purposes of this study, any nonclerical person having a college degree, or equivalent experience, was considered a professional person.

There is an average of less than two full-time professional personnel assigned to law enforcement telecommunications planning within an SPA. The number varies, however, from zero to 16 full-time persons. It is noted, for example, that 20 State Planning Agencies do not have a full-time planner assigned to law enforcement telecommunications planning. There is, however, one part-time person responsible for telecommunications grants in all states as shown in Figure 3. Twenty SPAs, however, have engineering personnel. The DOCs likewise have an average of approximately two full-time professional personnel assigned to law enforcement telecommunications planning. Twenty-three of the 30 DOCs have engineering personnel.

Table III-1 shows further insight into the planning efforts of SPAs in the area of law enforcement telecommunications. The table shows the number of telecommunication grants and the population per each planning person in each of the states. This table further illustrates the variability in telecommunication

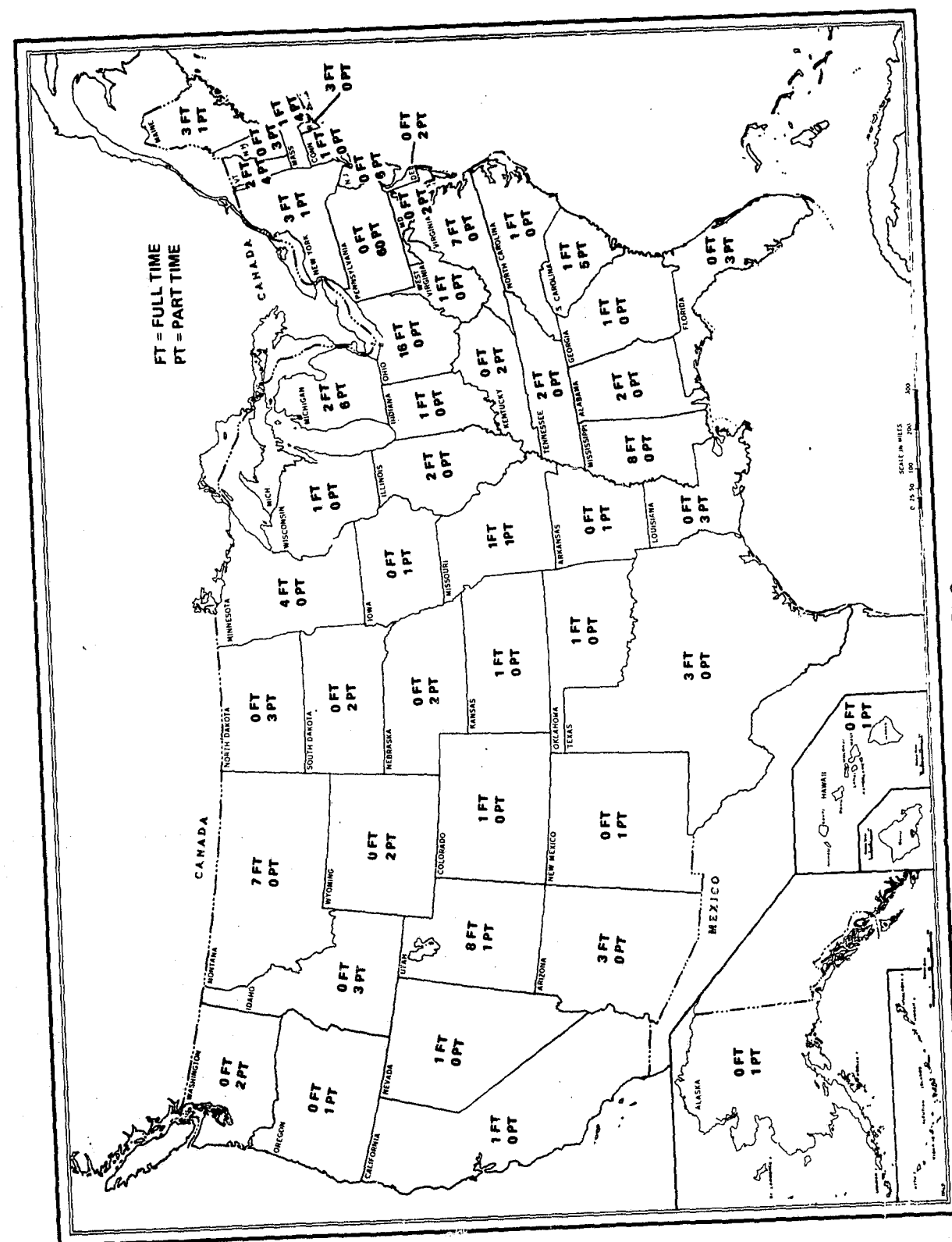


FIGURE 3
Law Enforcement Telecommunications Planning Personnel

Table III-1
Ratio of the Number of
Telecommunications Grants Surveyed
(July 1, 1973 to January 1, 1975)
and Ratio of State Population to Each Full-time
Telecommunications Professional Person in SPAs

State	Population per Planner	Number of Grants per Planner	State	Population per Planner	Number of Grants per Planner
Alabama	1,722,082	79	Montana	99,201	40
*Alaska	604,346	44	*Nebraska	1,483,791	138
Arizona	590,826	34	Nevada	488,738	47
*Arkansas	3,846,590	54	*New Hampshire	491,787	197
California	19,953,134	148	*New Jersey	2,389,388	23
Colorado	2,207,259	46	*New Mexico	2,032,000	82
Connecticut	3,032,217	4	*New York	5,213,218	6
*Delaware	548,104	11	North Carolina	5,082,059	84
Florida	4,526,295	74	*North Dakota	411,841	29
Georgia	4,589,575	519	Ohio	665,751	24
*Hawaii	1,539,826	14	Oklahoma	2,559,253	323
*Idaho	475,339	64	*Oregon	4,182,770	76
Illinois	5,556,988	32	*Pennsylvania	393,130	3
Indiana	5,193,669	1,501	Rhode Island	316,574	8
*Iowa	5,650,082	172	*South Carolina	740,147	18
Kansas	2,249,071	276	*South Dakota	666,257	171
*Kentucky	3,219,311	60	Tennessee	1,962,082	41
*Louisiana	2,428,786	102	Texas	3,732,243	15
*Maine	283,904	43	*Utah	235,394	9
Maryland	3,922,399	29	*Vermont	111,183	24
*Massachusetts	1,896,390	13	Virginia	664,071	17
*Michigan	1,775,017	34	*Washington	3,409,169	84
Minnesota	951,267	26	West Virginia	1,744,237	234
Mississippi	277,114	45	Wisconsin	4,417,933	194
*Missouri	3,118,226	232	Wyoming	332,416	35

* Each part-time professional = 1/2 full time person

Note: This table reflects the data supplied by the individual states.

planning efforts of the state planning agencies and the variance from the above averages. On the average, each SPA telecommunications planner administered 32 telecommunications grants per year and served a population of 2,479,280 persons.

- (3) The In-house Capability of the State Planning Agencies is Primarily in the Areas of Management Planning, Financial Planning and Procurement. Less than Half of the SPAs Have In-house Engineering Capabilities.

Figure 4 shows the in-house capabilities of the SPAs. Roughly three-fourths of the SPAs have in-house capabilities in the areas of financial planning and procurement with 25 SPAs having management planning capability. One SPA reported having in-house capabilities in all seven areas mentioned in the figure. Since 20 SPAs have in-house engineering capabilities, the remaining SPAs require assistance from other agencies or the use of consultants in order to effectively evaluate and manage telecommunications grants.

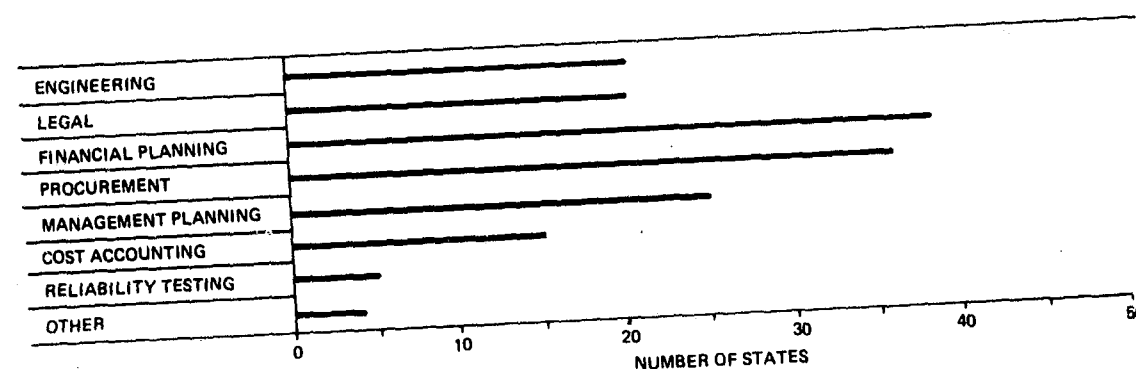


FIGURE 4
SPA In-House Capabilities
For Law Enforcement Telecom Planning

- (4) Assistance Provided to Law Enforcement Agencies by the SPAs is Primarily in the Areas of Grant Administration and System Planning and Procurement.

Figure 5 summarizes the SPA assistance provided to law enforcement agencies. Approximately 80 percent of this assistance is provided on an informal basis.

- (5) Thirty-Eight of the 50 State Planning Agencies Receive Assistance From Other State and Local Planning Agencies.

The primary assistance received from other planning agencies is in the area of the development of the state comprehensive plans and local area telecommunications plans. Figure 6 indicates the assistance the SPAs receive. The assistance is provided by Divisions of Communications, municipal planning agencies and regional planning agencies.

Five of the SPAs receive no engineering assistance from other agencies nor have in-house engineering capability.

- (6) Less than Half of the State Planning Agencies Have a Person Responsible for Knowledge of FCC Rules and Regulations.

Of the 42 states responding to this question, 17 reported a person responsible for FCC rules and regulations. However, 14 additional states have a person in the DOC who has this responsibility. This shows that 31 of the 46 states reporting keep abreast of FCC rules and regulations. Nine of the 42 State Planning Agencies who responded assign a person to monitor and comment on the FCC dockets. In virtually all cases, information concerning FCC rules and regulations is derived from trade periodicals or informal contacts with the FCC. Of the 17 SPAs that do contact the safety and special radio service bureau of the FCC, the average number of contacts per year is 12.

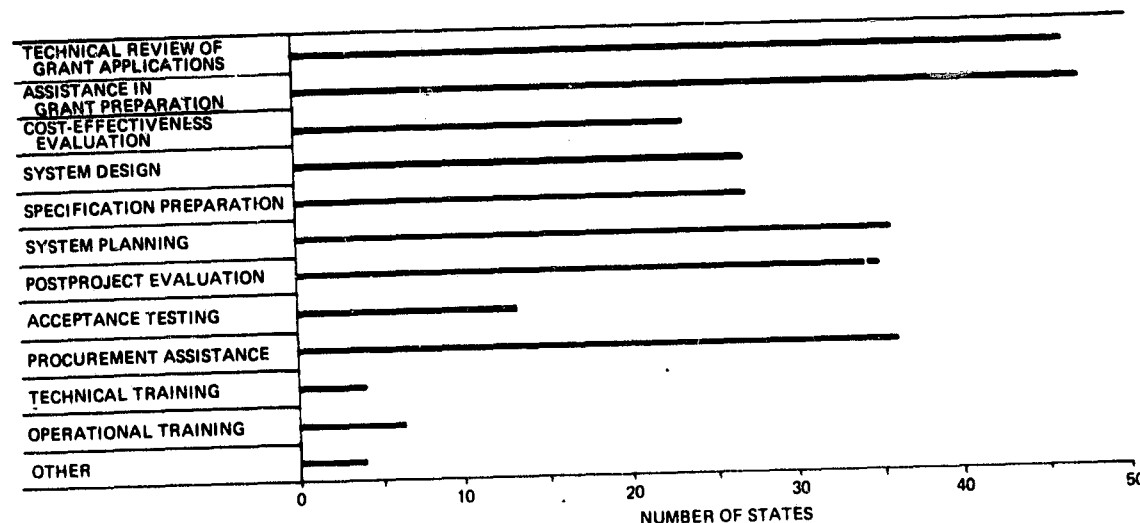


FIGURE 5
Areas of Telecommunications Planning Assistance
Provided to Law Enforcement Agencies by DOC

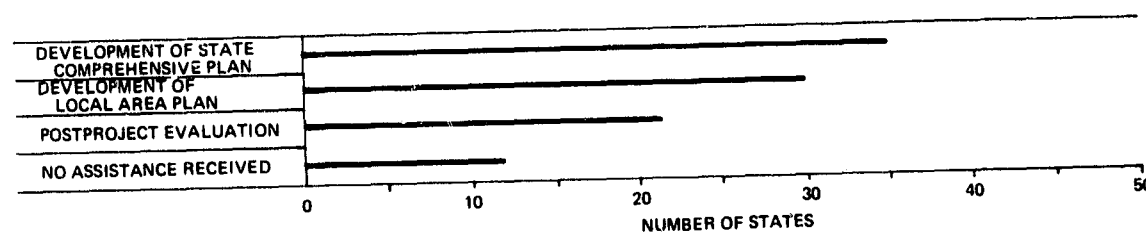


FIGURE 6
Assistance Received by SPAs
From Other Planning Agencies

- (7) The Divisions of Communications Assist the State Planning Agencies in Law Enforcement Telecommunications Planning in Approximately Half of the States.

Capabilities within the 30 DOCs complement the SPA capabilities in some cases as illustrated in Figure 7. Twenty-three of the DOCs provide some degree of assistance to the SPAs. In addition, 29 DOCs assist local law enforcement agencies in their system design, preparation of grant applications, preparation of specifications and other related areas as illustrated in Figure 8.

Of the 16 states that have both law enforcement telecommunications plans and Divisions of Communications, seven DOCs prepared or assisted in preparation of the state telecommunications plans.

- (8) In the Majority of States the DOCs were Created in Recent Years by an Act of Legislation and Report to the Office of the Governor or the Department of General Services.

The DOCs, therefore, are relatively new organizations since 20 of the existing 30 were created during the last decade. Four of the DOCs are the communications sections of State Police or Public Safety organizations which provide assistance to local agencies in an advisory capacity.

- (9) The Principal Activity of the DOCs is that of Assisting State Agencies in Telecommunications Systems Planning.

As shown in Figure 9, the authority of the DOCs is primarily for state agencies. However, 20 of the 30 DOCs are involved with planning for county and municipal agencies. Twenty-three of the DOCs have legislative authority over state agencies; one reported legislative authority over local law enforcement telecommunications. Assistance is, therefore, provided on an advisory basis by the other 19 DOCs who assist local agencies.

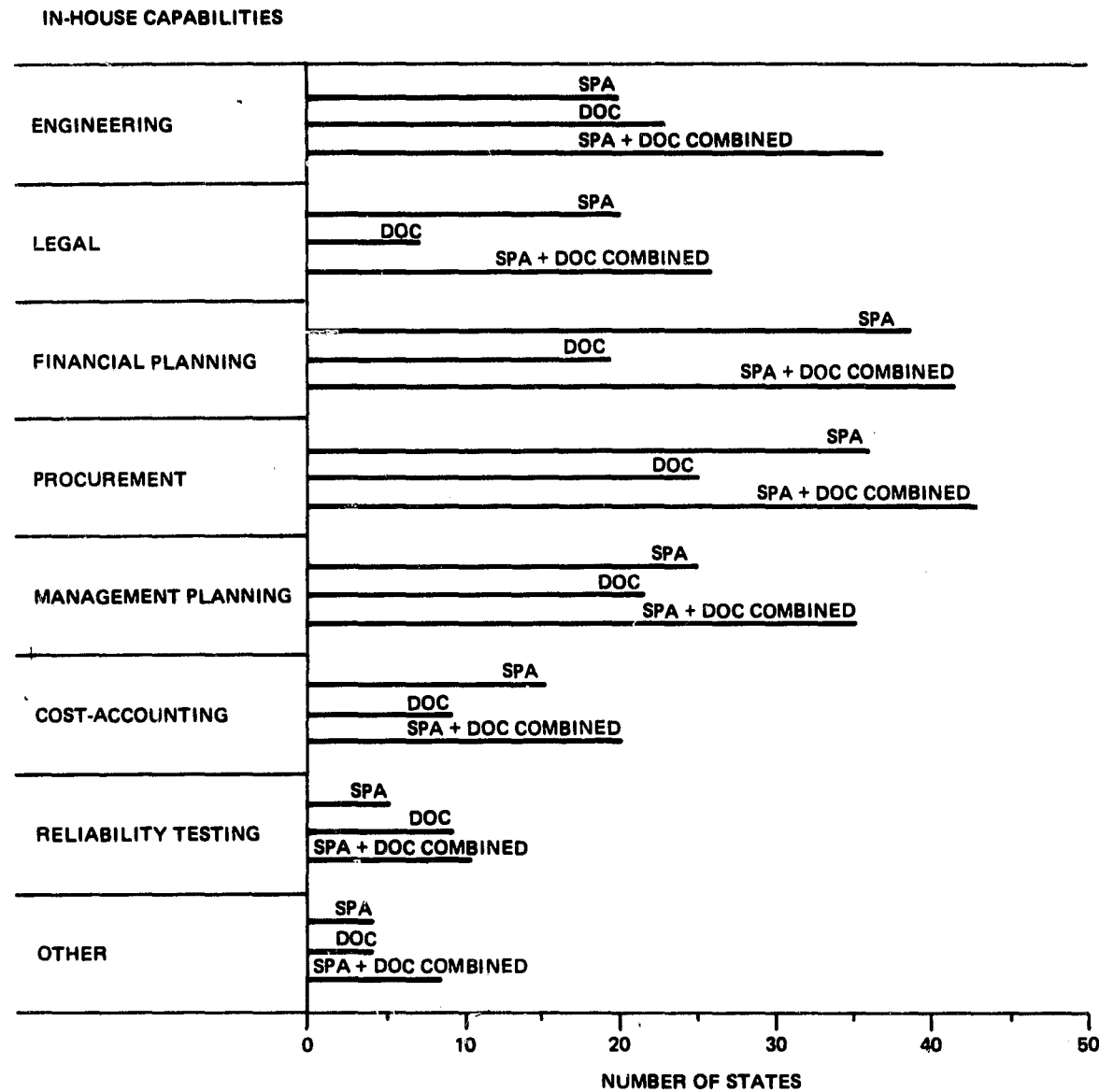


FIGURE 7
In-house Capabilities - SPAs & DOCs

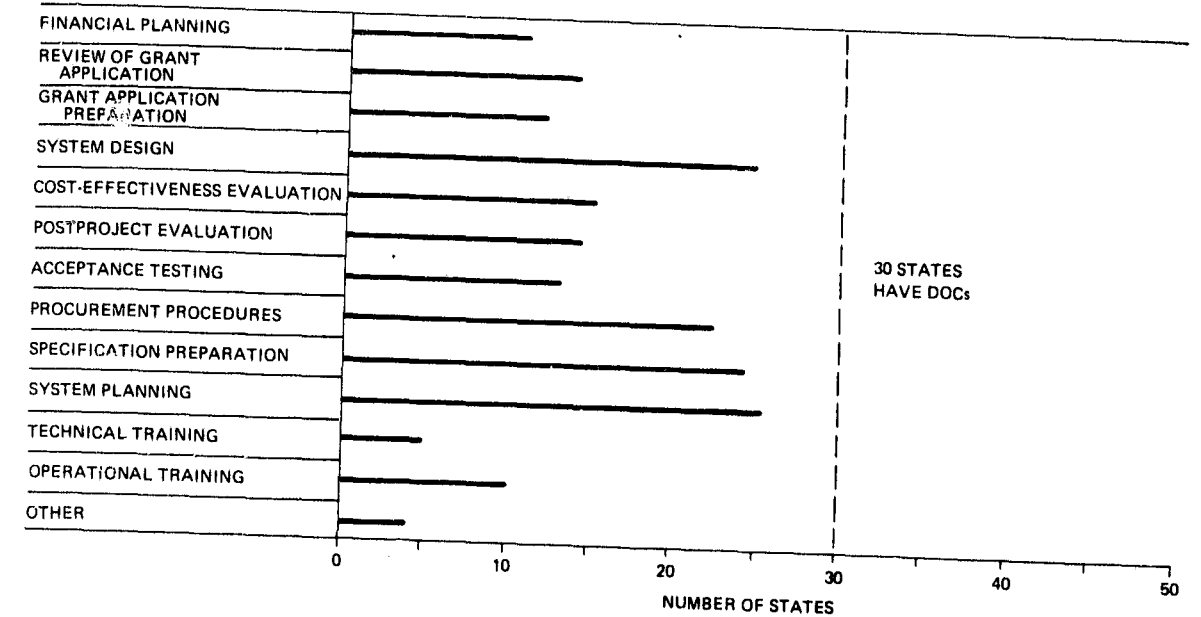


FIGURE 8
Areas of Telecommunications Planning Assistance
Provided to Law Enforcement Agencies by DOC

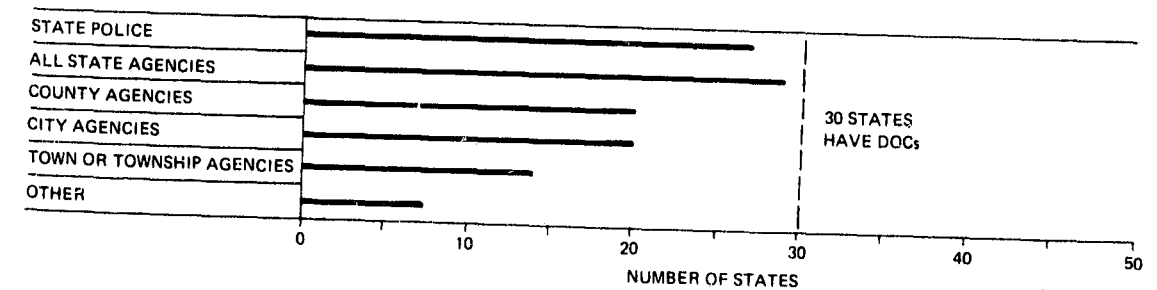


FIGURE 9
Agencies Which DOCs Serve

Figure 10 outlines the major activities of DOCs. As shown, wireline system planning and equipment procurement represent major activities as well as assistance to other agencies.

The number of professional personnel in DOCs involved in law enforcement telecommunications planning ranges from zero to 12 with an average of approximately 2 persons per DOC. Approximately 15 percent of these personnel are supported by LEAA funds.

(10) Twenty-one of the 30 DOCs Have a Person on Their Staff With Knowledge of the FCC Rules and Regulations Related to Law Enforcement Telecommunications.

In addition, 16 DOCs assign a person to monitor and comment on FCC dockets. Of the 16 DOCs that regularly contact the safety and special radio services bureau of the FCC, the average is more than 21 contacts a year. The DOCs keep abreast of FCC dockets primarily from trade journals and informal contacts. The DOCs also have significant contact with the Field Operation Bureau of the FCC.

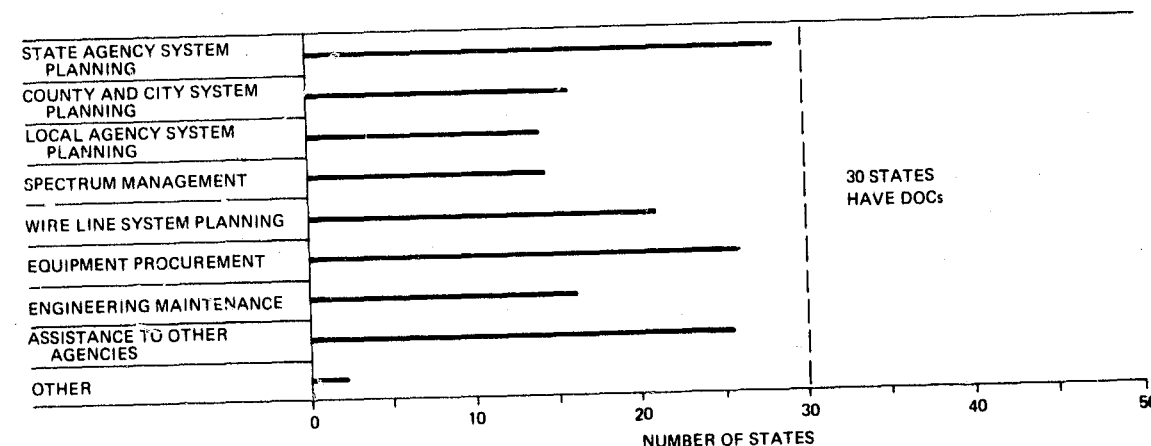


FIGURE 10
Major Activities of DOC in
Law Enforcement Telecommunications

(11) Three SPAs and Ten DOCs Coordinate as Required with the State Public Utility Commissions (PUC).

In addition, one SPA and five DOCs participate in PUC hearings.

2. STATUS OF PRESENT LAW ENFORCEMENT TELECOMMUNICATIONS SYSTEMS.

This section summarizes the status of law enforcement telecommunications systems within the country, including statistics on the law enforcement agencies, centralized and consolidated dispatch centers and radio equipment. The status of the spectrum management efforts and a summary of the training programs and training standards is also included.

Observations on the current status of law enforcement telecommunications revealed a trend toward centralized or cooperative dispatching centers. A higher percentage (51 percent) of the centralized centers serve the total public safety emergency service including law enforcement, fire and emergency medical service than do dispatch centers serving a single law enforcement agency (19 percent). Overall, however, less than one-fourth of the dispatching centers are part of a total public-safety system. There are also a significant number of computer-assisted dispatching systems in operation and in the planning stages.

Non-uniformity among the states was revealed in regard to eligibility of agencies for LEAA grants. This non-uniformity suggests that LEAA establish a standard policy in this regard. It was also observed that relatively few states have training standards or funded training programs for radio dispatchers or radio technicians.

The subsections which follow summarize the major findings of the survey with respect to the above mentioned topics.

(1) State and Local Agencies Eligible for LEAA Funds Number Over 17,800.

Of the total number of eligible law enforcement agencies there are more than 14,000 full-time municipal police agencies and approximately 3,000 county law enforcement agencies,

including sheriffs offices. State law enforcement agencies eligible for LEAA funding include the State Police or State Highway Patrol in 46 states. State game and fish agencies and state liquor control boards are eligible in 16 states and 14 states respectively. Campus police agencies and prosecutors are funded by approximately half of the SPAs. Eight SPAs in the 26 states that have park police provide funding for these agencies.

These statistics indicate a variability among the states both in the eligibility of agencies and the practices of SPAs in funding the various types of agencies.

(2) Approximately 1,200 Centralized or Cooperative Law Enforcement Dispatch Centers Have Been Reported in 40 States.

Centers were characterized as centralized if they dispatched for more than one law enforcement agency. The number of centralized centers per state ranged from 0 to 150. As shown in Figure 11, the majority of these centralized dispatching centers serve an area greater than 200 square miles and a population of 100,000 people or less. One hundred three of these centers employ a 911 emergency telephone citizen access system and 310 use a separate 7-digit emergency telephone number for citizen access with a different telephone number for administrative calls.

(3) An Average of 183 Dispatch Centers per State Serve Only One Police Agency.

The number of dispatch centers serving one police agency ranged from 4 to 874 per states. A majority (65 percent) of these centers serve an area of less than 50 square miles and 80 percent serve a population of less than 20,000 people. These statistics are summarized in Figure 12. Comparison of these statistics with those of the centralized facilities, indicates that the dispatch centers serving only one police agency tend to be significantly smaller than centralized facilities. Less than five percent of the individual police agency dispatching centers have implemented the 911 emergency telephone service.

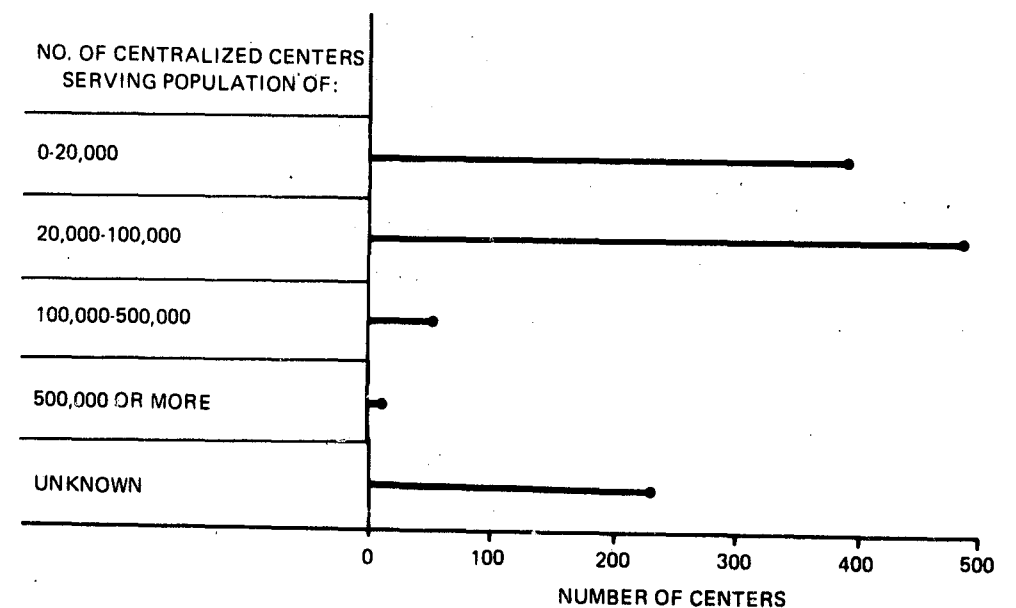
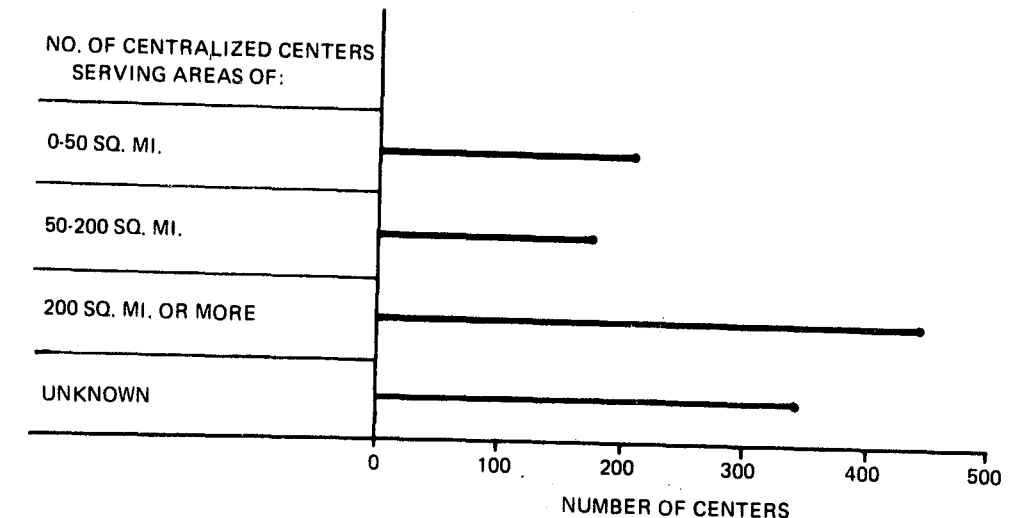


FIGURE 11
Centralized Dispatch Centers

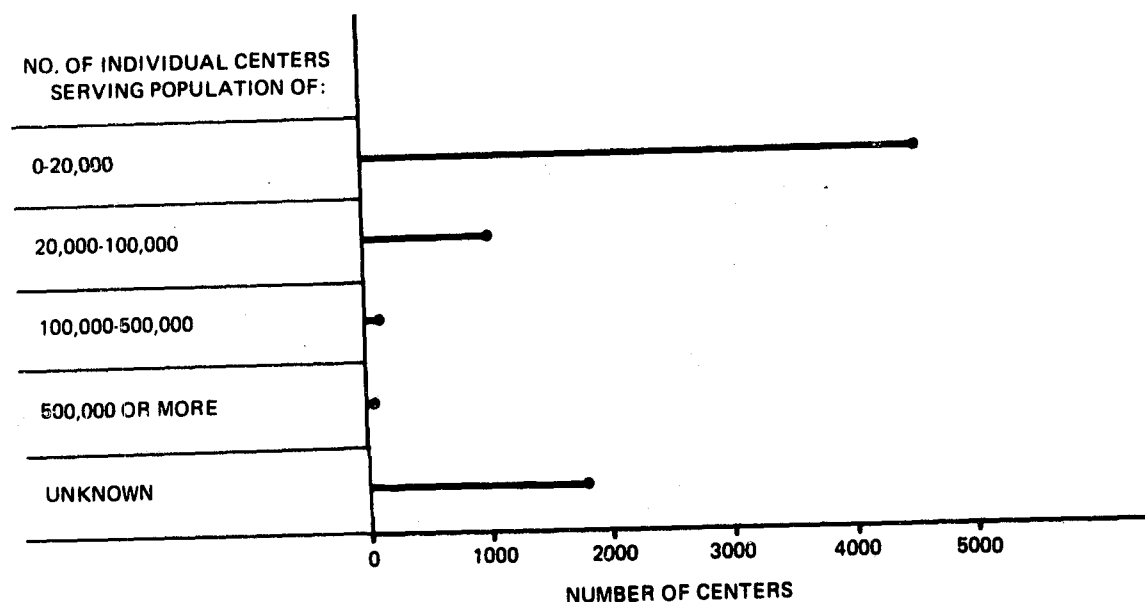
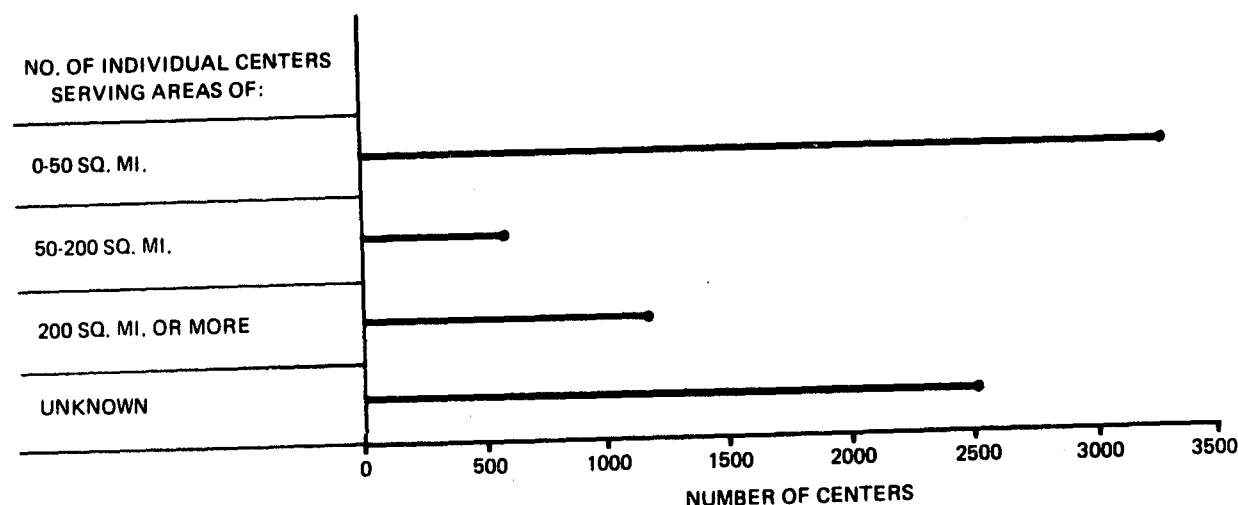


FIGURE 12
Dispatch Centers Serving One Law Enforcement Agency

- (4) Less Than 25 Percent of the Law Enforcement Dispatching Centers are Part of a Total Public-Safety System Serving Law Enforcement, Fire, and Emergency Medical Service.

Of the centralized dispatching systems, 51 percent serve the total public-safety requirement including law enforcement, fire and EMS. Only 19 percent of the centers dispatching one police agency are involved in a total public safety system.

Since complete information on the law enforcement dispatching centers was available in only half of the states, the statistics presented above on both central and individual dispatch centers are based upon a limited sample (see Chapter IV for the detailed information). There were, however, a total of 338 grants awarded during the period July 1, 1971 to January 1, 1975 for establishment of centralized law enforcement dispatching systems.

- (5) There are Currently 87 Computer-Aided Dispatching Systems in 33 States Either in Operation or Planned for Implementation.

However, there are 27 systems in operation in 10 states at present. Fourteen of the 50 SPAs recommend the use of computer-aided dispatching. Thirty of the remaining SPAs have formulated no recommendations.

- (6) The Multiplicity of Telephone Companies has been Reported as a Planning Constraint by 11 SPAs.

There is an average of 38 individual telephone companies per state. The range in the number of telephone companies is from one to 176 per state. This constraint has a significant impact on the implementation of 911 systems. Currently 26 SPAs recommend the use of 911 and there were 50 grants in 3-1/2 years which involved 911 implementation.

- (7) Statewide Law Enforcement Frequency Plans have been Completed by 25 States.

Nine additional states currently have frequency plans in preparation. Approximately half of the frequency plans

recommend specific radio frequencies for each individual law enforcement agency while the remaining plans specify frequency bands of operation without specific suggested frequencies. Of the 25 states that have completed their statewide law enforcement frequency plans, three states have computerized the plan. The frequency plans were prepared by the SPA in seven states and by the DOC in seven other states. Consultants prepared or assisted in the preparation of the frequency plan in 18 states. Vendors were responsible for preparation of two of the frequency plans.

Approximately half of the frequency plans developed in the states recommend assignment of local government frequencies for law enforcement purposes. The plans generally do not consider the assignment of frequencies for radio control links with six plans recommending assignments in the 952-960 MHz band and three plans recommending assignments in the 72-75 MHz band.

(8) Conformance with the State Frequency Plan and/or Frequency Coordination is Required by 43 SPAs.

Of the 25 states that have complete or partially complete law enforcement frequency plans, 22 SPAs require conformance with the plan before approving grant applications for a law enforcement telecommunications system. Thirty-one of the 50 SPAs require frequency coordination prior to grant approval. The mechanism used by many states is that of making grant approval contingent upon successful licensing of required frequencies.

(9) The Frequency Coordinator in 84 Percent of the States Will Recommend a Frequency to an Applicant.

The average number of law enforcement frequencies coordinated over the last four years was 156 per year per state. The number of frequency coordination applications is increasing each year in about half of the states. At an estimated cost of \$28 per application¹, the annual cost for frequency coordination provided by APCO volunteers is approximately \$218,400.

¹

APCO Bulletin, October 1974, page 42.

(10) There is Approximately One Law Enforcement Mobile Unit Per 1,000 People.

The 36 states that responded reported a total of 126,522 mobile units used for law enforcement purposes. This corresponds to an average of 3,515 mobiles per state with a reported maximum of 13,200 units and a reported minimum of 500 units. The population served by a single mobile unit varied from 321 to 3,193 as shown in Table III-2. The average number of law enforcement telecommunications base stations, as reported by 29 states, is 415 base stations per state with a maximum of 4,150 and a minimum of 30. The average number of mobiles per base station, therefore, is approximately eight units per base.

Fourteen states had no statistics on mobile units and twenty-one had none on base stations.

(11) The VHF High Band is the Most Heavily Used Frequency Band for Law Enforcement Purposes.

The survey indicated that 61 percent of the FCC licenses for law enforcement purposes are in VHF high band compared to 30 percent for low band and 9 percent for UHF. Less than one percent of the licenses are currently in use in the 470-512 MHz UHF band. This band is available, however, only in major metropolitan areas.

(12) A Backbone Microwave System is used for Law Enforcement Telecommunications in Fifteen States.

An additional twelve states plan to install microwave systems with the remaining 23 states having no specific plans for microwave. Of those states using a backbone microwave system for law enforcement telecommunications, five states use the system for radio control links, three states use the system for repeater links, five states use the system for inter-agency coordination and five states use the microwave system as an intercity telephone system. Four of the microwave systems are dedicated to law enforcement use.

Table III-2
Ratio of Population to the Number of Law
Enforcement Mobile Units

State	Population/Mobile Unit	State	Population/Mobile Unit
Alabama	Unknown	Montana	388
Alaska	604	Nebraska	530
Arizona	492	Nevada	489
Arkansas	1,261	New Hampshire	793
California	1,512	New Jersey	Unknown
Colorado	Unknown	New Mexico	564
Connecticut	1,238	New York	1,825
Delaware	731	North Carolina	Unknown
Florida	833	North Dakota	515
Georgia	1,391	Ohio	1,522
Hawaii	361	Oklahoma	1,137
Idaho	Unknown	Oregon	Unknown
Illinois	1,710	Pennsylvania	Unknown
Indiana	1,154	Rhode Island	Unknown
Iowa	Unknown	South Carolina	968
Kansas	Unknown	South Dakota	545
Kentucky	Unknown	Tennessee	1,666
Louisiana	729	Texas	1,046
Maine	920	Utah	321
Maryland	817	Vermont	881
Massachusetts	3,193	Virginia	1,859
Michigan	1,387	Washington	Unknown
Minnesota	1,463	West Virginia	Unknown
Mississippi	1,035	Wisconsin	Unknown
Missouri	935	Wyoming	475
Average - 1,036			

(13) Training Standards for Law Enforcement Radio Dispatchers
have been Established in Five States

Seventeen states have funded training programs for law enforcement radio dispatchers and six states have funded training programs for radio technicians. Twenty-three states reported that they plan to establish training standards for the radio dispatchers and nine states for radio technicians. Half of the states also reported that none of their telecommunications grants included training funds.

3. LAW ENFORCEMENT TELECOMMUNICATIONS PLANS
AND PLANNING ACTIVITIES.

This section summarizes the survey results with respect to telecommunications planning as presently conducted by the SPAs and DOCs. The telecommunications plans considered are the state LEAA comprehensive plans which are prepared by every SPA and submitted to LEAA regional offices for approval, and the specific telecommunications plans developed by some states which incorporate law enforcement telecommunications considerations. The two types of plans are discussed because some SPAs incorporate the telecommunications plans as reference as part of their comprehensive plan and further require conformance with the telecommunications plan for grant approval. The frequency plans, mentioned earlier, are considered a part of the telecommunications plans, but are not considered telecommunications plans by themselves.

With respect to these plans, the findings revealed that both the telecommunications considerations in the comprehensive plans and the separate telecommunications plans vary among the states in their comprehensiveness, suggesting the need for guidelines for their development.

The SPAs (and DOCs) have developed recommendations and/or policies which do provide guidance to local agencies in planning improvements to their law enforcement telecommunications systems. However, review of these recommendations summarized in the findings presented below indicate that they are directed primarily at the basic radio systems and that the majority of the SPAs have not yet formulated recommendations with respect to the use of advanced technology such as 911, computer-assisted dispatching,

digital communications, or automatic vehicle monitoring. Likewise, there has been no major encouragement by most of the SPAs for the implementation of total public-safety emergency service systems including law enforcement, fire, and emergency medical service.

The detailed findings with respect to the planning activities of the planning agencies are presented below.

(1) The State Planning Agencies in all 50 States and the District of Columbia have Incorporated Telecommunications Considerations in their LEAA Comprehensive Plans.

In 34 states, the telecommunications considerations are contained within a separate section of the overall LEAA Comprehensive Plan. In the other 16 comprehensive plans, discussions of telecommunications may be found throughout various sections of the plan. The agencies addressed and the planning elements and telecommunications subjects included in the comprehensive plan are discussed in the next two subsections.

1. The LEAA Comprehensive Plans Address the Requirements of Municipal, County and State Law Enforcement Agencies.

Other state agencies with law enforcement interface responsibilities are addressed in 27 of the plans and federal agencies are considered in six plans as shown in Figure 13. Also indicated is the fact that less than 10 percent of the plans address the telecommunications interface between law enforcement and fire service or emergency medical service.

2. The Telecommunications Considerations in the LEAA Comprehensive Plans Vary Considerably among the SPAs.

The elements of telecommunications planning contained within the comprehensive plans is illustrated in Figure 14. The figure shows that the elements most often addressed in the comprehensive plans are data retrieval systems (39 plans), interagency coordination

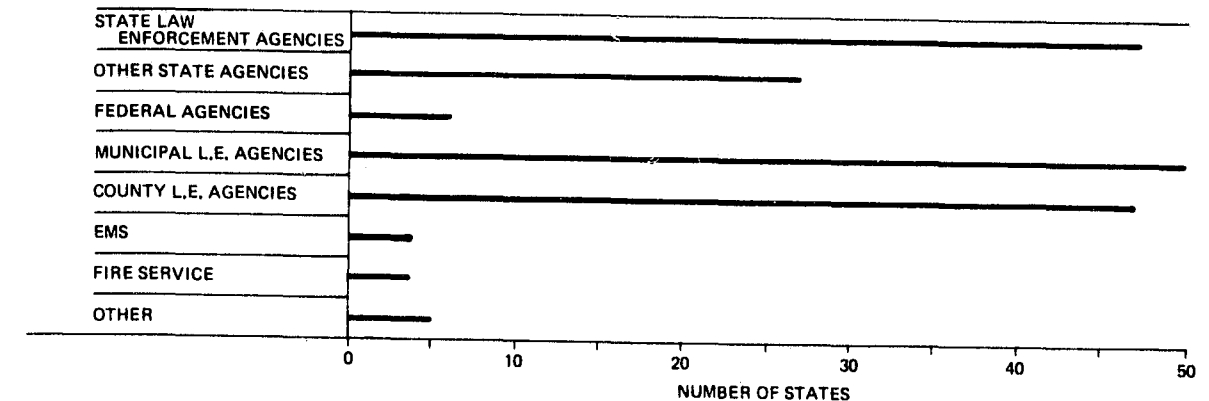


FIGURE 13
Agencies Addressed by
SPA LEAA Comprehensive Plan

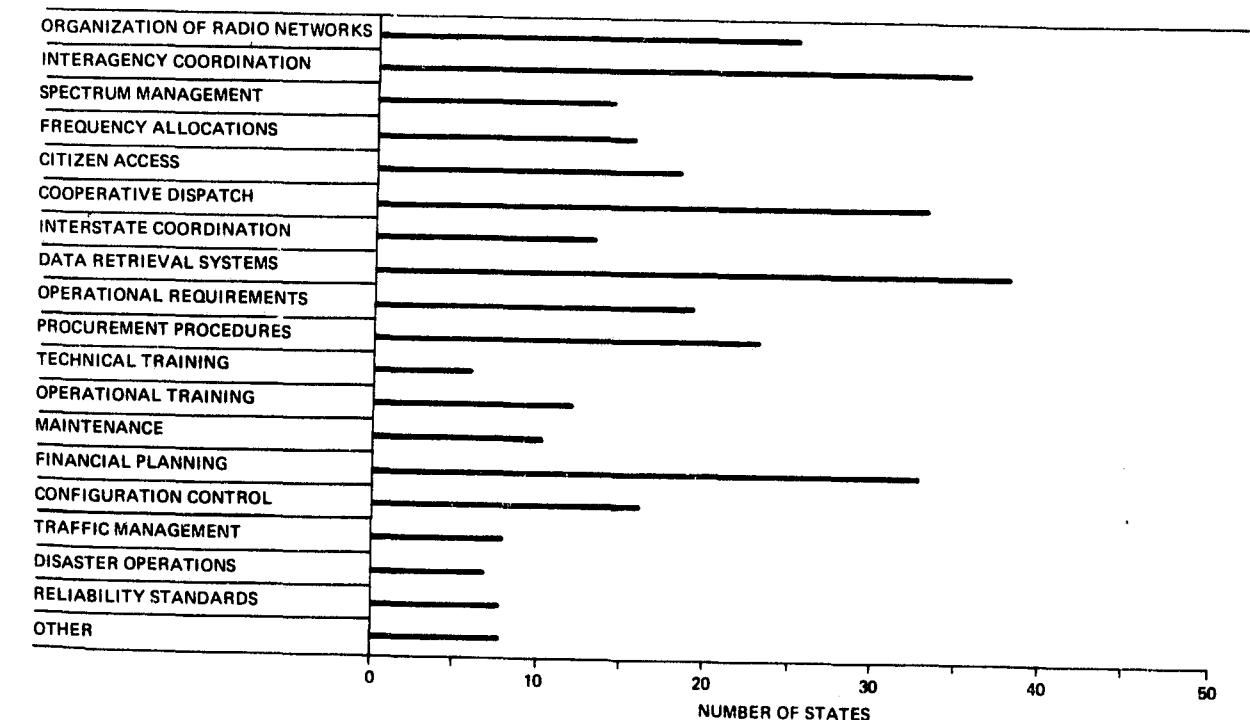


FIGURE 14
Elements of SPA LEAA
Comprehensive Law Enforcement Plan

(35 plans), multi-agency cooperative dispatching (33 plans) and system financial considerations (33 plans). The remaining planning elements listed including organization of radio networks, spectrum management, frequency allocation, citizen access, interstate coordination, training and configuration control are considered in 50 percent or fewer of the states.

(2) Twenty-Four States have Developed Statewide Law Enforcement Telecommunications Plans.

These telecommunications plans generally complement the telecommunications considerations of the comprehensive plans and are usually incorporated by reference in the comprehensive plans. Figure 15 shows those states that have developed or plan to develop telecommunications plans. The findings with respect to the state law enforcement telecommunications plans include:

1. The Telecommunications Plans Were Prepared by the SPAs, DOCs, and Consultants.

Of the 24 plans, nine were prepared by SPAs and seven by DOCs. Consultants prepared or assisted in preparation of 16 telecommunications plans. One state telecommunications plan was prepared by a vendor.

2. The Telecommunications Plans Consider the Requirements of Municipal, County and State Law Enforcement Agencies.

Figure 16 shows those agencies addressed by the telecommunications plans. In addition to the above agencies, emergency medical services are considered in eight of the 24 plans and fire service in one plan.

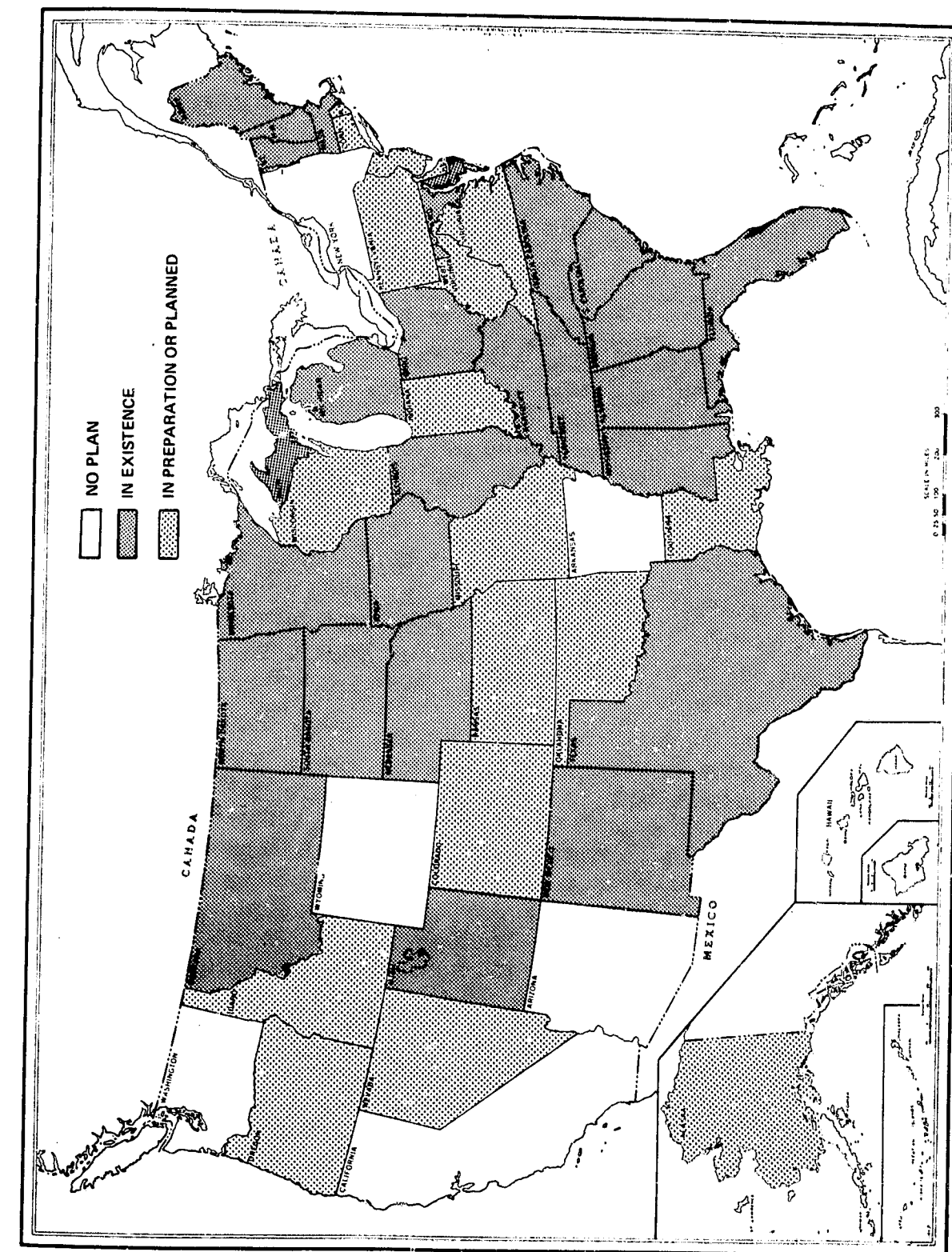


FIGURE 15
Statewide Law Enforcement Telecommunications Plans

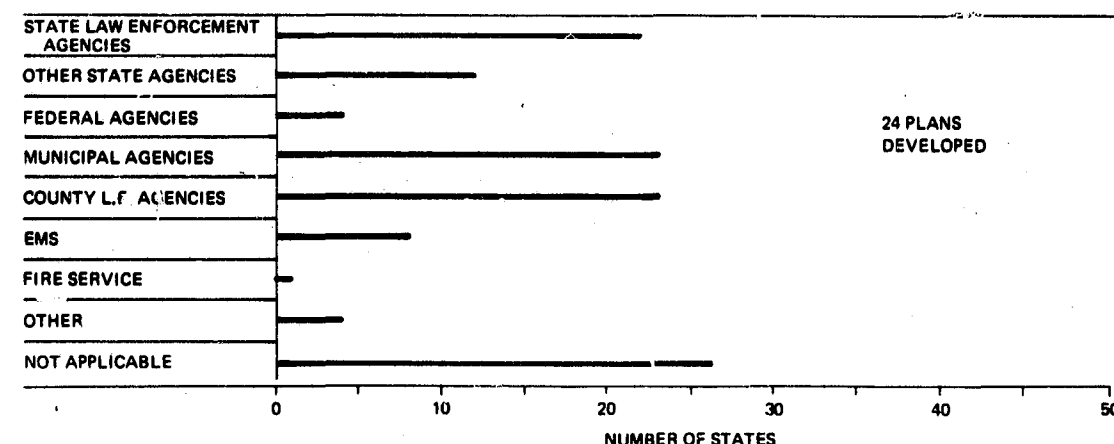


FIGURE 16
Agencies Addressed by
Statewide Telecommunications Plan

3. The Telecommunications Plans which have been Developed are Generally more Comprehensive than the Telecommunications Considerations Incorporated in the SPA Comprehensive Plans.

Figure 17 shows the elements of telecommunications planning that are contained in the statewide telecommunications plans specifically related to law enforcement. As mentioned previously, this planning document complements that of the LEAA comprehensive plan. To illustrate this point, Figure 18 shows a summary of the number of states that have the various planning elements in either their comprehensive plan or the state telecommunications plan. This figure, therefore, represents the most accurate presentation of the planning activities or planning elements formally documented in a telecommunications plan. Planning elements that are contained in the plans of more than half of the states include the organization of radio nets, interagency coordination, spectrum management, frequency allocations, cooperative dispatching considerations, data retrieval systems, operational requirements, procurement procedures, financial considerations, and configuration control. Figure 19 shows those states having frequency plans as well as those states planning development of a frequency plan.

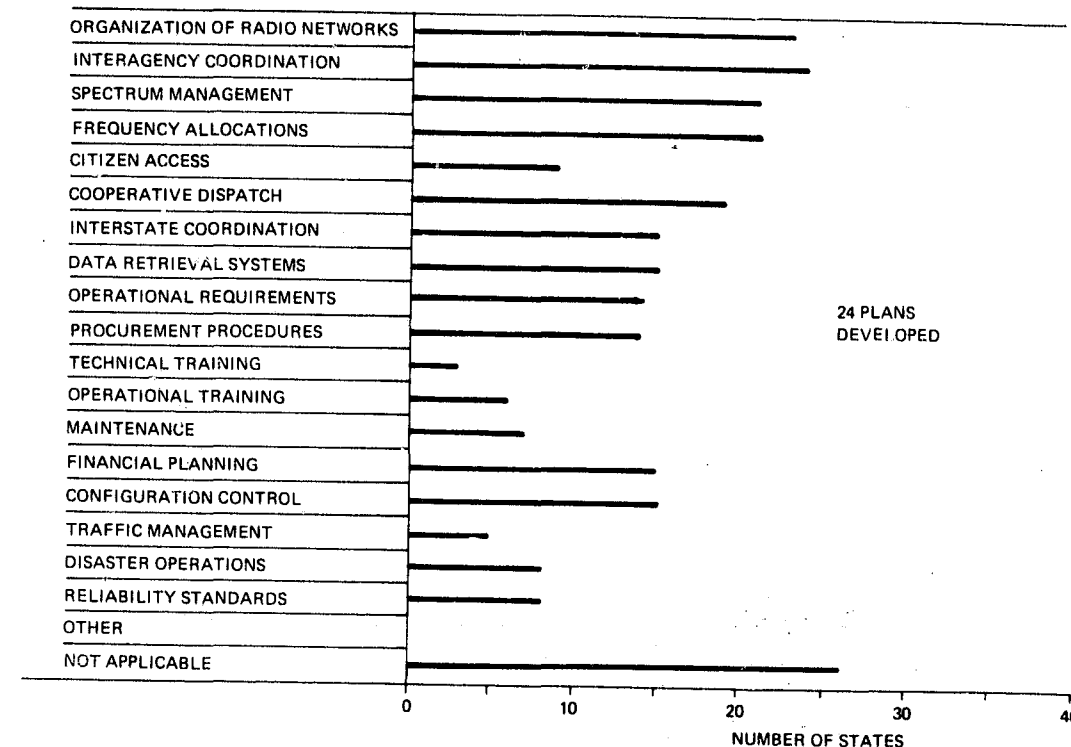


FIGURE 17
Elements of Statewide Telecommunications Plan

Approximately one-third of the existing telecommunications plans make provision for automatic review or revision. However, even though formal procedures may not exist, twenty-four of the plans have been revised since 1974. Conformance to the telecommunications plan for grant approval is required by the SPAs in 22 of the 24 states where law enforcement telecommunications plans exist.

- (3) The Majority of the SPAs and DOCs have Developed Recommendations and/or Policies with Respect to Law Enforcement Telecommunications Systems.

These recommendations and policies provide guidance to local agencies in planning improvements to their law enforcement telecommunications systems. The subsections which follow

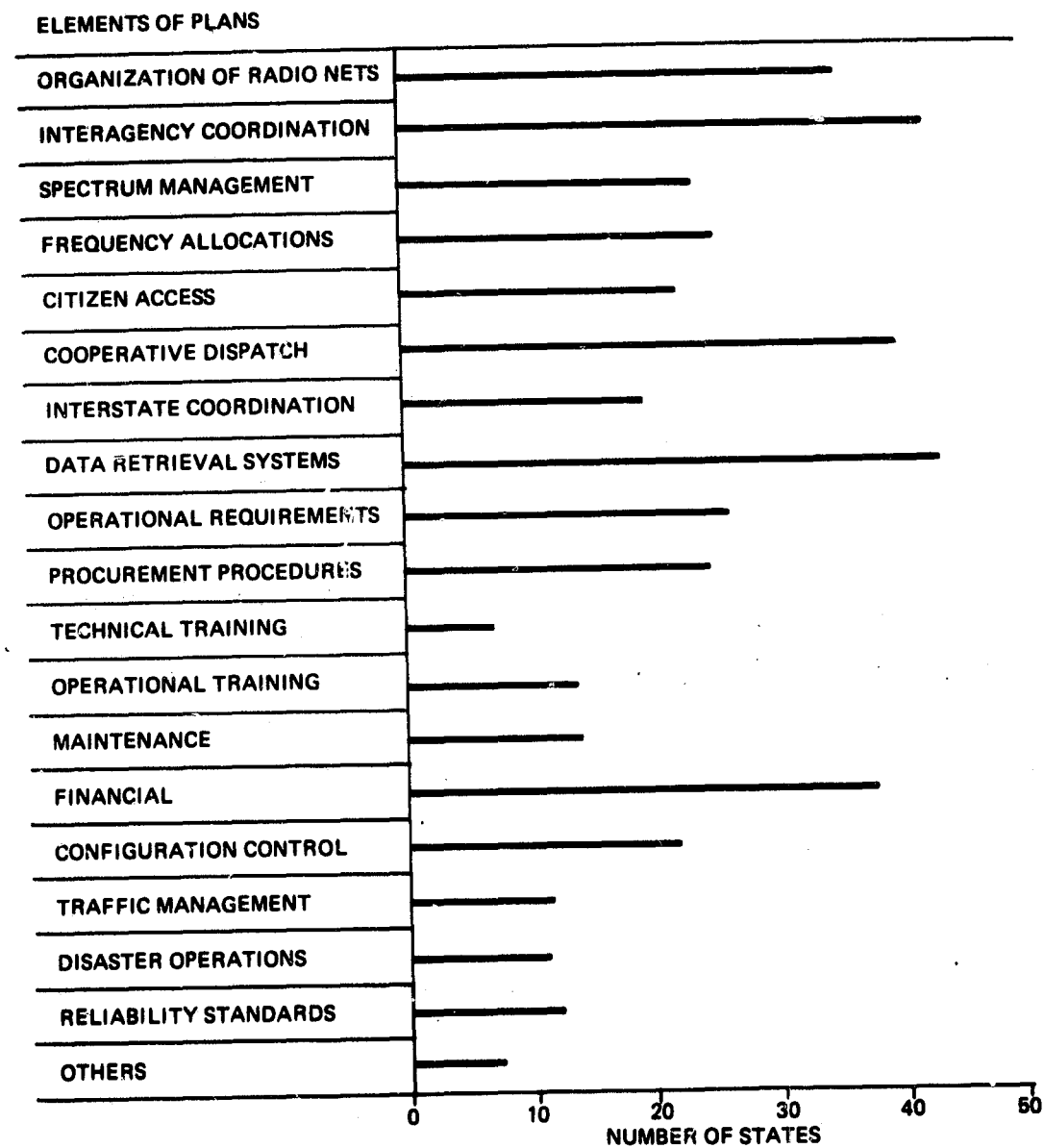


FIGURE 18
Elements Contained in Either the Comprehensive Plan
or the Law Enforcement Telecommunications Plan

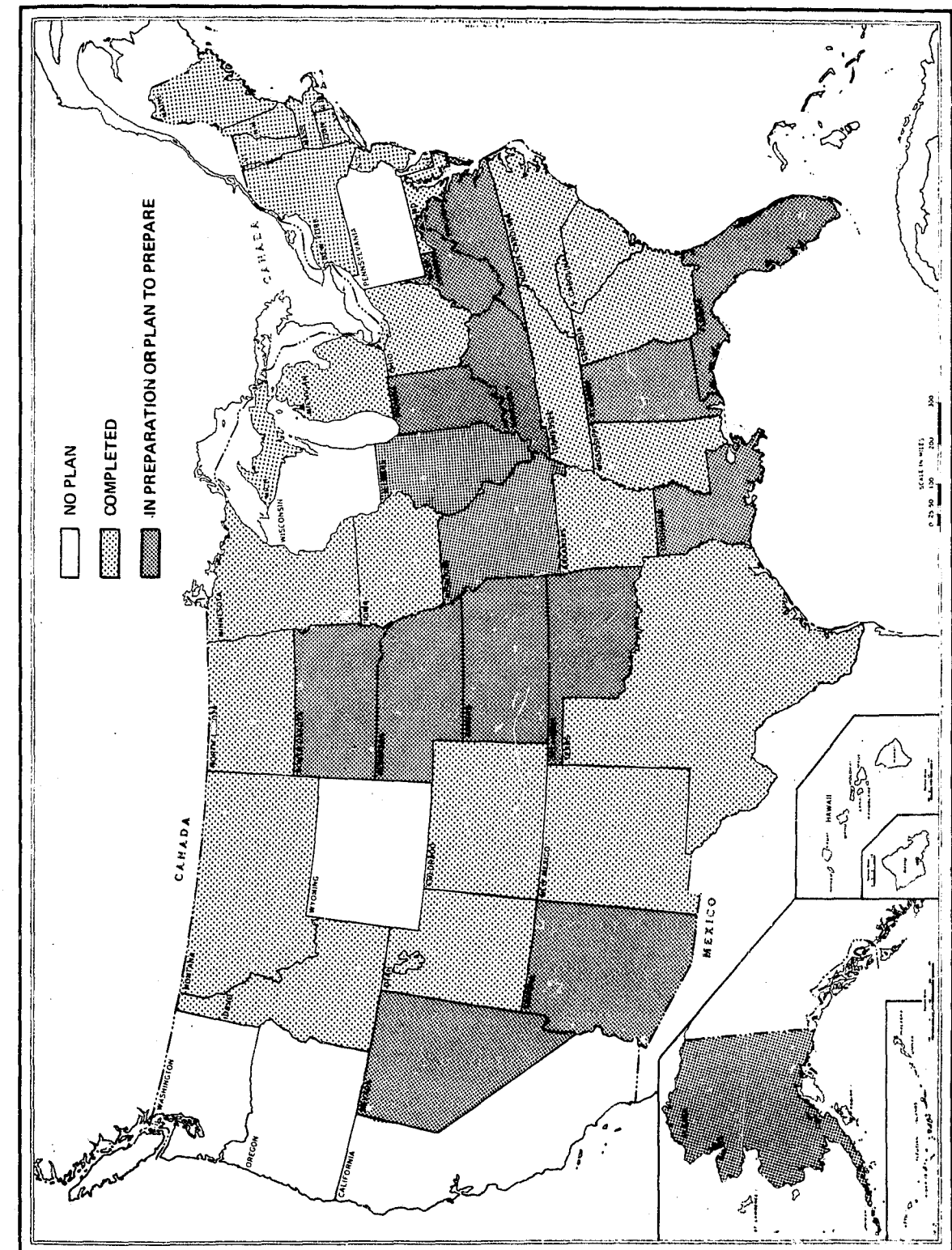


FIGURE 19
Statewide Frequency Plan

summarize the survey findings with respect to the recommendations and policies developed by the SPAs and DOCs.

1. Most States Recommend Centralized or Cooperative Dispatching.

Forty-four of the 50 states recommend cooperative dispatch wherein two or more law enforcement agencies are dispatched from a single dispatch center. Independent dispatching, or center that dispatch for only one law enforcement agency, is also recommended by 13 states for larger metropolitan areas. In consonance with centralized dispatching, mobile radio districts or county nets are recommended by 38 SPAs for the organization of law enforcement radio networks. Where it is necessary for two or more agencies to share channels, cooperative dispatch is again the recommended approach. Figures 20 through 23 summarize the SPA and DOC recommendations with respect to command and control and channel-sharing options. It can be noted that close agreement exists between the SPAs and DOCs in this matter.

2. The Frequency Bands of Operation Recommended by Most of the SPAs are UHF for Urban Areas and VHF High Band for Suburban and Rural Areas.

These recommendations, however, are not unanimous as illustrated in Figures 24 through 26. The charts do indicate, however, the trend away from VHF low band except in rural areas where 11 states recommend low band.

3. Nine SPAs have Funded or Considered Implementation of Law Enforcement Land Mobile Radio Systems in the 470-512 MHz Band.

Currently, law enforcement land mobile radio systems operating in the 470-512 MHz band have been implemented in six states. Three additional SPAs are considering the use of these frequencies.

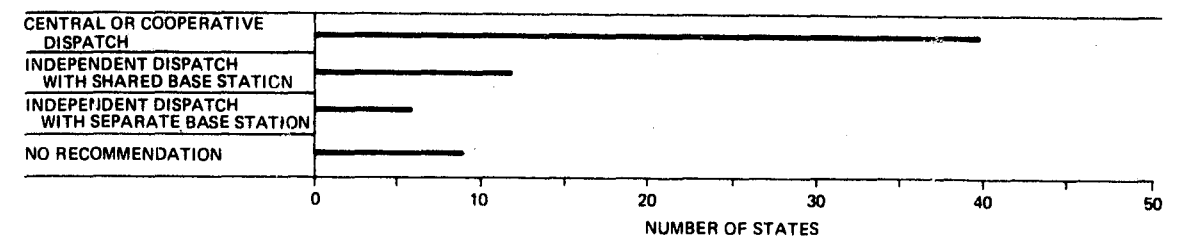


FIGURE 20
Channel Sharing Approach Recommended by SPA

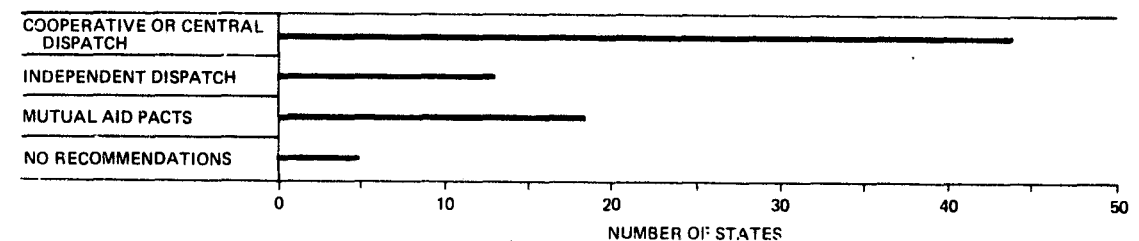


FIGURE 21
Command and Control Concept Recommended by SF

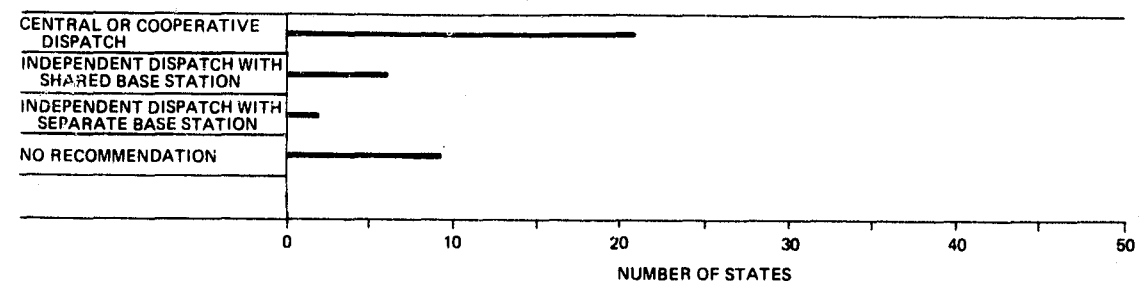


FIGURE 22
Channel Sharing Approach Recommended by DOCs

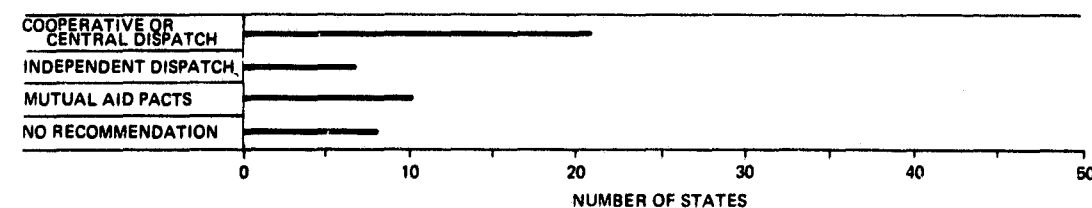


FIGURE 23
Command and Control Concepts Recommended by DOCs

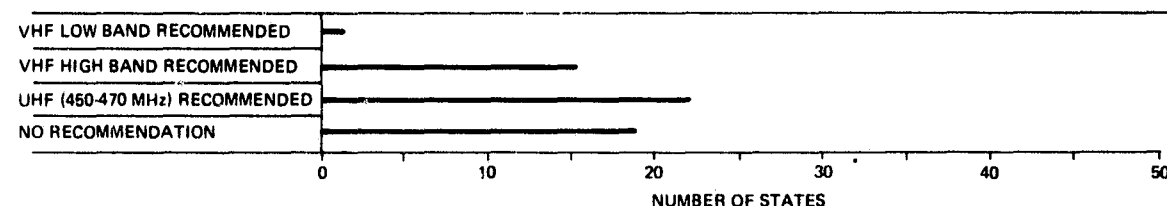


FIGURE 24
SPAs' Frequency Band Policy for Urban Areas

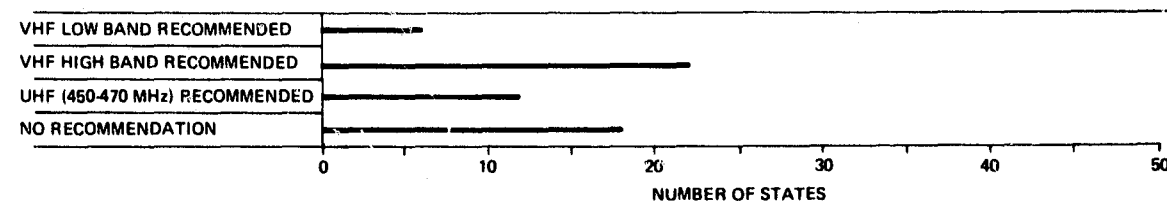


FIGURE 25
SPAs' Frequency Band Policy for Suburban Areas

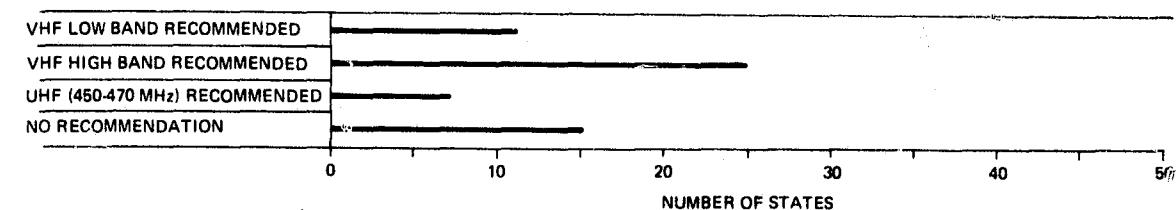


FIGURE 26
SPAs' Frequency Band Policy for Rural Areas

4. Nine SPAs are Considering Implementation of Law Enforcement Land Mobile Radio Systems in the New 900 MHz Band.

Pilot projects to evaluate performance at these frequencies are planned in four states.

5. The Number of Radio Units is Used by Most States as the Criteria for Establishing the Number of Required Radio Channels.

As shown in Figure 27, the volume or radio traffic and the law enforcement functions requiring communications support are also used by some SPAs as criteria for establishment of the number of required channels.

6. A Variety of Channel Configurations are Recommended by the SPAs.

As shown in Figure 28, the SPAs recommend various channel configurations depending upon the application. Vehicular repeaters are also recommended by 17 SPAs and 9 DOCs.

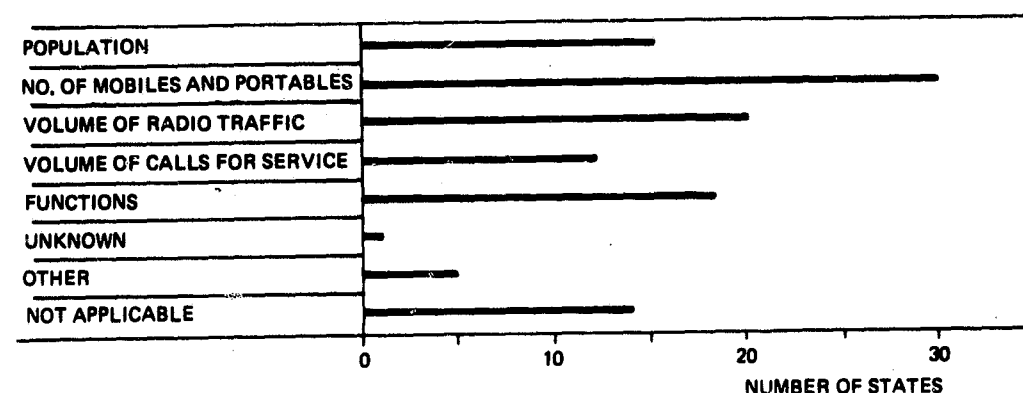


FIGURE 27
SPAs' Criteria for Establishing
Number of Required Channels

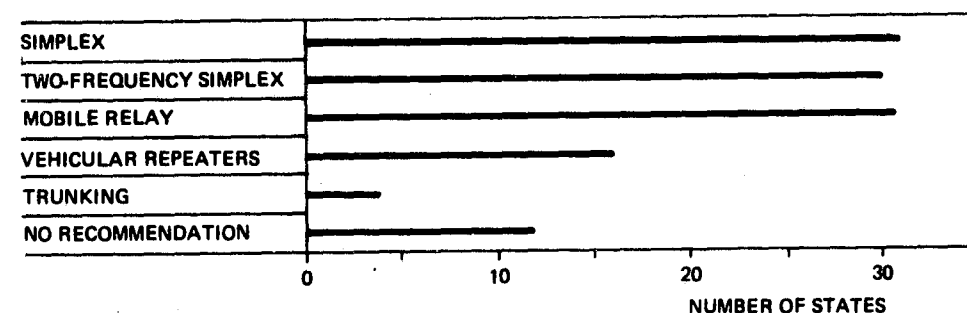


FIGURE 28
Channel Configurations Recommended by SPA

7. Tone-Controlled Squelch is Recommended by the Majority of the SPAs.

As shown in Figure 29, 32 SPAs recommend the use of tone-controlled squelch. Sixteen SPAs have developed no recommendations in this regard.

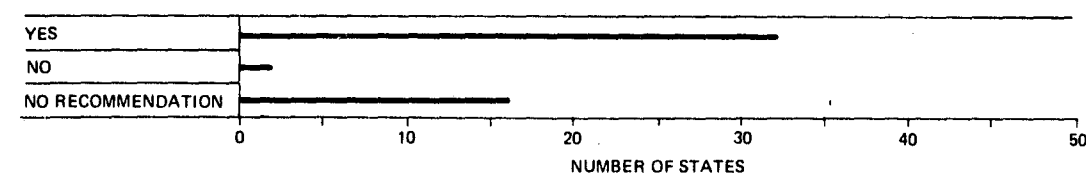


FIGURE 29
SPA Recommendations on Tone-Controlled Squelch

8. Selective Call Systems are Recommended by a Small Percentage of the SPAs.

Figure 30 shows that, while 27 SPAs have no recommendations on selective call systems, 13 SPAs recommend that they not be used and 10 SPAs recommend their use.

9. The Majority of the SPAs and DOCs Establish Power and Height Requirements from Estimates Based upon Experience and from Propagation Measurements.

Propagation models are also used by 14 of the SPAs as shown in Figure 31. Vendor recommendations are used by 16 SPAs and four DOCs.

10. Twenty-two of the 50 SPAs Recommend 911 for Combined Law Enforcement, Fire and Emergency Medical Service.

As shown in Figure 32, seventeen SPAs or approximately one-third of the planning agencies have not developed recommendations with respect to citizen access. Twenty-six SPAs recommend 911, with four recommending 911 for law enforcement and 22 recommending 911 for all emergency services.

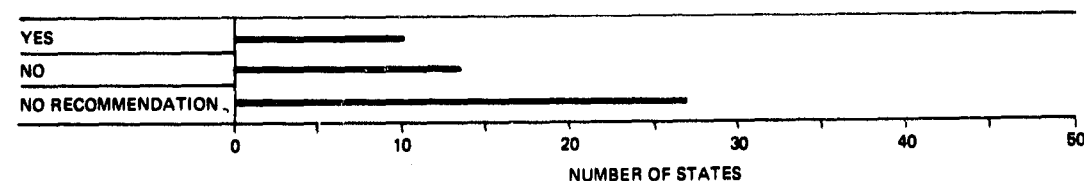


FIGURE 30
SPA Recommendations on Selective Call Systems

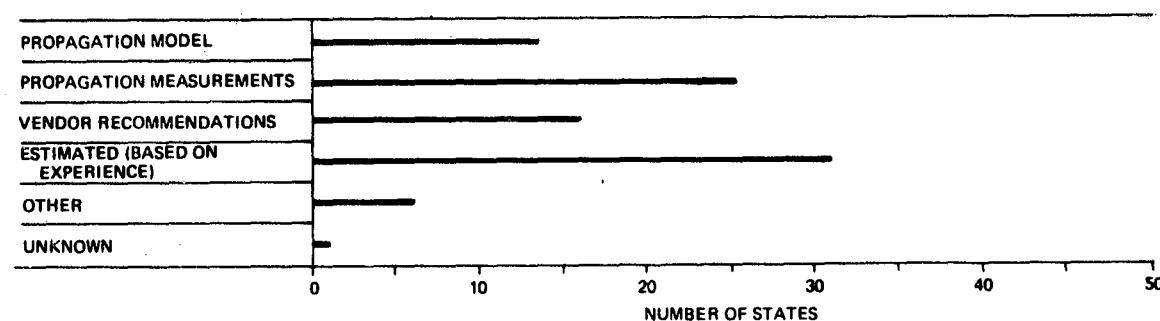


FIGURE 31
SPAs' Basis for Establishing Requirements for Law Enforcement Radio Systems

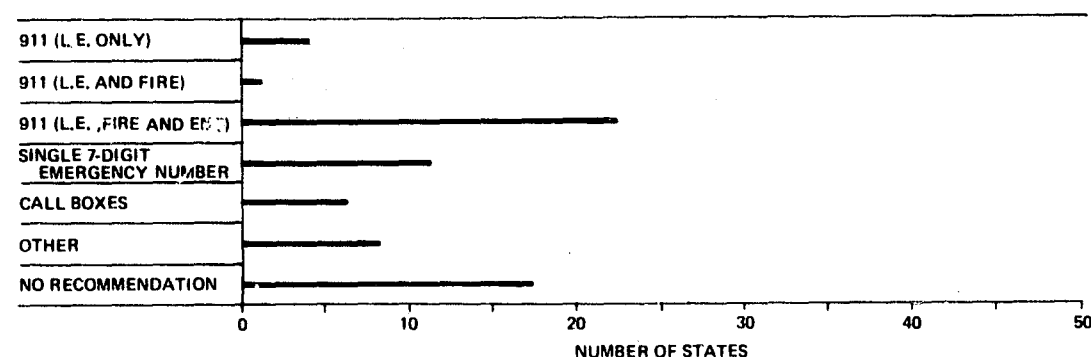


FIGURE 32
SPAs' Recommendations for Improved Citizen Access to Public Safety Agency

11. Statewide and/or Regional Coordination Channels are Recommended by Most State Planning Agencies.

Figure 33 indicates that 44 SPAs recommend coordination channels either on statewide, regional or county basis. In addition, 13 of the SPAs have developed recommendations for implementation of interstate channels. As shown in Figure 34, thirty-five of the SPAs recommend the use of VHF or UHF radio to meet the required point-to-point coordination channel requirements. Microwave is the choice in those states where this capability exists.

12. The Majority of State Planning Agencies Recommend Point-to-Point Radio Coordination Between the State Police/Highway Patrol and Local Law Enforcement Agencies.

As shown in Figure 35, 23 of the 50 states also recommend mobile-to-mobile capability for the state/local interface.

13. A Variety of Approaches is Recommended for Remote Control of Base Stations.

As Figure 36 shows, radio and wireline are recommended for remote control. Twenty SPAs have developed no recommendations with respect to remote control of base stations.

14. Recommended Approaches for Improved Access to Computerized Criminal Justice Information Systems Include Additional Terminals, the Use of High-Speed Transmission and Improved Switching Techniques.

While 16 of the 50 states have developed no recommendations with respect to improved information access, Figure 37 shows that a variety of techniques is recommended by the remaining 34 states.

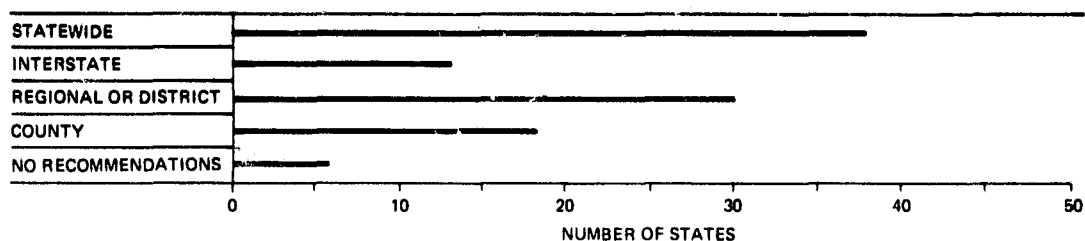


FIGURE 33
Coordination Channels Recommended by SPA

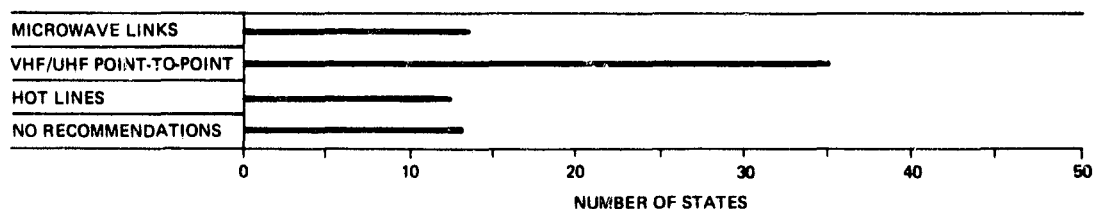


FIGURE 34
**Approaches Recommended by SPA for
 Interagency Point-to-Point Coordination**

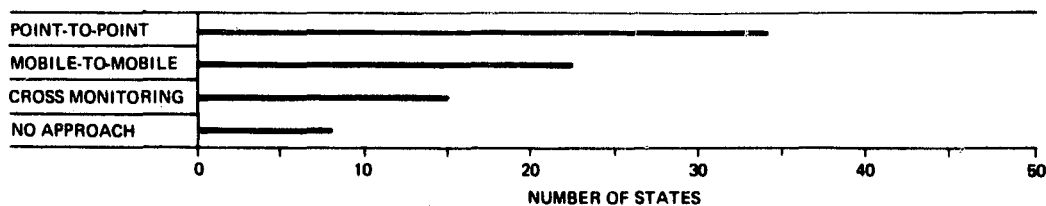


FIGURE 35
**Approaches Recommended by SPA for
 Communications Coordination between
 State Police, Highway Patrol, and
 Local Law Enforcement Agencies**

CONTINUED

1 OF 11

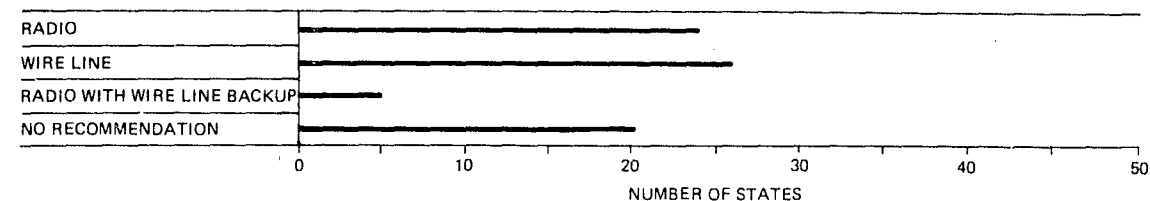


FIGURE 36
Methods Recommended by SPA for
Remote Control of Base Stations

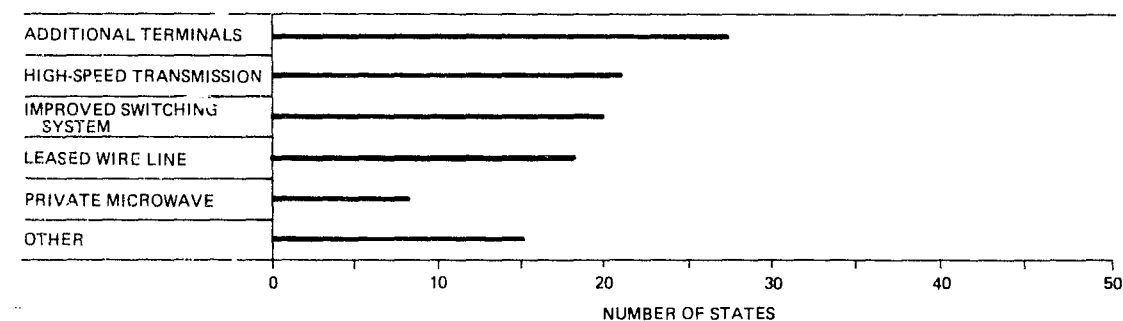


FIGURE 37
Recommendations for Improved Access
to Criminal Justice Information

15. The Majority of SPAs and DOCs have not Formulated Recommendations with Respect to Computer-Aided Dispatch Systems.

Fourteen of the SPAs recommend the use of computer-aided dispatching. However, 30 SPAs have not yet formulated recommendations with respect to computer-aided dispatching. As noted in Section 2(5), there are currently 87 computer-aided dispatching systems in 33 states either in operation or planned for implementation.

16. Forty-three of the Fifty SPAs have not Formulated Recommendations with Respect to Digital Communications Systems.

As shown in Figure 38, six SPAs recommended mobile terminals with alphanumeric display. Mobile printers are recommended by three SPAs.

17. Twenty-six SPAs Recommend that Communications Scramblers not be Used.

Four SPAs recommend the use of scramblers. Twenty SPAs have no specific recommendation.

18. The Recommended Use of Portables Varies Throughout the States.

However, 20 SPAs do recommend the use of personal portables for all sworn personnel. An additional eleven recommend portables for all sworn personnel who have no mobile units in their vehicles. The summary of the recommendations with respect to the use of portables is shown in Figure 39.

19. Thirty-Four State Planning Agencies Recommend the Use of Logging Tape Recorders.

In addition, 47 SPAs will approve funds for the purchase of logging tape recorders. Thirteen of the SPAs have no recommendation with respect to logging tape recorders.

20. The Majority of the State Planning Agencies have Not Formulated a Recommended Approach to Maintenance.

Of the 16 states making recommendations in this area, centralized maintenance is the preferred approach. In addition, 15 of the 30 DOCs recommend centralized maintenance. Figure 40 summarizes the recommendations

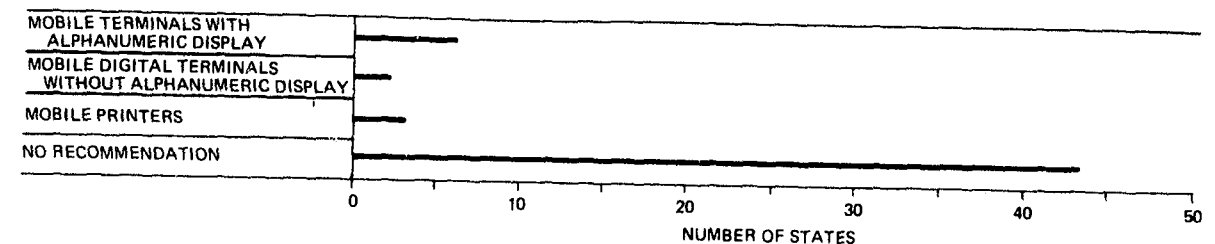


FIGURE 38
Recommended Digital Systems

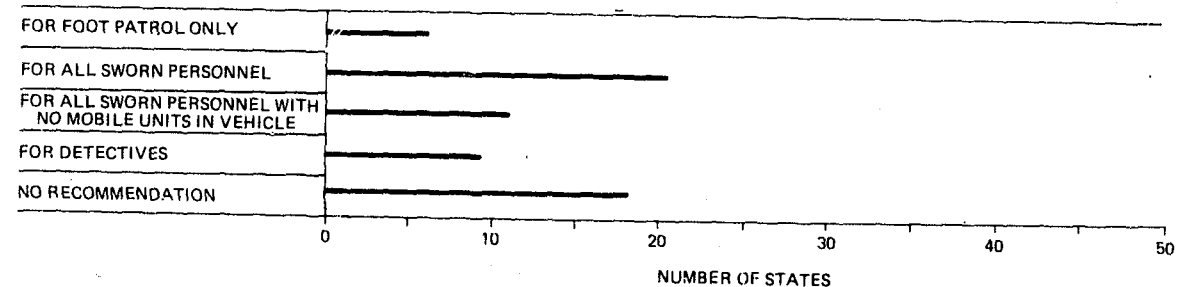


FIGURE 39
SPAs' Recommended Use of Personal Portables

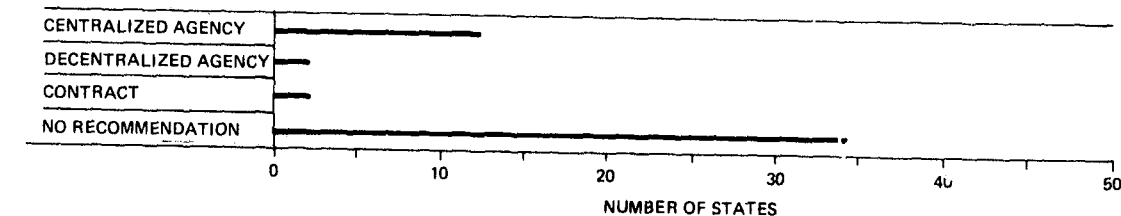


FIGURE 40
SPAs' Recommended Maintenance Approach

of the SPAs with regard to maintenance. Ten of the SPAs have incorporated maintenance considerations in their LEAA comprehensive plans.

(4) Thirty-Five SPAs Reported the Existence of State Statutes that have an Effect on Telecommunications Planning Activities.

As noted in Figure 41, those state statutes having an effect on telecommunications planning include:

- . The establishment of a DOC
- . Implementation of a specific communication system
- . Directives to develop a state telecommunications plan
- . Emergency medical service legislation.

Nineteen SPAs and 16 DOCs plan to recommend legislation primarily in the areas of 911, emergency medical service, and implementation of specific systems.

(5) The SPAs Reported that the Three Most Significant Constraints on Telecommunications Planning are Political Factors, Insufficient Funds for Implementation and the Shortage of Frequencies.

Figure 42 shows the constraints as reported by the SPAs. In addition to the above mentioned factors, the multiplicity of telephone companies, insufficient planning funds and inadequate planning manpower were also reported as significant constraints by the planning agencies.

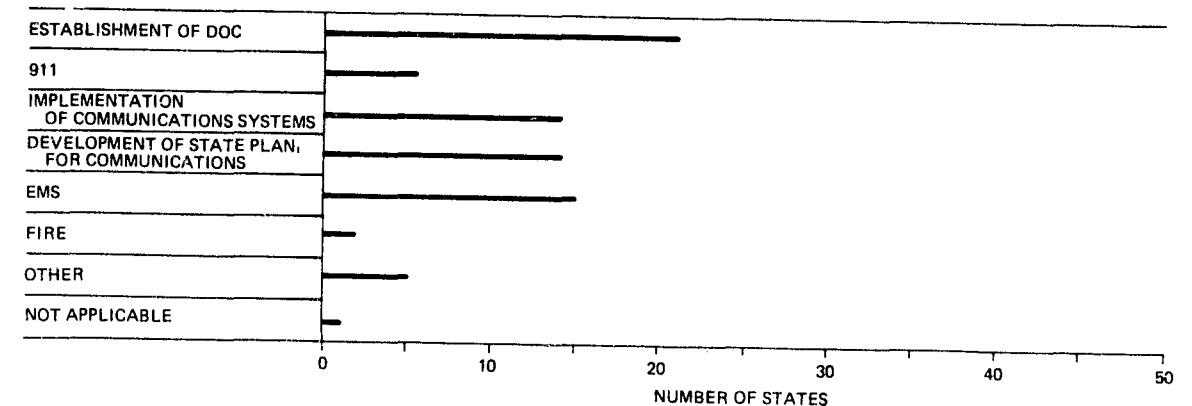


FIGURE 41
Areas Covered by State Statutes That Affect Law Enforcement Telecommunications Planning

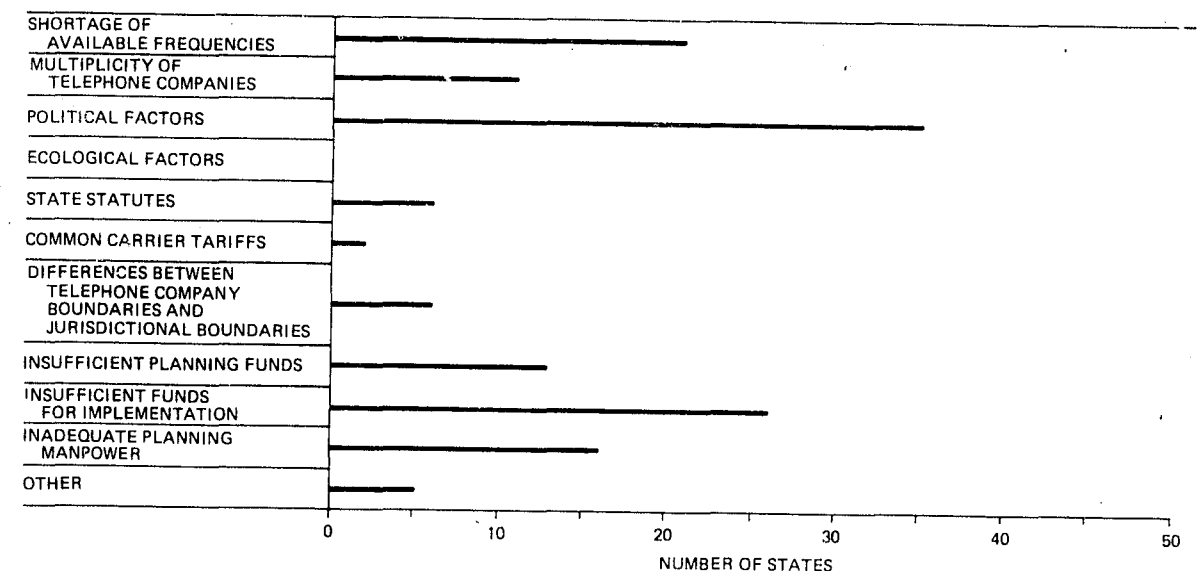


FIGURE 42
Most Significant Constraints On Police Telecommunications Systems

4. GRANT ADMINISTRATION AND PROCUREMENT POLICIES

This section presents a summary of the methods, procedures and policies used by the SPAs in administering grants and in purchasing telecommunications systems equipment and services. Included are the survey findings with respect to the degree of centralized purchasing conducted within the states, the types and sources of specifications used for procurement of telecommunications systems and the procurement practices.

The findings of the survey revealed a diversity of approaches used by the SPAs both with respect to grant administration and procurement practices. There is considerable variance, for example, in the requirements for grant applications among the SPAs indicating the need for more comprehensiveness and uniformity.

Likewise, the wide diversity of approaches to procurement indicates the need for a procurement handbook for use by those agencies expending LEAA funds.

The findings with respect to grant administration and procurement are summarized below.

(1) The State Planning Agencies Have Differing Policies with Respect to Requirements for Telecommunications Grant Applications.

While 48 SPAs require that the grant applicant provide a statement of the problem and 45 SPAs, a statement of the requirement, there is considerable variance in the remaining requirements for grant applications as shown in Figure 43. For example, considerations of adjacent area coordination, training requirements, specification compliance testing, and maintenance are required by fewer than half of the SPAs. Other requirements by SPAs for grant applications are shown in Figure 43.

(2) Forty-one SPAs Have Published Guidelines for the Preparation of Grant Applications.

Formal checklists and procedures for grant application review are used by 46 SPAs. Approximately half of the states (23 SPAs) have a formal list of priorities which are used in the

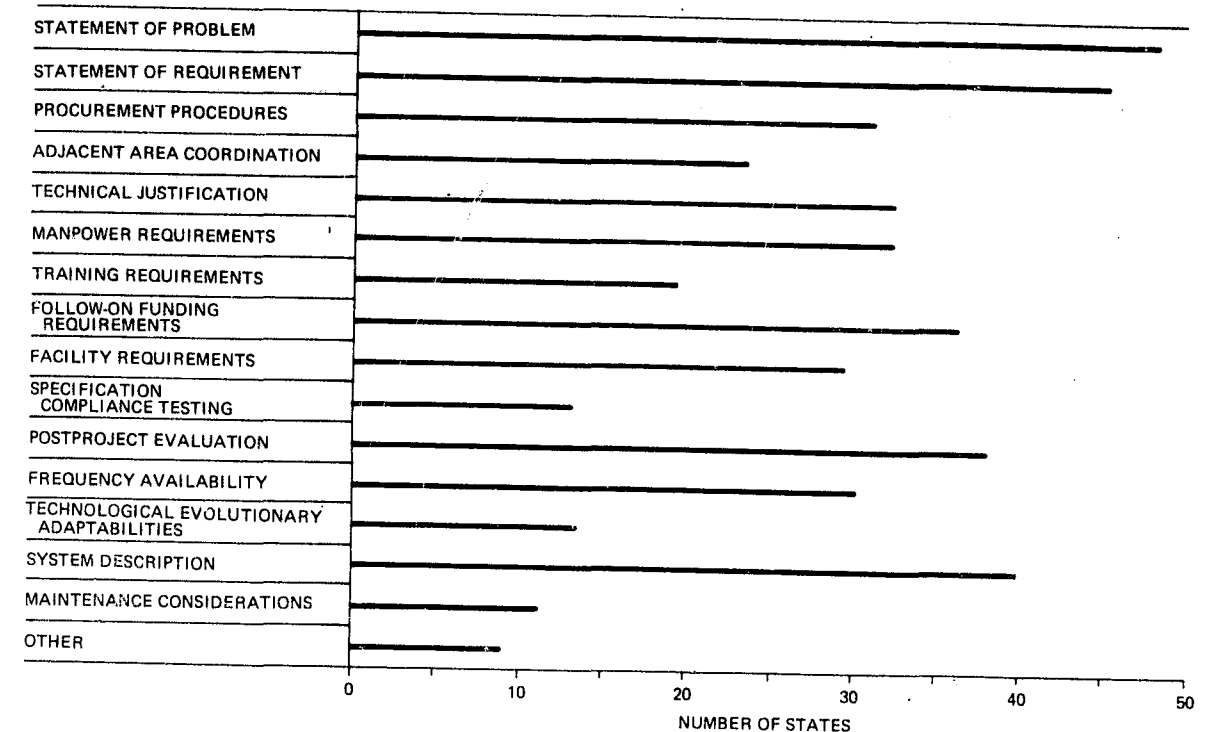


FIGURE 43
SPAs' Requirements for Telecommunications Grant Application

evaluation of telecommunications grant applications. Further, 42 SPAs have formal procedures governing grant termination. Likewise, 40 SPAs have formal procedures for upgrading fund allocations if the time between the grant application and project implementation has resulted in outdated cost figures.

(3) Observation of the Checklist Used by SPAs for Review of Grant Applications Reveals a Lack of Comprehensiveness.

Figure 44 summarizes the topics addressed on 25 of the checklists which were examined. Most of the checklists address only the problem, goals and the financial descriptions of application. Other important considerations are lacking as shown in Figure 44.

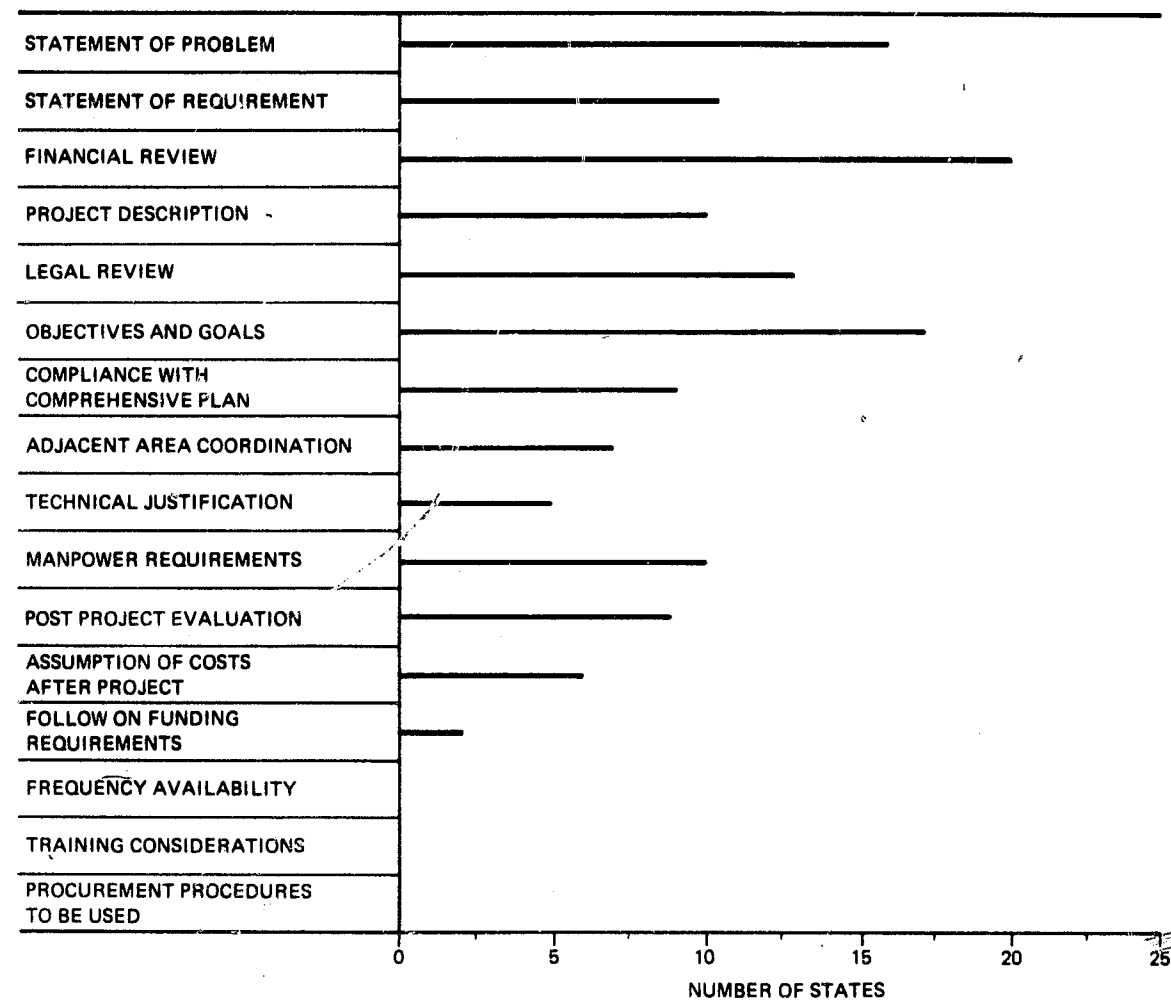


FIGURE 44
Topics Addressed on Grant
Application Review Checklists
(25 Checklists Examined)

- (4) Review of Grant Applications Prior to Submission to the SPA is made by Regional Planning Councils in Forty of the States.

County planning agencies also provide review in eight states. The responsibility for ensuring that grant-funded telecommunications projects have been coordinated with adjacent states varies as shown in Figure 45. However, interstate coordination of grant-funded projects is conducted in 39 states.

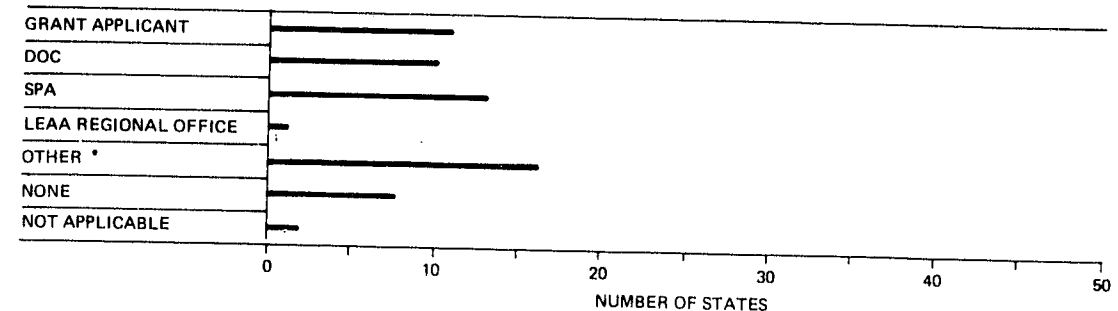


FIGURE 45
Agency Responsible for Coordination
of Grants with Adjacent States

- (5) There Have Been Relatively Few Instances Where Either Approval or Disapproval of Grant Requests Have Been Reversed by Higher Levels of Authority.

Of the 7,686 telecommunications grants funded by the State Planning Agencies, during the period July 1, 1971 to January 11, 1975 there have been only four reversals of grant approvals and 28 reversals of grant disapprovals by higher levels of authority.

- (6) Thirty-seven SPAs Use a Combination of System Functional, System Performance and Equipment Specifications in the Procurement of Law Enforcement Telecommunication Systems.

The use of equipment specifications only are used by nine SPAs and seven DOCs.

The specifications for the telecommunications systems are obtained through a variety of sources as shown in Figure 46. The major sources include state Divisions of Communications, consultants and SPAs. Vendors or vendor-related consultants are used as a source of specifications in 10 states. Thirty-four SPAs and 17 DOCs require that all law enforcement communications equipment that is procured meet contractually established specifications. Verification of

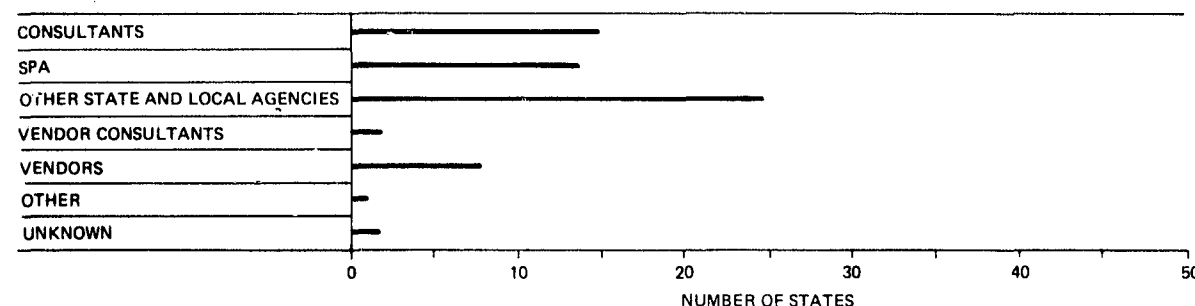


FIGURE 46
Major Source of Specifications

specifications is obtained in a variety of ways, including acceptance testing, operational testing and vendor certification. However, 22 SPAs have no requirement for certification or verification that the specifications have been met.

- (7) Twenty-seven SPAs and 20 DOCs have Developed Standard Equipment Specifications for the Basic Mobile Radio Equipment.

Figure 47 shows the number of states who use standard equipment specifications for the various types of mobile equipment. While half of the states use such specifications for standard equipment, there are virtually no specifications for more advanced equipment.

- (8) Approximately One-Fourth of the SPAs and the DOCs Maintain Lists of Recommended Equipment Vendors and Consultants.

Lists of recommended independent telecommunications consultants are available at 14 SPAs and 7 DOCs representing 19 states. Three SPAs have formalized the requirements to be met by consultants wishing to be placed on the list and likewise have formalized procedures for removing names from that list. In two instances has removal of consultants been reported.

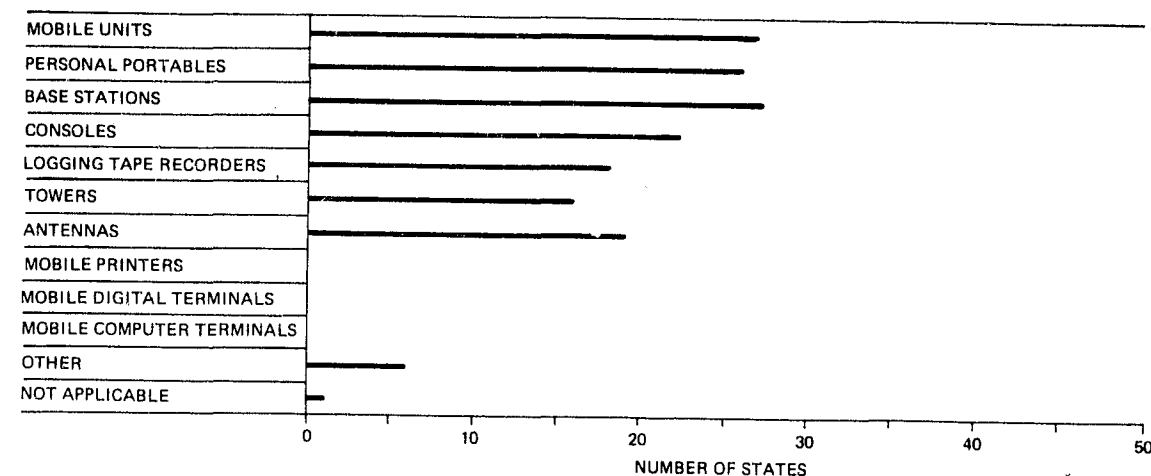


FIGURE 47
SPAs' Standard Telecommunications
Equipment Specifications

Lists of recommended sources of law enforcement telecommunications equipment are maintained in 25 states by 12 SPAs and 14 DOCs. Of these planning agencies, four SPAs and six DOCs have procedures for removing vendors from the list. The DOCs have reported four removals and the SPAs one removal of vendors from the list.

- (9) Typically, Two or Three Vendors Respond to Law Enforcement Telecommunications Systems Procurements.

Thirty-nine of the SPAs and twenty of the DOCs have reported two or three vendors as typical. Eight SPAs indicated they typically receive four to six bids, while one SPA typically receives only one response to its telecommunications procurements.

- (10) There is Extensive Use of Centralized Purchasing at the State Level in 19 of the 50 States.

Eleven additional states have limited use of centralized purchasing, as shown in Figure 48. In 28 states, centralized purchasing is mandatory. The majority of states renew their centralized purchasing contracts on an annual basis. In 33 of the states, centralized purchasing for small procurements is required or encouraged.

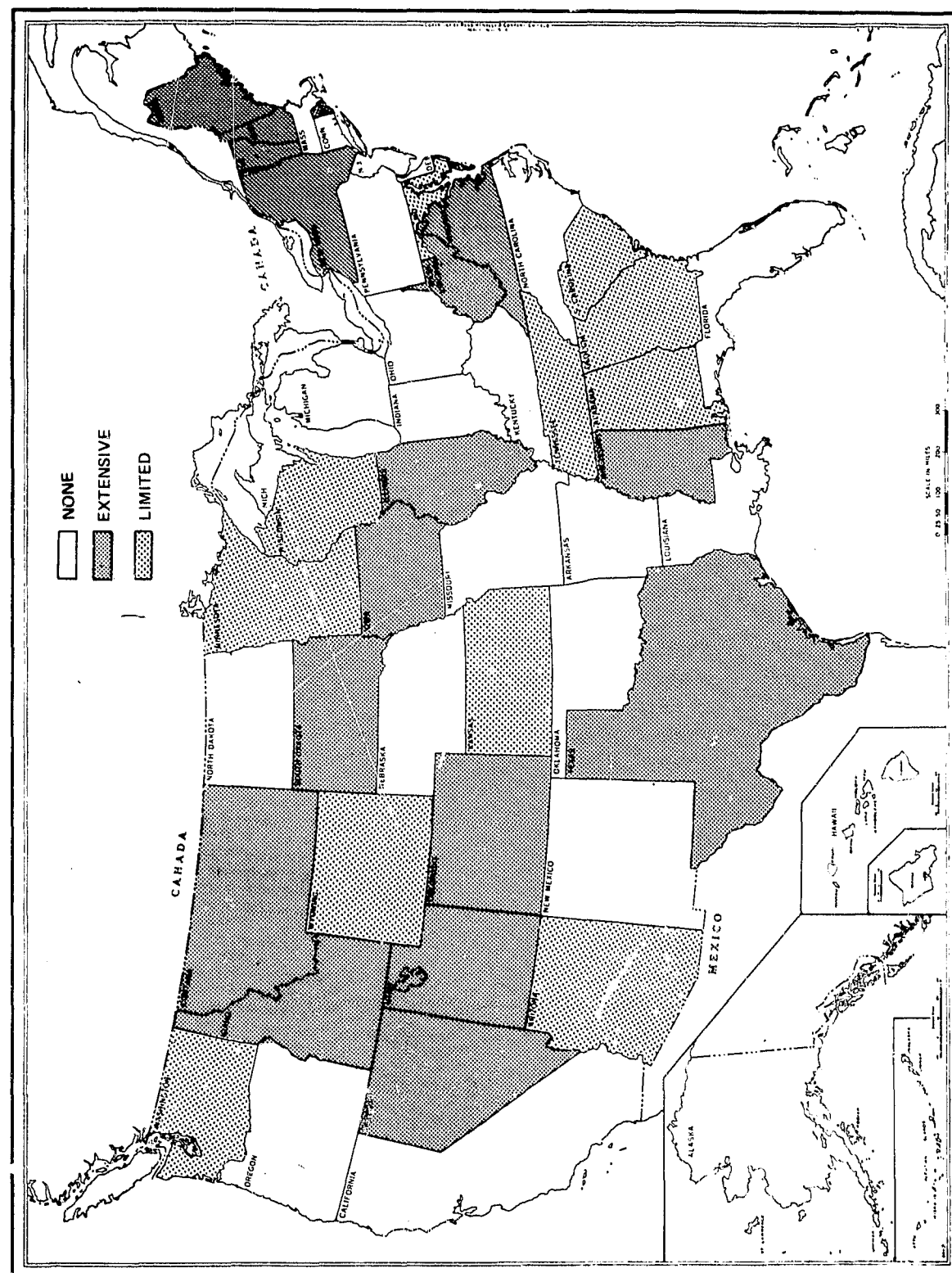


FIGURE 48
State Centralized Purchasing

(11) Centralized Purchasing at the County Level Exists in 19 States.

Eleven states report extensive centralized purchasing at the county level.

(12) Procurement Practices for Law Enforcement Telecommunication Systems Vary Among the SPAs and DOCs.

The survey has revealed that there is wide variability in the methods, procedures and practices for procuring telecommunications equipment, maintenance and consulting services. The findings, with respect to procurement practices, are summarized in the subsections which follow.

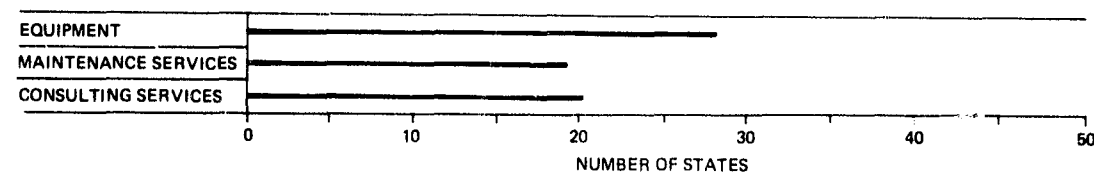
1. Forty-eight of the SPAs have Either Issued Standard Procurement Instructions or Use Existing State Procurement Instructions for the Purchase of Telecommunications Equipment.

As noted in Figure 49, 28 SPAs use existing state procurement instructions. Thirty-four of the SPAs have issued standard procurement instructions for equipment procurement.

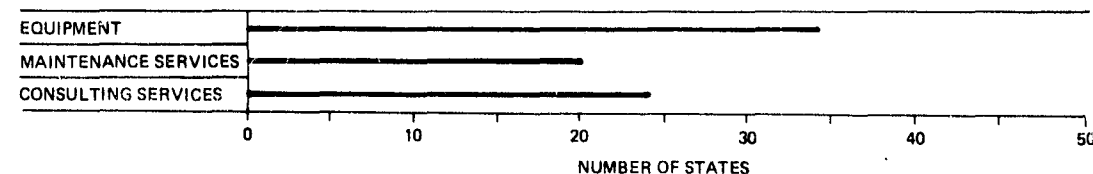
Figure 49, shows that fewer states have standard procurement instructions for maintenance and consulting services. For example, 38 SPAs have either issued standard procurement instructions or use existing state procurement instructions for consulting services and 33 of the SPAs for maintenance services.

2. Twenty-seven SPAs Require Award to the Low Bidder on Procurements of Equipment Over a Given Dollar Value.

The typical dollar value is about \$2500 above which low bid is required. Factors other than cost can determine the award of a competitive procurement for equipment by 27 of the SPAs as noted on Figure 50. Nine SPAs



Grant Funded Procurements Accomplished in Accordance with Existing State Procurement Instructions



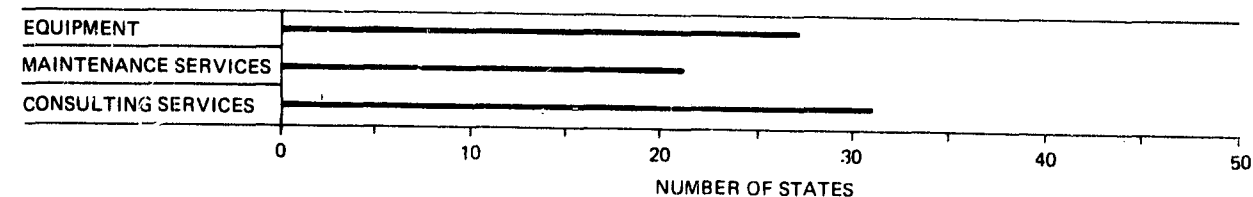
Standard Procurement Instructions in Effect

FIGURE 49
Procurement Instructions Used by SPAs

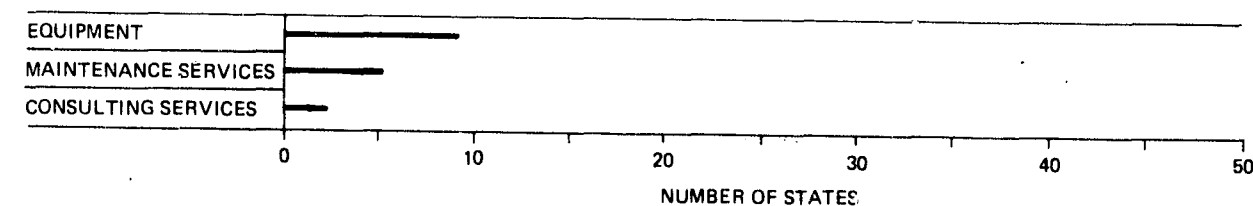
require that equipment procurements be awarded to the low bid regardless of procurement size. The Figure also shows that approximately one-third of the states require award to low bid for maintenance and consulting services for all procurements over a given dollar value.

3. Thirty-four of the SPAs Require a Minimum of Two or Three Bids When Equipment Procurements Exceed a Given Dollar Value.

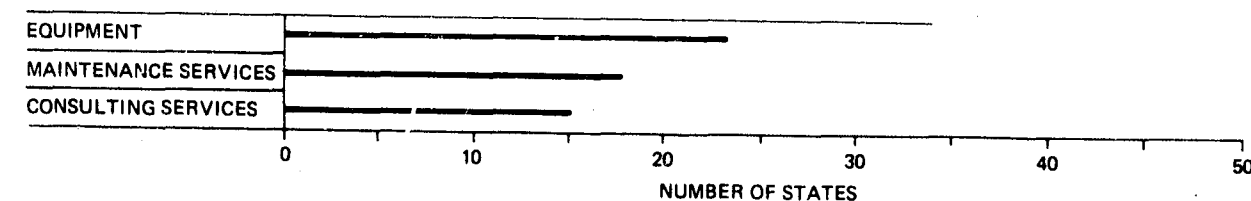
Similar bid requirements exist in approximately one-third of the SPAs for maintenance and consulting services as shown in Figure 51. Sole source, regardless of the size of procurement, is permitted by two states for equipment and maintenance procurements and by four SPAs for consulting services.



Standard SPA Procurement Instructions that Permit Competitive Bid Procurements to go to Other Than Lowest Bidder.

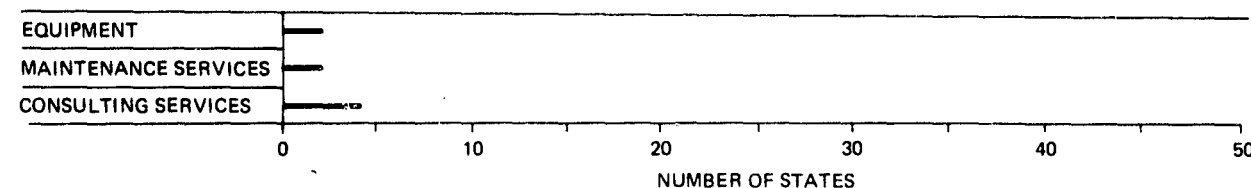


Standard SPA Procurement Instructions that Require Competitive Bidding on all Procurements with Award to Lowest Compliant Bidder.

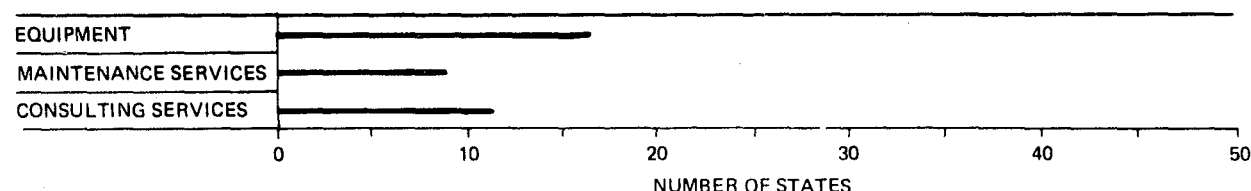


Standard SPA Procurement Instructions that Require Competitive Bidding on all Procurements Over a Given Dollar Value with Award to Lowest Compliant Bidder.

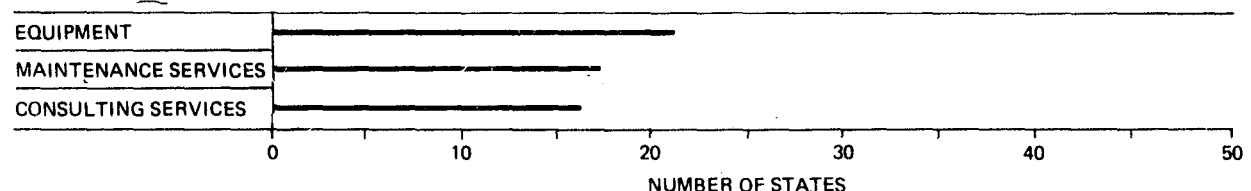
FIGURE 50
Competitive Bid Policies of SPAs



Standard Procurement Instructions that Permit Sole-Source Bids Regardless of Size of Procurement



Standard SPA Procurement Instructions that Require at Least Two Bids when Procurement Exceeds a Given Dollar Value.

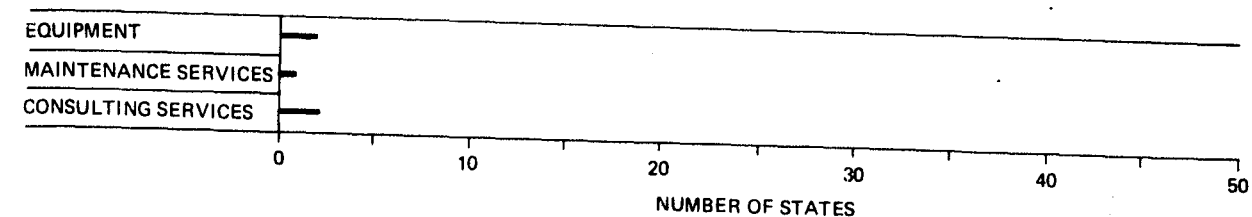


Standard SPA Procurement Instructions that Require at Least Three Bids when Procurement Exceeds a Given Dollar Value.

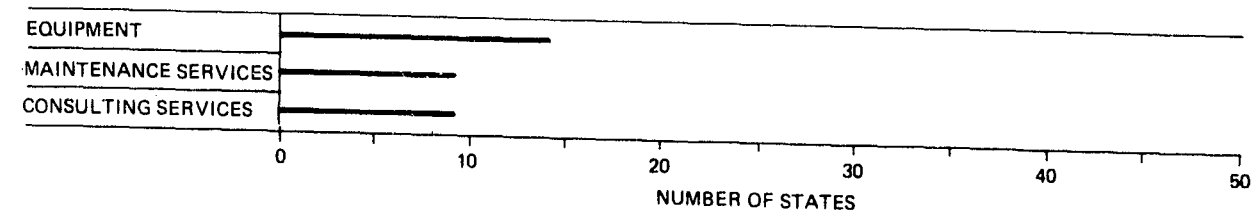
FIGURE 51
Bid Requirements of SPAs

4. The Requirement for a Pre-bid Conference is Left to the Discretion of the Subgrantee by Twenty-five of the SPAs.

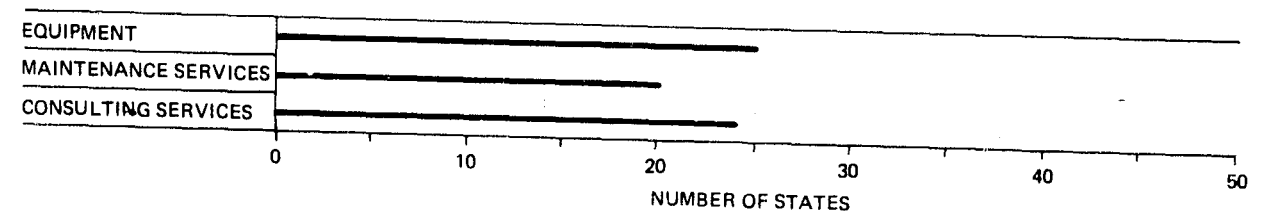
As noted in Figure 52, fourteen of the SPAs require pre-bid conferences on all procurements over a given dollar value.



Standard SPA Procurement Instructions that Require a Pre-bid Conference on all Procurements.



Standard SPA Procurement Instructions that Require a Pre-bid Conference on all Procurements Over a Given Dollar Value.



Standard SPA Procurement Instructions that Require Pre-bid Conference at Discretion of Subgrantee.

FIGURE 52
SPA Pre-Bid Conference Requirements

5. Forty-four of the 50 States Require Bid Advertising for Equipment Procurements Over a Given Dollar Value.

The average value above which competitive bid advertising is required for equipment procurement is approximately \$1,800. Thirty-six of the 50 SPAs also have bid advertising requirements for maintenance and consulting service contracts over a given dollar value.

6. Thirteen SPAs have Documented Differences Which Exist Between Their State Statutory Procurement Practices and LEAA Recommended Practices.

However, only one state has reported these differences as being a major problem.

5. SUMMARY OF LEAA LAW ENFORCEMENT TELECOMMUNICATIONS PROJECTS.

The State Planning Agencies funded a total of 7,686 law enforcement telecommunications projects during the period July 1, 1971 through January 1, 1975. Each of these projects was examined with respect to its objectives, type of project, equipment purchased, recipient of award, evaluation procedures, and intersystem coordination provided. A summary of this project data for each state is contained in Chapter V. This section summarized the project data on a national basis.

The findings indicate the majority of the law enforcement telecommunications grants were small in value (59 percent were for less than \$10,000) and involved procurement of basic land mobile radio equipment such as base stations, mobile units and personal portables. There has been significant emphasis on projects involving centralized or cooperative dispatch systems, improved coordination capability and personal portables. Although few grants to date have involved advanced technology such as 911, computer assisted dispatch, digital communications and automatic vehicle monitoring, there are a number of planned projects in these areas. Formal post-implementation evaluations were conducted on approximately half of the grants. Following are the findings with respect to the telecommunications grants.

(1) The State Planning Agencies Expend an Average of Over \$42 Million Annually, Excluding Matching Funds on Law Enforcement Telecommunications Grants.

This expenditure represents approximately 11.5 percent during the period surveyed of the total LEAA grant funds administered by the SPAs. Table III-3 shows the total telecommunications project dollars and the LEAA grant dollars for each of the 10 LEAA regions. The LEAA

Table III-3
Project Expenditures

LEAA GRANT EXPENDITURES BY REGION					
Region	FY 72	FY 73	FY 74	FY 75	Total
I	888,233	1,054,076	2,807,428	3,452,466	8,202,203
II	781,250	4,754,496	1,855,916	759,612	8,151,274
III	1,111,044	1,723,541	1,388,389	899,843	5,122,817
IV	9,434,069	10,314,306	6,687,558	789,227	27,225,160
V	13,409,927	14,339,575	17,660,258	5,204,935	50,614,695
VI	5,078,450	2,634,357	3,109,211	397,631	11,219,649
VII	3,285,635	1,879,835	3,891,194	1,252,076	10,308,740
VIII	1,084,615	1,216,779	898,263	307,835	3,507,492
IX	2,909,469	2,643,122	4,127,710	2,497,485	12,177,786
X	503,6461	2,152,194	2,471,791	1,418,103	6,545,734
Total	38,486,338	42,712,281	44,897,718	16,979,213	143,075,550

TOTAL PROJECT EXPENDITURES (Including Local Match) BY REGION					
Region	FY 72	FY 73	FY 74	FY 75	Total
I	1,204,918	1,319,352	3,214,545	4,038,790	9,777,605
II	1,081,258	6,907,400	2,364,903	1,128,541	11,482,102
III	1,567,848	2,145,114	1,636,119	1,119,719	6,468,800
IV	12,604,310	12,886,594	8,059,372	10,019,689	43,569,965
V	16,728,953	18,558,125	21,570,240	6,000,966	62,858,284
VI	8,947,850	4,412,524	7,350,015	473,264	21,183,653
VII	3,606,792	2,534,717	4,451,620	1,655,737	12,248,866
VIII	1,406,048	1,623,384	1,177,636	348,824	4,555,892
IX	4,084,999	3,299,864	5,162,713	3,265,110	15,812,686
X	751,440	3,307,556	3,149,128	1,837,774	9,045,898
Total	51,984,416	56,994,630	58,136,291	29,888,414	197,003,751

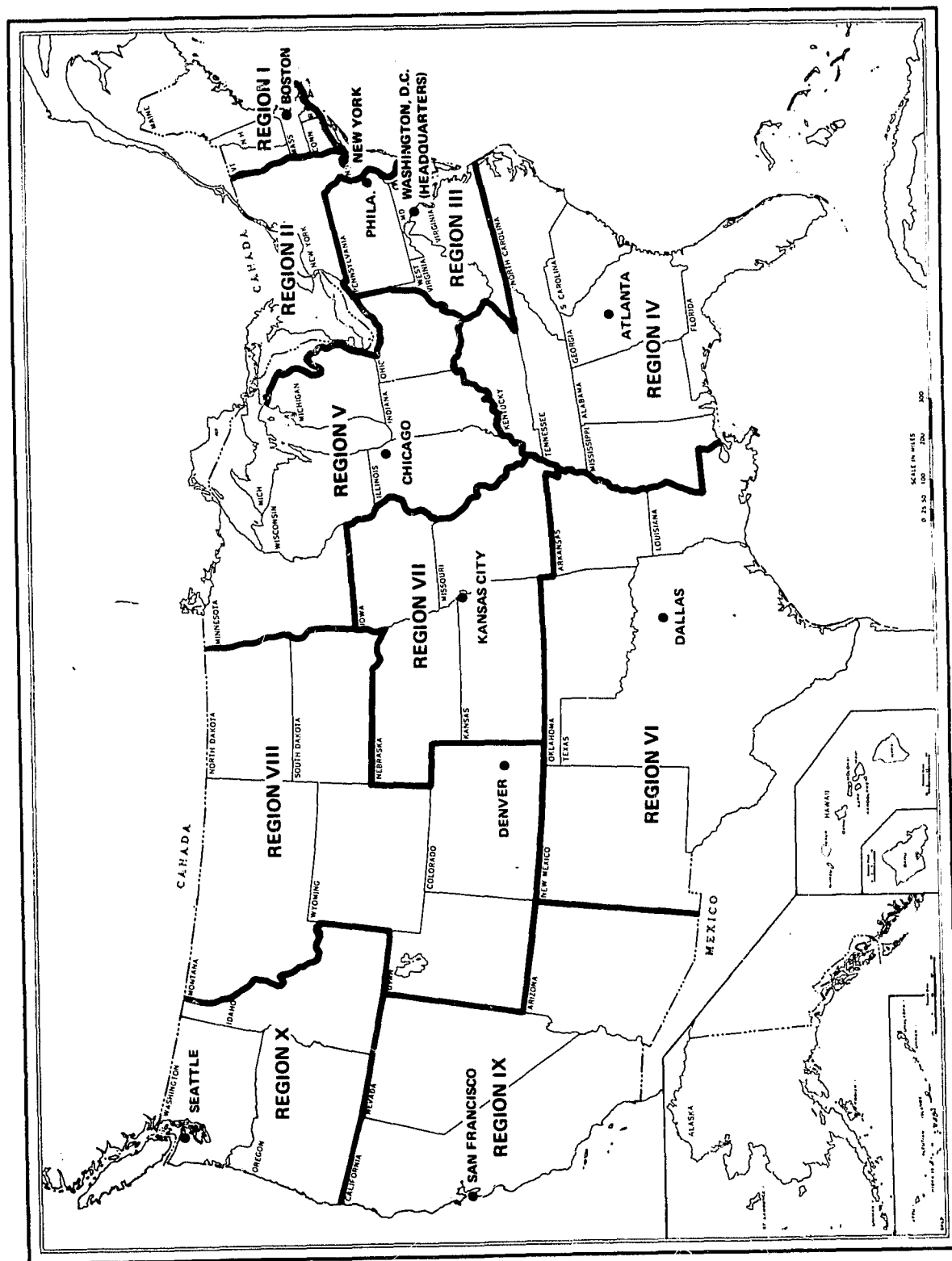


FIGURE 53
LEAA Regions

regions are identified in Figure 53. Overall the total expenditures for law enforcement telecommunications grants during the period July 1, 1971 to January 1, 1975 has been \$197 million of which 75 percent has been provided by LEAA.

The average grant award has been approximately \$15,000 per grant. Over 59 percent of the grants were for less than \$10,000, and 45 percent for less than \$5,000. The median size grant was approximately \$6,000. This small value for the average grant size is partially attributable to the fact that over half of the telecommunications grants were awarded to law enforcement agencies serving municipalities with population under 20,000 persons.

- (2) The Primary Objectives of the Law Enforcement Telecommunication Grants Identified on the Grant Applications were Improved Communications Service, Improved Communications Reliability, Improved Interagency Coordination and Reduction of Response Time.

Table III-4 shows the number and percent of total projects as well as project dollars having the indicated objectives. Since a given project may have more than one objective, the totals of both the number of projects and the funds exceed 100 percent on this Table. Both the highest percentage of total projects and the highest percentage of dollars were associated with projects having improved communications service as their objectives. A relatively low percentage of projects had improved citizen access as an objective. Relief of channel congestion was an objective in approximately 50 percent of the projects.

- (3) Over 90 Percent of the Projects Involved Procurement of Basic Land Mobile Radio Communications Equipment.

Table III-5 summarized the types of projects. Again the totals exceed 100 percent because some project grants involved several categories in the Table. The Table shows that a significant number of projects involved implementation of consolidated central dispatch systems, command and control centers and terminals for computerized information systems. There were

Table III-4
NATIONAL SUMMARY
Law Enforcement Telecommunications Projects
Project Objectives

Project Objective	Number of Projects	Percent of Total Projects	Project Cost, Thousands of Dollars	Percent of Cost of All Projects
Reduced Response Time	4,827	62.8	159,824	85.0
Improved Public Access	783	10.2	38,766	20.6
Improved Interagency Coordination	4,984	64.8	150,795	80.2
Improved Communications				
Reliability	5,314	69.1	83,150	44.2
Improved Cost-Effectiveness	561	7.3	36,795	19.6
Reduced Channel Congestion	3,489	45.4	109,713	58.4
Improved Communications Service	7,229	94.1	173,073	92.1
Improved Officer Safety	4,645	60.4	122,332	65.1
Improved Access to Computerized Information Systems	2,665	34.7	46,113	24.5
Other	91	1.2	4,981	2.6

Table III-5
NATIONAL SUMMARY
Law Enforcement Telecommunications Projects
Project Types

Project Type	Number of Projects	Percent of Total Projects	Project Cost, Thousands of Dollars	Percent of Cost of All Projects
Planning Project	153	2.0	9,372	5.0
Design Project	128	1.7	15,062	8.0
Communications Equipment (base stations, mobile units, portables, etc.)	7,024	91.4	165,339	88.0
Terminals for Computerized Information Systems	446	5.8	16,859	9.0
Command and Control Centers	942	12.3	41,816	22.2
Consolidated Central Dispatch System	338	4.4	23,179	12.3
Computer-Aided Dispatching	31	0.4	8,292	4.4
Automatic Vehicle Monitoring	19	0.2	4,944	2.6
911 Implementation	50	0.7	7,345	3.9
Microwave	215	2.8	9,832	5.2
Other	96	1.2	3,656	1.9

relatively few projects involving computer-assisted dispatching, 911 implementation or automatic vehicle monitoring. Approximately two percent of the projects were devoted to planning.

- (4) The Majority of Projects were Directed Toward Intra- and Inter-Law Enforcement Agency Telecommunications With Relatively Little Emphasis on Citizen Access.

Each of the projects was categorized with respect to the type of communications it provided and the results are shown in Table III-6. Communications for citizen access and for coordination with non-law enforcement agencies received relatively little emphasis.

- (5) Procurement of Basic Radio Equipment Accounted for the Highest Expenditures of Funds.

Table III-7 summarizes equipment purchased through the LEAA grant projects. Aside from computer terminals, the majority of equipment purchased consisted of basic radio equipment, such as base stations, mobile radios, consoles, portables, tape recorders, power generators and mobile repeaters. Over 99 percent of the grants involved procurement of some type of equipment.

Table III-6
NATIONAL SUMMARY
Law Enforcement Telecommunications Projects
Communication Categories

Communications Category	Number of Projects	Percent of Total Projects	Project Cost, Thousands of Dollars	Percent of Cost of All Projects
Communications Between Citizens and Law Enforcement Department	212	2.8	8,362	4.4
Communications Between Members of the Department	4,963	64.6	116,605	62.0
Communications Between Law Enforcement Departments	3,012	39.2	75,423	40.1
Communications with Other Agencies	70	0.9	2,019	1.1
Other	105	1.4	2,204	1.2

Table III-7
NATIONAL SUMMARY
Law Enforcement Telecommunications Projects
Equipment Purchased and Grant Recipients

Equipment Purchased and Grant Recipients	Number of Projects	Percent of Total Projects	Project Cost, Thousands of Dollars	Percent of Cost of All Projects
Equipment Purchased				
Radio Dispatch Consoles	1,423	18.5	100,508	53.5
Mobile Radios	5,868	76.3	148,703	79.1
Hand-Held Portable Radios	5,281	68.7	140,447	74.7
Radio Base Stations	4,857	63.2	135,030	71.8
Voice Scramblers	51	0.7	4,937	2.6
Mobile Repeaters	565	7.4	12,120	6.4
Mobile Teleprinters	24	0.3	4,836	2.6
Mobile Computer Terminals	11	0.1	4,630	2.5
Regular Fixed Type Computer Terminals	406	5.3	16,802	8.9
Closed Circuit TV	15	0.2	669	0.4
Microwave Equipment	220	2.9	12,735	6.8
Logging-Type Tape Recorders	641	8.3	34,318	18.3
Emergency Power Generators	553	7.2	13,506	7.2
None	54	0.7	2,089	1.1
Other	490	6.4	20,641	11.0
Grant Recipient				
Statewide (such as grants for portable radios for distribution to several agencies throughout the state)	64	0.8	4,717	2.5
Region (where multiple agencies share in the project, such as a regionalized communications center)	1,111	14.5	80,180	42.6
State Police or State Highway Patrol	72	0.9	7,718	4.1
Other State Law Enforcement Agencies, such as Fish and Game and Marine Patrol	21	0.3	908	0.5
Sheriff's Department	1,116	14.5	17,939	9.5
Municipality with a Population Over 500,000	52	0.7	19,220	10.2
Municipality with a Population Between 100,000 and 500,000	177	2.3	8,945	4.8
Municipality with a Population Between 20,000 and 100,000	803	10.4	15,694	8.3
Municipality with a Population Under 20,000	4,141	53.9	18,633	9.9
Campus Police Agency	20	0.3	357	0.2
Indian Reservation Law Enforcement Agency	9	0.1	185	0.1
Other	47	0.6	939	0.5

- (6) Over Half of the Telecommunications Grants Were Awarded to Agencies Serving Populations of Less than 20,000. Regional Centers and County Sheriffs Received Over 25 Percent of the Grants.

A summary of the award recipients is shown in Table III-7. Municipalities with a population under 20,000 received by far the highest percentage of projects. Grants to these small agencies, however, were smaller in value than those to larger municipalities. As shown in the Table, the total dollar amounts for municipalities of various populations were relatively equal. Regional projects received the largest percentage of project dollars.

The dollars per capita for those telecommunications projects awarded to municipalities were distributed approximately as follows:

Municipal Population	Dollars Per Capita	1972 ² Crime Index per 100,000 Population
Over 500,000	\$0.59	5012
Between 100,000 and 500,000	0.37	4429
Between 20,000 and 100,000	0.43	3028
Under 20,000	0.57	2195

- (7) A High Percentage of Projects Involved Implementation of Intrastate Communications Coordination Capability.

The number of projects providing the indicated type of intrastate communications coordination capability, that is, communications between law enforcement agencies within a given state, is shown in Table III-8. The emphasis on communications coordination is clearly evident from this table. A statewide coordination channel with mobile capability was provided in over 50 percent of the projects.

Source book of Criminal Justice Statistics, U.S. Department of Justice, Law Enforcement Assistance Administration, National Criminal Justice Information and Statistics Service, July 1975.

Table III-8
NATIONAL SUMMARY
Law Enforcement Telecommunications Projects
Coordination Methods
(Total number of projects: 7,686)

Coordination Methods	Number of Projects	Percent of Total Projects	Number of New Systems Funded Have Indicated Coordination	Percent of Total Number of New Systems
<u>Intrastate Coordination</u>				
Statewide Coordination Channels with Mobile Capability	3,964	51.6	783	65
Regional or District Coordination Channel	2,416	31.4	766	64
County Coordination Channel	1,235	16.1	695	58
Radio Point-to-Point Intersystem Channel	3,282	42.7	722	60
Telephone Hot Lines	6	0.08	2	0.2
Microwave	502	6.5	448	37
Data Channels (including teletype)	2,594	33.7	46	38
Coordination Channel with State Police and Highway Patrol	3,378	44.0	813	68
Other	379	4.9	2	0.2
<u>Interstate Coordination</u>				
Interstate Coordination Channel with Mobile Capability	1,099	14.3	302	25
Interstate Radio Point-to-Point Intersystem Channel	2,592	33.7	228	19
Telephone Hot Lines	2	0.03	0	0
Data Channel (including teletype)	2,558	33.3	185	15
Other	688	9.0	36	3.0

- (8) Interstate Coordination was a Consideration in Approximately One-Third of the Projects.

As indicated in Table III-8, interstate communications capability is being provided through the use of point-to-point radio channels and data channels. Approximately 14 percent of the projects involved the provision of a mobile capability for interstate coordination.

- (9) Approximately 16 Percent of the Telecommunications Projects were for Implementation of New Telecommunication Systems.

Roughly 1,230 of the projects were classified as projects providing entirely new communications systems for the agencies involved. The remaining 6,456 projects, therefore, involved improvements or additions to existing systems. As shown in Table III-8, the percentage of new systems that provide coordination capability is significantly higher than the percentage when considering the total number of projects.

- (10) Formal Evaluations to Determine How Effectively the Programs Objectives were Met were Conducted on Approximately Half of the Telecommunications Grants.

Of the 7,686 projects, formal evaluations were conducted on 3,703 projects. These projects represented \$85,970,000 or 45 percent of the total project funds. Of the new systems implemented through telecommunications grants, approximately 66 percent received formal evaluations.

6. REGIONAL SUMMARIES

The Law Enforcement Assistance Administration has established ten regions within the United States as previously shown in Figure 53. This section presents a brief summary of the law enforcement telecommunications planning in each of these ten regions. More detailed information on the planning in each region is contained in the individual state narratives presented in Chapter V.

(1) Region 1

LEAA Region I is comprised of six states including Maine, Massachusetts, Vermont, Rhode Island, Connecticut and New Hampshire. In addition to the State Planning Agencies in each state, New Hampshire, Massachusetts and Vermont have Divisions of Communication, or equivalent, which assist in law enforcement telecommunications planning.

The total population of Region I is 11,847,186 persons. Telecommunications grants totalling \$8,202,203 were awarded during the period July 1, 1971 to January 1, 1975.

Four of the six SPAs in Region I have in-house engineering capability. There is an average of 1.7 full-time and 2 part-time professional personnel per state involved in law enforcement telecommunications planning. In addition, three of the SPAs have indicated that there is a person within the agency responsible for knowledge of FCC Rules and Regulations and for monitoring and commenting on FCC dockets.

A total of 71 centralized centers was reported by the six states with 30 of these centers serving law enforcement, fire and emergency medical service and two centers having the emergency telephone number, 911.

Twenty-six of 426 dispatch centers serving a single law enforcement agency were reported to have the 911 emergency telephone number. At present there are no operational computer-aided dispatch systems in Region I; however, three such systems are planned.

Four of the six states in Region I have statewide law enforcement telecommunications plans and five have frequency plans. The remaining states all plan to develop these planning documents. At present all six SPAs include telecommunications considerations in their LEAA comprehensive plans. In addition, five of the six SPAs maintain an equipment inventory.

Cooperative, or central dispatching is the recommended approach in five of the six SPAs in Region I. However, only one SPA recommends 911 for law enforcement, fire and emergency medical service.

Two of the six SPAs have developed no recommendations with respect to frequency band usage. Recommendations of the other four SPAs are:

<u>Area</u>	<u>Frequency Band</u>	<u>No. of States</u>
Urban	Low Band	0
	High Band	2
	UHF	2
Suburban	Low Band	0
	High Band	2
	UHF	2
Rural	Low Band	1
	High Band	3
	UHF	2

All six of the SPAs in Region I have published guidelines for grant applications and have in-house checklists for grant application review. Four of the SPAs use extensive state-centralized purchasing and five of the SPAs require that procurements meet contractually established specifications.

The six states within Region I awarded a total of 607 telecommunications grants during the period July 1, 1971 to June 1, 1975. The three project summary sheets at the conclusion of this section on Region I describe the nature and characteristics of these projects.

The objectives of over 99 percent of the projects included:

- . Reduced response time
- . Improved interagency coordination
- . Improved communication reliability
- . Relief of channel congestion
- . Improved communication service
- . Improved officer safety.

Ninety-three percent of the projects were classified as providing communications between law enforcement departments with 75 percent providing communications within the department.

All 607 telecommunications grants within Region I involved purchase of telecommunications equipment with 99 percent providing basic land mobile radio equipment such as base stations, mobile units, and portables.

Over 70 percent of the grants were awarded to municipalities with a population under 20,000. These grants represented 16 percent of the total project dollars. The highest percentage, 38 percent, of the project dollars were awarded to regional systems including central dispatching systems. Twenty-eight percent of the total number of projects were specifically directed toward consolidated central dispatching systems.

Intrastate communications coordination capability received heavy emphasis on most of the telecommunications grants within Region I. The projects incorporated both mobile and point-to-point inter-system capability. Interstate coordination capability was provided in approximately 50 percent of the projects.

Formal post-project evaluations to determine how effectively the project met its objectives were conducted on approximately 89 percent of the projects.

LEAA - I
Law Enforcement Telecommunications Projects—Objectives,
Types, and Communications Categories
(Total number of projects: 607)

Objectives, Types, and Categories	Number of Projects	Percent of Total Projects	Project Cost, Thousands of Dollars	Percent of Cost of All Projects
<u>Project Objective</u>				
Reduced Response Time	605	99.7	9,642	98.6
Improved Public Access	150	24.7	1,209	12.4
Improved Interagency Coordination	605	99.7	9,502	97.2
Improved Communications				
Reliability	603	99.3	9,357	95.7
Improved Cost-Effectiveness	174	28.7	3,268	33.4
Reduced Channel Congestion	604	99.5	9,554	97.7
Improved Communications Service	606	99.8	9,698	99.2
Improved Officer Safety	604	99.5	9,554	97.7
Improved Access to Computerized Information Systems	174	28.7	3,268	33.4
Other	1	0.2	79	0.8
<u>Project Type</u>				
Planning Project	25	4.1	2,139	21.9
Design Project	1	0.2	56	0.6
Communications Equipment (base stations, mobile units, portables, etc.)	605	99.7	9,642	98.6
Terminals for Computerized Information Systems	24	4.0	2,059	21.1
Command and Control Centers	471	77.6	4,474	45.8
Consolidated Central Dispatch System	174	28.7	5,268	33.4
Computer-Aided Dispatching	0	0	0	0
Automatic Vehicle Monitoring	0	0	0	0
911 Implementation	19	3.1	467	4.8
Microwave	194	32.0	7,254	74.2
Other	0	0	0	0
<u>Communications Category</u>				
Communications Between Citizens and Law Enforcement Department	150	24.7	1,209	12.4
Communications Between Members of the Department	454	74.8	8,345	85.3
Communications Between Law Enforcement Departments	566	93.2	5,048	51.6
Communications with Other Agencies	21	3.5	1,059	10.8
Other	0	0	0	0

LEAA - I
Law Enforcement Telecommunications Projects—Equipment
Purchased and Grant Recipients

Equipment Purchased and Grant Recipients	Number of Projects	Percent of Total Projects	Project Cost, Thousands of Dollars	Percent of Cost of All Projects
Equipment Purchased				
Radio Dispatch Consoles	576	94.9	6,346	64.9
Mobile Radios	601	99.0	9,174	93.8
Hand-Held Portable Radios	599	98.7	9,090	93.0
Radio Base Stations	600	98.8	9,146	93.5
Voice Scramblers	0	0	0	0
Mobile Repeaters	470	77.4	4,385	44.9
Mobile Teleprinters	0	0	0	0
Mobile Computer Terminals	0	0	0	0
Regular Fixed Type Computer Terminals	27	4.4	2,561	26.2
Closed Circuit TV	1	0.2	33	0.3
Microwave Equipment	174	28.7	3,268	33.4
Logging-Type Tape Recorders	323	53.2	3,294	33.7
Emergency Power Generators	471	77.6	4,582	46.9
None	0	0	0	0
Other	26	4.3	2,344	24.0
Grant Recipient				
Statewide (such as grants for portable radios for distribution to several agencies throughout the state)	3	0.5	133	1.4
Region (where multiple agencies share in the project, such as a regionalized communications center)	32	5.3	3,745	38.3
State Police or State Highway Patrol	20	3.3	1,760	18.0
Other State Law Enforcement Agencies, such as Fish and Game and Marine Patrol	2	0.3	90	0.9
Sheriff's Department	65	10.7	748	7.7
Municipality with a Population Over 500,000	5	0.8	677	6.9
Municipality with a Population Between 100,000 and 500,000	4	0.7	336	3.4
Municipality with a Population Between 20,000 and 100,000	38	6.3	670	6.9
Municipality with a Population Under 20,000	436	71.8	1,595	16.3
Campus Police Agency	1	0.2	14	0.1
Indian Reservation Law Enforcement Agency	1	0.2	9	0.1
Other	0	0	0	0

LEAA - I
Law Enforcement Telecommunications Projects
Coordination Methods
(Total number of projects: 607)

Coordination Methods	Number of Projects	Percent of Total Projects	Number of New Systems Funded Have Indicated Coordination	Percent of Total Number of New Systems
Intrastate Coordination				
Statewide Coordination Channels with Mobile Capability	564	92.9	539	99.3
Regional or District Coordination Channel	603	94.0	539	99.3
County Coordination Channel	391	64.4	390	71.8
Radio Point-to-Point Intersystem Channel	603	94.0	445	82.0
Telephone Hot Lines	1	0.2	0	0
Microwave	470	77.4	445	82.0
Data Channels (including teletype)	25	4.1	0	0
Coordination Channel with State Police and Highway Patrol	564	92.9	539	99.3
Other	1	0.2	0	0
Interstate Coordination				
Interstate Coordination Channel with Mobile Capability	320	52.7	296	54.5
Interstate Radio Point-to-Point Intersystem Channel	150	24.7	149	27.4
Telephone Hot Lines	0	0	0	0
Data Channel (including teletype)	174	28.7	149	27.4
Other	1	0.2	0	0

(2) Region II

LEAA Region II is comprised of the two states of New York and New Jersey, and Puerto Rico (not included in survey). In addition to the State Planning Agencies in each state, New York also has a Division of Communications which assists in law enforcement telecommunications planning.

The total population of Region II is 25,414,430 persons, excluding Puerto Rico which was not included in the survey. Telecommunications grants totalling \$8,151,274 were awarded during the period July 1, 1971 to January 1, 1975.

One of the two SPAs in Region II has an in-house engineering capability. There is an average of 1.5 full-time and 3.5 part-time professional personnel involved in law enforcement telecommunications planning. In addition, one of the SPAs has indicated that it has a person within the agency responsible for knowledge of FCC Rules and Regulations and for monitoring and commenting on FCC dockets.

A total of 195 centralized dispatching centers were reported by the two states, with 45 of these centers serving law enforcement, fire and emergency medical service and 4 centralized centers having the emergency telephone number 911.

Only 14 of the 810 dispatching centers serving a single law enforcement agency were reported to have the 911 emergency telephone number. Three computer-aided dispatching systems are in operation within the region and 8 additional systems are planned.

Neither of the two states in Region II has statewide law enforcement telecommunications plans. However, one of the SPAs indicated its intent to develop such a plan. In addition, one of the two states in Region II currently has a frequency plan completed. The other state also indicated its intent to develop a frequency plan. Neither state maintains an equipment inventory.

Cooperative or central dispatching is the recommended approach in both SPAs in Region II. However, neither SPA recommends 911 for law enforcement, fire and emergency medical service.

One of two states has developed no recommendations with respect to frequency band usage. The other state recommends the use of UHF frequencies for urban areas, high band for suburban areas and high band for rural areas.

One of the two states has published guidelines for grant applications and both states have in-house checklists for grant application review. One of the two SPAs uses extensive state centralized purchasing, however, neither state requires that procurement meet contractually established specifications. One of the two states in Region II has standard equipment specifications for the basic land mobile radio equipment. The major source of specifications is from vendor associated consultants in one state and is unknown in the second state.

The two states within Region II have awarded a total of 92 telecommunications grants during the period July 1, 1971 to January 1, 1975. The three project summary sheets at the conclusion of this section describe the nature and characteristics of these projects.

The major objectives of the projects in this region were that of reduced response time and improved communications service. Approximately 30 percent of the projects also had improved interagency coordination, improved cost effectiveness, and relief of channel congestion as objectives.

Approximately two-thirds of the projects were classified as providing intradepartmental communications with 26 percent providing interdepartmental communications. Procurement of basic land mobile equipment and command and control centers were involved in most of the projects. Two projects involved implementation of automatic vehicle monitoring systems. No project funds were awarded for 911 implementation.

In addition to procurement of the basic radio equipment, 50 percent of the projects included procurement of logging tape recorders and 18 percent computer terminals.

Municipalities with a population under 20,000, municipalities having between 20,000 and 100,000 persons, and regional systems each received between 20 and 30 percent of the projects.

However, 64 percent of the project funds were awarded to regional systems. Approximately 50 percent of the projects included provision for regional coordination channels with one-fourth of the projects having such provision on a state-wide or county basis. Interstate coordination capability was provided in only a small percentage of the projects. Formal post-project evaluations to determine how effectively the objectives of the project were met were conducted on 16.3 percent of the projects.

LEAA - II
Law Enforcement Telecommunications Projects—Objectives,
Types, and Communications Categories
(Total number of projects: 92)

Objectives, Types, and Categories	Number of Projects	Percent of Total Projects	Project Cost, Thousands of Dollars	Percent of Cost of All Projects
<u>Project Objective</u>				
Reduced Response Time	76	82.6	10,972	95.6
Improved Public Access	13	14.1	1,017	8.9
Improved Interagency Coordination	28	30.4	6,917	60.2
Improved Communications				
Reliability	21	22.8	771	6.7
Improved Cost-Effectiveness	31	33.7	7,737	67.4
Reduced Channel Congestion	28	30.4	7,238	63.0
Improved Communications Service	65	70.7	10,500	91.4
Improved Officer Safety	13	14.1	1,371	11.9
Improved Access to Computerized Information Systems	7	7.6	1,155	10.1
Other	0	0	0	0
<u>Project Type</u>				
Planning Project	3	3.3	130	1.1
Design Project	1	1.1	16	0.1
Communications Equipment (base stations, mobile units, portables, etc.)	77	83.7	10,591	92.2
Terminals for Computerized Information Systems	4	4.3	210	1.8
Command and Control Centers	33	35.9	2,160	18.8
Consolidated Central Dispatch System	2	2.2	144	1.3
Computer-Aided Dispatching	8	8.7	684	6.0
Automatic Vehicle Monitoring	2	2.2	120	1.0
911 Implementation	0	0	0	0
Microwave	0	0	0	0
Other	1	1.1	9	0.1
<u>Communications Category</u>				
Communications Between Citizens and Law Enforcement Department	3	3.3	107	0.9
Communications Between Members of the Department	62	67.4	3,785	33.0
Communications Between Law Enforcement Departments	24	26.1	7,158	62.3
Communications with Other Agencies	1	1.1	53	0.5
Other	1	1.1	9	0.1

LEAA - II
Law Enforcement Telecommunications Projects—Equipment
Purchased and Grant Recipients

Equipment Purchased and Grant Recipients	Number of Projects	Percent of Total Projects	Project Cost, Thousands of Dollars	Percent of Cost of All Projects
Equipment Purchased				
Radio Dispatch Consoles	49	53.3	8,329	72.5
Mobile Radios	54	58.7	9,104	79.3
Hand-Held Portable Radios	62	67.4	9,216	80.3
Radio Base Stations	46	50.0	6,123	53.3
Voice Scramblers	1	1.1	60	0.5
Mobile Repeaters	10	10.9	584	5.1
Mobile Teleprinters	3	3.3	683	5.9
Mobile Computer Terminals	2	2.2	662	5.8
Regular Fixed Type Computer Terminals	17	18.5	2,587	22.5
Closed Circuit TV	1	1.1	31	0.3
Microwave Equipment	6	6.5	4,032	35.1
Logging-Type Tape Recorders	46	50.0	7,911	68.9
Emergency Power Generators	3	3.3	353	3.1
None	1	1.1	207	1.8
Other	4	4.3	472	4.1
Grant Recipient				
Statewide (such as grants for portable radios for distribution to several agencies throughout the state)	0	0	0	0
Region (where multiple agencies share in the project, such as a regionalized communications center)	27	29.3	7,375	64.2
State Police or State Highway Patrol	1	1.1	40	0.3
Other State Law Enforcement Agencies, such as Fish and Game and Marine Patrol	0	0	0	0
Sheriff's Department	1	1.1	8	0.07
Municipality with a Population Over 500,000	1	1.1	588	5.1
Municipality with a Population Between 100,000 and 500,000	12	13.0	1,245	10.8
Municipality with a Population Between 20,000 and 100,000	28	30.4	1,397	12.2
Municipality with a Population Under 20,000	21	22.8	735	6.6
Campus Police Agency	0	0	0	0
Indian Reservation Law Enforcement Agency	0	0	0	0
Other	0	0	0	0

LEAA - II
Law Enforcement Telecommunications Projects
Coordination Methods
 (Total number of projects: 92)

Coordination Methods	Number of Projects	Percent of Total Projects	Number of New Systems Funded Have Indicated Coordination	Percent of Total Number of New Systems
Intrastate Coordination				
Statewide Coordination Channels with Mobile Capability	22	23.9	0	0
Regional or District Coordination Channel	48	52.2	5	35.7
County Coordination Channel	23	25.0	0	0
Radio Point-to-Point Intersystem Channel	0	0	0	0
Telephone Hot Lines	0	0	0	0
Microwave	1	1.2	0	0
Data Channels (including teletype)	7	7.6	1	7.1
Coordination Channel with State Police and Highway Patrol	0	0	0	0
Other	0	0	0	0
Interstate Coordination				
Interstate Coordination Channel with Mobile Capability	0	0	0	0
Interstate Radio Point-to-Point Intersystem Channel	1	1.2	0	0
Telephone Hot Lines	0	0	0	0
Data Channel (including teletype)	4	4.3	0	0
Other	0	0	0	0

(3) Region III

LEAA Region III is comprised of five states and the District of Columbia including Pennsylvania, Virginia, West Virginia, Maryland and Delaware. In addition to the State Planning Agencies in each state and the District of Columbia, Pennsylvania, Virginia, Maryland and Delaware each has a Division of Communications or equivalent which assists in law enforcement telecommunications planning.

The total population of Region III is 23,413,853 persons. Telecommunications grants totalling \$5,120,000 were awarded during the period July 1, 1971 to January 1, 1975.

None of the six SPAs in Region III has an in-house engineering capability. However, there is an average of 1.6 full-time and 1.8 part-time professional personnel involved in law enforcement telecommunications planning. None of the SPAs has indicated that there is a person within the agency responsible for knowledge of FCC Rules and Regulations or for monitoring and commenting on FCC dockets. A total of 86 centralized centers was reported by the six SPAs with 15 of these centers serving law enforcement, fire and emergency medical service and four centers having the emergency telephone number, 911.

Twenty-two of the 450 dispatch centers serving a single law enforcement agency were reported to have the emergency telephone number 911. At present there are no operational computer-aided dispatch systems in Region III; however, four such systems are planned.

Two of the six SPAs in Region III have statewide law enforcement telecommunications plans and the remaining four SPAs either are preparing or plan to prepare such plans. All six SPAs include telecommunications considerations in their LEAA Comprehensive Plans. In addition, two of the six SPAs maintain an equipment inventory.

Cooperative or centralized dispatching is the recommended approach in four of the five states in Region III with one SPA recommending 911 for law enforcement, fire and emergency medical service.

Two of the six SPAs in Region III have developed no recommendation with respect to frequency band usage. Recommendations of the other four SPAs are:

<u>Area</u>	<u>Frequency Band</u>	<u>No. of States</u>
Urban	Low Band	0
	High Band	1
	UHF	2
Suburban	Low Band	2
	High Band	2
	UHF	1
Rural	Low Band	3
	High Band	0
	UHF	0

Five of the six SPAs in Region III have published guidelines for grant applications and have an in-house checklist for grant application review. Three SPAs reported extensive use of centralized purchasing within the state and three of the SPAs require that procurements meet contractually established specifications. Three of the SPAs have specifications for the standard land mobile radio equipment. The major source of specifications in Region III is from consultants and the SPAs themselves.

LEAA Region III awarded a total of 496 telecommunications grants during the period July 1, 1971 to January 1, 1975. The three project summary sheets at the conclusion of this section describe the nature and characteristics of these projects. The major objectives of these projects were: improved communication service for 82 percent of the projects, improved communications reliability for 52 percent and reduced response time for 20 percent. Improved access to computerized information system and improved interagency coordination were also objectives in approximately 11 percent of the projects.

Over 80 percent of the projects in Region III were classified as providing intradepartmental communications. Five projects, or one percent of the total number of projects, were concerned with communications between citizens and the law enforcement agencies. Most of the grants (87 percent) involved

the procurement of basic land mobile radio equipment including base stations, mobile units and portables. Fifty-one of the grants involved the procurement of computer terminals.

Over 60 percent of the total number of projects, representing 20 percent of the total grant funds, were awarded to municipalities with populations under 20,000 persons. Six percent of the grant funds were awarded to large municipalities with populations over 500,000. The largest percentage of funds, 33 percent, were awarded to regionalized systems. Less than 25 percent of the projects in Region III involved implementation of interstate coordination capability. Interstate coordination was provided in only 11 of the 496 projects, with the exception of 49 projects involving interstate data channels.

Formal evaluation to determine how effectively the projects met their objectives was conducted on 9.5 percent of the projects in Region III.

LEAA - III
Law Enforcement Telecommunications Projects—Objectives
Types, and Communications Categories
(Total number of projects: 496)

Objectives, Types, and Categories	Number of Projects	Percent of Total Projects	Project Cost, Thousands of Dollars	Percent of Cost of All Projects
<u>Project Objective</u>				
Reduced Response Time	101	20.4	3,266	50.5
Improved Public Access	3	0.6	58	0.9
Improved Interagency Coordination	54	10.9	2,002	30.9
Improved Communications				
Reliability	260	52.4	2,041	31.6
Improved Cost-Effectiveness	29	5.8	933	14.4
Reduced Channel Congestion	24	4.8	899	13.9
Improved Communications Service	405	81.7	4,613	71.3
Improved Officer Safety	45	9.1	1,921	29.7
Improved Access to Computerized Information Systems	54	10.9	860	13.3
Other	22	4.4	295	4.6
<u>Project Type</u>				
Planning Project	4	0.8	127	2.0
Design Project	1	0.2	15	0.2
Communications Equipment (base stations, mobile units, portables, etc.)	431	86.9	5,321	82.3
Terminals for Computerized Information Systems	55	11.1	884	13.7
Command and Control Centers	23	4.6	890	13.8
Consolidated Central Dispatch System	3	0.6	176	2.7
Computer-Aided Dispatching	4	0.8	108	1.7
Automatic Vehicle Monitoring	3	0.6	339	5.2
911 Implementation	3	0.6	190	2.9
Microwave	0	0	0	0
Other	5	1.0	159	2.5
<u>Communications Category</u>				
Communications Between Citizens and Law Enforcement Department	5	1.0	49	0.8
Communications Between Members of the Department	413	83.3	5,008	77.4
Communications Between Law Enforcement Departments	76	15.3	1,403	21.7
Communications with Other Agencies	14	2.8	144	2.2
Other	10	2.0	214	3.3

LEAA - III
Law Enforcement Telecommunications Projects—Equipment
Purchased and Grant Recipients

Equipment Purchased and Grant Recipients	Number of Projects	Percent of Total Projects	Project Cost, Thousands of Dollars	Percent of Cost of All Projects
Equipment Purchased				
Radio Dispatch Consoles	59	11.9	2,578	39.9
Mobile Radios	284	57.3	3,649	56.4
Hand-Held Portable Radios	287	57.9	4,521	69.9
Radio Base Stations	121	24.4	2,853	44.1
Voice Scramblers	15	3.0	216	3.3
Mobile Repeaters	5	1.0	321	5.0
Mobile Teleprinters	2	0.4	28	0.4
Mobile Computer Terminals	2	0.4	7	0.1
Regular Fixed Type Computer Terminals	51	10.3	750	11.6
Closed Circuit TV	1	0.2	79	1.2
Microwave Equipment	0	0	0	0
Logging-Type Tape Recorders	32	6.5	1,329	20.5
Emergency Power Generators	8	1.6	249	3.8
None	2	0.4	100	1.5
Other	40	8.1	719	11.1
Grant Recipient				
Statewide (such as grants for portable radios for distribution to several agencies throughout the state)	5	1.0	377	5.8
Region (where multiple agencies share in the project, such as a regionalized communications center)	36	7.3	2,119	32.8
State Police or State Highway Patrol	1	0.2	30	0.5
Other State Law Enforcement Agencies, such as Fish and Game and Marine Patrol	0	0	0	0
Sheriff's Department	21	4.2	318	4.9
Municipality with a Population Over 500,000	6	1.2	429	6.6
Municipality with a Population Between 100,000 and 500,000	15	3.0	672	10.4
Municipality with a Population Between 20,000 and 100,000	102	20.6	707	10.9
Municipality with a Population Under 20,000	300	60.5	1,302	20.3
Campus Police Agency	0	0	0	0
Indian Reservation Law Enforcement Agency	0	0	0	0
Other	7	1.4	136	2.1

LEAA - III
Law Enforcement Telecommunications Projects
Coordination Methods
(Total number of projects: 496)

Coordination Methods	Number of Projects	Percent of Total Projects	Number of New Systems Funded Have Indicated Coordination	Percent of Total Number of New Systems
Intrastate Coordination				
Statewide Coordination Channels with Mobile Capability	38	7.7	20	44.4
Regional or District Coordination Channel	85	17.1	26	57.8
County Coordination Channel	6	1.2	3	6.7
Radio Point-to-Point Intersystem Channel	0	0	0	0
Telephone Hot Lines	0	0	0	0
Microwave	0	0	0	0
Data Channels (including teletype)	48	9.7	0	0
Coordination Channel with State Police and Highway Patrol	2	0.4	1	2.2
Other	4	8.1	0	0
Interstate Coordination				
Interstate Coordination Channel with Mobile Capability	5	1.0	2	4.4
Interstate Radio Point-to-Point Intersystem Channel	5	1.0	1	2.2
Telephone Hot Lines	1	0.2	0	0
Data Channel (including teletype)	49	9.9	1	2.2
Other	0	0	0	0

(4) Region IV

Region IV is comprised of 8 states including Kentucky, Tennessee, Mississippi, Alabama, Georgia, North Carolina, South Carolina and Florida. In addition to the State Planning Agencies in each state, Alabama, Georgia and Florida have Divisions of Communications or equivalent which assist in law enforcement telecommunications planning.

The total population of Region IV is 31,856,145 persons. Telecommunications grants totalling \$27,225,160 were awarded during the period July 1, 1971 to January 1, 1975.

Six of the eight SPAs in Region IV have an in-house engineering capability. An average of 1.9 full-time and 1.3 part-time professional personnel are involved in law enforcement telecommunications planning. In addition, five of the eight SPAs have indicated that there is a person within the agency responsible for knowledge of FCC Rules and Regulations and for monitoring and commenting on FCC dockets.

A total of 153 centralized centers was reported by the eight states with 34 of these centers serving law enforcement, fire and emergency medical service and 16 centers having the emergency telephone number 911. Ninety-two of the 1,958 dispatch centers serving a single law enforcement agency were reported to have the 911 emergency telephone number. At present, there are three operational computer-aided dispatching systems in Region IV with 13 additional systems planned. Seven of the eight states in Region IV have statewide law enforcement telecommunications plans and six states have frequency plans. In addition, two states currently without frequency plans are either preparing or plan to prepare a frequency plan. At present all eight SPAs include telecommunications considerations in their LEAA Comprehensive Plans. Five of the eight SPAs currently maintain an equipment inventory.

Cooperative or central dispatch is the recommended approach in all eight of the SPAs in Region IV. Independent dispatching is recommended by six of the SPAs for large urban areas. In addition, six of the eight SPAs in Region IV recommend 911 for law enforcement, fire and emergency medical service.

Two of the eight states have developed no recommendations with respect to frequency band usage. Recommendations of the other six states are:

<u>Area</u>	<u>Frequency Band</u>	<u>No. of States</u>
Urban	Low Band	0
	High Band	3
	UHF	6
Suburban	Low Band	1
	High Band	5
	UHF	3
Rural	Low Band	2
	High Band	5
	UHF	3

Seven of the eight SPAs in Region IV have published guidelines for grant applications and all eight SPAs have in-house checklists for grant application review. Two of the eight SPAs reported extensive use of centralized purchasing at the state level and six SPAs require that procuring procurements meet contractually established specifications. Six of the eight SPAs have standard radio equipment specifications. The major source of equipment and system specifications within Region IV is from in-house SPA efforts, DOCs, consultants and in one state, vendors.

LEAA Region IV awarded a total of 1,434 telecommunications grants during the period July 1, 1971 to January 1, 1975. The three project summary sheets at the conclusion of this section on Region IV describe the nature and characteristics of these projects.

Improved communications service was the primary objective in 98 percent of the projects in Region IV, with 69 percent having improved communication reliability as their objective. Other major objectives of the Region IV projects included improved interagency coordination, reduced response time, and improved officer safety.

Approximately 85 percent of the projects were classified as providing interagency communications with 20 percent

providing interagency communications. Nineteen projects or 1.3 percent of the total projects were for communications between citizens and the law enforcement agencies. Most of the grants involved the procurement of basic land mobile radio equipment including base stations, mobile radios, and portables.

Over 60 percent of the total number of projects, representing 13 percent of the total grant funds, were awarded to municipalities with a population under 20,000. However, 42 percent of the grant funds were awarded to regional systems such as central or cooperative dispatching centers. A relatively small percentage of the projects in Region IV involved the implementation of intrastate communications coordination capability. Twenty-six percent of the projects provided for regional or district coordination channels, while 11 percent provided county coordination channels. Less than 2 percent of the projects involved interstate coordination capability.

Formal evaluation to determine how effectively the projects met their objectives was conducted in 16.7 percent of the projects in Region IV.

LEAA - IV

Law Enforcement Telecommunications Projects—Objectives Types, and Communications Categories (Total number of projects: 1,434)

Objectives, Types, and Categories	Number of Projects	Percent of Total Projects	Project Cost, Thousands of Dollars	Percent of Cost of All Projects
Project Objective				
Reduced Response Time	353	24.6	27,292	78.9
Improved Public Access	35	2.4	3,913	11.3
Improved Interagency Coordination	487	34.0	23,542	68.1
Improved Communications				
Reliability	990	69.0	29,309	84.8
Improved Cost-Effectiveness	49	3.4	3,656	10.6
Reduced Channel Congestion	205	14.3	16,806	48.6
Improved Communications Service	1,402	97.8	33,628	97.3
Improved Officer Safety	311	21.7	25,019	72.4
Improved Access to Computerized Information Systems	64	4.5	4,661	13.5
Other	19	1.3	1,178	3.4
Project Type				
Planning Project	2	0.1	217	0.6
Design Project	2	0.1	154	0.4
Communications Equipment (base stations, mobile units, portables, etc.)	1,379	96.2	32,563	94.2
Terminals for Computerized Information Systems	46	3.2	1,938	5.6
Command and Control Centers	117	8.2	12,974	15.0
Consolidated Central Dispatch System	63	4.4	5,183	15.0
Computer-Aided Dispatching	1	0.1	84	0.2
Automatic Vehicle Monitoring	1	0.1	87	0.3
911 Implementation	0	0	0	0
Microwave	3	0.2	678	2.0
Other	12	0.8	473	1.4
Communications Category				
Communications Between Citizens and Law Enforcement Department	19	1.3	500	1.4
Communications Between Members of the Department	1,211	84.4	24,140	69.8
Communications Between Law Enforcement Departments	295	20.6	16,685	48.3
Communications with Other Agencies	3	0.2	131	0.4
Other	4	0.3	166	0.5

LEAA - IV

Law Enforcement Telecommunications Projects—Equipment Purchased and Grant Recipients

Equipment Purchased and Grant Recipients	Number of Projects	Percent of Total Projects	Project Cost, Thousands of Dollars	Percent of Cost of All Projects
Equipment Purchased				
Radio Dispatch Consoles	270	18.8	22,157	64.1
Mobile Radios	869	60.6	28,511	82.5
Hand-Held Portable Radios	616	43.0	27,029	78.2
Radio Base Stations	581	40.5	24,053	69.6
Voice Scramblers	5	0.3	384	1.1
Mobile Repeaters	48	3.3	3,460	10.0
Mobile Teleprinters	1	0.1	166	0.5
Mobile Computer Terminals	1	0.1	166	0.5
Regular Fixed Type Computer Terminals	17	1.2	75	0.2
Closed Circuit TV	1	0.1	3	0.007
Microwave Equipment	7	0.5	1,524	4.4
Logging-Type Tape Recorders	106	7.4	9,222	26.7
Emergency Power Generators	29	2.0	3,149	9.1
None	2	0.1	132	0.4
Other	280	19.5	7,551	21.8
Grant Recipient				
Statewide (such as grants for portable radios for distribution to several agencies throughout the state)	15	1.0	1,004	2.9
Region (where multiple agencies share in the project, such as a regionalized communications center)	189	13.2	14,512	42.0
State Police or State Highway Patrol	7	0.5	1,229	3.6
Other State Law Enforcement Agencies, such as Fish and Game and Marine Patrol	0	0	0	0
Sheriff's Department	74	5.2	4,152	12.0
Municipality with a Population Over 500,000	5	0.3	3,200	9.3
Municipality with a Population Between 100,000 and 500,000	42	2.9	2,214	6.4
Municipality with a Population Between 20,000 and 100,000	187	13.0	2,932	8.5
Municipality with a Population Under 20,000	896	62.5	4,419	12.8
Campus Police Agency	0	0	0	0
Indian Reservation Law Enforcement Agency	0	0	0	0
Other	5	0.3	152	0.4

LEAA - IV

Law Enforcement Telecommunications Projects Coordination Methods (Total number of projects: 1,434)

Coordination Methods	Number of Projects	Percent of Total Projects	Number of New Systems Funded Have Indicated Coordination	Percent of Total Number of New Systems
Intrastate Coordination				
Statewide Coordination Channels with Mobile Capability	85	5.9	43	18.2
Regional or District Coordination Channel	376	26.2	129	54.7
County Coordination Channel	156	10.9	133	56.4
Radio Point-to-Point Intersystem Channel	196	13.7	150	63.6
Telephone Hot Lines	2	0.1	2	0.8
Microwave	2	0.1	2	0.8
Data Channels (including teletype)	23	1.6	1	0.4
Coordination Channel with State Police and Highway Patrol	212	14.8	131	55.5
Other	0	0	0	0
Interstate Coordination				
Interstate Coordination Channel with Mobile Capability	1	0.1	0	0
Interstate Radio Point-to-Point Intersystem Channel	24	1.7	0	0
Telephone Hot Lines	0	1.2	0	0
Data Channel (including teletype)	17		0	0
Other	0	0	0	0

(5) Region V

LEAA Region V is comprised of six states including Minnesota, Wisconsin, Illinois, Indiana, Michigan and Ohio. In addition to the State Planning Agencies in each state, Minnesota, Wisconsin and Illinois have a Division of Communications or equivalent which assist in law enforcement telecommunications planning.

The total population of Region V is 44,057,747 persons. Telecommunications grants totalling \$50,614,695 were awarded during the period July 1, 1971 to January 1, 1975.

Three of the six SPAs in Region V have an in-house engineering capability. An average of 4.3 full-time and 2 part-time professional personnel per state are involved in law enforcement telecommunications planning. Two of the six SPAs indicated that a person within the agency is responsible for knowledge of FCC Rules and Regulations and for monitoring or commenting on FCC dockets.

A total of 205 centralized dispatching centers were reported by the six states, with 16 of these centers serving law enforcement, fire and emergency medical service and 21 centers having the emergency telephone number 911.

Seventeen of the 723 dispatch centers serving a single law enforcement agency were reported to have the 911 emergency telephone number. At present, there are six operational computer-aided dispatching systems in Region V and eight additional such centers are planned.

Four of the six centers in Region V have statewide law enforcement telecommunications plans and the two remaining states currently intend to develop such plans. In addition, three SPAs currently have frequency plans and two additional SPAs either are preparing or plan to prepare frequency plans. At present all six SPAs include telecommunications considerations in their LEAA Comprehensive Plans. None of the SPAs maintains an equipment inventory.

Cooperative or central dispatch is the recommended approach in all six of the SPAs in Region V. Four of the SPAs recommend 911 for law enforcement, fire and emergency medical service.

One of the six states has developed no recommendations with respect to frequency band usage. Recommendations of the other five states are:

<u>Area</u>	<u>Frequency Band</u>	<u>No. of States</u>
Urban	Low Band	1
	High Band	2
	UHF	5
Suburban	Low Band	1
	High Band	4
	UHF	2
Rural	Low Band	1
	High Band	5
	UHF	1

All six of the SPAs in Region V have published guidelines for grant applications and have in-house checklists for grant application review. Only one of the SPAs reports extensive use of centralized purchasing on a statewide basis, however, five SPAs require that procurements meet contractually established specifications. Two of the six SPAs in Region V have standard equipment specifications for land mobile radio equipment. The majority of SPAs in Region V depend upon consultants for equipment and system specifications. However, three have in-house capability and two depend upon vendors.

LEAA Region V awarded a total of 2,418 telecommunications grants during the period July 1, 1971 to January 1, 1975. The three project summary sheets at the conclusion of this section describe the nature and characteristics of these projects.

The objectives in over 90 percent of the projects included:

- . Reduced response time
- . Improved interagency coordination
- . Improved communications service
- . Improved officer safety.

In addition, improved access to computerized information systems, relief of channel congestion and improved communications reliability were objectives in over 70 percent of the projects.

Approximately 60 percent of the projects were classified as providing interagency communications, with 37 percent providing intraagency communications. Most of the grants involved procurement of basic land mobile radio equipment including base stations, mobile radios and portables. Procurement of other equipment was involved in less than 10 percent of the grants.

Forty-three percent of the projects were awarded to municipalities with a population of 120,000 persons. These grants to the smaller agencies, however, amounted to only 8.7 percent of the total grant funds. Almost 50 percent of the grant funds were awarded to regional systems such as centralized communication centers. Only 15 projects, representing 16 percent of the project funds, were awarded to municipalities with populations over 500,000 persons. Almost all the projects in Region V provided an intra-state communications coordination capability. For example, statewide coordination channels with mobile capability was involved in 87.8 percent of the projects. In addition, data channels were included in approximately 76 percent of the projects, and interstate point-to-point communications was included in three-fourths of the projects.

LEAA - V
Law Enforcement Telecommunications Projects—Objectives,
Types, and Communications Categories
(Total number of projects: 2,418)

Objectives, Types, and Categories	Number of Projects	Percent of Total Projects	Project Cost, Thousands of Dollars	Percent of Cost of All Projects
<u>Project Objective</u>				
Reduced Response Time	2,318	95.9	59,667	94.9
Improved Public Access	457	18.9	21,726	34.6
Improved Interagency Coordination	2,335	96.6	59,307	94.4
Improved Communications Reliability	1,726	71.4	20,210	32.2
Improved Cost-Effectiveness	26	1.1	870	1.4
Reduced Channel Congestion	2,110	87.3	52,631	82.7
Improved Communications Service	2,399	99.2	60,592	96.4
Improved Officer Safety	2,393	99.0	56,798	90.4
Improved Access to Computerized Information Systems	1,876	77.6	24,321	38.7
Other	9	0.3	111	0.2
<u>Project Type</u>				
Planning Project	70	2.9	3,228	5.8
Design Project	87	3.5	11,419	20.1
Communications Equipment (base stations, mobile units, portables, etc.)	2,140	88.5	59,426	94.5
Terminals for Computerized Information Systems	244	10.1	6,030	9.6
Command and Control Centers	210	8.7	10,642	16.9
Consolidated Central Dispatch System	50	2.1	9,902	15.8
Computer-Aided Dispatching	5	0.2	4,743	8.3
Automatic Vehicle Monitoring	0	0	0	0
911 Implementation	3	0.1	4,048	7.1
Microwave	2	0.1	464	0.8
Other	25	1.0	1,074	1.9
<u>Communications Category</u>				
Communications Between Citizens and Law Enforcement Department	11	0.5	5,493	9.6
Communications Between Members of the Department	898	37.1	48,558	77.2
Communications Between Law Enforcement Departments	1,507	62.3	12,270	19.5
Communications with Other Agencies	24	1.0	356	0.5
Other	4	0.2	58	0.1

LEAA - V
Law Enforcement Telecommunications Projects—Equipment
Purchased and Grant Recipients

Equipment Purchased and Grant Recipients	Number of Projects	Percent of Total Projects	Project Cost, Thousands of Dollars	Percent of Cost of All Projects
<u>Equipment Purchased</u>				
Radio Dispatch Consoles	262	10.8	27,431	43.6
Mobile Radios	2,086	86.3	55,102	87.7
Hand-Held Portable Radios	2,079	86.0	54,438	86.6
Radio Base Stations	2,078	85.9	51,726	82.3
Voice Scramblers	6	0.2	315	0.5
Mobile Repeaters	4	0.2	390	0.6
Mobile Teleprinters	6	0.2	351	0.6
Mobile Computer Terminals	3	0.1	2,934	5.2
Regular Fixed Type Computer Terminals	213	8.8	2,471	3.9
Closed Circuit TV	2	0.1	28	0.04
Microwave Equipment	4	0.2	686	1.1
Logging-Type Tape Recorders	55	2.3	6,330	10.1
Emergency Power Generators	27	1.2	2,184	3.8
None	1	0.05	52	0.1
Other	18	0.7	893	1.5
<u>Grant Recipient</u>				
Statewide (such as grants for portable radios for distribution to several agencies throughout the state)	1	0.05	464	0.8
Region (where multiple agencies share in the project, such as a regionalized communications center)	582	24.1	29,555	47.0
State Police or State Highway Patrol	7	0.3	1,000	1.6
Other State Law Enforcement Agencies, such as Fish and Game and Marine Patrol	6	0.2	435	0.8
Sheriff's Department	477	19.7	8,159	13.0
Municipality with a Population Over 500,000	15	0.6	10,016	15.9
Municipality with a Population Between 100,000 and 500,000	55	2.3	1,377	2.2
Municipality with a Population Between 20,000 and 100,000	212	8.8	6,138	9.8
Municipality with a Population Under 20,000	1,042	43.1	5,467	8.7
Campus Police Agency	3	0.1	156	0.2
Indian Reservation Law Enforcement Agency	1	0.1	43	0.1
Other	10	0.4	31	0.05

LEAA - V
Law Enforcement Telecommunications Projects
Coordination Methods
(Total number of projects: 2,418)

Coordination Methods	Number of Projects	Percent of Total Projects	Number of New Systems Funded Have Indicated Coordination	Percent of Total Number of New Systems
<u>Intrastate Coordination</u>				
Statewide Coordination Channels with Mobile Capability	2,123	87.8	75	65.8
Regional or District Coordination Channel	671	27.8	16	14.0
County Coordination Channel	297	12.3	68	59.6
Radio Point-to-Point Intersystem Channel	1,745	72.2	73	64.0
Telephone Hot Lines	0	0	0	0
Microwave	0	0	0	0
Data Channels (including teletype)	1,848	76.4	33	28.9
Coordination Channel with State Police and Highway Patrol	1,696	70.1	7	6.1
Other	372	15.4	1	0.9
<u>Interstate Coordination</u>				
Interstate Coordination Channel with Mobile Capability	373	15.4	0	0
Interstate Radio Point-to-Point Intersystem Channel	1,743	72.1	73	64.0
Telephone Hot Lines	0	0	0	0
Data Channel (including teletype)	1,845	76.3	30	26.3
Other	372	15.4	1	0.9

(6) Region VI

LEAA Region VI is comprised of five states including New Mexico, Texas, Oklahoma, Arkansas and Louisiana. In addition to the State Planning Agencies in each state, New Mexico, Oklahoma and Louisiana have Divisions of Communications, or equivalent, which assist in law enforcement telecommunications planning.

The total population of Region VI is 20,338,458 persons. Telecommunications grants totalling \$11,219,649 were awarded during the period July 1, 1971 to January 1, 1975.

None of the five SPAs in Region VI has an in-house engineering capability. There is an average of 0.9 full time and 1 part time professional personnel per state involved in law enforcement telecommunications planning. However, two of the SPAs indicated that there is a person within the agency responsible for knowledge of FCC Rules and Regulations and for monitoring and commenting on FCC dockets. A total of 85 centralized dispatching centers were reported by the five states. None of these centers serve law enforcement, fire and emergency medical service. However, 9 centers have emergency telephone number 911.

Twenty of the 1,691 dispatch centers serving a single law enforcement agency were reported to have the 911 emergency telephone number. At present there are three operational computer-aided dispatching systems in Region VI with seven additional such systems planned.

Two of the five states in Region VI have statewide law enforcement telecommunications plans and two additional states currently have plans in preparation. Three SPAs in the region have frequency plans and two other states are currently preparing frequency plans. One SPA maintains an equipment inventory in Region VI.

Cooperative or central dispatch is the recommended approach in one of the five SPAs and one SPA recommends 911 for law enforcement, fire and emergency medical service.

Three of the five SPAs in Region VI have developed no recommendations with respect to frequency band usage. Recommendations of the other two states are:

<u>Area</u>	<u>Frequency Band</u>	<u>No. of States</u>
Urban	Low Band	0
	High Band	1
	UHF	1
Suburban	Low Band	0
	High Band	2
	UHF	0
Rural	Low Band	1
	High Band	2
	UHF	0

Four of the five SPAs in Region VI have published guidelines for grant applications. All five SPAs have in-house checklists for grant application review. Two of the SPAs report extensive use of centralized purchasing at the state level, and three SPAs require that procurements meet contractually established specifications.

Two of the five SPAs in Region VI have standard equipment specifications for mobile radio equipment. The major sources of specifications in Region VI are from the DOCs in two states, from vendors in two states and from consultants in the fifth.

LEAA Region VI awarded a total of 590 telecommunications grants during the period July 1, 1971 to January 1, 1975. The three project summary sheets at the conclusion of this section described the nature and characteristics of these projects.

Improved communications service was the objective of 96 percent of the projects with improved communications reliability being the objective in 64 percent. Other major objectives included improved interagency coordination in 16 percent and reduced response time in 12 percent of the projects.

Approximately 84 percent of the projects were classified as providing intraagency communications, with 15 percent providing interagency communications. Most of the grants, 97 percent, involved the procurement of basic land mobile radio equipment including base stations, mobile units and portables. The procurement of consoles was included in 10 percent of the projects. Other types of equipment were procured in less than one percent of the total number of projects.

Approximately two-thirds of the grants were awarded to municipalities having a population under 20,000 persons. These grants to small agencies, however, accounted for only three percent of the total project funds. Approximately three-quarters of the project funds were awarded to regional systems. Large municipalities with populations over 500,000 received less than three percent of the project funds. Interstate and intraagency coordination communications capability was incorporated in a relatively small percentage of the projects.

Formal evaluation to determine how effectively the project met their objectives was conducted in 9.1 percent of the projects.

LEAA - VI
Law Enforcement Telecommunications Projects—Objectives,
Types, and Communications Categories
 (Total number of projects: 590)

Objectives, Types, and Categories	Number of Projects	Percent of Total Projects	Project Cost, Thousands of Dollars	Percent of Cost of All Projects
Project Objective				
Reduced Response Time	71	12.0	18,039	85.2
Improved Public Access	3	0.5	52	0.2
Improved Interagency Coordination	94	15.9	17,937	84.7
Improved Communications				
Reliability	375	63.6	2,084	9.8
Improved Cost-Effectiveness	22	3.7	11,291	53.3
Reduced Channel Congestion	26	4.4	6,292	29.7
Improved Communications Service	571	96.8	20,366	96.1
Improved Officer Safety	24	4.1	1,049	5.0
Improved Access to Computerized Information Systems	4	0.7	49	0.2
Other	16	2.7	417	2.0
Project Type				
Planning Project	10	1.7	520	2.5
Design Project	3	0.5	119	0.6
Communications Equipment (base stations, mobile units, portables, etc.)	572	96.9	20,186	95.3
Terminals for Computerized Information Systems	3	0.5	23	0.1
Command and Control Centers	11	1.9	679	3.2
Consolidated Central Dispatch System	0	0	0	0
Computer-Aided Dispatching	0	0	0	0
Automatic Vehicle Monitoring	0	0	0	0
911 Implementation	2	0.3	52	0.2
Microwave	1	0.2	73	0.3
Other	1	0.2	1	0.004
Communications Category				
Communications Between Citizens and Law Enforcement Department	1	0.2	4	0.02
Communications Between Members of the Department	497	84.2	2,634	12.4
Communications Between Law Enforcement Departments	91	15.4	18,460	87.1
Communications with Other Agencies	1	0.2	4	0.02
Other	2	0.3	119	0.7

LEAA - VI
Law Enforcement Telecommunications Projects—Equipment
Purchased and Grant Recipients

Equipment Purchased and Grant Recipients	Number of Projects	Percent of Total Projects	Project Cost, Thousands of Dollars	Percent of Cost of All Projects
Equipment Purchased				
Radio Dispatch Consoles	63	10.7	17,344	81.9
Mobile Radios	358	60.7	18,649	88.0
Hand-Held Portable Radios	222	37.6	15,616	73.7
Radio Base Stations	164	27.8	17,591	83.0
Voice Scramblers	2	0.3	14	0.07
Mobile Repeaters	7	1.2	1,073	5.1
Mobile Teleprinters	3	0.5	279	1.3
Mobile Computer Terminals	0	0	0	0
Regular Fixed Type Computer Terminals	2	0.3	12	0.06
Closed Circuit TV	0	0	0	0
Microwave Equipment	3	0.5	125	0.6
Logging-Type Tape Recorders	5	0.8	354	1.7
Emergency Power Generators	7	1.2	1,982	9.4
None	1	0.2	1	0.004
Other	37	6.3	3,972	18.7
Grant Recipient				
Statewide (such as grants for portable radios for distribution to several agencies throughout the state)	12	2.0	767	3.6
Region (where multiple agencies share in the project, such as a regionalized communications center)	43	7.3	15,331	72.4
State Police or State Highway Patrol	2	0.3	1,688	8.0
Other State Law Enforcement Agencies, such as Fish and Game and Marine Patrol	0	0	0	0
Sheriff's Department	31	5.3	362	1.7
Municipality with a Population Over 500,000	2	0.3	569	2.7
Municipality with a Population Between 100,000 and 500,000	19	3.2	1,159	5.5
Municipality with a Population Between 20,000 and 100,000	65	11.0	229	1.1
Municipality with a Population Under 20,000	393	66.6	825	3.2
Campus Police Agency	1	0.2	6	0.03
Indian Reservation Law Enforcement Agency	1	0.2	36	0.2
Other	2	0.3	65	0.3

LEAA - VI
Law Enforcement Telecommunications Projects
Coordination Methods
(Total number of projects: 590)

Coordination Methods	Number of Projects	Percent of Total Projects	Number of New Systems Funded Have Indicated Coordination	Percent of Total Number of New Systems
Intrastate Coordination				
Statewide Coordination Channels with Mobile Capability	75	12.7	56	61.5
Regional or District Coordination Channel	5	0.8	0	0
County Coordination Channel	105	17.8	70	76.9
Radio Point-to-Point Intersystem Channel	69	16.7	51	56.0
Telephone Hot Lines	1	0.2	0	0
Microwave	2	0.3	0	0
Data Channels (including teletype)	4	0.7	2	2.2
Coordination Channel with State Police and Highway Patrol	101	17.1	68	74.7
Other	1	0.2	1	1.1
Interstate Coordination				
Interstate Coordination Channel with Mobile Capability	0	0	0	0
Interstate Radio Point-to-Point Intersystem Channel	1	0.2	0	0
Telephone Hot Lines	0	0	0	0
Data Channel (including teletype)	3	0.5	2	2.2
Other	0	0	0	0

(7) Region VII

LEAA Region VII is comprised of four states including Kansas, Nebraska, Iowa, and Missouri. In addition to the State Planning Agencies in each state, Nebraska, Iowa and Missouri have Divisions of Communications or equivalent which assist in law enforcement telecommunications planning.

The total population of Region VII is 11,235,302 persons. Telecommunications grants totalling \$10,308,740 were awarded during the period July 1, 1971 to January 1, 1975.

Three of the four SPAs in Region VII have an in-house engineering capability. An average of 0.5 full time and 1 part time professional personnel per state are involved in law enforcement telecommunications planning. One of the SPAs indicated that a person within the agency is responsible for knowledge for FCC Rules and Regulations and for monitoring and commenting on FCC dockets. A total of 153 centralized dispatching centers were reported by the four states with 12 of these centers serving law enforcement, fire and emergency medical service and 21 centers having emergency telephone number 911.

Seventeen of the 445 dispatching centers serving a single law enforcement agency were reported to have the 911 emergency telephone number. At present there is one operational computer-assisted dispatching system in Region VII with 4 additional systems planned.

Two of the four states in Region VII have a statewide law enforcement telecommunication plans and one has a frequency plan. The remaining states all plan to develop these planning documents. At present all four SPAs include telecommunications consideration in their LEAA Comprehensive Plans. One of the SPAs maintains an equipment inventory.

Cooperative or central dispatching is the recommended approach in all four SPAs in Region VII. However, only one of the SPAs recommend 911 for law enforcement, fire and emergency medical service.

Two of the four states have developed no recommendations with respect to frequency band usage. The other two states

recommend UHF for urban and suburban areas and high band or low band for rural areas.

Three of the four SPAs in Region VII have published guidelines for grant applications and have in-house checklists for grant application review. One of the SPAs reports extensive use of centralized purchasing at the state level. Three of the four SPAs require that procurements meet contractually established specifications. Two of the four SPAs have standard equipment specifications for equipment and systems include the SPAs, DOCs and consultants.

LEAA Region VII has awarded a total of 848 telecommunications grants during the period July 1, 1971 to January 1, 1975. The three project summary sheets at the conclusion of this section describe the nature and characteristics of these projects. The objectives of over 90 percent of the projects included:

- . Reduced response time
- . Improved interagency coordination
- . Improved communications reliability
- . Improved communications service
- . Improved officer safety.

Improved access to computerized systems was also the objective in approximately 50 percent of the projects.

Over 80 percent of the projects were classified as providing intraagency communications. Most of the grants, over 90 percent, involved the procurement of basic land mobile radio equipment including base stations, mobile units and portables. Procurement of other types of equipment was involved in less than 5 percent of the projects.

Half of the projects were awarded to municipalities with populations under 20,000. These grants to small agencies, however, amounted to only 12 percent of the total project funds. Roughly one-fourth of the project funds were awarded to regional systems. Large municipalities with populations over 500,000 were the next largest recipients with 17 percent of the project funds. Both intrastate and interstate communications coordination capability was provided by a high percentage of the projects in Region VII.

Formal evaluation to determine how effectively the project met their objectives was conducted on approximately 77 percent of the projects.

LEAA - VII

Law Enforcement Telecommunications Projects—Objectives Types, and Communications Categories (Total number of projects: 848)

Objectives, Types, and Categories	Number of Projects	Percent of Total Projects	Project Cost, Thousands of Dollars	Percent of Cost of All Projects
<u>Project Objective</u>				
Reduced Response Time	838	98.8	12,205	99.6
Improved Public Access	29	3.4	941	7.7
Improved Interagency Coordination	845	99.6	12,213	99.7
Improved Communications				
Reliability	784	92.5	7,471	61.0
Improved Cost-Effectiveness	136	16.0	1,740	14.2
Reduced Channel Congestion	361	42.6	6,659	54.4
Improved Communications Service	838	98.8	12,205	99.6
Improved Officer Safety	839	98.9	12,208	99.7
Improved Access to Computerized Information Systems	438	51.7	6,331	51.7
Other	2	0.2	1,925	15.7
<u>Project Type</u>				
Planning Project	6	0.7	267	2.2
Design Project	4	0.5	193	1.6
Communications Equipment (base stations, mobile units, portables, etc.)	773	91.2	8,766	71.6
Terminals for Computerized Information Systems	37	4.4	2,422	19.8
Command and Control Centers	19	2.2	3,197	26.1
Consolidated Central Dispatch System	21	2.5	949	7.7
Computer-Aided Dispatching	0	0	0	0
Automatic Vehicle Monitoring	1	0.1	1,922	15.7
911 Implementation	7	0.8	16	0.1
Microwave	0	0	0	0
Other	15	1.8	666	5.4
<u>Communications Category</u>				
Communications Between Citizens and Law Enforcement Department	7	0.8	16	0.1
Communications Between Members of the Department	711	83.8	7,321	59.8
Communications Between Law Enforcement Departments	60	7.1	3,610	29.5
Communications with Other Agencies	1	0.1	6	0.05
Other	69	8.1	1,296	10.6

LEAA - VII

Law Enforcement Telecommunications Projects—Equipment
Purchased and Grant Recipients

Equipment Purchased and Grant Recipients	Number of Projects	Percent of Total Projects	Project Cost, Thousands of Dollars	Percent of Cost of All Projects
Equipment Purchased				
Radio Dispatch Consoles	18	2.1	3,203	26.1
Mobile Radios	761	89.7	8,171	66.7
Hand-Held Portable Radios	761	89.7	8,171	66.7
Radio Base Stations	711	83.8	8,413	68.7
Voice Scramblers	2	0.2	5	0.04
Mobile Repeaters	0	0	0	0
Mobile Teleprinters	0	0	0	0
Mobile Computer Terminals	0	0	0	0
Regular Fixed Type Computer Terminals	37	4.4	2,422	19.8
Closed Circuit TV	1	0.1	3	0.02
Microwave Equipment	1	0.1	111	0.9
Logging-Type Tape Recorders	14	1.7	764	6.2
Emergency Power Generators	3	0.4	247	2.0
None	8	0.9	20	0.2
Other	23	2.7	2,673	21.8
Grant Recipient				
Statewide (such as grants for portable radios for distribution to several agencies throughout the state)	0	0	0	0
Region (where multiple agencies share in the project, such as a regionalized communications center)	67	7.9	3,256	26.6
State Police or State Highway Patrol	18	2.1	2,077	17.0
Other State Law Enforcement Agencies, such as Fish and Game and Marine Patrol	5	0.6	70	0.6
Sheriff's Department	259	30.5	1,793	14.6
Municipality with a Population Over 500,000	5	0.6	2,029	16.6
Municipality with a Population Between 100,000 and 500,000	9	1.1	644	5.3
Municipality with a Population Between 20,000 and 100,000	35	4.1	524	4.3
Municipality with a Population Under 20,000	437	51.5	1,499	12.2
Campus Police Agency	5	0.6	51	0.4
Indian Reservation Law Enforcement Agency	0	0	0	0
Other	8	0.9	305	2.5

LEAA - VII

Law Enforcement Telecommunications Projects
Coordination Methods
(Total number of projects: 848)

Coordination Methods	Number of Projects	Percent of Total Projects	Number of New Systems Funded Have Indicated Coordination	Percent of Total Number of New Systems
Intrastate Coordination				
Statewide Coordination Channels with Mobile Capability	698	82.3	0	0
Regional or District Coordination Channel	394	46.5	0	0
County Coordination Channel	81	9.6	0	0
Radio Point-to-Point Intersystem Channel	663	78.2	0	0
Telephone Hot Lines	0	0	0	0
Microwave	0	0	0	0
Data Channels (including teletype)	435	51.3	0	0
Coordination Channel with State Police and Highway Patrol	663	78.2	0	0
Other	0	0	0	0
Interstate Coordination				
Interstate Coordination Channel with Mobile Capability	388	45.8	0	0
Interstate Radio Point-to-Point Intersystem Channel	662	78.1	0	0
Telephone Hot Lines	0	0	0	0
Data Channel (including teletype)	435	51.3	0	0
Other	115	13.6	0	0

(8) Region VIII

LEAA Region VIII is comprised of six states including Montana, North Dakota, South Dakota, Wyoming, Utah and Colorado. In addition to the State Planning Agencies in each state, Montana, North Dakota, South Dakota, Utah and Colorado have Divisions of Communications or equivalent which assist in law enforcement telecommunications planning.

The total population of Region VIII is 5,577,375 persons. Telecommunications grants totalling \$3,507,492 were awarded during the period July 1, 1971 to January 1, 1975.

Only one of the six SPAs in Region VII has an in-house engineering capability. An average of 2.7 full time and 1.3 part time professional personnel per state are involved in law enforcement telecommunications planning. One of the SPAs indicated that a person within the agency is responsible for knowledge of FCC Rules and Regulations and for monitoring and commenting on FCC dockets.

A total of 139 centralized dispatching centers were reported by the six states. All of these centers serve law enforcement only. Twenty-one of the centralized centers have the emergency telephone number 911.

Seven of the 278 dispatch centers serving a single law enforcement agency were reported to have the 911 emergency telephone number. At present there are no operational computer aided dispatching systems in Region VIII, however, six such systems are planned. Four of the six SPAs in Region VII have statewide law enforcement telecommunications plans and frequency plans. One additional SPA is currently preparing these plans. At present all six SPAs include telecommunication considerations in their LEAA Comprehensive Plans. Three of the SPAs maintain an equipment inventory. Cooperative or centralized dispatching is the recommended approach in five of the six SPAs in Region VIII. Three of the SPAs also recommend 911 for law enforcement, fire and emergency medical service.

Recommendations of the SPAs in Region VIII with respect to frequency band usage are:

<u>Area</u>	<u>Frequency Band</u>	<u>No. of States</u>
Urban	Low Band	0
	High Band	4
	UHF	2
Suburban	Low Band	1
	High Band	4
	UHF	0
Rural	Low Band	2
	High Band	4
	UHF	0

All six SPAs in Region VIII have published guidelines for grant applications and have an in-house checklist for grant application review. Four of the SPAs report extensive use of centralized purchasing at the state level and four SPAs require that procurements meet contractually established specifications. Five of the six SPAs in Region VIII have standard equipment specifications for mobile radio equipment. The major source of specifications for equipment and systems is from the DOCs.

LEAA Region VIII awarded a total of 656 telecommunications grants during the period July 1, 1971 to January 1, 1975. The three project summary sheets at the conclusion of this section describe the nature and characteristics of these projects.

Improved communications service was the objective of approximately 90 percent of the projects. Other objectives in a significant number of projects included:

- Improved interagency coordination
- Improved communications reliability
- Improved officer safety.

Roughly half of the projects in Region VIII were classified as providing intradepartmental communications and the other half interdepartmental communications. Almost all of the grants involved procurement of basic land mobile radio equipment including base stations, mobile units and portables, with only a small percentage of the remaining projects involving procurement of other types of equipment.

Of the 656 projects, 390 grants were awarded to municipalities with a population under 20,000 persons. These grants to small municipalities amounted to 20 percent of the project funds. In addition, 21 percent of the total grant funds were awarded to regional systems. Approximately 36 percent of the projects have provisions for a statewide coordination channel with mobile capability. Interstate coordination was provided in 30 percent of the projects.

Formal evaluation to determine how effectively the projects met their objectives was conducted on 2.6 percent of the projects.

LEAA - VIII

Law Enforcement Telecommunications Projects—Objectives Types, and Communications Categories (Total number of projects: 656)

Objectives, Types, and Categories	Number of Projects	Percent of Total Projects	Project Cost, Thousands of Dollars	Percent of Cost of All Projects
<u>Project Objective</u>				
Reduced Response Time	267	40.7	2,294	50.4
Improved Public Access	11	1.7	324	7.1
Improved Interagency Coordination	338	51.5	3,036	66.6
Improved Communications				
Reliability	239	36.4	2,016	44.2
Improved Cost-Effectiveness	15	2.3	784	17.2
Reduced Channel Congestion	53	8.1	1,075	23.6
Improved Communications Service	585	89.2	3,753	82.4
Improved Officer Safety	231	35.2	1,565	34.3
Improved Access to Computerized Information Systems	8	1.2	516	11.3
Other	11	1.7	210	4.6
<u>Project Type</u>				
Planning Project	9	1.4	204	4.5
Design Project	12	1.8	606	13.3
Communications Equipment (base stations, mobile units, portables, etc.)	621	94.7	3,421	75.1
Terminals for Computerized Information Systems	2	0.3	290	6.4
Command and Control Centers	22	3.4	878	19.3
Consolidated Central Dispatch System	6	0.9	416	9.1
Computer-Aided Dispatching	1	0.2	36	0.8
Automatic Vehicle Monitoring	1	0.2	158	3.5
911 Implementation	2	0.3	217	4.8
Microwave	4	0.6	330	7.2
Other	9	1.4	253	5.6
<u>Communications Category</u>				
Communications Between Citizens and Law Enforcement Department	4	0.6	41	0.9
Communications Between Members of the Department	374	57.0	2,539	55.7
Communications Between Law Enforcement Departments	289	44.1	2,208	48.5
Communications with Other Agencies	5	0.8	198	4.3
Other	1	0.2	16	0.4

LEAA - VIII

Law Enforcement Telecommunications Projects—Equipment
Purchased and Grant Recipients

Equipment Purchased and Grant Recipients	Number of Projects	Percent of Total Projects	Project Cost, Thousands of Dollars	Percent of Cost of All Projects
Equipment Purchased				
Radio Dispatch Consoles	28	4.3	1,157	25.4
Mobile Radios	501	76.4	2,725	59.8
Hand-Held Portable Radios	298	45.4	1,850	40.6
Radio Base Stations	285	43.4	2,162	47.4
Voice Scramblers	0	0	0	0
Mobile Repeaters	1	0.2	6	0.1
Mobile Teleprinters	1	0.2	26	0.6
Mobile Computer Terminals	1	0.2	38	0.8
Regular Fixed Type Computer Terminals	4	0.6	83	1.8
Closed Circuit TV	5	0.8	22	0.5
Microwave Equipment	7	1.1	645	14.2
Logging-Type Tape Recorders	15	2.3	714	15.7
Emergency Power Generators	0	0	0	0
None	6	0.9	178	3.9
Other	47	7.2	1,176	25.8
Grant Recipient				
Statewide (such as grants for portable radios for distribution to several agencies throughout the state)	10	1.5	469	10.3
Region (where multiple agencies share in the project, such as a regionalized communications center)	37	5.6	962	21.1
State Police or State Highway Patrol	4	0.6	41	0.9
Other State Law Enforcement Agencies, such as Fish and Game and Marine Patrol	5	0.8	285	6.3
Sheriff's Department	110	16.8	627	13.8
Municipality with a Population Over 500,000	0	0	0	0
Municipality with a Population Between 100,000 and 500,000	5	0.8	246	5.4
Municipality with a Population Between 20,000 and 100,000	70	10.7	826	18.1
Municipality with a Population Under 20,000	390	59.5	910	20.0
Campus Police Agency	7	1.8	33	0.7
Indian Reservation Law Enforcement Agency	2	0.3	21	0.5
Other	12	1.8	123	2.7

LEAA - VIII
Law Enforcement Telecommunications Projects
Coordination Methods
(Total number of projects: 656)

Coordination Methods	Number of Projects	Percent of Total Projects	Number of New Systems Funded Have Indicated Coordination	Percent of Total Number of New Systems
Intrastate Coordination				
Statewide Coordination Channels with Mobile Capability	237	36.1	42	40.8
Regional or District Coordination Channel	40	6.1	24	23.3
County Coordination Channel	49	7.5	22	21.4
Radio Point-to-Point Intersystem Channel	4	0.6	1	1.0
Telephone Hot Lines	0	0	0	0
Microwave	7	1.1	1	1.0
Data Channels (including teletype)	165	25.2	2	1.9
Coordination Channel with State Police and Highway Patrol	83	12.7	44	42.7
Other	1	0.2	0	0
Interstate Coordination				
Interstate Coordination Channel with Mobile Capability	11	1.7	4	3.9
Interstate Radio Point-to-Point Intersystem Channel	0	0	0	0
Telephone Hot Lines	1	0.2	0	0
Data Channel (including teletype)	8	1.2	2	1.9
Other	200	30.5	35	34.0

(9) Region IX

LEAA Region IX is comprised of four states including California, Nevada, Arizona and Hawaii. In addition to the State Planning Agencies in each state, California, Arizona and Hawaii have Divisions of Communications or equivalent which assist in law enforcement telecommunications planning.

The total population of Region IX is 22,984,267 persons. Telecommunications grants totalling \$12,177,786 were awarded during the period July 1, 1971 to January 1, 1975.

Only one of the four SPAs in Region IX has an in-house engineering capability. An average of 1.3 full time and 0.25 part time professional personnel per state are involved in law enforcement telecommunications planning. In addition two of the SPAs have indicated that a person within the agency is responsible for knowledge of FCC Rules and Regulations and for monitoring and commenting on FCC dockets. All of these centers serve law enforcement only. One of the centers reported having emergency telephone number 911.

Fourteen of the 489 dispatch centers serving a single law enforcement agency were reported to have the 911 emergency telephone number. At present there are 11 operation computer-aided dispatching systems in Region IX with 3 additional systems being planned. None of the SPAs in Region IX have either a statewide law enforcement telecommunications plan or a frequency plan. Two states intend to develop frequency plans and one a telecommunications plan. Currently, however, all four SPAs include telecommunications considerations in their LEAA Comprehensive Plans. One SPA maintains an equipment inventory.

Cooperative or centralized dispatching is the recommended approach in all four SPAs in Region IX. In addition, three of the SPAs recommended 911 for law enforcement, fire and emergency medical service.

Three of the four SPAs have developed no recommendations with respect to frequency band usage. The remaining state recommends high band for urban areas, suburban areas and rural areas.

One of the four SPAs in Region IX has published guidelines for grant applications and two of the SPAs have in-house checklists for grant application review. One of the four SPAs reported extensive use of centralized purchasing at the state level and two of the SPAs require that procurements meet contractually established specifications. One of the SPAs has standard equipment specifications for mobile radio equipment. The major source of specifications for equipment and systems is from the DOCs and consultants.

LEAA Region IX awarded a total of 305 telecommunications grants during the period July 1, 1971 to January 1, 1975. The three project summary sheets at the conclusion of this section describe the nature and characteristics of these projects.

Improved communications service was the objective in three-fourths of the projects and reduced response time in approximately 50 percent. Other objectives in a significant percentage of projects included:

- Improved public access
- Improved interagency coordination
- Improved communications reliability
- Improved officer safety.

Approximately three-fourths of the projects were classified as providing intraagency communications. Twenty percent provided interagency communications. Roughly 70 percent of the projects involved the procurement of basic land mobile radio equipment including base stations, mobile radios, portables and consoles. In addition, a significant percentage of projects included the procurement of computer terminals and logging tape recorders.

The largest percentage of projects, 41 percent, were awarded to municipalities with populations under 20,000. These grants to small municipalities amounted to only 8.3 percent of the project funds. Roughly 50 percent of the grant funds were awarded to regional systems.

Implementation of interstate communications coordination capability was included in a large percentage of the projects with equal emphasis upon statewide, regional and county type

coordination channels. A relatively small percentage of the projects included provision for interstate coordination.

Formal evaluation to determine how effectively the projects met their objectives was conducted on approximately 12 percent of the projects.

LEAA - IX

Law Enforcement Telecommunications Projects—Objectives Types, and Communications Categories (Total number of projects: 305)

Objectives, Types, and Categories	Number of Projects	Percent of Total Projects	Project Cost, Thousands of Dollars	Percent of Cost of All Projects
<u>Project Objective</u>				
Reduced Response Time	167	54.8	12,855	81.3
Improved Public Access	64	21.0	8,497	53.7
Improved Interagency Coordination	128	42.0	9,706	61.4
Improved Communications				
Reliability	113	37.0	4,948	31.3
Improved Cost-Effectiveness	76	24.9	5,000	31.6
Reduced Channel Congestion	67	22.0	7,642	48.3
Improved Communications Service	234	76.7	13,251	83.8
Improved Officer Safety	109	35.7	8,106	51.3
Improved Access to Computerized Information Systems	35	11.5	3,022	19.1
Other	6	2.0	652	4.1
<u>Project Type</u>				
Planning Project	18	5.9	1,818	11.5
Design Project	12	3.9	1,522	9.6
Communications Equipment (base stations, mobile units, portables, etc.)	216	70.8	9,965	63.0
Terminals for Computerized Information Systems	27	8.9	2,068	13.1
Command and Control Centers	25	8.2	3,824	24.2
Consolidated Central Dispatch System	7	2.3	832	5.3
Computer-Aided Dispatching	9	3.0	1,632	10.3
Automatic Vehicle Monitoring	9	3.0	1,667	10.5
911 Implementation	8	2.6	1,556	9.8
Microwave	8	2.6	933	5.9
Other	20	6.6	607	3.8
<u>Communications Category</u>				
Communications Between Citizens and Law Enforcement Department	9	3.0	517	3.3
Communications Between Members of the Department	225	73.8	11,013	69.6
Communications Between Law Enforcement Departments	63	20.7	3,457	21.9
Communications with Other Agencies	0	0	0	0
Other	9	3.0	179	1.1

LEAA - IX
Law Enforcement Telecommunications Projects—Equipment
Purchased and Grant Recipients

Equipment Purchased and Grant Recipients	Number of Projects	Percent of Total Projects	Project Cost, Thousands of Dollars	Percent of Cost of All Projects
Equipment Purchased				
Radio Dispatch Consoles	73	23.9	8,376	52.7
Mobile Radios	157	51.5	8,486	53.7
Hand-Held Portable Radios	174	57.0	6,041	38.2
Radio Base Stations	116	38.0	8,488	53.7
Voice Scramblers	12	3.9	2,898	18.3
Mobile Repeaters	6	2.0	785	5.0
Mobile Teleprinters	6	2.0	3,232	20.4
Mobile Computer Terminals	1	0.3	402	2.5
Regular Fixed Type Computer Terminals	33	10.8	3,009	19.0
Closed Circuit TV	3	1.0	470	3.0
Microwave Equipment	13	4.3	1,444	9.1
Logging-Type Tape Recorders	33	10.8	2,420	15.3
Emergency Power Generators	4	1.3	648	4.1
None	23	7.5	878	5.5
Other	11	3.6	478	3.0
Grant Recipient				
Statewide (such as grants for portable radios for distribution to several agencies throughout the state)	12	3.9	1,065	6.7
Region (where multiple agencies share in the project, such as a regionalized communications center)	49	16.1	7,772	49.2
State Police or State Highway Patrol	11	3.6	557	3.5
Other State Law Enforcement Agencies, such as Fish and Game and Marine Patrol	2	0.7	18	0.1
Sheriff's Department	37	12.1	1,382	8.7
Municipality with a Population Over 500,000	8	2.6	1,276	8.1
Municipality with a Population Between 100,000 and 500,000	4	1.3	269	1.7
Municipality with a Population Between 20,000 and 100,000	49	16.1	1,998	12.6
Municipality with a Population Under 20,000	125	41.0	1,314	8.3
Campus Police Agency	1	0.3	10	0.1
Indian Reservation Law Enforcement Agency	4	1.3	76	0.5
Other	2	0.7	75	0.5

LEAA - IX
Law Enforcement Telecommunications Projects
Coordination Methods
 (Total number of projects: 305)

Coordination Methods	Number of Projects	Percent of Total Projects	Number of New Systems Funded Have Indicated Coordination	Percent of Total Number of New Systems
Intrastate Coordination				
Statewide Coordination Channels with Mobile Capability	120	39.3	7	30.4
Regional or District Coordination Channel	125	41.0	6	26.1
County Coordination Channel	125	41.0	7	30.4
Radio Point-to-Point Intersystem Channel	1	0.3	1	4.3
Telephone Hot Lines	0	0	0	0
Microwave	2	0.7	0	0
Data Channels (including teletype)	30	9.8	4	17.4
Coordination Channel with State Police and Highway Patrol	3	1.0	1	4.3
Other	0	0	0	0
Interstate Coordination				
Interstate Coordination Channel with Mobile Capability	1	0.3	0	0
Interstate Radio Point-to-Point Intersystem Channel	1	0.3	0	0
Telephone Hot Lines	0	0	0	0
Data Channel (including teletype)	21	6.9	1	4.3
Other	0	0	0	0

(10) Region X

LEAA Region X is comprised of four states including Alaska, Washington, Oregon and Idaho. In addition to the State Planning Agencies in each state, Alaska and Idaho have Divisions of Communications, or equivalent, which assist in law enforcement telecommunications planning.

The total population of Region X is 6,515,735 persons. Telecommunications grants totalling \$6,545,734 were awarded during the period July 1, 1971 to January 1, 1975.

Only one of the SPAs in Region X has an in-house engineering capability. There are no full time and an average of 1.75 part time professional personnel per state involved in law enforcement telecommunications planning. None of the four SPAs indicated that a person within the agency is responsible for knowledge of FCC Rules and Regulations and for monitoring and commenting on FCC dockets. A total of 69 centralized dispatching center were reported by the four SPAs. None of these centers serve law enforcement, fire and emergency medical service. Four of the centralized dispatching centers, however, have the emergency telephone number 911.

Four of the 235 dispatch centers serving single law enforcement agencies were reported to have the 911 emergency telephone number. At present there is one operational computer-aided dispatching system in Region X; however, five such systems are currently planned.

None of the SPAs in Region X currently has a statewide law enforcement telecommunications plan; however, three SPAs are currently preparing or plan to prepare such plans. One SPA has a frequency plan and one additional SPA is preparing a frequency plan. None of the four SPAs in Region X maintains an equipment inventory.

Cooperative or central dispatching is the recommended approach by all four SPAs in Region X. Two of the SPAs recommend 911 for law enforcement, fire and emergency medical service.

One of the four SPAs has developed no recommendations with respect to frequency band usage. Recommendations of the other three SPAs are:

<u>Area</u>	<u>Frequency Band</u>	<u>No. of States</u>
Urban	Low Band	0
	High Band	1
	UHF	2
Suburban	Low Band	0
	High Band	1
	UHF	2
Rural	Low Band	0
	High Band	2
	UHF	1

Two of the four SPAs in Region X have published guidelines for grant applications and all four of the SPAs have in-house checklists for grant application review. One of the SPAs has reported extensive use of centralized purchasing at the state level and all four SPAs require that procurements meet contractually established specifications. Two of the four SPAs have standard equipment specifications for mobile radio equipment. The sources of specifications for equipment and systems include consultants, other agencies and the SPAs.

LEAA Region X awarded a total of 240 telecommunications grants during the period July 1, 1971 to January 1, 1975. The three project summary sheets at the conclusion of this section describe the nature and characteristics of these projects.

Improved communications reliability and improved communications service were the two major objectives of the projects in Region X. In addition, interagency coordination and improved officer safety were the objectives in a significant percentage of projects.

Close to 80 percent of the projects were classified as providing intraagency communications. Most of the grants involved the procurement of basic land mobile radio equipment including base stations, mobile units and portables. Procurement of other types of equipment was involved in less than 10 percent of the total number of projects.

Of the 240 projects, 101 were awarded to municipalities with populations under 20,000 persons. These grant awards to small municipalities accounted for approximately 6 percent of the project funds. The largest percentage of grant funds were awarded to regional systems. Regional or district coordination channels were provided in approximately 30 percent of the projects. The provision for interstate coordination was included in a relatively small percent of projects.

Formal evaluation to determine how effectively the projects met their objectives was conducted on 4.6 percent of the projects.

LEAA - X

Law Enforcement Telecommunications Projects—Objectives Types, and Communications Categories (Total number of projects: 240)

Objectives, Types, and Categories	Number of Projects	Percent of Total Projects	Project Cost, Thousands of Dollars	Percent of Cost of All Projects
Project Objective				
Reduced Response Time	31	12.9	3,592	39.7
Improved Public Access	18	7.5	1,029	11.4
Improved Interagency Coordination	70	29.2	6,633	73.3
Improved Communications				
Reliability	203	84.6	4,943	54.6
Improved Cost-Effectiveness	3	1.3	1,516	16.8
Reduced Channel Congestion	11	4.6	917	10.1
Improved Communications Service	124	51.7	4,467	49.4
Improved Officer Safety	76	31.7	4,741	52.4
Improved Access to Computerized Information Systems	5	2.1	1,930	21.3
Other	5	2.1	114	1.3
Project Type				
Planning Project	6	2.5	722	8.0
Design Project	5	2.1	962	10.6
Communications Equipment (base stations, mobile units, portables, etc.)	210	87.5	5,458	60.3
Terminals for Computerized Information Systems	4	1.7	1,475	16.3
Command and Control Centers	11	4.6	2,098	23.2
Consolidated Central Dispatch System	12	5.0	2,309	25.5
Computer-Aided Dispatching	3	1.3	1,005	11.1
Automatic Vehicle Monitoring	2	0.8	651	7.2
911 Implementation	6	2.5	799	8.8
Microwave	3	1.3	100	1.1
Other	8	3.3	414	4.6
Communications Category				
Communications Between Citizens and Law Enforcement Department	3	1.3	426	4.7
Communications Between Members of the Department	188	78.3	3,262	36.1
Communications Between Law Enforcement Departments	41	17.1	5,124	56.6
Communications with Other Agencies	2	0.8	68	0.8
Other	5	2.1	147	1.6

LEAA - X

Law Enforcement Telecommunications Projects—Equipment
Purchased and Grant Recipients

Equipment Purchased and Grant Recipients	Number of Projects	Percent of Total Projects	Project Cost, Thousands of Dollars	Percent of Cost of All Projects
Equipment Purchased				
Radio Dispatch Consoles	25	10.4	3,590	39.6
Mobile Radios	197	82.1	5,132	56.7
Hand-Held Portable Radios	183	76.3	4,734	52.3
Radio Base Stations	155	64.6	4,475	49.5
Voice Scramblers	8	3.3	1,045	11.3
Mobile Repeaters	15	6.3	1,116	12.3
Mobile Teleprinters	2	0.8	71	0.8
Mobile Computer Terminals	1	0.4	421	4.7
Regular Fixed Type Computer Terminals	5	2.1	2,832	31.3
Closed Circuit TV	0	0	0	0
Microwave Equipment	5	2.1	900	9.9
Logging-Type Tape Recorders	12	5.0	1,980	21.9
Emergency Power Generators	1	0.4	112	1.2
None	10	4.2	521	5.8
Other	4	1.7	363	4.0
Grant Recipient				
Statewide (such as grants for portable radios for distribution to several agencies throughout the state)	6	2.5	438	4.8
Region (where multiple agencies share in the project, such as a regionalized communications center)	49	20.4	5,553	61.4
State Police or State Highway Patrol	1	0.4	296	3.3
Other State Law Enforcement Agencies, such as Fish and Game and Marine Patrol	1	0.4	10	0.1
Sheriff's Department	41	17.1	390	4.3
Municipality with a Population Over 500,000	5	2.1	436	4.8
Municipality with a Population Between 100,000 and 500,000	12	5.0	783	8.6
Municipality with a Population Between 20,000 and 100,000	17	7.1	273	3.0
Municipality with a Population Under 20,000	101	42.1	547	6.0
Campus Police Agency	2	0.8	87	1.0
Indian Reservation Law Enforcement Agency	0	0	0	0
Other	1	0.4	52	0.6

LEAA - X

Law Enforcement Telecommunications Projects
Coordination Methods
(Total number of projects: 240)

Coordination Methods	Number of Projects	Percent of Total Projects	Number of New Systems Funded Have Indicated Coordination	Percent of Total Number of New Systems
Intrastate Coordination				
Statewide Coordination Channels with Mobile Capability	2	0.8	1	3.4
Regional or District Coordination Channel	69	28.8	21	72.4
County Coordination Channel	2	0.8	2	6.9
Radio Point-to-Point Intersystem Channel	1	0.4	1	3.4
Telephone Hot Lines	2	0.8	0	0
Microwave	18	7.5	0	0
Data Channels (including teletype)	9	3.8	3	10.3
Coordination Channel with State Police and Highway Patrol	54	0.2	22	75.9
Other	0	0	0	0
Interstate Coordination				
Interstate Coordination Channel with Mobile Capability	0	0	0	0
Interstate Radio Point-to-Point Intersystem Channel	5	2.1	5	17.2
Telephone Hot Lines	0	0	0	0
Data Channel (including teletype)	2	0.8	0	0
Other	0	0	0	0



VOLUME II

A REVIEW AND ASSESSMENT OF TELECOMMUNICATIONS PLANNING IN THE 50 STATE PLANNING AGENCIES

PRODUCT OF PROJECT THIRTEEN

of the

ASSOCIATED PUBLIC-SAFETY COMMUNICATIONS OFFICERS, INC.

Prepared by

BOOZ, ALLEN & HAMILTON, INC.

LAW ENFORCEMENT ASSISTANCE ADMINISTRATION

30785
V.2

VOLUME II

A REVIEW AND ASSESSMENT OF TELECOMMUNICATIONS PLANNING IN THE 50 STATE PLANNING AGENCIES

NOVEMBER 1, 1975

**PRODUCT OF PROJECT THIRTEEN
of the
ASSOCIATED PUBLIC-SAFETY COMMUNICATIONS OFFICERS, INC.**

Prepared by
BOOZ, ALLEN & HAMILTON, INC.

The material contained in this report has been produced using financial support provided by the Law Enforcement Assistance Administration, United States Department of Justice. The fact that LEAA furnished financial support to the activity described in this publication does not necessarily indicate its concurrence in the statements or conclusions contained therein.

**LAW ENFORCEMENT ASSISTANCE ADMINISTRATION
Grant No. 74 SS 99 3310**

EXECUTIVE SUMMARY

The Associated Public-Safety Communications Officers, Inc., (APCO), a not-for-profit corporation and a voluntary association of public-safety communications employees of tax-supported agencies, was awarded Grant #74 SS 99 3310 by the Law Enforcement Assistance Administration (LEAA) in the amount of \$592,994 on May 6th, 1974. The purposes of this grant were to review and assess the telecommunications planning of the 50 State Planning Agencies (SPA) and to develop a set of planning guidelines for use by state, county and municipal-level individuals involved in law enforcement telecommunications planning. The title of the APCO project to attain these objectives is "Project 13".

In accordance with the terms and schedules of the grant, APCO conducted a competitive source selection activity that culminated in the award of an LEAA approved contract with the Applied Research Division of Booz, Allen & Hamilton Inc., on August 14, 1974, for the provision of consulting contractor services in support of this project.

The project involved a national survey, conducted by APCO and contractor teams, designed to obtain the data used as the basis for the conclusions contained in the Project 13 report. As a prelude to this survey, four regional meetings were conducted by APCO. Representatives of LEAA, the SPAs, state Divisions of Communications (DOC), and APCO attended these meetings. The objectives of the project were discussed and the plans of the survey and the information sought were described.

Teams of contractor and APCO representatives visited each of the SPAs of the 50 states and the District of Columbia. The law enforcement telecommunications planning activities of the cities of New York, Chicago and Los Angeles were also surveyed. These teams completed questionnaires that covered approximately 180 questions of each SPA and 170 questions of each DOC. They inspected 7686 telecommunications grants issued during the period July 1, 1971 through January 1, 1975. This survey produced approximately 100,000 items of information.

Based upon the results of this survey, a Planning Guidelines document for use by local-level telecommunications planners has been prepared. The raw data collected during the survey and the drafts of these guidelines were sent to each of the SPAs for their corrections and comments prior to inclusion in the final report.

The data collected by the survey teams were codified, keypunched and placed on magnetic tape for computer-aided analysis. The data analysis has been reviewed and contributed to by the contractor and each of the APCO Task Groups participating in the project.

The results of APCO's survey of the planning activities of the SPAs indicates a need for additional guidance and assistance to the SPAs in the specialized field of law enforcement telecommunications planning. Evaluation of the survey data shows that:

- . Many of the state comprehensive law enforcement plans are not sufficiently comprehensive nor adequately detailed in the area of telecommunications. As a result, they often fail to provide the basis for the full utilization of existing resources in the accomplishment of law enforcement objectives. Many do not provide priorities for allocation of funds. Some have little or no provisions for interstate or intra-state coordination of frequencies or systems. In some plans, basic planning factors such as the assignment of responsibilities, designation of tasks, establishment of schedules, allocations of funds, etc., are not covered in sufficient detail to provide a basis for the development of state law enforcement telecommunications capabilities or the exploitation of the new technologies being developed by the LEAA.
- . SPAs vary in the quantity and quality of telecommunications staffing available for the planning and management of telecommunications grants. The lack of technical telecommunications skills severely handicaps those SPAs affected in providing detailed analysis of the technical content and feasibility of telecommunications grant applications. It further makes difficult the development of technically adequate comprehensive state plans.

- . Lack of telecommunications detail in many of the plans can make it impossible to adequately determine whether grant applications for telecommunications projects are in consonance with the objectives of the plan. It can result in a fractionalization of the grant process and subsequent dilution of the effectiveness of the block grant program.

The recommendations include:

- . Develop a detailed, comprehensive manual for use by SPA and Regional LEAA staff personnel that describes the necessary contents of the telecommunications portion of the state comprehensive law enforcement plan
- . Provide guidance to the State Planning Agencies on recommended levels of technical staffing
- . Develop, at the national level, a policy encouraging a total public-safety approach to communications, command and control.

Law enforcement telecommunications guidelines are incorporated as part of this report. These guidelines provide the basis for a rational, standardized approach to telecommunications planning at the local level. They ensure the consideration of key planning factors in the development of plans, and provide a common level of understanding of plan content by the planner and the reviewer.

FOREWORD

On May 6, 1974, the Law Enforcement Assistance Administration (LEAA) of the U. S. Department of Justice issued a grant in the amount of \$592,994 to the Associated Public-Safety Communications Officers, Inc. (APCO) to conduct a review and assessment of the Law Enforcement Telecommunications Planning activities of the 50 states and the District of Columbia. The study also included a review of the law enforcement telecommunications planning within the cities of New York, Chicago, and Los Angeles. It was known as Project 13.

A second objective of the grant was the development of a set of planning guidelines for use by local-level law enforcement personnel engaged in planning for law enforcement telecommunications systems.

APCO was established in 1934 as a voluntary association of public-safety communications officers. Its membership has been in the forefront of the development, implementation and operation of public-safety communications and information handling systems since its inception, and has been deeply involved in programs throughout the public safety field. The development of the State Planning Agency (SPA) concept under the "Omnibus Crime Control Act of 1968" (hereafter called "the Act") and the resulting mandated statewide comprehensive law enforcement plans have therefore, had great impact on its members. Further, the APCO membership has been intimately involved in the implementation of these plans.

The modernization of the nation's law enforcement agencies that has been stimulated by the Act has imposed increasing dependence upon new technologies, particularly in the field of telecommunications. This reliance upon more complex, higher speed and wider area communications systems has brought with it new sets of problems.

Telecommunications, as defined by APCO Project 13, are land mobile law enforcement voice and data communications systems including their dispatch, command and control facilities wherein the terminals of such systems are located. The term includes the interfaces of such systems with those of common carrier, wide-area criminal justice information and other public-safety communications systems but not the total complex of these systems themselves.

CONTINUED

2 OF 11

Telecommunications are, by their nature, complex technological systems. The engineering, system design, integration and procedural skills needed to implement and operate such systems are highly specialized and not routinely inherent in the criminal justice profession.

These systems follow physical laws, not political boundaries; therefore, systems design and operation cannot be effected unilaterally. Interagency cooperation requires interagency planning. Technical oversights or undisciplined operation within one system can cause destructive interference in another. Failure to properly plan a system can result in its technological isolation and the inability to reap the benefits of wide-area information flow and interagency communications.

Recognizing the role of telecommunications in the modern law enforcement environment, LEAA, charged by Congress with the responsibility for administration of the Act, chose APCO to assess the present status of telecommunications planning by the SPAs and to develop guidelines for the assistance of those at the municipal, county and state level involved in the development of telecommunications plans.

The specific objectives of this project were:

- . To conduct a detailed survey of the SPAs of the 50 states and the District of Columbia. In addition, the law enforcement telecommunications planning activities of the cities of New York, Chicago and Los Angeles were to be surveyed to offer additional insight into the planning activities of these agencies. APCO selected a consulting contractor, Booz, Allen & Hamilton Inc., to participate in this project, and teams of APCO and contractor personnel conducted the required surveys by personally visiting the SPAs of the states and cities.

To ensure complete insight into the SPA telecommunications planning activity, Divisions of Communications (DOC) were surveyed in those states where such divisions have been established. Where such divisions exist, and where their activities either contribute to or provide a part of the SPAs telecommunications planning, such information was incorporated to provide a completely comprehensive view of the total planning picture in that state.

To prepare an analysis of the data collected. These surveys yielded a massive volume of data. Approximately 180 questions were asked of each SPA and of each DOC. All telecommunications grants issued between July 1, 1971, and January 1, 1975, a total of 7,686 grants, were reviewed for content, scope, objectives and application. To make the content of this volume of data comprehensible, an analysis of the data was performed. This analysis involved entering the survey results into machine processing systems and selecting the various matrix ordinates and abscissae necessary to yield insights into the implications of the results. The results of this analysis provided insight into national trends in law enforcement telecommunications development and a factual picture of the resources being applied to the development of the telecommunications portions of the statewide comprehensive plans. This analysis shows the scope and contents of these plans, and the objectives and methodology of the plans. It also yields information regarding the overall impact of the activities, objectives, and execution of grant programs since July 1971.

To develop a set of guidelines for use by law enforcement telecommunications planners at the state and local level. The present approaches to telecommunications planning at local and state levels are almost as varied as the number of practitioners. The third task of Project 13 was to synthesize, from the data and experiences acquired during the survey and analysis phases of the project, a set of planning guidelines that would provide a basis for a standardized approach to telecommunications planning. The objective of these guidelines is to ensure a rational, orderly process of plan development, from identification of goals and objectives through implementation to evaluation. In addition to ensuring that all relevant factors are considered in the development of plans, these guidelines are intended to provide a channel of communication between the developer of the plan and the reviewer of the plan. When these guidelines are accepted, the planner will know what steps the reviewing agency will be seeking in the plan, and the reviewing agency will know what items should be addressed in the plan. To assist in their use, the guidelines contain a model situation and the plan resulting from that situation as an example of the development of a municipal-level law

enforcement telecommunications plan. The guidelines also contain checklists against which a reviewer can compare the plans he receives for completeness and comprehensiveness.

The management and execution of a project of this scope has relied upon a time-tested and proven procedure used by APCO in many of its other project series. Because of the breadth of skills represented by its membership and their geographic dispersion, full use of APCO's abilities is best accomplished by selecting members with outstanding qualifications in the various disciplines needed and assigning them to working task groups. These voluntary task group members met periodically throughout the project to contribute to the end product during its various phases of development.

The specific approach used in Project 13 was to have the consulting contractor, Booz, Allen and Hamilton, develop drafts of the various deliverable documents. These drafts were provided to the task group members several weeks before task group meetings. After this individual pre-meeting review, the task groups met with the contractor and provided inputs to the final documents, both from an overall standpoint and on a page by page basis.

APCO established three task groups to accomplish Project 13. Task Group I was comprised of the Board of Officers of APCO. It received assistance and advice from APCO's legal counsel, a representative of the International Association of Chiefs of Police (IACP), the APCO Executive Secretary and the Project Director. This group provided overall project policy guidance and exercised approval authority on each phase of the program.

Task Group II represented the technical and professional skills of the APCO active membership. Nine highly qualified professional communications specialists from various parts of the United States met for days at a time to provide the professional and technical insights upon which this report is based. During the survey phase of this project, the APCO survey team members who participated at the state level also reported to this task group.

Task Group III was composed of six commercial members of APCO. These volunteer representatives of the commercial interests of the law enforcement telecommunications profession followed the same procedures as Task Group II, thereby ensuring that the knowledge and experience of all aspects of the law enforcement telecommunications community were fully represented.

Mr. J. Rhett McMillian, Jr., APCO Executive Secretary, provided overall program supervision of the execution of the project. Mr. Donal D. Kavanagh acted as the project manager.

LEAA administration of Project 13 was provided by Mr. S.S. Ashton, Jr., and Mr. William H. Bailey, systems specialists in the Systems Division of headquarters of LEAA, Washington, D.C.

ACKNOWLEDGEMENTS

Major contributions to Project 13 were provided by the following individuals:

LEAA

S.S. Ashton, Jr. — Grant Monitor, LEAA
William H. Bailey — Grant Monitor, LEAA

TASK GROUP I

Frank J. Devine — APCO President — New York City Police Department
Alan L. Armitage — President-Elect — Hunterdon County, New Jersey
Communications System
B. J. Campbell — First Vice President, Chairman Task Group II —
San Bernadino County, California Communications
Department
Nathan D. McClure — Second Vice President — Winnebago County,
Illinois Civil Defense
Joseph M. Kittner — McKenna, Wilkinson & Kittner, Attorneys at Law
Roger Reinke — IACP Representative
William L. Miller — APCO Past President (Ex-Chairman, Task
Group I), Chicago Police Department

TASK GROUP II

Donald R. Allen — Division of Communications, Tallahassee, Florida
Frank Bland — Texas Department of Public Safety, Austin, Texas
Phillip Y. Byrd — Division of Communications, Tallahassee, Florida
Donald G. Feliz — Office of Emergency Services, Sacramento, California

Joseph D. Hamilton—Montgomery County, Pennsylvania Police Radio

M. Allison Talbott—Division of Telecommunications, Springfield,
Illinois

Curt Wheeling—Department of Administration, Helena, Montana

TASK GROUP III

J. Steven Adler—Motorola Corporation

M. Steven Blosser—General Electric Corporation

Steven Guzy—American Telephone & Telegraph Corporation

Stuart Meyer—Radio Corporation of America

Ernest F. Schwabe—Aerotron Corporation

Robert Tall—Washington Radio Reports

APCO PAST PRESIDENTS

Irv McAndrews

John Simmons

BOOZ, ALLEN & HAMILTON, Inc.

Kenneth C. Mundell—Senior Vice President, Booz, Allen Applied
Research Division

Donn J. Barnhart—Director, State and Local Telecommunications
Department

Charles A. Hauer—Program Manager

Benjamin F. Lohr—Project Engineer

Charles F. McMorrow—Project Engineer

• George A. Praul—Consultant

J. Rhett McMillian, Jr.
Executive Secretary, APCO

The number of dedicated and energetic people who participated in this project is too great to fully recognize all that are so deserving. The APCO survey team members, the SPA executives and planners, the state DOC representatives and the LEAA Regional Offices personnel, all of whom gave so unstintingly of their time, their knowledge and their cooperation, merit the utmost of appreciation for their contributions. Without their efforts, cooperation and understanding, this project would have been impossible. To each one the entire law enforcement telecommunications community owes a debt of gratitude.

Donal D. Kavanagh
Director, Project 13

TABLE OF CONTENTS

	<u>Page Number</u>
EXECUTIVE SUMMARY	iii
FOREWORD	vi
ACKNOWLEDGEMENTS	xi
VOLUME I	
I. INTRODUCTION	1
1. Background	1
2. The Grant	3
3. The Report	4
II. NATIONAL TRENDS AND RECOMMENDATIONS	9
1. National Trends	9
2. Recommendations	14
III. NATIONAL PROFILE	19
1. Planning Agencies and Their Organizations	19
2. Status of Present Law Enforcement Telecommunication Systems	31
3. Law Enforcement Telecommunications Plans and Planning Activities	39
4. Grant Administration and Procurement Policies	62
5. Summary of LEAA Law Enforcement Telecommunications Projects	74
6. Regional Summaries	84

VOLUME II

IV. SUMMARY OF STATE LAW ENFORCEMENT TELECOMMUNICATIONS SYSTEMS PLANNING ACTIVITIES

1. Divisions of Communications
2. Survey Data

Page
Number

145

145

146

V. STATE SUMMARIES

1. Alabama
2. Alaska
3. Arizona
4. Arkansas
5. California
6. Colorado
7. Connecticut
8. Delaware
9. District of Columbia
10. Florida
11. Georgia
12. Hawaii
13. Idaho
14. Illinois
15. Indiana
16. Iowa
17. Kansas
18. Kentucky
19. Louisiana
20. Maine
21. Maryland
22. Massachusetts
23. Michigan
24. Minnesota
25. Mississippi
26. Missouri
27. Montana
28. Nebraska
29. Nevada

253

255

267

279

289

299

313

327

337

347

357

373

387

397

409

425

437

449

461

473

485

499

509

521

533

547

557

567

581

593

Page
Number

30. New Hampshire
31. New Jersey
32. New Mexico
33. New York
34. North Carolina
35. North Dakota
36. Ohio
37. Oklahoma
38. Oregon
39. Pennsylvania
40. Rhode Island
41. South Carolina
42. South Dakota
43. Tennessee
44. Texas
45. Utah
46. Vermont
47. Virginia
48. Washington
49. West Virginia
50. Wisconsin
51. Wyoming
52. Los Angeles
53. Chicago
54. New York City

605

617

629

643

655

665

677

689

703

713

723

735

747

759

771

781

793

805

819

831

841

853

865

873

879

INDEX OF FIGURES

	<u>Page Number</u>
1. Distribution of Grants as a Function of Dollar Value	11
2. States with Divisions of Communications or Equivalents	20
3. Law Enforcement Telecommunications Planning Personnel	22
4. SPA In-House Capabilities for Law Enforcement Telecom Planning	24
5. Areas of Telecommunications Planning Assistance Provided to Law Enforcement Agencies by SPA	26
6. Assistance Received by SPAs from Other Planning Agencies	26
7. In-House Capabilities—SPAs & DOCs	28
8. Areas of Telecommunications Planning Assistance Provided to Law Enforcement Agencies by DOC	29
9. Agencies Which DOCs Serve	29
10. Major Activities of DOCs in Law Enforcement Telecommunications	30
11. Centralized Dispatch Centers	33
12. Dispatch Centers Serving One Law Enforcement Agency	34

	<u>Page Number</u>
13. Agencies Addressed by SPA LEAA Comprehensive Plan	41
14. Elements of SPA LEAA Comprehensive Law Enforcement Plan	41
15. Statewide Law Enforcement Telcom Plans	43
16. Agencies Addressed by Statewide Telecommunications Plan	44
17. Elements of Statewide Tele- communications Plan	45
18. Elements Contained in Either the Comprehensive Plan or the Law Enforcement Telecommunications Plan	46
19. Statewide Frequency Plan	47
20. Channel Sharing Approach Recommended by SPA	49
21. Command and Control Concept Recommended by SPA	49
22. Channel Sharing Approach Recommended by DOCs	49
23. Command and Control Concepts Recommended by DOCs	50
24. SPAs' Frequency Band Policy for Urban Areas	50
25. SPAs' Frequency Band Policy for Suburban Areas	50

	<u>Page Number</u>
26. SPAs' Frequency Band Policy for Rural Areas	51
27. SPAs' Criteria for Establishing Number of Required Channels	52
28. Channel Configurations Recommended by SPA	52
29. SPA Recommendations on Tone-Controlled Squelch	53
30. SPA Recommendations on Selective Call Systems	54
31. SPAs' Basis for Establishing Requirements for Law Enforcement Radio Systems	54
32. SPAs' Recommendations for Improved Citizen Access to Public Safety Agencies	54
33. Coordination Channels Recommended by SPA	56
34. Approaches Recommended by SPA for Interagency Point-to-Point Coordination	56
35. Approaches Recommended by SPA for Communications Coordination between State Police, Highway Patrol, and Local Law Enforcement Agencies	56
36. Methods Recommended by SPA for Remote Control of Base Stations	57
37. Recommendations for Improved Access to Criminal Justice Information	57

	<u>Page Number</u>
38. Recommended Digital Systems	59
39. SPAs' Recommended Use of Personal Portables	59
40. SPAs' Recommended Maintenance Approach	59
41. Areas Covered by State Statutes that Affect Law Enforcement Telecommunications Planning	61
42. Most Significant Constraints On Police Telecommunications Systems	61
43. SPAs' Requirements for Telecommunications Grant Application	63
44. Topics Addressed on Grant Application Review Checklists (as Checklists Examined)	64
45. Agency Responsible for Coordination of Grants with Adjacent States	65
46. Major Source of Specifications	66
47. SPAs' Standard Telecommunications Equipment Specifications	67
48. State Centralized Purchasing	68
49. Procurement Instructions Used by SPAs	70
50. Competitive Bid Policies of SPAs	71
51. Bid Requirements of SPAs	72
52. SPA Pre-Bid Conference Requirements	73
53. LEAA Regions	76

I N D E X O F T A B L E S

	<u>Page Number</u>
III-1. Ratio of the Number of Telecommunications Grants Surveyed and Ratio of State Population to Each Full-Time Telecommunications Professional Person in SPAs.	23
III-2. Ratio of Population to the Number of Law Enforcement Mobile Units	38
III-3. Project Expenditures	75
III-4. Law Enforcement Telecommunications Projects—Project Objectives	78
III-5. Law Enforcement Telecommunications Projects—Project Types	78
III-6. Law Enforcement Telecommunications Projects—Communication Categories	79
III-7. Law Enforcement Telecommunications Projects—Equipment Purchased and Grant Recipients	80
III-8. Law Enforcement Telecommunications Projects—Coordination Methods	82
IV-1. Classification of State Divisions of Communication	147
IV-2. Authority and Level of Participation of DOCs	149
IV-3. Summary of State DOCs	156

	<u>Page Number</u>
IV-4. State Planning Agencies	156a
IV-5. Divisions of Communications	214
V-1. Alabama Law Enforcement Agencies Below State Level of Government	257
V-2. Comparison - All Grant Awards vs Tele- Communications Awards 7/1/71 through 6/30/74, State of Alabama	263
V-3. Comparison - All Grant Awards vs Tele- Communications Awards 7/1/71 through 6/30/75, State of Alaska	274
V-4. Arizona Law Enforcement Agencies Below State Level of Government	281
V-5. Comparison - All Grant Awards vs Tele- Communications Awards 7/1/71 through 6/30/75, State of Arizona	285
V-6. Arkansas Law Enforcement Agencies Below State Level of Government	290
V-7. Comparison - All Grant Awards vs Tele- Communications Awards 7/1/71 through 6/30/75, State of Arkansas	295
V-8. Comparison - All Grant Awards vs Tele- Communications Awards 7/1/71 thru 6/30/75, State of California	308
V-9. Colorado Law Enforcement Agencies Below State Level of Government	315
V-10. Comparison - All Grant Awards vs Tele- Communications Awards 7/1/71 to 6/30/75, State of Colorado	322

	<u>Page Number</u>
V-11. Comparison - All Grant Awards vs Tele- Communications Awards 7/1/71 to 6/30/74, State of Connecticut	333
V-12. Comparison - All Grant Awards vs Tele- Communications Awards 7/1/71 to 6/30/74, State of Delaware	344
V-13. Comparison - All Grant Awards vs Tele- Communications Awards 7/1/71 to 6/30/74 District of Columbia	353
V-14. Comparison - All Grant Awards vs Tele- Communications Awards 7/1/71 thru 6/30/74 State of Florida	367
V-15. Georgia Law Enforcement Agencies Below State Level of Government	375
V-16. Comparison - All Grant Awards vs Tele- Communications Awards 7/1/71 to 6/30/75, State of Georgia	382
V-17. Comparison - All Grant Awards vs Tele- Communications Awards 7/1/71 through 6/30/75, State of Hawaii	393
V-18. Idaho Law Enforcement Agencies Below State Level of Government	399
V-19. Comparison of All Grant Awards vs Tele- Communications Awards 7/1/71 to 6/30/75, State of Idaho	405
V-20. Comparison - All Grant Awards vs Tele- Communications Awards 7/1/71 to 6/30/74 State of Illinois	419

	<u>Page Number</u>
V-21. Comparison of All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of Indiana	432
V-22. Iowa Law Enforcement Agencies Below State Level of Government	439
V-23. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of Iowa	445
V-24. Comparison - All Grant Awards vs Communications Awards 7/1/71 to 6/30/75, State of Kansas	456
V-25. Kentucky Law Enforcement Agencies Below State Level of Government	462
V-26. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75 - State of Kentucky	468
V-27. Louisiana Law Enforcement Agencies Below State Level of Government	476
V-28. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/74, State of Louisiana	482
V-29. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75 - State of Maine	494
V-30. Maryland Law Enforcement Agencies Below State Level of Government	500
V-31. Comparison of all Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/74, State of Maryland	505

	<u>Page Number</u>
V-32. Massachusetts Law Enforcement Agencies Below State Level of Government	511
V-33. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of Massachusetts	517
V-34. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of Michigan	529
V-35. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of Minnesota	542
V-36. Mississippi Law Enforcement Agencies Below State Level of Government	548
V-37. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of Mississippi	554
V-38. Missouri Law Enforcement Agencies Below State Level of Government	558
V-39. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of Missouri	564
V-40. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of Montana	575
V-41. Nebraska Law Enforcement Agencies Below State Level of Government	583
V-42. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of Nebraska	589

	<u>Page Number</u>
V-43. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of Nevada	600
V-44. New Hampshire Law Enforcement Agencies Below State Level of Government	607
V-45. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of New Hampshire	613
V-46. New Jersey Law Enforcement Agencies Below State Level of Government	619
V-47. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of New Jersey	624
V-48. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of New Mexico	638
V-49. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of New York	651
V-50. North Carolina Law Enforcement Agencies Below State Level of Government	656
V-51. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of North Carolina	662
V-52. North Dakota Law Enforcement Agencies Below State Level of Government	667
V-53. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/74, State of North Dakota	673

	<u>Page Number</u>
V-54. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of Ohio	684
V-55. Oklahoma Law Enforcement Agencies Below State Level of Government	691
V-56. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of Oklahoma	698
V-57. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of Oregon	708
V-58. Pennsylvania Law Enforcement Agencies Below State Level of Government	715
V-59. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of Pennsylvania	720
V-60. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of Rhode Island	730
V-61. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of South Carolina	743
V-62. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/74, State of South Dakota	755
V-63. Tennessee Law Enforcement Agencies Below State Levels of Government	760

	<u>Page Number</u>
V-64. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/74, State of Tennessee	766
V-65. Texas Law Enforcement Agencies Below State Level of Government	772
V-66. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/74, State of Texas	778
V-67. Vermont Law Enforcement Agencies Below State Level of Government	795
V-68. Comparison - All Grant Awards vs Telecommunication Awards 7/1/71 to 6/30/75, State of Vermont	801
V-69. Virginia Law Enforcement Agencies Below State Level of Government	807
V-70. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of Virginia	814
V-71. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of Washington	826
V-72. West Virginia Law Enforcement Agencies Below State Level of Government	832
V-73. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of West Virginia	837
V-74. Wisconsin Law Enforcement Agencies Below State Level of Government	843

	<u>Page Number</u>
V-75. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of Wisconsin	848
V-76. Comparison - All Grant Awards vs Telecommunications Awards 7/1/71 to 6/30/75, State of Wyoming	860

**IV. SUMMARY OF STATE LAW ENFORCEMENT
TELECOMMUNICATIONS SYSTEMS AND
PLANNING ACTIVITIES**

IV. SUMMARY OF STATE LAW ENFORCEMENT TELECOMMUNICATIONS SYSTEMS AND PLANNING ACTIVITIES

APCO PROJECT 13 involved the survey of the LEAA State Planning Agencies in the 50 states and the District of Columbia, 30 Divisions of Communications and the planning sections of the law enforcement agencies in New York City, Los Angeles, and Chicago. This chapter presents the detailed survey data in summary form. A discussion of the Divisions of Communications and their roles is presented in the first section of the chapter; the survey data is presented in Section 2.

1. DIVISIONS OF COMMUNICATIONS

Prior to conducting the survey, contact was made in each state in order to identify the existence of a state-level Division of Communications (DOC) or a DOC-equivalent which had involvement in telecommunications planning for law enforcement agencies.

Specifically, a division, department, bureau, office or coordinator within State Government which has mandatory authority or which acts in an advisory capacity for law enforcement telecommunications planning for itself and others or only for others was classified as a DOC and included in the survey. This definition would include, for example, the planning division of a State Police Department which provides advisory telecommunications planning assistance to local law enforcement agencies. On the other hand, it excludes the planning division of a State Police Department which performs telecommunications planning only for the State Police.

For purposes of this project, the Divisions of Communications were classified in seven categories according to their authority and involvement in law enforcement telecommunications planning. Table IV-1 defines each of these categories.

Thirty of the fifty states were found to have a DOC meeting the definition of one of the seven categories. The identity

of the DOC in each of these 30 states is presented on Table IV-2 along with their authority and the level of their participation, i.e. the number of professional personnel assigned to law enforcement telecommunications planning. The information is further summarized on Table IV-3. It is interesting to note that 15 of 30 DOC's have mandatory authority over state agencies and the State Police or Highway Patrol and act in an advisory capacity for local law enforcement agencies (category 2). Overall, the DOC's have an average of 1.93 full time and 1.43 part time professional personnel involved in law enforcement telecommunications planning.

2. SURVEY DATA

The survey data for the fifty State Planning Agencies is presented in matrix form on Table IV-4. This data has been compiled directly from the survey data package. Table IV-5 contains the DOC survey results.

The survey results as shown on these two tables formed the basis for the summary and the analysis presented in Chapters II and III wherein the national profile and the significant conclusions and recommendations are described. Narrative descriptions of law enforcement telecommunications planning activities in each state, the District of Columbia and the Cities of New York, Chicago and Los Angeles are presented in Chapter V.

Legend for Tables IV-4 and IV-5:

Y = Yes
N = No
Unk = Unknown
N/A = Not Applicable

Table IV-1

Classification of State Divisions
of Communications

DOC Category	DOC Authority			Description
	M = Mandatory A = Advisory N = No Involvement	State Agencies	Local Agencies	
1		M	M	A division, department, bureau, office or coordinator within State Government which has mandatory responsibility for telecommunications planning for all state agencies and local law enforcement agencies.
2		M	A	A division, department, bureau, office or coordinator within State Government which has mandatory responsibility for telecommunications planning for all state agencies (including law enforcement agencies) and serves local law enforcement agencies in an advisory manner.
3		A	A	A division, department, bureau, office or coordinator within State Government which has mandatory responsibility for telecommunications planning for the state law enforcement agency only and serve other state agencies and/or local law enforcement agencies in an advisory manner.
4		A	A	A division, department, bureau, office or coordinator within a non-law enforcement state agency which serves any law enforcement agency in an advisory manner.
5		M	N	A division, department, bureau, office or coordinator within State Government with mandatory responsibility for all state agencies including the state law enforcement agencies, but with no involvement with local law enforcement agencies.

Table IV-1
(Continued)

DOC Category	DOC Authority			Description
	State Agencies	Local Agencies	State Police or Highway Patrol	
6	M	N	A	A division, department, bureau, office or coordinator within State Government which has mandatory responsibility for all state agencies with the exception of the State Law Enforcement and with little or no involvement with local law enforcement agencies.
7	A	N	A	A division, department, bureau, office or coordinator within State Government which provides advisory assistance to state agencies including the state law enforcement agencies, but with no involvement with local law enforcement agencies.

Table IV-2
Authority and Level of Participation of DOCs

STATE	DOC CATEGORY				DOC NAME/COMMENTS		
	Full Time	Part Time	State Agencies	No. of Professional Personnel Active in Law Enf. Telecom. Planning			
DOC AUTHORITY					State Police Or Highway Patrol Only		
M = Mandatory A = Advisory N = No Authority							
ALABAMA	2	2	M	A	M	Division of Telecommunications of the Alabama Development Office	
ALASKA	1	0	2	M	N	M	Division of Communications of the Department of Public Work
ARIZONA	3	10	0	A	A	M	Division of Technical Communication of the Arizona Department of Public Safety
ARKANSAS	-	-	-	-	-	-	No DOC
CALIFORNIA	2	12	0	M	A	M	Division of Communications of the Department of General Services
COLORADO	2	9	0	M	A	M	Division of Communications of the Department of Administration
CONNECTICUT	-	-	-	-	-	-	No DOC
DELAWARE	3	0	0	M	N	M	Communication Division of the Delaware Department of Public Safety

Table IV-2
(Continued)

STATE	DOC CATEGORY			No. of Professional Personnel Active in Law Enf. Planning		DOC AUTHORITY M = Mandatory A = Advisory N = No Authority		DOC NAME/COMMENTS
	Full Time	Part Time	State Agencies	Local L.E. Agencies	State Police Or Highway Patrol Only			
DIST. OF COLUMBIA	—	—	—	—	—	—	—	No DOC
FLORIDA	1	4	4	M	M	M		Division of Communications of the Department of General Services
GEORGIA	2	0	6	M	A	M		Office of Telecommunications of the Department of Administrative Services
HAWAII	4	0	1	A	A	N/A		Civil Defense Division of the Department of Defense
IDAHO	2	0	3	M	A	M		Division of General Services
ILLINOIS	5	0	1	M	N	M		Division of Communications of the Department of General Services
INDIANA	—	—	—	—	—	—		No DOC
IOWA	5	4	0	M	N	M		Division of Communications of the Department of General Services

Table IV-2
(Continued)

STATE	DOC CATEGORY			No. of Professional Personnel Active in Law Enf. Planning		DOC AUTHORITY M = Mandatory A = Advisory N = No Authority		DOC NAME/COMMENTS
	Full Time	Part Time	State Agencies	Local L.E. Agencies	State Police Or Highway Patrol Only			
KANSAS	—	—	—	—	—	—	—	No DOC
KENTUCKY	—	—	—	—	—	—	—	No DOC
LOUISIANA	4	1	4	A	A	A		Office of Telecommunications
MAINE	—	—	—	—	—	—	—	No DOC
MARYLAND	7	0	0	A	N	A		Telecommunication Division of the Department of General Services
MASSACHUSETTS	5	1	0	M	N	M		Bureau of System Analysis, Data Processing and Telecommunications
MICHIGAN	—	—	—	—	—	—	—	No DOC
MINNESOTA	2	1	0	M	A	M		Telecommunications Division of the Department of Administration

Table IV-2
(Continued)

STATE	DOC CATEGORY						DOC NAME/COMMENTS
	Full Time	Part Time	State Agencies	Local L.E. Agencies	State Police Or Highway Patrol Only	No. of Professional Personnel Active in Law Enf. Planning DOC AUTHORITY M = Mandatory A = Advisory N = No Authority	
MISSISSIPPI	—	—	—	—	—	—	No DOC
MISSOURI	2	0	2	M	A	M	Division of EDP Coordination Office of Administration
MONTANA	6	1	0	M	N	A	Communications Division of the Department of Administration
NEBRASKA	2	0	1	M	A	M	Telecommunications Bureau Department of General Services
NEVADA	—	—	—	—	—	—	No DOC
NEW HAMPSHIRE	2	1	3	M	A	M	Communications Bureau of the State Police Division
NEW JERSEY	—	—	—	—	—	—	No DOC
NEW MEXICO	2	0	3	M	A	M	Department of Radio Communications of the Governor's Office

Table IV-2
(Continued).

STATE	DOC CATEGORY						DOC NAME/COMMENTS
	Full Time	Part Time	State Agencies	Local L.E. Agencies	State Police Or Highway Patrol Only	No. of Professional Personnel Active in Law Enf. Planning DOC AUTHORITY M = Mandatory A = Advisory N = No Authority	
NEW YORK	2	0	2	M	A	M	Division of Communications of the Office of General Services
NORTH CAROLINA	—	—	—	—	—	—	No DOC
NORTH DAKOTA	2	1	0	M	A	M	State Radio Communications of the Division of State Institutions
OHIO	—	—	—	—	—	—	No DOC
OKLAHOMA	5	1	0	M	N	M	State Communications Coordinator of the State Board of Public Affairs
OREGON	—	—	—	—	—	—	No DOC
PENNSYLVANIA	2	0	2	M	A	M	Division of Telecommunications Management of the Bureau of Management Services
RHODE ISLAND	—	—	—	—	—	—	No DOC

Table IV-2
(Continued)

STATE	DOC CATEGORY						DOC NAME/COMMENTS
	Full Time	Part Time	State Agencies	Local L.E. Agencies	State Police Or Highway Patrol Only	No. of Professional Personnel Active in Law Enf. Planning DOC AUTHORITY M = Mandatory A = Advisory N = No Authority	
SOUTH CAROLINA	—	—	—	—	—	—	No DOC
SOUTH DAKOTA	2	0	3	M	A	M	South Dakota State Radio Communication of the Attorney General's Office
TENNESSEE	—	—	—	—	—	—	No DOC
TEXAS	—	—	—	—	—	—	No DOC
UTAH	4	2	2	A	A	A	Communications Division of the Department of Highways
VERMONT	2	1	1	M	A	N	Communications Section of the Department of Public Safety
VIRGINIA	6	5	0	M	A	A	Public Telecommunications Council of the Governor's Office
WASHINGTON	—	—	—	—	—	—	No DOC

Table IV-2
(Continued)

STATE	DOC CATEGORY						DOC NAME/COMMENTS
	Full Time	Part Time	State Agencies	Local L.E. Agencies	State Police Or Highway Patrol Only	No. of Professional Personnel Active in Law Enf. Planning DOC AUTHORITY M = Mandatory A = Advisory N = No Authority	
WEST VIRGINIA	—	—	—	—	—	—	No DOC
WISCONSIN	7	2	0	A	N	A	State Telecommunications Coordinator of the Department of Administration
WYOMING	—	—	—	—	—	—	No DOC

Table IV-3
Summary of State DOCs

DOC Category	Ave. Number of Professional Personnel in Law Enf. Planning		DOC Authority			Number of DOCs in Each Category
	Full time	Part time	State Agencies	Local Agencies	M-Mandatory A=advisory N=no authority State Police or Highway Patrol	
No DOC	—	—	—	—	—	21
1	4	4	M	M	M	1
2	1.8	1.9	M	A	M	15
3	10	0	A	A	M	1
4	1	2.3	A	A	A	3
5	1	0.5	M	N	M	6
6	3	0	M	N	A	2
7	1	0	A	N	A	2
Ave. of all DOC's	1.93	1.43				

PLANNING AGENCIES
AND
THEIR ORGANIZATIONS

Table IV-4
State Planning Agencies

156a

Table IV-4 State Planning Agencies																										
		Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Unit of government to which SPA reports																										
•	Attorney General	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
•	Governor's Office	Y	Y	Y	N	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	N	Y	Y	Y	N
•	General Assembly	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
•	General Services	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
•	Other	N	N	N	Y	N	N	N	N	Y	N	N	N	N	N	N	Y	Y	N	N	N	Y	N	N	N	Y
Total Number of professional personnel																										
•	Full time	9	7	33	22	80	17	24	19	53	29	6	14	92	39	23	12	26	23	27	28	64	36	29	22	24
•	Part time	0	0	0	0	0	0	5	5	0	0	0	0	3	0	0	0	0	0	1	1	2	1	1	9	2
Number of above personnel involved in Law Enforcement Telecom planning																										
•	Full time	2	0	3	0	1	1	1	0	0	1	0	0	2	1	0	1	0	0	3	0	1	2	4	3	1
•	Part time	0	1	0	1	0	0	0	2	3	0	1	3	0	0	1	0	2	3	1	2	4	3	0	0	1
Assistance provided to Law Enforcement Agencies																										
•	Tech. review of grant applications	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y
•	Assistance in grant preparation	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
•	Cost-effectiveness evaluation	N	Y	Y	N	N	Y	N	N	N	N	N	N	N	Y	Y	N	Y	N	Y	Y	Y	Y	Y	Y	N
•	System design	Y	N	N	Y	Y	N	N	N	N	N	N	N	N	N	Y	N	Y	N	Y	Y	Y	Y	Y	Y	Y
•	Specification preparation	Y	N	N	N	Y	N	N	N	N	N	N	N	Y	N	Y	Y	Y	N	Y	N	Y	Y	Y	Y	Y
•	System planning	Y	N	N	Y	Y	N	Y	N	N	Y	N	N	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y
•	Post project evaluation	N	Y	Y	N	N	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
•	Acceptance testing	N	N	N	N	N	N	N	N	N	N	N	N	Y	Y	Y	N	N	N	Y	N	N	N	Y	N	N
•	Procurement assistance	N	N	Y	N	Y	Y	N	N	N	Y	N	N	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y
•	Technical training	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N
•	Operational training	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	Y	N	N	N	N	N	N
•	Other	N	N	N	N	N	N	Y	N	Y	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N
Other agencies providing above services																										
•	State Agency of Telecom	Y	Y	N	N	Y	Y	N	N	Y	Y	N	Y	Y	N	Y	N	N	N	N	N	N	Y	N	N	N
•	Regional Planning Agency	Y	N	Y	N	Y	Y	Y	N	N	Y	N	Y	Y	N	Y	N	N	Y	Y	Y	Y	N	N	N	N
•	County Planning Agency	N	N	N	N	Y	Y	N	N	N	N	N	N	Y	N	N	N	N	N	N	Y	Y	N	N	N	N
•	Municipal Planning Agency	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	Y	N	N	N	N	N
•	Other	N	N	Y	N	Y	Y	N	Y	N	N	Y	N	Y	N	N	Y	N	Y	N	Y	Y	Y	N	N	N

Table IV-4
State Planning Agencies

157

Table IV-4 State Planning Agencies																											
		Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	N. Carolina	N. Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	S. Carolina	S. Dakota	Tennessee	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming	Wash., D.C.
Unit of government to which SPA reports																											
• Attorney General		N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	
• Governor's Office		Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	N	Y	Y	N	N	N	N	N	N	N	N	N	N	N	
• General Assembly		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	Y	Y	Y	Y	Y	N	
• General Services		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
• Other		N	N	N	N	N	N	Y	N	Y	N	N	N	N	N	N	Y	N	Y	N	N	N	N	N	N	N	
Total Number of professional personnel																											
• Full time		20	26	26	10	47	14	52	35	10	63	17	21	110	30	23	9	29	55	10	10	37	11	42	25	7	
• Part time		0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	2	0	0	1	0	6	0	
Number of above personnel involved in Law Enforcement Telecom planning																											
• Full time		7	0	1	0	0	0	3	1	0	16	1	0	0	3	1	0	2	3	8	2	7	0	1	1	0	
• Part time		0	2	0	3	6	1	1	0	3	0	0	1	60	0	5	2	0	1	4	0	2	0	0	2	0	
Assistance provided to Law Enforcement Agencies																											
• Tech. review of grant applications		Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	
• Assistance in grant preparation		Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	
• Cost-effectiveness evaluation		Y	N	N	N	N	N	Y	Y	Y	N	N	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	
• System design		Y	N	Y	Y	N	N	Y	Y	Y	N	N	Y	Y	Y	Y	Y	N	Y	N	N	Y	N	N	N	N	
• Specification preparation		Y	N	Y	Y	N	N	Y	Y	Y	N	N	N	Y	Y	Y	Y	N	Y	N	Y	Y	N	Y	N	Y	
• System planning		Y	Y	N	Y	N	N	Y	Y	Y	Y	N	N	N	Y	N	Y	Y	N	Y	Y	Y	Y	Y	N	N	
• Post project evaluation		Y	N	N	Y	N	N	Y	Y	Y	Y	N	Y	Y	Y	N	Y	Y	N	Y	Y	Y	Y	Y	Y	N	
• Acceptance testing		N	N	N	N	N	N	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	N	
• Procurement assistance		Y	N	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	N	Y	N	Y	Y	Y	Y	Y	Y	Y	N	
• Technical training		N	N	N	N	N	N	N	N	N	N	N	N	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Y	N	
• Operational training		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
• Other		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	
Other agencies providing above services																											
• State Agency of Telecom		Y	Y	N	N	Y	Y	N	Y	N	Y	N	Y	N	N	Y	N	N	N	N	N	N	N	Y	Y	N	
• Regional Planning Agency		Y	N	N	N	Y	N	N	N	Y	N	N	Y	N	N	Y	N	N	N	N	N	N	N	Y	Y	N	
• County Planning Agency		N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
• Municipal Planning Agency		N	N	N	N	Y	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	
• Other		Y	N	Y	Y	Y	N	N	N	N	Y	Y	N	N	N	N	Y	Y	Y	N	Y	N	N	N	N	N	

Table IV-4
State Planning Agencies

Table IV-4 State Planning Agencies		Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Number of planning agencies involved in Law Enforcement Telecom Planning																										
•	State level	2	1	1	1	3	3	1	1	2	2	1	1	3	1	2	1	4	3	1	1	1	1	2	1	2
•	Regional	0	0	6	0	24	5	7	0	10	18	0	3	20	0	8	0	18	0	7	5	0	14	7	4	19
•	County	0	0	0	0	Unk	6	0	0	5	0	0	0	0	0	0	0	0	0	2	Unk	3	2	0	0	
•	Municipal	0	0	0	0	Unk	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	3	0	0	
•	State LE agencies	0	0	1	0	1	1	1	1	1	1	0	1	1	1	0	1	1	1	1	4	1	1	1	1	0
•	Regional LE agencies	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	16	10	0	0	1	0	1	0	0
•	County LE agencies	0	0	14	0	Unk	9	0	1	0	2	0	0	0	0	0	105	3	0	16	5	0	83	3	0	0
•	Municipal LE agencies	0	2	53	0	Unk	0	3	1	0	4	0	0	1	6	0	29	1	3	125	1	Unk	481	3	1	0
•	Other	0	0	0	0	Unk	0	0	0	0	0	0	Unk	0	0	0	0	0	0	0	0	0	0	1	0	
Assistance to SPA received from other planning agencies																										
•	Development of State Comprehensive Plans	Y	N	N	Y	Y	Y	Y	N	Y	Y	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	N
•	Development of Local area Plans	N	Y	N	N	Y	Y	Y	N	Y	Y	N	N	N	Y	Y	Y	N	Y	Y	Y	Y	N	N	Y	N
•	Post project evaluation	N	N	N	N	Y	Y	Y	N	Y	Y	N	N	N	N	Y	N	N	Y	Y	N	Y	N	N	N	N
•	Other																									
Other agencies which SPA provides LE Telecom Planning assistance																										
•	State Div. of Comm.	Y	N	N	N	N	Y	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N
•	Other state agencies	Y	N	N	N	N	Y	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	Y	Y	N	N	N
•	Regional and planning agencies	Y	N	N	N	Y	Y	Y	N	Y	Y	N	N	Y	Y	Y	N	Y	N	N	Y	Y	Y	Y	Y	Y
•	County planning agencies	Y	N	N	N	Y	Y	N	N	Y	N	N	N	Y	N	N	N	Y	N	N	Y	N	Y	Y	N	N
Agreements for providing or receiving assistance are																										
•	Formal	N	N	N	N	N	N	N	N/A	Y	Y	N/A	N/A	N	N	Y	N	Y	N	N	N	N	N	N	N	N
•	Informal	Y	Y	N	Y	Y	Y	Y	N/A	N/A	N/A	N/A	N/A	N	N	N/A	Y	N/A	Y	Y	Y	Y	Y	Y	N	N
In-house capabilities																										
•	Engineering	Y	N	N	N	N	N	N	N	N	N	N	N	Y	Y	Y	Y	Y	N	N	N	Y	Y	N	Y	Y
•	Legal	Y	N	N	N	N	Y	Y	N	N	N	Y	N	N	N	Y	Y	Y	N	N	N	Y	N	N	Y	N
•	Financial Planning	Y	N	Y	Y	N	Y	Y	N	N	Y	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y
•	Procurement	N	N	N	Y	N	Y	N	N	N	Y	N	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y
•	Management Planning	N	N	Y	Y	Y	Y	Y	N	N	N	N	N	N	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N
•	Cost Accounting	N	N	N	Y	N	Y	N	N	N	N	N	Y	N	Y	N	N	N	N	N	N	Y	N	N	N	N
•	Reliability Testing	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N
•	Others	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	Y	N	N	N	N	N

158

Table IV-4
State Planning Agencies

Table IV-4 State Planning Agencies		Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	N. Carolina	N. Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	S. Carolina	S. Dakota	Tennessee	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming	Wash., D.C.
Number of planning agencies involved in Law Enforcement Telecom Planning																											
• State level		2	1	2	1	3	1	2	2	1	1	2	2	1	1	1	2	4	3	2	5	1	1	3	3	1	
• Regional		5	0	0	0	0	0	0	5	6	13	0	10	0	10	6	9	24	0	0	22	0	0	10	0	0	
• County		0	0	0	0	6	0	2	0	0	0	0	3	0	Unk	0	0	4	1	0	4	0	0	0	0	0	
• Municipal		0	0	0	0	0	0	1	5	0	0	0	0	10	1	1	0	4	9	1	0	8	0	0	0	0	
• State LE agencies		2	0	0	1	1	1	1	1	0	3	0	0	1	0	Unk	0	1	0	0	1	0	0	0	0	1	
• Regional LE agencies		0	0	0	0	0	0	0	0	0	0	0	0	0	0	Unk	0	0	0	0	0	0	0	0	0	0	
• County LE agencies		0	0	0	0	0	0	0	0	0	0	0	0	0	0	Unk	0	0	0	0	0	0	0	0	0	0	
• Municipal LE agencies		0	0	0	0	0	0	1	0	0	0	0	0	0	0	Unk	0	0	0	0	0	0	0	0	0	0	
• Other		1	0	0	1	0	0	0	0	1	0	0	10	10	Unk	0	0	0	0	0	3	0	0	0	0	0	
Assistance to SPA received from other planning agencies																											
• Development of State Comprehensive Plans		Y	N	Y	Y	Y	Y	N	N	Y	Y	Y	N	Y	N	N	Y	Y	Y	Y	Y	Y	N	Y	Y	N	
• Development of Local area Plans		Y	Y	Y	Y	Y	Y	N	N	Y	Y	Y	N	Y	Y	N	Y	Y	Y	Y	Y	N	Y	Y	N	N	
• Post project evaluation		N	N	N	Y	Y	Y	N	N	N	Y	N	Y	Y	N	N	Y	Y	N	Y	Y	N	N	Y	N	N	
• Other																											
Other agencies which SPA provides LE Telecom Planning assistance																											
• State Div. of Comm.		Y	N	N	N	N	N	N	Y	N	Y	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	
• Other state agencies		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	
• Regional and planning agencies		Y	N	N	N	N	N	N	Y	Y	Y	N	Y	Y	Y	N	Y	Y	Y	N	Y	N	Y	Y	N	N	
• County planning agencies		N	N	N	N	Y	N	N	N	Y	Y	N	Y	Y	Y	N	Y	Y	Y	N	Y	N	N	Y	N	N	
Agreements for providing or receiving assistance are																											
• Formal		N	N	N	N	N	N	N/A	N	N	Y	N	N	N	Y	N	Y	N	N	N	N	N	Y	N	N	N	
• Informal		Y	N	Y	Y	Y	Y	N/A	N	N	N	N	N	N	N/A	Y	N/A	Y	Y	Y	Y	N	Y	N/A	Y	Y	
In-house capabilities																											
• Engineering		N	N	Y	Y	N	N	Y	Y	N	N	N	N	Y	Y	N	Y	N	N	Y	N	Y	N	N	N	N	
• Legal		N	N	N	Y	N	N	N	Y	Y	Y	N	N	Y	Y	N	Y	N	N	Y	N	Y	N	N	N	N	
• Financial Planning		N	N	Y	Y	N	N	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	N	
• Procurement		Y	N	Y	Y	N	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	N	
• Management Planning		N	N	N	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	N	
• Cost Accounting		N	N	Y	Y	N	Y	Y	N	Y	N	N	N	Y	Y	N	N	N	Y	Y	Y	N	N	N	Y	N	
• Reliability Testing		N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
• Other		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	

159

Table IV-4
State Planning Agencies

Table IV-4 State Planning Agencies		Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Person responsible for knowl- edge of FCC rules		Y	N	Y		N		Y	N	Y	N	N	N	Y	N		Y	N	Y	Y	N	Y	Y	N	Y	N
Person responsible for monitor- ing and comments on FCC dockets		Y	N	N		N		Y	N	Y	N	N	N	N	N		N	N	Y	N	N	Y	Y	N	N	N
Participation in FCC proceedings (__ times per year)		0	0	0		0		2	0	1	0	0	0	0	Unk		0	0	2	0	0	0	0	0	0	1
Recommend to governor in connection with FCC proceedings		Y	N	N		Y		Y	N	Y	Y	N	N	N	N		N	N	Y	Y	N	N	N	N	N	Y
Method used for monitoring FCC																										
• Federal Register		N	N	N		N		N	N	N	Y	N	N	N	Y		N	N	Y	N	N	Y	N	N	N	N
• FCC reports/dockets		Y	N	N		N		N	N	Y	N	N	N	Y	N		N	N	Y	N	N	Y	N	N	N	Y
• Formal FCC actions		N	N	N		N		N	N	Y	N	N	N	N	N		N	N	Y	N	N	N	N	N	N	Y
• Informal contact		Y	N	N		N		N	N	Y	N	N	N	Y	N		N	N	Y	Y	Y	Y	Y	N	N	Y
• Trade periodicals		Y	N	N		Y		Y	N	Y	Y	N	N	Y	Y		Y	N	Y	Y	Y	Y	Y	N	Y	Y
• Does not keep abreast		N	N	N		N		N	Y	N	N	Y	N	N	N		N	N	N	N	N	N	N	Y	N	N
• Other		N	Y	Y		N		N	N	N	Y	N	N	Y	N		N	Y	N	Y	N	N	N	N	N	N
Contact with FCC (__ times per year)																										
• Office of Exec. Director		0	0	0		0		0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0
• Office of Gen. Counsel		0	0	0		0		0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0
• Office of Chief Engineer		0	0	0		0		12	0	1	0	0	0	0	0		0	0	0	0	0	0	1	0	0	0
• Field Operations Bur.		25	0	0		0		0	0	2	0	0	0	0	0		1	0	12	1	0	0	1	0	5	0
• Broadcast Bur.		0	0	0		0		0	0	1/2	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0
• Cable Television Bur.		0	0	0		0		0	0	1	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0
• Common Carrier Bur.		0	0	0		0		0	0	1	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0
• Safety and Spec. Radio Service Bur.		12	0	0		0		12	0	100	0	0	0	3	0		1	0	0	6	0	4	4	0	5	1
Coordination with APCO freq. coordinator during freq. plan development (N/A indicates no freq. plan)		Y	Y	N/A		N/A		Y	N/A	Y	Y	N/A	N/A	Y	N/A		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Relation with PUC																										
• Working agreement		N	N	N		N		N	N	N	N	N	N	N	N		N	N	N	N	N	N	N	N	N	N
• Rate plan developed		N	N	N		N		N	N	N	N	N	N	N	N		N	N	N	N	N	N	N	N	N	N
• Other		N	N	N		N		N	N	N	N	N	N	Y	N		N	N	N	N	N	N	Y	N	N	N
• None		X	X	X		X		X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X

Table IV-4
State Planning Agencies

Table IV-4 State Planning Agencies		Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	N. Carolina	N. Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	S. Carolina	S. Dakota	Tennessee	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming	Wash., D.C.
Person responsible for knowl- edge of FCC rules	Y		Y		N	Y	Y	N	N	N	N	N	N		Y	N	Y	N	N		N	N	N		N	N	
Person responsible for monitor- ing and comments on FCC dockets	Y		N		N	Y	N	N	N	N	N	N	N		Y	N	Y	N	N		N	N	N		N	N	
Participation in FCC proceedings (__times per year)	0		0		0	1	0	0	0	0	0	0	0		0	0	0	0	0		N	N	N		N	N	
Recommend to governor in connection with FCC proceedings	Y		N		N	N	N	Y	N	N	N	N	N		N	N	N	N	N		0	0	0		0	0	
Method used for monitoring FCC															N	N	N	N	N		N	N	N		N	N	
• Federal Register	N		N		N	N	N	N	N	N	N	N	N		Y	N	Y	Y	N		N	N	N		N	N	
• FCC reports/dockets	Y		N		N	N	Y	N	N	N	N	N	N		Y	N	Y	Y	N		N	N	N		N	N	
• Formal FCC actions	N		N		N	Y	N	N	N	N	N	N	N		Y	N	N	N	N		N	N	N		N	N	
• Informal contact	Y		N		N	Y	N	N	N	N	N	N	N		N	N	N	N	N		N	N	N		N	N	
• Trade periodicals	Y		Y		N	Y	N	Y	N	N	N	N	N		Y	N	N	Y	N		N	N	N		N	N	
• Does not keep abreast	N		N		N	N	N	N	Y	N	Y	N	N		Y	N	Y	Y	N		Y	N	Y		N	N	
• Other	N		N		Y	Y	N	N	N	N	Y	Y	Y		N	N	N	N	N		N	Y	N		N	Y	
Contact with FCC (__times per year)															Y	N	Y	N	N		N	N	N		Y	N	
• Office of Exec. Director	0		Unk		0	0	0	0	0	0	0	0	0		0	0	0	Unk	0		0	0	0		Unk	0	
• Office of Gen. Counsel	0		Unk		0	0	0	0	0	0	0	0	0		0	0	0	Unk	0		0	0	0		Unk	0	
• Office of Chief Engineer	0		Unk		0	0	0	0	0	0	0	0	0		0	0	0	Unk	0		0	0	0		Unk	0	
• Field Operations Bur.	5		Unk		0	0	0	6	0	0	0	0	0		0	0	0	Unk	0		0	0	0		Unk	0	
• Broadcast Bur.	0		Unk		0	0	0	0	0	0	0	0	0		0	0	0	1	0		0	0	0		Unk	0	
• Cable Television Bur.	0		Unk		0	0	0	0	0	0	0	0	0		0	0	0	Unk	0		0	0	0		Unk	0	
• Common Carrier Bur.	0		Unk		0	0	0	0	0	0	0	0	0		0	0	0	Unk	0		0	0	0		Unk	0	
• Safety and Spec. Radio Service Bur.	25		Unk		0	6	0	12	0	12	0	0	0		0	0	0	Unk	0		0	0	0		Unk	0	
Coordination with APCO freq. coordinator during freq. plan development (N/A indicates no freq. plan)	Y		N/A		N/A	Y	Y	N	Y	N	N/A	N/A	N/A		Y	N	Y	Y	N/A		Y	N/A	N/A		N	N	
Relation with PUC																											
• Working agreement	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
• Rate plan developed	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
• Other	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
• None	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

Table IV-4
State Planning Agencies

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Contact with PUC																									
. Monthly	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
. Yearly	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
. Never	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
. Other	N	N	N	N	N	N	N	N	N	N	N	Y	N	Y	N	N	N	N	N	N	Y	N	N	N	N
Participation in PUC hearings	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N

Table IV-4
State Planning Agencies

Table IV-4 State Planning Agencies		Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	N. Carolina	N. Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	S. Carolina	S. Dakota	Tennessee	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming	Wash. D. C.
Contact with PUC																											
• Monthly	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
• Yearly	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
• Never	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
• Other	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Participation in PUC hearings	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

Table IV-4
State Planning Agencies

164

Table IV-4 State Planning Agencies		Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
State Law Enforcement agencies eligible for LEAA grants		Y	N	N	Y	Y	N	Y	Y	N	N	N	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N
•	State Police	Y	N	N	Y	Y	N	N	Y	Y	N	N	N	N	N	Y	Y	Y	Y	N	N	N	N	N	N	N
•	State Highway Patrol	Y	N	Y	N	Y	Y	N	Y	Y	N	N	N	N	N	Y	N	N	Y	N	Y	Y	Y	N	N	N
•	Marine Patrol	N	N	N	N	N	N	N	Y	Y	N	N	N	N	Y	Y	N	N	Y	N	Y	Y	Y	N	N	N
•	Game and Fish	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	Y	N	N	N	Y	N	N	Y	N
•	Environmental Protection	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	Y	N	Y	N	N	N	N	N	N	N	N
•	Liquor Control Board	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	Y	N	N	N	N
•	State Dept. of Public Safety	N	Y	N	N	N	N	Y	N	N	N	N	N	N	Y	N	N	N	N	N	Y	N	N	N	N	N
Number of L. E. agencies		67	0	14	75	58	62	0	1	67	171	4	44	102	92	99	105	132	64	16	5	14	83	87	82	115
•	County	0	0	0	0	5	Unk	0	1	Unk	0	0	0	0	0	0	2	0	0	0	1	0	0	0	0	0
•	County Park	38	Unk	14	19	Unk	22	1	1	20	42	4	44	102	92	99	105	55	91	9	24	10	83	87	20	114
•	Prosecutors	350	30	63	250	350	160	102	34	298	337	0	89	869	493	400	167	245	151	125	57	351	481	490	228	500
•	Municipal	0	0	0	0	Unk	1	0	0	Unk	0	0	0	8	0	0	0	0	1	1	1	0	0	0	0	Unk
•	Municipal Park	0	0	0	0	Unk	1	0	0	Unk	0	0	0	8	0	0	0	0	1	1	1	0	0	0	0	Unk
•	Campus	18	1	6	8	29	5	6	4	11	28	0	5	24	20	5	30	9	18	2	10	15	11	1	24	30
•	Other	0	1	0	0	0	3	0	1	0	0	0	0	0	0	0	0	1	307	2	26	3	3	1	0	3
•	Total	435	33	84	333	442	231	108	41	365	536	4	139	1008	605	504	311	389	547	146	103	393	580	580	335	619
Does SPA fund:																										
•	County Park P. D's	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N
•	Municipal Park P. D. s	N	N	N	Y	N	N	N	N	N	N	N	N	Y	N	N	Y	N	Y	Y	N	N	Y	Y	Y	N
•	Campus P. Ds	Y	N	Y	N	N	Y	N	N	N	N	N	N	Y	Y	N	N	N	Y	Y	Y	Y	N	Y	N	Y
•	Prosecutors Offices	Y	N	Y	Y	N	Y	N	N	Y	Y	N	N	Y	Y	N	N	N	N	N	N	N	N	N	N	N

Table IV-4
State Planning Agencies

165

Table IV-4 State Planning Agencies		Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	N. Carolina	N. Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	S. Carolina	S. Dakota	Tennessee	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming	Wash., D.C.
State Law Enforcement agencies eligible for LEAA grants																											Y
•	State Police	N	N	N	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	N	N	N	N	Y	Y	N	Y	Y	N	N
•	State Highway Patrol	Y	Y	Y	N	N	N	Y	Y	Y	Y	N	N	N	Y	Y	N	N	Y	N	N	N	Y	N	N	Y	N
•	Marine Patrol	N	N	N	Y	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N
•	Game and Fish	Y	Y	Y	N	N	N	N	N	Y	Y	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N
•	Environmental Protection	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N
•	Liquor Control Board	N	Y	N	N	N	N	N	Y	N	Y	N	N	N	N	Y	N	N	Y	N	N	N	N	N	N	N	N
•	State Dept. of Public Safety	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	Y	N	N	N	N	N	N	N	N	N
Number of L. E. agencies																											
•	County	56	93	17	10	2	32	2	102	53	88	77	36	1	0	48	64	94	254	29	14	95	39	55	72	23	0
•	County Park	0	0	0	0	9	0	Unk	0	0	Unk	Unk	Unk	Unk	0	0	0	0	0	0	0	0	Unk	0	0	0	0
•	Prosecutors	56	93	17	11	21	13	Unk	30	53	88	28	36	69	1	16	64	27	254	50	14	133	39	55	71	23	2
•	Municipal	93	283	10	200	460	92	600	373	191	806	372	182	1400	39	180	Unk	214	620	130	71	189	225	237	158	64	1
•	Municipal Park	0	1	0	0	1	0	Unk	1	0	Unk	2	Unk	Unk	0	0	0	3	1	0	0	5	0	0	0	0	0
•	Campus	3	5	2	14	11	6	Unk	18	2	16	Unk	Unk	12	2	8	0	16	42	5	0	59	5	2	13	2	8
•	Other	7	0	1	0	7	3	5	0	4	129	0	0	4	3	1	0	0	0	4	0	Unk	7	0	0	1	0
•	Total	160	383	30	225	490	133	608	496	252	1041	450	219	1400	42	257	Unk	329	917	168	86	248	276	296	368	95	9
Does SPA fund:																											
•	County Park P. D. s	N	N	N	N	Y	N	Y	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N/A
•	Municipal Park P. D. s	N	Y	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N/A
•	Campus P. D. s	Y	Y	N	N	N	Y	Y	N	Y	Y	Y	N	Y	N	N	Y	Y	Y	Y	N	N	Y	Y	Y	Y	N
•	Prosecutors Offices	Y	Y	N	N	Y	Y	N	N	N	Y	N	Y	Y	N	N	Y	Y	Y	Y	Y	N	N	N	N	Y	N

**STATUS OF PRESENT
LAW ENFORCEMENT
SYSTEMS**

Table IV-4
State Planning Agencies

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
No. of centralized dispatch centers	20	0	13	5	Unk	56	7	3	16	1	0	56	10	24	12	112	6	0	20	18	10	81	90	66	11
No. of centralized centers serving areas of:																									
0-50 sq. mi.	0	N/A	5	0	Unk	1	Unk	0	3	0	N/A	0	0	0	0	Unk	0	N/A	6	0	5	Unk	Unk	0	0
50-200 sq. mi.	0	N/A	0	5	Unk	4	Unk	3	4	0	N/A	10	4	2	0	Unk	0	N/A	14	0	4	Unk	Unk	0	0
200 sq. mi. or more	20	N/A	8	0	Unk	51	Unk	0	9	1	N/A	46	6	22	12	Unk	6	N/A	0	18	1	2	Unk	66	11
No. of centralized centers serving population of:																									
0-20,000	2	N/A	11	2	Unk	1	Unk	0	4	1	N/A	43	2	17	9	Unk	0	N/A	6	2	6	Unk	44	48	0
20,000-100,000	18	N/A	1	3	Unk	53	Unk	2	0	0	N/A	10	4	7	2	Unk	5	N/A	14	12	3	Unk	40	17	10
100,000-500,000	2	N/A	0	0	Unk	2	Unk	1	10	0	N/A	3	4	0	1	Unk	1	N/A	0	2	1	2	3	1	0
500,000 or more	0	N/A	1	0	Unk	0	Unk	0	2	0	N/A	0	0	0	0	Unk	0	N/A	0	2	0	Unk	2	0	1
No. of centralized centers serving:																									
L.E. only	20	N/A	Unk	5	Unk	0	Unk	3	4	0	N/A	56	Unk	Unk	0	Unk	6	N/A	8	17	9	Unk	0	59	0
L.E. and Fire	0	N/A	Unk	0	Unk	0	Unk	0	0	0	N/A	0	Unk	Unk	0	Unk	0	N/A	0	0	0	Unk	1	3	0
L.E. and EMS	0	N/A	Unk	0	Unk	0	Unk	0	5	0	N/A	0	Unk	Unk	0	Unk	0	N/A	0	0	0	Unk	0	2	11
L.E., Fire and EMS	0	N/A	Unk	0	Unk	0	Unk	0	5	0	N/A	0	Unk	Unk	12	Unk	0	N/A	8	1	0	2	14	2	0
L.E., Fire, EMS plus others	0	N/A	Unk	0	Unk	56	Unk	0	2	1	N/A	0	Unk	Unk	0	Unk	0	N/A	6	0	1	1	75	0	0
No. of centralized centers with 911	0	N/A	0	0	1	1	Unk	0	2	0	N/A	1	1	12	0	Unk	0	N/A	1	2	0	4	3	7	0
No. of centralized centers with single 7-digit emergency number for:																									
L.E. only	0	N/A	0	0	Unk	0	Unk	1	5	0	N/A	5	10	Unk	0	Unk	0	N/A	8	16	9	Unk	80	0	2
L.E. and Fire	0	N/A	0	0	Unk	0	Unk	0	2	0	N/A	0	0	Unk	0	Unk	0	N/A	0	0	0	Unk	5	0	Unk
L.E., Fire and EMS	0	N/A	0	0	Unk	2	Unk	0	4	0	N/A	0	0	Unk	1	Unk	0	N/A	6	0	1	Unk	5	0	Unk
No. of individual dispatch centers	377	35	64	275	400	27	Unk	9	270	335	4	0	440	272	Unk	Unk	240	121	63	31	242	Unk	11	97	445
No. of individual centers serving area of:																									
0-50 sq. mi.	306	12	0	Unk	Unk	25	Unk	9	180	Unk	0	N/A	Unk	178	Unk	Unk	119	Unk	55	23	236	Unk	9	55	327
50-200 sq. mi.	4	21	54	Unk	Unk	0	Unk	0	25	Unk	0	N/A	Unk	2	Unk	Unk	15	Unk	8	1	6	Unk	2	0	4
200 sq. mi. or more	67	2	10	Unk	Unk	2	Unk	0	65	Unk	4	N/A	Unk	92	Unk	Unk	106	Unk	0	7	0	Unk	0	42	114

Table IV-4
State Planning Agencies

	Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	N. Carolina	N. Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	S. Carolina	S. Dakota	Tennessee	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming	Wash., D.C.
No. of centralized dispatch centers	6	18	3	31	150	19	45	Unk	8	Unk	58	8	Unk	0	20	13	24	3	25	3	0	5	65	Unk	31	N/A
No. of centralized centers serving areas of:																										
0-50 sq. mi.	0	Unk	0	5	130	0	40	Unk	0	Unk	8	0	Unk	N/A	0	0	1	Unk	0	N/A	1	5	Unk	0	N/A	
50-200 sq. mi.	0	Unk	0	11	20	0	5	Unk	0	Unk	46	4	Unk	N/A	0	0	24	1	Unk	0	N/A	0	5	Unk	12	N/A
200 sq. mi. or more	6	Unk	3	15	0	19	0	Unk	8	Unk	2	4	Unk	N/A	20	13	0	1	Unk	3	N/A	4	55	Unk	9	N/A
No. of centralized centers serving population of:																										
0-20,000	3	0	0	8	48	16	1	Unk	0	Unk	39	4	Unk	N/A	1	7	21	0	Unk	0	N/A	0	21	Unk	25	N/A
20,000-100,000	3	18	1	21	100	3	39	Unk	7	Unk	17	1	Unk	N/A	14	5	3	3	Unk	3	N/A	1	44	Unk	5	N/A
100,000-500,000	0	0	2	1	2	0	3	Unk	0	Unk	2	2	Unk	N/A	4	1	0	0	Unk	0	N/A	4	1	Unk	0	N/A
500,000 or more	0	0	0	1	0	0	2	Unk	1	Unk	0	1	Unk	N/A	1	0	0	0	Unk	0	N/A	0	0	Unk	0	N/A
No. of centralized centers serving:																										
L.E. only	0	10	0	0	Unk	19	0	Unk	Unk	Unk	0	1	Unk	N/A	13	0	0	3	Unk	0	N/A	4	21	Unk	5	N/A
L.E. and Fire	0	5	0	0	Unk	0	0	Unk	Unk	Unk	0	5	Unk	N/A	0	0	0	0	Unk	0	N/A	1	23	Unk	0	N/A
L.E. and EMS	0	3	3	2	Unk	0	0	Unk	Unk	Unk	0	0	Unk	N/A	3	0	0	0	Unk	0	N/A	0	3	Unk	0	N/A
L.E., Fire and EMS	0	0	0	22	Unk	0	45	Unk	Unk	Unk	0	0	Unk	N/A	3	0	24	0	Unk	0	N/A	0	14	Unk	0	N/A
L.E., Fire, EMS plus others	6	0	0	7	Unk	0	0	Unk	Unk	Unk	58	2	Unk	N/A	1	13	0	0	Unk	3	N/A	0	4	Unk	26	N/A
No. of centralized centers with 911	2	21	0	1	1	0	3	Unk	0	Unk	9	3	Unk	N/A	1	0	6	Unk	2	0	N/A	0	2	1	16	N/A
No. of centralized centers with single 7-digit emergency number for:																										
L.E. only	0	0	3	0	Unk	0	Unk	Unk	0	Unk	0	1	Unk	N/A	Unk	0	0	Unk	Unk	0	N/A	1	Unk	Unk	0	N/A
L.E. and Fire	0	0	0	0	Unk	0	Unk	Unk	0	Unk	0	1	Unk	N/A	0	0	0	Unk	Unk	0	N/A	0	Unk	Unk	0	N/A
L.E., Fire and EMS	4	0	0	31	Unk	0	Unk	Unk	1	Unk	49	Unk	Unk	N/A	1	0	0	Unk	Unk	0	N/A	0	Unk	Unk	15	N/A
No. of individual dispatch centers	89	Unk	21	19	310	49	509	246	91	Unk	372	Unk	Unk	40	237	57	156	874	9	62	180	200	229	Unk	5	1
No. of individual centers serving area of:																										
0-50 sq. mi.	30	Unk	0	4	Unk	22	Unk	244	26	Unk	273	Unk	Unk	9	150	57	82	400	Unk	48	Unk	161	227	Unk	5	0
50-200 sq. mi.	0	Unk	3	15	Unk	6	Unk	2	8	Unk	22	Unk	Unk	31	7	0	73	295	Unk	6	Unk	0	2	Unk	0	1
200 sq. mi. or more	59	Unk	18	0	Unk	23	Unk	0	57	Unk	77	Unk	Unk	0	28	64	1	269	Unk	14	Unk	39	0	Unk	0	0

Table IV-4
State Planning Agencies

168

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
No. of individual centers serving population of:																									
0-20,000	297	33	56	Unk	217	10	Unk	6	224	282	0	N/A	Unk	246	Unk	Unk	194	74	55	21	199	Unk	3	55	315
20,000-100,000	75	1	6	Unk	150	17	Unk	3	38	46	3	N/A	Unk	20	Unk	Unk	41	31	8	6	42	Unk	5	41	125
100,000-500,000	4	1	1	Unk	31	0	Unk	0	7	6	0	N/A	Unk	5	Unk	Unk	5	4	0	1	1	Unk	3	1	2
500,000 or more	1	0	1	Unk	5	0	Unk	0	1	1	1	N/A	Unk	1	Unk	Unk	0	1	0	3	0	Unk	0	0	3
No. of individual centers that serve: (EMS = Ambulance)																									
L.E. only	377	9	Unk	275	Unk	0	Unk	9	Unk	Unk	3	N/A	Unk	Unk	Unk	Unk	Unk	97	63	30	230	Unk	Unk	95	0
L.E. and Fire	0	0	Unk	0	79	0	Unk	0	Unk	Unk	0	N/A	Unk	Unk	Unk	Unk	Unk	8	0	0	0	Unk	Unk	0	0
L.E. and EMS	0	26	Unk	0	Unk	0	Unk	0	Unk	Unk	0	N/A	Unk	Unk	Unk	Unk	Unk	2	0	0	0	Unk	Unk	2	445
L.E., Fire and EMS	0	0	Unk	0	Unk	0	Unk	0	Unk	Unk	0	N/A	Unk	Unk	Unk	Unk	Unk	6	0	0	0	Unk	Unk	0	0
L.E., Fire, EMS and others	0	0	Unk	0	Unk	27	Unk	0	Unk	Unk	1	N/A	Unk	Unk	Unk	Unk	Unk	0	0	1	12	Unk	Unk	0	0
No. of individual centers that have single 7-digit emergency number for:																									
L.E. and Fire	0	0	Unk	0	Unk	0	Unk	0	0	Unk	0	N/A	Unk	Unk	Unk	0	0	0	3	0	12	Unk	0	1	Unk
L.E., Fire and EMS	0	0	Unk	0	Unk	1	Unk	0	0	Unk	Unk	N/A	Unk	Unk	Unk	0	0	32	0	2	0	7	0	0	Unk
Total No. of centers with 911	38	2	2	1	12	1	19	0	2	4	1	1	14	12	4	11	4	15	3	3	5	5	3	22	2
No. of centers with 911 serving population of:																									
0-20,000	10	1	1	0	Unk	0	10	N/A	0	2	0	0	9	6	0	4	2	Unk	2	0	0	0	2	15	0
20,000-100,000	24	0	0	1	Unk	1	7	N/A	2	1	0	1	5	4	4	7	2	Unk	1	1	4	3	1	6	2
100,000-500,000	3	1	1	0	Unk	0	2	N/A	0	1	0	0	0	1	0	0	0	Unk	0	0	1	1	0	1	0
500,000 or more	1	0	0	0	Unk	0	0	N/A	0	0	1	0	0	1	0	0	0	Unk	0	2	0	1	0	0	0
No. of centers with 911 that serve:																									
L.E. only	Unk	0	1	0	0	0	0	N/A	0	0	1	0	8	Unk	0	0	0	Unk	0	0	5	4	0	22	0
L.E. and Fire	Unk	0	0	0	0	0	13	N/A	0	2	0	0	0	Unk	0	0	4	Unk	1	0	0	1	0	0	0
L.E. and EMS	Unk	0	0	0	0	0	0	N/A	0	0	0	0	1	Unk	9	0	0	Unk	0	0	0	0	0	0	0
L.E., Fire and EMS	Unk	2	1	1	12	1	6	N/A	0	0	0	1	2	Unk	4	0	0	Unk	0	3	0	0	3	0	2
L.E., Fire, EMS and others	Unk	0	0	0	0	0	0	N/A	2	2	0	0	3	Unk	0	11	0	Unk	2	0	0	0	0	0	0
No. of centers with computer assisted dispatching	0	0	0	0	10	0	0	0	3	0	0	0	4	0	0	0	0	3	0	0	0	1	0	0	1
No. of centers planning computer assisted dispatching	1	1	3	0	Unk	3	2	0	3	2	0	1	2	1	2	1	1	4	0	2	1	3	1	1	1
No. of telephone companies in state	38	9	11	100	33	58	4	1	20	43	1	20	56	67	176	55	30	25	22	1	1	147	105	24	53

Table IV-4
State Planning Agencies

169

Table IV-4 State Planning Agencies		Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	N. Carolina	N. Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	S. Carolina	S. Dakota	Tennessee	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming	Wash., D.C.
No. of individual centers serving population of:																											
• 0-20,000		79	Unk	8	15	Unk	22	Unk	236	87	Unk	328	Unk	Unk	34	206	112	27	751	Unk	49	Unk	100	214	Unk	2	0
• 20,000-100,000		10	Unk	11	4	Unk	26	Unk	8	4	Unk	40	Unk	Unk	5	28	8	12	90	Unk	12	Unk	99	15	Unk	3	0
• 100,000-500,000		0	Unk	2	0	Unk	3	Unk	2	0	Unk	4	Unk	Unk	1	2	1	4	26	Unk	1	Unk	0	0	Unk	0	0
• 500,000 or more		0	Unk	0	0	Unk	0	Unk	0	0	Unk	0	Unk	Unk	0	1	0	1	7	Unk	0	Unk	1	0	Unk	0	1
No. of individual centers that serve:																											
• L.E. only		4	Unk	0	0	Unk	51	Unk	232	0	Unk	2	Unk	Unk	40	Unk	0	156	874	Unk	44	Unk	Unk	Unk	Unk	5	1
• L.E. and Fire		0	Unk	0	0	Unk	0	Unk	7	0	Unk	0	Unk	Unk	0	0	0	0	0	Unk	2	Unk	Unk	Unk	Unk	0	0
• L.E. and EMS		0	Unk	21	15	Unk	0	Unk	4	0	Unk	0	Unk	Unk	0	Unk	0	0	0	Unk	0	Unk	Unk	Unk	Unk	0	0
• L.E., Fire and EMS		0	Unk	0	0	Unk	0	Unk	2	91	Unk	0	Unk	Unk	0	Unk	0	0	0	Unk	0	Unk	Unk	Unk	Unk	0	0
• L.E., Fire, EMS and others		85	Unk	0	4	Unk	0	Unk	1	0	Unk	370	Unk	Unk	0	Unk	64	0	0	Unk	15	Unk	Unk	Unk	Unk	0	0
No. of individual centers that have single 7-digit emergency number for:																											
• L.E. and Fire		0	Unk	0	0	Unk	0	Unk	246	Unk	Unk	0	Unk	Unk	00	Unk	0	156	0	Unk	0	0	Unk	Unk	Unk	0	0
• L.E., Fire and EMS		0	Unk	0	19	Unk	0	Unk	Unk	Unk	372	Unk	Unk	Unk	0	Unk	0	0	0	Unk	0	0	Unk	Unk	Unk	0	0
Total No. of centers with 911		4	Unk	0	1	5	4	13	2	1	Unk	9	3	20	0	1	3	35	0	2	0	1	2	2	4	17	1
No. of centers with 911 serving population of:																											
• 0-20,000		3	Unk	N/A	0	0	0	3	1	0	Unk	0	3	13	N/A	0	0	26	0	Unk	Unk	Unk	1	0	2	15	0
• 20,000-100,000		1	Unk	N/A	1	0	3	5	0	1	Unk	9	0	5	N/A	1	2	7	0	1	Unk	Unk	0	2	1	2	0
• 100,000-500,000		0	Unk	N/A	0	5	1	1	1	0	Unk	0	0	2	N/A	0	1	2	0	Unk	Unk	Unk	0	0	0	0	0
• 500,000 or more		0	Unk	N/A	0	0	0	4	0	0	Unk	0	0	0	N/A	0	0	0	0	Unk	Unk	Unk	1	0	0	0	1
No. of centers with 911 serving:																											
• L.E. only		1	Unk	N/A	0	0	0	3	0	0	Unk	0	0	Unk	N/A	0	0	29	0	0	Unk	Unk	2	0	0	0	0
• L.E. and Fire		0	Unk	N/A	0	0	0	0	0	0	Unk	0	0	Unk	N/A	0	0	0	0	0	Unk	Unk	0	0	0	0	0
• L.E. and EMS		0	Unk	N/A	0	0	0	0	0	0	Unk	0	3	Unk	N/A	0	0	0	0	0	Unk	Unk	0	0	0	0	0
• L.E., Fire and EMS		0	Unk	N/A	0	0	0	0	0	0	Unk	0	0	Unk	N/A	0	0	0	0	0	Unk	Unk	0	0	0	0	0
• L.E., Fire EMS and others		3	Unk	N/A	1	0	0	0	0	1	Unk	0	0	Unk	N/A	0	0	6	0	0	Unk	Unk	0	0	4	17	0
No. of centers with computer assisted dispatching		0	0	1	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	1	
No. of centers planning computer assisted dispatching		0	0	0	0	5	0	3	3	1	0	3	2	1	0	0	0	0	0	0	0	1	0	0	0	0	
No. of telephone companies in state		20	63	11	12	7	20	Unk	35	17	60	48	26	58	2	32	38	30	Unk	13	13	26	42	17	118	14	1

Table IV-4
State Planning Agencies

170

Table IV-4 State Planning Agencies		Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Status of Frequency Plan																										
Completed		N	N	N	Y	N	Y	N	N	Y	Y	N	Y	N	N	Y	N	N	N	Y	Y	Y	Y	Y	Y	N
In preparation		N	Y	N	N	N	N	Y	N	N	N	N	N	Y	N	N	N	Y	Y	N	N	N	N	N	N	Y
Planning to Prepare		Y	N	Y	N	N	N	N	Y	N	N	N	N	Y	N	Y	N	N	N	N	N	N	N	N	N	N
Frequency Plan prepared by:																										
SPA		N	N	N/A	N	N/A	N	N	N/A	N	Y	N/A	N	N	N/A	N	Y	N	N	Y	N	N	N	N	Y	Y
DOC		Y	Y	N/A	N	N/A	Y	N	N/A	Y	N	N/A	Y	N	N/A	N	N	N	N	N	N	N	N	N	N	N
Other government agency		N	N	N/A	N	N/A	N	N	N/A	N	Y	N/A	N	N	N/A	N	N	N	N	N	N	N	N	N	N	N
Consultant		N	N	N/A	N	N/A	N	Y	N/A	Y	Y	N/A	N	Y	N/A	Y	N	Y	Y	N	Y	Y	Y	Y	N	N
Vendor		N	N	N/A	Y	N/A	N	N	N/A	N	N	N/A	N	N	N/A	N	N	N	N	N	N	N	N	N	N	N
Frequency Plan contains:																										
Specific frequencies for each agency		Y	N	N/A	N	N/A	N	N	N/A	Y	Y	Y	N/A	N	N/A	Y	N	N	Y	Y	N	Y	Y	Y	Y	N
Specific frequencies for some agencies		N	Y	N/A	Y	N/A	N	N	N/A	N	N	N	N/A	Y	N/A	N	Y	N	N	N	Y	N	N	N	N	N
Recommended frequency bands only		N	N	N/A	N	N/A	Y	Y	N/A	N	N	N	N/A	Y	N/A	N	N	N	N	N	Y	N	N	N	N	N
Frequency Plan is computerized																										
		N	N	N/A	N	N/A	Y	N	N/A	N	N	N	N/A	N	N/A	N	N	N/A	N	N	N	N	Y	N	Y	N
Frequency Plan considers:																										
Police frequencies		Y	Y	N/A	Y	N/A	Y	N/A	N/A	Y	Y	Y	N/A	Y	N/A	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Local government frequencies		N	N	N/A	N	N/A	Y	N/A	N/A	Y	N	N	N/A	N/A	N/A	N	N	N	N	Y	Y	Y	N	N	N	Y
72-75 MHz band		N	N	N/A		N/A		N	N/A	N	N	N/A	N/A	N	N		N	N	N	N	N	N	N	N	N	N
852-960 MHz band		N	N	N/A		N/A		Y	N/A	N	N	N/A	N/A	N	N		N	N	Y	N	Y	N	N	N	N	N
Other		N	N	N/A	N	N/A	N	N/A	N/A	N	Y	N	N/A	N/A	N/A	N	N	N	Y	N	Y	Y	N	N	N	N
No. of frequency coordinators in state																										
		1	2	1	1	2	2	1	1	1	1	1		1	1	1	1	2	4	0	1	1	17	1	1	1
No. of requests for frequency coordination																										
1971		74	18	105	129	900	26	Unk	4	170	210	16	Unk	130	349	70	46	137	Unk	Unk	78	Unk	172	360	100	147
1972		45	24	152	85	1000	32	29	14	147	275	10	Unk	150	356	64	54	166	90	19	80	25	114	400	79	155
1973		89	26	167	120	1084	45	25	7	126	180	33	Unk	190	423	43	36	465	131	6	49	44	155	452	116	173
1974		101	Unk	Unk	87	Unk	Unk	14	Unk	208	125	Unk	Unk	Unk	Unk	74	44	Unk	732	62	Unk	53	Unk	Unk	198	Unk

Table IV-4
State Planning Agencies

171

Table IV-4 State Planning Agencies		Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	N. Carolina	N. Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	S. Carolina	S. Dakota	Tennessee	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming	Wash., D.C.
Status of Frequency Plan																											
. Completed		Y	N	N	Y	N	Y	Y	Y	Y	Y	N	N	N	Y	Y	N	Y	Y	Y	Y	N	N	N	N	N	Y
. In preparation		N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N
. Planning to prepare		N	Y	Y	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N
Frequency Plan prepared by:																											
. SPA		N	N/A	N/A	N	N/A	N	N	N	N	N	N/A	N/A	N	Y	N	N	N	N	N	N	N	N/A	N/A	N/A	N/A	N
. DOC		N	N/A	N/A	N	N/A	Y	N	N	N	N	N/A	N/A	N	Y	N	N	N	N	N	N	Y	N/A	N/A	N/A	N/A	N
. Other government agency		Y	N/A	N/A	Y	N/A	N	N	N	N	N	N/A	N/A	N	N	Y	N	N	N	N	N	N	N/A	N/A	N/A	N/A	N
. Consultant		N	N/A	N/A	Y	N/A	N	Y	Y	Y	Y	N/A	N/A	N	N	N	N	Y	N	Y	Y	Y	N/A	N/A	N/A	N/A	Y
. Vendor		N	N/A	N/A	N	N/A	N	N	N	N	N	N/A	N/A	Y	N	N	N	N	N	N	N	N	N/A	N/A	N/A	N/A	N
Frequency Plan contains:																											
. Specific frequencies for each agency		Y	N/A	N/A	Y	N/A	Y	N	Y	Y	Y	N	N/A	N/A	N	Y	N	Y	N	N	Y	N	N/A	N/A	N/A	N/A	Y
. Specific frequencies for some agencies		N	N/A	N/A	N	N/A	N	Y	N	N	N	Y	N/A	N/A	N	N	N	N	N	N	N	N	N/A	N/A	N/A	N/A	N
. Recommended frequency bands only		N	N/A	N/A	N	N/A	N	N	N	N	N	N/A	N/A	N	N	N	N	N	N	N	N	N	N/A	N/A	N/A	N/A	N
Frequency Plan is computerized		N	N/A	N/A	N	N/A	N	N	N	N	N	N/A	N/A	N	N	N	N	N	N	N	N	N	N/A	N/A	N/A	N/A	N
Frequency Plan considers:																											
. Police frequencies		Y	N/A	N/A	Y	N/A	Y	Y	Y	Y	Y	N/A	N/A	Y	Y	Y	Y	Y	Y	Y	Y	Y	N/A	N/A	N/A	N/A	Y
. Local government frequencies		Y	N/A	N/A	Y	N/A	Y	Y	Y	N	N	Y	N/A	N/A	N	N	Y	N	Y	Y	N	Y	N/A	N/A	N/A	N/A	N
. 72-75 MHz band		N			N	N	N	Y	N	N	N	N/A	N/A	N	N	Y	N	Y	Y	N		N	N/A	N/A	N/A	N/A	N
. 952-960 MHz band		N			N	Y	N	Y	N	N	N	N/A	N/A		N	N	Y	Y	N		N	N/A	N/A	N/A	N/A	N	
. Other		N	N/A	N/A	N	N/A	Y	N	Y	N	N	N/A	N/A	N	N	N	N	N	N	N	N	N	N/A	N/A	N/A	N/A	N
No. of frequency coordinators in state		1	0	1	0	2	1	2	1	0	1	1	3	0	1	1	1	1	2	0	1	1	1	1	2	0	
No. of requests for frequency coordination																											
. 1971		Unk	23	80	Unk	145	100	115	190	Unk	385	160	65	Unk	Unk	18	57	92	93	Unk	Unk	124	59	150	128	Unk	4
. 1972		Unk	27	80	22	167	300	222	189	Unk	411	185	113	166	8	23	70	89	610	Unk	7	132	32	168	110	Unk	2
. 1973		23	36	80	63	176	357	149	133	Unk	475	240	90	318	19	109	80	149	813	69	20	131	52	261	79	Unk	14
. 1974		Unk	35	Unk	44	Unk	Unk	Unk	222	Unk	300	300	Unk	Unk	9	Unk	Unk	174	422	Unk	23	134	Unk	Unk	Unk	Unk	20

Table IV-4
State Planning Agencies

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Coordination Procedure																									
Frequency coordinator recommends frequency	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Unk	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Applicant selects frequency	N	N	Y	N	Y	N	Y	Y	N	Y	N	Y	Unk	N	N	N	N	N	Y	Y	Y	N	N	N	N
Frequency must conform to State Plan	N	N	N	Y	N	Y	N	N	Y	Y	N	Y	Unk	Y	Y	N	Y	N	N	N	N	Y	Y	N	N
Frequency need not conform to State Plan if coordinator sees no objection	N	N	N	N	N	N	N	N	N	Y	N	N	Unk	N	N	N	N	N	Y	N	Y	N	N	N	N
Conformance with Frequency Plan necessary for grant approval	N/A	Y	N/A	Y	N/A	Y	N/A	N/A	Y	Y	N/A	N	Y	Y	Y	Y	Y	N/A	Y	Y	Y	Y	Y	Y	Y
Frequency coordination required prior to grant approval	N	N	N	Y	Y	Y	Y	Y	Y	N	Y	Y	N	Y	Y	Y	Y	N	N	Y	Y	N	Y	Y	N
Formal analysis or study of frequency congestion since July 71	N	N	N	Y	Y	Y	Y	N	Y	Y	N	N	N	N	Y	N	N	Y	Y	Y	Y	N	Y	Y	N
No. of Law Enforcement agencies licenses on:																									
VHF low band	100	5	57	265	Unk	8	50	4	73	30	1	Unk	Unk	1	267	Unk	60	115	37	39	146	Unk	1	132	1
VHF high band	700	14	38	10	Unk	36	22	9	248	500	7	Unk	Unk	599	20	Unk	154	35	59	47	170	Unk	576	91	450
UHF (450-460 MHz)	149	1	16	Unk	Unk	26	7	2	44	46	2	Unk	Unk	5	10	Unk	32	4	2	13	5	Unk	0	0	0
UHF (470 MHz)	0	0	0	0	Unk	0	0	0	1	0	0	Unk	Unk	0	0	Unk	0	1	0	2	0	Unk	0	0	0
72 MHz band	0	1	Unk			Unk	0	0	0	0	0	7		0		1	Unk	0	0	1	0	0	1	0	0
952-960 MHz band	1	1	Unk			Unk	0	0	0	0	4		0		0	2	Unk	3	0	17	0	3	0	1	0
Local government channels	60	9	75			Unk	2	15	10	3	60		121		1	Unk	Unk	80	0	80	123	8	0	120	
Total No. of mobile units	Unk	500	3600	1525	13200	Unk	2450	750	8155	3300	2134	Unk	6500	4500	Unk	Unk	Unk	150	96	270	155	4150	Unk	302	456
Total No. of base stations	Unk	Unk	Unk	195	Unk	Unk	121	30	600	1000	36	Unk	Unk	Unk	Unk	Unk	Unk	N	N	N	N	N	N	N	N
Backbone microwave in operation	N	N	Y	N	Y	Y	N	N	N	N	N	N	Y	N	Y	N	Y	N	N	N	N	N	N	N	N
Backbone microwave is planned	N	Y	N/A	N	N/A	N/A	N	N	N	N	Y	N/A	N	N/A	N	N/A	Y	Y	Y	Y	N	N	N	N	N
Microwave uses:																									
Law Enforcement use only	N/A	N/A	N	N/A	N	N	N/A	N/A	N/A	N/A	N/A	N	N/A	Y	N/A	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Intercity telephone	N/A	N/A	Y	N/A	Y	Y	N/A	N/A	N/A	N/A	N/A	Y	N/A	N	N/A	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Repeater links	N/A	N/A	Y	N/A	Y	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Y	N/A	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Interagency coordination	N/A	N/A	N	N/A	Y	Y	N/A	N/A	N/A	N/A	N/A	Y	N/A	N	N/A	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Radio control links	N/A	N/A	Y	N/A	Y	Y	N/A	N/A	N/A	N/A	N/A	N	N/A	N	N/A	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Telephone backup net	N/A	N/A	Y	N/A	Y	Y	N/A	N/A	N/A	N/A	N/A	N	N/A	N	N/A	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Other	N/A	N/A	Y	N/A	Y	N	N/A	N/A	N/A	N/A	N/A	N	N/A	Y	N/A	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table IV-4
State Planning Agencies

Table IV-4 State Planning Agencies		Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	N. Carolina	N. Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	S. Carolina	S. Dakota	Tennessee	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming	Wash., D.C.
Coordination Procedure																											
Frequency coordinator recommends frequency		Y	Y	Y	Y	Y	N	Y	Y	N	Y	N	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	N	Y	Y	N	
Applicant selects frequency		N	N	Y	Y	N	N	Y	Y	N	N	N	Y	Y	Y	N	N	N	N	Y	Y	N	Y	Y	N	Y	
Frequency must conform to State Plan		Y	N	N	N	N	Y	N	Y	Y	N	N	N	N	Y	Y	Y	N	Y	N	N	N	N	N	N	N	
Frequency need not conform to State Plan if coordinator sees no objection		N	N	N	Y	N	N	Y	Y	N	Y	N	N	N	Y	N	N	N	Y	Y	Y	Y	N	N	N	N	
Conformance with Frequency Plan necessary for grant approval		Y	N/A	N/A	Y	N/A	Y	N	Y	Y	Y	N/A	N/A	Y	Y	Y	Y	Y	Y	Y	Y	Y	N/A	N/A	Y	N/A	Y
Frequency coordination required prior to grant approval		Y	N	N	Y	Y	Y	N	Y	N	Y	N	Y	Y	Y	Y	N	N	Y	N	Y	Y	N	Y	Y	Y	
Formal analysis of study of frequency congestion since July 71		Y	N	N	N	N	N	Y	Y	Y	Y	N	N	N	Y	N	Y	N	N	N	N	Y	Y	N	N	Y	N
No. of Law Enforcement agencies licenses on:																											
VHF low band	107	Unk	1	1	367	9	Unk	Unk	84	340	9	Unk	Unk	4	78	121	350	Unk	29	0	Unk	Unk	Unk	72	1	0	
VHF high band	4	Unk	12	209	307	85	Unk	Unk	13	437	360	Unk	Unk	33	83	1	212	Unk	159	0	Unk	Unk	Unk	315	18	1	
UHF (450-460 MHz)	1	Unk	0	0	26	1	Unk	Unk	2	162	5	Unk	Unk	1	69	5	120	Unk	1	86	Unk	Unk	Unk	34	1	1	
UHF (470 MHz)	0	0	0	1	5	0	Unk	Unk	0	0	0	Unk	Unk	1	0	0	0	Unk	0	0	Unk	Unk	Unk	0	0	0	
72 MHz band	1	Unk			1	0	Unk	1	0	1	0	Unk			0	1	3	Unk	Unk	Unk	Unk	Unk	Unk	Unk	0	0	
952-960 MHz band	1	Unk			0	Unk	Unk	1	0	2	0	Unk			1	1	9	20	Unk		Unk	Unk	0		Unk	0	
Local government channels	127		Unk		200	0	25	36	0	300	147		Unk		30	225	139	Unk	Unk		Unk	Unk	250		Unk	0	
Total No. of mobile units		1788	2800	1000	930	Unk	1800	10000	Unk	1200	7000	2250	Unk	Unk	Unk	2675	1222	2355	10700	3300	505	2500	Unk	Unk	Unk	700	676
Total No. of base stations		172	300	34	100	Unk	226	Unk	Unk	120	900	443	Unk	Unk	Unk	250	200	390	780	204	103	180	Unk	Unk	Unk	60	18
Backbone microwave in operation		N	N	N	Y	N	Y	N	Y	N	N	N	N	Y	N	Y	N	N	N	Y	Y	Y	N	Y	N	N	
Backbone microwave is planned		Y	N	Y	N/A	N	N/A	N	N/A	N	N	Y	Y	Y	N/A	N	N/A	Y	N	Y	N/A	N/A	N/A	N	N/A	N	N
Microwave uses:																											
Law Enforcement use only		N/A	N/A	N	N	N/A	N	N/A	Y	N/A	N	N/A	N/A	N/A	Y	N/A	N	N/A	N/A	N/A	N	Y	N	N/A	N	N/A	N/A
Intercity telephone		N/A	N/A	N	N	N/A	Y	N/A	N	N/A	N	N/A	N/A	N/A	N	N/A	N	N/A	N/A	N/A	N	Y	N	N/A	Y	N/A	N/A
Repeater links		N/A	N/A	Y	Y	N/A	N	N/A	Y	N/A	N	N/A	N/A	N/A	Y	N/A	Y	N/A	N/A	N/A	Y	Y	N	N/A	N	N/A	N/A
Interagency coordination		N/A	N/A	N	Y	N/A	Y	N/A	N	N/A	N	N/A	N/A	N/A	Y	N/A	Y	N/A	N/A	N/A	Y	Y	N	N/A	Y	N/A	N/A
Radio control links		N/A	N/A	Y	Y	N/A	Y	N/A	Y	N/A	N	N/A	N/A	N/A	Y	Y	Y	N/A	N/A	N/A	Y	Y	N	N/A	Y	N/A	N/A
Telephone backup net		N/A	N/A	Y	N	N/A	N	N/A	N/A	N	N/A	N/A	N/A	N/A	Y	N/A	N	N/A	N/A	N/A	Y	N	N	N/A	N	N/A	N/A
Other		N/A	N/A	Y	N	N/A	N	N/A	N	N/A	N	N/A	N/A	N/A	N	N/A	Y	N/A	N/A	N/A	Y	N	Y	N/A	N	N/A	N/A

Table IV-4
State Planning Agencies

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Microwave system has:																									
• Backup capability	N/A	N/A	Y	N/A	Y	Y	N/A	N/A	N/A	N/A	N/A	N	N/A	N	N/A	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
• Emergency power	N/A	N/A	Y	N/A	Y	Y	N/A	N/A	N/A	N/A	N/A	Y	N/A	Y	N/A	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table IV-4
State Planning Agencies

Table IV-4 State Planning Agencies		Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	N. Carolina	N. Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	S. Carolina	S. Dakota	Tennessee	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming	Wash., D.C.
Microwave system has:																											
•	Backup capability	N/A	N/A	Y	Y	N/A	Y	N/A	Y	N/A	N	N/A	N/A	N/A	Y	N/A	N	N/A	N/A	N/A	N	Y	N	N/A	Y	N/A	N/A
•	Emergency power	N/A	N/A	Y	Y	N/A	Y	N/A	Y	N/A	N	N/A	N/A	N/A	Y	N/A	Y	N/A	N/A	N/A	Y	Y	Y	N/A	Y	N/A	N/A

Table IV-4
State Planning Agencies

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
No. of interagency agreements for:																									
• Cooperative dispatch but with different political entities	0	3	13	0	Unk	34	Unk	1	16	1	0	0	10	Unk	12	25	6	3	20	18	Unk	3	90	66	11
• Cooperative dispatch between agencies of same political entity	0	0	Unk	1	Unk	7	Unk	0	12	Unk	0	0	0	Unk	Unk	8	Unk	1	20	3	Unk	0	10	1	Unk
• Sharing of communication facilities (base stations, etc.)	0	0	4	0	Unk	28	Unk	0	Unk	Unk	0	0	Unk	Unk	Unk	35	120	3	1	Unk	Unk	0	30	13	Unk
• Sharing of communication maintenance	0	0	Unk	0	15	0	Unk	1	0	Unk	0	0	1	0	1	1	0	3	1	Unk	Unk	1	2	1	0
• Sharing of Law Enforcement records	65	0	3	1	12	0	Unk	8	Unk	Unk	4	53	6	8	5	4	5	12	1	Unk	Unk	5	15	0	4
No. of contract Law Enforcement service agreements	3	2	14	0	Unk	7	Unk	1	Unk	1	0	0	56	Unk	Unk	6	Unk	0	3	11	Unk	Unk	200	1	Unk

176

Table IV-4
State Planning Agencies

Table IV-4 State Planning Agencies		Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	N. Carolina	N. Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	S. Carolina	S. Dakota	Tennessee	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming	Wash., D.C.
No. of interagency agreements for:																											
• Cooperative dispatch but with different political entities	Unk	18	12	150	Unk	1	50-75	Unk	0	Unk	Unk	Unk	Unk	Unk	Unk	7	24	Unk	0	45	0	5	Unk	Unk	40	0	
• Cooperative dispatch between agencies of same political entity	Unk	8	8	30	Unk	1	Unk	Unk	0	Unk	Unk	Unk	Unk	Unk	Unk	Unk	0	Unk	8	1	0	0	1	Unk	40	0	
• Sharing of communication facilities (base stations, etc.)	3	6	0	3	Unk	26	2-3	Unk	0	Unk	Unk	Unk	Unk	Unk	6-8	Unk	Unk	Unk	16	1	3	5	Unk	Unk	40	0	
• Sharing of communication maintenance	Unk	0	6	Unk	Unk	0	Unk	Unk	0	Unk	Unk	Unk	Unk	Unk	1	0	24	Unk	8	1	0	1	Unk	Unk	0	0	
• Sharing of Law Enforcement records	Unk	26	30	0	Unk	0	Unk	Unk	3	4	Unk	Unk	Unk	Unk	3	9	16	350	0	2	80	150	Unk	4	3	0	
No. of contract Law Enforcement service agreements		Unk	Unk	Unk	3	Unk	50	0	Unk	18	Unk	0	Unk	Unk	Unk	0	Unk	4	0	6	15	1	50	Unk	2	0	0

177

Table IV-4
State Planning Agencies

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
State has minimum standards for training:																									
• Radio dispatchers	N	N	N	N	N	N	N	N	N	N	Y	N	N	Y	N	N	N	Y	N	N	N	N	N	N	N
• Radio technicians	N	N	N	N	N	N	N	N	N	N	Y	N	N	Y	N	N	N	Y	N	N	N	Y	N	N	N
State plans to establish minimum standards for training:																									
• Radio dispatchers	Y	Y	N	Y	Y	Y	N	N	N	N	N/A	N	Y	N/A	N	Y	Y	N/A	Y	N	N	Y	Y	N	N
• Radio technicians	Y	Y	N	N	Y	N	N	N	N	N	N/A	N	N	N/A	N	N	N	N/A	Y	Y	N	Y	N	N	N
State has funded training program for:																									
• Radio dispatchers	N	N	N	Y	N	N	N	N	N	N	Y	Y	N	N	N	Y	Y	Y	N	N	Y	N	N	N	Y
• Radio technicians	N	N	N	N	Y	N	N	N	N	N	Y	N	N	N	N	N	N	Y	N	N	N	N	N	N	N
Percent of telecom grants since 1971 that included training funds (%)	0	0	Unk	1	Unk	10	0	Unk	1	0	0	5	75	0	0.5	Unk	0	Unk	Unk	0	0	0	0	0	6

Table IV-4
State Planning Agencies

Table IV-4 State Planning Agencies		Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	N. Carolina	N. Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	S. Carolina	S. Dakota	Tennessee	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming	Wash., D.C.
State has minimum standards for training:																											
• Radio dispatchers		N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	Y
• Radio technicians		N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	Y	
State plans to establish minimum standards for training:																											
• Radio dispatchers		Y	N/A	N	Y	Y	N	Y	Y	N	N	Y	N	Y	Y	Y	Y	Y	N	Y	N	N	N	N	N/A	N/A	
• Radio technicians		N	N	N	N/A	N	N	N	N	N	N/A	N	Y	Y	N	N	Y	N	Y	N	N	N	N	N	N/A	N/A	
State has funded training program for:																											
• Radio dispatchers		Y	N	N	N	N	N	Y	Y	Y	Y	N	N	N	Y	N	N	N	N	N	N	N	N	N	N/A	N/A	
• Radio technicians		N	N	N	Y	N	N	N	Y	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	Y	Y	N	
Percent of telecom grants since 1971 that included training funds (%)		Unk	Unk	Unk	Unk	0	Unk	100	85	0	Unk	0	Unk	0	0	0	0	Unk	0	0	Unk	0	0	Unk	0	0	

**LAW ENFORCEMENT TELECOMMUNICATIONS
PLANS AND PLANNING ACTIVITIES**

Table IV-4
State Planning Agencies

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Statewide Law Enforcement Telecom Plan	Y	N	N	N	N	N	N	Y	Y	N	N	Y	N	Y	N	Y	N	Y	Y	Y	Y	Y	Y	Y	N
• In existence	N/A	Y	N	N	N	Y	Y	N/A	N/A	N	Y	N/A	N	N/A	N	N/A	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Y
• In preparation	N/A	N	N	N	N	N	N	Y	N/A	N/A	N	N/A	Y	N/A	Y	N/A	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N
• Plans to develop	N/A	N	N	N	N	N	N	Y	N/A	N/A	N	N/A	Y	N/A	Y	N/A	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N
Telecom Plan contains section on Law Enforcement requirements	Y	N/A	N/A	N/A	N/A	N/A	N/A	Y	Y	N/A	N/A	N	N/A	Y	N/A	Y	N/A	Y	N	Y	N	Y	Y	N/A	N/A
Date of plan (yr.)	'73	N/A	N/A	N/A	N/A	N/A	N/A	'73	'71	N/A	N/A	'68	N/A	'74	N/A	'73	N/A	'74	'71	'72	'71	'72	'73	N/A	N/A
Time period covered by plan (yrs)	4	N/A	N/A	N/A	N/A	N/A	N/A	10	5	N/A	N/A	7	N/A	7	N/A	10	N/A	2	10	6	10	10	5	N/A	N/A
Nature of Plan																									
• Advisory	N	N/A	N/A	N/A	N/A	N/A	N/A	N	Y	N/A	N/A	Y	N/A	N	N/A	Y	N/A	N	N	Y	Y	Y	Y	Y	N/A
• Mandatory	N	N/A	N/A	N/A	N/A	N/A	N/A	N	N	N/A	N/A	N	N/A	N	N/A	N	N/A	N	N	N	N	N	N	N	N/A
• Mandatory in part, option in other parts	Y	N/A	N/A	N/A	N/A	N/A	N/A	Y	N	N/A	N/A	N	N/A	Y	N/A	N	N/A	Y	Y	N	N	N	N	N	N/A
• Other	N	N/A	N/A	N/A	N/A	N/A	N/A	N	N	N/A	N/A	N	N/A	N	N/A	N	N/A	N	N	N	N	N	N	N	N/A
Agencies Addressed in Plan																									
• State Law Enforcement agencies	Y	N/A	N/A	N/A	N/A	N/A	N/A	Y	Y	N/A	N/A	Y	N/A	Y	N/A	Y	N/A	Y	Y	Y	Y	Y	Y	Y	N/A
• Other state agencies	Y	N/A	N/A	N/A	N/A	N/A	N/A	Y	N	N/A	N/A	Y	N/A	Y	N/A	N	N/A	N	Y	N	N	N	N	N	N/A
• Federal agencies	N	N/A	N/A	N/A	N/A	N/A	N/A	N	N	N/A	N/A	N	N/A	N	N/A	N	N/A	N	N	N	N	N	N	N	N/A
• Municipal agencies	Y	N/A	N/A	N/A	N/A	N/A	N/A	Y	Y	N/A	N/A	N	N/A	Y	N/A	Y	N/A	Y	Y	Y	Y	Y	Y	Y	N/A
• County L. E. agencies	Y	N/A	N/A	N/A	N/A	N/A	N/A	Y	Y	N/A	N/A	N	N/A	Y	N/A	N	N/A	N	N	N	N	N	N	N	N/A
• EMS	Y	N/A	N/A	N/A	N/A	N/A	N/A	Y	N	N/A	N/A	N	N/A	N	N/A	N	N/A	N	N	N	N	N	N	N	N/A
• Fire Service	N	N/A	N/A	N/A	N/A	N/A	N/A	N	N	N/A	N/A	N	N/A	N	N/A	N	N/A	N	N	N	N	N	N	N	N/A
• Other	N	N/A	N/A	N/A	N/A	N/A	N/A	Y	N	N/A	N/A	N	N/A	N	N/A	N	N/A	N	Y	N	N	N	N	N	N/A

180

Table IV-4
State Planning Agencies

Table IV-4 State Planning Agencies		Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	N. Carolina	N. Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	S. Carolina	S. Dakota	Tennessee	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming	Wash., D.C.
Statewide Law Enforcement Telecom Plan																											
• In existence		Y	Y	N	Y	N	Y	N	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	N	N	N	N	N	N	Y
• In preparation		N/A	N/A	N	N/A	N	N/A	N	N/A	N/A	Y	N	N	Y	N	N	N/A	N/A	N/A	N/A	N/A	N	N	N	N	N	N/A
• Plans to develop		N/A	N/A	Y	N/A	Y	N/A	N	N/A	N/A	N/A	N	Y	N	Y	N	N/A	N/A	N/A	N/A	N/A	Y	N	Y	Y	N	N/A
Telecom Plan contains section on Law Enforcement requirements		Y	Y	N/A	Y	N/A	Y	N/A	Y	Y	Y	N/A	N/A	N/A	N/A	N/A	Y	Y	Y	Y	Y	N/A	N/A	N/A	N/A	N/A	N
Date of plan (yr.)		'71	'65	N/A	'70	N/A	'73	N/A	'70	'71	'72	N/A	N/A	N/A	N/A	N/A	'65	'73	'71	'70	'74	N/A	N/A	N/A	N/A	N/A	'74
Time period covered by plan (yrs)		5	10	N/A	5	N/A		N/A	6	10	3	N/A	N/A	N/A	N/A	N/A	9	5	9		5	N/A	N/A	N/A	N/A	N/A	Unk
Nature of Plan																											
• Advisory		Y	N	N/A	Y	N/A	Y	N/A	N	N	N	N/A	N/A	N/A	N/A	N/A	Y	Y	Y	Y	Y	N/A	N/A	N/A	N/A	N/A	N
• Mandatory		N	Y	N/A	N	N/A	N	N/A	N	Y	N	N/A	N/A	N/A	N/A	N/A	N	N	N	N	N	N/A	N/A	N/A	N/A	N/A	Y
• Mandatory in part, option in other parts		N	N	N/A	N	N/A	N	N/A	Y	N	N	N/A	N/A	N/A	N/A	N/A	N	N	N	N	N	N/A	N/A	N/A	N/A	N/A	N
• Other		N	N	N/A	N	N/A	N	N/A	N	N	Y	N/A	N/A	N/A	N/A	N/A	N	Y	N	N	N	N/A	N/A	N/A	N/A	N/A	N
Agencies addressed in Plan																											
• State Law Enforcement agencies		Y	Y	N/A	Y	N/A	N	N/A	Y	Y	N	N/A	N/A	N/A	N/A	N/A	Y	Y	Y	Y	Y	N/A	N/A	N/A	N/A	N/A	N
• Other state agencies		Y	Y	N/A	N	N/A	N	N/A	N	Y	N	N/A	N/A	N/A	N/A	N/A	Y	N	N	Y	Y	N/A	N/A	N/A	N/A	N/A	N
• Federal agencies		N	N	N/A	Y	N/A	N	N/A	N	Y	N	N/A	N/A	N/A	N/A	N/A	N	N	Y	Y	N	N/A	N/A	N/A	N/A	N/A	N
• Municipal agencies		Y	Y	N/A	Y	N/A	Y	N/A	Y	Y	Y	N/A	N/A	N/A	N/A	N/A	Y	Y	Y	Y	Y	N/A	N/A	N/A	N/A	N/A	Y
• County L. E. agencies		Y	Y	N/A	Y	N/A	Y	N/A	Y	Y	Y	N/A	N/A	N/A	N/A	N/A	Y	Y	Y	Y	Y	N/A	N/A	N/A	N/A	N/A	N
• EMS		N	Y	N/A	Y	N/A	Y	N/A	N	Y	N	N/A	N/A	N/A	N/A	N/A	N	Y	N	Y	N	N/A	N/A	N/A	N/A	N/A	N
• Fire Service		N	Y	N/A	N	N/A	N	N/A	N	N	N	N/A	N/A	N/A	N/A	N/A	N	N	N	N	N	N/A	N/A	N/A	N/A	N/A	N
• Others		N	Y	N/A	N	N/A	N	N/A	N	N	N	N/A	N/A	N/A	N/A	N/A	N	N	Y	N	N	N/A	N/A	N/A	N/A	N/A	N

181

Table IV-4
State Planning Agencies

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Elements of Plans																									
Organization of radio nets	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Y	Y	N/A	N/A	N	N/A	Y	N/A	Y	N/A	Y	Y	Y	Y	Y	Y	N/A
Interagency coordination	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Y	Y	N/A	N/A	Y	N/A	Y	N/A	Y	N/A	Y	Y	Y	Y	Y	Y	N/A
Spectrum management	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Y	Y	N/A	N/A	N	N/A	Y	N/A	Y	N/A	Y	Y	Y	Y	Y	Y	N/A
Frequency allocations	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Y	Y	N/A	N/A	N	N/A	Y	N/A	Y	N/A	Y	Y	Y	Y	Y	Y	N/A
Citizen access	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Y	N	N/A	N/A	N	N/A	Y	N/A	N	N/A	Y	N	N	Y	Y	Y	N/A
Cooperative dispatch	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Y	Y	N/A	N/A	Y	N/A	Y	N/A	Y	N/A	N	N	N	Y	Y	Y	N/A
Interstate coordination	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	N	N/A	N/A	N	N/A	Y	N/A	Y	N/A	N	N	N	Y	Y	Y	N/A
Data Retrieval Systems	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	Y	N/A	N/A	Y	N/A	Y	N/A	Y	N/A	Y	N	Y	N	Y	Y	N/A
Operational requirements	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Y	N	N/A	N/A	N	N/A	Y	N/A	N	N/A	Y	N	Y	Y	N	Y	N/A
Procurement procedures	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	Y	N/A	N/A	Y	N/A	Y	N/A	N	N/A	Y	N	Y	Y	N	Y	N/A
Technical training	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	N	N/A	N/A	N	N/A	Y	N/A	N	N/A	Y	N	N	N	N	Y	N/A
Operational training	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	N	N/A	N/A	N	N/A	Y	N/A	N	N/A	Y	N	N	N	N	N	N/A
Maintenance	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	N	N/A	N/A	N	N/A	Y	N/A	N	N/A	Y	N	N	N	N	N	N/A
Financial	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	N	N/A	N/A	Y	N/A	Y	N/A	N	N/A	Y	N	N	Y	N	Y	N/A
Configuration control	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	Y	N/A	N/A	Y	N/A	Y	N/A	N	N/A	Y	N	N	Y	N	N	N/A
Traffic management	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	N	N/A	N/A	N	N/A	Y	N/A	N	N/A	Y	N	N	N	N	Y	N/A
Disaster operations	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	N	N/A	N/A	N	N/A	Y	N/A	N	N/A	Y	N	N	N	N	N	N/A
Reliability standards	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	N	N/A	N/A	N	N/A	Y	N/A	N	N/A	N	N	N	N	N	N	N/A
Others	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	N	N/A	N/A	N	N/A	N	N/A	N	N/A	N	N	N	N	N	N	N/A
Conformance with State Plan required	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Y	Y	N/A	N/A	N	N/A	Y	N/A	Y	N/A	Y	Y	Y	Y	Y	Y	N/A
Telecom Plan prepared by:																									
SPA	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	Y	N/A	N/A	N	N/A	N	N/A	N	N/A	Y	Y	N	N	N	Y	N/A
DOC	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Y	Y	N/A	N/A	Y	N/A	N	N/A	Y	N/A	N	Y	Y	Y	Y	N	N/A
Consultant	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Y	Y	N/A	N/A	Y	N/A	N	N/A	Y	N/A	N	Y	Y	Y	Y	N	N/A
Equipment vendor	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	N	N/A	N/A	N	N/A	N	N/A	N	N/A	N	N	N	N	N	N	N/A
Other	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	Y	N/A	N/A	N	N/A	N	N/A	N	N/A	N	N	N	N	N	N	N/A
Formal procedure for incorporating new interagency compacts	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	N	N/A	N/A	N	N/A	Y	N/A	N	N/A	N	N	N	N	N	N	N/A
Automatic review and revision	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	N	N/A	N/A	N	N/A	Y	N/A	N	N/A	N	N	N	N	Y	Y	N/A
Date of last amendment (yr)	'73	N/A	N/A	N/A	N/A	N/A	N/A	N/A	'75	N/A	N/A	N/A	N/A	N/A	'75	N/A	N/A	N/A	N/A	'73	'75	'74	-	'74	N/A

Table IV-4
State Planning Agencies

Table IV-4 State Planning Agencies		Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	N. Carolina	N. Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	S. Carolina	S. Dakota	Tennessee	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming	Wash., D.C.
Elements of Plans																											
•	Organization of radio nets	Y	Y	N/A	Y	N/A	Y	N/A	Y	Y	Y	N/A	N/A	N/A	N/A	N/A	Y	Y	Y	Y	Y	N/A	N/A	N/A	N/A	N/A	Y
•	Interagency coordination	Y	Y	N/A	Y	N/A	Y	N/A	Y	Y	Y	N/A	N/A	N/A	N/A	N/A	Y	Y	Y	Y	Y	N/A	N/A	N/A	N/A	N/A	Y
•	Spectrum management	Y	Y	N/A	Y	N/A	N	N/A	Y	Y	Y	N/A	N/A	N/A	N/A	N/A	Y	Y	Y	Y	Y	N/A	N/A	N/A	N/A	N/A	Y
•	Frequency allocations	Y	Y	N/A	Y	N/A	N	N/A	Y	Y	Y	N/A	N/A	N/A	N/A	N/A	Y	Y	Y	Y	Y	N/A	N/A	N/A	N/A	N/A	Y
•	Citizen access	N	N	N/A	N	N/A	N	N/A	Y	N	Y	N/A	N/A	N/A	N/A	N/A	N	N	N	Y	Y	N/A	N/A	N/A	N/A	N/A	N
•	Cooperative dispatch	N	Y	N/A	Y	N/A	Y	N/A	Y	Y	Y	N/A	N/A	N/A	N/A	N/A	N	Y	Y	Y	N	N/A	N/A	N/A	N/A	N/A	N
•	Interstate coordination	N	Y	N/A	Y	N/A	N	N/A	Y	Y	N	N/A	N/A	N/A	N/A	N/A	Y	Y	Y	Y	Y	N/A	N/A	N/A	N/A	N/A	Y
•	Data Retrieval Systems	N	Y	N/A	Y	N/A	N	N/A	Y	Y	N	N/A	N/A	N/A	N/A	N/A	N	Y	Y	Y	Y	N/A	N/A	N/A	N/A	N/A	N
•	Operational requirements	N	Y	N/A	Y	N/A	N	N/A	Y	Y	N	N/A	N/A	N/A	N/A	N/A	Y	Y	N	Y	N	N/A	N/A	N/A	N/A	N/A	Y
•	Procurement procedures	N	Y	N/A	Y	N/A	N	N/A	Y	N	N	N/A	N/A	N/A	N/A	N/A	Y	Y	Y	N	N	N/A	N/A	N/A	N/A	N/A	Y
•	Technical training	N	N	N/A	N	N/A	N	N/A	N	N	N	N/A	N/A	N/A	N/A	N/A	N	N	N	N	N	N/A	N/A	N/A	N/A	N/A	N
•	Operational training	N	N	N/A	Y	N/A	N	N/A	Y	Y	N	N/A	N/A	N/A	N/A	N/A	N	N	N	N	N	N/A	N/A	N/A	N/A	N/A	Y
•	Maintenance	N	Y	N/A	Y	N/A	N	N/A	Y	N	N	N/A	N/A	N/A	N/A	N/A	N	Y	Y	N	N	N/A	N/A	N/A	N/A	N/A	Y
•	Financial	N	Y	N/A	Y	N/A	N	N/A	Y	Y	Y	N/A	N/A	N/A	N/A	N/A	Y	Y	N	Y	Y	N/A	N/A	N/A	N/A	N/A	Y
•	Configuration control	N	Y	N/A	Y	N/A	N	N/A	Y	Y	N	N/A	N/A	N/A	N/A	N/A	Y	Y	N	Y	Y	N/A	N/A	N/A	N/A	N/A	Y
•	Traffic management	N	Y	N/A	N	N/A	N	N/A	Y	N	N	N/A	N/A	N/A	N/A	N/A	N	N	N	N	N	N/A	N/A	N/A	N/A	N/A	N
•	Disaster operations	N	Y	N/A	Y	N/A	N	N/A	Y	Y	N	N/A	N/A	N/A	N/A	N/A	N	N	N	Y	N	N/A	N/A	N/A	N/A	N/A	Y
•	Reliability standards	N	Y	N/A	Y	N/A	N	N/A	Y	Y	N	N/A	N/A	N/A	N/A	N/A	N	Y	N	N	N	N/A	N/A	N/A	N/A	N/A	N
•	Others	N	N	N/A	N	N/A	N	N/A	N	N	N	N/A	N/A	N/A	N/A	N/A	N	N	N	N	N	N/A	N/A	N/A	N/A	N/A	N
Conformance with State Plan required		Y	Y	N/A	Y	N/A	Y	N/A	Y	Y	Y	N/A	N/A	N/A	N/A	N/A	Y	Y	Y	N	Y	N/A	N/A	N/A	N/A	N/A	N/A
Telecom Plan prepared by:																											
•	SPA	Y	N	N/A	Y	N/A	N	N/A	Y	Y	N	N/A	N/A	N/A	N/A	N/A	N	N	Y	N	N	N/A	N/A	N/A	N/A	N/A	N
•	DOC	N	Y	N/A	N	N/A	Y	N/A	N	Y	N	N/A	N/A	N/A	N/A	N/A	Y	N	N	N	N	N/A	N/A	N/A	N/A	N/A	N
•	Consultant	N	Y	N/A	Y	N/A	N	N/A	Y	Y	Y	N/A	N/A	N/A	N/A	N/A	N	Y	Y	N	N	N/A	N/A	N/A	N/A	N/A	N
•	Equipment vendor	N	N	N/A	Y	N/A	N	N/A	N	N	N	N/A	N/A	N/A	N/A	N/A	N	N	N	N	N	N/A	N/A	N/A	N/A	N/A	N
•	Other	Y	N	N/A	Y	N/A	N	N/A	N	N	N	N/A	N/A	N/A	N/A	N/A	N	N	N	Y	Y	N/A	N/A	N/A	N/A	N/A	Y
Formal procedure for incorporating new interagency compacts		N	Y	N/A	N	N/A	N	N/A	N	N	N	N/A	N/A	N/A	N/A	N/A	N	N	N	N	N	N/A	N/A	N/A	N/A	N/A	N/A
Automatic review and revision		Y	N	N/A	N	N/A	N	N/A	Y	Y	N	N/A	N/A	N/A	N/A	N/A	N	Y	N	N	N	N/A	N/A	N/A	N/A	N/A	Y
Date of last amendment (yr)		'74	'74	N/A	'75	N/A	N/A	N/A	'74	'75	N/A	N/A	N/A	N/A	N/A	N/A	'70	'74	'72	'75	N/A	N/A	N/A	N/A	N/A	N/A	'75

Table IV-4
State Planning Agencies

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Comp. Plan includes Telecom considerations	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Telecom consideration in separate section	Y	N	Y	N	Y	Y	N	Y	Y	Y	N	N	Y	N	Y	Y	Y	N	N	Y	Y	Y	Y	Y	N
Agencies which plan addresses:																									
• State Law Enforcement Agencies	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y
• Other state agencies	N	Y	N	Y	Y	N	N	Y	Y	N	Y	N	Y	N	N	N	Y	Y	Y	Y	N	N	Y	Y	N
• Federal agencies	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
• Municipal agencies	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
• County L.E. agencies	Y	N	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
• EMS	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	Y	Y	N	N	N	N	N	N
• Fire Service	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	Y	Y	N	N	N	N	N	N
• Others	Y	Y	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Element of Plan																									
• Organization of radio nets	Y	N	N	Y	N	Y	N	Y	N	Y	N	N	Y	Y	Y	N	Y	N	N	N	Y	Y	N	Y	N
• Interagency coordination	Y	Y	Y	Y	Y	Y	N	Y	N	Y	N	Y	Y	Y	Y	N	Y	N	N	N	Y	Y	N	Y	N
• Spectrum management	N	N	N	N	N	N	N	Y	Y	N	N	N	N	N	N	N	N	N	N	N	Y	Y	N	Y	N
• Frequency allocations	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	Y	Y	N	N	N	N	Y	Y	N	Y	N
• Citizen access	N	Y	N	N	Y	Y	N	N	N	Y	N	N	Y	Y	Y	N	Y	N	N	N	N	Y	N	N	N
• Cooperative dispatch	Y	N	Y	Y	Y	Y	N	Y	N	Y	N	Y	Y	Y	Y	N	N	N	N	N	Y	Y	N	Y	N
• Interstate coordination	Y	N	N	N	N	Y	N	N	N	N	N	N	Y	Y	Y	N	N	N	N	N	N	Y	N	Y	N
• Data Retrieval Systems	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	N	N	N	N	N	Y	N	Y	Y	Y
• Operational requirements	N	N	N	N	Y	Y	N	N	N	N	N	N	Y	Y	Y	N	N	N	N	Y	Y	N	Y	Y	N
• Procurement procedures	Y	N	N	N	N	Y	N	N	N	N	N	Y	N	Y	N	Y	N	N	Y	N	Y	N	N	Y	Y
• Technical training	Y	N	N	N	N	Y	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N
• Operational training	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	Y	N	N	Y	N	N	N	N	N	Y	N
• Maintenance	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N
• Financial	Y	N	N	N	Y	Y	N	N	Y	Y	N	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
• Configuration control	Y	N	Y	N	N	N	N	N	N	N	N	Y	N	Y	N	N	N	N	N	N	N	N	N	Y	N
• Traffic management	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N
• Disaster operations	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	Y	N
• Reliability standards	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	Y	N	N	N	N	N
• Others	N	N	N	N	Y	N	Y	N	N	Y	N	N	N	N	N	N	N	N	N	Y	N	Y	N	N	N
Conformance with Comp. Plan required	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Comp. Plan prepared by:																									
• SPA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	N	Y	Y	Y
• DOC	N	N	N	N	N	Y	N	N	Y	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N
• Consultant	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
• Equipment vendor	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
• Other	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N

Table IV-4
State Planning Agencies

Table IV-4 State Planning Agencies		Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	N. Carolina	N. Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	S. Carolina	S. Dakota	Tennessee	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming	Wash., D.C.
Comp. Plan includes Telecom considerations		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Telecom consideration in separate section		Y	Y	Y	Y	N	Y	Y	Y	Y	Y	N	N	Y	Y	N	Y	Y	N	Y	Y	Y	N	N	Y	Y	Y
Agencies which plan addresses:																											
• State Law Enforcement Agencies		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
• Other state agencies		Y	Y	Y	Y	N	Y	Y	N	Y	Y	N	N	N	Y	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N
• Federal agencies		N	N	N	N	N	Y	N	N	Y	N	N	N	N	N	N	N	Y	Y	N	N	Y	N	N	N	Y	N
• Municipal agencies		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
• County L.E. agencies		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
• EMS		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
• Fire Service		N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
• Others		N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Element of Plan																											
• Organization of radio nets		Y	N	Y	N	Y	Y	Y	Y	N	N	N	N	Y	Y	N	Y	N	N	N	N	Y	N	N	N	Y	N
• Interagency coordination		Y	N	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	N	Y	Y	Y	Y	N	N	Y	Y	N
• Spectrum management		Y	N	N	N	N	N	Y	Y	Y	N	N	N	Y	Y	Y	Y	N	Y	Y	Y	N	N	Y	Y	N	N
• Frequency allocations		Y	N	N	N	Y	N	Y	Y	Y	N	N	N	N	N	Y	N	Y	N	N	N	Y	N	N	N	N	N
• Citizen access		N	Y	N	N	Y	Y	N	Y	Y	Y	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N
• Cooperative dispatch		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	N	N	N	Y	N	N	N	N	N	N	N
• Interstate coordination		N	N	N	N	N	N	Y	Y	N	N	N	N	Y	Y	Y	Y	N	N	Y	N	Y	Y	Y	Y	Y	N
• Data Retrieval Systems		Y	Y	Y	N	Y	Y	Y	Y	N	N	N	N	N	N	Y	Y	N	N	N	N	N	N	N	N	Y	N
• Operational requirements		N	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	N
• Procurement procedures		Y	Y	N	Y	Y	N	Y	Y	N	N	N	N	Y	N	Y	N	Y	N	N	N	Y	N	Y	Y	Y	N
• Technical training		N	N	N	N	N	N	Y	N	N	N	N	N	N	N	Y	N	Y	N	N	N	Y	N	Y	N	Y	N
• Operational training		N	N	N	N	N	Y	Y	Y	Y	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N
• Maintenance		N	N	N	N	N	Y	Y	Y	Y	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N
• Financial		Y	Y	N	Y	N	Y	Y	Y	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N
• Configuration control		N	N	N	N	Y	N	Y	Y	Y	N	N	Y	Y	Y	N	Y	Y	Y	Y	N	Y	Y	N	N	Y	N
• Traffic management		Y	N	Y	N	N	N	Y	Y	Y	N	N	N	Y	Y	N	Y	Y	Y	N	Y	N	N	N	Y	Y	N
• Disaster operations		Y	N	N	N	N	N	Y	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N
• Reliability standards		Y	N	N	N	N	N	Y	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N
• Others		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Conformance with Comp. Plan required		Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Comp. Plan prepared by:																											
• SPA		Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
• DOC		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
• Consultant		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
• Equipment vendor		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
• Other		N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

Table IV-4
State Planning Agencies

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Concept for organization of L. E. radio nets																									
• Mobile radio districts or zones	N	Y	N	N	Y	Y		Y	Y	Y	Y	N		Y		Y		Y	Y	Y	Y	N	Y	N	
• County nets	Y	N	N	Y	Y	N		Y	N	Y	N	N		N		N		Y	N	N	N	Y	Y	Y	
• Individual jurisdictional nets	N	N	N	Y	N	N		N	N	N	N	N		N		N		N	N	N	N	N	Y	N	
• Other	N	N	Y	Y	N	Y		N	N	N	N	Y		N		N		N	N	N	N	N	N	Y	
• No concept						X	X						X		X		X								
Recommended channel sharing approach																									
• Central or cooperative dispatch	Y	Y	Y		Y	Y		Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	
• Independent dispatch with shared base	N	N	Y		N	N		Y	Y	N		N	N	Y	N	N	N	N	N	N	Y	N	N	Y	
• Independent dispatch with separate base	N	N	N		N	N		N	N	N		N	N	N	N	N	N	N	N	N	Y	N	N	N	
• No recommendation				X		X				X															X
Frequency band policy based on																									
• Geographic area	N	Y			Y			N/A	N/A		N	Y		N/A	N/A	N/A		N/A	Y	N/A	N/A	N/A	N/A	N/A	N/A
• Agency size	Y	N			N			N/A	N/A		N	N		N/A	N/A	N/A		N/A	Y	N/A	N/A	N/A	N/A	N/A	N/A
• No policy			X	X	X		X	X	N/A	N/A	X		X	N/A	N/A	N/A	X	N/A		N/A	N/A	N/A	N/A	N/A	N/A
Frequency band policy for urban areas																									
• Low band	N	N			N			N	N		N	N	N	N				N	N	N		N	N	N	
• High band	N	Y			Y			Y	N		N	N	Y	N				Y	N	N		N	Y	N	
• UHF	Y	N			N			Y	Y		Y	Y	Y	Y				N	Y	Y		Y	Y	Y	
• No recommendation			X	X	X		X	X		X					X	X	X				X				
Frequency band policy for suburban areas																									
• Low band	N	N			N			N	N		N	N	N	N				N	N	Y		N	Y	N	
• High band	Y	Y			Y			Y	Y		Y	N	Y	N				Y	Y	Y		Y	N	N	
• UHF	N	N			N			Y	N		Y	Y	Y	Y				N	Y	Y		N	N	Y	
• No recommendations			X	X	X		X	X		X					X	X	X				X				
Recommended use of local government channels																									
• Encourage	N	N			N			N	N	N			Y		N		N	Y			N	Y		N	Y
• Discourage	Y	Y			Y			Y	Y	Y			N		Y		Y	N			Y	N		Y	N
• No recommendation			X				X				X	X				X			X			X			

Table IV-4
State Planning Agencies

Table IV-4 State Planning Agencies		Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	N. Carolina	N. Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	S. Carolina	S. Dakota	Tennessee	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming	Wash., D.C.
Concept for organization of L. E. radio nets																											
•	Mobile radio districts or zones	N	Y	Y	N	Y	Y	Y	Y	Y	Y			N	Y	Y	Y	N	Y	Y	Y	Y	Y	N		Y	
•	County nets	Y	N	Y	Y	Y	Y	N	Y	N	N			N	Y	N	Y	Y	Y	N	Y	Y	Y	Y		N	
•	Individual jurisdictional nets	Y	N	N	Y	N	N	M	Y	N	N			N	Y	N	N	Y	Y	Y	Y	N	Y	N		Y	
•	Other	N	N	N	N	N	N	N	N	N	N			Y	N	N	N	Y	N	Y	Y	Y	N	N	N	N	
•	No concept											X	X	X											X		
Recommended channel sharing approach																											
•	Central or cooperative dispatch	Y	Y	N	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y		Y	Y	Y	Y	Y		Y	N/A	
•	Independent dispatch with shared base	N	N	N	N	Y	Y	N	Y	N	Y		N	N	N	Y	N		N	Y	N	N	N		N	N/A	
•	Independent dispatch with separate base	N	N	Y	Y	N	N	N	Y	N	Y		N	N	N	N	N		N	Y	N	N	N		N	N/A	
•	No recommendation											X	X					X						X			
Frequency band policy based on																											
•	Geographic area	N/A		N	N/A		N/A	Y	N/A		N/A			N/A	N/A	N/A	N/A	N	N/A	N/A	Y	Y		Y		N/A	
•	Agency size	N/A		N	N/A		N/A	N	N/A		N/A			N/A	N/A	N/A	N/A	N	N/A	N/A	N	N		N		N/A	
•	No policy	N/A	X		N/A	X	N/A		N/A	X	N/A	X	X	X	N/A	N/A	N/A	N/A		N/A	N/A			X		X	N/A
Frequency band policy for urban areas																											
•	Low band			N	N		N	N	N	N	Y					N	N	N	N	N	N	N		N	N	N/A	
•	High band			Y	Y		Y	N	Y	Y	Y					N	N	N	Y	N	Y	N		N	Y	N/A	
•	UHF						N	Y	Y	N	Y					Y	Y	Y	N	Y	Y	Y		Y	N	N/A	
•	No recommendation	X	X			X						X	X	X	N	X							X				
Frequency band policy for suburban areas																											
•	Low band			N	N		N	N	N	N	Y					Y	N	N	N	N	Y	N		Y	N	N/A	
•	High band			Y	Y		Y	Y	Y	Y	Y					N	Y	Y	Y	N	Y	N	N	Y	Y	N/A	
•	UHF			N	N		N	N	Y	N	Y					N	Y	N	N	Y	N	Y	N	N	N	N/A	
•	No recommendations	X	X			X						X	X	X	X	X											
Recommended use of local government channels																											
•	Encourage	Y				N	N		N	N		N				N		N	N	N	N		N			N/A	
•	Discourage	N				Y	Y		Y	Y		Y			Y		N	Y	N	Y	Y		Y			N/A	
•	No recommendation			X		X		X				X		X		X						X			X	N/A	

Table IV-4
State Planning Agencies

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Frequency band policy for rural areas																									
Low band	N	N		Y				Y	N		N	N	N	N	Y			N	Y	Y			N	Y	N
High band	Y	Y			Y			Y	Y		N	Y	Y	Y	N			Y	N	Y			Y	N	Y
UHF	N	N		N		N		Y	N		Y	N	N	N	N			N	N	Y			N	N	N
No recommendation			X		X	X	X			X						X	X				X				
Agency has funded or considered land mobile radio systems in lower TV channels (470 MHz)	N	N/A	N/A	N	N	N/A	N	N/A	Y	N	N/A	N/A	Y	N	N/A	N/A	Y	N	Y	Y	Y	Y	N	N	N/A
Agency is considering land mobile radio systems in upper UHF TV channels	N	N	N	N	N	N	N	Y	N	N	N	Y	N	N	N	N	Y	N	N	N	Y	Y	N	N	Y
Agency is considering pilot project or evaluation project in upper UHF TV channels	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N
Assist LE agencies in establishing channel requirements	Y	Y	N	Y	Y	Y	Y	Y	Y	N	N	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y
Criteria for No. of required channels																									
Population	N	N	N/A	N	N	Y	Y	N/A	Y	N	N/A	N/A	Y	N	Y	Y	N/A	N/A	N/A	Y	Y	N	Y	Y	N
No. mobiles/portables	Y	Y	N/A	N	Y	Y	Y	N/A	Y	Y	N/A	N/A	N	Y	Y	Y	N/A	N/A	N/A	Y	Y	Y	Y	Y	Y
Volume of radio traffic	N	N	N/A	N	Y	Y	N	N/A	Y	N	N/A	N/A	Y	Y	Y	N	N/A	N/A	N/A	Y	Y	Y	N	Y	N
Calls for service	N	N	N/A	N	Y	Y	N	N/A	Y	N	N/A	N/A	Y	N	N	N	N/A	N/A	N/A	Y	N	Y	N	Y	N
Functions	N	N	N/A	N	Y	N	N	N/A	N	Y	N/A	N/A	Y	Y	Y	Y	N/A	N/A	N/A	Y	N	Y	N	N	Y
Unknown	N	N	N/A	N	N	N	N	N/A	N	N	N/A	N/A	N	N	N	N	N/A	N/A	N/A	N	N	N	N	N	N
Other	N	N	N/A	Y	N	N	N	N/A	N	N	N/A	N/A	N	N	N	N	N/A	N/A	N/A	Y	N	N	N	N	N
Recommended channel configuration																									
Simplex	Y	Y	Y	N		Y		Y	Y	Y	N	N	Y	Y	Y	Y		Y		Y	N	Y	Y	Y	Y
2-freq. simplex	Y	N	N	Y		Y		Y	Y	N	N	N	Y	Y	Y	Y		Y		Y	Y	Y	Y	Y	Y
Mobile relay	Y	N	N	N		Y		Y	N	Y	Y	Y	Y	Y	Y	Y		Y		Y	Y	Y	N	Y	Y
Vehicular repeaters	N	Y	N	N		Y		Y	N	N	Y	Y	Y	N	N	N		N		N	Y	N	N	Y	Y
Trunking	N	N	N	N		Y		Y	N	N	N	N	N	N	N	N		N		N	N	N	N	N	N
No recommendation					X		X	X									X		X						

Table IV-4
State Planning Agencies

Table IV-4 State Planning Agencies		Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	N. Carolina	N. Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	S. Carolina	S. Dakota	Tennessee	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming	Wash., D.C.
Frequency band policy for rural areas																											
Low band		Y		N	N		N	N	N	N	Y					Y	N	N	N	N	Y	N	Y	N	N	N	N/A
High band		N		Y	Y		Y	Y	Y	Y	Y					N	Y	Y	Y	N	N	Y	N	Y	Y	N/A	
UHF		N		N	N		N	N	Y	N	Y					N	Y	N	N	N	Y	N	N	N	N	N/A	
No recommendation			X			X						X	X	X	X	X											
Agency has funded or considered land mobile radio systems in lower TV channels (470 MHz)		N/A	N	N/A	N/A	Y	N/A	Y	N/A	N/A	N	N	N/A	N	N	N	N/A	N	Y	N/A	N/A	N	N/A	N/A	N	N/A	N
Agency is considering land mobile radio systems in upper UHF TV channels		N	N	N	N	N	N	Y	N	Y	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N
Agency is considering pilot project or evaluation project in upper UHF TV channels		N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N
Assist L. E. agencies in establishing channel requirements		Y	Y	Y	Y	N	N	Y	Y	Y	Y	N	N	Y	N	Y	Y	Y	Y	N	Y	Y	Y	Y	N	Y	N/A
Criteria for No. of required channels																											
Population		N	Y	N	Y	N/A	N/A	N	N	N	N	N/A	N/A	N	N/A	N	Y	N	N	N/A	Y	Y	N	N	N/A	N	N/A
No. mobiles/portables		N	Y	Y	Y	N/A	N/A	Y	Y	Y	Y	N/A	N/A	N	N/A	Y	Y	Y	N	N/A	Y	Y	Y	Y	N/A	N	N/A
Volume of radio traffic		Y	Y	N	Y	N/A	N/A	Y	Y	N	N	N/A	N/A	N	N/A	Y	Y	Y	N	N/A	Y	N	N	Y	N/A	N	N/A
Calls for service		N	Y	N	Y	N/A	N/A	N	Y	N	N	N/A	N/A	N	N/A	N	N	Y	N	N/A	Y	N	N	N	N/A	N	N/A
Functions		Y	Y	N	N	N/A	N/A	Y	N	Y	Y	N/A	N/A	N	N/A	N	N	Y	N	N/A	Y	Y	N	N	N/A	Y	N/A
Unknown		N	N	N	N	N/A	N/A	N	N	N	N	N/A	N/A	Y	N/A	N	N	N	N	N/A	N	N	N	N	N/A	N	N/A
Other		Y	N	N	N	N/A	N/A	N	N	N	N	N/A	N/A	N	N/A	N	N	N	Y	N/A	Y	Y	N	N	N/A	N	N/A
Recommended channel configuration																											
Simplex		N	Y	Y	Y	Y	N		Y	Y	Y			Y	Y	Y	Y	Y		Y	Y	Y	N			N	
2-freq. simplex		Y	Y	Y	N	Y	Y		N	Y	Y			Y	N	Y	Y	Y		Y	Y	Y	Y			N	
Mobile relay		Y	Y	Y	Y	Y	Y		Y	Y	Y			Y	Y	N	Y	Y		Y	Y	Y	N			Y	
Vehicular repeaters		N	Y	N	Y	Y	N		Y	Y	N			Y	Y	Y	Y	N		N	Y	N	N			N	
Trunking		N	Y	N	N	Y	N		N	N	N			N	N	N	N	N		Y	N	N	N			N	
No recommendation							X					X	X	X					X					X	X		

Table IV-4
State Planning Agencies

Table IV-4 State Planning Agencies		Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Recommend use of tone controlled squelch																										
• Yes		X			X	X			X					X	X	X	X				X	X	X			X
• No																			X						X	
• No recommendation			X	X	X		X	X		X	X	X	X					X		X						
Recommend use of selective call																										
• Yes															X								X			
• No		X												X			X		X		X	X		X		
• No recommendation			X	X	X	X	X	X	X	X	X	X	X			X		X		X					X	
Power and tower height established by:																										
• Propagation model		Y	N	N	N	N	N	Y	N	Y	N	Y	N	Y	N	Y	Y	N	N	Y	N	N	Y	N	N	N
• Propagation measurements		Y	N	N	N	Y	Y	Y	N	Y	N	Y	Y	Y	Y	N	N	N	Y	N	Y	N	N	Y	N	
• Vendor recommendations		N	N	Y	Y	N	N	N	N	Y	N	N	Y	Y	N	N	N	Y	N	N	Y	N	N	N	N	
• Estimated (based on experience)		N	Y	N	Y	Y	Y	N	Y	N	N	Y	Y	N	Y	N	Y	N	N	N	Y	Y	Y	Y	Y	
• Other		N	N	Y	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	Y	N	N	N	N	N	
Recommended command and control concept																										
• Cooperative or central dispatch		Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y		Y	Y	N	Y	Y	Y	Y	
• Independent dispatch		Y	N	N	N	N	N	N		Y	N	N	N	N	N	Y	N	Y		N	Y	Y	N	N	Y	
• Mutual Aid Pacts		Y	N	N	N	N	Y	Y		N	Y	N	N	Y	N	Y	N	Y		Y	Y	Y	N	Y	Y	
• No recommendation								X										X								
Recommended citizen access approach																										
• 911 (LE only)		N		N		N	N	N		N	N	N		N	N	N		N	N	N	N		N	N	Y	
• 911 (LE and Fire)		N		N		N	N	N		N	N	N		Y	N	N		N	N	N	N		N	N	N	
• 911 (LE, Fire and EMS)		Y		N		Y	Y	Y		Y	Y	Y		Y	Y	Y		Y	Y	N	N		Y	Y	N	
• Single Emergency No. (7-digit)		N		N		N	Y	N		Y	Y	N		N	N	Y		N	N	N	N		N	N	Y	
• Call boxes		N		N		N	N	N		Y	N	N		N	N	N		N	N	Y	N		N	N	N	
• Other		N		Y		N	Y	N		N	N	N		N	N	N		Y	N	Y	Y		N	N	N	
• No recommendation			X		X				X			X				X					X				X	

Table IV-4
State Planning Agencies

Table IV-4 State Planning Agencies		Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	N. Carolina	N. Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	S. Carolina	S. Dakota	Tennessee	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming	Wash., D.C.
Recommend use of tone controlled squelch																											
. Yes		X	X	X	X	X	X	X	X	X				X	X	X	X	X	X	X	X	X	X	X			X
. No																											
. No recommendation		X									X	X	X													X	
Recommend use of selective call																											
. Yes				Y	X			X	X					X				X		X	X		X			X	
. No						X								X		X	X					X	X				
. No recommendation		X	X				X	X		X	X	X	X					X					X		X		
Power and tower height established by:																											
. Propagation model		N	N	N	N	N	N	Y	Y	Y	N	N	N	N	Y	N	N	Y	Unk	N	N	N	N	N	N	N	
. Propagation measurements		Y	Y	Y	Y	Y	N	Y	Y	N	N	N	Y	N	Y	N	N	Y	Unk	Y	N	Y	N	N	Y	N	
. Vendor recommendations		N	Y	N	N	N	N	N	Y	Y	N	N	Y	Y	N	N	Y	Y	Unk	N	N	N	Y	N	Y	N	
. Estimated (based on experience)		Y	N	Y	Y	Y	Y	N	Y	Y	N	Y	Y	N	N	Y	N	Y	Unk	Y	Y	N	N	Y	Y	Y	
. Other		N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	Y	N	Unk	N	Y	N	N	N	N	N	
Recommended command and control concept																											
. Cooperative or central dispatch		Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y		Y		Y	Y	Y	Y	Y	Y	Y	N	
. Independent dispatch		N	N	N	N	N	N	Y	N	Y		N	N	N	N		Y		N	Y	Y	N	N	N	N	Y	
. Mutual Aid Pacts		N	N	N	Y	N	N	Y	N	Y		N	N	N	N		N		Y	Y	Y	N	N	N	N	N	
. No recommendation											X					X		X									
Recommended citizen access approach																											
. 911 (LE only)				N	Y	Y		N	N			N	N	N	N	N	Y			N		N	N		N	N	
. 911 (LE and Fire)				N	N	N		N	N			N	N	N	N	N	N			N		N	N		N	N	
. 911 (LE, Fire and EMS)				Y	N	N		Y	Y			Y	Y	N	Y	N	N			N		Y	N		Y	Y	
. Single Emergency No. (7-digit)				N	N	N		Y	Y			N	N	Y	Y	N	Y			N		N	Y		N	N	
. Call boxes				Y	N	Y		N	N			N	N	Y	N	N	N			N		N	N		Y	N	
. Other				N	Y	N		N	N			N	N	N	N	Y	N		X	X		X					
. No recommendation		X	X				X	X		X	X							X	X				X				

Table IV-4
State Planning Agencies

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Recommended coordination channels																									
• Statewide	Y	Y		Y	Y	Y		Y	Y	N	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	X	Y	Y	
• Interstate	N	N		N	N	Y		N	N	N	N	Y	Y	Y	Y	N		N	N	N	Y	Y	N	Y	
• Regional	N	N		N	Y	Y		Y	Y	N	Y	Y	Y	Y	Y	N		Y	Y	Y	Y	Y	N	Y	
• County	N	N		Y	Y	N		N	N	Y	N	Y	N	Y	Y	N		N	Y	N	N	Y	Y	N	
• No recommendation			X				X	X									X								
Recommended point-to-point channels																									
• Microwave		Y	Y	N	Y	Y		N		N	Y	N	N	N		N		N		N	Y	N	Y	N	
• VHF/UHF pt-pt		Y	Y	Y	Y	N		Y		Y	Y	Y	Y	Y		Y		Y		Y	Y	Y	Y	Y	
• Hot lines		N	N	N	Y	N		Y		N	N	Y	Y	Y		N		N		N	Y	N	N	N	
• No recommendations	X						X	X	X						X		X		X						
Recommended approach for State Police/Highway Patrol coordination																									
• Point-to-point	N	Y	Y	Y	N	Y	Y	Y	Y	N/A	Y	Y	Y	Y	Y	Y		Y	N	Y		Y	Y	Y	
• Mobile-to-mobile	N	N	Y	N	N	Y	N	N	Y	N/A	Y	Y	Y	Y	Y	N		Y	Y	N		Y	Y	N	
• Cross monitor	Y	N	Y	Y	Y	Y	N	N	N	N/A	Y	Y	N	N	N	N		N	Y	N		Y	Y	N	
• No approach							X			X							X			X					
Recommended remote control of base stations																									
• Radio	N				Y			Y		Y			N	N	N	Y		Y		Y	Y	N	Y		
• Wireline	Y				N			Y		Y			Y	Y	Y	Y		N		Y	Y	Y	Y		
• Radio with wire backup	N				N			Y		Y			N	N	N	N		N		N	N	N	N		
• No recommendation		X	X	X	X		X	X	X		X	X					X		X						X
Recommended approaches for improved information access																									
• Additional terminals	Y		Y	Y	N	N		Y	Y				Y	Y	N	Y		Y		Y		N	Y	N	
• High speed transmission	N		Y	N	N	Y		Y	Y				N	Y	Y	Y		N		Y		Y	N	N	
• Improved switch	N		Y	Y	Y	Y		Y	Y				N	Y	Y	Y		Y		Y		Y	N	N	
• Lease wire	N		Y	N	Y	N		Y	N				N	Y	N	N		N		Y		Y	N	Y	
• Microwave	N		N	N	N	Y		N	N				N	N	N	Y		N		N		N	N	N	
• None of the above		X					X	X		X	X	X					X		X		X				

Table IV-4
State Planning Agencies

Table IV-4 State Planning Agencies		Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	N. Carolina	N. Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	S. Carolina	S. Dakota	Tennessee	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming	Wash., D.C.
Recommended coordination channels																											
•	Statewide	Y	Y	Y	Y	N	Y	Y	Y	Y	Y			N	Y	N	Y	Y	Y	Y	Y	Y	N	N	Y	Y	Y
•	Interstate	N	Y	N	Y	N	N	N	N	N	N			N	N	N	N	Y	N	Y	N	N	N	N	Y	N	Y
•	Regional	N	N	Y	Y	Y	N	Y	Y	Y	Y			Y	Y	Y	N	Y	N	Y	Y	Y	Y	N	N	N	N
•	County	N	N	N	Y	N	N	N	Y	N	N			Y	N	N	N	Y	N	Y	Y	Y	N	Y	Y	N	N
•	No recommendation										X	X															
Recommended point-to-point channels																											
•	Microwave		N	Y	N		Y	N	N	N					Y	N	N	N	N	Y	Y	N	Y	N	N	N	Y
•	VHF/UHF pt-pt		Y	Y	Y		Y	Y	Y	Y					Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	N
•	Hot lines		N	Y	N		N	N	N	N					N	Y	N	Y	Y	Y	N	N	N	N	N	Y	N
•	No recommendations	X				X					X	X	X	X													
Recommended approach for State Police/Highway Patrol coordination																											
•	Point-to-point	Y	N	Y	Y		Y	Y	Y	N	Y			N	Y	Y	Y	Y	Y	Y	Y	Y		N	Y	N	N/A
•	Mobile-to-mobile	Y	N	Y	Y		Y	N	N	Y	Y			N	Y	N	Y	N	Y	Y	Y	N		N	N	Y	N/A
•	Cross monitor	N	Y	N	Y		N	N	N	N	N			Y	Y	N	N	N	N	N	N	N		Y	N	N	N/A
•	No approach					X						X	X									X					
Recommended remote control of base stations																											
•	Radio	Y	Y	Y	Y		Y	Y	Y	Y	Y				Y	Y	Y	Y	Y	Y	Y	Y		N			Y
•	Wireline	N	N	Y	Y		Y	Y	Y	Y	Y				Y	Y	Y	Y	Y	Y	Y	Y		Y			N
•	Radio with wire backup	N	N	N	Y		N	N	Y	N	Y				N	N	N	N	N	N	N	N		N			N
•	No recommendation					X						X	X	X	X								X		X	X	
Recommended approaches for improved information access																											
•	Additional terminals	Y	Y	Y				Y	Y	Y	Y			Y	Y	N	Y	Y	Y	Y	Y	Y	N	Y			Y
•	High speed transmission	N	N	Y				N	N	Y	Y			N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y			N
•	Improved switch	N	N	Y				N	Y	Y	Y			N	Y	Y	Y	N	Y	Y	Y	N	N	N			N
•	Lease wire	N	N	Y				Y	Y	Y	N			N	N	Y	Y	Y	Y	Y	Y	N	Y	N			N
•	Microwave	N	N	Y				Y	N	N	N			N	Y	Y	N	N	N	N	Y	N	Y	N			N
•	None of the above				X	X	X	X				X												X	X		

194

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Recommended digital systems																									
• Mobile terminals with alpha-numeric display								Y					Y			Y					Y	Y			
• Mobile terminals with no alpha-numeric display								Y					N			N					N	Y			
• Mobile printers								N					N			Y					N	Y			
• No recommendation	X	X	X	X	X	X	X		X	X	X	X		X	X		X	X	X	X			X	X	
Recommend use of computer assisted dispatch																									
• Yes	X			X		X						X	X	X		X				X	X	X			
• No																									
• No recommendation		X	X	X		X		X	X	X	X				X		X	X	X				X	X	
Recommend use of scramblers																									
• Yes																									
• No	X	X		X	X		X			X			X	X	X			X	X	X	X		X		
• No recommendation			X			X		X	X	X		X	X			X	X					X		X	
Recommended use of portables																									
• Foot patrol only	N	N			N	N			N	N	N	N	N	N		N		N		N	N		N	N	
• All sworn personnel	Y	N			Y	Y			N	Y	Y	Y	Y	N		Y		Y		Y	N		Y	Y	
• All sworn personnel with no mobile units in vehicle	N	Y			N	N			Y	N	Y	Y	N	Y		N		N		N	N		N	N	
• Detectives	N	N			N	N			N	N	Y	N	Y	Y		N		N		N	Y		N	N	
• No recommendation			X	X			X	X							X		X		X			X			
Recommend use of logging tape recorders																									
• Yes	X	X		X	X	X	X		X	X	X		X	X		X					X	X	X		
• No																		X		X					
• No recommendation			X					X				X			X		X		X						X
Agency approves funds for logging recorders	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	N	Y	Y	Y	Y	
Recommended maintenance approach																									
• Centralized	N	Y			Y			Y						Y				Y							
• Decentralized	N	N			N			N						N				N							
• Contract maintenance	Y	N			N			N						N				N							
• No recommendation			X	X	X		X	X		X	X	X	X		X	X	X		X	X	X	X	X	X	

195

	Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	N. Carolina	N. Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	S. Carolina	S. Dakota	Tennessee	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming	Wash., D.C.
Recommended digital systems																										
• Mobile terminals with alpha-numeric display			Y										N													
• Mobile terminals with no alpha-numeric display			N										N													
• Mobile printers			Y										N													
• No recommendation	X	X		X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X
Recommend use of computer assisted dispatch																										
• Yes			X				X			X												X				X
• No	X	X		X				X									X		X	X	X		X		X	
• No recommendation					X	X	X			X		X	X	X	X		X	X	X	X	X			X	X	
Recommended use of scramblers																										
• Yes		X	X																		X		X	X		X
• No	X			X		X	X	X	X	X		X		X		X	X				X		X		X	
• No recommendation					X		X				X		X		X			X	X		X			X		
Recommended use of portables																										
• Foot patrol only	N			N	N	Y	Y	Y	Y				N				N	N		N	N	N	Y	N		N
• All sworn personnel	Y			Y	N	N	N	Y	N				N				N	Y		Y	Y	Y	N	Y		N
• All sworn personnel with no mobile units in vehicle	N			N	Y	N	Y	Y	N				Y				Y	N		N	N	Y	N	N		Y
• Detectives	N			N	N	N	Y	Y	Y				Y				Y	N		N	N	N	N	N		N
• No recommendation		X	X							X	X	X	X		X	X			X					X		
Recommend use of logging tape recorders																										
• Yes			X	X	X	X	X	X	X	X				X	X	X	X	X	X		X	X		X	X	
• No		X																		X						
• No recommendation	X										X	X	X									X				X
Agency approves funds for logging recorders	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Recommended maintenance approach																										
• Centralized		N	N	Y			Y	Y						Y					Y	N						Y
• Decentralized		N	Y	N			N	N						N					N	Y					N	N
• Contract maintenance		Y	N	N			N	N						N					N	N					N	N
• No recommendation	X				X			X	X	X	X	X		X		X	X			X	X	X	X			

**GRANT ADMINISTRATION AND
PROCUREMENT POLICIES**

Table IV-4
State Planning Agencies

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Agency has standard equipment specifications for:																									
• Mobile units	Y	N	Y	N	N	Y	N	N	Y	N	N	Y	N	N	Y	Y	N	N	Y	N	Y	Y	Y	Y	N
• Portables	Y	N	Y	N	N	Y	N	N	Y	N	N	Y	N	N	Y	Y	N	N	Y	N	Y	Y	Y	Y	N
• Base stations	Y	N	Y	N	N	Y	N	N	Y	N	N	Y	N	N	Y	Y	N	N	Y	N	Y	Y	Y	Y	N
• Consoles	Y	N	Y	N	N	Y	N	N	Y	N	N	Y	N	N	Y	Y	N	N	Y	N	Y	Y	Y	Y	N
• Logging tape recorders	Y	N	Y	N	N	Y	N	N	Y	N	N	Y	N	N	Y	Y	N	N	Y	N	Y	Y	Y	Y	N
• Towers	Y	N	Y	N	N	Y	N	N	Y	N	N	Y	N	N	Y	Y	N	N	Y	N	Y	Y	Y	Y	N
• Antennas	Y	N	Y	N	N	Y	N	N	Y	N	N	Y	N	N	Y	Y	N	N	Y	N	Y	Y	Y	Y	N
• Mobile printer	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
• Mobile digital terminals	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
• Mobile computer terminals	N	N/A	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
• Other	N	N/A	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Agency has list of priorities for grant evaluation	Y	N	N	Y	Y	Y	N	N	Y	N	Y	Y	N	Y	N	N	N	Y	Y	Y	Y	Y	Y	N	N
Evaluation phase required on Telecom projects	Y	N	Y	N	N	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
State Statutes affecting Telecom plans																									
• Establishment of DOC	Y	Y	N	N	Y	Y	N	N	Y	Y	N	Y	Y	N	Y	N	N	Y	N	Y	N	Y	N	N	N
• 911	N	N	N	N	Y	N	N	N	Y	N	N	N	Y	N	N	N	N	Y	N	N	N	N	N	Y	N
• Implementation of Comm System	Y	N	N	N	N	Y	N	N	Y	Y	N	Y	N	N	N	N	N	Y	N	N	N	N	N	N	N
• Develop State Plan	Y	N	N	N	N	Y	N	N	Y	N	N	N	N	N	Y	N	N	Y	N	N	N	N	N	N	N
• EMS	Y	N	Y	N	N	Y	N	Y	N	Y	N	N	Y	N	Y	N	Y	Y	Y	N	N	N	N	Y	N
• Fire	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
• Other	N	N	N	Y	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N
Agency plans to introduce State Legislation	N	N	N	N	Y	Y	Y	N	N	Y	N	N	N	N	Y	Y	Y	N	Y	N	N	Y	Y	Y	N
Area of proposed State Legislation																									
• Establish DOC	N/A	N/A	N/A	N/A	N	N	N	N/A	N/A	N	N/A	N/A	N/A	N/A	N	N	N	N/A	N	N/A	N/A	N	N	Y	N/A
• 911	N/A	N/A	N/A	N/A	N	Y	N	N/A	N/A	N	N/A	N/A	N/A	N/A	N	N	N	N/A	N	N/A	N/A	Y	Y	N	N/A
• Implement system	N/A	N/A	N/A	N/A	N	Y	N	N/A	N/A	Y	N/A	N/A	N/A	N/A	N	N	N	N/A	N	N/A	N/A	N	N	N	N/A
• Develop State Plan	N/A	N/A	N/A	N/A	N	N	N	N/A	N/A	Y	N/A	N/A	N/A	N/A	N	N	N	N/A	N	N/A	N/A	N	N	N	N/A
• EMS	N/A	N/A	N/A	N/A	N	Y	N	N/A	N/A	N	N/A	N/A	N/A	N/A	N	Y	N	N/A	N	N/A	N/A	Y	N	N	N/A
• Fire	N/A	N/A	N/A	N/A	N	N	N	N/A	N/A	N	N/A	N/A	N/A	N/A	N	N	N	N/A	N	N/A	N/A	N	N	N	N/A
• Other	N/A	N/A	N/A	N/A	Y	N	Y	N/A	N/A	N	N/A	N/A	N/A	N/A	Y	N	Y	N/A	Y	N/A	N/A	N	N	N	N/A

Table IV-4
State Planning Agencies

	Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	N. Carolina	N. Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	S. Carolina	Tennessee	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming	Wash., D.C.
Agency has standard equipment specifications for:																									
• Mobile units	Y	N	N	Y	N	Y	Y	Y	Y	N	N	N	N	N	Y	Y	Y	Y	Y	Y	Y	N	N	N	N
• Portables	Y	N	N	Y	N	Y	Y	Y	Y	N	N	N	N	N	Y	Y	Y	Y	Y	Y	Y	N	N	N	N
• Base stations	Y	N	N	Y	N	Y	Y	Y	Y	N	N	N	N	N	Y	Y	Y	Y	Y	Y	Y	N	N	N	N
• Consoles	Y	N	N	Y	N	Y	Y	N	N	N	N	N	N	N	Y	Y	Y	Y	Y	Y	N	N	N	N	N
• Logging tape recorders	Y	N	N	Y	N	N	Y	Y	N	N	N	N	N	N	Y	Y	Y	Y	Y	Y	N	N	N	N	N
• Towers	Y	N	N	N	N	N	Y	N	N	N	N	N	N	N	Y	N	Y	Y	Y	Y	N	Y	N	N	N
• Antennas	Y	N	N	N	N	N	Y	Y	N	N	N	N	N	N	Y	N	N	Y	Y	Y	N	Y	N	N	N
• Mobile printer	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
• Mobile digital terminals	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
• Mobile computer terminals	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
• Other	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Agency has list of priorities for grant evaluation	N	N	N	Y	Y	N	N	Y	Y	N	N	N	N	N	Y	N	Y	N	N	Y	Y	Y	N	N	Y
Evaluation phase required on Telecom projects	Y	Y	Y	N	Y	Y	Y	Y	N	Y	N	N	N	N	Y	N	Y	Y	Y	Y	Y	N	Y	Y	Y
State Statutes affecting Telecom plans																									
• Establishment of DOC	Y	Y	N	N	Y	Y	Y	N	Y	N	Y	N	N	N	N	N	N	Y	N	N	N	N	N	N	N
• 911	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
• Implementation of Comm System	N	Y	Y	N	N	N	N	N	Y	N	Y	N	N	N	Y	Y	N	N	Y	Y	N	N	N	N	N
• Develop State Plan	Y	Y	Y	N	N	N	N	N	Y	N	Y	N	N	N	Y	Y	N	N	Y	Y	N	N	N	N	N
• EMS	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	Y	Y	N	Y	N	N	N	N	N	N
• Fire	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
• Other	N	N	N	N	N	N	Y	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Agency plans to introduce State Legislation	N	N	Y	N	Y	N	N	Y	N	N	N	Y	N	N	Y	N	Y	Y	N	N	N	N	Y	Y	Y
Area of proposed State Legislation																									
• Establish DOC	N/A	N/A	Y	N/A	N	N/A	N/A	N/A	N	N/A	N/A	N/A	N	N/A	N/A	N	N/A	N	N	N/A	N/A	N/A	N/A	Y	N
• 911	N/A	N/A	N	N/A	N	N/A	N/A	N/A	N	N/A	N/A	N/A	N	N/A	N/A	N	N/A	N	N	N/A	N/A	N/A	N/A	N	N
• Implement system	N/A	N/A	Y	N/A	Y	N/A	N/A	N/A	N	N/A	N/A	N/A	Y	N/A	N/A	N	N/A	N	N	N/A	N/A	N/A	N/A	N	N
• Develop State Plan	N/A	N/A	Y	N/A	N	N/A	N/A	N/A	N	N/A	N/A	N/A	Y	N/A	N/A	N	N/A	N	N	N/A	N/A	N/A	N/A	N	N
• EMS	N/A	N/A	Y	N/A	N	N/A	N/A	N/A	N	N/A	N/A	N/A	Y	N/A	N/A	N	N/A	N	N	N/A	N/A	N/A	N/A	Y	N
• Fire	N/A	N/A	N	N/A	N	N/A	N/A	N/A	N	N/A	N/A	N/A	N	N/A	N/A	N	N/A	N	N	N/A	N/A	N/A	N/A	N	N
• Other	N/A	N/A	N	N/A	N	N/A	N/A	N/A	Y	N/A	N/A	N/A	N	N/A	N/A	Y	N/A	Y	Y	N/A	N/A	N/A	N/A	N	Y

Table IV-4
State Planning Agencies

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Three most significant constraints																									
• Shortage of freq.	Y	N	N	N	N	N	N	Y	N	N	N	Y	N	N	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
• Telephone companies	N	N	N	N	N	N	N	N	N	N	N	Y	N	Y	N	N	Y	Y	Y	N	N	N	Y	Y	Y
• Political	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	N	N	Y	Y	Y	N	N	N	Y	Y	Y	N
• Ecology	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
• State statutes	N	N	N	Y	N	Y	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
• Common Carrier Tariffs	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
• Differences between telephone company boundaries and jurisdictional boundaries	N	N	N	N	N	Y	N	N	N	N	N	Y	N	Y	N	N	N	N	N	N	N	N	N	N	N
• Insufficient planning funds	N	Y	N	N	N	N	N	N	Y	Y	Y	N	Y	N	Y	N	N	N	N	N	Y	N	N	N	N
• Insufficient funds for implementation	N	Y	Y	N	Y	N	N	Y	Y	N	Y	N	N	N	Y	N	N	N	Y	N	Y	N	N	Y	N
• Inadequate planning manpower	Y	N	N	N	Y	N	N	Y	Y	N	Y	N	N	N	Y	N	N	Y	N	Y	N	N	Y	N	N
• Others	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	Y	Y	N	N	N	Y	N	N	N	Y	N
Agency responsible for coordination with adjacent states																									
• Grant Applicant	N	N/A	Y	N	Y	N	N	N	N	N/A	N	Y	Y	N	Y	N	N	N	Y	Y	Y	N	N	N	N
• DOC	N	N/A	N	N	N	N	N	N	Y	Y	N/A	N	N	N	Y	N	N	N	Y	Y	N	N	N	N	N
• SPA	N	N/A	Y	Y	N	N	N	N	N	N	N/A	Y	Y	N	N	Y	N	N	N	N	N	N	N	N	N
• LEAA regional office	N	N/A	N	N	N	N	N	N	N	N	N/A	N	N	N	Y	N	N	N	Y	N	N	N	Y	N	Y
• Other	Y	N/A	Y	N	N	N	Y	N	N	N	N/A	N	N	N	N	N	N	N	N	N	N	N	N	N	N
• None	N	N/A	N	N	N	Y	N	Y	N	N	N/A	N	N	N	N	N	N	N	N	N	N	N	N	Y	N
No. of times Grant Approvals have been reversed since 7/1/71	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
No. of times grant disapprovals have been reversed since 7/1/71	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	18	0	0	0	4	0	0	0	0
Formal procedures for updating fund allocations on grants	N	Y	N	Y	Y	Y	N	Y	Y	Y	N	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	N	Y	Y
Variance of LEAA procurement guide from State procedure is documented	N	N	Y	N	Y	N	N	N	N	N	N	N	N	N	N	Y	N	N	Y	N	N	N	N	N	Y
Formal procedures governing grant termination	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
In-house checklist for grant application review	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N

Table IV-4
State Planning Agencies

Table IV-4 State Planning Agencies		Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	N. Carolina	N. Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	S. Carolina	S. Dakota	Tennessee	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming	Wash., D. C.
Three most significant constraints																											
•	Shortage of freq.	N	N	N	N	Y	N	Y	Y	Y	N	Y	N	Y	N	N	Y	Y	N	Y	N	Y	Y	N	N	Y	
•	Telephone companies	N	N	N	N	N	N	Y	Y	Y	N	N	N	N	Y	N	N	N	N	N	N	Y	N	N	N	N	
•	Political	N	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	N	Y	Y	N	N	N	Y	Y	Y	N	N	Y	Y	N	
•	Ecology	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
•	State statutes	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	F	
•	Common Carrier Tariffs	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
•	Differences between telephone company boundaries and jurisdictional boundaries																										
•	Insufficient planning funds	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	Y	N	N	N	
•	Insufficient funds for implementation	Y	Y	N	N	N	N	N	N	N	N	N	Y	N	N	Y	N	N	N	N	N	N	N	Y	Y	Y	
•	Inadequate planning manpower	Y	N	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	N	N	Y	Y	Y	Y	N	Y	N	Y	Y	Y	
•	Others	N	N	Y	N	N	N	N	N	Y	N	N	Y	Y	N	Y	Y	N	N	Y	N	N	Y	N	N	N	
•		Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	Y	N	N	N	N	N	N	N	
Agency responsible for coordination with adjacent states																											
•	Grant Applicant	N	Y	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	Y	
•	DOC	Y	Y	N	N	N	Y	N	N	Y	N	N	N	N	N	Y	N	N	Y	N	N	N	N	N	N	N	
•	SPA	Y	N	N	N	N	N	N	N	N	N	N	N	Y	Y	N	Y	N	N	N	N	N	N	N	N	N	
•	LEAA regional office	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
•	Other	N	N	Y	Y	Y	N	N	Y	N	Y	N	N	N	N	N	Y	Y	Y	Y	Y	Y	N	Y	Y	N	
•	None	N	N	N	N	N	N	Y	N	N	N	Y	Y	N	N	N	N	N	N	N	N	Y	N	N	Y	N	
No. of times Grant Approvals have been reversed since 7/1/71		0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
No. of times grant disapprovals have been reversed since 7/1/71		0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Formal procedures for updating fund allocations on grants		Y	Y	N	Y	N	Y	Y	Y	Y	Y	Y	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Variance of LEAA procurement guide from State procedure is documented		N	N	N	Y	N	N	N	Y	N	Y	N	N	N	N	Y	Y	N	Y	N	Y	N	N	N	Y	N	
Formal procedures governing grant termination		Y	N	N	Y	Y	Y	Y	Y	Y	Y	N	Y	N	Y	Y	Y	N	Y	Y	Y	Y	Y	N	Y	Y	
In-house checklist for grant application review		Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	

Table IV-4
State Planning Agencies

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Published guidelines for grant applications	N	Y	N	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Requirements for grant application																									
• Statement of problem	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
• Statement of requirement	Y	Y	N	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
• Procurement procedures	N	N	Y	Y	Y	N	Y	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	N	Y	Y	Y
• Adjacent area coordination	N	N	Y	Y	Y	N	Y	Y	N	N	N	Y	N	Y	Y	Y	N	N	Y	Y	Y	N	Y	N	N
• Technical justification	N	Y	N	N	Y	Y	N	Y	N	N	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	N	N	Y	Y	Y
• Manpower requirements	N	Y	N	N	Y	Y	Y	Y	N	N	Y	N	Y	N	Y	Y	Y	Y	Y	Y	N	N	N	N	Y
• Training requirement	N	N	N	N	Y	N	N	Y	N	N	Y	N	N	Y	N	Y	Y	Y	Y	Y	N	N	N	N	N
• Follow-on funding	N	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	Y	N	Y	Y
• Facility requirements	N	Y	N	N	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	N	N	Y	Y	N	N	N	N	Y
• Specification compliance testing	Y	N	N	N	Y	N	N	Y	N	N	N	Y	N	Y	N	Y	N	Y	Y	N	N	N	N	N	N
• Post project evaluation	Y	Y	Y	N	Y	Y	N	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
• Frequency availability	N	Y	Y	Y	Y	Y	N	N	Y	N	Y	N	Y	Y	Y	Y	N	Y	Y	Y	Y	N	N	N	Y
• Tech. evolutionary adaptabilities	N	N	N	N	Y	N	N	N	N	N	N	N	N	Y	Y	Y	N	N	Y	Y	N	N	N	N	Y
• System description	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
• Maintenance consolidations	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	Y	N	Y	Y	N	N	N	N	Y	Y
• Others	N	N	N	N	Y	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N
Grant review before submission																									
• Regional planning council	N	N	Y	Y	Y	Y	N	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	N	Y	Y	Y	Y	Y
• County Planning Agency	N	N	N	N	N	N	N	Y	N	N	N	Y	N	N	N	N	N	N	Y	N	N	N	N	N	N
• Other	Y	N	N	Y	N	Y	Y	N	Y	Y	Y	N	N	N	N	N	Y	N	N	N	N	N	N	N	N
Maintain Equipment Inventory	Y	N	N	N	Y	N	Y	N	N	N	N	N	N	Y	N	Y	N	Y	Y	Y	N	N	N	N	N
Date of last update on equipment inventory (year)	'72	N/A	N/A	N/A	'74	N/A	'75	N/A	N/A	N/A	N/A	N/A	N/A	'75	N/A	'73	N/A	'74	'75	'71	N/A	N/A	N/A	N/A	N/A
Formal procedure for assigning priorities to grant applications	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	N	N	Y	N	Y	Y	Y	Y	N	N	N	N

Table IV-4
State Planning Agencies

Table IV-4 State Planning Agencies		Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	N. Carolina	N. Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	S. Carolina	S. Dakota	Tennessee	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming	Wash., D. C.
Published guidelines for grant applications		Y	Y	N	Y	Y	N	N	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	Y	Y	Y
Requirements for grant application																											
• Statement of problem		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
• Statement of requirement		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	N	Y
• Procurement procedures		N	Y	Y	N	N	Y	Y	Y	N	N	N	Y	Y	N	Y	Y	Y	Y	Y	N	Y	Y	N	N	N	N
• Adjacent area coordination		N	N	N	N	N	Y	Y	Y	N	Y	N	N	N	Y	N	N	Y	Y	N	N	N	N	Y	N	Y	N
• Technical justification		Y	Y	Y	N	Y	Y	Y	Y	N	N	N	Y	Y	N	N	Y	Y	Y	Y	Y	Y	N	N	N	N	Y
• Manpower requirements		N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	N	Y	N	N	N	N	Y	Y	Y	N	N	N	N	N	Y
• Training requirement		N	Y	Y	N	Y	N	Y	N	N	N	N	Y	N	N	N	N	Y	Y	N	Y	N	N	N	N	N	Y
• Follow-on funding		N	Y	Y	Y	N	Y	Y	Y	Y	N	Y	N	Y	N	Y	Y	Y	Y	Y	N	Y	N	N	N	Y	Y
• Facility requirements		N	Y	Y	N	Y	N	Y	Y	Y	N	N	Y	Y	N	N	N	Y	Y	Y	Y	N	N	N	N	Y	Y
• Specification compliance testing		N	N	N	N	N	N	Y	Y	N	N	N	Y	N	N	N	N	Y	Y	N	N	Y	N	N	N	N	N
• Post project evaluation		Y	N	Y	Y	Y	Y	Y	N	Y	Y	N	N	Y	N	N	Y	Y	Y	Y	Y	Y	N	N	Y	Y	N
• Frequency availability		N	N	Y	N	Y	Y	Y	Y	N	N	N	Y	Y	N	Y	N	Y	N	N	Y	N	N	Y	Y	Y	N
• Tech. evolutionary adaptabilities		N	N	N	N	N	Y	Y	Y	N	N	N	N	N	N	N	N	Y	N	Y	N	N	N	N	N	Y	N
• System description		Y	N	Y	N	Y	Y	Y	Y	N	N	Y	Y	Y	N	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y
• Maintenance consolidations		N	N	N	N	N	Y	Y	Y	N	N	Y	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	Y
• Others		Y	N	N	N	N	N	N	N	N	Y	N	N	N	Y	Y	N	N	Y	N	N	N	N	Y	N	N	Y
Grant review before submission																											
• Regional planning council		Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	N	Y	Y	N	Y	Y	N
• County Planning Agency		N	N	N	N	N	N	N	Y	N	N	N	Y	N	N	N	N	N	N	Y	N	Y	N	N	N	N	N
• Other		N	Y	N	Y	Y	N	N	N	Y	N	N	N	Y	N	N	N	N	Y	Y	N	N	N	N	N	N	Y
Maintain Equipment Inventory		Y	N	N	Y	N	N	N	Y	Y	N	Y	N	N	N	Y	Y	Y	N	N	Y	N	N	N	N	N	N
Date of last update on equipment inventory (year)		'74	N/A	N/A	'75	N/A	N/A	N/A	'74	'73	N/A	'75	N/A	N/A	N/A	'72	'75	'75	N/A	N/A	Unk	N/A	N/A	N/A	N/A	N/A	'75
Formal procedure for assigning priorities to grant applications		N	N	Y	Y	Y	Y	N	Y	Y	Y	N	N	N	N	Y	N	Y	N	N	N	Y	Y	N	N	N	Y

Table IV-4
State Planning Agencies

Table IV-4 State Planning Agencies		Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Total Agency Operating Costs (Millions of \$)																										
•	FY 72	.65	.18	0.2	Unk	1.7	0.4	2.4	.16	-	.20	0.2	0.9	0.8	0.5	0.4	0.8	0.3	.30	0.7	.91	1.19	Unk	.52	0.7	
•	FY 73	.79	.31	0.2	Unk	2.2	0.6	0.3	.3	0.9	0.5	.20	0.3	1.4	1.2	0.7	0.3	0.8	0.5	.54	1.0	1.3	1.78	Unk	.64	1.1
•	FY 74	.90	.33	0.4	Unk	2.6	0.6	0.4	.3	1.0	0.5	.24	0.4	1.3	1.2	0.7	0.5	0.9	0.6	.58	1.0	1.3	1.91	Unk	.69	1.1
•	FY 75	.99	.38	0.4	Unk	3.3	0.7	0.5	.32	1.1	0.7	.28	0.4	1.5	1.3	0.8	0.7	0.9	0.6	.95	1.0	1.4	2.15	Unk	.72	1.2
Percent of above on telecom planning																										
•	FY 72	1	2	Unk	Unk	1.3	3	1.5	1	Unk	Unk	0.1	5	4.2	10	2	10	5	0	0	1.3	5	7	Unk	2	0.2
•	FY 73	1	1	Unk	Unk	1.3	5	1.5	1	3	3	0.1	3.5	3.2	10	2	10	5	0	0	.6	5	7	Unk	2	0.2
•	FY 74	3	1	Unk	Unk	4.3	5	1.5	1	3	3	0.1	2	3.5	10	2	10	5	0	3	.4	5	7	Unk	8	2.0
•	FY 75	5	1	Unk	Unk	4.7	5	1.5	1	2	2	0.1	1	3.2	10	2	10	5	0	9	.4	5	7	Unk	3	2.0
Total grant expenditures (Millions of \$)																										
•	FY 72	6.9	.75	2.9	3.2	44.9	Unk	5.0	1.3	15.0	10.3	1.0	1.7	24.9	12.5	5.7	9.5	8.1	7.3	2.0	8.8	11.4	19.9	Unk	3.3	9.4
•	FY 73	9.0	1.0	3.6	5.7	51.8	Unk	6.8	1.6	17.6	12.0	1.3	1.7	29.0	14.7	6.6	6.5	8.1	8.5	2.3	10.3	13.3	23.1	Unk	5.5	10.9
•	FY 74	8.0	1.2	4.7	8.0	51.8	Unk	7.9	1.6	18.0	12.0	1.6	1.9	29.0	14.7	6.6	6.5	8.2	8.5	2.3	10.3	13.3	23.1	Unk	6.5	10.9
•	FY 75	8.0	1.2	4.7	4.6	51.9	Unk	7.9	1.6	18.7	12.0	2.2	Unk	28.6	14.7	6.6	6.4	8.4	8.5	2.3	10.3	13.3	22.9	Unk	11.6	10.8
Percent of above on L. E. tele- com projects																										
•	FY 72	36.6				7.5		6.2					7	11.7		8	12.0	14.6	15.0	3.9		2.64			5	
•	FY 73	14.1				5.1		3.9					5	9.7		7	12.0	14.7	28.0	.73		3.58		8.9	5	
•	FY 74	1.3				1.7		0.9					8	11.2		7	11.9	15.7	15.6	.23		2.09		4.8	8	
•	FY 75	0				10.0		0					7	14.4		6	11.6	3.6	34.1	.68		3.00		3.4	5	

Table IV-4
State Planning Agencies

State Planning Agencies		State																									
		Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	N. Carolina	N. Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	S. Carolina	S. Dakota	Tennessee	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming	Wash., D.C.
Total Agency Operating Costs (Millions of \$)																											
•	FY 72	.40	.39	.10	.20	.82	.17	.94	.81	.14	1.7	.25	.16	2.53	.13	.50	.17	.28	.87	.21	.14	.38	.39	.34	.73	.12	.38
•	FY 73	.55	.63	.25	.34	1.13	.35	1.25	1.3	.24	2.2	.41	.20	3.27	.14	.74	.20	.45	1.3	.26	.14	.72	.56	.44	1.0	.13	.48
•	FY 74	.59	.56	.25	.36	1.56	.38	1.47	1.4	.26	2.2	.46	.31	3.07	.21	.80	.33	.50	1.3	.33	.20	.95	.56	.60	1.0	.17	.51
•	FY 75	1.0	.66	.25	.36	1.56	.45	1.0	1.5	.33	2.4	.49	.30	3.60	.28	.88	.34	.60	1.4	.34	.32	1.1	.61	.58	1.1	.20	.53
Percent of above on telecom planning																											
•	FY 72	10	1.0	0	1.0	5	.5	1	8	3	10	0	1	1	0	0	Unk	.9	6.0	Unk	0	6	1	1	0.5	2	10
•	FY 73	9	1.0	0	1.0	5	.3	2	1	3	7	0	1	1	0	1.3	Unk	11.6	4.3	Unk	0	3	1	1	0.5	2	10
•	FY 74	5	1.5	0	1.0	5	.3	4	0	3	3	0	1	1	0	2.1	Unk	5.0	4.6	Unk	0	2.5	1	1	0.5	2	10
•	FY 75	2	1.5	0	1.0	5	.25	5	2	3	3	0	1	1	5	2.0	Unk	3.8	4.9	Unk	2.2	2.5	1	1	0.5	2	10
Total grant expenditures (Millions of \$)																											
•	FY 72	1.3	2.8	1.2	1.6	11.9	2.5	40.8	11.0	1.67	23.7	5.14	3.85	22.3	Unk	Unk	1.2	6.4	25.1	Unk	.91	Unk	6.8	2.5	10.2	.75	1.9
•	FY 73	1.5	7.1	1.2	2.0	14.4	2.9	47.5	13.2	2.39	26.6	5.96	4.69	26.3	Unk	Unk	1.5	7.9	29.2	Unk	1.1	Unk	7.9	3.8	11.5	1.0	2.2
•	FY 74	1.8	4.5	1.4	2.2	16.7	3.0	47.5	13.2	2.31	21.8	5.96	5.45	30.3	Unk	Unk	1.7	9.1	29.2	Unk	1.3	Unk	7.9	4.3	11.5	1.2	2.2
•	FY 75	1.8	4.4	1.2	2.2	16.7	3.1	46.7	13.2	2.0	27.2	5.98	5.45	22.1	Unk	Unk	1.7	9.1	29.5	Unk	1.3	Unk	7.9	4.9	11.5	1.2	2.2
Percent of above on L. E. tele- com projects																											
•	FY 72	2.4			19.6		5.5		25.5	5.7													7.9			2.7	
•	FY 73	14.1			19.1		7.1		20.6	4.0												9.8				4.3	
•	FY 74	16.4			11.1		4.1		0	2.9												3.7				0	
•	FY 75	11.1			13.6		4.6		13.2	2.7												2.0				7.7	

Table IV-4
State Planning Agencies

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
State Centralized Purchasing																									
• Extensive	N	N	N		Y		Unk	Y	N		Y	Y		Y	N	N	Y	Y	N			N	Y		
• Limited	Y	N	Y		N		Unk	N	Y		N	N		N	Y	N	N	N	Y			Y	N		
• Uniform procurement methods	Y	Y	N		Y		Unk	N	Y		N	N		Y	N	Y	N	N	N			N	N		
• No central purchasing				X	X		X	Unk		X			X							X	X				X
State Centralized Purchasing Mandatory	Y	Y	N	N/A	N/A	Y	N/A	Unk	N	N	N/A	Y	Y	N/A	Y	Y	Y	Y	Y	Y	N/A	N	N	Y	N/A
State Contract Renewal Period																									
• 0-3 months	Y	Y	N/A	N/A	N	N	N	Unk	N	N	N/A	N	N	N/A	N	N	N	N	N	N	N	N	N	N	N
• 4-6 months	N	N	N/A	N/A	N	N	N	Unk	N	N	N/A	N	Y	N/A	N	N	Y	Y	N	N	N	N	N	N	N
• 7-11 months	N	N	N/A	N/A	N	N	N	Unk	N	N	N/A	N	N	N/A	N	N	N	N	N	N	N	N	N	N	N
• 12 months	N	N	N/A	N/A	N	N	N	Unk	Y	N	N/A	Y	N	N/A	Y	Y	N	N	N	Y	N	N	Y	Y	N
• Greater than 12 months	N	N	N/A	N/A	N	Y	N	Unk	N	Y	N/A	N	N	N/A	N	N	N	N	Y	N	N	N	N	N	N
Agency Encourages Joint or Centralized Purchasing	N	N	Y	N	Y	Y	Unk	Unk	Y	Y	N/A	Y	N	N/A	Y	N	Y	N	Y	Y	N	Y	Y	Y	N
Regional or County Centralized Purchasing																									
• Extensive		N	Unk		N	Unk	N	Unk			N	Unk		Y		N			N	Y	N	Y	Y		
• Limited		N	Unk		Y	Unk	Y	Unk			N	Unk		N		N			N	N	Y	N	N		
• Uniform procurement		Y	Unk		N	Unk	N	Unk			Y	Unk		Y		Y			Y	Y	N	N	N		
• Negotiated procurement		N	Unk		N	Unk	N	Unk			Y	Unk		N		Y			N	N	N	N	N		
• No regional or county purchasing	X		Unk	X		Unk		Unk	X	X		Unk	X	X		X		X	X						X
County or Regional Purchasing Mandatory	N/A	Y	Unk	N/A	N	Unk	N	Unk	Unk	N/A	Y	Unk	N	N/A	Y	N/A	Y	N	N/A	N	Y	N	Y	Y	N/A
County or regional contract renewal period																									
• 0-3 months	N/A	Y	Unk	N/A	Unk	Unk	Unk	Unk	Unk	N/A	Unk	Unk	N	N/A	N	N	N	N	N	N	N	N	N	N	N
• 4-6 months	N/A	N	Unk	N/A	Unk	Unk	Unk	Unk	Unk	N/A	Unk	Unk	N	N/A	N	N	N	N	N	N	N	N	N	N	N
• 7-11 months	N/A	N	Unk	N/A	Unk	Unk	Unk	Unk	Unk	N/A	Unk	Unk	N	N/A	N	N	N	N	N	N	N	N	N	N	N
• Annual	N/A	N	Unk	N/A	Unk	Unk	Unk	Unk	Unk	N/A	Unk	Unk	N	N/A	N	N	N	N	N	Y	Y	N	N	Y	N
• Greater than 12 months	N/A	N	Unk	N/A	Unk	Unk	Unk	Unk	Unk	N/A	Unk	Unk	N	N/A	Y	N	Y	N	N	N	N	N	Y	N	N

CONTINUED

3 OF 11

Table IV-4
State Planning Agencies

Table IV-4 State Planning Agencies		Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	N. Carolina	N. Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	S. Carolina	S. Dakota	Tennessee	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming	Wash., D.C.
State Centralized Purchasing																											
• Extensive		Y	N	Y	Y		N	Y		N		N		Y	N	Y	N	Y	Y	Y	Y	Y	N	Y	N	N	Y
• Limited		N	N	N	N		N	N		N		N		N	Y	N	Y	N	N	N	N	N	Y	N	Y	Y	N
• Uniform procurement methods		N	Y	Y	Y		Y	N		Y		Y		Y	N	N	N	Y	Y	Y	N	N	N	N	N	N	
• No central purchasing					X			X		X	X		X														N
State Centralized Purchasing Mandatory		Y	Y	Y	Y	N/A	Y	Y	N/A	N	N/A	N	Y	N/A	Y	N	Y	Y	Y	Y	Y	Y	N	Y	N	Y	Y
State Contract Renewal Period																											
• 0-3 months		N	N	N	N	N/A	N	A	N	N	N	N	N	Y	N	N	Y	Y	N	Y	Y	N	Y	N	N	N	N
• 4-6 months		N	N	N	N	N/A	N	S	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
• 7-11 months		N	N	N	N	N/A	N	R	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
• 12 months		Y	Y	N	N	N/A	Y	E	N	Y	N	N	Y	N	N	Y	N	N	N	Y	N	Y	Y	N	N	N	Y
• Greater than 12 months		N	N	Y	Y	N/A	N	Q	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	Y	Y	Y	N
Agency Encourages Joint or Centralized Purchasing		Y	Y	Y	Y	N/A	Y	N	Y	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	N/A
Regional or County Centralized Purchasing																											
• Extensive			N	Unk		Y	Unk	Y	N	N		N	Unk	N		Y	Y	Y	Y	Y		N		Y		N/A	
• Limited			N	Unk		N	Unk	N	Y	Y		Y	Unk	Y		N	N	N	N			Y		N		N/A	
• Uniform procurement			Y	Unk		N	Unk	Y	N	N		N	Unk	Y		N	N	Y	N			N		N		N/A	
• Negotiated procurement			N	Unk		N	Unk	N	N	N		N	Unk	N		N	N	N	N			N		N		N/A	
• No regional or county purchasing		X		Unk	X	X	Unk				X		Unk		X					X	X		X		X		N/A
County or Regional Purchasing Mandatory		N	Y	Unk	N/A	N/A	N	Unk	N	Unk	N	Unk	Unk	N	N/A	N	N	Y	Y	N/A	N/A	N	N/A	Y	N/A	N/A	
County or regional contract renewal period																											
• 0-3 months		Unk	Unk	Unk	N	N	N	Unk	Unk	Unk	Y	N	Unk	Unk	Y	N	N	Y	Y	Unk	N	N	Unk	N	Unk	Unk	N/A
• 4-6 months		Unk	Unk	Unk	N	N	N	Unk	Unk	Unk	N	N	Unk	Unk	N	N	N	N	N	Unk	N	N	Unk	N	Unk	Unk	N/A
• 7-11 months		Unk	Unk	Unk	N	N	N	Unk	Unk	Unk	N	N	Unk	Unk	N	N	N	N	N	Unk	N	N	Unk	N	Unk	Unk	N/A
• Annual		Unk	Unk	Unk	N	N	N	Unk	Unk	Unk	N	N	Unk	Unk	N	N	N	N	N	Unk	N	N	Unk	N	Unk	Unk	N/A
• Greater than 12 months		Unk	Unk	Unk	N	N	Y	Unk	Unk	Unk	N	N	Unk	Unk	N	N	N	N	N	Unk	N	N	Unk	N	Unk	Unk	N/A

Table IV-4
State Planning Agencies

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Type of Specifications for Telecom Systems																									
• Equipment specifications only	N	Y	N	N	N	Y	N	Unk	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
• System functional specifications only	N	N	N	Y	N	N	N	Unk	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
• System performance specifications only	N	N	N	N	N	N	N	Unk	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N
• All of the above	Y	N	Y	N	Y	N	Y	Unk	Y	N	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y
• System functional and performance specifications with no equipment specifications	N	N	N	N	N	N	N	Unk	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
• System functional and equipment specifications with no performance specifications	N	N	N	N	N	N	N	Unk	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N
• System performance and equipment specifications with no system functional specifications	N	N	N	N	N	N	N	Unk	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
• No specifications	N	N	N	N	N	N	N	Unk	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N
Require that procurements meet contractually established specifications	Y	Y	Y	N	N	Y	N	Unk	N	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y
Source of Specifications																									
• Consultants	N	N	N	N	Y	N	Y	Unk	N	N	N	Y	Y	N	Y	N	Y	N	N	N	N	N	Y	N	N
• SPA	N	Y	N	Y	N	N	N	Unk	N	N	N	N	Y	Y	N	Y	N	N	Y	N	Y	Y	N	Y	Y
• Other State and Local Agency	Y	N	Y	Y	Y	Y	N	Unk	N	Y	Y	Y	Y	Y	N	N	N	N	Y	N	N	N	N	N	N
• Vendor consultants	N	N	N	N	N	N	N	Unk	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
• Vendors	N	N	N	Y	N	N	N	Unk	N	Y	N	N	N	Y	N	N	N	Y	Y	N	N	Y	N	N	N
• Other	N	N	N	N	N	N	N	Unk	Y	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N
Specifications verified by:																									
• Acceptance testing	Y								N				N	Y	Y	N	Y		Y		Y	N	Y	N	N
• Operational tests	Y								N				N	Y	N	Y	Y		Y		N	Y	N	N	Y
• Vendor certification	N								Y				N	Y	N	Y	N		Y		N	N	N	Y	N
• Random Sample Testing	N								N				N	N	N	N	N		N		N	N	N	N	N
• Other	N								N				Y	N	N	N	N		N		N	N	N	N	N
• No requirements		X	X	X	X	X	X	X		X	X	X						X		X					
List of recommended consultants maintained	N	Y	N	N	N	Y	Y	N	N	Y	N	N	N	N	N	N	N	N	N	Y	Y	N	Y	N	N

Table IV-4
State Planning Agencies

Table IV-4 State Planning Agencies		Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	N. Carolina	N. Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	S. Carolina	S. Dakota	Tennessee	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming	Wash., D. C.
Type of Specifications for Telecom Systems																											
•	Equipment specifications only	Y	N	N	N	N	Y	Y	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	Y	N	Y	N	
•	System functional specifications only	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
•	System performance specifications only	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
•	All of the above	N	Y	Y	Y	Y	N	N	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	N	Y	
•	System functional and performance specifications with no equipment specifications	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
•	System functional and equipment specifications with no performance specifications	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
•	System performance and equipment specifications with no system functional specifications	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
•	No specifications	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
Require that procurements meet contractually established specifications		N	N	N	Y	N	N	N	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	Y	
Source of Specifications																											
•	Consultants	N	N	N	N	N	N	Unk	Y	N	Y	N	N	Y	N	Y	N	N	Y	Y	N	N	Y	N	Y	N	N
•	SPA	N	N	N	N	N	N	Unk	N	N	N	N	N	N	N	Y	Y	Y	N	N	N	N	Y	N	N	N	N
•	Other State and Local Agency	Y	Y	Y	Y	N	Y	Unk	N	Y	N	N	Y	N	Y	N	N	N	Y	Y	Y	N	Y	N	Y	Y	
•	Vendor consultants	N	N	N	N	Y	N	Unk	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
•	Vendors	N	N	N	N	N	N	Unk	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
•	Other	N	N	N	N	N	N	Unk	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Specifications verified by:																											
•	Acceptance testing	N	Y		Y			Y						Y	Y	Y	Y	Y	Y	N	Y	Y	N	Y	N	Y	
•	Operational tests	N	Y		Y			Y						N	Y	Y	Y	Y	Y	N	Y	Y	N	Y	N	N	
•	Vendor certification	Y	N		Y			Y						N	Y	Y	Y	Y	Y	N	Y	Y	Y		N	Y	N
•	Random Sample Testing	N	N		N			N						N	N	Y	N	Y	Y	Y	Y	N	N	N	N	N	
•	Other	N	N		N			N						N	N	N	N	N	N	N	N	N		N	N	N	
•	No requirements			X		X	X	X		X	X	X	X										X				
List of recommended consultants maintained		N	N	N	Y	N	N	Y	N	N	Y	N	N	N	N	Y	N	N	N	Y	N	Y	N	N	Y	N	N

Table IV-4
State Planning Agencies

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Formal requirement to be placed on list of consultants	N/A	N	N/A	N/A	N/A	N	N	N/A	N/A	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	N	N/A	Y	N/A	N/A	
Formal procedures for removal of consultants from list	N/A	N	N/A	N/A	N/A	N	N	N/A	N/A	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	N	N/A	Y	N/A	N/A	
Agency has removed consultant from list	N/A	N	N/A	N/A	N/A	Y	N	N/A	N/A	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Y	N	N/A	N	N/A	N/A	
Typical number of bidders on telecom procurements	2-3	6-10	2-3	2-3	2-3	4-6	2-3	2-3	2-3	Unk	2-3	4-6	2-3	2-3	4-6	2-3	2-3	2-3	4-6	2-3	2-3	2-3	2-3	2-3	
List of recommended equipment vendors	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	Y	Y	N	
Formal procedures for removal of vendor from list	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	N	N/A	N/A	Y	N	N/A
Agency has removed vendor from list	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	N	N/A	N/A	Y	N	N/A
Standard procurement instructions																									
• Equipment	N	Y	N	Y	Y	Y	Y	N	N	Y	N	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	N	Y	
• Maintenance	N	Y	N	Y	Y	Y	Y	Y	N	N	N	Y	Y	N	Y	N	N	N	N	N	N	Y	N	Y	
• Consulting	N	Y	N	Y	Y	Y	Y	Y	N	Y	N	Y	Y	Y	N	N	Y	N	N	Y	N	N	N	Y	
Use existing state procurement instructions																									
• Equipment	Y	N	N	N	N	N	N	Y	Y	N	Y	Y	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	
• Maintenance	N	N	N	N	N	N	N	N	Y	N	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y	N	
• Consulting	N	N	N	N	N	N	N	N	Y	N	Y	N	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	
Permit sole source regardless of size of procurement																									
• Equipment	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
• Maintenance	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
• Consulting	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	
Require at least two bids when procurement exceeds a given dollar value																									
• Equipment	Y	N	N	N	Y	N	N	N	Y	Y	N	N	Y	Y	N	N	Y	N	N	Y	N	N	Y	N	Y
• Maintenance	N	N	N	N	Y	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	Y	N	Y	
• Consulting	N	N	N	N	Y	N	N	N	N	Y	N	N	Y	Y	N	N	Y	N	N	N	N	N	N	Y	

Table IV-4
State Planning Agencies

[illegible]

Table IV-4
State Planning Agencies

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Require at least three bids when procurement exceeds a given dollar value																									
• Equipment	N	Y	Y	N	N	N	Y	N	N	N	Y	Y	N	Y	N	N	N	Y	Y	N	Y	N	N	N	N
• Maintenance	N	Y	Y	N	N	N	Y	N	N	N	Y	Y	N	Y	N	N	N	Y	Y	N	Y	N	N	N	N
• Consulting	N	Y	Y	N	N	N	Y	N	N	N	Y	Y	N	Y	N	N	N	Y	Y	N	Y	N	N	N	N
Require competitive bidding on all procurements-award to low bid																									
• Equipment	Y	N	N	N	N	N	Y	N	N	N	N	N	N	N	Y	N	N	N	Y	N	N	Y	N	N	N
• Maintenance	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	Y	N	N	N
• Consulting	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	Y	N	N	N	N	N	N
Require competitive bid on procurements over given dollar value-award to low bid																									
• Equipment	N	Y	N	N	N	N	Y	Y	N	Y	Y	Y	N	Y	N	N	N	N	Y	N	Y	Y	N	N	N
• Maintenance	N	Y	Y	N	N	N	Y	N	N	Y	Y	Y	N	Y	N	N	N	N	Y	N	N	Y	N	N	N
• Consulting	N	Y	N	N	N	N	Y	N	N	Y	Y	N	N	N	N	N	N	N	Y	N	N	N	N	N	N
For competitive bids award can go to other than low bid																									
• Equipment	N	Y	N	Y	Y	Y	N	Y	N	Y	Y	N	Y	N	N	Y	N	Y	Y	Y	Y	N	Y	Y	Y
• Maintenance	N	Y	N	Y	Y	Y	N	Y	N	Y	Y	N	N	N	N	N	N	Y	Y	Y	Y	N	Y	Y	Y
• Consulting	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	N	Y	Y	Y	Y	N	N	Y	Y
Advertising of procurement is required																									
• Equipment	N	N	N	N	N	N	Y	N	N	N	N	Y	N	N	N	N	N	N	Y	Y	N	Y	Y	N	N
• Maintenance	N	N	N	N	N	N	Y	N	N	N	N	Y	N	N	N	N	N	N	Y	Y	N	Y	Y	N	N
• Consulting	N	N	N	N	N	N	Y	N	N	N	N	Y	N	N	N	N	N	N	Y	Y	N	Y	Y	N	N
Pre-bid conferences required for procurements over given \$ value																									
• Equipment	N	N	N	N	N	N	N	N	N	N	N	Y	N	Y	N	Y	N	N	Y	Y	N	Y	N	N	N
• Maintenance	N	N	N	N	N	N	N	N	N	N	N	Y	N	Y	N	Y	N	N	Y	Y	N	Y	N	N	N
• Consulting	N	N	N	N	N	N	N	Y	N	N	N	N	Y	N	Y	N	N	Y	N	N	N	N	N	N	N
Pre-bid conference required at discretion of subgrantee																									
• Equipment	N	Y	N	Y	Y	N	Y	Y	N	Y	Y	Y	N	Y	N	Y	N	N	Y	N	Y	N	N	N	Y
• Maintenance	N	Y	N	Y	Y	N	Y	Y	N	Y	Y	Y	N	Y	Y	Y	N	N	Y	N	Y	N	N	Y	Y
• Consulting	N	Y	N	Y	Y	N	Y	Y	N	Y	Y	Y	N	Y	Y	Y	N	N	Y	N	N	N	N	Y	Y

210

Table IV-4
State Planning Agencies

	Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	N. Carolina	N. Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	S. Carolina	S. Dakota	Tennessee	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming	Wash., D.C.
Require at least three bids when procurement exceeds a given dollar value																										
• Equipment	N	Y	N	Y	N	N	Y	Y	Y	N	Y	N	N	Y	N	Y	N	Y	N	Y	Y	Y	N	N	N	N
• Maintenance	N	Y	N	Y	N	N	Y	N	N	N	Y	N	N	Y	N	Y	N	Y	N	Y	Y	Y	N	N	N	N
• Consulting	N	Y	N	N	N	N	Y	Y	N	N	Y	N	N	N	N	Y	N	Y	N	Y	Y	N	N	N	N	N
Require competitive bidding on all procurements-award to low bid																										
• Equipment	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	Y	N	N	Y	N	N	N
• Maintenance	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N
• Consulting	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Require competitive bid on procurements over given dollar value-award to low bid																										
• Equipment	N	Y	Y	N	Y	N	N	Y	Y	N	N	Y	N	Y	Y	N	N	Y	N	Y	Y	N	Y	Y	Y	N
• Maintenance	N	Y	Y	N	Y	N	N	N	N	N	N	Y	N	Y	N	N	N	Y	N	Y	Y	N	Y	Y	Y	N
• Consulting	N	Y	Y	N	Y	N	N	Y	N	N	N	N	N	Y	N	N	N	Y	N	Y	Y	N	Y	Y	Y	N
For competitive bids award can go to other than low bid																										
• Equipment	N	N	Y	N	Y	Y	N	Y	N	N	Y	Y	Y	Y	N	Y	N	N	N	N	N	N	Y	Y	Y	Y
• Maintenance	N	N	Y	N	Y	Y	N	Y	N	N	Y	Y	Y	Y	N	Y	N	N	N	N	N	N	Y	Y	Y	Y
• Consulting	N	N	Y	N	Y	Y	N	Y	N	N	Y	Y	Y	Y	N	Y	Y	Y	N	N	N	N	Y	Y	Y	Y
Advertising of procurement is required																										
• Equipment	N	N	N	Y	N	N	Y	N	N	N	N	N	Y	N	N	Y	N	N	Y	N	N	N	N	N	N	N
• Maintenance	N	N	N	N	N	N	Y	N	N	N	N	N	Y	N	N	Y	N	N	N	N	N	N	N	N	N	N
• Consulting	N	N	N	N	N	N	Y	N	N	N	N	N	Y	N	N	Y	N	N	N	N	N	N	N	N	N	N
Pre-bid conferences required for procurements over given \$ value																										
• Equipment	N	N	N	N	N	N	Y	N	Y	N	N	Y	Y	N	N	Y	Y	Y	Y	N	N	N	N	Y	N	N
• Maintenance	N	N	N	N	N	N	N	N	N	N	N	Y	Y	N	N	Y	Y	Y	Y	N	N	N	N	Y	Y	N
• Consulting	N	N	N	N	N	N	N	N	N	N	N	Y	Y	N	N	Y	N	Y	N	N	N	N	N	Y	Y	N
Pre-bid conference required at discretion of subgrantee																										
• Equipment	Y	Y	Y	N	Y	N	N	Y	N	N	Y	N	N	N	Y	N	N	N	N	Y	N	Y	Y	N	N	Y
• Maintenance	Y	Y	Y	N	Y	N	N	Y	N	N	Y	N	N	N	Y	N	N	N	N	N	Y	Y	Y	Y	N	Y
• Consulting	Y	Y	Y	N	Y	N	N	Y	N	N	Y	N	N	N	Y	N	Y	N	N	N	Y	Y	Y	Y	N	Y

211

212

* Local Requirements

213

[illegible]

STATE DEPARTMENTS OF
COMMUNICATIONS (DOC)

Table IV-5
Divisions of Communications

Table IV-5 ions of Communications		Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Unit of Government to which DOC reports																										
• Department of General Service		N	N	N	Y	N		N	Y	Y	N	Y	Y		Y			N		Y	N		N		N	
• Governor's Office		N	N	Y		N	N	N	N	N	Y	N	N		N			N		N	Y		Y		N	
• Comptroller's Office		N	N	N		N	N	N	N	N	N	N	N		N			N		N	N		N		N	
• General Assembly		N	N	N		N	N	N	N	N	N	N	N		N			N		N	N		N		N	
• Attorney General		N	N	N		N	N	N	N	N	N	N	N		N			N		N	N		N		N	
• Finance		N	N	N		N	N	N	N	N	N	N	N		N			N		N	N		N		N	
• Other		Y	Y	N		N	Y	Y	N	N	N	N	N		N			Y		N	N		N		Y	
Units of DOC																										
• Radio section		Y	Y	N		Y	N		Y	Y	Y	Y	Y		Y			Y		N	N		N		N	
• Land line section		N	N	N		Y	Y		Y	Y	Y	N	Y		Y			Y		N	N		N		Y	
• Spectrum management		N	N	N		Y	N		N	Y	Y	N	N		Y			Y		N	N		N		N	
• Engineering		N	Y	N		Y	Y		N	Y	Y	Y	N	Y	Y			N		N	N		N		N	
• Maintenance		N	Y	N		Y	Y		N	N	Y	Y	N	Y	N			N		N	N		N		N	
• Administration		N	Y	N		Y	Y		N	Y	Y	Y	N	Y	Y			Y		N	Y		Y		Y	
• Other		N	N	Y		Y	Y		Y	Y	Y	N	Y	Y	N			N		N	N		N		Y	
DOC has specific unit for L. E. Telecom planning																										
• Act of Legislation		Y	N	N		Y	Y		N	Y	Y	N	Y	N		N		N		N	Y		N		N	
• Appointment by Governor		Y	Unk	N		N	N		N	N	N	N	N	N		N		N		Y	Y		N		N	
• Other		N	Unk	N		N	N		N	N	N	N	N	N		N		N		N	N		Y		N	
Year Agency was formed		'74	Unk	'69		'47	'69		'55	'68	'72	'71	'68	'70		'67				'74		'72	'69		'69	'74
DOC Authority																										
• Advisory		Y	N	Y		Y	Y		Y	Y	N	Y	Y	N		N		Y		Y	N		N		N	
• Mandatory		Y	Y	N		Y	Y		Y	Y	Y	N	Y	Y		Y		N		N	Y		N		Y	
• Other		N	N	N		N	N		N	Y	N	N	N	N		N		Y		N	N		Y		N	
Authority includes:																										
• State Police		Y	Y	Y		Y	N		N	Y	Y	N	Y	Y		Y		Y		Y	Y		Y		Y	
• All State Agencies		Y	Y	Y		Y	Y		Y	Y	Y	Y	Y	Y		Y		Y		Y	Y		Y		Y	
• County Agencies		Y	N	Y		Y	Y		N	Y	Y	Y	Y	N		N		N		N	N		Y		Y	
• City Agencies		Y	N	Y		Y	Y		N	Y	Y	Y	Y	N		N		N		N	N		Y		Y	
• Town or Township Agencies		N	N	Y		Y	Y		N	N	Y	N	Y	N		N		N		N	N		N		Y	
• Others		N	N	N		Y	Y		Y	N	N	N	N	N		N		N		N	N		N		Y	

Table IV-5
Divisions of Communications

Table IV-5 Units of Communications		Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	N. Carolina	N. Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	S. Carolina	S. Dakota	Tennessee	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming	Chicago	Los Angeles	New York City
Unit of Government to which DOC reports																													
. Department of General Services		N	Y	N		N	Y	N	N	N		N			N			N	N	N	N		N		N	N	N	N	N
. Governor's Office		N	N	N		Y	N	N		Y		N			N			N	N	Y			Y		N	N	N	N	N
. Comptroller's Office		Y	N	N		N	N	N		N		N			N			N	N	N			N		N	N	N	N	N
. General Assembly		N	N	N		N	Y	N		N		N			N			N	N	N			N		N	N	N	N	N
. Attorney General		N	N	N		N	N	N		N		N			N			N	N	N			N		N	N	N	N	N
. Finance		N	N	N		N	N	N		N		N			N			N	N	N			N		N	N	N	N	N
. Other		N	N	Y		N	N	Y		N		Y			N			Y	Y	N			N		Y	Y	Y	Y	Y
Units of DOC																													
. Radio section		Y	Y	Y		Y	N	Y		Y		Y			Y			Y	Y	Y			N		Y	N	N	N	N
. Land line section		Y	Y	N		N	N	N		N		Y			N			Y	N	Y			N		Y	N	N	N	N
. Spectrum management		N	Y	N		Y	N	Y		Y		N			Y			Y	Y	N			N		Y	N	N	N	N
. Engineering		N	N	Y		Y	Y	Y		Y		N			Y			Y	Y	N			N		Y	N	N	N	N
. Maintenance		N	N	Y		Y	N	Y		Y		N			Y			Y	Y	N			N		N	N	N	N	N
. Administration		Y	Y	N		Y	N	Y		N		Y			Y			Y	Y	Y			Y		N	N	N	N	N
. Other		N	N	N		N	Y	N		N		N			N			Y	N	N			Y		N	Y	Y	Y	Y
DOC has specific unit for L. E. Telecom planning		N	Y	Y		Y	N	N		N		N			Y			Y	Y	N			N		Y	Y	Y	Y	Y
Agency formed by:																													
. Act of Legislation		Y	Y	Y		Y	Y	Y		Y		N			Y			Y	Y	Y			N		N	N	N	N	N
. Appointment by Governor		N	N	N		N	N	N		N		N			N			N	N	N			N		N	N	N	N	N
. Other		N	N	N		N	N	N		N		Y			N			N	N	N			Y		Y	Y	Y	Y	Y
Year Agency was formed		'71	'65	'38		'66	'60	'51		'74		'73			'85			'20	'48	'74				'64		1880	'02	'36	
DOC Authority																													
. Advisory		N	N	N		N	Y	N		Y		Y			N			Y	N	N			Y		Y	Y	Y	Y	Y
. Mandatory		Y	Y	Y		Y	Y	Y		Y		Y			Y			N	Y	Y			N		Y	Y	Y	Y	Y
. Other		N	N	N		N	N	N		N		N			N			N	N	N			N		N	N	N	N	N
Authority includes:																													
. State Police		Y	Y	Y		Y	Y	Y		Y		Y						Y	Y	Y			Y		N	N	N	N	N
. All State Agencies		Y	Y	Y		Y	Y	Y		Y		Y			Y			Y	Y	Y			Y		N	N	N	N	N
. County Agencies		N	Y	Y		Y	Y	Y		Y		Y			Y			Y	Y	Y			N		N	N	N	N	N
. City Agencies		N	Y	Y		Y	Y	Y		Y		Y			Y			Y	Y	Y			N		N	Y	N	N	N
. Town or Township Agencies		N	Y	Y		Y	Y	N		N		Y			N			Y	Y	Y			N		N	N	N	N	N
. Others		N	N	N		N	N	N		N		Y			N			Y	N	N			Y		N	N	N	Y	Y

Table IV-5
Divisions of Communications

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Total number of Professional Personnel																									
. Full time	2	35	68		57	50		12	18	6	1	18	11		6		2		1	2			5		3
. Part time	3	0	0		0	0		0	0	0	0	0	0		0		4		0	0			0		0
Number of above personnel involved in L. E. Telecom Planning																									
. Full time	2	0	10		12	9		0	4	0	0	0	0		4		1		0	1			1		0
. Part time	3	2	0		0	0		0	4	6	1	3	1		0		4		0	0			0		2
Number of personnel supported by LEAA funds																									
. Full time	0	0	5		0	0		0	2	0	0	0	0		2		0		0	0			0		0
. Part time	0	0	0		1	0		0	0	1	0	0	0		1		0		0	0			0		0
Major Activities of DOC																									
. State agency system planning	Y	Y	Y		Y	Y		N	Y	Y	Y	Y	Y		Y		Y		Y	Y			Y		Y
. County and city system planning	Y	N	N		Y	Y		N	Y	Y	Y	N	N		Y		Y		N	N			Y		N
. Local agency system planning	Y	N	N		Y	Y		N	Y	N	N	N	N		Y		N		N	N			Y		Y
. Spectrum management	N	N	Y		Y	Y		N	Y	Y	Y	Y	N		Y		Y		N	N			N		N
. Wire line system planning	N	N	N		Y	Y		N	Y	Y	Y	Y	Y		Y		Y		Y	Y			Y		Y
. Equipment procurement	Y	Y	Y		Y	Y		N	Y	Y	Y	Y	Y		Y		Y		N	Y			Y		Y
. Engineering maintenance	N	N	Y		Y	Y		Y	N	Y	Y	Y	Y		Y		N		N	N			N		N
. Assistance to other agencies	N	Y	Y		Y	Y		Y	Y	Y	Y	Y	Y		Y		N		Y	Y			Y		Y
. Others	N	N	N		N	N		N	N	N	Y	N	N		N		N		N	N			N		N
DOC assists SPA	Y	Y	Y		Y	Y		N	Y	Y	Y	N	Y		Y		Y		N	N			Y		Y

216

Table IV-5
Divisions of Communications

Table IV-5 Plans of Communications		Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	N. Carolina	N. Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	S. Carolina	S. Dakota	Tennessee	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming	Chicago	Los Angeles	New York City
Total number of Professional Personnel																													
• Full time		3	1	10		23	8	21		1		7			34			600	14	13			2		3	150	9		
• Part time		0	0	2		0	0	0		0		0			14			0	1	0			0		0	0	0		
Number of above personnel involved in L. E. Telecom Planning																													
• Full time		1	0	1		0	0	1		1		Unk			0			2	1	5			2		3	1	3		
• Part time		0	1	3		3	2	0		0		2			3			4	1	0			0		0	6	0		
Number of personnel supported by LEAA funds																													
• Full time		0	0	0		0	0	0		0		0			0			0	0	0			0		0	0	0		
• Part time		0	0	0		0	0	0		1		0			0			4	1	0			0		0	0	0		
Major Activities of DOC																													
• State agency system planning		Y	Y	Y		Y	Y	Y		Y		Y			Y			Y	Y	N			Y		Y	N	Y		
• County and city system planning		N	N	Y		Y	N	Y		N		Y			Y			Y	Y	N			N		N	Y	N		
• Local agency system planning		N	N	Y		Y	N	Y		N		Y			Y			Y	Y	N			N		N	N	N		
• Spectrum management		N	N	Y		Y	N	Y		N		N			Y			Y	Y	N			N		Y	Y	N		
• Wire line system planning		Y	N	Y		N	Y	Y		Y		Y			N			Y	Y	N			N		Y	Y	N		
• Equipment procurement		Y	Y	Y		Y	Y	Y		Y		Y			Y			Y	Y	N			N		Y	Y	Y		
• Engineering maintenance		N	N	Y		Y	N	Y		N		Y			Y			Y	Y	N			N		N	Y	Y		
• Assistance to other agencies		Y	Y	Y		Y	Y	N		Y		Y			Y			Y	Y	N			N		Y	N	N		
• Others		N	N	N		N	N	N		N		N			N			N	N	N			Y		Y	N	N		
DOC assists SPA		Y	Y	Y		Y	N	Y		Y		Y			Y			Y	Y	N			N		Y	Y	N		

217

Table IV-5
Divisions of Communications

218

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Areas of assistance to SPA																									
• Technical review of grant application	Y	Y	Y		Y	Y	N/A	Y	N	N	N/A	N		Y			Y		N/A	Y		Y		N	
• Review for concurrence to state plan	Y	Y	Y		N	N	N/A	Y	N	N	N/A	N		Y			Y		N/A	Y		Y		N	
• Cost-effectiveness evaluations	N	N	Y		N	N	N/A	Y	N	N	N/A	Y		Y			Y		N/A	Y		Y		Y	
• System design	Y	Y	Y		Y	Y	N/A	Y	Y	Y	N/A	Y		Y			N		N/A	Y		N		Y	
• Post project evaluation	N	N	N		N	N	N/A	Y	Y	Y	N/A	N		Y			N		N/A	N		N		N	
• Acceptance testing	N	Y	N		N	N	N/A	Y	N	Y	N/A	N		Y			N		N/A	N		N		N	
• Procurement procedures	N	N	N		Y	Y	N/A	Y	Y	Y	N/A	Y		Y			Y		N/A	Y		Y		Y	
• Specification preparation	Y	Y	Y		Y	Y	N/A	Y	Y	Y	N/A	Y		Y			Y		N/A	Y		N		Y	
• System planning	Y	Y	Y		Y	Y	N/A	Y	Y	Y	N/A	N		Y			N		N/A	Y		Y		Y	
• Technical training	N	N	N		N	N	N/A	N	N	N	N/A	N		N			N		N/A	N		N		N	
• Operational training	N	N	N		N	N	N/A	N	N	N	N/A	N		N			N		N/A	N		N		N	
• Other	N	N	N		Y	N	N/A	Y	N	N	N/A	N		N			Y		N/A	N		N		N	
SPA requires DOC approval of LEAA Telecom grants	Y	N	N		N	Y	N	Y	N	N	N	N		Y			N		N	Y		Y		N	
Assistance provided to LE Agencies																									
• Financial planning aid	N	N	N		Y	Y	N	Y	N	N	N	Y		Y			N		Y	Y		N		N	
• Review of grant application	Y	N	Y		Y	Y	N	Y	N	N	N	N		Y			N		N	Y		Y		N	
• Grant application preparation	Y	N	N		Y	Y	N	Y	N	N	N	N		Y			N		N	Y		Y		N	
• System design	Y	Y	N		Y	Y	N	Y	Y	Y	Y	Y		Y			Y		Y	Y		N		Y	
• Cost-effectiveness evaluation	N	N	N		N	Y	N	Y	Y	Y	N	Y		Y			N		Y	Y		N		N	
• Post project evaluation	N	N	N		N	Y	N	Y	Y	Y	N	Y		Y			Y		N	Y		N		N	
• Acceptance testing	N	Y	N		Y	Y	N	Y	N	Y	Y	Y		Y			N		N	N		N		N	
• Procurement procedures	N	N	N		Y	Y	N	Y	Y	Y	Y	Y		Y			Y		Y	Y		N		Y	
• Specification preparation	Y	Y	Y		Y	Y	N	Y	Y	Y	Y	Y		Y			Y		N	N		N		Y	
• System planning	Y	Y	N		Y	Y	N	Y	Y	Y	Y	Y		Y			Y		Y	N		Y		Y	
• Technical training	N	N	N		N	N	N	N	N	N	Y	Y		N			N		N	N		N		N	
• Operational training	N	N	N		N	Y	N	N	N	Y	Y	Y		N			N		N	N		N		N	
• Other	N	N	Y		Y	N	N	Y	N	N	N	N		N			Y		N	N		N		N	

Table IV-5
Divisions of Communications

219

Table IV-5 ons of Communications		Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	N. Carolina	N. Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	S. Carolina	S. Dakota	Tennessee	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming	Chicago	Los Angeles	New York City
Areas of assistance to SPA																													
•	Technical review of grant application	Y	Y		Y		Y	N/A	Y		Y		Y			Y			Y	Y	N/A			N/A		Y	N	N/A	
•	Review for concurrence to state plan	Y	Y		Y		Y	N/A	Y		Y		Y			Y			Y	Y	N/A			N/A		Y	N	N/A	
•	Cost-effectiveness evaluations	N	Y		Y		N	N/A	N		Y		Y			N			Y	N	N/A			N/A		N	N	N/A	
•	System design	Y	N		Y		Y	N/A	Y		Y		Y			Y			Y	Y	N/A			N/A		N	N	N/A	
•	Post project evaluation	N	Y		Y		N	N/A	N		Y		Y			N			N	Y	N/A			N/A		N	N	N/A	
•	Acceptance testing	N	N		Y		N	N/A	N		N		Y			Y			N	Y	N/A			N/A		N	N	N/A	
•	Procurement procedures	Y	Y		Y		Y	N/A	N		Y		Y			Y			Y	Y	N/A			N/A		N	N	N/A	
•	Specification preparation	Y	N		Y		Y	N/A	Y		Y		Y			Y			Y	Y	N/A			N/A		N	N	N/A	
•	System planning	Y	N		Y		Y	N/A	Y		Y		Y			Y			Y	Y	N/A			N/A		Y	N	N/A	
•	Technical training	N	N		N		N	N/A	N		Y		Y			N			Y	Y	N/A			N/A		N	N	N/A	
•	Operational training	N	N		N		Y	N/A	Y		N		Y			Y			Y	Y	N/A			N/A		Y	N	N/A	
•	Other	N	N		N		N	N/A	N		N		N			N			N	N	N/A			N/A		N	N	N/A	
SPA requires DOC approval of LEAA Telecom grants		Y	Y		Y		Y	N	Y		N		N			Y			Y	N	N			N		N	N	Y	
Assistance provided to LE Agencies																													
•	Financial planning aid	N	N		Y		N	N	N		N		N			Y			Y	N	N			Y		N	Y	N	
•	Review of grant application	N	Y		Y		Y	N	N		N		Y			Y			Y	N	N			N		N	Y	N	
•	Grant application preparation	Y	N		Y		N	N	N		N		Y			N			Y	Y	N			N		N	Y	N	
•	System design	Y	N		Y		Y	N	Y		Y		Y			Y			Y	Y	Y			N		N	Y	N	
•	Cost-effectiveness evaluation	N	Y		Y		N	Y	N		Y		Y			N			Y	N	N			Y		N	Y	N	
•	Post project evaluation	N	Y		Y		N	N	N		Y		Y			N			N	Y	Y			N		N	Y	N	
•	Acceptance testing	N	N		Y		N	N	N		N		Y			Y			Y	Y	N			N		N	Y	N	
•	Procurement procedures	Y	Y		Y		Y	Y	N		Y		Y			Y			Y	N	N			Y		N	Y	N	
•	Specification preparation	Y	N		Y		Y	Y	Y		Y		Y			Y			Y	Y	Y			N		N	Y	N	
•	System planning	Y	N		Y		Y	Y	Y		Y		Y			Y			Y	Y	Y			Y		N	Y	N	
•	Technical training	N	N		N		N	N	N		N		Y			N			Y	Y	N			N		N	Y	N	
•	Operational training	N	N		N		Y	N	Y		N		Y			Y			Y	Y	N			N		N	Y	N	
•	Other	N	N		N		N	N	N		N		N			N			N	N	N			N		N	N	N	

Table IV-5
Divisions of Communications

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Assistance provided to:																									
• State Planning Agencies	Y	N/A	Y		Y	Y	N	Y	Y	Y	Y	Y		Y			Y		N/A	Y		Y		Y	
• Regional Planning Agencies	Y	N/A	Y		Y	Y	N	Y	Y	N	N	Y		Y			Y		N/A	N		Y		Y	
• County Planning Agencies	Y	N/A	N		N	Y	N	Y	N	N	Y	Y		N			Y		N/A	N		N		N	
• City Planning Agencies	Y	N/A	N		N	Y	N	Y	Y	N	Y	Y		N			Y		N/A	N		N		N	
• Others	N	N/A	N		N	N	N	N	Y	Y	N	Y		N			Y		N/A	N		N		N	
In-House Capabilities																									
• Engineering services	N	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y		Y			N		Y	N		N		N	
• Legal services	N	N	Y		N	N	N	N	N	N	Y	Y		N			Y		N	N		N		N	
• Financial planning	N	N	Y		Y	Y	N	Y	N	N	Y	Y		Y			Y		Y	N		Y		N	
• Procurement services	N	N	Y		Y	Y	Y	Y	Y	N	Y	Y		Y			N		Y	Y		Y		Y	
• Management planning	N	N	Y		N	Y	N	Y	Y	Y	Y	Y		Y			Y		Y	Y		Y		N	
• Cost accounting services	N	N	N		N	N	Y	N	N	N	Y	Y		N			N		N	N		Y		N	
• Reliability testing	N	Y	N		Y	Y	N	N	N	N	Y	N		Y			N		N	N		N		N	
• None of the above	N	N	N		N	N	N	N	N	N	N	N		N			N		N	N		N		N	
• Others	Y	N	Y		Y	N		N	N	Y	N	N		N			N		N	N		N		N	

Table IV-5
Divisions of Communications

	Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	N. Carolina	N. Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	S. Carolina	S. Dakota	Tennessee	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming	Chicago	Los Angeles	New York City
Assistance provided to:																												
• State Planning Agencies	Y	Y	N/A		N	N/A	Y		Y		Y			N/A			Y	Y	Y			N/A		N	N/A	N		
• Regional Planning Agencies	N	N	N/A		Y	N/A	Y		Y		Y			N/A			Y	N	Y			N/A		Y	N/A	N		
• County Planning Agencies	N	N	N/A		Y	N/A	Y		Y		Y			N/A			Y	N	Y			N/A		N	N/A	N		
• City Planning Agencies	N	N	N/A		Y	N/A	Y		Y		Y			N/A			Y	N	Y			N/A		N	N/A	N		
• Others	N	N	N/A		N	N/A	N		Y		N			N/A			Y	N	N			N/A		N	N/A	N		
In-House Capabilities																												
• Engineering services	Y	Y	Y		Y	Y	Y		Y		Y			Y			Y	Y	N			N		Y	Y	Y		
• Legal services	N	Y	N		N	N	N		Y		N			Y			N	N	N			N		N	N	Y		
• Financial planning	N	Y	Y		N	Y	N		Y		Y			Y			Y	Y	N			N		Y	Y	Y		
• Procurement services	Y	Y	Y		Y	Y	Y		Y		Y			Y			Y	Y	N			Y		Y	Y	Y		
• Management planning	N	Y	Y		N	N	N		Y		Y			Y			Y	Y	Y			Y		Y	Y	Y		
• Cost accounting services	N	Y	N		N	N	N		Y		Y			Y			Y	Y	Y			N		Y	Y	Y		
• Reliability testing	N	N	Y		N	N	Y		N		N			N			N	Y	N	Y		N		N	Y	Y		
• None of the above	N	N	N		N	N	N		N		N			N			N	N	N			N		N	N	Y		
• Others	N	N	Y		N	N	N		N		N			N			N	N	N			N		N	Y	N		

Table IV-5
Divisions of Communications

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Person responsible for knowledge of FCC rules	Y	Y		Y				Y	Y	Y	Y	Y		Y			Y		Y	N		N			
Person responsible for monitoring and comments on FCC dockets	Y	Y		Y				Y	Y	Y	Y	Y		N			Y			N		N			
Participation in FCC proceedings (___ times per year)	0	2		15				1	0	5	0	1		Unk			2		0	Unk		0			
Recommend to governor in connection with FCC proceedings	Y	N		Y				Y	Y	Y	N	Y		Y			Unk		N	N		N			
Method used for monitoring FCC																									
Federal Register	Y	Y		Y				N	Y	N	N	N		Y			N		N	N		N			
FCC reports/dockets	N	Y		Y				Y	Y	Y	Y	Y		N			N		N	N		N			
Formal FCC actions	N	Y		Y				Y	Y	Y	Y	Y		N			N		N	N		N			
Informal contact	N	Y		Y				Y	Y	Y	Y	Y		N			N		N	N		N			
Trade periodicals	N	Y		Y				Y	Y	Y	Y	Y		Y			Y		Y	N		N			
Does not keep abreast	N	N		N				N	N	N	N	N		N			N		N	Y		N			
Other	N	N		N				N	N	Y	N	Y		N			Y		N	N		Y			
Contact with FCC (___ times per year)																									
Office of Exec. Director	0	0		0				0	0	0	0			0			0		0	0		0			
Office of Gen. Counsel	0	0		0				0	0	0	0			0			0		0	0		0			
Office of Chief Engineer	0	3		0				1	0	0	0			0			0		0	0		0			
Field Operations Bur.	0	5		50				2	5	0	6			0			12		0	0		0			
Broadcast Bur.	8	0		2				5	0	0	3			0			0		0	0		0			
Cable Television Bur.	0	0		0				1	0	0	0			0			0		0	0		0			
Common Carrier Bur.	0	0		6				1	0	0	0			0			0		0	1		0			
Safety and Spec. Radio Service Bur.	15	REG		25				100	75	12	12			12			0		0	0		0			
Coordination with APCO freq. coordinator during freq. plan development (N/A indicates no freq. plan)	Y	N/A		N/A				Y	Y	N/A	Y	Y		Y			Y		Unk	N/A		N			
Relation with PUC																									
Working agreement	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	Y	Y	N	N	N	N	N	N
Rate plan developed	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Other	N	N	N	N	N	N	Y	Y	Y	N	N	N	N	N	N	N	N	N	N	N	Y	Y	Y	Y	Y
None	X	X	X	X	X	X	X			X	X	X		X			X		X						

Table IV-5
Divisions of Communications

	Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	N. Carolina	N. Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	S. Carolina	S. Dakota	Tennessee	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming	Chicago	Los Angeles	New York City
Person responsible for knowledge of FCC rules	Y			Y	Y		Y		Y						Y			Y	Y	Y		Y		Y				
Person responsible for monitoring and comments on FCC dockets	Y		N	Y			N		Y					Y				Y	Y	Y		N		Y				
Participation in FCC proceedings (___ times per year)	0		0	1			2-3		Unk					1				0	1/4	0		0		0				
Recommend to governor in connection with FCC proceedings	Y		Y	N			N		Y					Y				N	Y	Y		Y		N				
Method used for monitoring FCC																												
Federal Register	Y		N	N			N		Y					Y				Y	N	N		N		N				
FCC reports/dockets	N		N	N			Y		N					Y				N	N	Y		N		N				
Formal FCC actions	N		N	Y			N		N					N				Y	N	Y		N		N				
Informal contact	Y		Y	Y			N		N					Y				Y	N	N		N		N				
Trade periodicals	Y		Y	Y			N		Y					Y				Y	Y	N		Y		Y				
Does not keep abreast	N		N	N			N		N					N				N	N	N		N		N				
Other	N		Y	Y			N		N					N				N	N	N		N		N				
Contact with FCC (___ times per year)																												
Office of Exec. Director	0		0	0			2		0					0				0	0	*		Unk		0				
Office of Gen. Counsel	0		0	0			0		1					0				2	0	*		Unk		0				
Office of Chief Engineer	1		0	0			0		4					0				4	3	*		Unk		0				
Field Operations Bur.	2		0	0			3-4		4					1				3	12	*		Unk		0				
Broadcast Bur.	2		0	0			0		2					0				0	0.5	*		Unk		0				
Cable Television Bur.	0		0	0			0		0					0				0	0	*		Unk		0				
Common Carrier Bur.	1		0	0			0		0					0				0	0	*		Unk		0				
Safety and Spec. Radio Service Bur.	2		6	6			0		2					4				20-30	3	*		Unk		0				
Coordination with APCO freq. coordinator during freq. plan development (N/A indicates no freq. plan)	Y		Y	Y			Y		Y					Y				Y	Y	Y		N/A		Y				
Relation with PUC																												
Working agreement	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Rate plan developed	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Other	N	N	N	N	Y	N	N	Y	Y	Y	Y	Y	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N
None	X		X	X		X	X						X			X	X	X	X					X			X	

* As Required.

Table IV-5
Divisions of Communications

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Contact with PUC																									
. Monthly	N	N	N		Y	N		N	N	N	N	N	Y		N		Y		Y	N		N		N	N
. Yearly	N	N	N		N	N		N	N	N	N	N	N		N		N		N	N		N		N	N
. Never	X	X						X			X	X			X					X		X		X	
. Other	N	N	Y		N	Y		N	Y	Y	N	N	Y		N		Y		N	N		N		Y	Y
Participation in PUC hearings	N	N	N		N	N		N	N	Y	N	N	Y		N		Y		N	N		Y		Y	

Table IV-5
Divisions of Communications

Table IV-5 ns of Communications		Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	N. Carolina	N. Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	S. Carolina	S. Dakota	Tennessee	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming	Chicago	Los Angeles	New York City
Contact with PUC																													
. Monthly		N			N																		N						
. Yearly		N			N																	N							
. Never	X		X			X		X		X		X			X			X	X	X						X	X	X	
. Other		Y			Y																	Y							
Participation in PUC hearings	N	N	N	Y	Y	N	Y	Y							N			N	N	N		Y		N	N	N			

Table IV-5
Divisions of Communications

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Concept for organization of L. E. radio nets																									
• Mobile radio districts or zones	N	Y	N		Y	Y		Y	Y	Y	Y	Y		Y			N		Y			N		N	
• County nets	Y	N	N		N	N		Y	N	Y	N	N		N			N		N			Y		Y	
• Individual jurisdictional nets	N	N	N		Y	N		N	N	N	N	N		N			Y		N			N		N	
• Other	N	N	Y		N	Y		N	N	N	N	N		N			N		N			N		Y	
• No concept							X													X					
Recommended channel sharing approach																									
• Central or cooperative dispatch	Y	Y			Y		Y	Y	Y	Y	Y	Y		Y					Y			Y			
• Independent dispatch with shared base	N	N			N		Y	Y	N	N	Y	N		N					N			N			
• Independent dispatch with separate base	N	N			N		N	N	N	N	N	N		N					N			N			
• No recommendation			X		X												X			X					X
Frequency band policy based on:																									
• Geographic area	N	Y			Y	Y		N/A	N/A		N/A	N/A		N/A			Y		Y			N/A		N/A	
• Agency size	Y	N			N	N		N/A	N/A		N/A	N/A		N/A			N		Y			N/A		N/A	
• No policy			X				X	N/A	N/A	X	N/A	N/A		N/A						X		N/A		N/A	
Frequency band policy for urban areas:																									
• Low band	N	N			N		N	N	N	N	Y			N					N			N		N	
• High band	N	Y			Y		Y	N	Y	N	Y			N					N			Y		N	
• UHF	Y	N			N		Y	Y	Y	Y	N			Y				Y			Y		Y		Y
• No recommendation			X		X		X										X			X					
Frequency band policy for suburban areas:																									
• Low band	N	N			N		N		N	N	Y			N			N		N			Y		N	
• High band	Y	Y			Y		Y		Y	N	Y			N			Y		Y			N		N	
• UHF	N	N			N		Y		Y	Y	N			Y			N		Y			N		Y	
• No recommendations			X		X		X		X											X					

Table IV-5
Divisions of Communications

	Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	N. Carolina	N. Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	S. Carolina	S. Dakota	Tennessee	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming	Chicago	Los Angeles	New York City
Concept for organization of L. E. radio nets																												
• Mobile radio districts or zones	N	Y		N	Y		Y								Y			Y	Y			N		N	N	Y		
• County nets	Y	N		Y	Y		N								N			Y	N			Y		N	N	N		
• Individual jurisdictional nets	Y	N		Y	N		N								N			Y	Y			N		N	N	N		
• Other	N	N		N	N		N								N			N	Y			N		N	N	N		
• No concept						X			X		X										X							
Recommended channel sharing approach																												
• Central or cooperative dispatch	Y	Y		Y	Y		Y					Y			Y			Y	Y						Y	Y		
• Independent dispatch with shared base	N	N		N	Y		N				N				Y			N	Y					N	Y			
• Independent dispatch with separate base	N	N		Y	N		N				N				N			N	Y					N	N			
• No recommendation						X			X												X		X					X
Frequency band policy based on:																												
• Geographic area	N/A			N/A	N/A		Y								N/A			N/A	N/A			Y			N	N/A		
• Agency size	N/A			N/A	N/A		Y								N/A			N/A	N/A			N			N	N/A		
• No policy	N/A	X		N/A	N/A	X	X				X				N/A			N/A	N/A	X								N/A
Frequency band policy for urban areas:																												
• Low band				N	N		N				N				N			N	N			N		N	N	N		
• High band				Y	Y		Y				N				N			Y	N			N		Y	Y	Y		
• UHF				N	N		N			Y					Y			N	Y			Y		Y	Y	N		
• No recommendation	X	X				X					X										X							X
Frequency band policy for suburban areas:																												
• Low band				N	N		N				N				Y			N	N			N		N	N	N		
• High band				Y	Y		Y				N				N			Y	N			Y		N	N	N		
• UHF				N	N		N			Y					N			N	Y			N		N	N	N		
• No recommendations	X	X				X					X										X				X	X		

Table IV-5
Divisions of Communications

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Frequency band policy for rural areas																									
• Low band	N	N			N			Y	N	N	N	Y		N			Y		Y			N		N	
• High band	Y	Y			Y			Y	Y	Y	N	Y		Y			Y		N			Y		Y	
• UHF	N	N			N			Y	N	Y	Y	N		N			N		N			N		N	
• No recommendation			X		X		X													X					
Agency has funded or considered land mobile radio systems in lower TV channels (470 MHz)	N	N/A	N/A		Y	N/A	N/A	Y	N/A	N/A	N	N		N/A			N		Y	N		N		N/A	
Agency is considering land mobile radio systems in upper UHF TV channels	N	N	N		Y	N	N	Y	N	N	N	Y		N			N		N	N		N		Y	
Agency is considering pilot project or evaluation project in upper UHF TV channels	N	N	N		N	N	N	Y	N	N	N	Y		N			Y		N	N		N		N	
Assist L. E. agencies in establishing channel requirements	Y	Y	N		Y	Y	N	Y	Y	Y	Y	Y		Y			Y		Y	N		Y		Y	
Criteria for No. of required channels																									
• Population	N	N	N/A		N	Y	N/A	Y	Y	N	N	Y		Y			Y		Y	N/A		Y		N	
• No. mobiles/portables	Y	Y	N/A		Y		N/A	Y	Y	Y	N	Y		Y			N		Y	N/A		Y		Y	
• Volume of radio traffic	N	N	N/A		N	Y	N/A	Y	Y	Y	N	Y		Y			Y		Y	N/A		N		N	
• Calls for Service	N	N	N/A		N	Y	N/A	Y	Y	N	N	Y		N			N		Y	N/A		N		N	
• Functions	N	N	N/A		Y	N	N/A	N	Y	Y	Y	Y		Y			Y		Y	N/A		N		Y	
• Unknown	N	N	N/A		N	N	N/A	N	N	N	N	N		N			N		N	N/A		N		N	
• Other	N	N	N/A		N	N	N/A	N	N	Y	N	N		N			N		N	N/A		N		N	
Recommended channel configuration																									
• Simplex	Y	Y	Y		Y			Y	Y	Y	Y	Y		Y			Y					Y		Y	
• 2-freq. simplex	Y	N	Y		Y			Y	Y	N	N	Y		Y			Y					Y		Y	
• Mobile relay	Y	N	Y		Y			Y	N	Y	Y	Y		Y			Y					Y		Y	
• Vehicular repeaters	N	Y	N		Y			N	N	N	Y	N		N			Y					N		Y	
• Trunking	N	N	N		Y			N	N	N	N	N		N			N					N		N	
• No recommendation					X		X												X	X					

228

Table IV-5
Divisions of Communications

Table IV-5 ons of Communications		Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	N. Carolina	N. Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	S. Carolina	Tennessee	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming	Chicago	Los Angeles	New York City
Frequency band policy for rural areas																												
• Low band		Y			N				N		N					Y		N	N									
• High band		N			Y				Y		Y							Y	N									
• UHF		N			N				Y		N							Y	N									
• No recommendation			X				X			N			X					N	Y		X							
Agency has funded or considered land mobile radio systems in lower TV channels (470 MHz)		N/A	N		N/A	N/A	Y		N/A		N		N			N/A		N/A	N/A	N					Y	N/A	Y	
Agency is considering land mobile radio systems in upper UHF TV channels		N	N		N	N	N		N		N		N			N		N	N	N					Y	N	N	
Agency is considering pilot project or evaluation project in upper UHF TV channels		N	N		N	N	N		N		N		N			N		Y	N	N					Y	N	N	
Assist L. E. agencies in establishing channel requirements		Y	Y		Y	N	N		Y		Y		Y			Y		Y	Y	N					N	N	N	
Criteria for No. of required channels																												
• Population		N	Y		Y	N/A	N/A		N		Y		N			Y		Y	Y	N/A				N	N/A	N		
• No. mobiles/portables		N	Y		Y	N/A	N/A		Y		N		N			Y		Y	Y	N/A				N	N/A	Y		
• Volume of radio traffic		Y	Y		Y	N/A	N/A		N		N		N			Y		Y	Y	N/A				N	N/A	Y		
• Calls for service		N	Y		Y	N/A	N/A		N		Y		N			N		N/A	Y	N/A				N	N/A	Y		
• Functions		Y	Y		N	N/A	N/A		Y		Y		N			N		N/A	Y	N/A				N	N/A	Y		
• Unknown		N	N		N	N/A	N/A		N		N		Y			N		N/A	Y	N/A				N	N/A	Y		
• Other		Y	N		N	N/A	N/A		N		N		N			N		N/A	N	N/A				N	N/A	N		
Recommended channel configuration																												
• Simplex		N	Y		Y				Y							Y			Y						Y	Y	N	
• 2-freq. simplex		Y	Y		N				Y							Y			Y						Y	Y	Y	
• Mobile relay		Y	Y		Y				Y							N			Y						Y	Y	Y	
• Vehicular repeaters		N	Y		Y				Y							Y			N						N	Y	N	
• Trunking		N	Y		N				N							Y			N						N	N	N	
• No recommendation							X				X		X					X		Y		X			N	N	N	

229

Table IV-5
Divisions of Communications

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Recommend use of tone controlled squelch																									
Yes	X		X		X	X		X	X			X		X			X		X			X			X
No										X											X				
No recommendation		X					X				X														
Recommend use of selective call																									
Yes												X		X			X		X			X			
No	X							X		X										X				X	
No recommendation		X	X		X	X		X	X	X	X														
Power and tower height established by:																									
Propagation model	Y	N	N		N	N		N	Y	Y	Y	N	Y		Y		Y		N	N		N		N	N
Propagation measurements	Y	N	Y		Y	Y		N	Y	N	Y	Y	Y		N		Y		N	N		N		N	N
Vendor recommendations	N	N	N		N	N		N	N	N	N	N	N		N		N		N	N		N		N	N
Estimated (based on experience)	N	Y	Y		Y	Y		Y	N	N	Y	Y	N		N		N		N	N		Y		Y	Y
Other	N	N	N		N	N		N	N	N	N	N	N		N		N		Y	N		N		N	N
Recommended command and control concept																									
Cooperative or central dispatch	Y	Y			Y			Y	Y	Y		Y		Y			N		Y			Y		Y	Y
Independent dispatch	Y	N			N			Y	N	N		N		Y			Y		Y			N		Y	Y
Mutual Aid Pacts	Y	N			Y			N	N	N		N		Y			Y		Y		X				
No recommendation			X		X		X				X														
Recommended citizen access approach																									
911 (LE only)	N		N		N	N		N		N	N		N		N		N		N			N		N	N
911 (LE and Fire)	N		N		N	N		N		N	N		N		N		N		N			N		N	N
911 (LE, Fire and EMS)	Y		N		Y	Y		Y		Y	Y		Y		Y		Y		Y			Y			
Single Emergency No. (7-digit)	N		N		N	Y		Y		N	N		Y		N		Y		N			N		N	N
Call boxes	N		N		N	N		Y		Y	Y		N		N		N		N			N		N	N
Other	N		Y		N	Y		N		N	N		N		N		N		N			N		N	N
No recommendation		X					X		X			X								X					X

230

Table IV-5
Divisions of Communications

Table IV-5 ons of Communications		Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	N. Carolina	N. Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	S. Carolina	S. Dakota	Tennessee	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming	Chicago	Los Angeles	New York City
Recommend use of tone controlled squelch																													
. Yes			X		X		X		X		X					X		X	X				X		X	X	X	X	X
. No																													
. No recommendation		X					X						X									X							
Recommend use of selective call																													
. Yes					X				X		X									X						X			
. No																X													X
. No recommendation		X	X				X	X					X						X		X			X			X		
Power and tower height established by:																													
. Propagation model		N	N		N		N	N	Y		Y		N			N		Y	N	N/A		N		N		N	N	N	N
. Propagation measurements		Y	Y		Y		N	N	N		Y		Y			N		Y	Y	N/A		N		Y		N	N	Y	
. Vendor recommendations		N	Y		N		N	N	Y		N		Y			N		Y	N	N/A		N		N		N	N	N	N
. Estimated (based on experience)		Y	N		Y		Y	N	Y		N		Y			Y		Y	Y	N/A		Y		N		Y	N	N	
. Other		N	N		N		N	Y	N		N		N			N		Y	N	N/A		N		N		N	N	N	N
Recommended command and control concept																													
. Cooperative or central dispatch		Y	Y		Y		Y		Y		Y		Y					Y	Y			Y		N		N	N	Y	
. Independent dispatch		N	N		N		N		N		N		N					N	Y			N		Y		Y	Y	Y	
. Mutual Aid Pacts		N	N		Y		N		N		N		N					Y	Y			N		N		N	N	N	
. No recommendation							X									X					X								
Recommended citizen access approach																													
. 911 (L. E. only)					Y		Y	N	N		N		N			N		N	N	N					Y	N	N	N	
. 911 (L. E. and Fire)					N		N	N	N		N		N			N		N	N	N				N	N	N	N	N	
. 911 (L. E., Fire and EMS)					N		N	Y	Y		Y		Y			N		Y	N	Y				N	Y	Y	Y	Y	
. Single Emergency No. (7-digit)					N		N	N	Y		N		N			N		Y	N	N				Y	N	N	N	N	
. Call boxes					N		Y	N	N		N		N			N		Y	N	N				N	N	N	Y	Y	
. Other					Y		N	N	N		N		N			Y		Y	Y	N				N	N	N	N	N	
. No recommendation		X	X																				X						

231

Table IV-5
Divisions of Communications

232

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Recommended coordination channels																									
Statewide	Y	Y			Y	Y		Y	Y	N	Y	Y		Y			Y		Y			Y		Y	Y
Interstate	N	N			N	Y		N	N	N	N	Y		Y			N		N			Y		Y	Y
Regional	N	N			N	Y		Y	Y	N	Y	N		Y			N		Y			Y		Y	Y
County	N	N			N	N		N	N	Y	N	N		Y			N		N			Y		Y	N
No recommendation			X				X														Y				
Recommended point-to-point channels																									
Microwave		Y	Y		Y	Y		N	N	N	Y	Y		N			Y					N		N	N
VHF/UHF pt-pt		Y	Y		N	N		Y	Y	Y	Y	Y		Y			Y					Y		Y	Y
Hot lines		N	N		Y	N		Y	N	N	N	Y		Y			N					N		N	N
No recommendations	X						X												X	X					
Recommended approach for State Police/Highway Patrol coordination																									
point-to-point	N	Y	Y		N	Y	N/A	Y	Y	N/A	Y	Y		Y			Y		N	N/A		Y		Y	Y
Mobile-to-mobile	N	N	Y		N	Y	N/A	N	Y	N/A	Y	Y		Y			Y		Y	N/A		Y		N	N
Cross monitor	Y	N	Y		Y	Y	N/A	N	N	N/A	Y	Y		N			Y		Y	N/A		Y		N	N
No approach																									
Recommended remote control of base stations																									
Radio	N				Y	Y		Y	N	Y	Y	Y		N			Y					N			
Wireline	Y				Y	N		Y	Y	Y	Y	Y		Y			Y					Y			
Radio with wire backup	N				Y	N		Y	N	Y	Y	N		N			Y					N			
No recommendation		X	X				X												X	X					X
Recommended approaches for improved information access																									
Additional terminals	Y		Y		Y	N		Y	Y		Y	Y		Y						N		N		N	N
High speed transmission	N		Y		Y	Y		Y	N		Y	Y		Y						Y		Y		N	N
Improved switch	N		Y		Y	Y		Y	N		N	Y		Y						Y		N		N	N
Lease wire	N		Y		Y	N		Y	Y		N	Y		Y						Y		Y		Y	Y
Microwave	N		Y		Y	Y		N	N		N	N		N						Y		N		N	N
None of the above		X					X			X							X		X						

Table IV-5
Divisions of Communications

233

Table IV-5 Systems of Communications		Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	N. Carolina	N. Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	S. Carolina	S. Dakota	Tennessee	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming	Chicago	Los Angeles	New York City
Recommended coordination channels																													
•	Statewide	Y	Y	Y	Y	Y		Y	Y		Y	N				Y		Y	Y				Y			Y	Y	Y	Y
•	Interstate	N	Y	Y	N	N		N	Y		Y	N				N		Y	N				Y			N	N	N	N
•	Regional	N	N	Y	N	N		Y			N	Y				N		Y	Y				Y			N	N	N	N
•	County	N	N	Y	N	N		N			Y	Y				N		Y	Y				Y			N	N	N	Y
•	No recommendation																	Y	Y		X					N	N	N	Y
Recommended point-to-point channels																													
•	Microwave		N	N	Y			N			Y					N		Y	Y				N			N	Y	Y	Y
•	VHF/UHF pt-pt		Y	Y	Y			Y			Y					Y		Y	Y				Y			Y	N	Y	Y
•	Hot lines		N	N	N			N			N					N		Y	Y				N			N	N	N	N
•	No recommendations	X				X						X						Y	Y		X					N	N	N	N
Recommended approach for State Police/Highway Patrol coordination																													
•	Point-to-point	Y	N	Y		N/A	Y	N			Y	N				Y		Y	Y	N/A			Y			Y	Y	Y	N
•	Mobile-to-mobile	Y	N	Y		N/A	Y	Y			N	N				Y		Y	Y	N/A			N			Y	Y	Y	N
•	Cross monitor	N	Y	Y		N/A	N	N			Y	Y				N		N	N	N/A			N			N	N	N	N
•	No approach																												
Recommended remote control of base stations																													
•	Radio	Y	Y	Y			Y	Y			Y					Y		Y	Y							N	Y	Y	
•	Wireline	N	N	Y			Y	Y			Y					Y		Y	Y							Y	Y	Y	
•	Radio with wire backup	N	N	Y				N			N					N		N	N							N	N	N	
•	No recommendation					X						X									X		X						
Recommended approaches for improved information access																													
•	Additional terminals	Y	Y	N				Y			Y	Y				Y		Y	Y	Y						Y	N	Y	Y
•	High speed transmission	N	N	N				N			N	N				Y		Y	Y	N						Y	Y	N	Y
•	Improved switch	N	N	N				Y			Y	N				Y		Y	Y	Y						Y	Y	N	N
•	Lease wire	N	N	N				Y			N	N				Y		Y	Y	N						Y	Y	N	N
•	Microwave	N	N	N				Y			N	N				Y		Y	Y	N						Y	Y	N	N
•	No recommendation				X	X										N		Y	Y	N			X						

Table IV-5
Divisions of Communications

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Recommended digital systems																									
• Mobile terminals with alpha-numeric display								Y														Y			
• Mobile terminals with no alpha-numeric display								Y														Y			
• Mobile printers							N															Y			
• No recommendation	X	X	X		X	X	X		X	X	X	X			X		X		X	X					X
Recommend use of computer assisted dispatch																									
• Yes	X									X		X		X								X			
• No																									
• No recommendation		X	X		X	X	X	X	X		X						X		X	X					X
Recommend use of scramblers																									
• Yes										X							X								
• No	X	X							X			X			X				X			X			
• No recommendation			X		X	X	X	X			X						X			X					X
Recommended use of portables																									
• Foot patrol only	N	N			N			N	N	N	N	N		N										N	
• All sworn personnel	Y	N			Y			N	Y	Y	Y	N		N										Y	
• All sworn personnel with no mobile units in vehicle	N	Y			N			Y	N	Y	N	N		Y										N	
• Detectives	N	N			N			N	N	Y	N	Y		Y										N	
• No recommendation			X		X		X										X		X	X		X			
Recommend use of logging tape recorders																									
• Yes	X	X			X	X		X	X	X	X	X		X			X					X			
• No																			X						
• No recommendation			X				X													X					X
Agency approves funds for logging recorders	Y	N	Y		Y	Y		Y	Y	N/A	Y	N/A	Y		Y		Y		Y	N		Y		Y	
Recommended maintenance approach																									
• Centralized	N	Y			Y	Y		Y	Y	Y	Y	Y		Y			N			Y					
• Decentralized	N	N			N	N		N	N	N	N	N		N			Y			N					
• Contract maintenance	Y	N			N	N		N	N	N	N	N		N			N			N					
• No recommendation	N		X				X												X			X		X	

234

Table IV-5
Divisions of Communications

Table IV-5 ons of Communications		Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	N. Carolina	N. Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	S. Carolina	Tennessee	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming	Chicago	Los Angeles	New York City
Recommended digital systems																												
Mobile terminals with alphanumeric display																									Y	Y		
Mobile terminals with no alphanumeric display																									N	N		
Mobile printers																									Y	N		
No recommendation		X	X		X		X	X		X		X			X			X	X	X			X					X
Recommend use of computer assisted dispatch																												
Yes											X														X	X	X	
No		X	X		X				X				X			X			X	X	X		X					
No recommendation						X	X								X			X	X	X								
Recommended use of scramblers																												
Yes			X		X																				X	X	X	
No		X				X			X		X												X					
No recommendation							X					X			X			X	X	X								
Recommended use of portables																												
Foot patrol only		N		N		Y			Y		Y								N			N			U	N	N	
All sworn personnel		Y		Y		N			N		N								Y			Y			U	Y	N	
All sworn personnel with no mobile units in vehicle		N		N		N			N		N								N			N			Y	N	Y	
Detectives		N		N		N			Y		N								N			N			Y	N	N	
No recommendation			X				X						X		X			X		X								
Recommend use of logging tape recorders																												
Yes					X		X		X		X					X							X		X	X	X	
No			X																									
No recommendation		X					X						X							X	X							
Agency approves funds for logging recorders		Y	N/A		Y		N/A		Y		Y		Y			Y		Y	N/A	N/A		Y			unk	unk	unk	
Recommended maintenance approach																												
Centralized			N		Y		Y				Y					Y		Y	N						Y	Y	Y	
Decentralized			N		N		N				N					N		N	Y						N	N	N	
Contract maintenance			Y		N		N				N					N		N							N	N	N	
No recommendation		X					X		X			X								X			X					

235

Table IV-5
Divisions of Communications

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Agency has standard equipment specifications for:																									
• Mobile units	Y	N/A	Y		Y	Y	N	Y	Y	Y	Y	Y		Y			Y		N	N		Y		N	
• Portables	Y	N/A	Y		Y	Y	N	Y	Y	Y	Y	Y		Y			Y		N	N		Y		N	
• Base stations	Y	N/A	Y		Y	Y	N	Y	Y	Y	Y	Y		Y			Y		N	N		Y		N	
• Consoles	Y	N/A	Y		Y	Y	N	Y	Y	N	Y	Y		Y			N		N	N		Y		N	
• Logging tape recorders	Y	N/A	Y		Y	Y	N	Y	N	N	N	N		Y			N		N	N		Y		N	
• Towers	Y	N/A	Y		Y	Y	N	Y	N	N	N	Y		Y			Y		N	N		Y		N	
• Antennas	Y	N/A	N		Y	Y	N	Y	N	N	Y	Y		Y			N		N	N		Y		N	
• Mobile printer	N	N/A	N		N	N	N	N	N	N	N	N		N			N		N	N		N		N	
• Mobile digital terminals	N	N/A	N		N	N	N	N	N	N	N	N		N			N		N	N		N		N	
• Mobile computer terminals	N	N/A	N		N	N	N	N	N	N	N	N		N			N		N	N		N		N	
• Other	N	N/A	N		Y	N	N	Y	N	N	N	N		Y			N		N	N		N		N	
Agency has list of priorities for grant evaluation	Y	N	N		Y	Y	N	N	N/A	N/A	N/A	N		Y			N		Y	N		Y		N	
Evaluation phase required on Telecom projects	Y	N	Y		N	Y	Y	Y	Y	Unk	N/A	Y		Y			Y		Y	N		Y		Y	
State Statutes affecting Telecom plans																									
• Establishment of DOC	Y	Y	N		Y	Y	N	Y	Y	N	Y	Y		Y			Y		N	N		Y		N	
• 911	N	N	N		Y	N	N	Y	N	N	N	N		N			Y		N	N		N		N	
• Implementation of Comm System	Y	N	N		N	Y	N	Y	Y	N	Y	Y		N			N		N	Y		N		N	
• Develop State Plan	Y	N	N		N	Y	N	Y	Y	N	N	N		Y			N		N	Y		N		N	
• EMS	Y	N	Y		N	N	N	Y	N	Y	N	Y		N			Y		N	Y		N		N	
• Fire	N	N	N		N	N	N	N	N	N	N	N		N			Y		N	N		N		N	
• Other	N	N	N		Y	N	N	N	N	N	N	N		N			N		N	N		N		N	
Agency plans to introduce State Legislation	N	Y	N		Y	Y	Y	Y	Y	N	N	Y		Y			N		N	N		Y		N	
Area of proposed State Legislation																									
• Est. DOC	N/A	N	N/A		N	N	Y	N	N	N/A	N/A	N		N			N/A		N/A	N/A		N		N/A	
• 911	N/A	N	N/A		Y	Y	N	N	N	N/A	N/A	Y		N			N/A		N/A	N/A		Y		N/A	
• Implement system	N/A	Y	N/A		N	Y	Y	N	N	N/A	N/A	N		N			N/A		N/A	N/A		N		N/A	
• Develop State Plan	N/A	N	N/A		N	N	Y	N	N	N/A	N/A	N		N			N/A		N/A	N/A		N		N/A	
• EMS	N/A	N	N/A		Y	Y	N	N	Y	N/A	N/A	N		N			N/A		N/A	N/A		N		N/A	
• Fire	N/A	N	N/A		N	N	N	Y	Y	N/A	N/A	N		N			N/A		N/A	N/A		N		N/A	
• Other	N/A	N	N/A		Y	N	N	Y	N	N/A	N/A	N		Y			N/A		N/A	N/A		N		N/A	

236

Table IV-5
Divisions of Communications

Table IV-5 ons of Communications		Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	N. Carolina	N. Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	S. Carolina	S. Dakota	Tennessee	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming	Chicago	Los Angeles	New York City
Agency has standard equipment specifications for:																													
•	Mobile units	Y	N		Y	Y	N		Y		Y	N				Y			Y	Y	N		N		Y	Y	Y	Y	Y
•	Portables	Y	N		Y	Y	N		Y		Y	N				Y			Y	Y	N		N		Y	Y	Y	Y	Y
•	Base stations	Y	N		Y	Y	N		Y		Y	N				Y			Y	Y	N		N		Y	Y	Y	Y	Y
•	Consoles	Y	N		Y	N	N		N		Y	N				Y			Y	Y	N		N		Y	N	Y	Y	Y
•	Logging tape recorders	Y	N		Y	N	N		N		Y	N				Y			Y	N	N		N		Y	N	Y	Y	Y
•	Towers	Y	N		N	N	N		N		Y	N				N			Y	Y	N		N		Y	N	N	N	N
•	Antennas	Y	N		N	N	N		N		Y	N				N			Y	Y	N		N		Y	N	Y	Y	Y
•	Mobile printer	N	N		N	N	N		N		Y	N				N			N	N	N		N		Y	N	Y	Y	Y
•	Mobile digital terminals	N	N		N	N	N		N		N	N				N			N	N	N		N		Y	N	Y	Y	Y
•	Mobile computer terminals	N	N		N	N	N		N		N	N				N			N	N	N		N		Y	Y	Y	Y	Y
•	Other	N	N		N	N	N		N		N	N				N			N	Y	N		N		Y	N	N	N	N
Agency has list of priorities for grant evaluation		N	Y		Y	N	N/A		Y		N	N				N			N	N/A	N/A		N		unk	unk	unk	unk	unk
Evaluation phase required on Telecom projects		Y	N		Y	Y	N/A		N		Y	N				N			Y	N/A	N/A		Y		Y	unk	Y	Y	Y
State Statutes affecting Telecom plans																													
•	Establishment of DOC	Y	Y		N	Y	Y		Y		Y	N				Y			N	N	Y		N		N	Y	Y	Y	Y
•	911	N	N		N	N	N		N		N	N				N			N	N	N		N		N	Y	Y	Y	Y
•	Implementation of Comm System	N	Y		N	N	N		Y		Y	N				Y			Y	Y	N		N		N	Y	Y	Y	Y
•	Develop State Plan	Y	Y		N	N	N		Y		Y	N				Y			Y	Y	N		N		N	Y	Y	Y	Y
•	EMS	N	N		N	N	N		N		N	N				Y			Y	N	Y		N		N	N	N	N	N
•	Fire	N	N		N	N	N		N		N	N				N			N	N	N		N		N	N	N	N	N
•	Other	N	N		N	N	N		N		N	N				N			Y	N	N		N		N	N	N	N	N
Agency plans to introduce State Legislation		N	N		Y	N	Y		Y		Y	Y				Y			Y	N	N		N		N	Y	N	N	N
Area of proposed State Legislation																													
•	Est. DOC	N/A	N/A		N	N/A	N		N		Y	N				N			N	N/A	N/A		N/A		N/A	N	N/A	N/A	N/A
•	911	N/A	N/A		N	N/A	N		N		Y	Y				N			N	N/A	N/A		N/A		N/A	Y	N/A	N/A	N/A
•	Implement system	N/A	N/A		N	N/A	N		N		Y	N				N			Y	N/A	N/A		N/A		N/A	N	N/A	N/A	N/A
•	Develop State Plan	N/A	N/A		N	N/A	N		N		Y	Y				N			Y	N/A	N/A		N/A		N/A	N	N/A	N/A	N/A
•	EMS	N/A	N/A		N	N/A	N		N		Y	Y				Y			Y	N/A	N/A		N/A		N/A	N	N/A	N/A	N/A
•	Fire	N/A	N/A		N	N/A	N		N		N	N				N			N	N/A	N/A		N/A		N/A	N	N/A	N/A	N/A
•	Other	N/A	N/A		Y	N/A	Y		Y		N	N				Y			Y	N/A	N/A		N/A		N/A	N	N/A	N/A	N/A

237

Table IV-5
Divisions of Communications

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Three most significant constraints																									
• Shortage of freq.	N	N	Y		Y	N		N	Y	Y	N	N	Y		N		Y		Y	N		Y		Y	
• Telephone companies	N	N	N		N	N		N	N	N	N	N		N			N		N	N		Y		N	
• Political	N	Y	Y		N	Y		Y	Y	Y	Y	Y		N			N		N	Y		Y		N	
• Ecology	N	N	N		N	N		N	N	N	N	Y	Y		N		N		N	N		N		N	
• State statutes	Y	N	N		N	Y		N	N	N	N	N	Y		N		N		N	N		N		N	
• Common Carrier Tariffs	N	N	Y		N	N		N	N	N	N	N	Y		N		N		N	N		N		N	
• Differences between telephone company boundaries and jurisdictional boundaries	N	N	N		N	Y		N	N	N	N	N		Y			N		N	N		N		N	
• Insufficient Planning funds	N	Y	N		N	N		N	N	N	N	Y	Y		N		N		N	Y		N		Y	
• Insufficient funds for implementation	N	Y	Y		Y	N		Y	Y	N	N	Y	Y		N		Y		N	N		N		N	
• Inadequate planning manpower	N	N	N		N	N		Y	N	Y	Y	N	Y		N		N		N	Y		N		Y	
• Others	N	N	N		N	N		N	N	N	Y	N	N		Y		N		N	N		N		N	
Agency responsible for coordination with adjacent states																									
• Grant Applicant	N	N/A	Y		Y	N		N	N	N	N/A	N	N		N		N		Y	Y		N		N	
• DOC	N	N/A	N		N	N		N	Y	Y	N/A	N	N		Y		N		N	N		N		N	
• SPA	N	N/A	Y		N	N		N	N	N	N/A	N	N		N		N		N	N		Y		Y	
• LEAA regional office	N	N/A	N		N	N		N	N	N	N/A	N	N		N		N		N	N		N		N	
• Other	N	N/A	Y		N	N		N	N	N	N/A	Y	N		N		N		N	N		N		N	
• None	Y	N/A	N		N	Y		Y	N	N	N/A	N	Y		N		N		N	N		N		N	
No. of times Grant Approvals have been reversed since 7/1/71	N/A	0	N/A		N/A	0		0	0	N/A	1	N/A	2		0		0		0	0		0		0	
No. of times grant disapprovals have been reversed since 7/1/71	N/A	0	N/A		N/A	0		0	0	N/A	0	N/A	1		1		0		0	0		0		0	
Formal procedures for updating fund allocations on grants	N	Y	N/A		N/A	Y		Y	N	N/A	N	N/A	N		Y		Y		N	N		Y		Y	
Differences documented between state procurement procedures and LEAA recommended practices	N	N	N		N/A	N		N	N	N/A	N	N/A	N		N		N		N	N		N		Y	
Formal procedures governing grant termination	Y	Y	N/A		N/A	Y		Y	N	N/A	N	N/A	N		Y		Y		Y	N		Y		Y	
In-house checklist for grant application review	Y	Y	N/A		Y	Y		Y	N	N/A	Y	N/A	N		Y		Y		Y	N		Y		Y	

Table IV-5
Divisions of Communications

Table IV-5 ons of Communications		States and Cities																											
		Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	N. Carolina	N. Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	S. Carolina	S. Dakota	Tennessee	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming	Chicago	Los Angeles	New York City
Three most significant constraints																													
• Shortage of freq.	N	N		N		N	N		Y		Y		N			N		Y	Y	N				N		Y	Y	N	
• Telephone companies	N	N		N		N	N		Y		N		N			N		N	N	N				N		N	N	N	
• Political	N	Y		Y		N	N		N		Y		N			N		Y	Y	N				N		N	N	Y	
• Ecology	N	N		N		N	N		N		N		N			N		N	N	N				N		N	N	N	
• State statutes	N	N		N		N	N		N		N		N			N		N	N	N				N		N	N	N	
• Common Carrier Tariffs	N	N		N		N	N		Y		N		N			N		N	N	N				N		N	N	N	
• Differences between telephone company boundaries and jurisdictional boundaries	N	N		Y		N	N		N		N		N			N		N	N	N				N		Y	Y	N	
• Insufficient Planning fund	Y	N		N		N	N		N		N		Y			Y		Y	N	N				Y		N	N	N	
• Insufficient funds for implementation	Y	Y		Y		Y	N		N		Y		Y			Y		Y	N	N				Y		N	Y	Y	
• Inadequate planning manpower	N	N		N		N	N		N		N		Y			Y		Y	Y	N				N		N	N	Y	
• Others	Y	N		N		N	N		N		N		N			N		Y	N	N				N		N	N	N	
Agency responsible for coordination with adjacent states																													
• Grant Applicant	N	Y		N		N	N/A		N		N		N			N		N	N	N/A				Y		N	unk	unk	
• DOC	Y	Y		Y		Y	N/A		Y		N		N			Y		Y	N	N/A				N		N	unk	unk	
• SPA	Y	N		N		N	N/A		N		N		N			N		N	N	N/A				N		N	unk	unk	
• LEAA regional office	N	N		N		N	N/A		N		N		N			N		N	N	N/A				N		N	unk	unk	
• Other	N	N		N		N	N/A		N		N		N			N		Y	Y	N/A				Y		Y	unk	unk	
• None	N	N		N		N	N/A		N		Y		Y			N		N	N	N/A				N		N	unk	unk	
No. of times Grant Approvals have been reversed since 7/1/71																													
	0	2		1		0	N/A		0		0		N/A			0		0	N/A	N/A				0		unk	unk	unk	
No. of times grant disapprovals have been reversed since 7/1/71																													
	0	2		1		0	N/A		0		0		N/A			0		0	N/A	N/A				0		unk	unk	unk	
Formal procedures for updating fund allocations on grants																													
	Y	N/A		N		Y	N/A		Y		Y		N			Y		Y	N/A	N/A				Y		unk	unk	unk	
Differences documented between state procurement procedures and LEAA recommended practices																													
	N	Y		N		N	N/A		N		N		N			Y		Y	N/A	N/A				N		N	unk	unk	
Formal procedures governing grant termination																													
	Y	N/A		Y		Y	N/A		Y		N		Y			Y		Y	N/A	N/A				N		unk	unk	unk	
In-house checklist for grant application review																													
	Y	N		Y		Y	N/A		Y		N		Y			Y		Y	N/A	N/A				Y		unk	unk	unk	

Table IV-5
Divisions of Communications

Table IV-5 ons of Communications		Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Published guidelines for grant applicants		N	Y	N		N/A	Y		Y	N	N/A	N	N/A	N		Y			Y		Y	N		Y		Y
Requirements for grant application																										
Statement of problem		Y	Y	N/A		N/A	Y		Y	N/A	N/A	Y	N/A	N/A		Y			Y		Y	N/A		Y		Y
Statement of requirement		Y	Y	N/A		N/A	Y		N	N/A	N/A	Y	N/A	N/A		Y			Y		Y	N/A		Y		Y
Procurement procedures		N	N	N/A		N/A	Y		Y	N/A	N/A	N	N/A	N/A		Y			Y		Y	N/A		N		Y
Adjacent area coordination		N	N	N/A		N/A	Y		Y	N/A	N/A	N	N/A	N/A		Y			N		Y	N/A		N		N
Technical justification		N	Y	N/A		N/A	Y		N	N/A	N/A	N	N/A	N/A		Y			N		Y	N/A		N		Y
Manpower requirements		N	Y	N/A		N/A	Y		Y	N/A	N/A	Y	N/A	N/A		Y			Y		Y	N/A		N		Y
Training requirement		N	N	N/A		N/A	N		Y	N/A	N/A	Y	N/A	N/A		Y			Y		Y	N/A		N		N
Follow-on funding		N	Y	N/A		N/A	Y		Y	N/A	N/A	Y	N/A	N/A		Y			Y		Y	N/A		Y		Y
Facility requirements		N	Y	N/A		N/A	Y		Y	N/A	N/A	Y	N/A	N/A		Y			N		Y	N/A		N		Y
Specification compliance testing		Y	N	N/A		N/A	N		N	N/A	N/A	N	N/A	N/A		Y			N		Y	N/A		N		N
Post project evaluation		Y	Y	N/A		N/A	Y		Y	N/A	N/A	Y	N/A	N/A		Y			Y		Y	N/A		Y		Y
Frequency availability		N	Y	N/A		N/A	Y		N	N/A	N/A	Y	N/A	N/A		Y			N		Y	N/A		N		Y
Tech. evolutionary adaptabilities		N	N	N/A		N/A	N		N	N/A	N/A	N	N/A	N/A		Y			N		Y	N/A		N		Y
System description		Y	Y	N/A		N/A	Y		N	N/A	N/A	Y	N/A	N/A		Y			Y		Y	N/A		Y		Y
Maintenance consolidations		N	N	N/A		N/A	N		N	N/A	N/A	N	N/A	N/A		N			N		Y	N/A		N		Y
Others		N	N	N/A		N/A	N		N	N/A	N/A	N	N/A	N/A		N			N		N	N/A		N		N
Grant review before submission																										
Regional planning council		N	N/A	N/A		N/A	Y		N	Y	N/A	N	N/A	N/A		Y			Y		Y	N		Y		Y
County Planning Agency		N	N/A	N/A		N/A	N		N	Y	N/A	N	N/A	N/A		N			N		Y	N		Y		N
Other		Y	N/A	N/A		N/A	Y		N	Y	N/A	Y	N/A	N/A		N			Y		N	N		N		N
Maintain Equipment Inventory		Y	N	N		Y	N		N	N	Y	N	Y	Y		Y			Y		N	N		N		N
Date of last update on equipment inventory (year)		'72	N/A	N/A		'74	N/A		N/A	N/A	'75	N/A	'75	'74		'75			'75		N/A	N/A		N/A		N/A
Formal procedure for assigning priorities to grant applications		N	Y	N/A		N/A	Y		Y	N	N/A	N	N/A	N/A		N			N		Y	N		N		N
Agency Encourages Joint or Centralized Purchasing		N	N	Y		Y	Y		Unk	Y	Y	N/A	Y	Y		Y			Y		Y	Y		Y		Y

240

Table IV-5
Divisions of Communications

ons of Communications		Table IV-5																										
		Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	N. Carolina	N. Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	S. Carolina	S. Dakota	Tennessee	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming	Chicago	Los Angeles
Published guidelines for grant applications	Y	N		N		N	N/A		Y		N		Y			Y			Y	N/A	N/A		Y		unk	unk	unk	
Requirements for grant application																												
Statement of problem	Y	Y		N		Y	N/A		Y		Y		Y			Y			Y	N/A	N/A		Y		N/A	N/A	N/A	
Statement of requirement	Y	Y		N		Y	N/A		Y		N		Y			Y			Y	N/A	N/A		Y		N/A	N/A	N/A	
Procurement procedures	N	Y		N		Y	N/A		Y		N		Y			Y			Y	N/A	N/A		N		N/A	N/A	N/A	
Adjacent area coordination	N	Y		N		Y	N/A		N		N		N			Y			Y	N/A	N/A		Y		N/A	N/A	N/A	
Technical justification	Y	Y		N		Y	N/A		Y		Y		Y			Y			Y	N/A	N/A		Y		N/A	N/A	N/A	
Manpower requirements	N	Y		N		Y	N/A		Y		N		Y			N/A			Y	N/A	N/A		N		N/A	N/A	N/A	
Training requirement	N	N		N		N	N/A		N		N		Y			N			Y	N/A	N/A		N		N/A	N/A	N/A	
Follow-on funding	N	Y		N		Y	N/A		Y		N		Y			Y			Y	N/A	N/A		N		N/A	N/A	N/A	
Facility requirements	N	N		N		N	N/A		Y		N		Y			N/A			Y	N/A	N/A		N		N/A	N/A	N/A	
Specification compliance testing	Y	Y		N		N	N/A		N		N		Y			N			N	N/A	N/A		N		N/A	N/A	N/A	
Post project evaluation	N	N		N		Y	N/A		N		Y		N			N			N	N/A	N/A		N		N/A	N/A	N/A	
Frequency availability	N	N		N		Y	N/A		Y		N		Y			Y			N	N/A	N/A		Y		N/A	N/A	N/A	
Tech. evolutionary adaptabilities	N	N		N		Y	N/A		N		N		N			N			Y	N/A	N/A		N		N/A	N/A	N/A	
System description	Y	Y		N		Y	N/A		Y		N		Y			Y			Y	N/A	N/A		Y		N/A	N/A	N/A	
Maintenance consolidations	N	N		N		Y	N/A		N		N		Y			N			N	N/A	N/A		N		N/A	N/A	N/A	
Others	Y	N		N		N	N/A		N		N		N			Y			Y	N/A	N/A		Y		N/A	N/A	N/A	
Grant review before submission																												
Regional planning council	Y	Y		Y		Y	N/A		Y		Y		Y			Y			Y	N/A	N		Y		N/A	N/A	N/A	
County Planning Agency	N	Y		N		N	N/A		N		N		Y			N			Y	N/A	N		N		N/A	N/A	N/A	
Other	N	N		Y		N	N/A		Y		Y		Y			N/A			Y	N/A	Y		N		N/A	N/A	N/A	
Maintain Equipment Inventory	Y	Y		N		N	N		Y		N		N			Y			N	Y	N		N		Y	Y	Y	
Date of last update on equipment inventory (year)	'74	'74		N/A		N/A	N/A		'73		N/A		N/A			'75			N/A	'75	N/A		N/A		'75	'75	'75	
Formal procedure for assigning priorities to grant applications	N	N		Y		Y	N/A		Y		Y		N			N			N	N/A	N/A		N		unk	unk	unk	
Agency Encourages Joint or Centralized Purchasing	Y	N		N		Y	N		N		Y		Y			Y			Y	Y	Y		Y		Y	Y	Y	

241

Table IV-5
Divisions of Communications

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Total Agency Operating Costs (Millions of dollars)																									
• FY 72	0	.84	.89	4.4	0.7		.30	.71	Unk	.05	.23	0.2		Unk			Unk	.02	.03		Unk			0	
• FY 73	0	.86	1.0	4.8	0.8		.30	2.1	2.2	.05	.34	0.2		Unk			.30	.03	.03		Unk			0	
• FY 74	.05	.83	1.1	6.0	0.9		.30	4.2	5.4	.05	.30	0.3		Unk			.30	.03	.03		Unk			0	
• FY 75	.06	.83	1.5	7.3	0.9		.30	6.1	6.8	.07	.35	0.3		Unk			.38	.06	.04		Unk			0.2	
Percent of above on Telecom Planning																									
• FY 72	0	Unk	10	35.5	5		1	6.5	Unk	8	1	5		Unk			Unk	1	0		Unk			0	
• FY 73	0	Unk	10	36.4	5		1	3.0	3	9	1	7		Unk			Unk	1	0		Unk			0	
• FY 74	100	Unk	10	36.0	5		1	3.0	1	10	1	8		Unk			Unk	1	0		Unk			0	
• FY 75	100	Unk	Unk	39.0	5		1	3.0	.5	10	1	9		Unk			Unk	1	25		Unk			4	
Total Grant or Project Expenditure (Millions of dollars)																									
• FY 72	N/A	Unk	N/A	0	0		0	.13	Unk	0	0	20		.05			N/A	0	.24		Unk			0	
• FY 73	N/A	Unk	N/A	0	0		0	.12	.04	0	0	21		.07			N/A	0	Unk		Unk			0	
• FY 74	N/A	Unk	N/A	0	0		0	.07	.02	0	0	23		.16			N/A	0	Unk		Unk			0	
• FY 75	N/A	Unk	N/A	0	0		0	.07	.01	0	0	26		.06			N/A	0	Unk		Unk			0.01	
Percent of above on L. E. Telecom Projects																									
• FY 72	N/A	Unk	N/A	N/A	N/A		N/A	65.6	Unk	N/A	N/A	10		100			N/A	N/A	55		Unk			N/A	
• FY 73	N/A	Unk	N/A	N/A	N/A		N/A	65.6	100	N/A	N/A	10		0			N/A	N/A	Unk		Unk			N/A	
• FY 74	N/A	Unk	N/A	N/A	N/A		N/A	100	100	N/A	N/A	10		100			N/A	N/A	Unk		Unk			N/A	
• FY 75	N/A	Unk	N/A	N/A	N/A		N/A	100	100	N/A	N/A	10		100			N/A	N/A	Unk		Unk			N/A	
Dollar amounts received from LEAA for operating costs and L. E. Telecom projects																									
• FY 72	Unk	Unk	Unk	Unk	.05		0	.10		0	0	1.1		.05			0	0	0		Unk			0	
• FY 73	Unk	Unk	Unk	.21	.10		0	.09		0	0	.08		Unk			0	0	0		Unk			0	
• FY 74	Unk	Unk	Unk	Unk	.11		0	.07	.0008	0	0	.03		.1			0	0	0		Unk			0	
• FY 75	Unk	Unk	Unk	Unk	Unk		0	.01		0	0	.05		.06			0	0	0		Unk			0	

242

Table IV-5
Divisions of Communications

Table IV-5 ons of Communications		Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	N. Carolina	N. Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	S. Carolina	S. Dakota	Tennessee	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming	Chicago	Los Angeles	New York City
Total Agency Operating Costs (Millions of dollars)																													
•	FY 72	.02	.03		.12		.40	.20	.16	N/A	N/A					.32			.04	.27	N/A				.04	9.0	8.1	1.5	
•	FY 73	.06	.03		.13		.42	.20	.16	N/A	N/A					.42			.10	.23	N/A				.05	9.0	9.0	1.5	
•	FY 74	.89	.02		.14		.50	.20	.20	N/A	N/A		.10			.46			.14	.28	N/A				.06	9.8	12	1.5	
•	FY 75	1.0	.03		.14		.52	.20	.20	Unk		.10				.54			.18	.25	Unk				.07	6.8	10	1.6	
Percent of above on Telecom Planning																													
•		1	20		4		5	10	7	N/A	N/A					20			10	2.7	A				1	1	.9	1	
•	FY 73	1	20		4		5	10	7	N/A	N/A					20			20	3.4	N/A				1	1	.9	1	
•	FY 74	1	30		4		5	10	7	N/A						20			20	2.8	N/A				1	1	.9	1	
•	FY 75	5	40		4		5	10	7	Unk						20			15	3.4	Unk				2	1	.9	1	
Total Grant or Project Expendi- ture (Millions of dollars)																													
•	FY 72	Unk	0		N/A		0	Unk	.04	N/A	N/A					.19			.02	N/A	N/A				Unk	Unk	1	1.5	
•	FY 73	Unk	0		N/A		0	Unk	.04	N/A	N/A					.21			.025	N/A	N/A				Unk	Unk	1	1.1	
•	FY 74	.03	0		N/A		0	Unk	.05	N/A						.01			.06	N/A	N/A				Unk	Unk	1	3.1	
•	FY 75	Unk	0		N/A		0	Unk	.05	.12		0				.005			.05	N/A	Unk				Unk	Unk	1.1	9.0	
Percent of above on L. E. Tele- com Projects																													
•	FY 72	Unk	N/A		N/A		N/A	Unk	100	N/A	N/A					100			0	N/A	N/A				Unk	Unk	50	100	
•	FY 73	Unk	N/A		N/A		N/A	Unk	100	N/A	N/A					100			0	N/A	N/A				Unk	Unk	50	100	
•	FY 74	Unk	N/A		N/A		N/A	Unk	100	N/A						100			0	N/A	N/A				Unk	Unk	50	100	
•	FY 75	Unk	N/A		N/A		N/A	Unk	100	100		0				100			0	N/A	Unk				Unk	Unk	50	100	
Dollar amounts received from LEAA for operating costs and L. E. Telecom projects																													
•	FY 72	Unk	0		.09		0	0	.03	N/A	N/A					.13			.06	.20	N/A				0	Unk	0	0	
•	FY 73	Unk	0		.13		0	0	.03	N/A	N/A					.15			.02	0	N/A				0	Unk	0	0.7	
•	FY 74	.003	0		.03		.09	0	.04	N/A						.01			.04	0	N/A				0	Unk	0	0	
•	FY 75	Unk	0		.03		.04	0	.04	0		0				.004			.04	0	Unk				0	Unk	0	0.2	

243

Table IV-5
Divisions of Communications

244

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Type of Specifications for Telecom Systems																									
• Equipment specifications only	N	Y	N		N	Y	Unk	N	Y	N	N	N		N			N		N	Unk		N		N	
• System functional specifications only	N	N	N		N	N	Unk	N	N	N	N	N		N			N		N	Unk		N		N	
• System performance specifications only	N	N	N		N	N	Unk	N	N	N	N	N		N			N		N	Unk		N		N	
• All of the above	Y	N	Y		Y	N	Unk	Y	N	Y	Y	Y		Y			Y		N	Unk		Y		Y	
• System functional and performance specifications with no equipment specifications	N	N	N		N	N	Unk	N	N	N	N	N		N			N		N	Unk		N		N	
• System functional and equipment specifications with no performance specifications	N	N	N		N	N	Unk	N	N	N	N	N		N			N		N	Unk		N		N	
• System performance and equipment specifications with no system functional specifications	N	N	N		N	N	Unk	N	N	N	N	N		N			N		N	Unk		N		N	
• No specifications							Unk												Y	Unk				N	
Require that procurements meet contractually established specifications	Y	Y	Y		N	Y	Unk	N	Y	Y	Y	Y		Y			N		N	Unk		Y		Y	
Source of Specifications																									
• Consultants	N	N	N		N	N	Unk	N	N	N	N	N		Y			Y		N	N		N		N	
• DOC	N	Y	Y		Y	N	Unk	Y	Y	N	Y	Y		N			N		N	N		Y		Y	
• Other State and Local Agency	Y	N	N		N	Y	Unk	N	N	Y	N	Y		Y			N		N	N		Y		N	
• Vendor consultants	N	N	N		N	N	Unk	N	N	N	N	N		N			N		N	N		N		N	
• Vendors	N	N	N		N	N	Unk	N	Y	N	N	N		N			N		N	Y		N		N	
• Other	N	N	N		N	N	Unk	N	N	N	N	N		N			N		N	N		N		N	
Specifications verified by:																									
• Acceptance testing	Y	N	Y		Y	N	N	Y	Y	Y	Y	Y		Y			N		N	N		N		N	
• Operational tests	N	N	Y		Y	N	N	Y	N	Y	Y	Y		N			N		N	N		N		Y	
• Vendor certification	N	N	Y		Y	N	N	Y	N	Y	N	Y		N			N		N	N		N		N	
• Random Sample Testing	N	N	Y		Y	Y	N	Y	N	N	N	Y		N			N		N	N		Y		N	
• Other	N	N	N		N	N	N	N	N	N	N	N		N			N		N	N					
• No requirements		X					X										X			X					
List of recommended consultants maintained	N	N	N		N	N	N	Y	N	N	N	N		N			Y		N	N		N		N	

Table IV-5
Divisions of Communications

245

	Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	N. Carolina	N. Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	S. Carolina	S. Dakota	Tennessee	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming	Chicago	Los Angeles	New York City
Type of Specifications for Telecom Systems																												
• Equipment specifications only	Y	N		N	Y	Y		N	Y		N			N			N		N	N		N		N		N		Y
• System functional specifications only	N	N		N	N	N		N	N		N			N			N		N	N		N		N		N		N
• System performance specifications only	N	N		N	N	N		N	N		N			N			N		N	N		N		N		N		N
• All of the above	N	Y		Y	N	N		Y	N		Y			Y			Y	Y	Y	Y		Y		Y		Y		N
• System functional and performance specifications with no equipment specifications	N	N		N	N	N		N	N		N			N			N		N	N		N		N		N		N
• System functional and equipment specifications with no performance specifications	N	N		N	N	N		N	N		N			N			N		N	N		N		N		N		N
• System performance and equipment specifications with no system functional specifications	N	N		N	N	N		N	N		N			N			N		N	N		N		N		N		N
• No specifications																										N		N
Require that procurements meet contractually established specifications	N	N		Y	N	N		Y	N		N			Y			Y	Y	Y	Y		N		Y		Y		Y
Source of Specifications																												
• Consultants	N	N		N	N	Unk		N	N		Y			N			Y	N	N		N		N		N		N	
• DOC	N	N		Y	N	Unk		N	N		N			Y			Y	N	N		N		Y		Y		Y	
• Other State and Local Agency	Y	Y		N	Y	Unk		Y	Y		N			N			Y	Y	Y		N		N		N		N	
• Vendor consultants	N	N		N	N	Unk		N	N		N			N			Y	N	N		N		N		N		N	
• Vendors	N	N		N	N	Unk		N	N		N			N			Y	N	N		N		Y		N		N	
• Other	N	N		N	N	Unk		N	N		N			N			Y	N	N		N		N		N		N	
Specifications verified by:																												
• Acceptance testing	N	N		Y	N	N		N	N		N			Y			N	Y	N		N		Y		Y		Y	
• Operational tests	N	N		Y	N	N		N	Y		N			Y			Y	Y	N		N		Y		Y		Y	
• Vendor certification	Y	Y		Y	N	N		N	N		N			Y			N	Y	N		N		N		Y		Y	
• Random Sample Testing	N	Y		N	N	N		N	N		N			Y			Y	Y	N		N		Y		Y		Y	
• Other	N	N		N	N	N		N	N		N			N			N	N	N		N		N		N		N	
• No requirements					X	X		X			X									X								
List of recommended consultants maintained	N	Y		N	N	Y		N	Y		N			N			Y	N	N		Y		N		N		N	

Table IV-5
Divisions of Communications

Table IV-5 ons of Communications		Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	
Formal requirement to be placed on list of consultants		N/A	N/A	N/A		N/A	N/A		N/A	Y	N/A	N/A	N/A	N/A		N/A			Y		N/A	N/A		N/A		N/A
Formal procedures for removal of consultants from list		N/A	N/A	N/A		N/A	N/A		N/A	Y	N/A	N/A	N/A	N/A		N/A			N		N/A	N/A		N/A		N/A
Has agency removed consultant from list		N/A	N/A	N/A		N/A	N/A		N/A	N	N/A	N/A	N/A	N/A		N/A			N		N/A	N/A		N/A		N/A
Typical number of bidders on telecom procurements		2-3	6-10	2-5		2-3	4-6		Unk	2-3	2-3	2-3	4-6	2-3		4-6			2-3		2-3	2-3		2-3		2-3
List of recommended equipment vendors		N	Y	N		Y	N		N	Y	Y	Y	Y	Y		N			Y		Y	N		N		N
Formal procedures for removal of vendor from list		N/A	N	N/A		Y	N/A		N/A	N	Y	N	N	Y		N/A			N		Y	N/A		N/A		N/A
Has agency removed vendor from list		N/A	N	N/A		Y	N/A		N/A	N	N	Y	N	Y		N/A			Unk		Unk	N/A		N/A		N/A
Standard procurement instructions (SPA or DOC)																										
Equipment		N	N	N		Y	Y		N	Y	Y	Y	N	Y		Y			N		N	N		N		Y
Maintenance		N	N	N		Y	N		N	N	Y	N	N	Y		Y			N		N	N		N		Y
Consulting		N	N	N		Y	N		N	Y	N	N	N	N		N			N		N	N		Y		N
Use existing state procurement instructions																										
Equipment		Y	Y	Y		N	Y		Y	N	N	Y	Y	Y		N			Y		Y	N		Y		N
Maintenance		N	Y	Y		N	Y		Y	N	N	Y	Y	Y		N			Y		Y	N		N		N
Consulting		N	Y	Y		N	Y		Y	N	Y	Y	Y	Y		N			Y		Y	N		Y		N
Permit sole source regardless of size of procurement																										
Equipment		N	N	N		Y	N		N	N	N	N	N	N		N			N		Y	N		N		N
Maintenance		N	N	N		Y	N		N	N	N	N	N	N		N			N		N	N		N		N
Consulting		N	N	N		Y	N		N	N	Y	N	N	N		N			N		N	N		N		N
Require at least two bids when procurement exceeds a given dollar value																										
Equipment		N	N	N		N	N		N	Y	Y	Y	N	Y		N			N		N	N		N		Y
Maintenance		N	N	N		N	N		N	N	Y	Y	N	Y		N			N		N	N		N		Y
Consulting		N	N	N		N	N		N	N	N	Y	N	N		N			N		N	N		N		N

246

Table IV-5
Divisions of Communications

Table IV-5 ions of Communications		States and Territories																											
		Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	N. Carolina	N. Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	S. Carolina	S. Dakota	Tennessee	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming	Chicago	Los Angeles	New York City
Formal requirement to be placed on list of consultants		N/A	N	N/A	N/A	N	N/A	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Y	N/A	N/A	N/A	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Formal procedures for removal of consultants from list		N/A	Y	N/A	N/A	N	N/A	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Y	N/A	N/A	N/A	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Has agency removed consultant from list		N/A	N	N/A	N/A	o	N/A	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	N/A	N/A	N/A	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Typical number of bidders on telecom procurements		2-3	2-3	4-6	4-6	4-6	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3	N/A	2-3	2-3	2-3	3	6-10	4-6	4-6	
List of recommended equipment vendors		N	Y	Y	N	N	N	Y	N	N	N	Y	N	Y	N	N	Y	N	Y	N	N	N	N	N	N	N	N	Y	
Formal procedures for removal of vendor from list		N/A	N	Y	N/A	N/A	N/A	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Y	
Has agency removed vendor from list		N/A	N	Y	N/A	N/A	N/A	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Y	
Standard procurement instructions (SPA or DOC)																													
Equipment		Y	N	N	Y	N	Y	Y	N	Y	N	Y	N	Y	N	Y	Y	Y	N	N	N	N	N	N	N	N	N	N	
Maintenance		N	N	N	N	N	N	Y	N	Y	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	
Consulting		N	N	N	N	N	N	Y	N	Y	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	
Use existing state procurement instructions																													
Equipment		Y	Y	Y	N	Y	N	N	N	N	Y	N	N	N	N	N	N	Y	Y	N	N	Y	Y	Y	Y	Y	Y	Y	
Maintenance		N	Y	N	N	Y	N	N	N	N	Y	N	N	N	N	N	N	Y	N	N	N	Y	N	N	N	N	N	N	
Consulting		N	Y	N	N	Y	N	N	N	N	Y	N	N	N	N	N	N	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	
Permit sole source regardless of size of procurement																													
Equipment		Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
Maintenance		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	
Consulting		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	
Require at least two bids when procurement exceeds a given dollar value																													
Equipment		N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	Y	N	N	N	Y	N	N	N	N	N	N	
Maintenance		N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	Y	N	N	N	Y	N	N	N	N	N	N	
Consulting		N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	

247

*No comment

Table IV-5
Divisions of Communications

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Require at least three bids when procurement exceeds a given dollar value																									
Equipment	N	N	N		N	N		N	N	N	N	N	Y		Y		Y		N	N		N		N	
Maintenance	N	N	N		N	N		N	N	N	N	N	Y		Y		Y		N	N		N		N	
Consulting	N	N	N		N	N		N	Y	N	N	N	Y		Y		N		N	N		N		N	
Require competitive bidding on all procurements-award to low bid																									
Equipment	N	N	N		N	N		N	N	N	N	N			N		N		N	N		N		N	
Maintenance	N	N	N		N	N		N	N	N	N	N			N		N		N	N		N		N	
Consulting	N	N	N		N	N		N	N	N	N	N			N		N		N	N		N		N	
Require competitive bid on procurements over given dollar value-award to low bid																									
Equipment	N	N	N		N	Y		N	Y	Y	Y	N	Y		Y		Y		N	N		N		N	
Maintenance	N	N	N		N	N		N	N	Y	Y	N	Y		Y		Y		N	N		N		N	
Consulting	N	N	N		N	N		N	N	N	Y	N	Y		N		N		N	N		N		N	
For competitive bids award can go to other than low bid																									
Equipment	N	Y	Y		N	Y		N	N	N	Y	N	N		N		N		Y	N		N		Y	
Maintenance	N	Y	Y		N	Y		N	N	N	Y	N	N		N		N		Y	N		N		Y	
Consulting	N	Y	Y		N	N		N	Y	Y	N	N		Y			Y		Y	N		N		N	
Advertising of procurement is required																									
Equipment	N	N	Y		N	N		N	N	N	N	N	Y		N		Y		N	N		N		N	
Maintenance	N	N	N		N	N		N	N	N	N	N	Y		N		Y		N	N		N		N	
Consulting	N	N	Y		N	N		N	N	N	N	Y		N			N		N	N		N		N	
Pre-bid conference required on procurements over a given dollar value																									
Equipment	N	N	N		N	N		N	N	N	N	N			Y		N		N	N		N		N	
Maintenance	N	N	N		N	N		N	N	N	N	N			Y		N		N	N		N		N	
Consulting	N	N	N		N	N		N	Y	N	N	N			Y		N		N	N		N		N	
Pre-bid conference required at discretion of subgrantee																									
Equipment	N	N	N		Y	N		N	N	Y	N	Y	Y		N		N		N	N		N		Y	
Maintenance	N	N	N		Y	N		N	N	Y	N	Y	Y		N		N		N	N		N		Y	
Consulting	N	N	N		Y	N		N	N	Y	N	Y	Y		N		N		N	N		N		Y	

Table IV-5
Divisions of Communications

	Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	N. Carolina	N. Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	S. Carolina	S. Dakota	Tennessee	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming	Chicago	Los Angeles	New York City
Require at least three bids when procurement exceeds a given dollar value																												
Equipment	Y	Y		Y		N		Y		Y	N				N			Y	N	N		Y		N	N	Y		
Maintenance	N	Y		N		N		N		Y	N				N			Y	N	N		Y		N	N	Y		
Consulting	N	Y		N		N		Y		Y	N				N			Y	N	N		Y		N	N	Y		
Require competitive bidding on all procurements-award to low bid																												
Equipment	N	N		N		N		N		N	N				N			Y	N	N		Y		N	N	N		
Maintenance	N	N		N		N		N		N	N				N			Y	N	N		Y		N	N	N		
Consulting	N	N		N		N		N		N	N				N			Y	N	N		Y		N	N	N		
Require competitive bid on procurements over given dollar value-award to low bid																												
Equipment	Y	Y		Y		N		Y		Y	Y				Y			Y	N	N		Y		Y	N	N		
Maintenance	N	Y		N		N		N		Y	Y				N			Y	N	N		Y		N	N	N		
Consulting	N	Y		N		N		Y		Y	N				N			Y	N	N		Y		N	N	N		
For competitive bids award can go to other than low bid																												
Equipment	N	N		N		N		N		N	Y				N			Y	N	N		N		N	Y	Y		
Maintenance	N	N		N		N		N		N	Y				N			Y	N	N		N		N	Y	Y		
Consulting	N	N		N		N		N		N	Y				N			Y	N	N		N		N	Y	Y		
Advertising of procurement is required																												
Equipment	Y	N		N		N		N		Y	N				N			Y	N	N		N		N	Y	N		
Maintenance	N	N		N		N		N		Y	N				N			Y	N	N		N		N	Y	N		
Consulting	N	N		N		N		N		Y	N				N			N	N	N		N		N	Y	N		
Pre-bid conference required on procurements over a given dollar value																												
Equipment	N	N		N		Y		N		N	Y				N			N	N	N		N		N	N	N		
Maintenance	N	N		N		N		N		N	Y				N			N	N	N		N		N	N	N		
Consulting	N	N		N		N		N		N	Y				N			N	N	N		N		N	N	N		
Pre-bid conference required at discretion of sub-grantee																												
Equipment	N	Y		N		N		Y		Y	N				Y			N	N	N		Y		Y	Y	Y		
Maintenance	N	Y		N		N		Y		Y	N				Y			N	N	N		Y		N	Y	Y		
Consulting	N	Y		N		N		Y		Y	N				Y			N	N	N		Y		N	Y	Y		

Table IV-5
Divisions of Communications

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Prebid conference required for all procurements																									
• Equipment	N	N	N		N	N		N	N	N	N	N	N				Y		N	N		N		N	
• Maintenance	N	N	N		N	N		N	N	N	N	N	N				Y		N	N		N		N	
• Consulting	N	N	N		N	N		N	N	N	N	N	N				Y		N	N		N		N	
Procurement must go to in-state vendor if qualified																									
• Equipment	N	N	N		N	N		N	N	N	N	N	N				N		N	N		N		N	
• Maintenance	N	N	N		N	N		N	N	N	N	N	N				N		N	N		N		N	
• Consulting	N	N	N		N	N		N	N	N	N	N	N				N		N	N		N		N	
Bid Advertising required for bids over:																									
• Equipment (\$)	500	500	1000		N/A	N/A		N/A	1000	100	4000	1000	2500				100		75	N/A		5000		2000	
• Maintenance (\$)	500	1000	1000		N/A	N/A		N/A	1000	N/A	4000	1000	2500				100		75	N/A		5000		2000	
• Consulting (\$)	500	1000	1000		N/A	N/A		N/A	5000	N/A	4000	1000	2500				N/A		75	N/A		5000		-	
Role of vendors																									
• Prepare specifications	N	N	N		N	N		N	N	N	N	N	N				N		Y	Y		N		N	
• Submit competing designs	N	N	N		N	N		N	N	Y	N	Y	N				N		N	N		Y		N	
• May submit suggestions for change of specifications	N	N	N		N	N		N	N	N	N	N	N				N		N	N		N		N	
• Must submit suggested changes to consultant	N	Y	N		N	N		N	N	N	Y	N	N				N		N	N		Y		N	
Formal procedures for managing consultants	N	N	N		Y	N		N	N	N	N	N	N				N		N	N		N		N	

Table IV-5
Divisions of Communications

	Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	N. Carolina	N. Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	S. Carolina	S. Dakota	Tennessee	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming	Chicago	Los Angeles	New York City
Pre-bid conference required for all procurements																												
• Equipment	Y	N		N		N	N		N		N				N			N	N	N		N		N		N	N	N
• Maintenance	N	N		N		N	N		N		N				N			N	N	N		N		N		N	N	N
• Consulting	N	N		N		N	N		N		N				N			N	N	N		N		N		N	N	N
Procurement must go to in-state vendor if qualified																												
• Equipment	N	N		N		Y	N		Y		N				Y			N	N	N		N		N		N	N	N
• Maintenance	N	N		N		N	N		N		N				N			N	N	N		N		N		N	N	N
• Consulting	N	N		N		N	N		N		N				N			N	N	N		N		N		N	N	N
Bid Advertising require for bids over:																												
• Equipment (\$)		1000		500		1000	1200		2500		500		1500		1000			1000	N/A	N/A		3000		1500		5000		2500
• Maintenance (\$)		1000		Unk		1000	1200		Unk		500		1500		N/A			1000	N/A	N/A		3000		1500		5000		2500
• Consulting (\$)		1000		Unk		Unk	0		Unk		500		N/A		N/A			1000	N/A	N/A		3000		1500		5000		2500
Role of Vendors																												
• Prepare specifications	N	N		N		N	N		N		N				N			N	N	N/A		Unk		N		N	N	N
• Submit competing designs	N	N		N		Y	N		N		Y				N			N	Y	N/A		Unk		N		N	N	N
• May submit suggestions for change of specifications	N	N		Y		Y	N		N		N				N			Y	N	N/A		Unk		N		N	N	N
• Must submit suggested changes to consultant	N	N		N		Y	N		Y		N				Y			Y	N	N/A		Unk		N		Y	Y	Y
Formal procedures for managing consultants	N	N		N		N	N		Y		Y				N			Y	N	N		N		N		N	N	N

V. STATE SUMMARIES

V. STATE SUMMARIES

A narrative description of the law enforcement telecommunications planning in each state, the District of Columbia, and the cities of New York, Chicago and Los Angeles is presented in this Chapter. In each case, the narrative description is presented in seven sections as follows:

- . Organization Information
- . Law Enforcement Activities
- . State Telecommunications Planning
- . Policy Information
- . Budgets and Expenditures
- . Procurement Methods and Policies
- . Project Summaries.

The information presented is factual as derived from the survey data, and no attempt has been made to evaluate or rate the effectiveness of the telecommunications effort in any given state.

1. ALABAMA

(1) Organization Information

The unit of state government in Alabama which is responsible for the distribution of LEAA funds is the Alabama Law Enforcement Planning Agency (ALEPA). The agency has offices at 501 Adams Avenue, Montgomery, Alabama 36104.

The agency is administered by a Director and two Deputy Directors and has a full-time professional staff of nine persons. The Director of the agency reports directly to the Governor's office.

The State Planning Agency is divided into five sections as follows: Police, Courts, Corrections, Communications and Information Systems. Within these units, there are two persons involved on a full-time basis with Law Enforcement Telecommunications grant applications and projects. Also identified as an arm of the State Planning Agency was the Communications Technical Advisory Committee (CTAC). Comprised of both system users and individuals with technical backgrounds, the Committee has provided the expertise for most decisions in the law enforcement telecommunications planning area.

The Alabama Division of Telecommunications is also directly involved in Law Enforcement Telecommunications planning. It is located in the State Office Building, Montgomery, Alabama 36104. The Division has two professional staff members, both of whom are involved on a full-time basis with Law Enforcement Telecommunications projects.

This agency was formed in 1974 through an executive order by the Governor. Its main purpose is to serve the communications needs of state government. The Agency Director reports to the Alabama Development Office and has a radio section under his control. The authority of this department is mandatory over the State Police and all state agencies and advisory to county and city agencies.

The major activities of the Division of Telecommunications were identified as follows:

- . State agency system planning
- . County and city system planning
- . Local agency system planning
- . Equipment procurement.

The State Planning Agency, with the assistance of regional planning agencies, provides assistance to law enforcement agencies in the telecommunications area by providing technical review of grant applications, assistance in preparation of grant applications, system design, specification preparation, and system planning. The Division of Telecommunications provides telecommunications planning assistance to the State Planning Agency and other law enforcement and planning agencies in the areas of technical review of grant applications, review for concurrence to the state plan, system design, specification preparation, and system planning.

The State Planning Agency indicated their in-house capabilities include engineering services, legal services and financial planning. The in-house capabilities reported by the Division of Telecommunications include specification preparation and bid review.

Both the State Planning Agency and Division of Telecommunications report no interface at all with the Public Utility Commissions.

The Department of Public Safety indicated that they have personnel who are responsible for knowledge of the rules and regulations of the Federal Communications Commission. The Department meets with the Field Operations Bureau of the FCC twenty-five times per year and with the Safety and Special Radio Service Bureau of the FCC twelve times per year.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

In the State of Alabama, agencies at the state level that are eligible for LEAA grants include the Department of Public Safety and Liquor Control Board. Table V-1

indicates the types and quantities of law enforcement agencies that exist below state level of government.

Table V-1
Alabama Law Enforcement Agencies
Below State Level of Government

Type of Agency	Number of Agencies
County Police Departments	67
Municipal Police Departments	350
Campus Police Departments	18

2. Centralized, Cooperative and Consolidated Dispatch Centers

Within the state there are twenty consolidated dispatch centers in operation. All twenty centers serve areas of over 200 square miles and dispatch only law enforcement vehicles. Two of these centers serve populations of less than 20,000, sixteen serve populations of between 20,000 and 100,000 and two serve populations of between 100,000 and 500,000. In addition, the State of Alabama has 377 individual dispatch centers. Three hundred and six of these centers serve areas of less than 50 square miles, four serve areas of from 50 to 200 square miles and 67 centers serve areas of over 200 square miles. Of the 377 individual centers, 297 serve populations under 20,000, 75 serve populations between 100,000 and 500,000 and one center serves a population of over 500,000. All 377 centers dispatch only law enforcement vehicles. While none of the consolidated centers have adopted 911 telephone service, 38 individual centers are utilizing 911 as their emergency number. Of the 38 centers using 911, ten serve populations of less than 20,000, 24 serve populations of from 20,000 to 100,000, three serve populations of from 100,000 to 500,000 and one center serves a population of over 500,000.

No law enforcement agency within the state is presently using a computer assisted dispatch system. However, one law enforcement agency is planning to install that capability.

At the time of the survey, there were 38 individual telephone companies serving the state.

3. Spectrum Management

The State of Alabama presently does not have a statewide frequency plan for law enforcement. The State Planning Agency, however, reports that preparation of such a plan is currently being planned.

The plan will be prepared by the Division of Telecommunications and will specify or recommend specific frequencies for all law enforcement agencies in the state. Frequency assignments will include solely the police-only frequencies.

Present licenses for law enforcement departments include 100 in the VHF low band spectrum area, 700 in VHF high band, and 149 in UHF. The frequency coordinator for the state reported the following numbers of requests for coordination in the four years preceding this study:

.	1971 -	74
.	1972 -	45
.	1973 -	89
.	1974 -	101

The state indicated that a shortage of available frequencies represents a significant constraint on telecommunications planning.

The State of Alabama presently does not have a backbone microwave system in use by law enforcement agencies.

4 Inter-Agency Agreements

The State Planning Agency reported that there are 65 interjurisdictional agreements in force for the sharing of law enforcement records information. In addition, there are three contract law enforcement agreements in force in Alabama.

5. Training Programs

The State of Alabama has not established minimum standards for training of law enforcement radio dispatchers and government employee radio technicians. Furthermore, there are no funded training programs for either category. However, the state is planning to establish minimum standards.

(3) State Telecommunications Planning

1. State Telecommunications Plan

Alabama has a statewide telecommunications plan which covers the period 1973 to 1977. Both the State Planning Agency and the Divisions of Telecommunications are responsible for the portions of the plan which are mandatory. The plan addresses organization of radio networks, inter-agency coordination, cooperative or consolidated dispatching, interstate coordination, procurement procedures, technical training, financial considerations, configuration control and reliability standards. The plan considers state law enforcement and other state agencies, emergency medical services, and county and municipal law enforcement agencies. The plan was developed by a private consulting firm and the Division of Telecommunications and later modified by the Communications Technical Advisory Committee. The plan has automatic review and revision procedures and was last amended November 1973.

2. Comprehensive Law Enforcement Plan

The comprehensive plan prepared by the State Planning Agency and submitted to the LEAA each year is developed with specific law enforcement telecommunications considerations. The plan addresses organization of radio networks, interagency coordination, cooperative or consolidated dispatching, interstate coordination, procurement procedures, technical training, financial considerations, configuration control and reliability standards. The plan considers state, municipal and county law enforcement agencies. The telecommunications portion of the comprehensive law enforcement plan was developed entirely by the State Planning Agency.

(4) Policy Information

The State Planning Agency has adopted procedures and established policies in several areas affecting law enforcement telecommunications. Some of the major policies are listed as follows:

- . Organization of law enforcement networks is based upon county networks.
- . Central or cooperative dispatch is recommended for two or more agencies sharing a channel.
- . UHF is recommended for radio systems in urban areas, VHF high band is recommended for suburban and rural areas.
- . Number of radio channels required is based on number of mobiles and portables.
- . Tone-controlled squelch is recommended.
- . Cooperative or central dispatch, independent dispatch and mutual aid pacts are recommended as command and control concepts.
- . 911 for all emergency services is recommended for improved citizen access.

- . Coordination channels are recommended for state-wide use.
- . Wireline control is recommended for remote control of base stations.
- . Additional terminals are recommended for improved access to criminal justice information systems.
- . Computer assisted dispatching is recommended.
- . Personal portables are recommended for all personnel with mobile units in vehicles.
- . The use of magnetic tape recorders is recommended for logging of radio and telephone traffic.

Legislation in the State of Alabama which has a direct effect on law enforcement communications planning includes the establishment of the Division of Telecommunications (in the form of an executive order), directives to plan or implement communications systems, directives to develop the state plan for communications and Emergency Medical Services (EMS) legislation.

The three most significant constraints on planning or implementation of police telecommunications systems within Alabama are reported to be a shortage of available frequencies, political factors, and the unavailability of planning manpower.

The State Planning Agency has formal procedures to determine when a grant should be terminated. Also, there is a formal checklist or review procedure for grant application review. Prior to submission to the State Planning Agency, grant applications are reviewed by a regional planning coordination staff. The State Planning Agency reports that it maintains a statewide law enforcement telecommunications equipment inventory. The initial inventory occurred in July 1972, and an update is presently being contemplated.

(5) Budgets and Expenditures

1. State Planning Agency

The State Planning Agency for Alabama has awarded funds each year for telecommunications projects in amounts indicated on Table V-2.

These figures represent the actual award approvals made during the periods indicated and are based upon review of the project files.

The total dollar amounts expended for all grants by the State Planning Agency and for telecommunications projects are shown on Table V-2. Also indicated is the number of telecommunications projects funded in each year.

The operating budgets for the State Planning Agency for the same periods are as follows:

- . 7/1/71-6/30/72 - \$648,403
- . 7/1/72-6/30/73 - \$786,244
- . 7/1/73-6/30/74 - \$901,000.

For Fiscal Year 1975, the estimated operating cost for the agency was \$989,092.

2. Division of Telecommunications

For the period 7/1/73-6/30/74, the Division of Telecommunications reports that its operating costs were \$50,000. The entire amount was allocated for law enforcement telecommunications planning. For Fiscal Year 1975, the estimated operating cost for the Division is \$60,000.

Table V-2
Comparison - All Grant Awards vs Telecommunications Awards
7/1/71 Through 6/30/74, State of Alabama

Year	Total Dollars		Percent of Total		Number of
	All Grants Awarded	Telecommunications Grants Awarded	Awards for Telecommunications	Awards for Telecommunications	
7/1/71-6/30/72	\$6,915,000	\$ 388,421	5.6%		32
7/1/72-6/30/73	8,026,000	1,753,119	21.8		124
7/1/73-6/30/74	8,026,000	122,201	1.5		2

(6) Procurement Methods and Policies

1. Centralized Purchasing Procedures

At the state government level, centralized purchasing procedures for radio equipment are mandatory. However, the State Planning Agency does not encourage joint or centralized purchasing for small purchases. There are no centralized purchasing procedures at the county or regional level.

2. Standard Equipment or System Specifications

In the State of Alabama, purchases of law enforcement telecommunications equipment and systems are based upon equipment specifications, system functional specifications and system performance specifications. The specifications used are prepared in-house by the Communications Technical Advisory Committee.

The State Planning Agency requires that system specifications be met by acceptance testing and operational tests. The State Planning Agency does not maintain a list of recommended independent consultants for telecommunications.

3. Equipment Sources and Vendors

Typically two or three bidders respond to law enforcement telecommunications system procurements. The State Planning Agency does not maintain a list of recommended sources of law enforcement communications equipment.

4. Procurement Practices

Grant funded procurements for law enforcement communications equipment are accomplished in accordance with existing state procurement instructions.

Procurement instructions for equipment and maintenance services require that all procurements be made on the basis of competitive bidding with award being made to the lowest compliant bidder.

Procurement instructions require that bids above \$500 be advertised.

(7) Project Summary

Data was obtained from the State of Alabama for 158 telecommunications grants awarded during the period July 1, 1975 to January 1, 1975. The project summary sheets which follow describe the project characteristics including these highlights:

- . All projects were for communications equipment, predominantly mobile and portable radios and base stations, and were for improvement of existing systems.
- . Formal project evaluations were not conducted.
- . A small percentage of the projects implemented coordinations channels, while essentially all of the projects provided communications between members of the departments.
- . Improved communications service was a project objective of nearly all of the projects with improved communication reliability occurring nearly as often as a project objective.
- . The majority of the projects and project funds were awarded to municipalities with a population under 20,000.

2. ALASKA

(1) Organization Information

The State Planning Agency for the State of Alaska that is responsible for the administration and distribution of LEAA funds is entitled the Alaska Criminal Justice Planning Agency. The agency maintains offices in Juneau, Alaska, and the mailing address is Pouch A.J., Juneau, Alaska 99811.

The State Planning Agency is administered by an Executive Director, who reports directly to the Office of the Governor. The agency has two major sections, one controlled by an administrative officer, and the other by a chief planning officer. The members of the planning unit include a planner for corrections, police, legal, and rural criminal justice. The agency has a full-time professional staff of seven persons. The police planner was identified as devoting part of his time to the grant review for telecommunications projects for law enforcement. Another agency existing within the state that is directly involved in law enforcement telecommunications planning and projects is the Division of Communications under the Department of Public Works. This division maintains its offices at 338 Denali Street, Anchorage, Alaska 99501. This agency has a total of 35 full-time professional personnel, two of which have been identified as spending part of their time involved in law enforcement telecommunications projects. In regard to telecommunications planning and implementation, this agency has mandatory authority over all state agencies.

The Communications Division of the Department of Public Works provides telecommunications planning assistance to the State Planning Agency in the following areas:

- . Technical review of grant applications
- . Review for concurrence to state planning
- . System design
- . Acceptance testing
- . Specification preparation
- . System planning.

Interface between the State of Alaska and the Federal Communications Commission is the responsibility of the Division of Communications of the Department of Public Works. The agency reports that it is responsible for knowledge of FCC Rules and Regulations, and for monitoring and commenting on FCC dockets. The agency also makes recommendations to the Governor for actions in connection with FCC proceedings. Direct contact is made with the Federal Communications Commission approximately 23 times per year.

In matters pertaining to the Public Utilities Commission for the State of Alaska, neither the State Planning Agency nor the Division of Communications reported any work agreements or participation in PUC hearings or actions.

The in-house capabilities for serving law enforcement telecommunications were reported by the Division of Communications as engineering services and reliability testing.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

State level law enforcement agencies reported by the State Planning Agency as eligible for LEAA grants include the Department of Public Safety and the Department of Revenue. Other law enforcement agencies existing within the state include 30 organized municipal police departments, one campus police department, and the State Airport Security Police.

2. Centralized, Cooperative and Consolidated Dispatch Centers

The State of Alaska does not have any existing centralized, cooperative, or consolidated dispatch centers. There are, however, an estimated 35 individual dispatch centers existing in the state which serve only one law enforcement agency.

Of the estimated 35 dispatch centers, 12 serve less than 50 square miles, 21 serve 50 to 200 square miles, and two serve areas in excess of 200 square miles. Thirty-three of these centers serve populations with less than 20,000, while one serves a population of between 20,000 and 100,000, and one serves a population between 100,000 and 500,000.

Dispatching services from these centers vary in that nine serve only law enforcement vehicles, while 26 dispatch law enforcement and ambulance services. Two centers in the state have implemented 911 telephone service. One center serves a population of less than 20,000 and the other a population between 100,000 and 500,000. Both of these 911 centers dispatch law enforcement, fire, and ambulance services.

Presently, there are no computer aided dispatch systems in operation in the state, however, one such system is being planned.

There are an estimated nine separate telephone companies operating within the state.

3. Spectrum Management

A frequency plan for the law enforcement agencies in the State of Alaska is currently being prepared by the Division of Communications of the Department of Public Works. This plan will specify or recommend specific frequencies for some, but not all, law enforcement agencies within the state. The plan will utilize police only frequencies and not local government assignments.

The APCO frequency coordinators for the state report the following numbers of frequency coordinations processed for law enforcement agencies in the three years prior to this study:

. 1971 - 18
. 1972 - 24
. 1973 - 26.

The frequency coordinators report that in all cases a specific frequency is recommended to the applicant. FCC licenses in existence by law enforcement agencies within the state included five in VHF low-band, 14 in VHF high-band, and one in the UHF band. There is also one agency licensed in the 72 MHz band and one in the 952-960 MHz band. The coordinators report that there are nine local government licenses issued to law enforcement agencies within the state.

The State Planning Agency reports that it will not approve the grant application for a communications system which uses frequencies that are not in conformance with the State Frequency Plan presently being prepared. At this time, there are approximately 500 mobile units in use by law enforcement agencies within the state. The number of stations in use is not known.

The State of Alaska does not have a backbone microwave system in use by law enforcement agencies but is planning the implementation of such a system.

4. Interagency Agreements

Interagency agreements existing in the State of Alaska include three dispatch agreements, involving different political entities and two contracts for law enforcement services.

5. Training Programs

The State of Alaska has not established minimum standards for training for law enforcement dispatchers or government employee radio technicians, nor do they have any funded training programs for either category. The state, however, is planning to establish minimum training standards for both law enforcement radio dispatchers and government employee radio technicians. The State Planning Agency reported that no funds have been included in grants for the training of project personnel since July 1971.

(3) State Telecommunications Planning

1. State Telecommunications Plan

The State of Alaska is presently preparing a statewide telecommunications plan in response to overall telecommunications needs but the plan is not finalized as of the date of this study.

2. Comprehensive Law Enforcement Plan

The comprehensive plan prepared by the State Planning Agency and submitted yearly to LEAA does contain telecommunications considerations. The telecommunications areas specifically addressed include: interagency coordination, citizen access, and data retrieval systems. The plan is addressed toward state law enforcement, other state agencies, municipal law enforcement agencies, and borough law enforcement. The comprehensive plan was prepared and developed by the State Planning Agency.

(4) Policy Information

Specific policy positions of the State Planning Agency that are related to law enforcement telecommunications systems include the following:

- . Law enforcement radio networks should be based upon mobile radio districts or zones
- . Central or cooperative dispatch is recommended where two or more agencies must share a channel
- . The VHF high band spectrum area is recommended for all systems in the state
- . Number of radio channels required is based on the number of mobiles and portables
- . Recommended channel configurations include one frequency simplex and vehicular repeaters

- . Cooperative or central dispatch is the recommended command and control concept
- . One statewide coordination channel is recommended
- . Inter-agency point-to-point coordination is recommended by using microwave links or VHF/UHF point-to-point communications
- . Point-to-point communications is recommended for coordination between local agencies and the State Police
- . The use of communications scramblers is not recommended
- . The use of personal portables is recommended for all sworn personnel
- . Magnetic tape recorders are recommended for logging of radio and telephone traffic
- . Centralized maintenance is recommended.

The only existing legislation within the state reported to have an effect of law enforcement communications planning was the establishment of a Division of Communications. The State Planning Agency is not proposing any new legislation, however, the Division of Communications plans to propose legislation for directives to plan or implement communications systems.

The three factors reported to have placed the most significant constraints on the planning or implementation of police telecommunications systems are political factors, insufficient planning funds, and insufficient funds for implementation.

The State Planning Agency has developed procedures for updating fund applications when the time between grant application and project implementation has resulted in outdated cost figures. The agency also has formal procedures to determine when a grant should be terminated. The agency has developed and published planning guidelines for use by prospective grant applications and has a formal procedure for assigning priority

to telecommunications grant applications based upon the objectives of the project. Neither the State Planning Agency nor the Division of Communications maintains a statewide law enforcement telecommunications equipment inventory.

(5) Budgets and Expenditures

The State Planning Agency for Alaska has awarded funds each year for telecommunications projects in amounts indicated on Table V-3.

These figures represent the actual award approvals made during the periods indicated and are based on review of the project files.

Also shown on Table V-3 is the total dollar amounts expended for all grants in all areas by the State Planning Agency, a percent comparison for telecommunications projects, and the number of telecommunications projects funded in each given year.

The operating budget for the Division of Communications of the Department of Public Works for the same period is as follows:

. 7/1/71 - 6/30/72	\$837,400
. 7/1/72 - 6/30/73	\$859,200
. 7/1/73 - 6/30/74	\$827,200

The State Planning Agency reported that approximately 1 percent of its operating costs was expended for law enforcement telecommunications activities. The Division of Communications was unable to estimate the percentage of its operating costs that was expended for law enforcement telecommunications activities.

For fiscal year 1975 the State Planning Agency anticipates an operating cost of \$376,300 and the Division of Communications anticipates an operating cost of \$832,300. The State Planning Agency also anticipates grants for fiscal year 1975 in the amount of \$1,150,000.

Table V-3
Comparison - All Grant Awards versus Telecommunications Awards
7/1/71 through 6/30/75, State of Alaska

Year	Total Dollars All Grants Awarded	Total Dollars Telecommunications Grants Awarded	Percent of Total Awards for Telecommunications	Number of Telecommunications Projects Funded
7/1/71 - 6/30/72	\$ 750,000	\$51,914	6.9%	8
7/1/72 - 6/30/73	1,000,000	84,527	8.4	7
7/1/73 - 6/30/74	1,150,000	26,271	2.3	5
7/1/74 - 6/30/75	-	9,213	-	2

(6) Procurement Methods and Policies

1. Centralized Purchasing Procedures

Within the State of Alaska, standard uniform procurement methods for centralized procurements exist for state and local agencies, and the procurement procedures are mandatory. Bids are received for centralized purchasing approximately every three months within the state.

2. Standard Equipment or System Specifications

The State Planning Agency reports equipment specifications only are used for all law enforcement telecommunications systems. All law enforcement communications equipment procured must meet contractually established specifications prepared in-house by the State Planning Agency. The State Planning Agency does not have requirements to ensure that the specifications are met other than the contractually established specifications.

The State Planning Agency does maintain a list of recommended independent consultants for telecommunications but has no formal requirements to be met by consultants to be placed on the list or formal procedures for removal of consultants from the list. The agency reported that they never remove a consultant from this list for cause. The Division of Communications reported that they do not maintain a recommended list of independent consultants in telecommunications.

3. Equipment Sources and Vendors

The State Planning Agency does not maintain a list of recommended sources of law enforcement communications equipment but the Division of Communications does maintain such a list. There are no formal requirements to be met by applicants to be placed on the list or formal procedures for removal of companies from the list. The

agency reports that it has never removed a concern from this list for cause. The typical number of bidders who respond to law enforcement telecommunication system procurements is reported to be between six and ten.

4. Procurement Practices

The State Planning Agency reports that they have issued standard procurement instructions to cover the purchase of law enforcement communications equipment, maintenance services, and consultant services. Procurement instructions require that bids will be solicited from at least three suppliers whenever procurement exceeds \$500 for equipment, \$1000 for maintenance services, or \$1,000 for consulting services. Procurement instructions also require that the procurements above these given dollar values will be given on the basis of competitive bidding with award made to the lowest compliant bidder. In some cases, however, procurement instructions permit factors other than cost to be given as much consideration in selecting the successful bidder.

Procurement instructions also require that proposed procurements above the stated given dollar values be advertised and the subgrantee may or may not hold pre-bid conferences at his discretion. Procurement instructions also state that procurement be confined to in-state vendors when they can satisfy the specifications.

The role of vendors in the procurement and implementation phases of law enforcement communications projects is limited to submitting to the consultant for approval any suggestions they may have for changing system design specifications.

(7) Project Summary

Data was obtained from the State of Alaska for 22 telecommunications grants awarded during the period July 1, 1971 to January 1, 1975. The project summary sheets which follow describe the project characteristics including these highlights:

- . All but one of the projects were for communications equipment, predominantly for mobile and portable radios and base stations, but including one microwave project.
- . Three of the projects were for new systems.
- . Formal project evaluations were not conducted.
- . Nearly all of the projects were for improved communications between members of a department, a few providing for intrastate coordination, and none providing for interstate coordination.
- . Nearly all projects were intended to improve communication reliability and the greater majority were for improved communications service.
- . All but two of the projects were awarded to municipalities with a population under 20,000.

3. ARIZONA

(1) Organization Information

The LEAA funding agency for the State of Arizona is entitled Arizona State Justice Planning Agency. The agency maintains offices at 5119 North Nineteenth Avenue, Suite M, Phoenix, Arizona 85015.

The agency is administered by an Executive Director and has a staff of 33 full-time professional personnel. The Executive Director reports directly to the Governor's Office. The Governor has an appointed advisory board to assist him in matters pertaining to the agency.

The Executive Director administers the Arizona State Justice Planning Agency through an Assistant Director. The agency is divided into five major subunits. The police subunit is the unit directly involved in the law enforcement telecommunications planning area, and within that unit three persons, known as state planners, serve in a full-time capacity reviewing police grant applications and grant applications for telecommunications projects.

In addition to the State Justice Planning Agency there are six regional planning agencies that assist in all areas of law enforcement including telecommunications planning, and a unit of the State Department of Public Safety known as the Division of Technical Communications. The Division of Technical Communications of the State Department of Public Safety has 68 full-time professional personnel and has mandatory authority for telecommunications planning within the State Police organization. This unit serves in an advisory capacity to city and county agencies within the state. The Division Chief reports that 10 of the 68 full-time personnel are involved on a full time basis with law enforcement telecommunications projects. Of these 10, five are supported by LEAA funding.

In all matters pertaining to the Federal Communications Commission Rules and Regulations, the State Planning Agency reported that it has only partial knowledge as needed in the administration of grants and relies on the Department of Public

Safety to coordinate FCC activities. The Technical Communications Division of the Department of Public Safety reported having personnel responsible for knowledge of FCC Rules and Regulations and indicated participating in FCC proceedings on an average of two times a year. The Division also indicated that it has continuous contact with the Safety and Special Radio Service Bureau of the FCC.

The State Planning Agency reported that it has no contact with the Public Utilities Commission and the Division of Technical Service reported contact when necessary for problem resolution. Neither agency participates in PUC hearings.

The State Planning Agency, with the assistance of the regional planning agencies, provides assistance to law enforcement agencies in the telecommunications area by providing technical review of grant applications, assistance in preparation of grant applications, cost-effectiveness evaluations, post project evaluations, and procurement assistance. The Division of Technical Communications of the Department of Public Safety provides assistance to state agencies, and on a limited basis to local agencies, in the areas of technical review of grant applications, cost-effectiveness evaluations, system design, system planning, and specification preparation. However, in regard to grant applications for law enforcement telecommunications projects, the State Planning Agency does not require concurrence from the Division of Technical Communications as a prerequisite to grant approval.

The in-house capabilities for serving law enforcement telecommunications planning, reported by the State Planning Agency include financial planning and management planning. The in-house capabilities reported by the Division of Technical Communications included: engineering services, financial planning, procurement services, management planning, and equipment research and evaluation.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

The State Planning Agency reported that the State Highway Patrol was the only state-level law enforcement

agency that is eligible for LEAA grants. In addition to the State Highway Patrol there are 84 organized law enforcement departments existing in the state. Table V- 4 indicates the types of agencies and the numbers of each type.

Table V- 4
Arizona Law Enforcement Agencies
Below State Level of Government

<u>Type of Agency</u>	<u>Number of Agencies in the State</u>
County Police Departments	14
Municipal Police Departments	63
Campus Police Departments	6

2. Centralized, Cooperative and Consolidated Dispatch Centers

The State Planning Agency indicated that there are 13 full-time 24-hour centralized, cooperative or consolidated dispatch centers existing within the state. Of these 13, five serve an area of less than 50 square miles, while eight serve areas over 200 square miles. Eleven of these centers serve populations of less than 20,000, one serves a population between 20,000 and 100,000, and one serves a population over 500,000. In addition to the 13 dispatch centers mentioned above, there are 64 individual and one agency dispatch centers existing within the state. The majority of these individual dispatch centers serve populations of less than 20,000 persons, and cover areas between 50 and 200 square miles. Implementation of 911 telephone service has been accomplished by two of the individual dispatch centers while none of the consolidated centers is presently using 911 telephone service. Of the two centers utilizing 911, one serves a population of less than 20,000, while the other serves

a population between 100,000 and 500,000. One of the consolidated centers dispatches only law enforcement vehicles while the other dispatches law enforcement, fire and ambulance service.

Computer-assisted dispatch (CAD) is presently being considered by three law enforcement communication centers in the state. However, there are no CAD systems existing as of the date of this study.

Telephone service within the state is provided by eleven separate telephone companies.

3. Spectrum Management

The State of Arizona presently does not have a state-wide frequency plan for law enforcement. The State Planning Agency, however, reports that preparation of such a plan is currently under consideration.

Present frequencies for law enforcement departments in the state, include 57 in the VHF low-band, 38, in the VHF high-band, and 16 in the UHF band. The frequency coordinator for the state reported the following requests for coordination in the three years preceeding this study.

- . 1971-105
- . 1972-152
- . 1973-167

The Division of Technical Communications of the Department of Public Safety estimates approximately 3600 mobile units in operation by law enforcement in the state, and in excess of 400 base stations. The state also has a backbone microwave system which is used for the following functions: intercity private telephone, mobile repeater links, radio control links, telephone backup network, and the criminal justice information system. The microwave system has backup capability and is supported by an emergency power system. It is not, however, dedicated solely to law enforcement services.

4. Interagency Agreements

Within the state there are 13 cooperative dispatch agreements in force involving different political entities. There are additionally, four agreements in force for the sharing of radio equipment facilities; three known agreements in force for the sharing of law enforcement records information, and 14 or more contract law enforcement agreements in force.

5. Training Programs

Within the State of Arizona there has not been established nor are there any plans to establish, training programs for either law enforcement radio dispatchers or government employee radio technicians. The state does not presently have any training programs for either radio dispatchers or radio technicians.

(3) State Telecommunications Planning

1. State Telecommunications Plan

The State of Arizona does not presently have a state-wide telecommunications plan and does not anticipate preparing such a plan.

2. Comprehensive Law Enforcement Plan

The comprehensive plan prepared by the State Planning Agency and submitted to LEAA each year is developed with specific law enforcement telecommunications considerations. Specifically the plan addresses interagency coordination, cooperative or consolidated dispatching, data retrieval systems and configuration control. The comprehensive plan is addressed toward the state law enforcement agency and municipal and county law enforcement agencies. The telecommunications portion of the comprehensive law enforcement plan was developed by the State Planning Agency with the assistance of the regional planning unit.

(4) Policy Information

The State Planning Agency does not have a specific policy position in regard to land mobile radio systems for law enforcement services. They do, however, have policy positions regarding criminal justice information systems. Specifically they recommend improving access to criminal justice information systems by adding terminals, installing high speed transmission equipment, improving switching systems, and the utilization of a leased wire line. In regard to dispatch operations, the State Planning Agency recommends cooperative or consolidated dispatch and the use of a common statewide number that can be reached through the telephone operator for reporting emergencies. The agency also recommends VHF and UHF, point-to-point, and/or microwave links for interagency point-to-point coordination.

The State Planning Agency has prepared and issued a list of special conditions that must be followed after grants have been awarded. These conditions are based mainly on the procurement procedures and the necessity for using radio frequencies. They also include specific instructions regarding new mobile and portable radio equipment to ensure multichannel capability.

The only state statute or law that presently has an effect on law enforcement telecommunications planning is in the area of emergency medical services. At the present time the State Planning Agency is not proposing any new legislation. The State Planning Agency identified three significant constraints that affected implementation of police telecommunications systems; namely, political factors, common carrier tariffs, and insufficient funds for implementation.

The State Planning Agency does not maintain an inventory of law enforcement communications equipment. However, they do have a list of the equipment purchased under LEAA grants.

(5) Budgets and Expenditures

The State Planning Agency for Arizona has awarded funds each year for telecommunications projects in the amounts indicated on Table V-5.

Table V-5
Comparison - All Grant Awards vs Telecommunications Awards
7/1/71 through 6/30/75, State of Arizona

Year	Total Dollars All Grants Awarded	Total Dollars Telecommunications Grants Awarded	Percent of Total Awards for Telecommunications	Number of Telecommunications Projects Funded
7/1/71 - 6/30/72		\$ 304,522		34
7/1/72 - 6/30/73		599,727		36
7/1/73 - 6/30/74		1,122,121		31
7/1/74 - 6/30/75		102,205		3

These figures represent the actual award approvals made during the periods indicated and are based on a review of the project files.

The total dollar amounts expended for all grants in all areas by the State Planning Agency and a percent comparison for telecommunications projects are shown on Table V-5 . Also indicated is the number of telecommunications projects funded in each year.

The operating budgets for the State Planning Agency for the same period are as follows:

- . 7/1/71 - 6/30/72 - \$187,558
- . 7/1/72 - 6/30/73 - \$234,206
- . 7/1/73 - 6/30/74 - \$352,060

For the period from 6/30/74 to 6/30/75 the State Planning Agency anticipates a similar operating budget and similar total grant dollar amounts.

(6) Procurement Methods and Policies

1. Centralized Purchasing Procedures

The State Planning Agency reports that there is limited use of centralized purchasing procedures in the procurement of law enforcement telecommunications equipment. Although centralized purchasing procedures are not mandatory the agency does encourage joint or centralized purchasing. Purchases by state agencies are controlled by the State Purchasing Department and, specifically in the area of law enforcement communications purchases, the Department of Public Safety prepares bid request specifications which are then processed by the State Purchasing Department.

2. Standard Equipment or System Specifications

Throughout the state various types of specifications are used in acquiring law enforcement telecommunications systems. These include equipment specifications, system functional specifications, and system performance specifications. In the majority of cases, specifications for law enforcement communications equipment and systems are prepared in-house by the State Department of Public Safety or local government organizations.

The State Planning Agency has no requirements to ensure that system specifications are met, nor do they maintain a list of independent consultants, or a list of recommended sources of communications equipment.

3. Equipment Sources and Vendors

In most equipment procurements, two or three vendors submit bids and the bids received are evaluated by each grant recipient. Before federal funded dollars can be expended, the State Planning Agency requires that copies of the specifications be supplied along with documentation of the proposal evaluation which led to selection of the successful bidder.

4. Procurement Practices

The standard procurement instructions require that bids be solicited from at least three suppliers whenever the procurement exceeds a dollar value of \$1,000 for equipment, maintenance services, or consulting services.

(7) Project Summary

Data was obtained from the State of Arizona for 103 grants awarded between July 1, 1971 and January 1, 1975. The following project summary sheets describe their characteristics, including these highlights:

- . Thirteen percent of the grants were for new systems.
- . The majority of the projects were for communications equipment, portables, mobiles and base stations, including seven microwave projects. A fourth of the projects were for fixed computer terminals.
- . Over a third of the total projects and nearly all of the new system projects provided for formal evaluation.
- . Excluding the computer terminal projects, essentially none of the projects provided for intrastate or interstate coordination channels, although nearly a fourth of the projects were for improved communications between agencies.
- . Nearly half of the projects were for improved communications reliability and service.
- . Almost half of the grants went to municipalities with a population under 20,000, but the largest share of project funds went to municipalities with a population over 500,000.

4. ARKANSAS

(1) Organization Information

The unit of government in the State of Arkansas which is responsible for processing LEAA funds is entitled the Arkansas Commission on Crime and Law Enforcement. This unit has offices in the University Tower Building at Twelfth and University Streets, Little Rock, Arkansas 72204.

The agency is administered by an Administrator and a Deputy Administrator and is a section of the State Department of Planning. The unit has 22 full time professional personnel and the Administrator reports to the Governor's Office through the Director of the Department of Planning for Administrative Policies, and through the Executive Board of the Arkansas Crime Commission for Program Policy. The organizational chart for this unit of government identifies three major sections: the Fiscal Management Section, the Grants Administration Section, and the Planning and Programs Section.

The Planning and Programs Section is further divided into four subunits identified as Courts, Police, Corrections, and Research. The Police subunit has a criminal justice planning specialist and this individual has been identified as spending a portion of his time involved in law enforcement telecommunications planning. No other planning agency in the state was identified that was directly involved in law enforcement telecommunications planning activities.

The State Planning Agency did not report any contact with the Public Utilities Commission and does not review tariffs or participate in PUC hearings. The in-house capabilities for serving law enforcement telecommunications planning were reported to be financial planning, procurement services, management planning, and cost accounting services.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

In the State of Arkansas agencies at the state level that are eligible for LEAA grants include the State Police, Attorney General, the National Guard, and the Security Commission. Table V-6 indicates the types and quantities of law enforcement agencies that exist below state level government. In addition to 19 Prosecutor's Offices in the state, the State Planning Agency has identified 333 organized law enforcement agencies.

Table V-6
Arkansas Law Enforcement Agencies
Below State Level of Government

<u>Type of Agency</u>	<u>Number of Agencies in the State</u>
County Police Departments	75
Municipal Police Departments	250
Campus Police Departments	8

2. Centralized, Cooperative and Consolidated Dispatch Centers

At the time of this report there were five consolidated dispatch centers existing within the state. These five centers all serve an area of between 50 and 200 square miles and two of the centers serve a population of less than 20,000, while the other three serve populations between 20,000 and 100,000. All five of these centers dispatch law enforcement vehicles only and none has yet adopted 911 as the emergency telephone number.

In addition to the consolidated centers there are 275 dispatch centers existing in the state that dispatch only one police agency. This total includes the 75 Sheriff's Departments in the state. Of these dispatch centers one has

adopted the 911 telephone concept. This one center serves a population between 20,000 and 100,000 persons and dispatches law enforcement, fire and ambulance vehicles.

As of the date of this survey, there were no law enforcement communication centers within the state using computer assisted dispatch nor were any agencies planning to use this capability.

Presently there are 100 telephone companies operating within the state.

3. Spectrum Management

The State of Arkansas presently has a frequency plan based on one dispatch frequency per county and one point-to-point frequency throughout the state. Additionally, there is a statewide emergency frequency for use by all law enforcement agencies within the state with the exception of the State Police. Recommended interface with the State Police is by way of cross monitoring. The frequency plan for the state was developed by a vendor or vendor associated consultant, and it specifies or recommends specific frequencies for some but not all law enforcement agencies within the state. The present frequency plan recommends frequencies assignments from the police-only classification.

From data collected from the APCO frequency coordinator it was determined that the following numbers of requests for frequency coordination have been processed over the four-year period preceding this study:

.	1971 - 129
.	1972 - 85
.	1973 - 120
.	1974 - 87

The State Planning Agency has reported that they will not approve a grant application for a communications system that uses frequencies not in conformance with the state plan. They also will not approve a grant application

prior to coordination of any new frequencies required by the system.

Present information indicates that within the state there are 265 law enforcement departments licensed on VHF low-band, and ten departments licensed on VHF high-band. Equipment covered by these licenses include 1525 mobile units and 195 base stations. The State Planning Agency reported that there is no backbone microwave system in use by law enforcement within the State of Arkansas.

4. Interagency Agreements

The State Planning Agency reported only two agreements in force within the state. The first is an agreement for dispatch between different agencies of the same political entity, and the second is an agreement existing between all the counties to participate by 1976 in the criminal justice information system. The system consists of remote terminals tied to a central computer bank.

5. Training Programs

The state has not established minimum standards for training of either law enforcement radio dispatchers or government employee radio technicians; however, plans do exist to establish minimum standards for radio dispatchers. The state currently has a funded training program for law enforcement radio dispatchers.

(3) State Telecommunications Planning

1. State Telecommunications Plan

The State of Arkansas presently does not have, nor do they plan to prepare, a statewide telecommunications plan addressing all land mobile users within the state. However, a plan does exist specifying frequencies for use in law enforcement as previously mentioned.

2. Comprehensive Law Enforcement Plan

The comprehensive plan prepared by the State Planning Agency each year and submitted to the Law Enforcement Assistance Administration includes telecommunications considerations. Areas that are specifically addressed by the plan include: organization of radio networks, interagency coordination, frequency allocations, cooperative or consolidated dispatching, and data retrieval systems. This plan is directed toward state agencies, and municipal and county law enforcement agencies. The telecommunications portion of this plan was developed totally by the State Planning Agency.

(4) Police Information

The policy positions of the State Planning Agency are generally related to the frequency plan that was previously mentioned. Regarding the concept for organization of radio networks, the policy position is that of county nets or individual jurisdiction nets with all units having the statewide emergency channel included in their system. The agency makes no recommendations regarding frequency band usage in urban or suburban areas. However, in keeping with the county-by-county frequency plan, it does recommend VHF low-band for rural areas within the state. Additionally, the State Planning Agency recommends that radio channels be allocated based on the state frequency plan.

Additional agency policies or recommendations are as follows:

- . Cooperative or central dispatch
- . Implementation of a statewide coordination channel and a county coordination channel
- . VHF point-to-point interagency coordination
- . Coordination with the State Police via point-to-point communications or cross monitoring

- Additional terminals to improve access to criminal justice information systems
- The use of magnetic tape recorders for logging of radio and telephone traffic.

One specific act of legislation was identified as existing within the state that affects law enforcement telecommunications planning. This legislation passed in 1971 requires all counties to participate in the criminal justice information system by 1976. The State Planning Agency is not proposing any new legislation at this time that would affect law enforcement telecommunications planning. The State Planning Agency identified political factors and state statutes as two factors placing significant constraints on the planning or implementation of police telecommunications systems.

The State Planning Agency has an in-house formal check list and review procedure for grant application review. The agency has published planning guidelines for the use of prospective grant applications and require applications to contain a statement of the problem, statement of requirements, procurement procedures to be used, adjacent area coordination, frequency availability, and system description. Prior to review by the State Planning Agency, grant applications are reviewed by a regional planning council and by state and local clearing houses. The State Planning Agency does not maintain a state-wide law enforcement telecommunications equipment inventory at this time.

(5) Budgets and Expenditures

The State Planning Agency for Arkansas has awarded funds each year for telecommunications projects in amounts indicated on Table V-7.

These figures represent the actual award approvals made during the periods indicated and are based on review of the project files.

The total dollar amounts expended for all grants in all areas by the State Planning Agency and a percent comparison

Table V-7
Comparison - All Grant Awards vs Telecommunications Awards
7/1/71 Through 6/30/75, State of Arkansas

Year	Total Dollars		Percent of Total		Number of
	All Grants Awarded	Telecommunications Grants Awarded	Awards for Telecommunications	Telecommunications Projects Funded	
7/1/71-6/30/72	\$3,214,220	\$17,714	0.6%		4
7/1/72-6/30/73	5,691,834	14,628	0.3		12
7/1/73-6/30/74	8,022,128	14,569	0.2		7
7/1/74-6/30/75	-	13,483	-		3

of telecommunications projects is shown on Table V-7. Also indicated is the number of telecommunications projects funded in each of the periods.

The operating budgets for the State Planning Agency for the same period are as follows:

.	7/1/71-6/30/72 -	\$231,759
.	7/1/72-6/30/73 -	\$362,204
.	7/1/73-6/30/74 -	\$394,405

(6) Procurement Methods and Policies

1. Centralized Purchasing Procedures

Generally there are no statewide centralized purchasing procedures in effect in the state. State agencies, however, do go to bid for state contracts for centralized purchasing on an annual basis for their procurements.

2. Standard Equipment or System Specifications

The type of specifications which are used by the State of Arkansas for procurement of law enforcement telecommunications systems are system functional specifications only. The major source of these specifications is the State Planning Agency itself, however, some specifications do come from state or local government organizations and vendors. The State Planning Agency does not maintain a list of recommended independent consultants for telecommunications.

3. Equipment Sources and Vendors

Typically two or three bidders respond to law enforcement telecommunications system procurement in the state. The State Planning Agency does not maintain a list of recommended sources of law enforcement communications equipment.

CONTINUED

4 OF 11

4. Procurement Practices

The Arkansas State Planning Agency has issued standard procurement instructions that cover the purchase of law enforcement communications equipment, maintenance services and consulting services. In the case of competitively bid procurements, procurement instructions permit factors other than cost, such as excellence of proposal and past performance of the vendor, to be given as much consideration as cost in selecting the successful bidder.

Procurement instructions require that all proposed procurements above \$1000 be advertised. Procurement instructions leave it to the discretion of the subgrantee as to whether a prebid conference will be held.

(7) Project Summary

Data was obtained from the State of Arkansas for 27 grants, including two for new systems, awarded between July 1, 1971 and January 1, 1975. The project summary sheets which follow indicate characteristics of the projects including these highlights:

- . All of the projects were for communications equipment consisting almost entirely of mobile and portable radios and base stations.
- . None of the projects provided for formal evaluation.
- . Nearly all projects provided for better communications between members of a department, but only a fifth of the projects provided for intrastate coordination, and none provided for interstate coordination.
- . All of the projects were intended to improve communications service and three-fourths of them were intended to improve communications reliability.
- . Three-fourths of the grants went to municipalities with a population under 20,000.

5. CALIFORNIA

(1) Organization Information

The unit of government in the State of California responsible for the distribution of LEAA funds is the California Office of Criminal Justice Planning. The agency has offices at 7171 Bowling Drive, Sacramento, California 95823.

The agency is administered by an Executive Director and has a full-time professional staff of 80 persons, one of which is involved in system planning for law enforcement telecommunications projects. There are also approximately 100 professionals who are working on an LEAA grant to develop standards and goals for the entire criminal justice program in the State of California. The agency reports to the Governor's Office.

In addition to this State Planning Agency, there are 21 regional LEAA planning agencies and 3 councils of governments directly involved in law enforcement telecommunications planning. Furthermore, the Communications Division of the California Department of General Services is very active in law enforcement telecommunications planning. This agency maintains its offices at 2025 19th Street, Sacramento, California 95818. It has a total of 57 full-time professional personnel, of which 12 are involved in systems planning for law enforcement telecommunications projects. One professional person is supported half-time through LEAA funds.

The Communications Division was formed in 1947 by an act of legislation. The Division Director reports to the Department of General Services and has several units under his control, including Radio Section, Land Line Section, Spectrum Management Section, Research and Planning Section, Engineering Section, Maintenance Section, Administrative Section, Emergency Telephone 911 Section, and Emergency Medical Services Section. The agency has mandatory authority over all state agencies, including the Highway Patrol, and acts in an advisory capacity to county, municipal, township, and special district agencies.

The major activities of the Communications Division are as follows:

- . State agency system planning
- . County and city system planning
- . Local agency system planning
- . Spectrum management
- . Wireline system planning
- . Equipment procurement
- . Engineering maintenance
- . Assistance to other agencies.

The Communications Division assists the State Planning Agency in the following areas:

- . Technical review of grant applications
- . System design
- . Procurement procedures
- . Specification preparation
- . System planning
- . 911 coordination.

The State Planning Agency does not require concurrence from the Communications Division as a prerequisite to grant approval.

The State Planning Agency assists law enforcement agencies in the telecommunications area by providing the following services:

- . Technical review of grant applications
- . Assistance and preparation of grant applications
- . System design
- . Specification preparation
- . System planning
- . Postproject evaluation
- . Technical training.

The Communications Division also provides similar services to law enforcement agencies in addition to 911 coordination.

The State Planning Agency reported that it does not have a person responsible for knowledge of FCC rules and regulations

or for monitoring and commenting on FCC dockets. However, the agency does make recommendations to the Governor and other government officials for action in connection with FCC proceedings. The agency reported no contact with the FCC. The Communications Division, on the other hand, reported there is a person in the division responsible for knowledge of FCC rules and regulations and that it has participated in FCC proceedings approximately 15 times a year. The division also makes recommendations to the Governor and other officials for action in connection with FCC proceedings. The Communications Division estimated that it contacts the FCC approximately 83 times per year.

Both the State Planning Agency and the Communications Division reported no interface with the Public Utilities Commission on law enforcement telecommunications matters. The Communications Division, however, does meet monthly with the Public Utilities Commission for the review of tariffs in non-related law enforcement matters.

In-house capabilities reported by the State Planning Agency include management planning and conceptual design. In-house capabilities reported by the Communications Division include engineering services, financial planning, procurement services, reliability testing, and maintenance.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

In the State of California agencies at the state level which are eligible for LEAA grants include the State Police, the State Highway Patrol, the Department of Forestry, and the Department of Justice. In addition, the State Planning Agency reported that below the state level of government there are 58 organized county law enforcement departments, 5 county park police departments, 350 organized municipal police departments, and 29 campus police departments.

2. Centralized, Cooperative, and Consolidated Dispatch Centers

The State Planning Agency in California reported that the number of centralized law enforcement telecommunications systems is unknown. There are approximately 400 individual dispatching centers. Of these 400 centers, 217 serve a population of less than 20,000, 150 serve a combined population of from 20,000 to 100,000, 31 serve a combined population of from 100,000 to 500,000, and 5 serve a combined population of over 500,000. Approximately 79 centers of the estimated 400 dispatch law enforcement and fire vehicles.

Twelve of the dispatch centers have adopted 911 as their emergency number. These 12 agencies all dispatch law enforcement, fire, and ambulance vehicles.

There are 33 telephone companies operating in the State of California.

Approximately 10 law enforcement communications centers are currently using computer-aided dispatching. It is unknown how many additional centers are currently planning to add this capability.

3. Spectrum Management

The State Planning Agency reported that the State of California presently has no frequency plan for law enforcement radio communications. There are no plans to develop such a frequency plan. The number of law enforcement agencies licensed on each of the frequency bands is unknown. The total number of mobile units in operation for law enforcement in California is 13,200. The number of base stations in operation is unknown.

Information received from the APCO frequency coordinator indicates that the frequency coordinator recommends a frequency to the applicant on some occasions and on other occasions requires that the applicant select the frequency. The coordinator processed the

following numbers of applications for coordination with law enforcement agencies:

- . 1971 - 900
- . 1972 - 1000
- . 1973 - 1084.

A formal study known as the Crackle Study has been conducted to determine the extent of congestion on law enforcement radio channels in the state.

California has a backbone microwave system in use by law enforcement agencies. This system is reportedly the largest public safety microwave system in the country. The microwave system is used for mobile repeater links, interagency coordination, radio control links, telephone backup networks, telemetry, and low-speed data. The microwave system has backup capability and is supported by an emergency power system. The system is not dedicated to law enforcement purposes.

4. Interagency Agreements

The State Planning Agency and the Communications Division reported that there are many agreements within the state for cooperative dispatching. However, the exact number is not known. There are 15 interjurisdictional agreements in force in California for the purpose of sharing radio maintenance facilities. The state provides maintenance for many cities within California. There are 12 interjurisdictional agreements in force in California for the purpose of sharing law enforcement records information. It was also reported that there are many contract law enforcement service agreements in force, but again the exact number is unknown.

5. Training Programs

The State Planning Agency reported that the state has not established minimum standards for training of either law enforcement radio dispatchers or government

employee radio technicians. The State Planning Agency is planning to establish minimum standards for the training of law enforcement radio dispatchers. The state presently has a funded training program through the Division of Communications for government employee radio technicians. There are no funded training programs for law enforcement radio dispatchers. The percentage of telecommunications grants that have included funds for the training of project personnel is unknown. It is the policy of the State Planning Agency, however, that grants should have provision for training.

(3) State Telecommunications Planning

1. State Telecommunications Plan

The State Planning Agency reported that the State of California does not have a statewide telecommunications plan and it does not anticipate preparing such a plan.

2. Comprehensive Law Enforcement Plan

The comprehensive plan prepared by the State Planning Agency each year and submitted to LEAA includes telecommunications considerations. The plan specifically addresses the following areas: interagency coordination, citizen access, cooperative or consolidated dispatching, data retrieval systems, operational requirements, maintenance, finance, traffic management, long-range planning, and system management. The plan specifically considers the requirements of the state law enforcement agency, other state agencies, municipal law enforcement agencies, and county law enforcement agencies. Conformance with the Comprehensive Law Enforcement Plan is required in telecommunications systems planning. The Comprehensive Law Enforcement Plan was prepared by the State Planning Agency.

(4) Policy Information

The State Planning Agency has adopted procedures and established policies for making recommendations in several areas affecting law enforcement telecommunications planning. Some of the major policies are listed below:

- . Organization of law enforcement networks is based upon mobile radio districts or zones and county networks.
- . Cooperative or central dispatch is recommended when two or more agencies share a channel.
- . The number of radio channels required is based upon the number of mobiles and portables, the volume of radio traffic, the volume of calls for service, and law enforcement functions.
- . The use of tone-controlled squelch is recommended.
- . Cooperative or central dispatch is recommended.
- . For law enforcement, fire, and EMS, 911 telephone service is recommended.
- . Statewide, regional, and county coordination channels are recommended.
- . Microwave links, VHF and UHF point-to-point links, and hotlines are recommended for interagency point-to-point coordination.
- . Cross monitoring is recommended for coordination between the State Police, Highway Patrol, and local agencies.
- . Improved switching systems and leased wire line are recommended for improved access to criminal justice information systems.
- . Computer-aided dispatching is recommended.

- . The use of communications scramblers is not recommended.
- . Personal portables for all sworn personnel is recommended.
- . The use of magnetic tape recorders for logging radio and telephone traffic is recommended.

Similar recommendations are made by the Communications Division in California. In addition, the Communications Division recommends centralized agency maintenance.

Both the State Planning Agency and the Communications Division have a formal list of priorities to be used in the evaluation of telecommunications grant applications. Neither agency requires an evaluation phase as part of each communications project.

Existing state statutes or laws that have an effect on law enforcement telecommunications planning are reported to be in the areas of the establishment of the Division of Communications, 911 legislation, and the budget. The only additional legislation planned is in the area of future budgets. The State Planning Agency reported that the three most significant constraints on the planning or implementation of police telecommunications systems are political factors, insufficient funds for implementation, and unavailability of manpower. The Communications Division reported shortage of available frequency and insufficient funds for implementation as the two most significant constraints.

The State Planning Agency has a formal in-house check list or review procedure for grant application review. In addition, the agency has published guidelines for use by prospective grant applicants. Grant applications must include the following topics:

- . Statement of problem
- . Statement of requirement
- . Procurement to be used
- . Adjacent area coordination
- . Technical justification

- . Manpower requirements
- . Training requirements
- . Follow-on funding requirements
- . Facility requirements
- . Specification compliance testing
- . Postimplementation project evaluation
- . Frequency availability
- . Technological evolutionary adaptabilities
- . System description
- . Maintenance consolidations
- . Long-range planning and management.

Review by the Regional Planning Council is required prior to submission to the State Planning Agency.

The State Planning Agency maintains a statewide law enforcement telecommunications equipment inventory. The most recent update of the inventory was made in November 1974. The Communications Division maintains an equipment inventory for all state agencies. The initial inventory was made in July 1974. The inventory is updated monthly.

(5) Budgets and Expenditures

1. State Planning Agency

The State Planning Agency for California has awarded grants each year for telecommunications projects in the amounts indicated in Table V-8. These figures represent the actual award approvals made during the periods indicated and are based on a review of the project files.

The total amounts expended for all grants in all areas by the State Planning Agency and the percentage of these funds expended for telecommunications projects is shown in the same table. The number of telecommunications projects funded in each year is also indicated.

Table V-8
Comparison - All Grant Awards vs Telecommunications Awards
7/1/71 thru 6/30/75, State of California

Year	Total Dollars All Grants Awarded	Total Dollars Telecommunications Grants Awarded	Percent of Total Awards for Telecommunications	Number of Telecommunications Projects Funded
7/1/71 - 6/30/72	\$44,781,000	\$2,366,263	5.3%	23
7/1/72 - 6/30/73	51,765,000	1,934,594	3.7	41
7/1/73 - 6/30/74	51,765,000	2,708,265	5.2	49
7/1/74 - 6/30/75	-	2,095,335	-	39

The operating budgets for the State Planning Agency for the same periods are as follows:

.	7/1/71-6/30/72	-	\$1,747,317
.	7/1/72-6/30/73	-	\$2,167,908
.	7/1/73-6/30/74	-	\$3,283,765

For Fiscal Year 1975, the estimated operating costs for the agency is \$3,283,765.

2. Communications Division

The operating costs for the State Radio Communications Division for the same periods are as follows:

.	7/1/71-6/30/72	-	\$4,397,420
.	7/1/72-6/30/73	-	\$4,757,743
.	7/1/73-6/30/74	-	\$5,984,754

The Communications Division estimated that Fiscal Year 1975 operating costs will be \$7,338,033. The division further reported that from 36 to 39 percent of its operating costs are expended for law enforcement telecommunications planning. The Communications Division does not administer grant funds.

(6) Procurement Methods and Policies

1. Centralized Purchasing Procedures

The Communications Division indicated that standard uniform procurement methods for centralized procurements exist for state agencies. These procedures are mandatory for state agencies but optional for cities and counties. Joint or centralized purchasing for small purchases is encouraged. There is limited use of these centralized purchasing procedures at the county level.

2. Standard Equipment or Systems Specifications

In the State of California purchases of law enforcement telecommunications equipment and systems are based on combined equipment specifications, system functional specifications, and system performance specifications. These specifications have been prepared in-house by the Division of Communications in many instances and by independent consultants in other cases. The Division of Communications has standard specifications for mobile units, portables, base stations, consoles, logging tape recorders, towers, antennas, and microwave and multiplex equipment. The State Planning Agency has no formal requirements but recommends acceptance testing to ensure that systems specifications are met. The Communications Division requires acceptance testing, operational tests, vendor certification, and random sample testing. Neither the State Planning Agency nor the Communications Division has a list of recommended independent consultants for telecommunications. However, the Communications Division does have a list of consultants not to use.

3. Equipment Sources and Vendors

Both the State Planning Agency and the Communications Division reported that two to three vendors normally respond to law enforcement telecommunications system procurements. The Communications Division has a list of recommended sources of telecommunications equipment. Formal requirements must be met by applicants to be placed on the list and there are formal procedures for removal of concerns. This formal procedure for removal of concerns from the list has been exercised in the past.

4. Procurement Practices

Both the State Planning Agency and the Division of Communications have issued standard procurement instructions that cover the purchase of law enforcement communications equipment, maintenance services, and consulting services. The State Planning Agency instructions

require that bids be solicited from at least two suppliers whenever the procurement exceeds a given dollar value. The Communications Division procurement instructions permit bids to be solicited from a single supplier regardless of the size of the procurement when there is sufficient justification.

In the case of competitively bid procurements, the State Planning Agency instructions permit factors other than cost to be given as much consideration as cost in selecting the successful bidder. Procurement instructions leave it to the discretion of the subgrantee as to whether a prebid conference will be held. The Communications Division procurement instructions provide for a 5 percent differential advantage for small business concerns. The Communications Division has formal procedures for managing consulting services.

(7) Project Summary

Data was obtained from the State of California for 148 grants including 9 for new systems awarded during the period July 1, 1971 to January 1, 1975. Following these highlights are project summary sheets which describe characteristics of the projects.

- . Projects for communications equipment predominated but projects of all types including three microwave projects were represented. About one-third of the projects included radio dispatch consoles and 16 percent included logging tape recorders.
- . None of the projects provided for formal evaluation.
- . Nearly all of the projects for new systems and the greater majority of all the projects provided for intrastate coordination and communications between members of a department but only one provided for interstate coordination.

Nearly all of the projects were intended to reduce response time and improve communications service. Most of the other listed project objectives were also served by substantial numbers of projects.

Nearly 60 percent of project dollars went to regional recipients. About one-tenth as much project dollars went to municipalities with populations under 20,000 which accounted for over 40 percent of the number of projects.

6. COLORADO

(1) Organization Information

The agency of the Colorado state government responsible for the distribution of LEAA funds is the Division of Criminal Justice. The division has offices in the State Services Building at 1525 Sherman Street, Denver, Colorado 80200.

The agency is administered by a Director and Deputy Director and has a full-time professional staff of 17 persons. The Director of the agency reports directly to the Governor's Office.

The State Planning Agency is divided into six sections as follows: Grants Administration, Finance, Police, Corrections, Civil Rights, and Statistics. Within the Police unit the State Planning Agency identified one individual as being involved on a full-time basis with law enforcement telecommunications grant applications and projects.

In addition to the State Planning Agency, there is another unit of state government that is directly involved in law enforcement telecommunications. This agency is the Division of Communications, which is a part of the Department of Administration of state government. The Division of Communications has its main office at 2452 West Second Avenue, Denver, Colorado 80223. The Division of Communications has 50 full-time professional personnel, nine being involved on a full-time basis with the law enforcement telecommunications projects.

The Division of Communications was formed in 1969 and derives its authority from Article 30 of the Colorado Revised Statutes. Its primary purpose is to serve all the communications needs of state government. The Director reports to the Department of Administration and has several units under his control. The units are Land Line and Engineering, Maintenance Administration, and Supplies. This department has mandatory authority over all state agencies and advises county agencies, city agencies, town or township agencies, and the Division of Criminal Justice Planning.

The major activities of the Division of Communications were identified as follows:

- . State Agency System Planning
- . County and City System Planning
- . Local Agency System Planning
- . Spectrum Management
- . Wireline System Planning
- . Equipment Procurement
- . Engineering Maintenance .

The Division of Communications also provides telecommunications assistance to the Division of Criminal Justice in the areas of technical review of grant applications, system design, procurement procedures, specification preparation, and system planning. The State Planning Agency requires concurrence from the Division of Communications as a prerequisite to grant approval. The Division of Communications will also provide telecommunications planning services to all law enforcement agencies and planning agencies within the state.

In matters regarding the Public Utility Commission, the State Planning Agency reported no interface with PUC at all. The Division of Communications reported that it occasionally meets with the PUC for the purpose of reviewing tariffs.

In-house capabilities reported by the State Planning Agency include legal services, financial planning, procurement services, management planning, and cost accounting services. The in-house capabilities reported by the Division of Communications include engineering services, financial planning, procurement services, management planning, and reliability testing.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

The State Planning Agency reported that the State Highway Patrol is the only state-level law enforcement agency that is eligible for LEAA grants. Table V-9 indicates the numbers and types of other eligible law enforcement agencies existing within the state.

Table V-9
Colorado Law Enforcement Agencies
Below State Level of Government

<u>Type of Agency</u>	<u>Number of Agencies in the State</u>
County Law Enforcement Departments	62
Prosecutor's Offices	22
Organized Municipal Police Departments	160
Municipal Park Police Departments	1
Campus Police Departments	5
Bureau of Investigation	1
Organized Crime Strike Force	1
Mental Health Security Unit	1

2. Centralized, Cooperative, and Consolidated Dispatch Centers

Within the State of Colorado there are 56 consolidated dispatch centers in operation. Of these centers, 51 serve areas of over 200 square miles, four serve areas of 50 to 200 square miles, and one serves an area of less than 50 square miles. Population figures indicate that 53 of these consolidated centers serve between 20,000 and 100,000 persons, one center serves less than 20,000, and two centers serve between 100,000 and 500,000 persons. All 56 of these centers provide dispatch services for law enforcement, fire, ambulance service, and other agencies. Only one of these 56 centers serving a population of between 20,000 and 100,000 persons has adopted the 911 telephone service for an emergency call number. Two others have adopted a single 7-digit emergency call number.

In addition to consolidated centers, there are 27 other dispatch centers in the state. Of these, 25 serve areas of less than 50 square miles and two serve areas over 200 square miles. The populations served by these 27 centers include less than 20,000 persons in 10 of the centers and between 20,000 and 100,000 persons in the other 17. As was the case with the consolidated centers, all of the 27 individual centers serve law enforcement, fire, ambulance service, and other agencies. Only one of these centers has adopted a single 7-digit emergency call number for all services.

No law enforcement agency within the state is presently using a computer-aided dispatch system; however, three agencies are planning to install that capability.

At the time of this survey there were 58 individual telephone companies serving the state.

3. Spectrum Management

The State of Colorado has a frequency plan that was developed by the Division of Communications. The frequency plan has been computerized and it recommends frequency bands, but not specific frequencies, for law enforcement agencies in the state. Law enforcement agencies within the state use frequency assignments from the police-only spectrum and the local government spectrum. At the time of this report, the number of law enforcement agencies using different areas of the spectrum are as follows:

. VHF low band	8
. VHF high band	36
. UHF 450 and 460 MHz	26.

Information received from the APCO frequency coordinators in the State of Colorado indicate that the coordinator, on occasion, will recommend a specific frequency to an applicant, but will not recommend any frequency that is not in conformance with the state plan. The frequency coordinator processed the following numbers of applications for coordination with law enforcement agencies:

. 1971 - 26
. 1972 - 32
. 1973 - 45.

The State of Colorado presently has a backbone microwave system in use for law enforcement agencies. The uses of the microwave system by law enforcement agencies include the functions of intercity private telephone, mobile repeater links, interagency coordination, radio control links, and a telephone backup network. A microwave system has backup capability and is supported by an emergency power system; however, it is not a dedicated law enforcement system.

4. Interagency Agreements

Interagency agreements known to exist within the state, in the area of law enforcement telecommunications, are as follows:

. Cooperative dispatch agreements between different political entities	34
. Cooperative dispatch agreements between different agencies of the same political entity	7
. Interjurisdictional pacts for the purpose of sharing radio equipment facilities	28
. Contract law enforcement service agreements	7.

5. Training Programs

The State Planning Agency for Colorado reported that the state has not established any minimum standards for training of law enforcement radio dispatchers or radio technicians. It was reported, however, that the state is planning to establish minimum standards in both areas. The state does not have funded training programs for either radio dispatchers or radio technicians. However, the agency reported that 10 percent of all telecommunications grants since July 1971 have included funds for the training of project personnel.

(3) State Telecommunications Planning

1. State Telecommunications Plan

The State of Colorado does not have a complete state-wide telecommunications plan serving overall telecommunications needs, but it was reported that the state is preparing such a plan.

2. Comprehensive Law Enforcement Plan

The Comprehensive Plan prepared by the State Planning Agency and submitted to LEAA each year is developed with specific law enforcement telecommunications considerations. Areas specifically addressed by the plan regarding law enforcement telecommunications include organization of radio networks, interagency coordination, citizen access, consolidated dispatching, interstate coordination, data retrieval systems, operational requirements, procurement procedures, technical training, and financial considerations. The plan is addressed to all state law enforcement agencies, municipal and county law enforcement agencies, emergency medical services, and fire services. The Comprehensive Law Enforcement Plan was prepared by the State Planning Agency with assistance from a private consulting firm and the State Division of Communications.

(4) Policy Information

The State Planning Agency has adopted procedures and policies for making recommendations in several areas affecting law enforcement telecommunications considerations. Some of the major policies are listed as follows:

- . Organization of law enforcement networks is based upon mobile radio districts or zones and topography
- . Central or cooperative dispatch is recommended for two or more agencies sharing a channel
- . VHF high band is recommended for all radio systems including urban, suburban, and rural areas
- . Number of radio channels required is based on population served, number of mobiles and portables, volume of radio traffic, and volume of calls for service
- . Recommendations for channel configurations are based on individual needs and include one-frequency simplex, two-frequency simplex, and mobile relay
- . The agency recommends the use of tone-controlled squelch
- . Command and control concepts recommended include cooperative or central dispatch, and mutual-aid agreements
- . Recommendations for improved citizen access include 911 for all emergency services, single emergency 7-digit numbers and mutually agreed upon emergency service dispatching concepts
- . Coordination channels are recommended for state-wide, interstate, and regional use
- . Microwave links are recommended for interagency point-to-point communications

- . Coordination channels are recommended between the State Highway Patrol and local agencies
- . Radio control links are recommended for remote control of base stations
- . High-speed data transmission, improved switching systems, and private microwave are recommended for improved access to criminal justice information systems
- . Personal portable radios are recommended for all sworn personnel
- . Magnetic tape recorders for logging of radio and telephone traffic are recommended. Funding will be approved for the purchase of logging recorders for multiagency consolidated dispatching services
- . Centralized maintenance is recommended wherever possible.

The State Planning Agency reported that consolidation is the only priority considered in the evaluation of telecommunications grant applications. The agency has adopted procedures for updating fund allocations if the time between the grant application and project implementation has resulted in outdated cost figures. The agency also has formal procedures determining whether a grant should be terminated. The agency has also published planning guidelines to be used by prospective grant applicants and has an in-house formal checklist for grant application review.

Legislation exists in the State of Colorado that has a direct effect on law enforcement communications planning. This legislation includes the establishment of the Division of Communications, directives for planning and implementing communications systems, and directives to develop a state plan for communications. The State Planning Agency is reportedly considering new legislation in the area of a 911 emergency telephone service and emergency medical services.

The three most significant constraints on planning or implementation of the police telecommunications systems within the State of Colorado are reported to be political factors, state statutes, and the differences existing between jurisdictional boundaries and telephone company central office boundaries.

Review of grant applications for telecommunications systems is conducted by regional planning councils and the Council of Governments prior to submission to the State Planning Agency. Priorities for grant applications are based upon the degree of consolidation of multiagency services.

(5) Budgets and Expenditures

1. State Planning Agency

The State Planning Agency for Colorado has awarded funds each year for telecommunications projects in amounts indicated in Table V-10.

These figures represent the actual award approvals made during the period indicated and are based on a review of the project files.

The total dollar amounts expended for all grants in all areas by the State Planning Agency and a percent comparison for telecommunications projects is shown in Table V-10. Also indicated is the number of telecommunications projects funded in each year.

The operating budgets for the State Planning Agency for the same periods are as follows:

. 7/1/71 - 6/30/72	\$416,000
. 7/1/72 - 6/30/73	\$618,000
. 7/1/73 - 6/30/74	\$618,000.

Approximately 5 percent of the operating budget was expended for law enforcement telecommunications planning.

Table V-10
Comparison - All Grant Awards vs Telecommunications Awards
7/1/71 to 6/30/75, State of Colorado

Year	Total Dollars All Grants Awarded	Total Dollars Telecommunications Grants Awarded	Percent of Total Awards for Telecommunications	Number of Telecommunications Projects Funded
7/1/71 - 6/30/72		\$136,514		5
7/1/72 - 6/30/73		464,757		20
7/1/73 - 6/30/74		166,205		19
7/1/74 - 6/30/75		229,650		2

For Fiscal Year 1975 the estimated operating cost for the agency is \$693,000.

2. Division of Communications

The operating costs for the Division of Communications for the same periods are as follows:

.	7/1/71 - 6/30/72	\$733,298
.	7/1/72 - 6/30/73	\$788,627
.	7/1/73 - 6/30/74	\$909,837.

The Division of Communications estimated that the Fiscal Year 1975 operating costs will be \$927,685. The division further estimated that approximately 5 percent of its operating costs are expended for law enforcement telecommunications planning.

The dollar amounts received by the Division of Communications from LEAA funds for implementation of telecommunications projects for the same periods are as follows:

.	7/1/71 - 6/30/72	\$ 45,700
.	7/1/72 - 6/30/73	\$103,628
.	7/1/73 - 6/30/74	\$112,747.

(6) Procurement Methods and Policies

1. Centralized Purchasing Procedures

At the state government level centralized purchasing procedures are used extensively. These procedures are mandatory for state agencies and generally the state goes to bid for state contracts for centralized purchases at periods in excess of 12 months. The State Planning Agency does encourage joint purchasing or centralized purchasing for small purchases. The extent that centralized purchasing procedures are used at the county or local level is not known.

2. Standard Equipment or System Specifications

In the State of Colorado, purchases of law enforcement telecommunications equipment and systems are based on equipment specifications only. The specifications used are prepared in-house by the State Division of Communications. Within the state there is an approved bidder's list and independent consultants for telecommunications, or suppliers of communications equipment must be placed on the state's bidder's list before they can bid. The State Planning Agency reported that at least on one occasion a consultant has been removed from this list for cause.

3. Procurement Practices

Procurements for law enforcement telecommunications systems and services within the State of Colorado are made in accordance with state laws and standard procurement instructions issued by the State Planning Agency. These coincide with LEAA rules and regulations. Advertising and competitive bidding is required in all procurements in excess of \$2,500 and in some cases procurement instructions permit factors other than cost, such as excellence of the proposal and the past performance of the vendor, to be given as a reason for selecting the successful bidder. As a general rule, prebid conferences are held after the procurement has been advertised.

The vendor's role in the procurement and implementation phases of law enforcement telecommunications projects is limited to bidding on the specifications as they have been prepared and published.

(7) Project Summary

Data was obtained from the State of Colorado for 46 grants, including 19 grants for new systems during the period, July 1, 1975 to January 1, 1975. Following these high lights are project summary sheets which describe characteristics of the projects in more detail.

- . Nearly four-fifths of the projects were for communications equipment with only moderate concentration on mobile equipment and with a moderately even distribution over a wide variety of types of equipment.
- . A small percentage of the projects, including one for a new system, provided for project evaluation.
- . About half of the projects provided for intrastate coordination, communication between members of a department and communication between departments while a small percentage provided for interstate coordination.
- . Project objectives in most instances were for improved interagency coordination and communications service.
- . Regional projects accounted for one-fifth of the projects and one-third of the project funds.

7. CONNECTICUT

(1) Organization Information

The unit of government in the State of Connecticut which is responsible for the distribution of LEAA funds is the Connecticut Planning Committee on Criminal Administration. The committee has offices at 75 Elm Street, Hartford, Connecticut 06115.

This State Planning Agency is administered by a Director and has a full-time professional staff of 24 persons in addition to five part-time law students. The agency reports to the Governor's Office.

The agency is divided into three major sections: Administration, Planning, and Audit and Evaluation. Each section is headed by an assistant director. The systems and communications planner is within the Planning Section and there is one full-time person involved with law enforcement telecommunications, grant applications, and projects.

At present there is no Division of Communications or equivalent-type agency involved in law enforcement telecommunications.

The State Planning Agency assists law enforcement agencies in the telecommunications area by providing technical review of grant applications, assistance in preparation of grant applications, system planning, postproject evaluation, and grant administration and monitoring. Regional LEAA planners also provide assistance in these areas.

The agency has within its organization a person responsible for knowledge of FCC Rules and Regulations and for monitoring and commenting on FCC dockets. The agency participates in FCC proceedings approximately two times per year. The agency also makes recommendations to the Commissioner regarding FCC proceedings. Contact with the FCC is made approximately 24 times per year. The agency reported no interface with the Public Utilities Commission.

In-house capabilities reported by the State Planning Agency include legal services, financial planning, and management planning.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

Agencies at the state level which are eligible for LEAA grants include the State Police, courts and correction institutions, Adult Probation, Department of Motor Vehicles, and the Department of Children and Youth Services. In addition, the State Planning Agency reported that below the state level of government there are 102 organized municipal police departments in the state and 6 campus police departments. Of the 102 municipal police departments, 86 are full-time agencies; the remainder qualify for LEAA funds but consist of small police forces, which are often part-time and use state police frequencies.

2. Centralized, Cooperative, and Consolidated Dispatch Centers

Within the State of Connecticut there are seven consolidated dispatch centers in operation and approximately 90 individual centers. The population served and area served by each of these centers are presently unknown.

Nineteen of the law enforcement agencies have adopted 911 as their emergency telephone number. Of these 19 centers, 10 serve a population of less than 20,000, seven serve a population of from 20,000 to 100,000, and two centers serve a population of from 100,000 to 500,000. Thirteen of these centers dispatch law enforcement and fire vehicles and the remaining six dispatch law enforcement, fire, and ambulance vehicles.

Four telephone companies operate in the State of Connecticut.

As of the date of this survey there were no law enforcement communications centers within the state using computer-aided dispatching; however, two agencies have currently planned programs to add computer-aided dispatching capability.

3. Spectrum Management

The State Planning Agency reported that a frequency plan is currently being prepared by an independent consultant. The frequency plan will specify and recommend frequency bands but not specific frequencies for each law enforcement agency. At the time of the survey the number of law enforcement agencies using different areas of the spectrum are as follows:

- . UHF Low Band - 50
- . VHF High Band - 22
- . UHF Band - 7.

A formal analysis and study is being conducted to determine the extent of congestion on law enforcement radio channels in the State of Connecticut. Equipment covered by law enforcement FCC licenses include 2458 mobile units and 121 base stations.

Information received from the APCO frequency coordinator indicates that the coordinator requires that the applicant select the frequency to be licensed. The coordinator processed the following number of applications for coordination with law enforcement agencies:

- . 1971 - Unknown
- . 1972 - 29
- . 1973 - 25
- . 1974 - 14.

The state does not have a backbone microwave system in use for law enforcement agencies; however, the Department of Transportation is implementing a microwave system that will be used for citizen call boxes on the major interstate routes in the state.

4. Interagency Agreements

The number of interagency agreements within the State of Connecticut is presently unknown.

5. Training Programs

The State Planning Agency reported that the state has not established minimum standards nor plans to establish minimum standards for the training of either law enforcement radio dispatchers or government employee radio technicians. Furthermore, there are currently no funded training programs for either of these categories. The telecommunications grants given since July 1971 have not included any funds for training of project personnel.

(3) State Telecommunications Planning

1. State Telecommunications Plan

The State Planning Agency reported that a statewide telecommunications plan is presently being prepared by an independent consultant. The plan will consider the requirements of all state agencies (including the State Police) and local law enforcement agencies, emergency medical services, and fire service. LEAA funding for telecommunications projects has been held to a minimum pending the development of this statewide telecommunications plan.

2. Comprehensive Law Enforcement Plan

The comprehensive plan prepared by the State Planning Agency each year and submitted to LEAA includes telecommunications considerations. Areas that are specifically addressed by the plan are data retrieval systems and problems, needs, and solutions. The plan covers requirements for state law enforcement agencies and municipal law enforcement agencies. The telecommunications portion of this plan was developed totally by the State Planning Agency.

(4) Policy Information

The agency has adopted procedures and established policies in several areas affecting law enforcement telecommunications planning. Some of the major policies are listed below:

- . Radio channel requirements are based on the population served and the number of mobile and portables.
- . Cooperative or central dispatch is the recommended command and control concept.
- . For law enforcement, fire, and emergency medical services, 911 is recommended.
- . Point-to-point communications is recommended for the coordination channel between the State Police and local municipal agencies.
- . The use of communications scramblers is not recommended or encouraged.
- . The use of magnetic tape recorders for logging of radio and telephone traffic is recommended.

The State Planning Agency does not have a formal list of priorities to be used in the evaluation of telecommunications grant applications; however, a priority list will be established after adoption of the statewide telecommunications plan presently under development. The agency does require an evaluation phase as part of each communication project.

Existing statutes of law in Connecticut which have an effect on law enforcement telecommunications planning are reported to be in the areas of emergency medical services, fire legislation, and data processing system. Additional state legislation is planned to be introduced by the State Planning Agency in the area of the Criminal Justice Information System. Two constraints on the planning and implementation of police telecommunications systems were identified by the State Planning Agency to be political factors and the nonexistence of a statewide telecommunications plan.

The State Planning Agency does not have formal procedures for determining when a grant should be terminated; however, it does have an in-house formal checklist for grant application review. In addition, the agency has published planning guidelines for use by prospective grant applicants. The following are required inputs in any application for a telecommunications grant:

- . Statement of problem
- . Statement of requirements
- . Training requirements
- . Follow-up on pending requirements
- . Facility requirements
- . System description
- . Maintenance consolidations
- . Equipment requirements
- . Objectives
- . Clearinghouse review.

Prior to submission of the grant application to the State Planning Agency, review by the Regional Planning Council and a statewide advisory board is required. The State Planning Agency does maintain a statewide law enforcement telecommunications equipment inventory. The inventory was compiled and completed February 1975.

(5) Budgets and Expenditures

The State Planning Agency for Connecticut has awarded funds each year for telecommunications projects in the amounts indicated in Table V-11. These figures represent the actual award approvals made during the periods indicated and are based on a review of the project files.

The total dollar amounts expended for all grants in all areas by the State Planning Agency and the percentage expended for telecommunications projects are shown in the same table. The number of telecommunications projects funded in each year is also indicated.

Table V-11
Comparison - All Grant Awards vs Telecommunications Awards
7/1/71 to 6/30/74, State of Connecticut

Year	Total Dollars		Percent of Total		Number of
	All Grants	Telecommunications	Awards for	Telecommunications	
	Awarded	Grants Awarded	Telecommunications	Projects Funded	
7/1/71 - 6/30/72	\$5,001,000	\$245,473	4.9%	3	
7/1/72 - 6/30/73	6,805,000	70,000	1.0	1	
7/1/73 - 6/30/74	7,895,000	0	0	0	

The operating budgets for the State Planning Agency for the same periods are as follows:

.	7/1/71 - 6/30/72	\$240,600
.	7/1/72 - 6/30/73	\$320,400
.	7/1/73 - 6/30/74	\$378,600

For fiscal year 1975 the estimated operating budget for the agency is \$464,400.

(6) Procurement Methods and Policies

1. Centralized Purchasing Procedures

The State Planning Agency indicated that there are no centralized purchasing procedures at the state level. There is a central purchasing office within the state, but it has not functioned to any great extent in the telecommunications area.

Limited use of centralized purchasing is made at the county level. These centralized purchasing procedures, however, are not mandatory.

2. Standard Equipment or System Specifications

In the State of Connecticut procurement of law enforcement telecommunications equipment and systems is based on a combination of equipment specifications, system functional specifications, and system performance specifications. The major source of the specifications is independent consultants. The State Planning Agency has no requirements to ensure that the specifications have been met.

The State Planning Agency does maintain a list of recommended independent consultants for telecommunications. There are, however, no formal requirements to be met by consultants to be placed on the list, nor are there formal procedures for removal of consultants from the approved list.

3. Equipment Sources and Vendors

Three bidders are required for all law enforcement telecommunications system procurements. The State Planning Agency does not maintain a list of recommended sources of telecommunications equipment.

4. Procurement Practices

The State Planning Agency has issued standard procurement instructions that cover the purchase of law enforcement communications, maintenance services, and consulting services. Procurement instructions require that bids be solicited from at least three suppliers whenever the procurement exceeds \$2500.

The procurement instructions require that all equipment procurements be made on the basis of competitive bidding with award made to the lowest compliant bidder. Furthermore, all proposed procurements must be advertised.

Procurement instructions leave it to the discretion of the subgrantee as to whether a prebid conference will be held. The State Planning Agency has formal procedures for managing consulting services.

(7) Project Summaries

Data was obtained from the State of Connecticut for four grants, three of which were awarded in 1972 and one in 1974. One of these grants was for development of a statewide communications plan, one was for development of a regional communications system and the other two were for communications systems of individual agencies. Formal evaluation of the projects was not provided for by the projects. More detail is provided on the project summary sheets which follow.

8. DELAWARE

(1) Organization Information

The unit of government in the State of Delaware that is responsible for the administration of LEAA funds is The Delaware Agency to Reduce Crime. The agency has offices at the Central YMCA Building, 11th and Washington Streets, Wilmington, Delaware 19804.

This State Planning Agency is managed by an Executive Director and has a full-time professional staff of 19 persons. There are also 5 part-time professional personnel employed. Two of the full-time professional personnel are assigned for part of their time to system planning and the review of grants for law enforcement telecommunications projects.

The agency provides assistance to law enforcement telecommunications programs by providing technical review of grant applications, assistance in the preparation of grant applications, and post-project evaluation.

In addition to the State Planning Agency there are four other planning agencies in the state that are directly involved in law enforcement telecommunications planning. These are units of existing law enforcement agencies such as the Division of Communications for the Delaware Department of Public Safety. This Division has mandatory authority over the telecommunications activities of all state agencies including the Delaware State Police and provides advisory assistance in telecommunications activities to other public safety agencies. The Delaware Agency to Reduce Crime does not provide services in the area of telecommunications to other than law enforcement agencies nor do they receive assistance in telecommunications activities from other agencies within the state.

The major activities of the Division of Communications of the Delaware Department of Public Safety include engineering maintenance assistance to other state agencies. The division does not provide planning assistance to the State Planning Agency.

The State Planning Agency reported that there is no one on its staff who is responsible for knowledge of the FCC Rules and Regulations. The agency does not participate in Federal Communications Commission proceedings.

The State Planning Agency and the Division of Communications reported that there is no interface with the Public Utilities Commission.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

Those state level agencies reported to be eligible for LEAA grants include the following:

- . State Police
- . Marine Patrol
- . Environmental Protection
- . State Fire Marshal
- . State Medical Examiner

In addition to the agencies listed above, Delaware has one prosecutor's office, one county law enforcement department, one county park police department, 34 municipal police departments, and 4 campus police departments. Delaware also has one private police department with full police authority.

2. Centralized, Cooperative and Consolidated Dispatch Centers

In the State of Delaware there are three full-time, 24-hour, centralized cooperative or consolidated dispatch centers that serve two or more law enforcement agencies.

These centers each serve an area of between 50 and 200 square miles. Two of these centers serve populations of between 20,000 and 100,000 persons while the third serves a population of between 100,000 and 500,000 persons. All three of these centers dispatch law enforcement vehicles only, and one center has implemented a 7 digit emergency call number for law enforcement.

In addition to the consolidated dispatch centers there are 9 individual dispatch centers, each serving only one law enforcement agency. The 9 dispatch centers serve an area of less than 50 square miles each. Six of these centers serve populations of less than 20,000 persons while the other 3 serve populations of between 20,000 and 100,000 persons. All 9 of these individual centers dispatch law enforcement vehicles only.

At the present time there are no computer aided dispatch systems in operation and, as of the date of this report, none were being planned in the State of Delaware.

The state is served entirely by one telephone company.

3. Spectrum Management

The State Planning Agency reported that the State of Delaware is currently considering the development of a statewide frequency plan but no plan has previously been prepared.

Estimates of present FCC licenses for law enforcement radio systems in the state include 4 in VHF low band, 9 in VHF high band, and 2 in UHF 450 to 460 MHz.

The APCO frequency coordinator reported that frequencies are often recommended to an applicant and in some cases the applicant selects the frequency. The frequency coordinator reported the following number of

requests for frequency coordination received from law enforcement agencies:

.	1971	4
.	1972	14
.	1973	7.

The Division of Communications for the Department of Public Safety estimated that radio equipment in use by law enforcement agencies in this state includes 30 base stations and 750 mobile units. The State of Delaware presently does not have a backbone microwave system in use by law enforcement agencies and none is being planned.

4. Interagency Agreements

Within the state there is known to exist one agreement between political entities for cooperative dispatching services, one interjurisdictional agreement for sharing radio maintenance facilities, and 8 interjurisdictional agreements for sharing law enforcement records information. There is also one agreement for contract law enforcement service existing in the state.

5. Training Program

The State Planning Agency reported that the state has no minimum standards for training law enforcement radio dispatchers or government employee radio technicians and there are no plans to establish minimum training standards for these positions. There are no funded training programs for either of the skill categories.

(3) State Telecommunications Planning

1. State Telecommunications Plan

The State Planning Agency reported that the State of Delaware does not have a statewide comprehensive telecommunications plan but does anticipate preparing one. Agencies within the state, including the Delaware State Police, have developed and implemented plans for their own agency requirements.

2. Comprehensive Law Enforcement Plan

The comprehensive plan prepared by the State Planning Agency and submitted to LEAA each year includes law enforcement telecommunications considerations. The law enforcement telecommunications section of the plan specifically addresses organization of radio networks, interagency coordination, cooperative or consolidated dispatching, and data retrieval systems. Law enforcement agencies to which the plan is addressed include the State Police, municipal police, and county law enforcement agencies. The plan was developed in-house by the State Planning Agency.

(4) Policy Information

The policy positions of the State Planning Agency are based on specific projects and the individual applicant needs and justifications. Significant agency policies are detailed below:

- . Central dispatch or independent dispatch with shared base station equipment is recommended when two or more agencies share a channel
- . Magnetic tape recorders are recommended for logging radio and telephone traffic

The State Planning Agency reported that there is no statewide frequency plan with specific frequency assignments

for each law enforcement agency. The agency has no recommendation for frequency band usage in urban, suburban or rural areas of the state.

The State Planning Agency and the Division of Communications for the Department of Public Safety reported that there are no state statutes now existing that have an effect on law enforcement communications planning. However, the Division of Communications reported that it is planning to introduce legislation as follows:

- . Establish an office or Division of Communications
- . Establish directives to plan and implement law enforcement communications systems
- . Establish directives to develop a State Law Enforcement Telecommunications Plan.

The State Planning Agency reported that three factors placing the most significant constraints on the planning and implementation of law enforcement telecommunications systems include political considerations, insufficient funds for implementation, and the lack of adequate planning personnel.

The State Planning Agency has developed procedures for updating fund allocations when the time between the grant application and project implementation has resulted in outdated cost figures. The agency has also developed formal procedures to determine when a grant should be terminated. The State Planning Agency is presently developing a formal checklist for grant application review and has published planning guidelines for use by prospective grant applicants.

Neither the State Planning Agency nor the Division of Communications for the Department of Public Safety has a statewide law enforcement telecommunications equipment inventory.

(5) Budgets and Expenditures

The State Planning Agency has awarded funds each year for telecommunications projects in the amounts indicated on Table V-12.

The figures represent the actual award approvals made during the period indicated and are based on a review of the project files.

Other items listed on Table V-12 include a yearly breakdown of total dollars awarded for all grants, the percentage of awards that were for telecommunications grants, and the number of telecommunications projects funded.

The operating budgets for the state planning agency for the same period are as follows:

. 7/1/71 - 6/30/72	\$139,000
. 7/1/72 - 6/30/73	\$304,000
. 7/1/73 - 6/30/74	\$304,000

The State Planning Agency reported that less than 1 percent of its operating cost each year is expended for law enforcement telecommunications planning.

For Fiscal Year 1975 the State Planning Agency estimates its operating cost will be \$319,000 and for the same period telecommunications grants will be awarded in the amount of approximately \$62,000. The total of all grant awards for the same period is estimated to be \$1,581,000.

(6) Procurement Methods and Policies

1. Centralized Purchasing Procedures

The State Planning Agency reported that in the State of Delaware there are no centralized purchasing procedures. At the state level of government, purchasing is accomplished by the State Purchasing Department, and the local, municipal and county units purchase under their own procedures.

Table V-12.
Comparison - All Grant Awards vs Telecommunications Awards
7/1/71 to 6/30/74 State of Delaware

Year	Total Dollars All Grants Awarded	Total Dollars Telecommunications Grants Awarded	Percent of Total Awards for Telecommunications	Number of Telecommunications Projects Funded
7/1/71 - 6/30/72		0		0
7/1/72 - 6/30/73		\$21,502		4
7/1/73 - 6/30/74		7,557		7

2. Standard Equipment or System Specifications

The State Planning Agency could provide no information regarding the types of specifications used for the procurement of telecommunications equipment within the state. The State Planning Agency does not have a list of recommended consultants or a list of recommended sources of law enforcement telecommunications equipment.

3. Equipment Sources and Vendors

Generally there are 2 or 3 vendors who respond to law enforcement telecommunications system procurements. The State Planning Agency has no requirements to assure that system specifications are met.

4. Procurement Practices

The State Planning Agency reported that in the State of Delaware grant funded procurements are accomplished in accordance with existing state procurement instructions for equipment purchases. The State Planning Agency has its standard procurement instructions for the purchase of maintenance services and consulting services. These instructions require that all procurements over \$2500 must be advertised for competitive bidder with the award being made to the lowest compliant bidder.

Procurement instructions permit factors other than cost, such as the excellence of the proposal and the past performance of the vendor, to be given as much consideration in selecting the successful bidder. Procurement instructions leave it to the discretion of the subgrantee as to whether or not a pre-bid conference will be held.

The State Planning Agency reported that it is the practice of equipment vendors, in the procurement and implementation of law enforcement telecommunications systems, to submit competing system designs without

detailed specifications. Vendors are permitted to submit suggestions for changing the specifications without prior approval of the consultant.

(7) Project Summary

Data was obtained from the State of Delaware for 11 grants including one grant for a new system awarded between July 1, 1971 and January 1, 1975. The following project summary sheets describe their characteristics including these highlights:

- All but three of the projects were for communications equipment which consisted predominantly of mobile radios and portable radios.
- Formal project evaluation was not provided for by these grants.
- Most of the grants provided for intrastate coordination and communications between members of the department, however, only one of these grants provided for interstate coordination.
- An objective of all of the project grants was for improved communication service and an objective of over 90 percent of the grants was reduction of response time.
- Most of the grants were awarded to municipalities with a population under 20,000.

9. DISTRICT OF COLUMBIA

(1) Organization Information

The unit of government in the District of Columbia that is responsible for processing LEAA grants is the Office of Criminal Justice Plans and Analysis. This agency has offices at 1329 E Street, Washington, D.C. 20003.

The planning agency is under the administration of a Director who reports to the Office of the Mayor. The Director receives planning assistance from the Criminal Justice Coordinator Board and the office of Planning and Management. The agency has a staff of 29 full time and one part time professional personnel of which eight are employed full time in the review of grants for telecommunications projects and system planning for law enforcement communications.

The activities of this agency differ from those of the State Planning Agencies since it deals with only one law enforcement agency. That agency is the Metropolitan Washington District of Columbia Police Department. The agency provides services to the Police Department in the following areas:

- Technical review of grant applications
- Assistance in the preparation of grant applications
- System Design.

The Metropolitan Washington District of Columbia Police Department has a Communications Division within its agency that has a staff of 234 full time persons. This unit was formed in 1932 and reports directly to the Chief of Police. It has three persons involved on a full-time basis with law enforcement telecommunication planning activities. These three persons are: the Director, the head of the maintenance unit and an electronics engineer who is soon to be hired.

The Division of Communications is involved in the major activities of system planning, equipment procurement, and engineering maintenance. The Division of Communications also

provides assistance to the Office of Criminal Justice Plans and Analysis in the following areas:

- Technical review of grant applications
- Review for concurrence with District of Columbia
- Cost-effectiveness evaluation
- System design
- Post project evaluation
- Acceptance testing
- Procurement procedures
- Specification preparation
- System planning
- Technical training
- Operational training.

The planning agency reported no interface with the Federal Communication Commission. However, the Police Department reported having an individual in the department who is responsible for knowledge of FCC Rules and Regulations. The Police Department reported contact with the Safety and Special Radio Service Bureau of the FCC approximately six times a year.

Neither the Office of Criminal Justice Plans and Analysis nor the Communications unit of the Police Department reported any interface or contact with the Public Utilities Commission.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

In addition to the one municipal police department there are two prosecutor's offices and the campus police departments in the District of Columbia.

2. Centralized, Cooperative and Consolidated Dispatch Centers

Within the District there are no consolidated dispatch centers serving two or more law enforcement agencies. The one existing law enforcement agency is

served by its own dispatch facility and provides service in an area of 67 square miles. The agency serves a combined population of 810,000 people and the dispatch center dispatches law enforcement vehicles only.

The 911 telephone service has been implemented and serves the entire city from the municipal police department. It receives and processes requests for service for all police and public safety agencies within the District of Columbia.

The municipal police department is planning to add a computer aided dispatching capability.

The entire District of Columbia is served by one telephone company.

3. Spectrum Management

There is a frequency plan for law enforcement in the District of Columbia and it was prepared by the municipal police department. The plan establishes radio frequencies for each area of the District of Columbia and uses the FCC police-only spectrum. The department uses VHF high band and UHF 450 to 460 MHz frequency assignments.

The amount of radio equipment in use by law enforcement agencies within the District of Columbia is reported to be 18 base stations and 76 mobile units. The police do not have a backbone microwave system in use.

4. Training Programs

Within the District of Columbia there are minimum standards for training required for law enforcement radio dispatchers and government employee radio technicians. At the present time there are no funded training programs for either of these two positions.

(3) Telecommunications Planning

1. District of Columbia Telecommunications Plan

There is a District of Columbia Telecommunications Plan that was developed in response to overall telecommunications needs. The plan was developed in April of 1974 and is mandatory by law. The agency responsible for enforcement of the plan is the Municipal Police Department. The plan is addressed to the Municipal Police Department and includes the following areas:

- . Organization of radio networks
- . Interagency coordination
- . Spectrum management
- . Frequency allocations
- . Interstate coordination
- . Operational requirements
- . Procurement procedures
- . Operational training
- . Maintenance
- . Financial considerations
- . Communication control
- . Disaster operations.

The telecommunications plan was developed by the municipal police department and contains automatic review and revision procedures. The plan is presently being revised.

2. Comprehensive Law Enforcement Plan

A Comprehensive Law Enforcement Plan developed by the planning agency and submitted annually to LEAA contains specific telecommunications considerations as they relate to the police department. This comprehensive plan was developed in-house by the planning agency.

(4) Policy Information

Policy positions of the Office of Criminal Justice Plans and Analysis are developed around the law enforcement communication plan. Some specific policy positions are as follows:

- . Mobile radio districts or zones are required
- . Channel configurations include mobile relay recommendations
- . Tone-controlled squelch is recommended
- . 911 telephone service is the recommended approach to improved citizen access
- . An intradistrict coordination channel and an inter-district coordination channel are recommended
- . Microwave is recommended for interagency point-to-point communications
- . Radio control is recommended for control of remote base stations
- . Additional terminals are recommended for improved access to criminal justice information systems
- . Computer aided dispatching is recommended
- . Personal portables are recommended for officers with no mobile unit
- . Magnetic tape recorders for logging radio and telephone traffic are recommended
- . Centralized maintenance is recommended.

The Office of Criminal Justice Plans and Analysis reported that there are no existing statutes or ordinances in the District of Columbia that have an effect on law enforcement communications planning. However, the agency is planning to introduce legislation for the control and installation of burglar alarm equipment.

The three most significant constraints on planning or implementation of police telecommunications system are reported to be the shortage of available frequencies, insufficient planning funds, and insufficient funds for implementation.

The agency has developed procedures for updating fund allocations when the time between a grant application and project implementation has resulted in outdated cost figures. The agency also has formal procedures to determine when a grant should be terminated. The agency has published planning guidelines for use by prospective grant applicants.

The Office of Criminal Justice Plans and Analysis does not have a law enforcement telecommunications equipment inventory but the police department has an inventory of all of its equipment.

(5) Budgets and Expenditures

The planning agency for the District of Columbia has awarded funds each year for telecommunications projects in the amounts indicated in Table V-13. These figures represent the actual award approvals made during the periods indicated and are based on a review of the project files.

Also included in Table V-13 are the total dollars expended for all grants in all areas and a comparison by percentage to the telecommunications projects that were funded. This Table also includes the numbers of telecommunications projects that were funded each year.

The operating budgets for the planning agency for the same periods are as follows:

.	7/1/71- 6/30/72	-	\$ 379,000
.	7/1/72- 6/30/73	-	\$ 482,100
.	7/1/73- 6/30/74	-	\$ 512,000

The planning agency estimates that approximately 0.2 percent of the operating cost expended was for law enforcement telecommunications planning.

Table V-13
Comparison - All Grant Awards vs Telecommunications Awards
7/1/71 to 6/30/74, District of Columbia

Year	Total Dollars All Grants Awarded	Total Dollars Telecommunications Grants Awarded	Percent of Total Awards for Telecommunications	Number of Telecommunications Projects Funded
7/1/71 - 6/30/72	\$1,850,000	\$ 52,500	2.8%	2
7/1/72 - 6/30/73	2,207,000	146,000	6.6	3
7/1/73 - 6/30/74	2,207,000	0	0	0

For fiscal year 1975 the District Planning Agency estimates an operating cost of \$532,000 and indicates that the total grant award for the same period will be approximately \$2,201,000.

(6) Procurement Methods and Policies

1. Centralized Purchasing Procedures

Within the District of Columbia, extensive use is made of centralized purchasing procedures for most radio equipment. The centralized purchasing procedures are mandatory, and the District of Columbia goes to bid for contracts on an annual basis.

2. Standard Equipment or System Specifications

Types of specifications used for procurement of law enforcement telecommunications systems include equipment specifications, system functional specifications, and system performance specifications. The specifications are developed in-house by the Municipal Police Department and the State Planning Agency, which requires that systems specifications be met by acceptance testing. The planning agency does not have a list of recommended independent consultants for telecommunications.

3. Equipment Sources and Vendors

It is reported that from 4 to 6 vendors generally respond to law enforcement telecommunications system procurement. The planning agency does have a list of recommended sources for law enforcement communications equipment.

4. Procurement Practices

The Office of Criminal Justice Plans and Analysis has procurement instructions that cover the purchase of law enforcement communications equipment, maintenance services, or consulting services. The procurement instructions require that at least two suppliers bid whenever the procurement exceeds a given dollar value. In the case of competitively bid procurements, factors other than cost are to be given as much consideration as cost in selecting the successful bidder. Procurement instructions leave to the discretion of the subgrantee whether or not a pre-bid conference will be held.

In cases of vendor participation in law enforcement telecommunications projects, vendors are required to submit to the consultant for approval any suggestions they may have for changing the system design specifications.

(7) Project Summary

Data was obtained from Washington, D. C. on 5 telecommunications grants including one for a new system awarded between July 1, 1971 and January 1, 1975. One of these projects was for a computer interface between the WALES system and the MILES system. This project activity included software for the interface. Another project was for a computer-aided dispatching system. Two of the projects pertained to a television system referred to as the Street-to-Command Television System and the last project was for development of a master command and control development plan. More detail is provided on these projects in the summary sheets which follow.

10. FLORIDA

(1) Organization Information

The unit of government in the State of Florida that is responsible for the administration of LEAA funds is the Bureau of Criminal Justice Planning and Assistance. The bureau is a part of the Division of State Planning and has offices at 620 South Meridian Street, Tallahassee, Florida 32304.

The Bureau Chief reports directly to the Director of the Division of State Planning and has a staff of 53 full-time professional personnel. Three of the professional staff are involved on a part-time basis in system planning and grant application review for law enforcement telecommunications projects. Their other responsibilities include planning evaluation, technical assistance and fiscal analysis of all law enforcement projects.

Assistance provided by this agency to law enforcement agencies in the telecommunications area include technical review of grant applications and assistance in preparation of grant applications.

The bureau reported that it receives telecommunications planning assistance from two state level agencies, ten regional planning agencies, five county planning agencies, and one planning agency from the state law enforcement unit. The State Division of Communications also provides assistance in developing plans, submission of local area plans, and in post project evaluation.

The bureau provides planning guidelines for telecommunications to the regional planning agency, the county planning agency, and the state law enforcement agency. A formal agreement for receiving assistance in the telecommunications area exist between the State Planning Agency and the Division of Communications. The State Planning Agency requires concurrence from the Division of Communication as a prerequisite to grant approval in regard to telecommunications for law enforcement.

The unit of state government most heavily involved in telecommunications activities is the Florida Division of Communications, a branch of the Department of General Services. This division was formed in 1968 and has both advisory and mandatory authority within the state. This authority is mandatory

in areas pertaining to LEAA grants. By an act of legislation the authority includes all state, county and local law enforcement telecommunications users and requires prior approval of the Division of Communications for the implementation, alteration or expansion of any telecommunications system.

The Division of Communications has a staff of 18 full-time professional personnel. Of the 18 personnel, four devote full-time and four devote part-time to system planning and review of grant applications for law enforcement telecommunications projects. Two of these full-time individuals are supported by LEAA funds.

The activities of the Division of Communications include state, local and county agency system planning, wire line system planning, spectrum management, and equipment procurement.

The division provides telecommunications planning assistance to the State Planning Agency in the areas of technical review of grant applications, review for concurrence with the state plan, cost effectiveness evaluation, system design, post project evaluation, acceptance testing, procurement procedures, preparing specifications, system planning, bid evaluation, and state plan implementation.

The Division of Communications provides advisory telecommunications planning services to law enforcement agencies at the local, county, regional or state level in areas of financial planning, preparing grant applications, review of grant applications, system design, cost effectiveness evaluations, post project evaluation, acceptance testing, procurement procedures, preparing specifications, system planning, and data evaluation.

The in-house capabilities for serving law enforcement telecommunications planning with Division of Communications are engineering services, financial planning services, procurement services, and management planning services.

The Division of Communications has responsibility in all matters relating to the Federal Communications Commission. The division is responsible for knowledge of FCC rules and regulations and is also responsible for monitoring and commenting on FCC dockets. It participates in FCC proceedings and is responsible for making recommendations to the Governor and other officials for action in connection with FCC proceedings.

The division reported contact with many bureaus and offices of FCC including approximately 100 times a year with the Safety and Special Radio Service Bureau.

The State Planning Agency reported no contact at all with the Public Utilities Commission. The Division of Communications reported informal contact with the Public Utilities Commission approximately every six months.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

State level enforcement agencies in the State of Florida that are eligible for LEAA grants are identified as follows:

- Treasurers Office - State Fire Marshall
- Florida Department of Criminal Law Enforcement
- The State Highway Patrol
- Marine Patrol
- Game and Fresh Water Fish Commission
- State Attorney General
- Florida Council on Crime and Delinquency
- Comptrollers Office - Securities Division.

In addition to the state level agencies, other law enforcement departments in this state include 67 county law enforcement agencies, 20 prosecutor's offices, 20 public defenders, 298 organized municipal police departments, and 11 campus police departments.

2. Centralized, Cooperative and Consolidated Dispatch Centers

At the time of this report there were 16 centralized, cooperative, or consolidated dispatch centers operating in the State of Florida. Of the 16 centers, nine serve areas of more than 200 square miles, four served areas of between 50 and 200 square miles, and three served areas of less than 50 square miles.

Of the 16 centralized dispatch centers, ten centers serve populations of between 100,000 and 500,000 people, two centers serve populations over 500,000 people, and four of the centers serve populations of less than 20,000 people.

Four of these centers dispatch law enforcement vehicles only while five dispatch law enforcement and ambulance service. Five additional centers dispatch law enforcement, fire, and ambulance service and the two remaining offices dispatch all public safety and other agencies.

Emergency 911 telephone service has been implemented by two of these dispatch centers. Seven digit emergency call numbers have been implemented by five centers for law enforcement only, two centers for law enforcement and fire, four centers for law enforcement, fire and ambulance, and two centers for law enforcement and ambulance.

In addition to the consolidated centers above, there are 270 individual dispatch centers, each serving only one law enforcement agency. Of these individual centers 180 serve areas of less than 50 square miles, 25 centers serve areas of between 50 and 200 square miles while 65 centers serve areas over 200 square miles.

Populations served by these individual centers include 224 centers serving less than 20,000 persons each, 38 centers serving a population between 28,000 and 100,000, seven centers serving a population between 100,000 and 500,000, and one center serving a population of more than 500,000 persons.

Including all law enforcement dispatch centers in the state only two have implemented 911 as the emergency telephone number. These two centers each serve populations of between 20,000 and 100,000 and both dispatch law enforcement, fire, ambulance, and other agencies.

There are presently three law enforcement communications centers in the state using computer assisted

dispatch systems. There are also three dispatch centers currently planning computer assisted dispatching capabilities.

Telephone service for the State of Florida is provided by twenty individual telephone companies.

3. Spectrum Management

The State of Florida has a statewide law enforcement plan that was prepared by an independent consultant with the assistance of, and under the direction of, the Division of Communications. The frequency plan specifies frequencies for all law enforcement agencies in the state. The frequency plan uses FCC police only and local government spectrum assignments.

Federal Communications Commission licenses held by law enforcement departments in the state include 73 in the HF low band, 248 in the HF high band, 44 in UHF 450 to 460 MHz, and one in UHF 470 MHz band. There are presently 15 law enforcement agencies in the state that are licensed to operate on local government frequencies. Operation on local government frequencies by law enforcement agencies is generally discouraged by the Division of Communications.

The APCO frequency coordinator for the State of Florida reported that in all cases the frequency coordinator recommends a specific frequency to the applicant and will not recommend any frequency that does not conform to the state plan.

The frequency coordinator reported the following numbers of requests for frequencies from law enforcement agencies processed in the calendar years 1971 through 1974:

.	1971 - 170
.	1972 - 147
.	1973 - 126
.	1974 - 208

The frequency coordinator also reported that during the period 1971 to 1973 204 requests were processed for the State of Alabama by the frequency coordinator in Florida.

Both the Bureau of Criminal Justice Planning and Assistance and the Division of Communications reported that the State of Florida does not have a backbone microwave system in use by law enforcement agencies and there are no plans to install such a system.

4. Interagency Agreements

Within the State of Florida there are 16 cooperative dispatch agreements that involve different political entities. This number coincides with the number of cooperative or consolidated dispatch centers existing in the state. Additionally there are two known cooperative dispatch agreements in this state between different agencies of the same political entity.

5. Training Programs

The State of Florida has not established minimum standards for training law enforcement radio dispatchers or government employee radio technicians. At this time there are no plans to establish minimum training standards and the state has no funded training programs for either of the skill categories. The State Planning Agency estimates that approximately one percent of the telecommunications grants since July 1971 have included funds for the training of project personnel.

(3) State Telecommunications Planning

1. State Telecommunications Plan

The State of Florida has a statewide telecommunications plan that consists of several segments. The segments include a county and municipality communication plan that

was prepared in July of 1973, an emergency medical services plan and a 911 telephone plan both prepared in August of 1974, and a state agency plan that was prepared in May of 1973. The total plan is mandatory by law and the Division of Communications has the responsibility for control and implementation of the plan. The plan was developed by a private consulting firm under the direction of the Division of Communications and covers a period from 1972 to 1980.

The plan is addressed to all law enforcement agencies within the state and specifically addresses the organization of radio networks, interagency coordination, spectrum management, frequency allocations, improved citizen access, cooperative or consolidated dispatching, and operational requirements.

Conformance with the state plan is required in all telecommunications system planning. The last amendment to the state plan was in March of 1975. Review and revision procedures are determined on a case by case basis.

2. Comprehensive Law Enforcement Plan

The comprehensive plan prepared by the State Planning Agency and submitted to LEAA each year is developed with specific law enforcement telecommunication considerations. These considerations are covered in a separate section of the plan and the areas specifically addressed are spectrum management, frequency allocations, data retrieval systems, and financial considerations.

The Comprehensive Law Enforcement Plan is addressed to all state, municipal, county law enforcement agencies and other state agencies.

The Comprehensive Law Enforcement Plan was developed in-house by the State Planning Agency with assistance in the telecommunications area by the Division of Communications.

(4) Policy Information

The policy position of the State Planning Agency is in conformance with the state telecommunications plan. Some significant agency policies are detailed below:

- . The organization of law enforcement radio networks is based upon mobile radio districts or zones, or county networks.
- . Cooperative dispatch or independent dispatch with shared based station is recommended when two or more agencies share a channel.
- . Frequencies in the UHF band are recommended for urban areas.
- . Frequencies in VHF high band are recommended for suburban and rural areas.
- . The number of radio channels required is determined by the number of mobiles and portables involved.
- . Channel configuration is determined primarily by the requirements for mobile relays.
- . The use of tone controlled squelch is recommended.
- . Recommendations for improved citizen access to public safety agencies include 911 telephone service, emergency seven digit numbers, and call box systems.
- . Coordination channels are recommended at the regional or district level and statewide level.
- . VHF/UHF point-to-point and hot line controls are recommended for interagency coordination.
- . Point-to-point communications are recommended for coordination between the State Highway Patrol and local agencies.
- . Radio control systems are recommended for remote control base stations.

- . Recommended methods to improve access to the Terminals, Justice Information System includes additional terminals, high speed data transmission, improved switching systems, and lease wire lines.
- . Mobile digital terminals without alphanumerical display are recommended for mobile digital systems.
- . Personal portable radios are recommended for all sworn personnel with no mobile radios in the vehicles.
- . Magnetic tape recorders are recommended for logging radio and telephone traffic.
- . Centralized agency maintenance is recommended for state agencies.

Standard equipment specifications are available in the state and have been prepared by the Division of Communications. A list of equipment for which standard specifications are available includes mobile units, portable units, base stations, consoles, logging tape recorders, towers, antennas, scramblers, and replay recorders.

State statutes in existence that have an effect on law enforcement communications planning relate to establishing an office or Division of Communications, 911 emergency telephone systems, directives to plan or implement communications systems, directives to develop state plans for communications, and emergency medical services.

The Bureau of Criminal Justice Planning and Assistance is not anticipating new state legislation that would have an effect on law enforcement communications planning. The Division of Communications reported that it is planning to introduce new legislation in the areas of fire legislation, and state plan implementation revenue funding.

Three of the most significant constraints on planning or implementation of police telecommunications systems have been identified by both agencies as the shortage of available frequencies, political factors, and insufficient funds for implementation.

At the present time neither of the above agencies has a statewide law enforcement telecommunications equipment inventory.

(5) Budgets and Expenditures

The Bureau of Criminal Justice Planning and Assistance for the State of Florida has awarded funds each year for telecommunications projects in the amounts indicated on Table V-14. The figures represent the actual award approvals made during the periods indicated and are based on a review of the project files.

Also indicated on Table V-14 is the total dollars expended for all grants by years, the percentage comparison for telecommunications projects by year, and the number of telecommunications projects funded in each year.

The operating budget for the bureau for the same period is as follows:

- . 7/1/71 - 6/30/72 - no figures available
- . 7/1/72 - 6/30/73 - \$881,000
- . 7/1/73 - 6/30/74 - \$985,400
- . 7/1/74 - 6/30/75 - \$1,100,000

The bureau estimates that approximately two to three percent of the operating budgets were expended for law enforcement telecommunications planning.

For fiscal year 1975 the bureau estimates that its operating costs will be \$1,216,000. It further estimates that the total grant awarded for fiscal year 1975 will be \$18,664,000.

The operating budget for the Bureau of Communications Engineering Services of the Division of Communications for the same period of time are as follows:

- . 7/1/71 - 6/30/72 - \$ 706,800
- . 7/1/72 - 6/30/73 - \$2,069,000
- . 7/1/73 - 6/30/74 - \$4,238,000
- . 7/1/74 - 6/30/75 - \$6,054,000

Table V-14
Comparison - All Grant Awards vs Telecommunications Awards
7/1/71 thru 6/30/74, State of Florida

Year	Total Dollars All Grants Awarded	Total Dollars Telecommunications Grants Awarded	Percent of Total Awards for Telecommunications	Number of Telecommunications Projects Funded
7/1/71 - 6/30/72	\$15,000,000	\$1,768,209	11.8%	17
7/1/72 - 6/30/73	17,600,000	2,635,859	15.0	69
7/1/73 - 6/30/74	18,000,000	600,222	3.3	25

The Division of Communications estimates that between three and six and one-half percent of the operating budget is expended for law enforcement telecommunications planning.

The Division of Communications reports the following total cash expenditures for all grants for the same period:

- . 7/1/71 - 6/30/72 - \$131,000
- . 7/1/72 - 6/30/73 - \$124,000
- . 7/1/73 - 6/30/74 - \$ 70,000
- . 7/1/74 - 6/30/75 - \$ 65,000

The Division of Communications further reports the following amounts received from LEAA for implementation of telecommunications projects excluding agency operating cost:

- . 7/1/71 - 6/30/72 - \$98,500
- . 7/1/72 - 6/30/73 - \$93,000
- . 7/1/73 - 6/30/74 - \$70,000
- . 7/1/74 - 6/30/75 - \$15,000

(6) Procurement Methods and Policies

1. Centralized Purchasing Procedures

In the State of Florida centralized purchasing procedures are used extensively for most radio equipment. These purchasing procedures are mandatory. The state goes to bid on an annual basis for centralized purchasing contracts.

There is no centralized purchasing procedures at the county or local level. However, in the area of law enforcement communications procurement it is possible for the local and county agencies to purchase under the state contract prices.

2. Standard Equipment or System Specifications

Procurement of law enforcement telecommunications systems within the state are based on various types of

specifications including equipment specifications, system functional specifications, and system performance specifications. The major source of specifications for law enforcement communications equipment and systems is the Division of Communications. In most cases compliance with the system specifications is based upon vendor certification. The Division of Communications also utilizes acceptance testing, operational testing, and random sample testing to assure that system specifications are met.

The Bureau of Criminal Justice Planning and Assistance does not have a list of recommended independent consultants for telecommunications. However, such a list is available through the Division of Communications. The Division of Communications has formal requirements to be met by consultants in order to be placed on this list and it has formal procedures for removal of consultants from the list. The Division reported that it has never removed a consultant from this list for cause.

3. Equipment Sources and Vendors

Generally two or three vendors respond to law enforcement telecommunications systems procurements in the State of Florida. The Bureau of Criminal Justice Planning and Assistance does not have a recommended list of sources for police communications equipment. However, the Division of Communications does have such a list, but does not have formal requirements to be met by applicants to be placed on this list or formal procedures for removal of concerns from the list. The division reported that it has never removed a concern from this list for cause.

4. Procurement Practices

The Bureau of Criminal Justice Planning and Assistance reported that grant funded procurements are accomplished in accordance with existing state procurements instructions for the purchase of equipment, maintenance services, and consulting services. State Planning Agency

procurement instructions require that bids be solicited from at least two suppliers whenever the procurement exceeds a given dollar value for equipment, and at least three suppliers whenever the procurement exceeds a given dollar value must be made on the basis of competitive bidding with the award being made to the lowest compliant bidder. In the procurement of consulting services, factors other than cost can be given as much consideration as cost in selecting the successful bidder.

Procurement instructions issued by the Division of Communications are essentially the same as those used by the State Planning Agency. The Division of Communications instructions require that prebid conferences be held in the case of consulting services procurements in excess of \$5,000. In regard to equipment procurements the Division of Communications procurements instructions require that bids be solicited from at least 20 suppliers and that the procurement be advertised if the cost is in excess of \$1,000.

(7) Project Summary

Data was obtained from the State of Florida for 111 grants awarded during the period July 1, 1971 to January 1, 1975. Forty-nine of these grants were for new systems. The project summary sheets which follow, describe the project characteristics including these highlights:

- . Over 90 percent of these grants were for communications equipment consisting predominantly of mobile and portable radios and base stations. Nearly one-fifth of the grants were concerned with command and control centers.

A small percentage of the grants provided for formal project evaluation.

- . Over half of the grants provided for intrastate coordination and communications between members of the department.

- . The objectives of nearly all of the grants were for improved communication service and objectives of over half of the grants were for improved inter-agency coordination and communication reliability.
- . Nearly 40 percent of the grants were awarded to municipalities with a population under 20,000, while the remainder of the grants were distributed with moderate uniformity among the other types of recipients.

11. GEORGIA

(1) Organization Information

The unit of government in the State of Georgia which administers and distributes LEAA funds is called the Georgia State Crime Commission. This agency maintains offices at 1430 West Peachtree Street, Atlanta, Georgia 30309.

The agency has 29 full-time professional personnel and its operation is directed by an administrator. One of the personnel was identified as spending full-time on review of law enforcement telecommunications grant applications. This agency, through its administrator, reports to the Governor's Office for the State of Georgia.

The agency provides assistance to law enforcement agencies in the telecommunications area by providing assistance in grant preparation, systems planning, and assistance in procurement. The State Planning Agency reported that other planning agencies within the state which are directly involved in law enforcement telecommunications planning include two state-level agencies, 18 regional planning agencies, one state law enforcement agency, two county law enforcement agencies, and four municipal law enforcement agencies.

The State Planning Agency receives telecommunications planning assistance specifically in the areas of developing comprehensive plans, submission of local area plans, and post-project award evaluation from the following agencies:

- . The State Division of Communications
- . Regional planning agencies
- . State law enforcement agency.

The State Planning Agency provides telecommunications planning assistance in the areas of organizing, planning, jurisdictional coordination, and planning guidelines to the following:

- . State Division of Communications
- . Regional planning agencies
- . State, county, and municipal law enforcement agencies.

Formal agreements for the provision of these services exist between the regional planning agencies, which are funded by the State Planning Agency, and the State Planning Agency itself.

The other agency of state government totally involved in telecommunications activities is the Office of Telecommunications of the Department of Administrative Services. This agency maintains offices at 116 Mitchell Street, S.W., Atlanta, Georgia 30303.

This agency, which is under the Office of the Governor, is administered by a State Communications Officer and has six full-time professional persons for communications. These six individuals were reported as spending part of their time involved in law enforcement telecommunications projects and one of these persons is supported by LEAA funds on a part-time basis.

The major activities of this agency in the area of law enforcement telecommunications include state agency system planning, county and city system planning, spectrum management, wireline system planning, equipment procurement, engineering maintenance, and assistance to other agencies. The agency's authority is mandatory for state agencies and advisory upon request for all local agencies. Assistance provided by this agency was reported to be system design, post-project evaluation procurement procedures, specification preparation, and system planning. Many of these services are provided to the State Planning Agency responsible for LEAA funds and, additionally, to regional planning agencies, local planning agencies, and the Office of Highway Safety, when requested.

The in-house capabilities for serving law enforcement telecommunications reported by the Office of Telecommunications include engineering services, procurement services, and management planning. The State Planning Agency reported in-house capabilities in the areas of financial planning and procurement services.

In matters pertaining to the Federal Communications Commission, the State Planning Agency reported that the Office of Telecommunications has that responsibility. The Office of Telecommunications reported having the responsibility for the

knowledge of FCC rules and regulations and for monitoring and commenting on FCC Dockets. The agency makes recommendations to the Governor for actions in connection with FCC proceedings. The Office of Telecommunications reported that they have contact with the Safety and Special Radio Service Bureau of the FCC approximately 75 times per year.

In matters pertaining to the State Public Utilities Commission, the State Planning Agency reported no involvement, and the State Office of Telecommunications reported participating in PUC hearings and having an informal relationship with the PUC.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

The State Planning Agency reported that the state law enforcement agencies in the state which are eligible for LEAA grants include the State Highway Patrol, the Georgia Bureau of Investigation, the Secretary of State, and the Department of Administrative Services. In the state there are 42 Prosecutor's Offices that have received grants for mobile units only. Table V-15 indicates the types and quantities of law enforcement agencies that exist below the state-level government in the State of Georgia. The State Planning Agency estimated that there are 536 organized law enforcement departments in the state.

Table V-15
Georgia Law Enforcement Agencies
Below State Level of Government

<u>Type of Agency</u>	<u>Number of Such Agencies in the State</u>
County Sheriff's Offices	159
County Police Departments	12
Municipal Police Departments	337
Campus Police Departments	8

2. Centralized, Cooperative, and Consolidated Dispatch Centers

In the State of Georgia there is only one full-time 24-hour centralized, cooperative, or consolidated dispatch center serving two or more law enforcement agencies. This center serves an area of over 200 square miles and a population of less than 20,000 persons. The center dispatches law enforcement, fire, and ambulance service in addition to other services. The center has not adopted either 911 telephone service or a single 7-digit emergency call number.

The State Planning Agency estimated that there are approximately 335 dispatch centers existing in the state which serve only one law enforcement agency. The square miles of area covered by these centers and the type of dispatching performed are unknown; however, 282 centers serve populations of less than 20,000, whereas 36 serve populations from 20,000 to 100,000. Additionally, six of these centers serve populations between 100,000 and 500,000 and only one center serves a population of over 500,000.

Of all the dispatch centers in the state, four have adopted 911 as the emergency telephone number. Two of these four serve populations of less than 20,000; one serves 20,000 to 100,000, and the other serves a population between 100,000 and 500,000. Of these 911 centers, two dispatch only law enforcement and fire vehicles and the other two dispatch all emergency services.

At the present time law enforcement centers in the state are not using computer-aided dispatch systems; however, two such systems are presently being planned.

Telephone service in the state is provided by 43 separate telephone companies.

3. Spectrum Management

The State of Georgia has a frequency plan that was prepared by an independent consultant. The plan recommends specific policy-only frequencies for all law

enforcement agencies in the state.

Frequency coordination in the State of Georgia is handled by one APCO coordinator and the method by which frequency coordination is handled varies from case to case. The number of requests for frequency coordination which originated from law enforcement agencies within the state, processed by the frequency coordinator in the four calendar years prior to this study, are as follows:

.	1971 - 210
.	1972 - 275
.	1973 - 180
.	1974 - 125.

The frequency coordinator estimated that at the present time there are 30 law enforcement agencies licensed on VHF low band, 500 licensed on VHF high band, and 46 licensed on the UHF band.

The Office of Telecommunications reports that presently there are no licenses in the 72-MHz band or the 952- to 960-MHz band. Although the agency discourages the use of local government channels for law enforcement applications, there are 10 such local government channels licensed to law enforcement in the state.

Estimates of radio equipment in the state include 3300 mobile radio units and 1000 base stations. The state presently does not have a backbone microwave system and no plans exist for installing one.

4. Interagency Agreements

The total known number of interagency agreements existing in the state, in the area of law enforcement telecommunications, includes only one that is an agreement between different political entities for cooperative dispatch. There is also one contract law enforcement agreement in force in the state.

5. Training Programs

The State of Georgia has not established minimum standards for training of law enforcement dispatchers or government employee radio technicians and presently does not have plans to establish such minimums. The state has no funded training programs for either of these two categories, and the State Planning Agency reports that since July 1971 no funds have been included in telecommunications plans for the training of project personnel.

(3) State Telecommunications Planning

1. State Telecommunications Plan

The State of Georgia does not have a statewide telecommunications plan covering all telecommunications needs of the state. They do, however, have a telecommunications plan for law enforcement which is an advisory plan prepared in September of 1971 covering the period from 1971 to 1976. Although this plan is advisory in nature, the State Planning Agency requires concurrence with the plan for LEAA funding.

Items that are specifically addressed by the plan include organization of radio networks, interagency coordination, spectrum management, frequency allocation, cooperative or consolidated dispatching, data retrieval systems, procurement procedures, and configuration control.

This law enforcement communications plan is directed toward all state law enforcement agencies and municipal and county law enforcement agencies. As previously stated, conformance with the state plan is required in telecommunications system planning if funds are requested from the State Planning Agency for implementation. This plan was developed by a private consulting firm and has not been amended or updated since its conception.

2. Comprehensive Law Enforcement Plan

The comprehensive plan prepared by the State Planning Agency yearly and submitted to LEAA was developed with specific law enforcement telecommunications considerations in a separate section of the plan. Specific areas addressed by the plan in regard to telecommunications are as follows:

- . Organization of radio networks
- . Interagency coordination
- . Spectrum management
- . Citizen access
- . Cooperative or consolidated dispatching
- . Data retrieval systems
- . Operational training
- . Financial considerations.

The comprehensive plan addresses all state law enforcement agencies, other state agencies, and municipal and county law enforcement agencies, and was developed by the State Planning Agency.

(4) Policy Information

The policy positions of the State Planning Agency in regard to law enforcement telecommunications projects are generally to meet compliance with the police telecommunications plan previously mentioned. Some of the significant agency policies are detailed below:

- . The recommended concept for organizations of law enforcement radio networks is based on mobile radio districts or zones
- . Central or cooperative dispatch is recommended when two or more agencies are required to share a channel
- . Frequency band recommendations are generally UHF for urban areas and VHF high band for other areas

- Allocation of radio channels is based on the number of mobiles and portables and functions served
- Recommendations for channel configurations include one frequency and two frequency simplex
- Recommended command and control concepts include cooperative dispatch and mutual aid pacts
- 911 or a single 7-digit emergency number is recommended for coordination
- Both statewide and district coordination channels are recommended for coordination
- Point-to-point and mobile-to-mobile communications are recommended for coordination between local agencies and the State Highway Patrol
- Additional terminals, high-speed transmission and improved switching system are recommended for improved access to criminal justice information systems
- Personal portables are recommended for all sworn personnel with mobile units in the vehicles
- Magnetic tape recorders are recommended for logging of radio and telephone traffic.

The State Planning Agency reported that the following areas, covered by state statutes in Georgia, have an effect on law enforcement communications planning:

- Establishment of an Office or Division of Communications
- Directives to plan or implement communications systems.

The State Planning Agency reportedly is planning to introduce new legislation in the areas of directives to plan or implement communications systems and directives to develop a state plan.

The three most significant constraints on the planning or implementation of police telecommunications systems reported by the State Planning Agency are political factors, state statutes, and insufficient planning funds. The Office of Telecommunications reported a shortage of available frequencies, political factors, and availability of planning manpower as the three most significant constraints on the planning or implementation of police telecommunications systems.

The State Planning Agency has developed procedures for updating fund allocations when the time between the grant application and the project implementation has resulted in outdated cost figures. The agency also has formal procedures to determine when a grant should be terminated and has published planning guidelines for use by prospective grant applicants.

The State Planning Agency does not maintain a statewide law enforcement telecommunications equipment inventory, but the Office of Telecommunications does maintain an inventory of state-owned equipment only. This inventory, initially completed in July of 1973, is updated on a monthly basis.

(5) Budgets and Expenditures

The State Planning Agency for Georgia has awarded funds each year for telecommunications projects in the amounts indicated in Table V-16. These figures represent the actual award approvals made during the periods indicated and are based on a review of the project files.

Table V-16 also indicates the total dollar amounts expended for all grants in all areas, a percent comparison for telecommunications projects, and the number of telecommunications projects funded in each year.

The operating budgets for the State Planning Agency for the same period are as follows:

- 7/1/72 - 6/30/73 - \$ 456,000
- 7/1/73 - 6/30/74 - \$ 539,500.

Table V- 16
Comparison - All Grants Awards vs Telecommunications Awards
7/1/71 to 6/30/75, State of Georgia

Year	Total Dollars All Grants Awarded	Total Dollars Telecommunications Grants Awarded	Percent of Total Awards for Telecommunications	Number of Telecommunications Projects Funded
7/1/71 - 6/30/72	\$1,030,000	\$ 383,831	37.3%	2
7/1/72 - 6/30/73	\$1,195,300	1,089,646	91.6	308
7/1/73 - 6/30/74	\$1,195,300	279,392	23.4	151
7/1/74 - 6/30/75	-	146,485	-	53

An estimated 2 to 3 percent of the agency's operating cost was expended for law enforcement telecommunications planning.

The operating budgets for the Office of Telecommunications for the same periods are as follows:

- . 7/1/72 - 6/30/73 - \$2,200,000
- . 7/1/73 - 6/30/74 - \$5,400,000.

The Office of Telecommunications estimated between one-half and 3 percent of the agency's operating budget was expended for law enforcement telecommunications planning.

For fiscal year 1975, the State Planning Agency estimated an operating cost of \$743,800, and the Office of Telecommunications estimated an operating cost of \$6,800,000.

(6) Procurement Methods and Policies

1. Centralized Purchasing Procedures

The State Planning Agency reported that there are some limited uses of centralized purchasing procedures for specific equipment items. However, at the state-level of government extensive use of centralized purchasing exists for most radio equipment. The State Planning Agency reported that these centralized purchasing procedures are not mandatory but the differences in price will not be paid out of grant funds.

The State government goes to bid for state contracts generally at periods greater than every 12 months. In the State of Georgia units of local government generally process their own purchasing.

2. Standard Equipment or System Specification

The State Planning Agency reported that they do not participate in specification preparation, nor do they re-

quire that equipment procured meet contractually established specifications. All specifications used are developed in-house by another state or local government organization. The Office of Telecommunications stated that for state agencies equipment specifications are the only type used and they must meet contractually established specifications. Specifications for state agencies are developed in-house by the Office of Telecommunications and generally by vendors for local agencies.

The State Planning Agency has no requirements to ensure that system specifications have been met; however, the Office of Telecommunications uses acceptance testing for this purpose. The State Planning Agency reported that it does not maintain a list of recommended consultants for telecommunications.

3. Equipment Sources and Vendors

The typical number of bidders who respond to telecommunications procurements was reported to be two or three. The Office of Telecommunications maintains a list of recommended sources of police communications based on previously negotiated contracts. The State Purchasing Agency does have formal requirements to be met by applicants to be placed on the list and formal procedures for removal of concerns from the list.

4. Procurement Practices

The State Planning Agency reported that it has issued standard procurement instructions that cover the purchase of law enforcement communications equipment and consulting services. These procurement instructions require that bids be solicited from at least two suppliers whenever the procurement exceeds \$2500. On grant-funded procurements it is possible, however, to consider factors other than cost as considerations in selecting the successful bidder. The State Planning Agency reported that procurements have to be advertised if they exceed \$2500. Procure-

ment instructions leave it to the discretion of the subgrantee as to whether prebid conferences will be held.

The Office of Telecommunications reported that procurements of consulting services are established under guidelines issued by another state agency. The Office of Telecommunications has issued standard procurement instructions covering the purchase of law enforcement communications equipment and maintenance services. For consulting services only, procurement instructions permit bids to be solicited from a single supplier; however, in the area of equipment purchases or maintenance services bids must be solicited from at least two suppliers when the procurement exceeds \$100. Bids must also be advertised when the given dollar value exceeds the same amount. The holding of prebid conferences is left to the discretion of the agencies involved in the procurement; however, if prebid conferences are held they are held before the procurement is advertised. In the case of local agency purchases, vendors typically submit competing system designs to the customer without any detailed system specifications.

(7) Project Summary

Data was obtained from the State of Georgia for 519 grants including grants for 24 new systems awarded between July 1, 1971 and January 1, 1975. The following project summary sheets describe their characteristics including these highlights:

- . Essentially all of the grants were for communications equipment including mobile and portable radios and base stations and in about 10 percent of the cases, radio dispatch consoles.
- . Formal project evaluation was not provided for by these grants.
- . Nearly all of the grants were for communications between members of the department with only a very small percentage being for intrastate coordination and none being for interstate coordination.

- . The project objective of nearly all of the grants was to improve communication service and in a large number of the grants a project objective was to improve communication reliability.
- . Over 80 percent of the grants were awarded to municipalities with a population under 20,000 but three of the grants were to recipients for statewide projects.

12. HAWAII

(1) Organization Information

The unit of government in the State of Hawaii which is responsible for the administration of the LEAA funds is the State Law Enforcement and Juvenile Delinquency Planning Agency. This agency maintains offices at 1010 Richards Street, Honolulu, Hawaii 96813.

The agency is directly under the Office of the Governor and has a 15-member Supervisory Board. Day-to-day control and administration is accomplished by a Director and Deputy Director. The agency has a staff of six full-time professional personnel, one of which is a police planning specialist who devotes part of his time in review and system planning for law enforcement telecommunications projects. In addition to the police planning unit, the agency has a legal planning unit, a corrections planning unit, and a juvenile delinquency planning unit.

Presently within the State of Hawaii there is one other agency that provides law enforcement telecommunications planning. This agency is the State Civil Defense Agency and the Communications Officer for State Civil Defense provides assistance in planning the communications throughout the state. An informal working agreement exists between the State Planning Agency and the Communications Officer for State Civil Defense to provide system design and telecommunications planning for each of the counties within the State of Hawaii. The Civil Defense Communications Officer also serves as the APCO frequency coordinator for the State of Hawaii.

In matters relating to involvement with the Federal Communications Commission, the State Planning Agency reported no contact at all. The State Civil Defense Communications Officer, however, reported that he is involved in FCC proceedings approximately five times per year and he does make recommendations to the Governor for action in connection with FCC proceedings. The Communications Officer also reported that he has contact with the Safety and Special Radio Service Bureau of the Federal Communications Commission approximately 12 times per year.

In matters relating to the Public Utilities Commission, neither the State Planning Agency nor the Communications Officer for State Civil Defense reported any contact or working agreements with the PUC.

The State Planning Agency reported legal services as the in-house capability for serving law enforcement telecommunications planning. The Communications Officer for Civil Defense reported in-house capabilities in the areas of engineering services, management planning, and emergency planning and coordination.

The Communications Officer for Civil Defense reported providing planning assistance to the State Planning Agency in the areas of system design, post-project evaluation, acceptance testing, procurement procedures, specification preparation, and system planning. These services are also provided to other law enforcement agencies, and in addition, operational training is provided.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

The State Planning Agency reported that the only state-level law enforcement agency eligible for LEAA grants is the State Attorney General's Office. In addition to four Prosecutor's Offices that have been established in the state, there are four organized county law enforcement departments. One of the counties is legally known as the City and County of Honolulu. The structuring of all four is identical, however, and their size dependent upon county population.

2. Centralized, Cooperative, and Consolidated Dispatch Centers

The State of Hawaii has no centralized, cooperative, or consolidated dispatch centers serving two or more law enforcement agencies, nor is there any need for this type

of dispatch service. The state has eight major islands, constituting four counties. Each county is served by one police agency; therefore, four individual dispatch centers exist within the state.

Of the four existing dispatch centers, three serve populations between 30,000 and 75,000; and one serves a population of over 500,000. Three of these dispatch centers serve only law enforcement, and the fourth center dispatches law enforcement, fire, ambulance, and other services.

By March of 1975, 911 telephone service is expected to be installed in one of these dispatch centers, which will serve a population of over 500,000, and dispatch only law enforcement vehicles. The entire State of Hawaii is served by one telephone company.

At the present time no law enforcement communications center in the state is using computer-aided dispatching; however, one dispatch center has current plans to install such a system.

3. Spectrum Management

The State of Hawaii does not currently have an overall statewide law enforcement frequency plan, nor do they anticipate preparing one.

Present FCC licensed systems for law enforcement in the state include:

- . 1 - VHF low band
- . 7 - VHF high band
- . 2 - UHF

The APCO frequency coordinator reported the following number of requests received from law enforcement agencies for frequency coordination:

- . 1971 - 16
- . 1972 - 10
- . 1973 - 33

Radio equipment in use throughout the state includes 1,740 mobile units, 394 portable units, and 36 base stations. The state does not presently have a backbone microwave system in use by law enforcement agencies.

The State Planning Agency reported that the three most significant constraints on the planning or implementation of telecommunications systems are insufficient planning funds, insufficient funds for implementation, and the availability of planning manpower.

4. Interagency Agreements

The only interagency agreements in force in the state are between four counties and are for the purpose of sharing law enforcement records information.

5. Training Programs

Within the State of Hawaii there are no minimum standards or established training programs for law enforcement radio dispatchers or government employee radio technicians. The radio technicians employed by the State Civil Defense Agency, however, are expected to devote 10 percent of their time to training and studying technical periodicals.

(3) State Telecommunications Planning

1. State Telecommunications Plan

The State of Hawaii does not have a statewide telecommunications plan other than the civil defense emergency communications plan that was updated in 1974.

2. Comprehensive Law Enforcement Plan

The comprehensive plan prepared by the State Planning Agency and submitted to LEAA each year does include telecommunications considerations, which are covered in a separate section of the plan. The plan specifically addresses the general requirements of telecommunications and is addressed toward county and municipal law enforcement agencies. The plan was developed in-house by the State Planning Agency.

(4) Policy Information

As a general rule, the State Planning Agency does not make specific policy regarding all law enforcement telecommunications, but rather bases its policy on the individual plans of each of the counties. Some significant agency policies are detailed below:

- . The general concept for organization for law enforcement radio networks is based on county net
- . The use of VHF low band frequencies is discouraged
- . The number of radio channels required is based on the number of mobiles and portables, volume of radio traffic, functions, and district boundaries
- . Mobile relay and one frequency simplex channel configurations are recommended
- . 911 telephone service is recommended for improved citizen access
- . County coordination channels and VHF/UHF point-to-point coordination is recommended
- . Radio control, wireline control, and radio control with wire line backup is recommended for remote control base stations
- . The use of communications scramblers is recommended for specific applications

- . The use of personal portables is recommended based on specific application
- . The use of magnetic tape recorders for logging of radio and telephone traffic is recommended.

The State Planning Agency reported that there is existing emergency medical services legislation that has an effect on law enforcement telecommunications planning. Neither the State Planning Agency nor the Communications Officer of Civil Defense reported planning to introduce any new legislation that would affect law enforcement telecommunications planning.

(5) Budgets and Expenditures

The State Planning Agency for Hawaii has awarded funds each year for telecommunications projects in the amounts indicated on Table V- 17.

These figures represent the actual award approvals made during the periods indicated and are based on review of the project files.

The total dollar amounts expended for all grants in all areas by the State Planning Agency, a percent comparison for telecommunications projects, and the number of telecommunications projects funded in each year is also shown on Table V-17.

The operating budgets for the State Planning Agency for the same periods are as follows:

- . 7/1/71-6/30/72 - \$202,303
- . 7/1/72-6/30/73 - \$203,094
- . 7/1/73-6/30/74 - \$240,812

The State Planning Agency indicated that approximately 1 percent of its operating budget was expended for law enforcement telecommunications planning.

The State Planning Agency estimated that for Fiscal Year 1975 its operating budget will be \$276,674, and the total dollars that will be awarded for grants in all areas will be \$2,218,000.

CONTINUED

5 OF 11

Table V-17
Comparison - All Grant Awards Versus Telecommunications Awards
7/1/71 Through 6/30/75, State of Hawaii

Year	Total Dollars All Grants Awarded	Total Dollars Telecommunications Grants Awarded	Percent of Total Awards for Telecommunications	Number of Telecommunications Projects Funded
7/1/71-6/30/72	\$1,012,156	\$ 91,000	9.0%	2
7/1/72-6/30/73	\$1,338,725	5,200	0.4	1
7/1/73-6/30/74	\$1,505,301	75,053	5.0	1
7/1/74-6/30/75	-	234,143	-	3

The operating budgets for the State Civil Defense Agency for the same period was approximately \$46,000 per year, of which an estimated 10 percent was expended for law enforcement telecommunications planning. The agency reported that in Fiscal Year 1974 it received \$800 of LEAA funds toward implementation of a telecommunications project.

(6) Procurement Methods and Policies

1. Centralized Purchasing Procedures

Within the State of Hawaii each county has its own standard uniform procurement methods for centralized procurements and they may differ from county to county. The centralized purchasing procedures are mandatory within each county but it is not known how often each county goes to bid for contracts for centralized purchases.

2. Standard Equipment or System Specifications

As a general rule, equipment purchases for law enforcement telecommunications systems is on the basis of system performance specifications only. This equipment must meet contractually established specifications that are prepared in-house by the state or local government organizations. The State Planning Agency has no requirements for ensuring that system specifications are met. The Civil Defense Communications Officer, however, does utilize acceptance testing, operational testing, and vendor certification to ensure that system specifications have been met.

The State Planning Agency does not maintain a list of recommended consultants for telecommunications, nor does it maintain a list of recommended sources for law enforcement communications equipment. However, it generally receives two or three bids on telecommunications systems procurements. The Communications Officer for Civil Defense reported maintaining a list of recommended sources for equipment but did not have formal requirements to be met by the applicant to be placed on the

list. No formal procedures for removal of companies from the list exists but the agency has removed a company for cause on at least one occasion.

3. Equipment Sources and Vendors

As previously mentioned the typical number of bidders who respond to a law enforcement telecommunications procurement is two or three. Vendor certification and operational tests are the primary methods used to determine if system specifications have been met.

4. Procurement Practices

The State Planning Agency reported that grant-funded procurements are accomplished in accordance with existing LEAA procurement instructions for equipment, maintenance services, and/or consulting. Procurement instructions require that all procurements above \$4,000 be advertised and the award made on the basis of competitive bidding with award to the lowest compliant bidder. In specific cases, however, it is possible to permit factors other than cost to be given consideration in selecting the successful bidder.

The conducting of prebid conferences is left to the discretion of the grant applicant.

The role played by the vendors in the procurement and implementation phases of law enforcement communications projects varies in the State of Hawaii. The vendors are asked on some occasions to prepare the bid specifications. On other occasions vendors submit competing system designs to the customer without any detailed system specifications. When the consultant has been involved in the system design the vendors are required to submit to the consultant for approval any suggestions they may have for changing the system design specifications.

(7) Project Summary

Data was obtained from the State of Hawaii for seven grants awarded during the interval between July 1, 1971 and January 1, 1975. The project summary sheets which follow indicate characteristics of the projects including these highlights:

- . There were no grants for new systems.
- . All but two of the grants were for communications equipment including mobile and portable radios, base stations and radio dispatch consoles. One project included microwave equipment.
- . These projects did not provide for formal evaluation.
- . All of the projects provided for communications between members of the department and over half of them provided for intrastate coordination.
- . Project objectives of all of the projects were for improvement of communication service, improvement of communication reliability and reduction of response time.
- . All of the grants were to regional recipients.

13. IDAHO

(1) Organization Information

The unit of government in the State of Idaho which is responsible for processing LEAA funds is The Law Enforcement Planning Commission. The agency is a Bureau of the Division of Budget, Policy Planning, and Coordination. The agency maintains offices in Annex Number 3, Capital Building, Boise, Idaho 83720.

The agency is administered by a Bureau Director, and has 14 full-time professional personnel employed. Three of these personnel, the police specialist, grants administrator, and application evaluator, are involved part-time in system planning and grant applications review for law enforcement telecommunications.

The agency assists law enforcement agencies in telecommunications areas by providing technical review of grant applications, assistance in preparation of grant applications, and post-project evaluations. The agency is assisted in these activities by other planning agencies within the state, — including one state-level agency, three regional planning agencies, and one planning unit of the state law enforcement agency. The agency also receives telecommunications planning assistance from the state law enforcement agency and the State Bureau of Communications. This assistance is basically participation in developing comprehensive plans.

The second major agency serving law enforcement telecommunications activities is the Bureau of Communications of the Division of General Services. This agency, headed by a Bureau Chief, has 18 full-time professional personnel. Three of these personnel serve law enforcement telecommunications planning and activities on a part-time basis.

The major activities of the Division of General Services in the area of law enforcement telecommunications include state agency system planning, spectrum management, wireline system planning, equipment procurement, engineering maintenance, and assistance to other agencies. The Division's authority is mandatory in the area of state agencies and advisory to local and county government agencies. The agency was established in 1968 by an act of legislation.

Specific planning services provided by this agency to law enforcement agencies include system design, acceptance testing, procurement procedures, specification preparation, system planning, and technical and operational training.

Matters pertaining to the activities of the Federal Communications Commission are processed by the Division of General Services. The division has employees who are responsible for knowledge of FCC Rules and Regulations and for monitoring and commenting on FCC dockets. The division reported contact with the FCC approximately 20 times per year with the major contact being between the agency and the Safety and Service Radio Bureau and the Field Operations Bureau of the FCC.

The Division of General Services and the Law Enforcement Planning Commission both reported no contact or working agreements with the Public Utilities Commission for the State of Idaho. In-house capabilities for serving law enforcement telecommunications were reported by the Law Enforcement Planning Commission to include financial planning, procurement services, and cost accounting services. The Division of General Services reported in-house capabilities of engineering services, legal services, financial planning, procurement services, cost accounting services, and reliability testing.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

The Law Enforcement Planning Commission reported that there is only one state law enforcement agency eligible for LEAA grants and that is the Department of Law Enforcement. Table V-18 indicates the types and quantities of law enforcement agencies that exist in the state serving county and local governments. In total there are 44 Prosecutor's Offices in the state and 139 organized law enforcement agencies.

Table V-18

Idaho Law Enforcement Agencies Below State Level of Government

<u>Type of Agency</u>	<u>Number of Agencies in the State</u>
County Law Enforcement Departments	44
Municipal Police Departments	89
Campus Police Departments	5

2. Centralized, Cooperative, Consolidated Dispatch Centers

At the time of the survey, the State of Idaho had 56 full-time 24-hour centralized, cooperative, or consolidated dispatch centers serving two or more law enforcement agencies.

The areas in square miles served by these centers include 46 centers serving areas over 200 square miles and 10 centers serving areas between 50 and 200 square miles.

Populations served by these centers include 43 centers serving less than 20,000 persons, 10 centers serving populations between 20,000 and 100,000, and three centers serving populations between 100,000 and 500,000.

All 56 of these centers dispatch law enforcement vehicles and one of the centers has adopted 911 as its emergency call number for telephone service. The other 55 centers all have adopted a single 7-digit emergency call number for emergency law enforcement use only.

The Law Enforcement Planning Commission reported that there are no individual dispatch centers existing in the state which serve only one police agency. The one reported agency dispatch center using 911 telephone service dispatches law enforcement, fire, and ambulance service. Presently

there is only one dispatch facility planning to add computer-assisted dispatching capability and no centers are presently using this capability. Telephone service in the State of Idaho is served by 20 individual telephone companies.

3. Spectrum Management

The State of Idaho presently has a statewide law enforcement frequency plan that was developed in-house by the Radio Section of the Division of General Services. This frequency plan specifies or recommends specific frequencies for all law enforcement agencies in the state. The frequency plan utilizes police-only FCC assignments. The Law Enforcement Planning Commission, however, will approve grant applications for communications that use frequencies not in conformance with the state frequency plan.

From data collected from the APCO frequency coordinator, it was determined that the following numbers of requests for frequency coordination for law enforcement agencies have been processed over the 3-year period preceding this study.

- . 1971 - Unk.
- . 1972 - Unk.
- . 1973 - Unk.

The frequency coordinator for the state will occasionally recommend a frequency to the applicant or may, on occasion, require the applicant to select the frequency. The frequency coordinator will not, however, recommend any frequency that does not conform to the state plan.

The State of Idaho does have a backbone microwave system in use by law enforcement and its functions are to serve mobile repeated links and radio control links. The microwave system does not have backup capability but is supported by emergency power. The microwave system is not dedicated solely to law enforcement.

4. Interagency Agreements

The only known interagency agreements in force in the state are interjurisdictional agreements that were entered into by 53 agencies for the purpose of sharing law enforcement records information.

5. Spectrum Management

The State of Idaho has established minimum standards for training of law enforcement radio dispatchers and government employee radio technicians. The state presently has funded training programs to serve both of these categories. The state estimated that 5 percent of the telecommunications grants since July of 1971 have included funds for the training of project personnel.

(3) State Telecommunications Planning

1. State Telecommunications Plan

The State of Idaho presently does not have a statewide telecommunications plan to serve overall telecommunications needs; however, preparation for such a plan was underway at the time of this report.

2. Comprehensive Law Enforcement Plan

The comprehensive law enforcement plan prepared by the Law Enforcement Planning Commission and submitted to LEAA each year includes telecommunications but not in a separate section of the plan. Specific areas addressed regarding communications include interagency coordination, cooperative or consolidated dispatching, interstate coordination, data retrieval systems, financial planning, and disaster operations. The comprehensive plan is specifically addressed toward all state agencies including law enforcement and county and municipal law enforcement agencies. This comprehensive plan was developed and prepared in-house by the Law Enforcement Planning Commission.

(4) Policy Information

Policy information or specific agency policy reported by the Law Enforcement Planning Commission includes mobile radio district or zone as the general concept for organization of law enforcement radio networks. The agency also recommended central or cooperative dispatch when it is necessary for two or more agencies to share a channel, and reported that it does not have a specific frequency plan with frequency assignments for each law enforcement agency. A conflict exists in policy position in this area, however, with the Division of General Services reporting a recommendation for independent dispatch with shared base stations when two or more agencies must share a channel and also reporting that it does have a frequency plan with specific frequency assignments for each law enforcement agency.

Some specific policies or positions to which both agencies concur are as follows:

- . The UHF spectrum area is recommended statewide for all law enforcement officers.
- . Radio channel requirements are based on the functions served.
- . Recommended channel configurations include mobile relay and vehicular repeaters.
- . Recommendations for citizen access include 911 telephone service and call boxes.
- . Both statewide and district coordination channels are recommended.
- . Microwave links and radio point-to-point links are recommended for interagency point-to-point coordination.
- . Coordination channels are recommended between the State Department of Law Enforcement and local law enforcement agencies.
- . Personal portable radios are recommended for all sworn personnel with mobile units in the vehicles.

Magnetic tape recorders are recommended for logging of radio and telephone traffic.

Legislation currently existing in the State of Idaho which has an effect on law enforcement communications planning includes legislation to establish an Office or Division of Communications, and directives to plan or implement communications systems. The Division of General Services and the Law Enforcement Planning Commission report they are not planning to introduce any new legislation that would affect law enforcement telecommunications planning.

When asked by the survey team to identify the three most significant constraints on planning or implementation of police telecommunications systems, the Law Enforcement Planning Commission identified the multiplicity of telephone companies, political factors, and insufficient planning funds. The Division of General Services identified ecological factors, insufficient planning funds, and insufficient funds for implementation.

The Law Enforcement Planning Commission has adopted procedures for updating funds allocations when the time between the grant application and project implementation has resulted in outdated cost figures. The commission also has formal procedures for when grants should be terminated. The agency has an in-house formal checklist or review procedure for grant application review and has published planning guidelines for use by prospective grant applicants. The present planning guidelines, however, are outdated and are presently being rewritten.

The planning commission reported that two levels of grant review existed prior to submission to its agency. These are the regional planning councils and A-95 review.

The Division of General Services reported that it maintains a state law enforcement telecommunications equipment inventory that is computerized for state-owned equipment only. This inventory was initially established in 1968 and is updated continuously. The Law Enforcement Planning Commission reported that it does not maintain any telecommunications equipment inventory.

(5) Budgets and Expenditures

The Law Enforcement Planning Commission for Idaho is awarded funds each year for telecommunications projects in the amounts indicated in Table V-19.

These figures represent the actual award approvals made during the periods indicated and are based on a review of the project files.

The total dollar amounts expended for all grants in all areas by the Law Enforcement Planning Commission and a percent comparison of telecommunications projects is also shown in Table V-19. In addition, the number of telecommunications projects funded in each of the periods is indicated.

The operating budgets for the Law Enforcement Planning Commission for the same periods are as follows:

. 7/1/71 - 6/30/72 - \$ 186,828
. 7/1/72 - 6/30/73 - 266,047
. 7/1/73 - 6/30/74 - 353,806

The operating budgets for the Radio Section of the Division of General Services for the same periods are as follows:

. 7/1/71 - 6/30/72 - \$ 228,000
. 7/1/72 - 6/30/73 - 336,000
. 7/1/73 - 6/30/74 - 300,000

The Law Enforcement Planning Commission reported that the percentage of operating costs expended each year for law enforcement planning varied over the indicated period between 2 and 5 percent. The Radio Section of the Division of General Services reported an average of 1 percent of operating costs expended for law enforcement telecommunications planning.

For Fiscal Year 1975, the Radio Section of the Division of General Services estimated operating expenditures of \$354,000. For the same period the Law Enforcement Planning Commission anticipates operating expenditures of \$402,800.

Table V-19

Comparison of All Grant Awards vs. Telecommunications Awards
7/1/71 to 6/30/75, State of Idaho

Year	Total Dollars All Grants Awarded	Total Dollars Telecommunications Grants Awarded	Percent of Total Awards for Telecommunications	Number of Telecommunications Projects Funded
7/1/71 - 6/30/72	\$ 1,667,593	\$215,160	12.9%	27
7/1/72 - 6/30/73	1,691,424	181,884	10.8	41
7/1/73 - 6/30/74	1,923,362	62,584	3.3	26
7/1/74 - 6/30/75	-	61,835	-	3

(6) Procurement Methods and Policies

1. Centralized Purchasing Procedures

For state-level agencies, centralized purchasing procedures are used extensively for procurement of most radio equipment. These centralized purchasing procedures are mandatory for state agencies and bids are received on an annual basis for this purpose. The degree of centralized purchasing used at the county or local levels was unknown to either agency reporting in this study.

2. Standard Equipment or System Specifications

The specifications that are used in the state for the procurement of law enforcement telecommunications systems vary depending on the particular application. The types used include equipment specifications, system functional specifications, and system performance specifications. At the state level all law enforcement communications equipment must meet contractually established specifications that were prepared in-house by the Radio Section of the Division of General Services. The division ensures compliance with the specification through acceptance testing and operational testing. Neither the Law Enforcement Planning Commission nor the Division of General Services maintains lists of recommended independent consultants for telecommunications projects.

3. Equipment Sources and Vendors

Typically between four and six bidders will respond to police telecommunications system procurements in the State of Idaho. The Division of General Services maintains a list of recommended sources of police communications equipment; however, it does not have formal requirements for placement on this list or formal procedures for removal from the list. The Law Enforcement Planning Commission does not maintain a list of recommended sources for law enforcement communications equipment.

As a general rule in the State of Idaho, grant funded procurements are accomplished in accordance with existing state procurement instructions. Instructions require that bids be solicited from at least three suppliers when the procurement exceeds a given dollar value and that all procurements above a given dollar value be made on the basis of competitive bidding with award made to the lowest compliant bidder.

In the case of competitively bid procurements, procurement instructions permit factors other than cost to be given as much consideration as cost in selecting the successful bidder. Procurement instructions also require that all proposed procurements above \$1000 be advertised. Prebid conferences for procurements are left to the discretion of the subgrantee.

The role played by equipment vendors in the state is the submission of competing system designs to the customer without any detailed system specifications.

(7) Project Summary

Data was obtained from the State of Idaho for 96 grants including fifteen grants for new systems awarded during the period July 1, 1971 to January 1, 1975. Following these highlights are project summary sheets which describe characteristics of the projects.

- . Nearly all of the projects were for communications equipment including mobile and portable radios and base stations.
- . One project provided for formal project evaluation.
- . Nearly all of the projects provided for communications between members of the department with a small percentage of the grants also providing for intrastate and interstate coordination.
- . Nearly every case a project objective was for improvement of communication reliability and in most of the cases a project objective was for improvement of communication service.

Over half of the grants were awarded to municipalities with a population under 20,000 and a substantial number were awarded to sheriff's departments.

14. ILLINOIS

(1) Organization Information

The unit of government in the State of Illinois responsible for the distribution of LEAA funds is the Illinois Law Enforcement Commission. The Commission has offices at 120 South Riverside Plaza, Chicago, Illinois 60606.

This State Planning Agency is administered by an Executive Director and has a staff of 92 full-time professional personnel and three part-time professional personnel. Two full-time professional persons are involved in system planning for law enforcement telecommunications projects.

In addition to the State Planning Agency, there are three state-level agencies, 20 regional planning agencies, 10 county planning agencies, two municipal planning agencies, one state law enforcement agency and one municipal law enforcement agency involved in telecommunications planning for law enforcement. Also, the Division of Telecommunications, which is part of the Department of General Service, provides telecommunications planning for all state agencies including the State Police. This agency has its offices at 719 State Office Building, Springfield, Illinois 62706. The agency is directed by a Division Manager and has a staff of 11 full-time professional personnel. All personnel are involved in system planning for law enforcement telecommunications projects on a part-time basis.

The Division of Telecommunications was established in 1970 act of legislation. It has mandatory authority over all state agencies including the State Police. The organization of this planning agency includes a radio section, land line section, research and planning section, engineering, maintenance, administration, data communications, and video communications sections.

The major activities of the Division of Telecommunications include:

- . State radio system planning
- . Wire line system planning
- . Equipment procurement
- . Engineering maintenance
- . Assistance to other agencies.

The Division of Telecommunications provides planning services to the State Police in the areas of financial planning, system design, cost-effectiveness evaluations, postproject evaluation, acceptance testing, procurement procedures, specification preparation, system planning, technical training and operational training. The Division reported that it also provides telecommunications planning assistance to the State Planning Agency for state agency programs.

The State Planning Agency provides assistance to law enforcement agencies in the area of telecommunications by providing: technical review of grant applications, assistance in the preparation of grant applications, specification preparation, system planning, postproject evaluation, acceptance testing, and procurement assistance.

Both the State Planning Agency and the Division of Telecommunications reported an informal relationship with the Public Utilities Commission and both participate in PUC hearings. The SPA is also funding a PUC 911 project.

In-house capabilities reported by the State Planning Agency include engineering services and procurement services. In-house capabilities reported by the Division of Telecommunications include engineering services, legal services, procurement services, financial planning, management planning, and cost accounting services.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

State-level law enforcement agencies in the State of Illinois which are eligible for LEAA grants include the State Police, Game and Fish agency, Liquor Control Board, Bureau of Investigation, Department of Law Enforcement, Department of Corrections and the Division of Race Track Security. At the county and local levels there are 102 Prosecutor's Offices, 102 county law enforcement departments, 869 municipal police departments, eight municipal part police departments, and 24 campus police departments. The total number of organized law enforcement departments in the state is reported to be 1008.

2. Centralized, Cooperative, and Consolidated Dispatch Centers

In the State of Illinois the State Planning Agency reported that there were ten full-time 24-hour centralized dispatch centers that serve two or more law enforcement agencies. Of these ten centers, six serve an area of over 200 square miles and four serve an area from 50 to 200 square miles. Two of the ten centers serve a combined population of less than 20,000, four serve a population of from 20,000 to 100,000, and four serve a combined population of from 100,000 to 500,000. One cooperative dispatching center has implemented 911 as its emergency call number. The remaining nine have installed a 7-digit emergency call number for law enforcement only.

The total number of individual dispatching centers that serve only one police department is approximately 440. The State Planning Agency reported that 14 communication centers have implemented 911 as the emergency number. Nine of these 14 centers serve a population of less than 20,000 and the remaining five serve a population of from 20,000 to 100,000. Eight of the 911 centers dispatch only law enforcement vehicles, one dispatches only law enforcement and ambulance vehicles, two dispatch law enforcement and fire vehicles, and three dispatch law enforcement, fire and ambulance vehicles as well as other agency vehicles.

The Division of Telecommunications reported that from the state law enforcement perspective there are 22 full-time 24-hour centralized dispatching centers, each serving an area of over 200 square miles. Three of the 22 centers serve a population of from 20,000 to 100,000, eight serve a population of from 100,000 to 500,000 and 11 serve a population of over 500,000. All 22 centers dispatch only law enforcement vehicles and none have implemented 911 for emergency service or a 7-digit call number. It was reported that all 22 of these state centers use computer-aided dispatching.

Four of the local law enforcement agencies are currently using computer-aided dispatching. Two other agencies at the time of the survey had currently planned to add computer-aided dispatch capability.

There are presently 56 telephone companies operating in the State of Illinois.

3. Spectrum Management

The State Planning Agency reported that a frequency plan is currently under preparation by an independent consultant. The frequency plan will specify frequency bands but not specific frequencies for each law enforcement agency. The number of law enforcement agencies licensed in each of the frequency bands is unknown in the State of Illinois.

The State Planning Agency reported 6500 mobile units presently in operation by law enforcement agencies in the state while the Division of Telecommunications reported 6500 law enforcement mobile units. The total number of base stations in operation by law enforcement agencies is unknown.

The APCO frequency coordinator processed the following number of applications for coordination with law enforcement agencies:

- . 1971 - 130
- . 1972 - 150
- . 1973 - 190.

The State of Illinois does not have a backbone microwave system in use by law enforcement agencies nor are there plans to implement a microwave system.

4. Interagency Agreements

The State Planning Agency reported that there are ten cooperative dispatch agreements between different political entities. There is also one interjurisdictional agreement for sharing radio maintenance facilities and/or personnel. The State Planning Agency also indicated that there are six agreements for the sharing of law enforcement records information and 56 contract law enforcement service agreements.

5. Training Programs

Both the State Planning Agency and the Division of Telecommunications reported that the state has not established minimum standards for training law enforcement radio dispatchers or government employee radio technicians. The state is not currently planning to establish such minimum standards. However, Illinois does presently have a funded training program for law enforcement radio dispatchers but does not have a training program for government employee radio technicians. The State Planning Agency indicated that 75 percent of the telecommunications grants since July 1971 have included funds for the training of project personnel.

(3) State Telecommunications Planning

1. State Telecommunications Plan

The Division of Telecommunications reported that the state does have a statewide telecommunications plan. The plan was developed in 1968 by a private consulting firm and covers the period of 1968 - 1975. The plan is advisory. The telecommunications plan covers requirements for all state agencies including the State Police and specifically addresses interagency coordination, operational requirements, procurement procedures, configuration control, and financial considerations. Conformance with the state plan in telecommunications systems planning is not required.

2. Comprehensive Law Enforcement Plan

The Comprehensive Plan prepared by the State Planning Agency each year and submitted to LEAA includes telecommunications considerations. Specifically the plan addresses the organizations of radio networks, interagency coordination, citizen access, cooperative or consolidating dispatching, data retrieval systems, procurement procedures, operational training, and configuration control.

The plan is addressed to state law enforcement agencies, municipal law enforcement agencies, and county law enforcement agencies. Conformance with the Comprehensive Law Enforcement Plan is required in telecommunications system planning. The plan was developed totally by the State Planning Agency.

(4) Policy Information

The State Planning Agency has adopted procedures and established policies for making recommendations in several areas affecting law enforcement telecommunications planning. Some of the major policies are listed as follows:

- . The organization of law enforcement radio networks is based upon multijurisdictional networks.
- . Central or cooperative dispatch is recommended for two or more agencies sharing a channel.
- . The frequency band policy is based on geographic areas.
- . UHF frequencies are recommended in urban areas.
- . UHF frequencies are recommended in suburban areas.
- . VHF high band is recommended in rural areas.
- . The required number of radio channels is based on the population served, volume of radio traffic, volume of calls for service and law enforcement functions.
- . Mobile relay and vehicle repeaters are the recommended channel configurations.
- . The propagation model is recommended for establishing output power and tower height requirements.

- . Cooperative or central dispatch is recommended as the command and control concept.
- . The 911 emergency number is recommended for law enforcement, fire and Emergency Medical Service.
- . Statewide, interstate, regional and county coordination channels are recommended.
- . VHF/UHF point-to-point links and hot lines are recommended for interagency point-to-point coordination.
- . Point-to-point communications, mobile-to-mobile communications and cross monitoring are recommended for coordination between the State Police and the local agencies.
- . Computer-aided dispatching is recommended
- . Personal portables for all sworn personnel are recommended.
- . Magnetic tape recorders for logging radio and telephone traffic are recommended.

The State Planning Agency has a formal list of priorities used in the evaluation of telecommunications grant applications. The agency also requires an evaluation phase as part of each communications project.

The State Planning Agency reported that the state statutes that have an effect on law enforcement telecommunications planning are those that established the Division of Telecommunications and 911 legislation. The State Planning Agency is currently not planning to introduce any state legislation in the near future which would affect law enforcement telecommunications planning. Three constraints on planning or implementation of police communications systems reported by the State Planning Agency were the shortage of available frequencies, political factors, and differences between jurisdictional boundaries and telephone central boundaries.

The State Planning Agency reported that it has procedures for updating fund allocations if the time between grant applications and project implementation has resulted in outdated cost figures. The agency has formal procedures for determining when a grant should be terminated. In addition, it has an in-house formal checklist or review procedures for grant applications review. In addition, the State Planning Agency has published planning guidelines for use by prospective grant application. Requirements for the grant applications include:

- . Statement of the problem
- . Statement of requirements
- . Procurement procedures to be used
- . Adjacent area coordination
- . Technical justification
- . Follow-on funding requirements
- . Facilities requirements
- . Postimplementation project evaluation
- . System description.

Review at the regional and county level is required prior to submission of grant applications to the State Planning Agency. The State Planning Agency currently does not have a statewide law enforcement telecommunications equipment inventory.

The Division of Telecommunications has also adopted procedures and established policies which affect the law enforcement telecommunications planning for the State Police. The major policies established by the Division which relate to the State Police are as follows:

- . Organization of State Police radio networks are based on mobile radio zones.
- . Central dispatch is recommended.
- . VHF low band and VHF high band are recommended in urban areas, suburban areas, and rural areas.
- . The number of required radio channels is based on population served, number of mobiles and portables, volume of radio traffic, volume of calls for services and law enforcement functions.

- . Simplex, two-frequency simplex, and mobile relay are the recommended channel configurations.
- . Tone-controlled squelch is recommended.
- . Selective call systems are recommended.
- . Propagation models and propagation measurements are recommended for establishing output power and tower height requirements.
- . Statewide and interstate channels are recommended for coordination purposes.
- . Microwave links, VHF/UHF point-to-point links and hot line are recommended for point-to-point coordination purposes.
- . Point-to-point communications, mobile-to-mobile communications, and cross monitoring are recommended for coordination between the State Police and local agencies.
- . Radio control and wire control are recommended for remote control of base stations.
- . Additional terminals, high-speed data transmission, improved switching systems, and lease wire line are recommended for improved access to criminal justice information systems.
- . Computer-aided dispatching is recommended.
- . The use of communications scramblers is not recommended or encouraged.
- . Personal portables are recommended for use by detectives.
- . The use of magnetic tape recorders is recommended for logging radio and telephone traffic.
- . Centralized agency maintenance is recommended.

The Division of Telecommunications does not have a formal list of priorities used in the evaluation of telecommunications grant applications. However, the agency does require an evaluation phase as part of each telecommunications project.

State statutes or laws identified by the Division of Telecommunications which have an effect on law enforcement telecommunications planning are reported to be in the areas of the establishment of the Division of Telecommunications, directives to plan or implement telecommunications systems, and emergency medical services legislation. The Division does not currently have plans to introduce any additional state legislation.

The constraints on planning or implementation of police telecommunications systems identified by the Division include the shortage of available frequencies, political factors, ecological factors, common carrier tariffs, insufficient planning funds, insufficient funds for implementation, and the lack of planning manpower.

The Division of Telecommunications does not have formal procedures for determining when a grant should be terminated. The agency does not have an in-house formal checklist or review procedures for grant applications review nor has it any guidelines for use by prospective grant applicants. The Division has a law enforcement telecommunications inventory which was initially established in 1938.

(5) Budgets and Expenditures

1. State Planning Agency

The State Planning Agency has awarded funds each year for telecommunications projects in the amounts indicated in Table V-20. These figures represent actual award approvals made during the periods indicated and are based on a review of the project files.

The total dollar amounts expended for all projects in all areas by the State Planning Agency and the percentage expended for telecommunications projects is also shown, as is the number of telecommunications projects funded each year.

Table V-20
Comparison - All Grant Awards vs Telecommunications Awards
7/1/71 to 6/30/74, State of Illinois

Year	Total Dollars All Grants Awarded	Total Dollars Telecommunications Grants Awarded	Percent of Total Awards for Telecommunications	Number of Telecommunications Projects Funded
7/1/71 - 6/30/72	\$24,943,000	\$4,596,542	18.4%	11
7/1/72 - 6/30/73	\$28,945,000	1,904,592	6.6	17
7/1/73 - 6/30/74	\$28,945,000	4,891,428	16.9	34

The operating budget for the State Planning Agency for the same periods are as follows:

. 7/1/71 - 6/30/72	\$ 937,615
. 7/1/72 - 6/30/73	\$1,377,539
. 7/1/73 - 6/30/74	\$1,298,907.

For Fiscal Year 1975 the estimated operating cost for the agency is \$1,525,870.

2. Division of Telecommunications

The operating costs for the Division of Telecommunications for the same period are as follows:

. 7/1/71 - 6/30/72	\$200,000
. 7/1/72 - 6/30/73	\$225,000
. 7/1/73 - 6/30/74	\$250,000.

The Division estimated that the 1975 Fiscal Year operating cost will be \$275,000. The Division further estimated that between 5 and 9 percent of its operating costs are expended for law enforcement telecommunications planning.

The Division of Telecommunications further reported that its total cash expenditures for all projects for the periods indicated were:

. 7/1/71 - 6/30/72	\$20,000,000
. 7/1/72 - 6/30/73	\$21,000,000
. 7/1/73 - 6/30/74	\$23,000,000
. 7/1/74 - 6/30/75	\$26,000,000.

The percentage of these total cash expenditures that was devoted to law enforcement telecommunications projects was reported to be 10 percent. The dollar amount received from LEAA for implementation of the above telecommunications projects included:

. 7/1/71 - 6/30/72	\$1,100,000
. 7/1/72 - 6/30/73	\$75,000
. 7/1/73 - 6/30/74	\$25,000
. 7/1/74 - 6/30/75	\$50,000.

(6) Procurement Methods and Policies

1. Centralized Purchasing Procedures

In the State of Illinois extensive use is made of centralized purchasing procedures for most radio equipment procurement at the state level. The purchasing procedures are mandatory. The state goes to bid for state contracts for centralized purchases every 4 to 6 months. Extensive use is also made of centralized purchasing procedures at county level, but the procedures are not mandatory.

2. Standard Equipment or System Specifications

Procurement of law enforcement telecommunications systems in the State of Illinois is based upon the use of combined equipment specifications, system function specifications, and system performance specifications. Independent consultants are the source of most specifications used by the State Planning Agency. The Division of Telecommunications obtains its specifications from in-house efforts by State organizations.

The State Planning Agency has no requirements to ensure that these specifications have been met. However, the Division of Telecommunications requires acceptance testing, operational test, vendor certification, and random sample testing. Neither the State Planning Agency nor the Division of Telecommunications has a list of independent consultants for telecommunications. The Division has standard equipment specifications for mobile units, portables, base stations, radio controls, towers and antennas.

3. Equipment Sources and Vendors

Typically in the State of Illinois two to three bidders respond to law enforcement telecommunications systems procurements. The Division of Telecommunications has

a list of recommended sources of telecommunications equipment. Formal requirements must be met by applicants to be placed on the list and the Division has formal procedures for removal of concerns from the list and has exercised these procedures in the past. The State Planning Agency does not have a list of recommended sources of telecommunications equipment.

4. Procurement Practices

Procurement practices of the State Planning Agency and the Division of Telecommunications differ slightly and each is presented below.

The State Planning Agency has issued standard procurement instructions that cover the purchase of law enforcement equipment, maintenance service and consulting services. The instructions require that the procurements above a given dollar value be made on the basis of competitive bidding with the award being made to the lowest compliant bidder for equipment and maintenance services. In evaluating competitive bid procurements for consulting services, the procurement instructions permit factors other than cost to be given as much consideration as cost in selecting a successful bidder. The instructions further require that procurements above \$1500 for equipment and \$2500 for consulting services be advertised. The instructions also require that prebid conferences be held in the case of all procurements over a given dollar value for equipment and maintenance services. The State Planning Agency does not have formal procedures for managing consulting services.

The Division of Telecommunications utilizes standard procurement instructions developed by the Department of General Services, in compliance with state statutes, for the purchase of law enforcement communications equipment. The instructions require that bids be selected from at least three suppliers whenever procurements exceed \$2500 for equipment, maintenance, or consulting services. The instructions further require that procurements above the dollar value be made on the basis of competitive bidding

with the award being made to the lowest compliant bidder. Further, all proposed procurements above the \$2500 value must be advertised. The instructions leave it to the discretion of the subgrantee as to whether a prebid conference will be held. The Division does not have formal procedures for managing consulting services.

(7) Project Summary

Data was obtained from the State of Illinois for 64 projects including twelve grants for new systems awarded during the period July 1, 1971 to January 1, 1975. Following these highlights are project summary sheets which describe characteristics of the projects in more detail.

- . Over half of the projects were for consolidated central dispatch systems and about three-fourths of the projects were for communications equipment including mobile and portable radios, base stations and consoles.
- . About one-third of the projects provided for formal evaluation.
- . Nearly all of the projects provided for intrastate and interstate coordination as well as communications between members of the department.
- . Nearly all of the projects had project objectives which included reduction of response time, improvement of interagency coordination, relief of channel congestion, improvement of communications service and improvement of officer safety.
- . Sheriffs departments received more grants than any other type of recipient with municipalities having a population between 20,000 and 100,000 running a close second.

15. INDIANA

(1) Organization Information

The unit of government in the State of Indiana which is responsible for processing LEAA funds is the Indiana Criminal Justice Planning Agency. The agency maintains offices at 215 North Senate Avenue, Indianapolis, Indiana 46204.

The agency is administered by an Executive Director and has a staff of 39 full-time professional personnel. One of these full-time personnel devotes his entire time to system planning and grant application review for law enforcement telecommunications projects.

The agency provides assistance to law enforcement agencies in the telecommunications area by providing the following services:

- . Technical review of grant applications
- . Assistance in preparation of grant applications
- . Cost-effectiveness evaluation
- . System planning
- . Postproject evaluation
- . Acceptance testing
- . Procurement assistance.

The agency receives telecommunications planning assistance in the areas of development of comprehensive plans and submission of local area plans from the state law enforcement agency. The agency provides telecommunications planning assistance in the areas of organization planning, jurisdictional coordination, and planning guidelines to the regional planning agencies and all law enforcement agencies in the state.

The Criminal Justice Planning Agency reported that it has no interface with the Federal Communications Commission or with the State Public Utilities Commission.

In-house capabilities for serving law enforcement telecommunications planning were reported to include engineering services, financial planning, procurement services, management planning, and cost accounting services.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

The Criminal Justice Planning Agency reported that the only state law enforcement agency eligible for LEAA grants is the Indiana State Police. Other levels of law enforcement existing within the state include 92 county law enforcement departments, 493 municipal police departments, and 20 campus police departments. The state is also served by 92 Prosecutor's Offices.

2. Centralized, Cooperative, and Consolidated Dispatch Centers

Within the State of Indiana there are 24 full-time 24-hour centralized, cooperative, or consolidated dispatch centers that serve two or more law enforcement agencies. Twenty-two of the centers serve areas in excess of 200 square miles each and two of the centers serve areas between 50 and 200 square miles. These 24 centers include 17 centers that serve less than 20,000 persons each and seven centers that serve populations of 20,000 to 100,000.

In addition to the consolidated centers, there are 272 individual police agency dispatch centers existing within the state. Of these, 178 serve areas of less than 50 square miles, two serve areas of 50 to 200 square miles, and 92 serve areas in excess of 200 square miles.

Populations served by these individual centers include 246 centers serving populations of less than 20,000 each, 20 centers serving populations between 20,000 and 100,000, five centers serving populations between 100,000 and 500,000, and one center serving a population of over 500,000.

Twelve dispatch centers in the state have adopted 911 telephone service. All 12 of these centers are consolidated dispatch centers. Of the 12 dispatch centers,

six serve populations of less than 20,000, four serve populations between 20,000 and 100,000, one serves 100,000 to 500,000 persons, and one serves a population of over 500,000.

Computer-aided dispatch service has not yet been instituted in the State of Indiana, but one such system is presently being planned.

The State is served by 67 separate telephone companies.

3. Spectrum Management

The State of Indiana presently does not have a state-wide law enforcement frequency plan; however, preparation of such a plan is under consideration.

The frequency coordinator for police service frequencies in the state reported that the following requests, which originated from law enforcement agencies, were processed during the 3-year period preceding this study.

- . 1971 - 349
- . 1972 - 356
- . 1973 - 423.

The APCO frequency coordinator reports that frequencies are recommended for use by an applicant. Existing FCC licenses for law enforcement departments in the state include the following numbers of departments using each frequency band:

- . VHF low band - 1
- . VHF high band - 599
- . UHF band - 5.

The Criminal Justice Planning Agency reported that there are 4500 mobile units presently in use by law enforcement in the state. They additionally reported that the state has a backbone microwave system in use by law enforcement agencies. The functions served by the microwave system include interagency coordination and data terminals. The microwave system does not

have backup capability, but it is supported by an emergency power system and is dedicated to law enforcement purposes.

4. Interagency Agreements

The only known interagency agreements in force in the state are interjurisdictional agreements entered into by eight agencies for the purpose of sharing law enforcement records information.

5. Training Programs

The State of Indiana has not established minimum standards for training of law enforcement radio dispatchers or government employee technicians. It presently does not have funded training programs for either of these two categories. The state is planning to establish minimum standards for training of the law enforcement radio dispatchers.

(3) State Telecommunications Planning

1. State Telecommunications Plan

The State of Indiana currently does not have a statewide telecommunications plan developed in response to overall telecommunications needs; however, the preparation of such a plan is anticipated.

2. Comprehensive Law Enforcement Plan

The Comprehensive Law Enforcement Plan submitted each year to LEAA includes telecommunications considerations in a separate section of the plan. Areas specifically addressed in the plan regarding telecommunications include the following items:

- . Organization of radio networks
- . Interagency coordination
- . Citizen access
- . Cooperative and consolidated dispatch
- . Interstate coordination
- . Data retrieval systems
- . Operational requirements
- . Financial planning.

The comprehensive law enforcement plan is specifically addressed to all law enforcement agencies within the state, and other state agencies. The plan was developed by the State Planning Agency with the assistance of the regional planning boards.

(4) Policy Information

Based on the fact that a statewide telecommunications plan has not yet been finalized, the majority of policy decisions are based on the individual applicant's needs. However, specific policy statements or positions of the Criminal Justice Planning Agency are as follows:

- . Central or cooperative dispatch or independent dispatch with shared base station is recommended when two or more agencies are required to share a channel.
- . Generally, VHF high band and VHF low band are recommended for frequency band usage in urban areas.
- . VHF high band is recommended for frequency band usage in suburban and rural areas.
- . Recommended radio channel requirements are based on the number of mobiles and portables, volume of radio traffic, and functions to be served.
- . Tone-controlled squelch is recommended for all users.

- . Cooperative or central dispatch is recommended for command and control.
- . To improve citizen access, 911 telephone service for law enforcement, fire, and emergency medical services is recommended.
- . Statewide and regional or district coordination channels are recommended.
- . Point-to-point radio and hot lines are recommended for interagency point-to-point communications.
- . Coordination is recommended between the State Police and county and local law enforcement agencies by a point-to-point and mobile-to-mobile system.
- . Wire line control is recommended for the control of remote base stations.
- . Additional terminals are recommended for improved access to criminal justice information systems.
- . Mobile digital terminals with alphanumeric display is the recommended digital system.
- . Computer-aided dispatching is recommended.
- . Personal portable radios are recommended for all sworn personnel with mobile units in the vehicles.
- . Magnetic tape recorders are recommended for logging of radio and telephone traffic.

The only legislation existing in the state reported to have an effect on law enforcement planning is in the area of the emergency medical services. The Criminal Justice Planning Agency is not anticipating introducing any new legislation at this time.

The three most significant constraints on the planning and implementation of police telecommunications reported by the Criminal Justice Planning Agency are multiplicity of telephone companies, political factors, and insufficient planning funds.

The agency has developed procedures for updating fund allocations when the time between grant application and project implementation has resulted in outdated cost figures. The agency also has formal procedures to determine when a grant should be terminated.

The agency has an in-house formal checklist or review procedure for grant applications review and has published planning guidelines for use by prospective grant applicants.

The Criminal Justice Planning Agency reported that prior to submission of grants to its agency the grants had been reviewed by regional planning councils. At present, within the state, there is no statewide law enforcement telecommunications inventory being maintained.

(5) Budgets and Expenditures

The Criminal Justice Planning Agency for Indiana has awarded funds each year for telecommunications projects in amounts indicated in Table V-21.

These figures represent the actual award approvals made during the periods indicated and are based on review of the project files.

The total dollar amounts expended for all grants in all areas by the State Planning Agency and a percent comparison of telecommunications projects is also shown in Table V-21. In addition, the number of telecommunications projects funded in each of the periods is indicated.

Table V-21
Comparison of All Grant Awards vs. Telecommunications Awards
7/1/71 to 6/30/75, State of Indiana

Year	Total Dollars		Percent of Total Awards for Telecommunications	Number of Telecommunications Projects Funded
	All Grants Awarded	Telecommunications Grants Awarded		
7/1/71 - 6/30/72	\$12,501,000	\$ 872,481	7.0%	265
7/1/72 - 6/30/73	14,708,797	760,179	5.2	291
7/1/73 - 6/30/74	14,709,000	3,054,001	20.8	630
7/1/74 - 6/30/75	-	1,902,609	-	315

The operating budgets for the planning agency for the same periods are as follows:

.	7/1/71-6/30/72	-	\$ 844,000
.	7/1/72-6/30/73	-	\$1,182,797
.	7/1/73-6/30/74	-	\$1,183,000.

The State Planning Agency indicated that approximately 10 percent of the operating costs identified above are expended for law enforcement telecommunications planning. The agency anticipates operating costs for Fiscal Year 1975 will be \$1,300,000, and further anticipates that total grant awards for Fiscal Year 1975 will be \$14,729,000.

(6) Procurement Methods and Policies

1. Centralized Purchasing Procedures

The Criminal Justice Planning Agency reported that there are no centralized purchasing procedures in effect in the state which are used in the procurement of law enforcement telecommunications systems or equipment.

2. Standard Equipment or System Specifications

The types of specifications used for the procurement of law enforcement telecommunications systems in the State of Indiana include equipment-type specifications, system functional specifications, and system performance specifications. The planning agency requires that procured communications equipment meet contractually established specifications. It ensures this conformance by acceptance tests, operational tests, and vendor certification. The source of specifications for law enforcement communications equipment include in-house preparation by the planning agency, in-house preparation by other state or local organizations, and equipment vendors. The planning agency reported that it does not maintain a list of recommended independent consultants for telecommunications.

3. Equipment Sources and Vendors

In most cases there are two or three vendors who respond to law enforcement telecommunications system procurements. The planning agency does not maintain a list of recommended sources for law enforcement telecommunications systems or equipment.

4. Procurement Practices

Generally stated, grant-funded procurements are accomplished in accordance with the existing state procurement instructions in the areas of equipment and consulting service procurements. The planning agency has issued some additional standard procurement instructions in these areas.

Standard planning agency procurement instructions require that bids be selected from at least two suppliers when the procurement exceeds a given dollar amount. For competitively bid procurements, procurement instructions permit factors other than cost to be given as much consideration as cost in selecting a successful bidder.

Procurement instructions additionally require that all procurements above \$2500 be advertised and it is left to the discretion of the subgrantee whether prebid conferences will be held.

(7) Project Summary

Data was obtained from the State of Indiana on 1,500 grants awarded during the period July 1, 1971 to January 1, 1975. Following these highlights are project summary sheets which describe characteristics of the projects in more detail.

- . None of the grants were for new systems.

- . Most of the grants were for communications equipment which was predominantly for mobile and portable radios and base stations. Over 10 percent of the grants were for fixed type computer terminals.
- . All of the projects provided for formal evaluation.
- . Nearly all of the grants provided for intrastate coordination and interstate coordination utilizing radio channels and teletype and providing for communications between law enforcement departments.
- . All of the projects provided for improved communications service and improved officer safety.
- . Over half of the projects were awarded to municipalities with a population under 20,000 and approximately one-fourth of the grants were awarded to sheriffs departments.

16. IOWA

(1) Organization Information

The unit of government in the State of Iowa that is responsible for processing LEAA funds is the State Planning Agency of the Iowa Crime Commission. This unit maintains offices at 3125 Douglas Street, Des Moines, Iowa 50319.

The unit is administered by an Executive Director and has a staff of 23 full-time professional personnel. The Executive Director reports directly to the Governor's Office. The State Planning Agency has an advisory board--the Law Enforcement Administrator's Telecommunications Advisory Committee (LEAA-TAC)--to assist in telecommunications matters, and is appointed by The Department of Public Safety.

The Division of Communications (within the Department of General Services) provides assistance in all phases of telecommunications to the Crime Commission. The Division of Communications has six full-time professional personnel and has mandatory authority for telecommunications planning within the State Police Organization and all other state agencies. The Division Director reports that of the six full-time professional personnel four are involved on a full-time basis with the law enforcement telecommunications projects. Of these four, two are supported by LEAA funding. In addition to the Division of Communications, eight regional planning agencies are directly involved in telecommunications planning.

The Division of Communications of the Department of General Services reported having personnel responsible for knowledge of Federal Communications Commission Rules and Regulations. The Division also makes recommendations to the Governor for action in connection with FCC proceedings. The Division indicated that it contacts the Safety and Special Radio Service Bureau 12 times a year. The Division reported that it coordinated with the APCO frequency coordinator during development of its frequency plan.

The State Planning Agency reported that it has occasional contact with the Public Utilities Commission (PUC) for reviewing

tariffs. The Division of Communications reported that it has no contact with the PUC. Neither agency participates in PUC hearings.

The State Planning Agency assists the agencies in the telecommunications area by providing technical review of grant applications, assistance in preparation of grant applications, cost-effectiveness evaluation, system design, specification preparation, system planning, postproject evaluation, acceptance testing, and procurement assistance. The Division of Communications provides services for state agencies in the areas of preparation and review of grant applications, review for concurrence to state plan, financial planning aid, cost-effectiveness evaluations, system design, postproject evaluation, acceptance testing, procurement procedures, specification preparation, and system planning.

The in-house capabilities for serving the telecommunications planning, reported by the State Planning Agency, were engineering services, legal services, financial planning, procurement services, management planning, and reliability testing. The in-house capabilities reported by the Division of Communications included engineering services, financial planning, procurement services, management planning, and reliability testing.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

In the State of Iowa, agencies at the state level which are eligible for LEAA grants include the Department of Public Safety, Attorney General's Office, Game and Fish, and Marine Patrol. In addition to 99 Prosecutor's Offices, there are 504 organized law enforcement departments. Table V- 22 indicates the types and quantities of law enforcement agencies that exist below the State government level.

Table V-22

Iowa Law Enforcement Agencies Below State Level of Government

<u>Type of Agency</u>	<u>Number of Such Agencies in the State</u>
County Police Departments	99
Municipal Police Departments	100
Campus Police Departments	4

2. Centralized, Cooperative, and Consolidated Dispatch Centers

The State Planning Agency indicated that there are 12 full-time 24-hour centralized, cooperative, or consolidated dispatch centers existing within the state. All 12 centers serve an area of over 200 square miles. Nine of these centers serve populations of less than 20,000, two serve a population between 20,000 and 100,000, and one serves a population between 100,000 and 500,000. All 12 of these centers dispatch law enforcement, fire, and ambulance vehicles. None have as yet adopted 911 as the emergency telephone number, but one center has adopted a single 7-digit emergency number.

Statistics are not available regarding the number of individual dispatch centers, areas served, populations served, and types of vehicles dispatched. However, there are four individual dispatch centers within the state utilizing 911 telephone service. All four centers dispatch fire and ambulance service in addition to police, and each serves a population between 20,000 and 100,000.

There are no computer-aided dispatch systems existing in the state; however, it is presently being considered by two law enforcement communication centers in the state. Telephone service within the state is provided by 176 separate telephone companies.

3. Spectrum Management

The State of Iowa presently has a frequency plan. The frequency plan for the state was developed by an independent consultant, and it specifies or recommends specific frequencies for all law enforcement agencies within the state. The present frequency plan recommends frequencies assignments from the police-only classification.

From data collected from the APCO frequency coordinator, it was determined that the following numbers of requests for frequency coordination have been processed over the 3-year period preceding this study.

- . 1971 - 70
- . 1972 - 64
- . 1973 - 43
- . 1974 - 74.

The State Planning Agency has reported that it will not approve a grant application for a communications system that uses frequencies not in conformance with the state plan. The agency also will not approve a grant application prior to coordination of any new frequencies required by the system.

Present information indicates that within the state there are 267 law enforcement departments licensed on VHF low band, 20 law enforcement departments licensed on VHF high band, and 10 in the UHF band. The agency was unable to determine the numbers of mobile units and base stations covered by these licenses. The State Planning Agency reported that there is no backbone microwave system in use by law enforcement within the State of Iowa.

4. Interagency Agreements

The State Planning Agency reported 12 cooperative dispatch agreements in force involving different political entities. In addition, five agreements are in force for the

sharing of law enforcement records information, and one agreement is in force for the sharing of radio equipment facilities.

5. Training Programs

Iowa has established minimum standards for training of both law enforcement radio dispatchers and government employee radio technicians. The state currently does not have any funded training programs for either radio dispatchers or radio technicians.

(3) State Telecommunications Planning

1. State Telecommunications Plan

The State of Iowa has a statewide telecommunications plan that was prepared by the Division of Communications. The plan covers the period from 1974 to 1981 and addresses itself to the following areas: organization of radio networks, interagency coordination, spectrum management, frequency allocations, citizen access, cooperative or consolidated dispatching, interstate coordination, data retrieval systems, operational requirements, procurement procedures, technical training, operational training maintenance, finances, configuration control, traffic management, disaster operations, and reliability standards. The plan considers state law enforcement agencies, other state agencies, municipal law enforcement agencies, and county law enforcement agencies. The State Planning Agency reported that it requires conformance with the state plan in telecommunications systems planning, and a formal procedure exists for incorporating the existence of new interagency compacts into the state plan. The State Planning Agency indicated that the state plan has automatic review and revision procedures, and that it was last amended January 1975.

2. Comprehensive Law Enforcement Plan

The comprehensive law enforcement plan prepared by the planning agency and submitted to the LEAA each

year includes telecommunications considerations. Areas that are specifically addressed by the plan are organization of radio networks, interagency coordination, spectrum management, frequency allocations, citizen access, cooperative or consolidated dispatching, interstate coordination, data retrieval systems, operational requirements, procurement procedures, technical training, operational training, maintenance, finances, configuration control, traffic management, disaster operations, and reliability standards. This plan is directed toward municipal and county law enforcement agencies. The telecommunications portion of the comprehensive law enforcement plan was developed by the state division of communications.

(4) Policy Information

For the organization of law enforcement radio networks, the agency's policy position is based on mobile radio districts. The agency recommends UHF frequencies for urban and suburban areas and recommends VHF high band for rural areas. The State Planning Agency recommends radio channels be allocated on the basis of the state frequency plan. Regarding criminal justice information systems, it recommends additional terminals, high-speed transmission equipment, improved switching systems, and utilization of a leased wire line.

Additional agency policies or positions are as follows:

- . Tone-controlled squelch is recommended for most systems.
- . Selective call systems is recommended for most systems.
- . Cooperative or central dispatch, independent dispatch, and mutual-aid pacts are recommended.
- . For law enforcement fire, and emergency service, 911 service is recommended.

- . Statewide coordination channel, interstate channel, county coordination channel, and regional or district coordination channels are recommended.
- . VHF/UHF point-to-point and hotlines for inter-agency coordination are recommended.
- . Computer-assisted dispatching is recommended.
- . Personal portables are recommended for detectives and for all sworn personnel with no mobile units in vehicles.
- . The use of magnetic tape recorders for logging of radio and telephone traffic is recommended.

Existing state statutes or laws that have an effect on law enforcement telecommunications planning are reported to be in the areas of an office or division of communications and directives to develop a state plan for communications. The State Planning Agency is reportedly planning to offer permissive legislation to permit the removal of low-band radio from command and staff State Police cars. The State Planning Agency identified differences between jurisdictional boundaries and telecommunications central office boundaries, lack of a methodology for effecting consolidated dispatch agreements, and inconsistencies between Federal program goals and local overall impact as three factors placing significant constraints on the planning and implementation of police telecommunications systems.

The State Planning Agency has developed formal procedures to determine when a grant should be terminated. The agency also has an in-house formal checklist or review procedure for grant applications review. The agency has published planning guidelines for the use of prospective grant applicants and requires applications to contain a statement of the problem, statement of requirement, procurement procedures to be used, adjacent area coordination, technical justification, manpower requirements, facility requirements, specification compliance testing, postimplementation project evaluation, frequency availability, technological evolutionary adaptabilities, and system description. Prior to review by the agency, grant applications are reviewed by a regional planning council.

The agency maintains a statewide law enforcement telecommunications equipment inventory. The initial inventory was compiled in March 1974 and was updated in January 1975.

(5) Budgets and Expenditures

The State Planning Agency has awarded funds each year for telecommunications projects in the amounts indicated in Table V-23. These figures represent the actual award approvals made during the periods indicated and are based on a review of the project files.

The total dollar amounts expended for all grants in all areas by the agency and a percent comparison for telecommunications projects is shown in Table V-23. The number of telecommunications projects funded in each year is also indicated.

The operating budgets for the State Planning Agency for the same periods are as follows:

7/1/71 - 6/30/72 \$504,000
 7/1/72 - 6/30/73 \$734,000
 7/1/73 - 6/30/74 \$734,000

Approximately 2 percent of its operating budget was expended for law enforcement telecommunications planning. For the period from 7/1/74 to 6/30/75 the State Planning Agency anticipates a similar operating budget (\$66,000 more) and a similar amount expended for law enforcement telecommunications planning.

(6) Procurement Methods and Policies

1. Centralized Purchasing Procedures

The State Planning Agency reported that there is extensive use of centralized purchasing procedures in the procurement of law enforcement telecommunications

Table V-23
 Comparison - All Grant Awards vs Telecommunications Awards
 7/1/71 to 6/30/75, State of Iowa

Year	Total Dollars All Grants Awarded	Total Dollars Telecommunications Grants Awarded	Percent of Total Awards for Telecommunications	Number of Telecommunications Projects Funded
7/1/71 - 6/30/72	\$7,652,000	\$ 11,038	0.1%	5
7/1/72 - 6/30/73	7,855,000	487,753	6.2	13
7/1/73 - 6/30/74	8,061,000	592,195	7.3	38
7/1/74 - 6/30/75	-	657,767	-	29

equipment. These procedures are mandatory. The agency encourages joint or centralized purchasing. The state also makes extensive use of centralized county or regional purchasing procedures for law enforcement communications procurements. Such centralized purchasing procedures are mandatory.

2. Standard Equipment or System Specifications

Throughout the state various types of specifications are used in acquiring law enforcement telecommunications systems. These include equipment specifications, system functional specifications, and system performance specifications. In the majority of cases, specifications for law enforcement communications equipment and systems are prepared by state or local government organizations and independent consultants. The State Planning Agency does not maintain a list of recommended independent consultants for telecommunications. The agency requires that system specifications be met by acceptance testing.

3. Equipment Sources and Vendors

Typically four to six bidders respond to law enforcement telecommunications system procurements in the state. The State Planning Agency does not maintain a list of recommended sources of law enforcement communications equipment.

4. Procurement Practices

The agency has issued standard procurement instructions that cover the purchase of law enforcement communications equipment and maintenance services.

In competitively bid procurements for consulting services, procurement instructions permit factors other than cost, such as excellence of the proposal and past performance of the vendor, to be given as much consideration as cost in selecting the successful bidder.

Procurement instructions require that all proposed procurements above \$2500 be advertised. When prebid conferences are held, procurement instructions require that they be held after the procurement has been advertised.

(7) Project Summary

Data was obtained from the State of Iowa for 86 grants awarded during the period July 1, 1971 to January 1, 1975. Following these highlights are project summary sheets which describe characteristics of the projects.

- . There were no projects for new systems.
- . Nearly all of the projects were for communications equipment including mobile and portable radios and base stations.
- . All of the projects provided for formal evaluation.
- . Nearly all of the projects provided for intrastate and interstate coordination.
- . All of the projects had as an objective the improvement of officer safety and nearly all of the projects had as an objective the reduction of response time, improvement of interagency coordination, improvement of communication service and improved access to computerized information systems.
- . Over half of the projects were awarded to sheriffs departments.

17. KANSAS

(1) Organization Information

The unit of government in the State of Kansas, which is responsible for processing LEAA funds is the Kansas Governor's Committee on Criminal Administration. This agency maintains offices at 535 Kansas Avenue, Topeka, Kansas 66603.

The agency has a total full-time professional staff of 12 headed by an Executive Director. One of the full-time personnel devotes all of his time to system planning and grant applications review for telecommunications projects.

The agency assists law enforcement agencies, in regard to telecommunications, by providing technical review of grant applications, assistance in the preparation of grant applications, specification preparation, system planning, postproject evaluation, and procurement assistance.

Similar assistance is provided to law enforcement agencies by the state Civil Defense Agency. The number of planning agencies in the state which are directly involved in law enforcement telecommunications planning activities includes one state-level agency, one state law enforcement agency, 105 county law enforcement agencies, and 20 municipal law enforcement agencies.

The State Planning Agency receives telecommunications planning assistance in the development of a comprehensive plan and submission of local area plans from other state agencies and the state and municipal law enforcement agencies.

The State Planning Agency provides telecommunications planning assistance in the area of planning guidelines to county and municipal law enforcement agencies. There are no formal agreements in existence for the receipt or provision of these services; however, informal agreements or memorandums of understanding do exist.

The State Planning Agency does have a person responsible for knowledge of the Federal Communications Commissions Rules and Regulations. The agency reports that it has occasion to contact the FCC approximately two times per year.

The agency has no working agreement with the State Public Utilities Commission and does not meet with or attend PUC hearings. In-house capabilities for serving law enforcement planning specifically in the communications area include engineering services, legal services, financial planning, and procurement services.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

Organized state-level law enforcement agencies in the State of Kansas which are eligible for LEAA grants include the State Highway Patrol, Game and Fish Agency, Liquor Control Board, Kansas Turnpike Authority, Park and Resources Authority, and the Attorney General's Office.

The State of Kansas has 105 Prosecutor's Offices and 105 county-level law enforcement offices. Additional law enforcement agencies include two county Park Police Departments, 167 organized municipal police departments, and 30 campus police departments.

2. Centralized, Cooperative, and Consolidated Dispatch Centers

In the State of Kansas there are 112 full-time 24-hour centralized, cooperative, or consolidated dispatch centers that serve two or more law enforcement agencies. Seven of these consolidated dispatch centers are state operated; one is a county operation and 104 are operated by either the county sheriff's office or the county seat.

Eleven dispatch centers have adopted 911 telephone service. Four centers serve populations of less than 20,000 each; the remaining seven centers each serve a population of between 20,000 and 100,000.

All of these 11 centers that utilize 911 service dispatch all public safety plus other agencies.

There is currently no communications dispatch center utilizing computer assisted dispatching, however, one center is currently planning such a project.

The State of Kansas receives telephone service from 55 separate telephone companies.

3. Spectrum Management

The State of Kansas is currently preparing a state-wide law enforcement frequency plan. This plan is being developed in-house by the State Planning Agency and will recommend specific frequencies for some but not all law enforcement agencies in the state. The APCO frequency coordinator for the State of Kansas reported that he recommends a specific frequency to applicants when they apply for coordination. The number of requests for frequency coordination which originated from law enforcement agencies within the state and were processed by the frequency coordinators in the three calendar years preceding this study are as follows:

.	1971 - 46
.	1972 - 54
.	1973 - 36
.	1974 - 44.

The State of Kansas presently has a backbone microwave system in use by law enforcement. The functions served by this system include mobile repeater links, radio control links, and interagency communications. The microwave system has backup capability and is supported by an emergency power system. The microwave system is not dedicated to law enforcement purposes.

4. Interagency Agreements

At the time of the survey there were 25 known cooperative dispatch agreements in force in the state which are between different political entities. In addition there were eight cooperative dispatch agreements in force which are between different agencies within the same political entity.

Thirty-five interjurisdictional pacts are in force which were entered into for the purpose of sharing radio equipment facilities and radio dispatch centers, and one agreement is in force for the purpose of sharing radio maintenance facilities.

There are also four interjurisdictional agreements in force for the purpose of sharing law enforcement records information and six contract law enforcement service agreements known to the state.

5. Training Programs

The State of Kansas has not established minimum standards for training of law enforcement radio dispatchers or government employee radio technicians. It does not foresee establishing such minimum standards in the near future. The state presently does not have funded training programs for either of these two categories.

(3) State Telecommunications Planning

1. State Telecommunications Plan

The State Planning Agency reported that the State of Kansas does not have a statewide telecommunications plan that was developed in response to overall telecommunications needs. The State Planning Agency did report, however, that the state anticipates preparing such a plan.

2. Comprehensive Law Enforcement Plan

The comprehensive law enforcement plan prepared by the State Planning Agency each year and submitted to the LEAA includes telecommunications considerations in a separate section of the plan.

The areas specifically addressed in the plan regarding telecommunications include frequency allocations, data retrieval systems, and operational requirements. The plan considers all state, county, and municipal law enforcement agencies and was developed in-house by the State Planning Agency.

(4) Policy Information

Generally, policy positions or recommended procedures are based on the statewide law enforcement plan that is being developed by the State Planning Agency. Some of the major policy positions of the agency are as follows:

- . The recommendation for sharing a channel by two or more agencies is for central or cooperative dispatch.
- . VHF low band is the recommended frequency band usage in rural areas.
- . The recommended method for determining the number of radio channels required is the population to be served, the number of mobiles and portables, and the functions to be served.
- . The recommended channel configuration includes one and two-frequency simplex and mobile relay.
- . The use of tone-controlled squelch is recommended.
- . Cooperative or central dispatch is the recommended command and control concept.

- . County, interstate, and statewide coordination channels are recommended.
- . Point-to-point communications is recommended for coordination between the State Highway Patrol local law enforcement agencies.
- . Wire-line control is recommended for remote control and base stations.
- . The recommendations for improved access to criminal justice information systems include high-speed transmissions and improved switching systems.
- . The State Planning Agency does not recommend or encourage the use of communications scramblers.

Regarding state statutes in the State of Kansas which have an effect on law enforcement communications planning, there is a Governor's Council on Emergency Medical Services which was established by legislation for a 1-year period. Legislation to continue this council is planned.

The State Planning Agency reported the following three constraints as most significant:

- . Insufficient planning funds
- . Insufficient funds for implementation
- . Unavailability of planning manpower.

The State Planning Agency has formal procedures to follow in determining when a grant should be terminated, and has published planning guidelines for use by perspective grant applicants. Grant applications are reviewed by regional planning councils in over half the state prior to submission to the State Planning Agency.

The State Planning Agency does not maintain a state-wide law enforcement telecommunications equipment inventory.

(5) Budgets and Expenditures

The State Planning Agency for Kansas has awarded funds each year for telecommunications projects in the amounts indicated in Table V-24.

These figures represent the actual award approvals made during the periods indicated and are based on review of the project files.

The other columns in Table V-24 include the total dollars expended for all grants, the dollars expended for telecommunications projects, a percent comparison, and the number of telecommunications projects funded in each of the years listed.

The operating budgets for the State Planning Agency for the same periods are as follows:

- . 7/1/71 - 6/30/72 - \$394,223
- . 7/1/72 - 6/30/73 - \$287,789
- . 7/1/73 - 6/30/74 - \$507,843.

The State Planning Agency estimated that approximately 10 percent of its operating costs are expended for law enforcement telecommunications planning. The State Planning Agency further estimated that its operating budget for Fiscal Year 1975 will be \$672,000, and that the total amounts for all grants awarded in the same Fiscal Year will be \$6,434,000. The State Planning Agency also estimated that the funds expended for telecommunications projects in the same fiscal year will be \$400,000.

(6) Procurement Methods and Policies

1. Centralized Purchasing Procedures

There is a limited use of centralized purchasing procedures in the State of Kansas, and these procedures

Table V-24
Comparison - All Grant Awards vs Telecommunications Awards
7/1/71 to 6/30/75, State of Kansas

Year	Total Dollars All Grants Awarded	Total Dollars Telecommunications Grants Awarded	Percent of Total Awards for Telecommunications	Number of Telecommunications Projects Funded
7/1/71 - 6/30/72	\$5,470,000	\$311,983	5.7%	87
7/1/72 - 6/30/73	\$6,476,000	649,861	10.0	75
7/1/73 - 6/30/74	\$6,476,000	653,981	10.1	59
7/1/74 - 6/30/75	-	284,871	-	55

are mandatory. The state goes to bid for state contracts for centralized purchases on an annual basis. The State Planning Agency reported that there are no centralized purchasing procedures in effect at the county or local level.

2. Standard Equipment or Systems Specifications

The types of specifications that are used in Kansas for procurement of law enforcement telecommunications systems include equipment specifications, system functional specifications, and system performance specifications.

For the most part, the specifications used are developed in-house by the State Planning Agency and the agency requires that the specifications be met through operational tests and vendor certification.

The State Planning Agency does not maintain a list of recommended independent consultants for telecommunications projects.

3. Equipment Sources and Vendors

The typical number of bidders who respond to a law enforcement telecommunications system is two or three. The State Planning Agency does not maintain a list of recommended sources for law enforcement communications equipment.

4. Procurement Practices

Grant-funded procurements in the State of Kansas are accomplished in accordance with the existing state procurement instructions in the areas of equipment and consulting services. The State Planning Agency has issued further procurement instructions covering the purchase of equipment.

The standard State Planning Agency procurement instructions require that requests for bids go to at least two suppliers no matter how small the purchase will be and that all procurements in the areas of equipment and consulting services be made on the basis of competitive bidding with award made to the lowest compliant bidder.

The State Planning Agency procurement instructions leave it to the discretion of the subgrantee as to whether a prebid conference will be held.

In regard to vendor participation in the procurement and implementation phases of law enforcement projects, vendors are typically asked to prepare bid specifications.

(7) Project Summary

Data was obtained from the State of Kansas for 276 telecommunications grants awarded during the period July 1, 1971 to January 1, 1975. The project summary sheets which follow describe the project characteristics including these highlights:

- . There were no grant awards for new systems.
- . Nearly all of the grants were for communications equipment including mobile radios, portable radios and base stations.
- . The greater majority of the projects provided for formal evaluation.
- . All of the projects provided for intrastate coordination and essentially all of the projects provided for interstate coordination. All of the projects also provided for communications between members of a department.

- . Project objectives for all of the projects included reduction of response time, improved interagency coordination, communication reliability, communication service and officer safety as well as relief of channel congestion.
- . The majority of the grants were awarded to municipalities with a population under 20,000 and approximately 30 percent of the grants were awarded to sheriffs departments.

(1) Organization Information

The LEAA funding agency for the State of Kentucky is the Kentucky Department of Justice. It maintains offices at 209 St. Claire Street, Frankfort, Kentucky 40601.

The agency is administered by an Executive Director and has a staff of 26 full-time professional personnel. The Executive Director reports directly to the Secretary of the Department of Justice. The unit is divided into five committees: Police, Courts, Correctors, Juvenile Delinquency and Assessment. Also, there are 16 Regional Crime Councils that provide local advice and recommendations needed for comprehensive law enforcement planning and effective program implementation.

In addition to the State Planning Agency, there is a unit of the Department of Finance and Administration known as the Telecommunications Section of the Division of Properties which does planning in law enforcement, including wireline system planning and telecommunications planning. The Telecommunications Section has a full-time professional staff of four and serves in an advisory capacity with state, county, and city agencies.

Within the State Planning Agency there is no one responsible for interfacing with the Federal Communications Commission, nor is there any activity between these two agencies. The State Planning Agency relies on the State Police for keeping abreast of FCC developments and activities. In addition, the State Planning Agency supported the APCO frequency coordinator during the development of its frequency plan.

The State Planning Agency did not report any contact with the Public Utilities Commission, and it does not review tariffs or participate in PUC hearings. The Telecommunications Section reported contact when necessary for problem resolution and does participate in PUC hearings.

The State Planning Agency assists law enforcement agencies in the telecommunications area by providing technical review of grant applications, assistance in the preparation of grant

applications, cost-effectiveness evaluations, system design, specification preparation, system planning post project evaluation, procurement assistance, and technical training.

The in-house capabilities for serving law enforcement telecommunications planning, reported by the agency, were engineering services, legal services, financial planning, procurement services, management planning, and check-out testing. The in-house capabilities reported by the Telecommunications Section included financial planning, management planning, and cost accounting services.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

State-level agencies that are eligible for LEAA grants include the State Police, Attorney General's Office, and Court Judges and Jailers. Table V-25 indicates the types and numbers of law enforcement agencies that exist below the state government level. In addition to 55 Prosecutor's Offices in the state, the State Planning Agency has identified 387 organized law enforcement agencies.

Table V-25
Kentucky Law Enforcement Agencies
Below State Level of Government

<u>Type of Agency</u>	<u>Number of Agencies in the State</u>
County Police Departments	132
Municipal Police Departments	245
Campus Police Departments	9
Airport Police Departments	1

2. Centralized, Cooperative, and Consolidated
Dispatch Centers

The State Planning Agency indicated that there are six full-time 24-hour centralized, cooperative, or consolidated dispatch centers existing within the state. All

six serve an area of over 200 square miles. Five of these centers serve populations between 20,000 and 100,000 and one center serves a population of between 100,000 and 500,000. All six centers dispatch only law enforcement vehicles. In addition to the six dispatch centers there are 240 individual one-agency dispatch centers existing within the state. Of these 240 centers, 119 serve an area of less than 50 square miles, 15 serve an area of from 50 to 200 square miles, and 106 centers serve an area of over 200 square miles. Of these centers, 119 serve a population of less than 20,000, 41 serve populations of from 20,000 to 100,000 and five centers serve populations of from 100,000 to 500,000. Implementation of 911 telephone service has been accomplished by four of the individual dispatch centers, but none of the consolidated centers is presently using 911 telephone service. Of the four centers using 911, two serve a population of less than 20,000 and the other two serve a population between 20,000 and 100,000. All four centers dispatch only law enforcement and fire vehicles.

Computer-aided dispatch is presently being considered by one law enforcement communication center in the state. However, there were no computer-aided dispatch systems as of the date of this survey. At present, 30 telephone companies operate within the state.

3. Spectrum Management

The State of Kentucky does not have a statewide frequency plan for law enforcement; however, the State Planning Agency reported that a frequency plan is currently being prepared. The plan will specify a low-band and high-band point-to-point coordination channel. The low-band will be utilized for inter-regional use. The plan is being developed by an independent consultant. It will recommend frequency assignments from the police only classification.

From data collected from the APCO frequency coordinator, it was determined that the following numbers of

requests for frequency coordination have been processed over the 3-year (fiscal) period preceding this study:

- . 1971 - 137
- . 1972 - 166
- . 1973 - 465.

The State Planning Agency reported that they will not approve a grant application for a communications system that uses frequencies not in conformance with the state plan. It also will not approve a grant application prior to coordination of any new frequencies required by the system.

Present licenses for law enforcement include 60 in VHF low band, 154 in VHF high band, and 32 in the UHF band. The State Planning Agency reported approximately 800 State Police mobile units in operation and 40 base stations in operation by the State Police. There is no backbone microwave system in use for law enforcement in the State of Kentucky. However, the state is planning the implementation of such a system for civil defense.

4. Interagency Agreements

Within the state there are six cooperative dispatch agreements in force which involve different political entities. In addition, there are 120 agreements in force for the sharing of radio equipment facilities, and five known agreements in force for the sharing of law enforcement records information.

5. Training Programs

Kentucky has not established minimum standards for training of either law enforcement radio dispatchers or government employee radio technicians. However, plans do exist to establish minimum standards for law enforcement radio dispatchers. The state currently has a funded training program for law enforcement radio dispatchers.

(3) State Telecommunications Planning

1. State Telecommunications Plan

The State of Kentucky has a statewide telecommunications plan. The plan is advisory in nature and was developed by a private consulting firm. It covers the period 1973 to 1983. The plan is directed to state, municipal, and county law enforcement agencies. It specifically addresses organization of radio networks, interagency coordination, spectrum management, frequency allocations, interstate coordination, and data retrieval systems. The

State Planning Agency requires conformance with the state plan in telecommunications systems planning. However, the state plan does not have automatic review and revision procedures.

2. Comprehensive Law Enforcement Plan

The comprehensive law enforcement plan prepared by the State Planning Agency and submitted to LEAA each year is developed with specific law enforcement telecommunications considerations. Specifically, the plan addresses organization of radio networks, interagency coordination, citizen access, procurement procedures, and maintenance. The plan is directed to municipal and county law enforcement agencies. The telecommunications portion of the comprehensive law enforcement plan was developed totally by the State Planning Agency.

(4) Policy Information

The State Planning Agency has developed a policy for organization of law enforcement radio networks based on mobile radio districts. For improved access to criminal justice systems, the agency recommends additional terminals, high-speed transmission equipment, improved switching systems, and private microwave. The agency recommends radio channels be allocated on the basis of the state frequency plan.

Additional agency policies or positions are as follows:

- . Tone-controlled squelch is recommended for most systems.
- . Cooperative or central dispatch, independent dispatch, and mutual-aid pacts are recommended as command and control concepts.
- . For law enforcement, fire, and emergency service, 911 telephone service is recommended.
- . A statewide coordination channel and regional or district coordination channels are recommended.
- . VHF-UHF point-to-point interagency coordination is recommended.
- . Mobile digital terminals with alphanumeric display and mobile printers are recommended.
- . Coordination with the State Police via point-to-point communication is recommended.
- . Computer-assisted dispatching is recommended.
- . Personal portables are recommended for all sworn personnel with mobile units in vehicles.
- . The use of magnetic tape recorders is recommended for logging radio and telephone traffic.

The State Planning Agency is reportedly planning to offer legislation regarding laws for control of access to police communications and for training of sworn and civilian personnel. The three most significant constraints on the planning or implementation of police telecommunications systems identified by the agency are multiplicity of telephone companies, political factors, and unavailability of planning manpower.

The State Planning Agency reported that it has formal responsibility to ensure that grant-funded telecommunications projects have been coordinated with adjacent states. In addition, the agency has procedures for updating fund allocations if the

time between grant application and project implementation has resulted in outdated cost figures. The agency has formal procedures for determining when a grant should be terminated and has an in-house formal checklist or review procedure for grant application review. The agency has published planning guidelines for use by prospective grant applicants and require said applications to contain a statement of the problem, statement of requirement, procurement procedures to be used, adjacent area coordination, technical justification, manpower requirements, training requirements, follow-on funding requirements, facility requirements, specification compliance testing, postimplementation project evaluation, frequency availability, technological evolutionary adaptabilities, system description, and maintenance consolidations. Prior to review by the agency, grant applications are reviewed by a regional planning council. The State Planning Agency maintains a statewide law enforcement telecommunications equipment inventory. The initial inventory was made on July 1972 and was updated July 1973.

(5) Budgets and Expenditures

The State Planning Agency has awarded funds each year for telecommunications projects in amounts indicated in Table V-26. These figures represent the actual award approvals made during the periods indicated and are based on review of the project files.

The total dollar amounts expended for all grants in all areas by the agency and a percent comparison of telecommunications projects are shown in the table. The number of telecommunications projects funded in each of the periods is also indicated in the table.

The operating budgets for the State Planning Agency for the same period are as follows:

- . 7/1/71 - 6/30/72 - \$790,000
- . 7/1/72 - 6/30/73 - \$810,000
- . 7/1/73 - 6/30/74 - \$880,000

Approximately 5 percent of their operating budget was expended for law enforcement telecommunications planning. For the period 7/1/74 to 6/30/75, the agency anticipates a similar operating budget and a similar amount awarded totally for all criminal justice grants.

Table V-26
Comparison - All Grant Awards vs Telecommunications Awards
7/1/71 to 6/30/75, State of Kentucky

Year	Total Dollars All Grants Awarded	Total Dollars Telecommunications Grants Awarded	Percent of Total Awards for Telecommunications	Number of Telecommunications Projects Funded
7/1/71 - 6/30/72	\$8,100,000	\$ 214,578	2.6%	18
7/1/72 - 6/30/73	8,100,000	295,805	3.7	7
7/1/73 - 6/30/74	8,200,000	1,730,901	21.1	28
7/1/74 - 6/30/75	-	445,615	-	7

(6) Procurement Methods and Policies

1. Centralized Purchasing Procedures

The State Planning Agency reported that there is a limited use of mandatory centralized purchasing procedures in the procurement of law enforcement telecommunications equipment. However, the agency does encourage joint or centralized purchasing for small purchases.

2. Standard Equipment or System Specifications

The type of specifications that are used by Kentucky for procurement of law enforcement telecommunications systems are system performance specifications only. The major source of these specifications are independent consultants.

The agency requires that system specifications be met by acceptance testing and operational tests. However, it does not maintain a list of recommended independent consultants or a list of recommended sources of law enforcement communications equipment.

3. Equipment Sources and Vendors

Typically, two or three bidders respond to law enforcement telecommunications system procurements in the state.

4. Procurement Practices

The agency has issued standard procurement instructions that cover the purchase of law enforcement equipment and consulting services.

In the case of competitively bid procurements for equipment and consulting services, procurement instructions permit factors other than cost (such as excellence of the proposal and past performance of the vendor) to be given as much consideration as cost in selecting the successful bidder.

For equipment and consulting services above \$2500, procurement instructions require that bids be advertised.

When prebid conferences are used for equipment and consulting services, they are generally held after the procurement has been advertised.

In the procurement and implementation phases of law enforcement communications projects, vendors are required to submit to the consultant for approval any suggestions they may have for changing the system design specifications.

(7) Project Summary

Data was obtained from the State of Kentucky for 60 telecommunications grants awarded during the period of July 1, 1971 to January 1, 1975. The project summary sheets which follow, describe the project characteristics including these highlights:

- . There were no projects for new systems.
- . Although the majority of the projects were for communications equipment including mobile and portable radios and base stations over half of the projects also included terminals for computerized information systems and nearly half involved command and control centers.
- . All of the projects provided for formal evaluation.

- . Most of the projects provided for intrastate coordination, communications between members of the department and between law enforcement departments and nearly a third of the projects provided for interstate coordination.
- . All of the projects included as project objectives, the reduction or response time, improvement of communication and reliability, relief of channel congestion and improved communication service and officer safety and access to computerized information systems.
- . Nearly all of the projects were to regional recipients.

19. LOUISIANA

(1) Organization Information

The unit of government in the State of Louisiana which processes LEAA funds is The Louisiana Commission on Law Enforcement and Administration of Criminal Justice. This agency, herein referred to as the State Planning Agency, maintains offices at 1885 Wooddale Boulevard, Baton Rouge, Louisiana 70806.

The agency is administered by an Executive Director who reports directly to the Governor's Office. The agency employs 23 full-time professionals in the main office, and including regional planners has a total of 37 employees. In addition the agency uses 12 students on a part-time basis. Three of the full-time professional personnel were identified as devoting part of their time to the area of system planning and grant applications review for law enforcement telecommunications projects.

The agency provides assistance to law enforcement agencies in the preparation of grant applications, postproject evaluations, and operational planning. Other agencies providing some services to law enforcement departments include the regional planning agencies and the Office of Telecommunications. The agency estimates that there are 17 agencies in the state that are directly involved in planning for law enforcement telecommunications. These include the three state-level agencies, one state law enforcement agency, 10 regional agencies, and three municipal law enforcement agencies.

The State Planning Agency receives telecommunications planning assistance from other agencies in the state. In developing comprehensive plans the State Planning Agency receives assistance from other state agencies, state law enforcement agency, and regional law enforcement agencies. Assistance is received from regional and municipal law enforcement agencies in the submission of local area plans. Municipal law enforcement agencies also assist the State Planning Agency in postproject award evaluations.

A formal agreement exists between the State Planning Agency and the Office of Telecommunications under which

the Office of Telecommunications serves as the technical review agency for telecommunications grant applications.

The Office of Telecommunications Management, which is a unit of the Division of Administration for the State of Louisiana, has a full-time professional staff of two persons and a part-time professional staff of four. This office is involved in radio, land-line, and spectrum management activities; but its primary concern at this point is in the area of state telephone service. The agency was formed in 1974 by an act of legislation. The agency serves in an advisory capacity to all state agencies, including the State Police.

Services offered to the State Planning Agency and other agencies by the Office of Telecommunications Management include technical review of grant applications, review for concurrence to state plans, cost-effective evaluations, procurement procedures, specification preparation, and system design review. At present, the State Planning Agency does not require concurrence from the Office of Telecommunications Management as a prerequisite to grant approvals.

In matters pertaining to interface with the Federal Communications Commission, responsibility is with the APCO State Frequency Coordinator. The coordinator is responsible for knowledge of FCC Rules and Regulations and for monitoring and commenting on FCC dockets. The coordinator reported that he participates in FCC proceedings on an average of two times per year, and he makes recommendations to the Governor or other officials for action in connection with FCC proceedings. The coordinator reported at least 12 contacts per year with the Field Operations Bureau of the Federal Communications Commission.

The only agency contacted which reported any association with the Public Utilities Commission for the State of Louisiana was the Office of Telecommunications Management. This office reported bimonthly meetings with the PUC for the purpose of reviewing tariffs. The agency also reported that in the near future it will be participating in PUC hearings.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

The State Planning Agency reported that the state level law enforcement agencies in Louisiana which are eligible for LEAA grants include the State Police and several other state enforcement units when specific applications relate to law enforcement functions. These other units include Marine Patrol, Game and Fish, Environmental Protection, and Liquor Control Board.

The State Planning Agency reported that there are 91 prosecutor's offices in the State of Louisiana and approximately 547 organized law enforcement agencies. These additional law enforcement agencies are identified on Table V-27.

2. Centralized, Cooperative, and Consolidated Dispatch Centers

At the present time in the State of Louisiana, there are no full-time 24-hour centralized, cooperative, or consolidated dispatch centers serving two or more law enforcement agencies.

Currently there are 121 known individual dispatch centers, that is, those centers that serve only one police department. Of these individual centers 74 serve populations of less than 20,000 persons each, 31 serve populations between 20,000 and 100,000 persons, four serve populations between 100,000 and 500,000, and one serves a population over 500,000.

The major portion of these individual dispatch centers dispatch law enforcement vehicles only, and 32 of the centers have adopted single 7-digit emergency numbers for all public safety services.

Table V - 27

Louisiana Law Enforcement Agencies
Below State Level of Government

<u>Type of Agency</u>	<u>Number of Agencies in the State</u>
County Law Enforcement Departments	64
Municipal Police Departments	151
Municipal Park Police Departments	1
Campus Police Departments	18
Town Marshals	287
Mississippi River Bridge Authority	1
Levee Boards	1
Hospital Authority	14
Capitol Harbor Police	2
Livestock and Brand Commission	1

Including all known dispatch centers, 15 centers have adopted 911 emergency telephone service. The area covered and population served by these 15 centers is presently unknown.

Computer-aided dispatching has been installed in three dispatch centers in the State of Louisiana, and four additional centers are planning to add this capability. The State of Louisiana receives its telephone service from 25 separate telephone companies.

3. Spectrum Management

A statewide law enforcement frequency plan is currently being prepared for the State of Louisiana by an independent consulting firm. The APCO frequency coordinator for the state reported the following numbers of frequency coordinations processed for the years indicated which originated from law enforcement agencies:

.	1972 -	90
.	1973 -	131
.	1974 -	132

The frequency coordinator stated that specific frequencies are recommended to an applicant when new frequency assignments are needed. The coordinator also stated that within the state there are 115 law enforcement departments licensed on VHF low band, 35 on VHF high band, four on UHF 450 to 460 MHz, and one on UHF 470 MHz.

Present two-way radio equipment estimates indicate that there are in excess of 5000 mobile units and 150 base stations in use by law enforcement in the State of Louisiana. The state does not have a backbone microwave system in use for law enforcement but consideration is currently being given to the implementation of such a system.

4. Interagency Agreements

The total known interagency agreements existing in the state, regarding law enforcement activities, include three between different political entities for cooperative dispatch, one for cooperative dispatch between different agencies of the same political entity, three interjurisdictional pacts for the purpose of sharing radio equipment facilities other than dispatch centers, three for the purpose of sharing radio maintenance facilities, and 12 for the purpose of sharing law enforcement records information.

5. Training Programs

The State of Louisiana has not established minimum standards for training of law enforcement radio dispatchers or government employee radio technicians. The state is planning to establish minimum standards for the training of law enforcement radio dispatchers, and it has funded training programs in that area.

(3) State Telecommunications Planning

1. State Telecommunications Plan

The State of Louisiana does not have a statewide telecommunications plan at the present time; however, a very extensive plan is being prepared.

2. Comprehensive Law Enforcement Plan

The comprehensive plan prepared by the State Planning Agency each year and submitted to the Law Enforcement Assistance Administration includes telecommunications considerations in a separate section of the plan. The current plan specifically addresses operational training and financial considerations for law enforcement telecommunications. The plan is addressed

to all law enforcement agencies in the state and emergency medical and fire services. This comprehensive plan was developed by the State Planning Agency.

(4) Policy Information

For the most part, policy statements and policy procedures in the areas of law enforcement telecommunications are presently being reevaluated and will be modified based on the new statewide telecommunications plan being developed. Some specific policy statements that will not change are as follows:

- Central or cooperative dispatch is recommended when two or more agencies are required to share a channel
- To improve citizen access 911 emergency telephone service is recommended, and should serve law enforcement, fire, and emergency medical services.

Several state statutes and acts of legislation in the state of Louisiana have an effect on law enforcement communications planning. The areas covered by these enactments include the following:

- Establishment of the Office or Division of Communications
- 911 legislation
- Directives to plan or implement communications systems
- Directives to develop a state plan for communications
- Emergency medical services legislation
- Fire legislation.

At the present time, the State Planning Agency is not anticipating new legislation in the area of law enforcement communications planning.

The three most significant constraints on the planning or implementation of police telecommunications identified by the State Planning Agency are multiplicity of telephone companies, political factors, and state statutes.

The State Planning Agency reported that since July 1971 approvals of grant requests made by the agency have never been reversed by other authorities; however, in 18 cases disapprovals of grant requests since July 1971 have been reversed by other state levels of authority.

The State Planning Agency has procedures for updating fund allocations when the time between grant applications and project implementation has resulted in outdated cost figures. The agency further has developed formal procedures for determining when a grant will be terminated. The agency has developed planning guidelines for use by prospective applicants, and grant applications receive review by regional planning councils prior to submission to the agency.

The State Planning Agency reported that it does not maintain a statewide law enforcement telecommunications equipment inventory. However, the Office of Telecommunications Management stated that it does maintain such a statewide inventory, which was initially established in November 1968. This inventory reportedly was updated in November 1970, and since May 1974 it is to be updated monthly.

(5) Budgets and Expenditures

The State Planning Agency for Louisiana has awarded funds each year for telecommunications projects in amounts indicated in Table V-28.

These figures represent the actual award approvals made during the periods indicated, and are based on a review of the project files.

Table V-28 also includes the amounts expended by the State Planning Agency for all grants for the periods indicated, a percent expended for telecommunications projects, and the number of telecommunications projects funded in each of the years indicated.

The operating budgets for the State Planning Agency for the periods indicated are as follows:

.	7/1/71 - 6/30/72	\$306,300
.	7/1/72 - 6/30/73	\$465,800
.	7/1/73 - 6/30/74	\$604,500.

The State Planning Agency reported that none of the dollars expended for operating costs were for law enforcement telecommunications planning because during the periods indicated all telecommunications planning was done at the regional and local levels.

The Office of Telecommunications Management reported operating expenditures including salaries and other administrative cost as follows:

.	7/1/72 - 6/30/73	\$250,000
.	7/1/73 - 6/30/74	\$250,000

Their total annual budget is approximately \$3,600,000.

The Office of Telecommunications Management could not estimate the percentage of budget expenditures that were expended for law enforcement telecommunications planning.

The State Planning Agency estimated that operating costs for fiscal year 1975 will total \$553,900, and total grant awards will total \$8,496,000.

(6) Procurement Methods and Policies

1. Centralized Purchasing Procedures

For state-level law enforcement agencies, extensive use of centralized purchasing procedures are in effect for most radio equipment. These centralized purchasing

Table V-28
Comparison - All Grant Awards vs Telecommunications Awards
7/1/71 to 6/30/74, State of Louisiana

Year	Total Dollars All Grants Awarded	Total Dollars Telecommunications Grants Awarded	Percent of Total Awards for Telecommunications	Number of Telecommunications Projects Funded
7/1/71 - 6/30/72	\$7,315,000	\$582,950	8.0%	107
7/1/72 - 6/30/73	\$8,485,000	535,907	6.3	35
7/1/73 - 6/30/74	\$8,484,000	272,812	3.2	10

procedures are mandatory, and equipment is purchased based on open specifications for individual requirements at present. There are no centralized purchasing procedures in effect for political subdivisions within the state.

2. Standard Equipment or System Specifications

The types of specifications used for procurement of law enforcement telecommunications systems by state-level agencies include equipment specifications, system functional specifications, and system performance specifications. As a general rule, local-level agencies procure systems with no specifications. Most of the specifications used are obtained through vendors. The State Planning Agency has no requirements to ensure that system specifications are met. The State Planning Agency does not maintain a list of independent consultants for telecommunications.

3. Equipment Sources and Vendors

The typical number of bidders who respond to law enforcement telecommunications systems procurements that are issued to state-level agencies is two or three. Local-level procurements are usually on a sole-source basis. The State Planning Agency does not maintain a list of recommended sources of law enforcement telecommunications equipment.

4. Procurement Practices

Grant-funded procurement instructions are for state agencies only; these rules do not apply to local agencies. With regard to prebid conferences, procurement instructions leave this to the discretion of the subgrantee. State procurement instructions require that bids be solicited from at least three suppliers when the procurement exceeds a given dollar value. The instructions also require that procurements be advertised and be made on the basis of competitive bidding with the award being made to the lowest compliant bidder when the procurement is for more than \$100.

For local-level procurements, it is typical for vendors to be asked to prepare the bid specifications

(7) Project Summary

At present the State of Louisiana is involved in a very extensive program for a statewide telecommunications plan development in phase segments. Many of the major areas of this study could not be addressed at this time because of unknown recommendations that will develop as a result of this major effort to develop a total and completely comprehensive statewide telecommunications plan.

Data was obtained from the State of Louisiana for 153 grants awarded between July 1, 1971 and January 1, 1975. The following project summary sheets describe their characteristics including these highlights:

- . Seven of the projects were for new systems.
- . Nearly all of the projects were for communications equipment, principally for mobile radios.
- . A small percentage of the projects provided for formal evaluation.
- . A small percentage of the projects provided for intrastate and interstate coordination while nearly all of the projects provided for communications between members of the department.
- . Improvement of communications service was a project objective for nearly all of the projects and improvement of communication reliability was a project objective for most of the projects.
- . More than half of the grants were to municipalities with a population under 20,000.

20. MAINE

(1) Organization Information

The unit of government in the State of Maine that is responsible for the administration of LEAA grant funds is the Maine Law Enforcement Planning and Assistance Agency. This State Planning Agency has offices at 295 Water Street, Augusta, Maine 04330.

The agency is administered by an Executive Director and has a staff of 27 full-time and one part-time professional personnel. Members of the staff involved in system planning for law enforcement telecommunications projects and the review of grant applications for telecommunications projects include three persons on a full-time basis and one on a part-time basis.

The agency provides assistance to law enforcement agencies in the telecommunications area by providing a technical review of grant applications, assistance in preparation of grant applications, cost-effectiveness evaluations, system design, specification preparations, system planning, post project evaluation, acceptance testing, procurement assistance, and operational training.

In addition to the State Planning Agency, there are seven regional planning agencies and one statewide telecommunications advisory committee that are involved in providing telecommunications planning services to law enforcement agencies in the state. Also involved in law enforcement telecommunications activities are 16 county law enforcement agencies, 125 municipal law enforcement agencies, and one state law enforcement agency.

Many of these agencies provide assistance to the State Planning Agency through their participation in the development of comprehensive plans, submission of local area plans, and post project award evaluations. The State Planning Agency provides telecommunications planning assistance to all law enforcement agencies in the state in areas of organization planning, jurisdictional coordination, and planning guidelines. No formal agreements exist for the provision of these services by the State Planning Agency.

In all matters pertaining to interface between the State of Maine and the Federal Communications Commission, a member of the State Planning Agency and a member of the State Police share the responsibility for knowledge of FCC Rules and Regulations. These persons also make recommendations to the Governor and other officials for action in connection with FCC proceedings. These persons also reported that they have contact with the FCC approximately 7 times a year, specifically with the Safety and Special Radio Services Bureau.

The State Planning Agency reported that it does not have contact with the Public Utilities Commission nor do they attend PUC hearings.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

Agencies at the state level of government that are eligible for LEAA grants were reported to be the State Police and the Attorney General's Office.

Other law enforcement agencies in the State of Maine include 16 county law enforcement departments, 125 municipal police departments, one municipal park police department, and two campus police departments. The State of Maine has nine prosecutors' offices. Two other agencies identified as organized law enforcement departments were the Fire Prevention and Arson Unit and the Medical Examiner's Office.

2. Centralized, Cooperative, and Consolidated Dispatch Centers

The State Planning Agency reported that there were 20 full-time, 24-hour, centralized, cooperative, and consolidated dispatch centers serving two or more law enforcement agencies in the State of Maine. Six of these centers serve areas under 50 square miles while the remaining 14 serve areas between 50 and 200 square miles.

Fourteen of the centers serve populations between 20,000 and 100,000 persons while the remaining six serve populations of less than 20,000.

Eight centers dispatch law enforcement, fire, and ambulance vehicles. Law enforcement vehicles only are dispatched by six consolidated centers and the remaining six centers dispatch all three emergency services plus other agencies.

One of the consolidated centers has implemented 911 telephone service for emergency calling, eight use a seven-digit emergency call number for law enforcement and six use a seven-digit emergency call number for all three emergency services.

In addition to the 20 consolidated dispatch centers, there are 63 individual dispatch centers in the state, each serving only one police department. Fifty-five of these centers serve areas of less than 50 square miles. The remaining 8 centers serve areas between 50 and 200 square miles.

Fifty-five of these individual centers serve populations of less than 20,000 persons while the remaining eight centers serve a population of between 20,000 and 100,000 persons.

All 63 of these centers dispatch law enforcement vehicles only.

Implementation of 911 telephone service is limited to three dispatch centers in the state. Two of these centers serve populations of less than 20,000 persons while the other center serves a population of between 20,000 and 100,000. Of the 911 dispatch centers, one is for law enforcement and fire only and the other two dispatch law enforcement, fire, ambulance, and other agencies.

The State Planning Agency reported that there are no computer aided law enforcement dispatch systems in the State of Maine nor are there presently any plans to add this capability.

The State of Maine is served by 22 separate telephone companies.

3. Spectrum Management

The State of Maine has a frequency plan for law enforcement which was prepared in-house by the State Planning Agency. The frequency plan specifies specific frequencies for all law enforcement agencies in the state as part of a statewide communications plan. The frequency plan utilizes frequency assignments in the police-only and local government spectrum.

The State Planning Agency reported that there is no law enforcement frequency coordinator in the state, and frequency coordinations are processed from the APCO coordinator in Massachusetts. Frequencies coordinated for the state that originated from law enforcement agencies are as follows:

- . 1972 - 19
- . 1973 - 6
- . 1974 - 62.

The State Planning Agency reported that in some cases a frequency coordinator recommends a frequency to the applicant and in other cases he requires the applicant to select the frequency. The frequency coordinator may recommend use of a frequency that does not conform to the state plan provided he sees no objection to its assignment.

At the present time, law enforcement departments are licensed in several frequency bands including 37 departments licensed in VHF low band, 59 licensed in VHF high band, and two licensed in UHF 45-460 MHz.

The State of Maine presently does not have a backbone microwave system but a contract has recently been issued that will include the installation of such a system for use by law enforcement agencies. This contract is discussed under section 7 of this report.

CONTINUED

6 OF 11

4. Interagency Agreements

In the State of Maine there are 20 cooperative dispatch agreements between different political entities. There are also 20 agreements for cooperative dispatch entered into between different agencies of the same political entity.

One statewide contract exists between all law enforcement agencies for the purposes of sharing radio equipment facilities, maintenance facilities, and law enforcement records information. There are also three known contracts for law enforcement service in the state.

5. Training Programs

The state presently does not have minimum standards for training of law enforcement radio dispatchers or government employee radio technicians. However, training is conducted for dispatchers under a funded program. State law requires the minimum of an FCC second class radiotelephone license for government employee radio technicians.

Training programs for both radio dispatch and radio technician personnel are included in the communications contract detailed in Section 7 of this report.

(3) State Telecommunications Planning

1. State Telecommunications Plan

The State Planning Agency reported that the State of Maine does not have a statewide telecommunications plan. However, a plan has been developed for all law enforcement telecommunications within the state. This plan was developed in-house by the State Planning Agency in July 1974 and includes all the necessary equipment, locations of towers, microwave lengths, the names and requirements of every law enforcement user in the state.

In December 1974 a contract was awarded to implement the entire statewide telecommunications system. The multi year funding for this three year program has been provided by the State Planning Agency. When installation of this total system has been completed, there will be new equipment in every law enforcement agency in the State of Maine.

The system and the plan addresses all state, municipal and county law enforcement agencies. The items specifically addressed include organization of radio networks, interagency coordination, spectrum management, frequency allocations, citizen access, consolidated dispatching, data retrieval systems, operational requirements, procurement procedures, technical training, operational training, maintenance, financial planning, configuration control, traffic management, and reliability standards.

The State Planning Agency will require conformance with this plan in all telecommunications systems planning in the state.

2. Comprehensive Law Enforcement Plan

The Comprehensive Law Enforcement Plan prepared by the State Planning Agency each year and submitted to the Law Enforcement Assistance Administration includes telecommunications considerations. However, these are included in a separate section of the plan. Specific areas that the plan addresses include procurement procedures, operational training, and financial considerations.

The plan is addressed to all law enforcement agencies within the State and also includes considerations for emergency medical and fire services. This plan was developed in-house by the State Planning Agency.

(4) Policy Information

Policy positions and procedures that are established by the State Planning Agency and have an effect on law enforcement

telecommunications planning are directly related to the procurement bid package that was developed by the agency for the supply, installation and maintenance of the total statewide telecommunications system for law enforcement. Some specific agency positions are listed as follows:

- . The general concept for organization of law enforcement radio networks is based upon mobile radio districts or zones and county networks.
- . Central or cooperative dispatch is recommended when two or more agencies share a channel.
- . The VHF high-band spectrum is recommended for all law enforcement in the state.
- . Tone-controlled squelch and selective calling are not recommended.
- . The recommended command and control concepts include cooperative or central dispatch and mutual aid pacts.
- . The recommended approach for improved citizen access to public safety agencies is a ten-digit statewide toll-free number to the radio control centers.
- . The new plan recommends a statewide and a regional coordination channel.
- . Interagency point-to-point coordination is recommended on a VHF link.
- . Point-to-point and mobile-to-mobile communications are recommended for coordination between the State Police and local law enforcement agencies.
- . Radio control links are recommended for remote-controlled base stations.
- . Recommendations for improved access to criminal justice information systems include additional terminals and improved switching systems.

- The use of communication scramblers is not recommended.
- Personal portable radios are recommended for all sworn personnel with mobile units installed in the vehicles.
- The use of magnetic tape recorders for logging of radio and telephone traffic is not recommended.

Present state statutes in force that could have an effect on law enforcement communications planning are in the area of emergency medical service legislation. The State Planning Agency is currently planning to introduce legislation for the reestablishment of the Advisory Committee on State Communications.

The three most significant factors identified as constraints on the planning or implementation of police telecommunications systems are the multiplicity of telephone companies, political factors, and insufficient funds for implementation.

The State Planning Agency has adopted procedures for updating fund allocations when the time between grant application and project implementation has resulted in outdated cost figures. The agency also has procedures to determine when a grant would be terminated and has developed planning guidelines for use by prospective grant applicants.

The one highly significant policy position of the State Planning Agency relates to the contract awarded for implementation of the statewide telecommunications system. Under this new concept, it will not be necessary for an individual agency to submit a grant application. The telecommunication system will automatically be provided to all the agencies in the state after they have signed an agreement for inclusion in the system.

The State Planning Agency stated that they do have a statewide law enforcement telecommunications equipment inventory. This inventory was implemented December 31, 1974 and will be updated on an annual basis under the major systems contract that has been awarded.

(5) Budgets and Expenditures

The State Planning Agency has awarded funds each year for telecommunications projects in amounts indicated on Table V-29.

These figures represent the actual award approvals made during the periods indicated. The amount listed for fiscal year 1972 related to varied telecommunications projects while the amounts listed for fiscal 1973, 1974, and 1975 represent payments made on the major system contract that has been awarded to a single vendor by the State Planning Agency.

The total dollar amounts expended for all grants in all areas by the State Planning Agency, and a percent comparison of telecommunications projects bids, are also found on Table V-29. Shown also is the number of telecommunications projects funded for fiscal year 1972.

The operating budgets for the State Planning Agency for the same periods are as follows:

•	7/1/71 - 6/30/72	\$303,167
•	7/1/72 - 6/30/73	\$543,832
•	7/1/73 - 6/30/74	\$582,006
•	7/1/74 - 6/30/75	\$946,841

(6) Procurement Methods and Policies

1. Centralized Purchasing Procedures

Under the terms of the negotiated contract between a vendor and the State Planning Agency, all telecommunications equipment for law enforcement will be purchased centrally by the State Planning Agency and supplied to all of the users in the state. Prior to this contract, centralized purchasing procedures were used extensively for the purchase of radio equipment by state agencies. These centralized purchasing procedures were mandatory for the state agencies and these would be solicited as needed, usually for periods greater than 12 months.

Table V-29
Comparison - All Grant Awards vs Telecommunications Awards
7/1/71 - 6/30/75 - State of Maine

Year	Total Dollars All Grants Awarded	Total Dollars Telecommunications Grants Awarded	Percent of Total Awards for Telecommunications	Number of Telecommunications Projects Funded
7/1/71 - 6/30/72	\$1,995,000	\$ 73,417	3.7%	35
7/1/72 - 6/30/73	2,312,000	96,070	4.2	18
7/1/73 - 6/30/74	2,312,000	0	0	0
7/1/74 - 6/30/75	2,332,000	822,354	35.3	97

2. Standard Equipment or Systems Specifications

The type of specifications which are used in the State of Maine for procurement of law enforcement telecommunication systems includes equipment specifications, system functional specifications, and system performance specifications. The major source of these specifications has been the State Planning Agency and the vendor.

The State Planning Agency will require that system specifications be met by using acceptance testing, operational tests, and vendor certification. The State Planning Agency does not have a list of recommended independent consultants for telecommunications.

3. Equipment Sources and Vendors

The typical number of bidders who respond to law enforcement telecommunication system procurements has been 4 to 6. The State Planning Agency does have a list of recommended sources for law enforcement communications equipment. The requirements to be met by applicants wishing to be placed on the list is that they have system delivery capability. The State Planning Agency does not have a formal procedure for removal of concerns from this list nor have they ever removed a concern from the list for cause.

4. Procurement Practices

The State Planning Agency reported that grant-funded procurements are accomplished in accordance with existing state procurement instructions in the areas of equipment and consulting services. The State Planning Agency has not issued any standard procurement instructions regarding the delivery of maintenance services. The State Planning Agency has also issued standard procurement instructions covering the purchase of equipment.

In the areas of equipment, maintenance services, and consulting services, the standard procurement

instructions require that bids be solicited from at least three suppliers whenever the procurement exceeds a given dollar value. In the case of competitively bid procurements, the instructions permit factors other than cost to be given as much consideration as cost in selecting the successful bidder. The procurement instructions also require that all proposed procurements above \$500.00 be advertised. The State Planning Agency reported that when a pre-bid conference is held it will take place after the procurement has been advertised.

The role played by vendors has varied in prior years; however, under the new systems contract the vendors will be supplying the entire system to the state and are required to submit to the State Planning Agency for approval any suggestions they may have for change in system design specifications.

(7) Project Summary

The most significant project in the State of Maine is related to a request for bid that was developed in-house by the State Planning Agency and submitted to vendors in July 1974. This request for bid was titled "A pooled Bid for Communications Equipment on Behalf of the Subgrantees" and included a total system design for all law enforcement telecommunications in the State of Maine. The total system plan was developed in-house by the State Planning Agency and included all the necessary equipment, locations of towers and microwave lengths, the names and requirements of every law enforcement user in the state, and all peripheral equipment.

As the result of a competitive bid the contract was awarded in December 1974 between the State Planning Agency and an equipment vendor for a total estimated price of \$1.84 million. All funds available to the State Planning Agency for law enforcement telecommunications projects for fiscal years 1973, 1974 and 1975, have been committed to this major contract.

When installation of this total system has been completed, there will be new equipment in each and every law enforcement agency in the State of Maine. This includes all state, county and local law enforcement agencies.

There has been legislation introduced in the past for the establishment of a State Agency of Telecommunications, however, that legislation was not adopted. Under present plans, all planning activities for law enforcement projects will become the responsibility of the State Planning Agency.

Data was obtained from the State of Maine for 150 grants, all of which were for new systems awarded during the period July 1, 1971 to January 1, 1975. Project summary sheets which follow indicate characteristics of the projects including these highlights:

- . All of the projects were for communications equipment, command and control centers and consolidated central dispatch systems.
- . Essentially all of the projects provided for evaluation.
- . All of the projects provided for intrastate and interstate coordination.
- . All of the projects serve the listed project objectives.
- . About three-fourths of the projects were awarded to municipalities with a population under 20,000.

21. MARYLAND

(1) Organization Information

The unit of government in the State of Maryland which is responsible for the administration of LEAA funds is the Governor's Commission on Law Enforcement and Administration of Justice. The agency is part of the staff of the Governor's Commission and maintains offices in Executive Plaza One, Cockeysville, Maryland 21030.

The agency is administered by an Executive Director and has 28 full-time professional personnel. Two of these personnel are involved part-time in law enforcement telecommunications planning.

The agency assists law enforcement agencies in the telecommunications area by providing technical review of grant applications, assistance in grant application preparation, cost-effective analysis, system design, system planning, post project evaluation and procurement.

The Maryland Telecommunications Division of the Department of General Services acts in an advisory position to all state agencies including the Maryland State Police. However, because of its limited staff which currently is composed only of the Telecommunications Coordinator and a secretary, the activities of the agency have been directed toward telephone considerations only. The Telecommunications Division to date has not been involved in law enforcement telecommunications planning.

The State Planning Agency does not have a person responsible for knowledge of FCC rules and regulations nor does it participate in FCC proceedings. They reported minimum contact with the FCC.

The Telecommunications Division reported meeting monthly with State Public Utilities Commission (PUC). The State Planning Agency reports no contact with the PUC.

The State Planning Agency has in-house capabilities for performing law enforcement telecommunications planning

in the areas of legal services, financial planning, procurement services, management planning, cost accounting services and technology transfer.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

The State Planning Agency reported that the state-level agencies that are eligible for LEAA grants include the State Police, the Marine Patrol and the Game and Fish Agency. Table V-30 indicates the number of each type of law enforcement agency in the state. There are 24 prosecutor's offices and 77 organized state and local law enforcement agencies. There are also 26 federal law enforcement agencies in the state.

Table V-30
Maryland Law Enforcement Agencies
Below State Level of Government

<u>Type of Agency</u>	<u>Number of Agencies in the State</u>
County Police Departments	5
Municipal Police Departments	57
County Park Police Departments	1
Municipal Park Police Departments	1
Campus Police Departments	10

2. Centralized, Cooperative, Consolidated Dispatch Centers

In the State of Maryland there are 18 full-time centralized dispatch centers, all of which serve an area of over 200 square miles. Twelve of these 18 centers serve a population of from 20,000 to 100,000 and two each serve populations of less than 20,000, 100,000 to 500,000 and over 500,000. Seventeen of the 18 central-

ized centers dispatch law enforcement vehicles only and the remaining one dispatches for law enforcement, fire and emergency medical service. Two of the centralized centers have installed 911 emergency telephone service.

In addition to the centralized facilities, there are 31 individual centers that serve only one police department. One of these centers dispatches law enforcement, fire and emergency medical service; the remaining 30 dispatch law enforcement vehicles only.

Three communications centers in the state have implemented 911 as their emergency telephone number. Two of these centers serve populations of over 500,000. All three dispatch law enforcement, fire and emergency medical service. There is only one telephone company in the State of Maryland.

3. Spectrum Management

The State of Maryland has a frequency plan which was developed by an independent consultant. The plan specifies frequency bands, but not specific frequencies for law enforcement agencies.

Present licenses for law enforcement include 39 in VHF low band, 47 in VHF high band, 13 in UHF (450 and 460 MHz) and 2 in UHF (470 MHz).

The frequency coordinator for the State of Maryland requires that the applicant select the frequency. The APCO coordinator reported the following numbers of requests for frequency coordination were processed:

- . 1971 - 78
- . 1972 - 80
- . 1973 - 49

The State Planning Agency will not approve a grant application for a communication system which uses frequencies not in conformance with the frequency plan or prior to frequency coordination of new frequencies required.

The State Planning Agency reported that there are a total of about 4,800 mobile units and 270 base stations in use by law enforcement agencies in the State of Maryland.

The State currently does not have a backbone microwave system, nor is one planned.

4. Interagency Agreements

The State Planning Agency reported 18 cooperative dispatch agreements involving different political entities and 3 involving different agencies of the same political entity. In addition it reported 11 law enforcement service agreements.

5. Training Programs

The state has not established, but there are plans to establish, minimum standards or training programs for law enforcement radio dispatchers or government employee radio technicians. The State Planning Agency reported that none of the telecommunications grants included funds for the training of project personnel.

(3) State Telecommunications Planning

1. State Telecommunications Plan

The State of Maryland presently has a state telecommunications plan for law enforcement agencies. The plan was prepared by a consulting firm and the State Planning Agency. It covers the time period 1971 to 1981. The plan addresses the following areas: organization of radio networks, interagency coordination, spectrum management, cooperative dispatching and disaster operations. The plan considers the State Police, and municipal and county law enforcement agencies.

Conformance with the state plan is required in telecommunications systems planning. The plan was amended in June 1973.

2. Comprehensive Law Enforcement Plan

The Comprehensive Law Enforcement Plan prepared by the State Planning Agency and submitted to LEAA each year is developed with specific law enforcement telecommunications considerations. The telecommunications section of the plan includes project descriptions and financial data. It addresses the State Police, other state agencies and municipal and county law enforcement agencies. Conformance with the comprehensive plan is required in telecommunications system planning.

(4) Policy Information

The State Planning Agency's policy for organization of law enforcement radio networks is based upon mobile radio districts. Central or cooperative dispatch is recommended. The agency recommended the use of UHF frequencies for urban areas, VHF high band or UHF for suburban areas, and VHF low band for rural areas.

Additional agency policies include:

- Both statewide and regional coordination channels are recommended
- Mobile-to-mobile links and cross-monitoring is recommended for coordination with the State Police
- The use of communication scramblers is not recommended.

The State Planning Agency indicated that the only significant constraint on the planning or implementation of law enforcement telecommunications systems is the shortage of available frequencies.

The agency has a formal list of priorities to be used in the evaluation of telecommunications grant applications. The agency also has formal procedures to determine when a grant should be terminated and has an in-house checklist for grant application review. Planning guidelines have been published for use by prospective grant applicants. Grant applications must include:

- . Statement of problem
- . Statement of requirements
- . Procurement procedures
- . Adjacent area coordination
- . Technical justification
- . Manpower requirements
- . Training requirements
- . Follow-on funding requirements
- . Facility requirements
- . Specification compliance testing
- . Post implementation project evaluation
- . Frequency availability
- . Technological evolutionary adaptabilities
- . System description
- . Maintenance consolidations
- . Objectives
- . Measures of effectiveness
- . Statement of existing system

Regional and county review of the application is conducted prior to submission to the State Planning Agency. The agency does not have an inventory of law enforcement equipment.

(5) Budgets and Expenditures

1. State Planning Agency

The State Planning Agency for Maryland has awarded funds each year for telecommunications projects in amounts indicated on Table V-31. These figures represent the actual award approvals made during the periods indicated and are based on a review of the project files.

Table V-31

Comparison of all Grant Awards vs. Telecommunications Awards
7/1/71 to 6/30/74, State of Maryland

Year	Total Dollars		Percent of Total		Number of	
	All Grants	Telecommunications	Awards for	Telecommunications	Projects	Funded
	Awarded	Grants Awarded	Telecommunications	Projects		
7/1/71 - 6/30/72	\$ 8, 803, 000	\$601, 333	6.8%		17	
7/1/72 - 6/30/73	\$10, 315, 000	101, 364	1.0		9	
7/1/73 - 6/30/74	\$10, 315, 000	50, 566	0.5		4	

The total dollar amounts expended for all grants in all areas by the agency and percentage of these funds expended on telecommunications projects are also shown on Table V-31. In addition the number of projects funded in each time period is indicated.

The operation budgets for the agency for the same period are as follows:

.	7/1/71 - 6/30/72	\$ 735,000
.	7/1/72 - 6/30/73	\$1,046,000
.	7/1/73 - 6/30/74	\$1,046,000

For fiscal year 1975, the estimated operating cost for the agency is \$1,043,000.

2. Telecommunications Division

The operating costs for the Maryland Telecommunications Division are as follows:

.	7/1/71 - 6/30/72	\$18,161
.	7/1/72 - 6/30/73	\$27,872
.	7/1/73 - 6/30/74	\$32,198

The Division estimated that the operating costs for fiscal year 1975 will be \$59,461. At present, one percent of its operating costs are expended for law enforcement telecommunications planning.

(6) Procurement Methods and Policies

1. Centralized Purchasing Procedures

The State Planning Agency indicated that there is limited use of centralized purchasing at the state level. These procedures are mandatory and generally the state goes to bid for centralized purchases annually. Joint or centralized purchasing is also encouraged for small purchases.

Standard procurement methods for centralized procurements are also used at the county level but are not mandatory.

2. Standard Equipment or System Specifications

In the State of Maryland, purchases of law enforcement telecommunications systems are based upon equipment specifications, system functional specifications and system performance specifications. The specifications are normally prepared in-house by another state or local government organization. The State Planning Agency does not require acceptance testing, operational testing, or other tests to determine if specifications have been met.

The State Planning Agency has a list of recommended consultants for telecommunications. There are no formal requirements to be placed on the list nor are there formal procedures for removal of consultants from the list.

3. Equipment Sources and Vendors

Typically 2 or 3 bidders respond to law enforcement telecommunications system procurements. The State Planning Agency does not have a list of recommended sources of telecommunications equipment.

4. Procurement Practices

The State Planning Agency has issued standard procurement instructions that cover the purchase of law enforcement telecommunications equipment and consulting services. Procurement instructions require that equipment procurements over \$500 and consulting services over \$2,500 be advertised and be made on the basis of competitive bidding with award made to the lowest compliant bidder. However, factors other than costs can be given as much consideration in selecting the successful bidder.

Procurement instructions leave it to the discretion of the subgrantee as to whether a pre-bid conference will be held.

Vendors are permitted to submit suggestions for changing the consultant's specifications without approval of the consultant. The State Planning Agency does have formal procedures for managing consulting services.

(7) Project Summary

Data was obtained from the State of Maryland for 29 telecommunications grants including 5 grants for new systems awarded during the period July 1, 1971 to January 1, 1975. Following these highlights are project summary sheets which describe characteristics of the projects.

- . Most of the projects were for communications equipment with one-fifth of the projects for terminals for computerized information systems.
- . Approximately one-fifth of the projects provided for formal evaluation.
- . Approximately 10 percent of the projects provided for intrastate and interstate coordination with most of the projects providing for communications between members of the department.
- . Project objectives for more than half of the projects included improvement of communications reliability and improvement of communication service.
- . Awards of projects were distributed among the various types of recipients with moderate uniformity with 10 percent of the awards being to regional recipients.

22. MASSACHUSETTS

(1) Organization Information

The LEAA funding agency for the State of Massachusetts is the Massachusetts Committee on Criminal Justice. This agency has offices at 80 Boylston Street, Boston, Massachusetts 02116.

The State Planning Agency is administered by an Executive Director and has a staff of 64 full-time professional personnel. The Executive Director reports directly to the Governor's Office.

The agency consists of three main divisions: Executive, Program, and Administrative. The Program Division includes the Program Management Section, Systems Engineering, and Planning, Research, and Evaluation. The Systems Engineering unit is responsible for all program activities in the areas of Telecommunications Systems Planning, Information Systems Development, and Communications Systems. The Administrative Division includes Grant Management and Grant Processing and Control. Also, there are five state and regional law enforcement agencies that are involved in law enforcement telecommunications planning activities.

In addition to the State Planning Agency, a unit within the Massachusetts Executive Office for Administration and Finance—the Bureau of Systems Analysis, Data Processing and Telecommunications—has partial responsibility for law enforcement telecommunications. It expects to become actively involved in law enforcement telecommunications planning in the near future.

The State Planning Agency assists law enforcement agencies in the telecommunications area by providing technical review of grant applications, assistance in preparation of grant applications, cost-effectiveness evaluations, system designs, specification preparation, system planning, post-project evaluations, procurement assistance, and contract preparation.

The Bureau of Systems Analysis, Data Processing, and Telecommunications, in a limited fashion, provides assistance for state agencies in the areas of financial planning, review of grant applications, grant application preparation, system design, cost-effectiveness evaluations, and procurement procedures.

The State Planning Agency reported certain capabilities for serving law enforcement telecommunications planning. These in-house capabilities are engineering services, legal services, financial planning, procurement services, management planning, and cost accounting services. The in-house capabilities reported by the Bureau of Systems Analysis, Data Processing, and Telecommunications include procurement services and management planning.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

For the State of Massachusetts, agencies at the state level which are eligible for LEAA grants include the State Police, Game and Fish, Environmental Protection, Capitol Police, Registry of Motor Vehicles, and the Metropolitan District Commission Police. Table V-32 indicates the types and quantities of law enforcement agencies that exist below the State government. In addition to 10 Prosecutor's Offices in the state, the State Planning Agency has identified 380 organized law enforcement agencies.

Table V-32
Massachusetts Law Enforcement Agencies
Below State Level of Government

<u>Type of Agency</u>	<u>Number of Agencies in the State</u>
County Police Departments	14
Municipal Police Departments	351
Campus Police Departments	15

2. Centralized, Cooperative, and Consolidated Dispatch Centers

At the time of this report there were 10 consolidated dispatch centers existing within the state. Of these 10 dispatch centers, five serve an area of less than 50 square miles, and one serves an area of over 200 square miles. Six of these centers serve populations of less than 20,000. Three centers serve populations of from 20,000 to 100,000, and one center serves a population over 500,000. Nine centers dispatch only law enforcement vehicles, and one center dispatches other agencies in addition to law enforcement (fire and ambulance). Although no centralized dispatch centers have adopted 911 telephone service, nine centers have adopted a single 7-digit emergency call number for law enforcement only and one center has implemented a 7-digit number for law enforcement, fire, and ambulance.

In addition to the consolidated dispatch centers, there are 242 dispatch centers that dispatch only one police agency. The majority of these centers serve populations of less than 20,000 and cover areas of less than 50 square miles; 230 centers dispatch only law enforcement vehicles and 12 centers dispatch other agencies in addition to law enforcement, fire, or ambulance. Twelve individual centers have adopted a single 7-digit emergency call number for law enforcement and fire, and five centers have adopted 911 as their emergency number. Of the five centers utilizing 911,

four serve populations of from 20,000 to 100,000 and one serves a population between 100,000 and 500,000. All five of the 911 centers dispatch only law enforcement vehicles.

Computer-aided dispatch is presently being considered by one law enforcement telecommunications center in the state. However, there are no computer-aided dispatch systems existing as of the date of this study. Telephone service within the state is provided by one telephone company.

3. Spectrum Management

The State of Massachusetts has a frequency plan that was prepared by an independent consultant. The plan specifies or recommends specific frequencies for all law enforcement agencies in the state.

Present licenses for law enforcement departments include 146 in VHF low band, 170 in VHF high band, and 5 in the UHF band from 450 to 460 MHz. Equipment covered by these licenses includes 1782 mobile units and 155 base stations. The APCO frequency coordinator reported the following number of requests for frequency coordination received from law enforcement agencies:

.	1971	-	0
.	1972	-	25
.	1973	-	44
.	1974	-	53.

The State Planning Agency has reported that it will not approve a grant application for a telecommunications system that uses frequencies not in conformance with the State Frequency Plan. However, it will approve a grant application for a communications system prior to coordination of any new frequencies required by the system. The agency reported that there is no backbone microwave system in use by law enforcement agencies within the State of Massachusetts.

The agency has indicated that the shortage of available frequencies has placed serious constraints on telecommunications planning. Other hindrances were identified as insufficient funds for implementation and inadequate availability of planning manpower.

4. Interagency Agreements

Statistics for amounts of interagency agreements involving cooperative dispatching, sharing of radio equipment facilities, and sharing of law enforcement records information were not readily available.

5. Training Programs

The State of Massachusetts reported that no minimum standards have been established for training law enforcement dispatchers or government employee radio technicians; nor does the state have funded training programs for either of the two categories.

(3) State Telecommunications Planning

1. State Telecommunications Plan

Massachusetts has a statewide telecommunications plan. Although the plan is advisory in nature, the State Planning Agency will not approve funds unless compliance to the plan is met. However, modifications not adversely affecting the overall plan are allowed if shown to be justified. The plan covers the period 1972 to 1978 and was prepared by a private consulting firm. The plan is addressed to state, municipal, and county law enforcement agencies. Specifically the plan speaks to organization of radio networks, interagency coordination, spectrum management, frequency allocations, operational requirements, and procurement procedures. The state plan was last updated February 1975.

2. Comprehensive Law Enforcement Plan

The comprehensive plan prepared by the State Planning Agency each year and submitted to the LEAA includes telecommunications considerations. Areas that are specifically addressed by the plan are organization of radio networks, interagency coordination, spectrum management, frequency allocations, operational requirements, procurement procedures, maintenance, finances and reliability standards. This plan is directed to state law enforcement and other state agencies and municipal and county law enforcement agencies. The telecommunications portion of this plan was developed totally by the State Planning Agency.

3. Policy Information

The agency reported that its policy for organization of law enforcement radio networks was based on mobile radio districts. Regarding criminal justice information systems, the agency recommends improving access by adding terminals, installing high-speed transmission equipment, improving switching systems, and using a leased wire line. The agency recommends UHF band usage in urban areas, VHF low band and the UHF band in suburban areas, and VHF low band, VHF high band, and the UHF band in rural areas. In addition, the State Planning Agency recommends radio channels be allocated on the basis of the state frequency plan.

Additional agency policies or positions are as follows:

- The use of tone-controlled squelch is recommended.
- Independent dispatch and mutual-aid pacts are recommended as command and control concepts.
- A statewide coordination channel and a regional or district coordination channel are recommended.
- VHF/UHF point-to-point interagency coordination is recommended.

• Computer-aided dispatching is recommended.

• Personal portables are recommended for all sworn personnel with mobile units in vehicles.

Existing state statutes or law that have an effect on law enforcement telecommunications planning are reported to be in the areas of establishment of a division of communications, emergency medical services legislation, and a Criminal Justice History Board. At present, the State Planning Agency is not planning to propose any state legislation that would affect law enforcement telecommunications planning.

The State Planning Agency has developed formal procedures for updating fund allocations if the time between grant application and project implementation has resulted in outdated cost figures. Also, the agency has formal procedures to follow in determining when a grant should be terminated, as well as a formal list of priorities to be used in the evaluation of telecommunications grant applications. In addition, there is an in-house formal checklist or review procedure for grant application review. The agency has published planning guidelines for use by prospective grant applicants, and the applications must contain a statement of the problem, statement of requirement, adjacent area coordination, technical justification, manpower requirements, postimplementation project evaluation, frequency availability, technological evolutionary adaptabilities, and system description.

The agency maintains a statewide law enforcement telecommunications equipment inventory; the initial inventory was made in October 1971.

(5) Budgets and Expenditures

1. State Planning Agency

The agency has awarded funds each year for telecommunications projects in amounts indicated in Table V-33. These figures represent the actual award approvals made during the periods indicated and are based on review of the project file.

The total dollar amounts expended for all grants in all areas by the agency and a percent comparison of telecommunications projects are shown in the same table. The number of telecommunications projects funded in each of the periods is also indicated.

The operating budgets for the State Planning Agency for the same period are as follows:

•	7/1/71 - 6/30/72	\$1,344,000
•	7/1/72 - 6/30/73	\$1,641,000
•	7/1/73 - 6/30/74	\$1,641,000.

Approximately 5 percent of the operating budget was expended for law enforcement planning.

For the period 7/1/74 to 6/30/75, the agency anticipates its total operating costs to increase by \$200,000. However, it expects the amount awarded totally for all grants to remain constant.

2. Bureau of Systems Analysis, Data Processing, and Telecommunications

The bureau's operating budgets are as follows:

•	7/1/71 - 6/30/72	\$25,000
•	7/1/72 - 6/30/73	\$25,000
•	7/1/73 - 6/30/74	\$30,000
•	7/1/74 - 6/30/75	\$40,000 <u>Est.</u>

Table V-33
Comparison - All Grant Awards vs Telecommunications Awards
7/1/71 to 6/30/75, State of Massachusetts

Year	Total Dollars All Grants Awarded	Total Dollars Telecommunications Grants Awarded	Percent of Total Awards for Telecommunications	Number of Telecommunications Projects Funded
7/1/71 - 6/30/72	\$11,422,000	\$ 9,320	0.01%	1
7/1/72 - 6/30/73	\$13,257,000	402,621	3.0	4
7/1/73 - 6/30/74	\$13,257,000	1,185,410	8.9	14
7/1/74 - 6/30/75	-	2,266,172	-	20

(6) Procurement Methods and Policies

1. Centralized Purchasing Procedures

The State Planning Agency reported that there are no statewide centralized purchasing procedures in effect in the state. However, extensive use is made of centralized county or regional purchasing procedures on an annual basis for most radio equipment. These procedures are mandatory and are reserved for funding of regional systems.

2. Standard Equipment or System Specifications

Throughout the state, local municipalities utilize various types of specifications in acquiring law enforcement telecommunications systems. In most cases a combination of equipment specifications, system functional specifications, and system performance specifications are used. The major source of such specifications for law enforcement communications equipment and systems has been the State Planning Agency itself.

The agency requires that system specifications be met by acceptance testing. In addition, the agency reports that it maintains a list of recommended independent consultants for telecommunications. However, there are no formal requirements to be met by consultants to be placed on the list; nor are there any formal procedures for removal of said consultants from the approved list.

3. Equipment Sources and Vendors

Typically two or three bidders respond to law enforcement telecommunications system procurements in the state. The State Planning Agency does not maintain a list of recommended sources of law enforcement communications equipment.

4. Procurement Practices

The agency has issued standard procurement instructions that cover the purchase of law enforcement communications equipment. For grant-funded procurements of equipment, maintenance services, and consulting services, accomplishment is in accordance with existing LEAA and state procurement instructions.

For competitively bid procurements of equipment, instructions permit factors other than cost (such as excellence of the proposal and past performance of the vendor) to be given as much consideration as cost in selecting the successful bidder.

Procurement instructions for communications equipment require that all proposed procurements be advertised. Further, prebid conferences are required to be held for procuring equipment and are generally held after the procurement has been advertised.

In the procurement and implementation phases of telecommunications projects in Massachusetts, the vendors play varying roles. In some instances they are asked by the State Planning Agency to prepare preliminary designs, and they typically submit competing system designs without detailed system specifications. In other cases vendors are required to submit to the agency (acting as the consultant) for approval, any suggestions they may have for changing the system design specifications.

(7) Project Summary

Data was obtained from the State of Massachusetts for 39 telecommunications grants awarded during the period July 1, 1971 to January 1, 1975. Following these highlights are project summary sheets which describe characteristics of the projects in more detail.

There were no grant awards for new systems.

All of the projects were for communications and microwave equipment including mobile and portable radios and base stations.

There were no projects which provided for formal evaluation.

All of the projects provided for intrastate coordination and communications between members of the department.

Project objectives of all the projects were for reduction of response time, improvement of inter-agency coordination, communication reliability, communication service and officer safety and relief of channel congestion.

More than half of the grant awards were made to regional recipients.

23. MICHIGAN

(1) Organization Information

The unit of government in the State of Michigan which is responsible for processing LEAA funds is The Michigan Office of Criminal Justice Programs. This agency maintains offices at the Lewis Cass Building, Lansing, Michigan 48913.

The State Planning Agency, which is a part of the Office of Intergovernmental Relations and Special Units, is directly under the Department of Management and Budget. The agency has a staff of 36 full-time and one part-time professional. Personnel of the agency involved in system planning and review of grant applications for law enforcement telecommunications projects include two full-time and six part-time.

Telecommunications assistance provided to law enforcement agencies by this State Planning Agency includes technical review of grant applications, preparation of grant applications, cost-effectiveness evaluation, system design, specification preparation, system planning, postproject evaluation, and procurement assistance.

The only other agency within the state providing any of these services is the Michigan State Police. The estimated number of planning agencies that are directly involved in law enforcement telecommunications planning activities include one state-level agency, 14 regional planning agencies, three county planning agencies, one state law enforcement agency, 83 county law enforcement agencies, and 481 municipal law enforcement agencies.

The State Planning Agency does not receive telecommunications planning assistance from any other agency within the state. The agency itself provides telecommunications planning assistance in the areas of organizational planning, jurisdictional coordination, and planning guidelines to planning agencies and law enforcement agencies within the state.

No formal agreements exist for the provision or receipt of these services. There are, however, informal agreements between the agencies which are verbal understandings.

There is no one within the State Planning Agency who is responsible for monitoring the actions of or interfacing with the Federal Communications Commission. The agency does have some involvement with the state Public Utilities Commission. This involvement relates primarily to the planning of 911 telephone service, and the State Planning Agency does occasionally meet with the PUC for this purpose.

The agency's in-house capabilities for serving law enforcement communications planning are reported to be engineering services and procurement services.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

Law enforcement agencies at the state level of government reported to be eligible for LEAA grants in the State of Michigan include the State Police and the State Game and Fish agency. There are 83 Prosecutor's Offices and 83 county law enforcement departments. Additional law enforcement agencies include 481 municipal police departments, 11 campus police departments, and 3 metropolitan park police agencies. The State Planning Agency estimated that there are approximately 580 organized law enforcement departments existing within the state.

2. Centralized, Cooperative, and Consolidated Dispatch Centers

At the time of this survey there were 81 full-time, 24-hour centralized, cooperative, or consolidated dispatch centers existing in the state which serve two or more law enforcement agencies.

The square mile area covered by these centers and the populations served were not readily available for this

report. It was reported, however, that four of these consolidated centers have adopted 911 as their emergency telephone number.

There were no figures available on the number of individual dispatch centers existing in the state. However, it was reported that there are a total of five dispatch centers in the state utilizing 911 telephone service. Of these five centers, three serve populations between 20,000 and 100,000 persons, one serves a population between 100,000 and 500,000, and the other serves a population of over 500,000 people.

Of the centers utilizing 911 telephone service, four centers dispatch law enforcement vehicles only, and one dispatches law enforcement and fire vehicles.

At present there is only one dispatch center in the state using computer-aided dispatching. There are three other centers in the state which currently have plans to add this capability. The State of Michigan is served by 147 separate telephone companies.

3. Spectrum Management

Currently, Michigan has a law enforcement frequency plan that was prepared by an independent consultant. This plan recommends specific frequencies for all law enforcement agencies within the state. This plan utilizes police-only assignments in the frequency spectrum.

The frequency coordinator for the State of Michigan stated that in all cases he recommends a frequency to an applicant and he will not recommend any frequency that does not conform to the state plan. The number of requests for frequency coordinations which originated from law enforcement agencies and were processed within the three calendar years preceding this study are as follows:

- 1971 - 172
- 1972 - 114
- 1973 - 155.

The State Planning Agency reported that it will not approve grant applications for telecommunications systems that use frequencies not in conformance with the state frequency plan. However, it will approve grant applications for communications systems prior to coordination of new frequency required by the system.

Equipment in use in the land mobile area for law enforcement within the State of Michigan includes 6400 mobile units and 4150 base stations. The state presently does not have a backbone microwave system in use by law enforcement agencies and does not plan to include this capability.

4. Interagency Agreements

The known interjurisdictional agreements involving law enforcement telecommunications in the State of Michigan include three cooperative dispatch agreements between different political entities, one interjurisdictional agreement for the purpose of sharing a radio maintenance facility, and five interjurisdictional agreements for the purpose of sharing law enforcement records information.

5. Training Programs

The State of Michigan has not established minimum standards for the training of law enforcement radio dispatchers or government employee radio technicians and has no plans at this time to establish such standards. This state does have a funded training program for law enforcement radio dispatchers, and it utilizes the training facilities of equipment vendors in some cases for the training of government employee radio technicians.

(3) State Telecommunications Planning

1. State Telecommunications Plan

The State Planning Agency reported that Michigan has a statewide law enforcement telecommunications plan that was developed by a consultant.

This plan, which was developed in 1971 and covers the period of 1971 to 1981, is advisory in nature and specifically addresses the following areas:

- . Organization of radio work
- . Interagency coordination
- . Citizen access
- . Cooperative or consolidated dispatching
- . Interstate coordination
- . Data retrieval systems
- . Operational requirements
- . Procurement procedures
- . Technical training
- . Maintenance
- . Financial
- . Configuration control
- . Traffic management
- . Disaster operations
- . Reliability standards.

This law enforcement communications plan is directed to all county and municipal law enforcement agencies and to the State Police.

The State of Michigan also has a separate statewide telecommunications plan which addresses the telecommunications requirements of all state agencies. This plan, however, has only minimal considerations of the law enforcement telecommunications requirements.

2. Comprehensive Law Enforcement Plan

The Comprehensive Law Enforcement Plan prepared by the State Planning Agency and submitted yearly to the LEAA includes telecommunications considerations. The telecommunications areas that the plan specifically addresses include organization of radio networks, interagency coordination, spectrum management, frequency allocations, citizen access, cooperative or consolidated dispatching, interstate coordination, data retrieval systems, and operational requirements. The plan also addresses interference considerations, equipment restrictions, mobile cost estimates, and implementation cost estimates. This comprehensive plan is directed to all state, county, and municipal law enforcement agencies and the telecommunications portion of the plan was developed by a private consulting firm.

(4) Policy Information

In general, the policy positions and procedures followed by the State Planning Agency are in concurrence with the state law enforcement radio plan previously mentioned. Some of the major policy positions and statements of the State Planning Agency concerning law enforcement telecommunications are as follows:

- A general concept for the organization of law enforcement radio networks is based on mobile radio districts.
- When two or more agencies are required to share a channel, central or cooperative dispatch is recommended.
- The recommended criteria for determining channel requirements include the number of mobiles and portables, the volume of radio traffic, the volume of calls for service, and the functions to be served by the system.
- The recommended channel configurations include two-frequency simplex, mobile relay, and vehicular repeaters.

- The use of tone-control squelch is recommended, but the use of selective call systems is not.
- Cooperative or central dispatch is the recommended command and control concept.
- For all public safety, 911 emergency telephone service is recommended.
- Coordination channels are recommended at the regional, interstate, and statewide level.
- Point-to-point coordination is recommended between agencies within the state.
- Both radio and wire-line control are recommended for remote control of base stations.
- Mobile digital terminal without numerical display is the recommended digital system.
- The use of computer-aided dispatching is recommended and encouraged.
- The use of communications scramblers is not recommended.
- Personal portable radios are recommended for use by detectives.
- The use of magnetic tape recorders for logging of radio and telephone traffic is recommended.

At present, there are no state statutes in force in Michigan that have a direct effect on law enforcement telecommunications planning. There are, however, plans by the State Planning Agency to introduce legislation in the areas of 911 telephone service and emergency medical services in the near future.

The three most significant constraints identified by the State Planning Agency on the planning or implementation of police telecommunications systems include a shortage of available frequencies, political factors, and the differences that exist between jurisdictional boundaries of the telephone companies and the political subdivisions.

The State Planning Agency reported that, since July 1971, approvals of grant requests have never been reversed by other levels of authority. On four occasions, however, disapprovals of grant requests by the State Planning Agency have been reversed by other levels of authority.

The State Planning Agency has procedures for updating fund allocations when the time between the grant application and project implementation has resulted in outdated cost figures. The agency also has formal procedures for determining when a grant should be terminated and has an in-house formal checklist or review procedure for grant application review. The agency has published planning guidelines for use by prospective grant applicants.

The State Planning Agency does not maintain a statewide law enforcement telecommunications equipment inventory.

(5) Budgets and Expenditures

The State Planning Agency has awarded funds each year for telecommunications projects in the amounts indicated in Table V-34. These figures represent the actual award approvals made during the periods indicated and are based on the review of the project files.

Also included in the table are dollar indications of the total amounts awarded for all grants in each period, the percentage expended for telecommunications projects, and the number of telecommunications projects funded in each of the periods.

The operating budgets for the State Planning Agency for the same periods are as follows:

.	7/1/71 - 6/30/72	\$1,191,000
.	7/1/72 - 6/30/73	\$1,776,000
.	7/1/73 - 6/30/74	\$1,805,000.

The agency indicated that approximately 7 percent of the operating costs were expended for law enforcement telecommunications planning. The agency further indicated that the operating budget for Fiscal Year 1975 is anticipated to be \$2,150,000 and the total amount of dollars expended for all grants for Fiscal Year 1975 will be \$22,898,000.

Table V-34
Comparison - All Grant Awards vs Telecommunications Awards
7/1/71 to 6/30/75, State of Michigan

Year	Total Dollars All Grants Awarded	Total Dollars Telecommunications Grants Awarded	Percent of Total Awards for Telecommunications	Number of Telecommunications Projects Funded
7/1/71 - 6/30/72	\$19,919,000	\$2,081,140	10.4%	62
7/1/72 - 6/30/73	\$23,114,000	4,578,438	19.8	63
7/1/73 - 6/30/74	\$23,114,000	5,452,695	23.6	40
7/1/74 - 6/30/75	-	395,731	-	7

(6) Procurement Methods and Policies

1. Centralized Purchasing Procedures

The State Planning Agency reported that there are no centralized purchasing procedures utilized in procurement of law enforcement telecommunications equipment by state-level agencies. At the local agency level, however, there is a limited use of centralized purchasing procedures; but these procedures are not mandatory.

2. Standard Equipment or System Specifications

The types of specifications used in the State of Michigan for procurement of law enforcement telecommunications systems include equipment specifications, system functional specifications, and system performance specifications. In general, these specifications are developed in-house by the State Planning Agency and from equipment vendors. The State Planning Agency requires that specifications be met by utilizing operational tests. The agency does not maintain a list of recommended independent consultants for telecommunications.

3. Equipment Sources and Vendors

The State Planning Agency has issued standard procurement instructions that cover the purchase of law enforcement communications equipment. These instructions require that bids be solicited from at least three suppliers whenever the procurement exceeds a given dollar value.

The procurement instructions require that procurements above a given dollar value be made on the basis of competitive bidding with award made to the lowest compliant bidder. However, for competitively bid procurements the procurement instructions permit factors other than cost to be given as much consideration as cost in selecting the successful bidder. This is particularly true in the procurement of equipment or consulting services. Procurement instructions require that all proposed procurements above \$2500 for equipment be advertised.

The instructions leave it to the discretion of the subgrantee as to whether a prebid conference will be held.

Regarding vendor participation in the procurement or implementation phases of law enforcement communications projects, vendors are typically asked to prepare the specifications. In cases where a consultant is involved vendors are required to submit to the consultant for approval any suggestions they may have for changing the system design specifications.

(7) Project Summary

Data was obtained from the State of Michigan for 172 telecommunications grants including grants for 7 new systems awarded during the period July 1, 1971 to January 1, 1975. The project summary sheets which follow describe the project characteristics including these highlights:

- Nearly all the projects were for communications equipment including mobile and portable radios and base stations.
- The greater majority of the projects provided for formal evaluation.
- Nearly all of the projects provided for both intra-state and interstate coordination and communications between members of the department.
- Nearly all of the projects included as project objectives, the reduction of response time, improvement of interagency coordination, relief of channel congestion, improvement of communication service and improvement of officer safety.
- Almost all of the grants were awarded to regional recipients.

24. MINNESOTA

(1) Organization Information

The unit of government in the State of Minnesota that is responsible for processing LEAA funds is the Minnesota Governor's Commission on Crime Prevention and Control. This State Planning Agency has offices at 444 Lafayette Road, St. Paul, Minnesota 55101.

The State Planning Agency reports to the Office of the Governor and employs 27 full-time professional personnel and one part-time professional employee. Four of these people devote all of their time to the law enforcement telecommunications projects including system planning and the review of grant applications.

Assistance provided to law enforcement agencies in the area of telecommunications by the State Planning Agency includes the technical review of grant applications, assistance in preparation of grant applications, cost effectiveness evaluations, system design, specification preparation, system planning, post-project evaluation, acceptance testing, and procurement assistance.

Another agency existing in the State of Minnesota that provides some of the above services to law enforcement agencies is the Telecommunications Division of the Department of Administration. This Division maintains an office at 50 Sherburne Ave., St. Paul, Minnesota 55155. The Division of Telecommunications reports through the Department of Administration to the Governor's Office and has a full-time professional staff of five persons. One of these five persons devotes all of his time to system planning for law enforcement telecommunications.

The Division of Communications was established administratively in 1969 and has mandatory authority over telecommunications projects for all state agencies when a state match is involved in a grant. The Division also has advisory authority to county and municipal agencies. Services provided to law enforcement agencies by the Division of Communications include review of grant applications, grant application preparation, and

system planning. These same services are provided to the State Planning Agency and regional planning agencies by the Division of Communications. The State Planning Agency requires concurrence from the Division of Communications as a prerequisite for grant approval when a state match is required in a grant.

The major activities of the Division of Communications include state agency system planning, county and city system planning, local agency system planning, wire line system planning, equipment procurement, and assistance to other agencies.

The State Planning Agency reported that other planning agencies within the state exist that are directly involved with law enforcement telecommunication planning activities. These include two state level agencies, seven regional planning agencies, two county planning agencies, three municipal planning agencies, one state law enforcement agency, one regional law enforcement agency, and three each county and municipal law enforcement agencies.

The State Planning Agency receives telecommunications planning assistance from all of these agencies in the developing of comprehensive plans and also provides them with planning guidelines. In addition, the agency provides jurisdictional coordination and organizational planning to the regional planning agencies, and county and municipal law enforcement agencies. The State Planning Agency reported that there are no formal agreements existing for providing this assistance.

In matters relating to the Federal Communications Commission neither the State Planning Agency nor the Division of Communications reported having any individuals in the agency responsible for knowledge of FCC rules and regulations.

The State Planning Agency reported no contact or interface with the state Public Utility Commission. However, the Division of Communications has reported contact with the PUC in the area of 911 telephone service and participation in PUC hearings.

The in-house capabilities reported by the State Planning Agency for serving law enforcement telecommunications planning included financial planning, procurement services, and

management planning. In-house capabilities reported by the Division of Communications for serving law enforcement telecommunications planning were reported to be financial planning, procurement services, management planning, and accounting services.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

State level law enforcement agencies existing in the State of Minnesota that are eligible for LEAA grants include the State Police, State Highway Patrol, Liquor Control Board, and the Office of the Attorney General. The state also has 87 prosecutors' offices. Additional law enforcement agencies existing in the state include 87 county law enforcement departments, 490 organized municipal law enforcement departments, one campus police department, and one airport police agency.

2. Centralized, Cooperative and Consolidated Dispatch Centers

In the State of Minnesota there are 90 full-time, 24-hour, centralized, cooperative dispatch centers serving two or more law enforcement agencies. The populations served by these consolidated dispatch centers include populations under 20,000 served by approximately 45 centers, populations of 20,000 to 100,000 served by 40 centers, populations of between 100,000 and 500,000 served by three centers, and populations of over 500,000 served by two centers.

Dispatching services from these 90 centers include 75 centers dispatching all public safety and other agencies, 14 centers serving law enforcement, fire, and ambulance only, and one center dispatching law enforcement and fire only.

Of the 90 consolidated dispatch centers existing in the state, three have adopted 911 telephone service for

emergency calling purposes. The majority of the remaining centers have adopted a single seven digit call number for law enforcement only.

In addition to the consolidated centers in the state there are 11 single police agency dispatch centers. Of these, nine serve areas of 50 square miles or less while two serve areas between 50 and 200 square miles. Three of these individual centers serve a population of less than 20,000 persons, five serve populations between 20,000 and 100,000, and three serve populations between 100,000 and 500,000.

In the state there are only three centers utilizing 911 telephone service. Two of these centers serve populations under 20,000 persons and one serves a population between 20,000 and 100,000. All three of these centers dispatch law enforcement, fire and ambulance vehicles.

At the present time there are no dispatch centers in the state utilizing computer-assisted dispatching. There is currently one planned project to add this capability to one communication center.

The State of Minnesota is served by 105 individual telephone companies.

3. Spectrum Management

The State of Minnesota does have a frequency plan for law enforcement that was developed by an independent consultant. The plan recommends specific frequencies for all law enforcement agencies in the state. The frequency plan utilizes assignments of the police-only type.

The frequency coordinator for the State of Minnesota reported that he recommends specific frequencies to applicants for frequency assignments and will not recommend any frequency that does not conform to the state plan. Additionally the State Planning Agency will not approve the grant application for a communications system utilizing frequencies not in conformance with the state frequency plan.

5. Training Programs

The State of Minnesota has not established minimum standards for the training of law enforcement radio dispatchers; however, they anticipate establishing such minimum standards. The state does have minimum standards for the training of government employee radio technicians but funded training programs for either of these two categories are not in existence.

(3) State Telecommunications Planning

1. State Telecommunications Plan

The State Planning Agency reports that the state currently has a statewide telecommunications plan for law enforcement purposes and is preparing a statewide plan for all state agencies. An advisory law enforcement telecommunications plan was prepared in August of 1972 and covers the period through 1982.

The specific areas addressed by this plan include the organization of radio networks, interagency coordination, spectrum management, frequency allocations, citizens access, cooperative dispatching, interstate coordination, and operational requirements. This plan pertains to law enforcement agencies within the state and the planning agency requires conformance with this plan in telecommunications system planning.

The plan was developed by a private consulting firm and does have automatic review and revision procedures.

2. Comprehensive Law Enforcement Plan

The Comprehensive Law Enforcement Plan prepared each year by the State Planning Agency and submitted to the Law Enforcement Assistance Administration contains financial telecommunications considerations in a separate section.

The comprehensive plan concerns law enforcement agencies in the state and was developed in-house by the State Planning Agency.

(4) Policy Information

Most of the policy positions and statements of the State Planning Agency regarding law enforcement telecommunications relate to the statewide law enforcement plan. Some of the more significant policy statements are as follows:

- The general concept for organization of law enforcement radio networks is based upon county networks
- Central or cooperative dispatchers are recommended when two or more agencies share a channel
- The UHF frequency band is recommended for use in urban areas
- The VHF highband frequency band is recommended for use in suburban and rural areas
- Recommended channel requirements are based upon the population served and the number of mobiles and portables in the area
- Recommended channel configurations include one and two frequency simplex and mobile relay capabilities
- Tone controlled squelch and tone controlled selective call systems are recommended
- The recommended command and control concept is cooperative or central dispatch and mutual aid pacts
- 911 emergency telephone service is recommended for public safety
- Coordination channels are recommended at the county, regional, interstate, and state-wide levels

- VHF highband is recommended for interagency point-to-point coordination
- Mobile-to-mobile communications are recommended for coordination between the State Police, Highway Patrol and local agencies
- Wire line control is recommended for the remote control of base stations
- The recommendations for improved access to criminal justice information systems include high speed data transmission and leased wire line
- The use of computer-assisted dispatching is recommended and encouraged
- The recommended digital systems include mobile digital terminals, with and without alphanumerical display, and mobile printers
- The use of magnetic tape recorders is recommended for logging of radio and telephone traffic.

Existing legislation in the State of Minnesota having an effect upon the law enforcement communications planning includes the establishment of an Office or Division of Communications. The State Planning Agency expects to propose state legislation in the near future for 911 telephone service.

Three of the most significant constraints on the planning or implementation of police telecommunications systems identified by the state planning agency are the shortage of available frequencies, the multiplicity of telephone companies, and political factors.

The State Planning Agency has procedures for updating fund allocations when the time between a grant application and project implementation has resulted in outdated cost figures. In addition, the agency has formal procedures to determine when a grant should be terminated and has published planning guidelines for use by prospective grant applicants.

The coordinator also reported that the number of requests for frequency coordination that originated from law enforcement agencies within the state which were processed in the three years preceding the study were as follows:

- . 1971 - 360
- . 1972 - 400
- . 1973 - 452.

Data received indicated that there is only one law enforcement agency licensed on VHF lowband, and two licensed on UHF 450 to 460 MHz. There are 576 law enforcement departments licensed on VHF highband and one licensed on the 72 MHz band. The data also indicated that there are eight law enforcement agencies in the state operating on local government channels.

The State of Minnesota presently does not have a backbone microwave system in use by law enforcement agencies and has no current plan to add such a system.

4. Interagency Agreements

There are a total of 90 known cooperative dispatch agreements in force in the state involving agreements between different political entities. Additionally, there are ten known agreements between agencies of the same political entity for cooperative dispatching.

There are 30 known agreements that have been entered into as interjurisdictional pacts for the purpose of sharing radio equipment facilities other than dispatching, two interjurisdictional agreements for the purpose of sharing radio maintenance facilities, and 15 for the purpose of sharing law enforcement record information. Within the State of Minnesota there are also 200 known contract law enforcement service agreements enforced.

Grant applications are reviewed by county planning agencies and the regional planning council prior to the submission to the State Planning Agency.

The State Planning Agency does not maintain a statewide law enforcement telecommunications inventory.

(5) Budgets and Expenditures

The State Planning Agency has awarded funds each year for telecommunications projects in the amounts indicated in Table V-35. These figures represent the actual award approvals made during the periods indicated and are based on a review of the project files.

The total dollar amounts expended for all grants in all areas by the State Planning Agency, and a percentage comparison of telecommunications projects are shown in Table V-35. Also indicated is the number of telecommunications projects funded in each of the periods.

The operating budget for the State Planning Agency for the same periods is as follows:

- . 7/1/71 - 6/30/72
- . 7/1/72 - 6/30/73
- . 7/1/73 - 6/30/74

Table V-35
Comparison - All Grant Awards vs Telecommunications Awards
7/1/71 to 6/30/75 - State of Minnesota

Year	Total Dollars All Grants Awarded	Total Dollars Telecommunications Grants Awarded	Percent of Total Awards for Telecommunications	Number of Telecommunications Projects Funded
7/1/71 - 6/30/72		\$2, 443, 660		48
7/1/72 - 6/30/73		1, 664, 942		20
7/1/73 - 6/30/74		2, 259, 992		33
7/1/74 - 6/30/75		2, 594, 741		4

(6) Procurement Methods and Policies

1. Centralized Purchasing Procedures

The State Planning Agency reports that there is limited use of centralized purchasing procedures for state level agencies and that these procedures are not mandatory. There is, however, extensive use of mandatory centralized purchasing procedures for most radio equipment at the county level.

2. Standard Equipment or System Specifications

The types of specifications which are used in the State of Minnesota for the procurement of law enforcement telecommunications systems include equipment specifications, system functional specifications, and system performance specifications. The State Planning Agency reported that the specifications are prepared by independent consultants while the Division of Communications reported that the specifications are prepared in-house by the Division of Communications and by other state or local organizations. The State Planning Agency requires that the system specifications be met by acceptance testing and a recommended list of independent consultants for law enforcement telecommunications is kept. The planning agency has formal requirements which are to be met in order to be placed on this list and it also has formal procedures for removal of consultants from the approved list. However, the agency has never removed a consultant from this list for cause. The Division of Communications does not keep a list of recommended independent consultants for telecommunications.

3. Equipment Sources and Vendors

Both the State Planning Agency and the Division of Communications reported that the typical number of bidders who respond to a law enforcement telecommunications system procurement is two or three. As is the case with the independent consultant lists, the planning agency does keep a list of recommended sources for law enforcement communications equipment. However, the Division of Communications does not keep such a list. The planning agency has formal requirements to be met by applicants who wish to be placed on the list and formal procedures for removal of concerns from the list. The planning agency reported that they have removed a concern from this list for cause.

4. Procurement Practices

Both the State Planning Agency and the Division of Communications have noted that grant funded procurements are accomplished in accordance with existing state procurement instructions in the areas of equipment, maintenance services, and consulting services. The State Planning Agency has issued additional standard procurement instructions covering the procurement of equipment and maintenance services. In the case of consulting services the agency procurement instructions permit solicitation from a single supplier regardless of the size of the procurement.

In the cases of equipment or maintenance services procurement, the standard procurement instructions require that they be solicited from at least two suppliers whenever the procurement exceeds a given dollar value.

Procurement instructions require that procurements above a given dollar value be made on the basis of competitive bidding with award being made to the lowest compliant bidder for equipment and maintenance services. They further require that all proposed procurements above \$2,500 be advertised.

In regard to procurement of equipment and maintenance services, procurement instructions require that prebid conferences be held before the procurement is advertised in all cases where the procurement exceed \$2,500.

The Division of Communications reported that bids must be advertised whenever the procurement exceeds \$5,000 for the purchasing of the equipment, maintenance services, or consulting services.

Regarding vendor participation in the procurement and implementation phases of law enforcement communications projects, the State Planning Agency reported that vendors are required to submit for approval by the consultant, any suggestions they may have for changing the system design specifications. The Division of Communications reported the same condition but stated that vendors typically submit competing system designs to the customer without any detail system specifications.

(7) Project Summary

Data was obtained from the State of Minnesota for 103 telecommunications grants including 4 grants for new systems awarded during the period July 1, 1971 to January 1, 1975. The project summary sheets which follow describe the project characteristics including these highlights:

- Essentially all of the projects were for communications equipment including mobile and portable radios and base stations.
- Approximately one-fourth of the projects provided for formal evaluation.
- Nearly all of the projects provided for both intra-state and interstate coordination and communications between members of the department.
- All of the projects included as project objectives, the improvement of interagency coordination and

improved communication service and nearly all of the projects included as project objectives through reduction of response time, relief of channel congestion and improvement of officer safety.

Approximately half of the grants were awarded to regional recipients and the other half were awarded to sheriff departments.

25. MISSISSIPPI

(1) Organization Information

The unit of government in the State of Mississippi that is responsible for processing LEAA funds is the Mississippi Division of Law Enforcement Assistance. This State Planning Agency has offices in the Watkins Building, at 510 George Street, Jackson, Mississippi 39201.

The agency is administered by an Executive Director and a Deputy Director and has a staff of 22 full time professional personnel. The agency reported that of the 22 full time personnel, 8 are involved on a full time basis with law enforcement telecommunications projects. The Executive Director reports directly to the Governor's Office. The sections most identified with telecommunications planning included the Department of Program Management and Department of Financial Management.

The Department of Program Management is further divided into six subunits identified as Courts, Corrections, Manpower, Research, Planning and Police. No other planning agency is reported in the state with direct involvement in law enforcement telecommunications planning activities.

The State Planning Agency reported having personnel responsible for knowledge of the rules and regulations of the Federal Communications Commission. The agency reported that it contacts the Field Operations Bureau of the FCC approximately 5 times per year and the Safety and Special Radio Service Bureau of the FCC approximately 5 times per year. The State Planning Agency reported that it has no contact with the Public Utilities Commission and does not review tariffs or participate in PUC hearings.

The in-house capabilities for serving law enforcement telecommunications planning were reported to be engineering services, legal services, financial planning, procurement services and management planning. The State Planning Agency provides assistance to law enforcement agencies in the telecommunications area by providing technical review of grant applications, assistance in preparation of grant applications,

cost effectiveness evaluations, system design, specification preparation, system planning, post project evaluation and procurement assistance.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

In the State of Mississippi, agencies at the state level that are eligible for LEAA grants include the State Highway Patrol, Liquor Control Board, Attorney General and Narcotics Bureau. Table V-36 indicates the types and quantities of law enforcement agencies that exist below state level government. In addition to 20 Prosecutor's Offices in the state, the planning agency has listed 334 organized law enforcement agencies as shown in Table V-36.

Table V-36
Mississippi Law Enforcement Agencies
Below State Level of Government

<u>Type of Agency</u>	<u>Number of Agencies in the State</u>
County Police Departments	82
Municipal Police Departments	228
Campus Police Departments	<u>24</u>
	334

2. Centralized, Cooperative and Consolidated Dispatch Centers

At the time of this report there were 66 consolidated dispatch centers existing within the state. Each of the 66 centers serves an area of over 200 square miles. Forty-eight centers serve populations of less than 20,000 while 17 centers serve populations of between 20,000 and 100,000. One such center serves a population of between 100,000 and 500,000. The overwhelming majority of centralized dispatch centers dispatch law enforcement

vehicles only. In addition, seven consolidated centers have adopted 911 as their emergency call number.

The State Planning Agency indicated that 97 individual dispatch centers operate in the state. Fifty-five centers serve areas of less than 40 square miles, and 42 serve areas of over 200 square miles. Fifty-five individual dispatch centers serve populations of less than 20,000; 41 serve populations of between 20,000 and 100,000; one serves a population of from 100,000 to 500,000. Of the 97 individual centers, 95 dispatch only law enforcement vehicles, and two dispatch only law enforcement and ambulance vehicles. In addition to the aforementioned seven cooperative centers with 911, 15 individual centers have adopted 911 as their emergency number. Of these 22 centers with 911 service, 15 serve populations of less than 20,000; 6 serve populations of 20,000 to 100,000; and 1 serves a population of from 100,000 to 500,000. All 22 centers with 911 dispatch only law enforcement vehicles.

Computer aided dispatch is presently being considered by one law enforcement communication center in the state. However, there are no computer aided dispatch systems existing as of the date of this study.

Telephone service within the state is provided by 24 separate telephone companies.

3. Spectrum Management

The State of Mississippi presently has a frequency plan based on two statewide common frequencies - one VHF high band and one VHF low band. Also, it calls for nine VHF low-band channels and 14 VHF high-band channels for use by counties and municipalities. The frequency plan for the state was developed in-house by the State Planning Agency. The plan has been computerized and specifies or recommends specific frequencies for all law enforcement agencies in the state. The plan recommends frequency assignments from the police-only classification.

Present licenses for law enforcement departments include 132 in VHF low band, 91 in VHF high band and one in UHF 450 to 460 MHz. Equipment covered by these licenses include 2141 mobile units and 302 base stations. The planning agency reported that there is no backbone microwave system in use by law enforcement agencies within the State of Mississippi.

The APCO frequency coordinator reported the following number of requests for frequency coordination received from law enforcement agencies:

.	1971	-	100
.	1972	-	79
.	1973	-	116
.	1974	-	198.

The State Planning Agency reported that formal studies have been conducted since July 1971 to determine the extent of congestion on law enforcement radio channels throughout the state.

The State Planning Agency indicated that it will not approve a grant application for a communication system that uses frequencies not in conformance with the state plan. Further, it will not approve a grant application prior to coordination of any new frequencies required by the system.

4. Interagency Agreements

The State Planning Agency reported 66 cooperative dispatch equipments in force involving different political entities. There is, additionally, one cooperative dispatch agreement in force involving different agencies of the same political entity; 13 pacts in force for the sharing of radio equipment facilities; one agreement for the sharing of radio management facilities; and one contract law enforcement agreement in force.

5. Training Programs

The state has not established minimum standards for training of either law enforcement radio dispatchers or government employee radio technicians. However, plans do exist to establish minimum standards for radio dispatchers. At the time of this report, the state did not have funded training programs for either of the two categories.

(3) State Telecommunications Planning

1. State Telecommunications Plan

Mississippi currently has a statewide Telecommunications Plan covering the period 1973 to 1978. Advisory in nature, the plan is addressed to state law enforcement agencies and other state agencies, and to municipal and county law enforcement agencies. It specifically speaks to organization of radio networks, inter-agency coordination, spectrum management, frequency allocations, cooperative or consolidated dispatching, interstate coordination, data retrieval systems, operational requirements, procurement procedures, operational training, finance, configuration control and disaster operations. The plan has automatic review and revision procedures and was last amended in March of 1974. The telecommunications plan was developed totally by the State Planning Agency.

2. Comprehensive Law Enforcement Plan

The comprehensive plan prepared by the State Planning Agency and submitted to LEAA annually is developed with specific law enforcement telecommunications considerations. The comprehensive plan is addressed to state law enforcement agencies and other state agencies and to municipal and county law enforcement agencies. It addresses the same areas as those addressed in the State Telecommunications Plan. The telecommunications portion of this plan was developed totally by the State Planning Agency.

(4) Policy Information

The State Planning Agency's policy position regarding organization of law enforcement radio networks is based upon mobile radio districts, county networks, and individual jurisdiction networks. For improved access to criminal justice information systems, the agency recommends additional terminals.

With respect to frequency band usage, the agency supports VHF high band and UHF for urban areas and VHF low band for suburban and rural areas. Additional agency policies or positions are as follows:

- . Cooperative or central dispatch, independent dispatch and mutual and pacts are recommended as command and control concepts.
- . A 7-digit emergency number and 911 service for law enforcement only is recommended.
- . Implementation of a statewide coordination channel and a county coordination channel is recommended.
- . Microwave links and VHF/UHF point-to-point interagency coordination is recommended.
- . Use of communication scramblers is recommended.
- . Personal portables for all sworn personnel with mobile units in vehicles is recommended.
- . The use of magnetic tape recorders is recommended for logging radio and telephone traffic.

Existing state statutes or laws having an effect on law enforcement communications planning are reported to be in the area of 911 legislation and emergency medical services legislation. The State Planning Agency is planning to offer legislation regarding the establishment of an office or division of communications.

Three factors which were identified as placing the most significant constraints on the planning or implementation of

police telecommunications systems are a shortage of available frequencies, political factors and insufficient funds for implementation.

The State Planning Agency has developed formal procedures to determine when a grant should be terminated. There is also an in-house formal checklist or review procedure for grant application review. The planning agency has published planning guidelines for use by prospective grant applicants, and the applications must contain a statement of the problem, statement of requirement, procurement procedures to be used, adjacent area coordination and technical justification. Prior to review by the State Planning Agency, grant applications are reviewed by a regional planning council. The planning agency does not keep a statewide law enforcement telecommunications equipment inventory at this time.

(5) Budgets and Expenditures

The State Planning Agency has awarded funds each year for telecommunications projects in the amounts indicated on Table V-37. These figures represent the actual award approval made during the periods indicated and are based on a review of the project files.

The total dollar amounts expended for all grants in all areas by the State Planning Agency and a percent comparison for telecommunications projects are also shown on Table V-37. Also indicated is the number of telecommunications projects funded in each year.

The operating budgets for the planning agency for the same period are as follows:

. 7/1/71 - 6/30/72	- \$515,000
. 7/1/72 - 6/30/73	- \$635,000
. 7/1/73 - 6/30/74	- \$690,000

For the period 7/1/74 to 6/30/75, the State Planning Agency anticipates an increase of \$25,000 in the operating budget over the previous year. Further, the agency anticipates almost doubling the amount awarded totally for all grants over that awarded the previous year.

Table V-37
Comparison - All Grant Awards vs Telecommunications Awards
7/1/71 thru 6/30/75, State of Mississippi

Year	Total Dollars All Grants Awarded	Total Dollars Telecommunications Grants Awarded	Percent of Total Awards for Telecommunications	Number of Telecommunications Projects Funded
7/1/71 - 6/30/72	\$3,328,000	\$ 66,993	2.0%	4
7/1/72 - 6/30/73	5,542,000	278,962	5.0	70
7/1/73 - 6/30/74	6,524,000	376,207	5.8	268
7/1/74 - 6/30/75		4,994	-	15

(6) Procurement Methods and Policies

1. Centralized Purchasing Procedures

The State Planning Agency reported that there is extensive use made of statewide, centralized purchasing procedures. They are mandatory, and the agency encourages joint or centralized purchasing for small purchases. Also, extensive use is made of centralized county or regional purchasing procedures for most law enforcement radio equipment.

2. Standard Equipment or System Specifications

The types of specifications which are used by the State of Mississippi for procurement of law enforcement telecommunications systems include system, functional and equipment specifications. The major source of these specifications is the State Planning Agency. The agency requires that system specifications be met by vendor certification. The agency does not keep a list of recommended independent consultants for telecommunications.

3. Equipment Sources and Vendors

Typically, two or three bidders respond to law enforcement telecommunications system procurements in the state. The State Planning Agency keeps a list of recommended sources of law enforcement communications equipment. However, there are no formal requirements to be met by applicants to be placed on the list. Neither are there any formal procedures for removal of concerns from the list.

4. Procurement Practices

Mississippi goes out on general contract bids once a year for telecommunications equipment. In cases of equipment purchases for grant funded procurements,

accomplishment is in accordance with existing state procurement instructions.

In the case of competitively bid procurements for equipment, instructions permit factors other than cost, such as excellence of the proposal and past performance of the vendor, to be given as much consideration as cost in selecting the successful bidder. Procurement instructions require that bids be advertised above the given dollar value of \$1500. In the procurement and implementation phases of law enforcement communications projects, vendors are permitted to submit suggestions for changing the consultant's specifications without approval of the consultant.

(7) Project Summary

Data was obtained from the State of Mississippi for 357 telecommunications grants awarded between July 1, 1971 to January 1, 1975. Project summary sheets which follow indicate characteristics of the projects including these highlights:

- . There were twelve grant awards for new systems.
- . All of the grants were for communications equipment, principally mobile radio equipment, and other equipment.
- . There were no projects which provided for formal evaluation.
- . Nearly all of the projects provided for communications between members of a department, approximately half of the projects provided for intrastate coordination and none of the projects provided for interstate coordination.
- . All of the projects had as a project objective, the improvement of communication service.
- . The greater majority of the projects were awarded to municipalities with a population under 20,000.

26. MISSOURI

(1) Organization Information

The unit of government in the State of Missouri that is responsible for processing LEAA funds is entitled The Missouri Council on Criminal Justice. This unit has offices at 621 East Capital Street, Jefferson City, Missouri 65101.

The unit is administered by an Executive Director and has a staff of 24 full-time professional personnel. The Executive Director reports directly to the Department of Public Safety. The State Planning Agency has allocated one full-time staff member to review grant applications for telecommunications projects. The Emergency Communications Planning Project of the State Planning Agency is directly involved in law enforcement telecommunications planning.

In addition to the State Planning Agency, a unit of The Office of Administration known as the Division of EDP Coordination assists in all areas of law enforcement including telecommunications planning. The Division of EDP Coordination has three full-time professional personnel and is responsible for equipment and services. It has mandatory authority over state agencies and is advisory for county, city, and town agencies and for the regional EMS program.

Within the State Planning Agency, there is no one with responsibility for the interface with the Federal Communications Commission. However, it participates in FCC proceedings once a year and makes recommendations for action in connection with FCC proceedings. The agency keeps abreast of FCC developments by being on the distribution list for reports and dockets, through formal actions and informal contact with the FCC, and through trade or professional periodicals. The State Planning Agency also indicated that they contact the Safety and Special Radio Service Bureau once a year.

The State Planning Agency did not report any contact with the Public Utilities Commission and does not review tariffs or participate in PUC hearings. However, the Division of EDP Coordination participates in PUC hearings and reviews tariffs with the PUC three or four times a year.

The State Planning Agency provides assistance to law enforcement agencies in the telecommunications area by providing technical review of grant applications, assistance in preparation of grant applications, system design, specification preparation, system planning and procurement assistance. The Division of EDP Coordination provides assistance to state and regional planning agencies in the areas of cost effectiveness evaluations, system design, procurement procedures, specification preparation, and system planning.

The State Planning Agency indicated that their in-house capabilities for serving law enforcement telecommunications planning included engineering services, financial planning and procurement services. The in-house capabilities reported by the Division of EDP Coordination include procurement services.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

In the State of Missouri, agencies at the state level that are eligible for LEAA grants include the State Highway Patrol, Attorney General, and Supreme Court. Table V-38 indicates the types and quantities of law enforcement agencies that exist below state level government. In addition to 114 Prosecutor's Offices in the state, the State Planning Agency has identified 648 organized law enforcement agencies.

Table V-38
Missouri Law Enforcement Agencies
Below State Level of Government

<u>Type of Agency</u>	<u>Number of Agencies in the State</u>
County Police Departments	115
Municipal Police Departments	500
Campus Police Departments	30
Water Safety Patrol	1
Department of Liquor Control	1
Department of Conservation	<u>1</u>
	648

2. Centralized, Cooperative, and Consolidated Dispatch Centers

The State Planning Agency indicated that there are 11 full-time, 24-hour, centralized, cooperative or consolidated dispatch centers existing within the state. All 11 serve an area of over 200 square miles. Ten of these centers serve a population between 20,000 and 100,000 and one serves a population of over 500,000. All 11 centers dispatch law enforcement and ambulance vehicles. In addition, there are 445 individual and single agency dispatch centers in Missouri. Three hundred and thirty-one centers serve an area of less than 200 square miles, 114 centers serve an area of over 200 square miles, 315 centers serve populations of less than 20,000 persons, 125 centers serve populations of between 20,000 and 100,000, two centers serve populations of 100,000, and three centers serve populations of over 500,000. All these centers dispatch law enforcement and ambulance vehicles. Implementation of 911 service has been accomplished by two of the individual dispatch centers while none of the consolidated centers are presently using 911 telephone service. Both centers utilizing 911 serve populations of between 20,000 and 100,000 and dispatch law enforcement, fire, and ambulance vehicles.

Computer aided dispatch is presently being considered by one law enforcement communications center in the state, and there is one center currently using computer assisted dispatching. Telephone service within the state is provided by 53 telephone companies.

3. Spectrum Management

At the time of this report, the State of Missouri did not have a statewide frequency plan for law enforcement. The State Planning Agency reported that a frequency plan was currently under preparation. The frequency plan would assign specific coordination frequencies and is being prepared in-house by the State Planning Agency. The plan will recommend frequency assignments for the police and local government classifications only.

Present licenses for law enforcement include one in VHF low band, 450 in VHF high band, and five in UHF 450 and 460 MHz area. Equipment covered by these licenses include 5000 mobile units and 456 base stations. The State Planning Agency reported that there is no backbone microwave system in use by law enforcement agencies within the State of Missouri.

The APCO frequency coordinator reported the following number of requests for frequency coordination received from law enforcement agencies:

- . 1971 - 147
- . 1972 - 155
- . 1973 - 173

The State Planning Agency has reported that they will not approve a grant application for a communication system that uses frequencies not in conformance with the frequency plan under preparation. The State Planning Agency will approve a grant application before frequency coordination is complete for the new frequencies required by the proposed system.

4. Interagency Agreements

The State Planning Agency reported that there are 11 cooperative dispatch agreements in force involving different political entities. Also, there were four known agreements in force for the sharing of law enforcement records information.

5. Training Programs

Missouri indicated that no minimum standards have been established for training law enforcement radio dispatchers or government employee radio technicians, nor is the state planning to establish minimum standards for training for either of the two categories. However, the state presently does have a funded training program for law enforcement radio dispatchers. The State Planning

Agency reported that since July 1971, six percent of telecommunications grants have included funds for the training of project personnel.

(3) State Telecommunications Planning

1. State Telecommunications Plan

The State of Missouri does not presently have a statewide telecommunications plan but the State Planning Agency is currently preparing such a plan.

2. Comprehensive Law Enforcement Plan

The comprehensive plan prepared by the State Planning Agency and submitted to LEAA each year is developed with specific law enforcement telecommunications considerations. Specifically the plan addresses data retrieval systems, procurement procedures, and financial considerations. The plan is addressed toward state, municipal, and county law enforcement agencies. The telecommunications portion of the comprehensive law enforcement plan was developed totally by the State Planning Agency.

(4) Policy Information

The State Planning Agency reported that their policy for the organization of law enforcement radio networks was based on county networks and statewide networks. They recommend UHF in urban and suburban areas and VHF highband in rural areas. Further, they are considering the implementation of land mobile radio systems for law enforcement in the 960 MHz range. Regarding criminal justice information systems, they recommend the utilization of a leased wireline.

Additional agency policies or positions are as follows:

- . Tone controlled squelch is recommended.
- . Recommended command control concepts include cooperative or central dispatch, independent dispatch, and mutual aid pacts.
- . A statewide coordination channel, interstate channel, and a regional or district coordination channel are recommended.
- . VHF/UHF point-to-point interagency coordination
- . Personal portables are recommended for all sworn personnel with mobile units in vehicles.

The State Planning Agency did identify three significant constraints that affected implementation or planning of police telecommunications systems. These are the shortage of available frequencies, insufficient planning funds, and the lack of planning manpower.

The State Planning Agency has procedures for updating fund allocations if the time between grant application and project implementation has resulted in outdated cost figures. The agency also has formal procedures to determine when a grant should be terminated and an in-house formal checklist or review procedures for grant application review. The agency has published planning guidelines for the use of prospective grant applicants and these guidelines require applications to contain a statement of the problem, statement of requirements, procurement procedures to be used, technical justification, manpower requirements, follow-on funding requirements, facility requirements, post implementation project evaluation, frequency availability, technological evolutionary adaptabilities, system description, and maintenance consolidations. Prior to the review by the State Planning Agency, grant applications are reviewed by a regional planning council. The State Planning Agency does not maintain an inventory file of law enforcement telecommunications equipment in the state.

(5) Budgets and Expenditures

The State Planning Agency for Missouri has awarded funds each year for telecommunications projects in amounts indicated on Table V-39. These figures represent the actual award approvals made during the periods indicated and are based on the review of the project files.

The total dollar amounts expended for all grants in all areas by the State Planning Agency and a percent comparison of telecommunications projects is also shown in Table V-39. Also indicated is the number of telecommunications projects funded in each of the periods.

The operating budgets for the State Planning Agency for the same time periods are as follows:

. 7/1/71 - 6/30/72	\$ 763,747
. 7/1/72 - 6/30/73	\$1,075,377
. 7/1/73 - 6/30/74	\$1,085,000

(6) Procurement Methods and Policies

1. Centralized Purchasing Procedures

Generally there are no statewide or regional centralized purchasing procedures in effect in the state. Purchases for state agencies are controlled by the Division of EDP Coordination, and extensive use is made of centralized purchasing procedures.

2. Standard Equipment or System Specifications

The type of specifications which are used by the State of Missouri for procurement of law enforcement telecommunications systems include equipment specifications, system functional specifications, and system performance specifications. The major source of these specifications is the State Planning Agency. The State Planning

Table V-39
Comparison - All Grant Awards vs Telecommunications Awards
7/1/71 to 6/30/75, State of Missouri

Year	Total Dollars All Grants Awarded	Total Dollars Telecommunications Grants Awarded	Percent of Total Awards for Telecommunications	Number of Telecommunications Projects Funded
7/1/71 - 6/30/72	\$ 9,391,000	\$2,703,166	28.8%	117
7/1/72 - 6/30/73	10,897,000	351,319	3.2	75
7/1/73 - 6/30/74	10,897,000	2,264,142	20.8	103
7/1/74 - 6/30/75		269,157		51

Agency requires that system specifications be met by operational tests. However, they do not maintain a list of recommended independent consultants for telecommunications.

3. Equipment Sources and Vendors

Typically two or three bidders respond to law enforcement telecommunications system procurements in the state. The State Planning Agency does not maintain a list of recommended sources of law enforcement communications equipment.

4. Procurement Practices

The State Planning Agency has issued standard procurement instructions that cover the purchase of law enforcement communications equipment, maintenance services, and consulting services. The Division of EDP Coordination has issued standard procurement instructions to state agencies for equipment and maintenance services.

In the case of competitively bid procurements, the State Planning Agency procurement instructions permit factors other than cost, such as excellence of the proposal and past performance of the vendor, to be given as much consideration in selecting the successful bidder. Similar considerations apply in the Division of EDP Coordination for state agency purchases with the exception of consulting services.

The State Planning Agency procurement instructions require that all bids above \$250 be advertised. The State Planning Agency Procurement instructions leave it to the discretion of the subgrantee as to whether a pre-bid conference will be held.

The Division of EDP Coordination requires that for state agency purchases for equipment and maintenance services above \$2,000, bids must be advertised. It is left

to the discretion of the subgrantee as to whether a pre-bid conference will be held.

In the procurement and implementation phases of law enforcement communications projects, vendors typically submit competing system designs without any detailed system specifications.

(7) Project Summary

Data was obtained from the State of Missouri for 348 telecommunications grants awarded during the period July 1, 1971 to January 1, 1975. Following these highlights are project summary sheets which describe characteristics of the projects.

There were no grants for new systems.

Most of the grants were for communications equipment consisting principally of mobile and portable radios and base stations with 10 percent of the grants for terminals for a computerized information systems.

Nearly all of the projects provided for formal evaluation.

Nearly all of the projects provided for intrastate and interstate coordination and communication between members of the department.

Nearly all of the projects had as project objectives the reduction of response time, the improvement of interagency coordination, improvement of communication service, improvement of officer safety and improvement of access of computerized information systems.

Nearly one-fifth of the projects were awarded to regional recipients and half of the projects were awarded to municipalities with a population under 20,000.

27. MONTANA

(1) Organization Information

The unit of government in the State of Montana which is responsible for the administration and processing of LEAA grants is entitled the Montana Board of Crime Control. This agency maintains offices at 1336 Helena Avenue, Helena, Montana 59601.

The agency is directly under the Office of the Governor and is administered by a director. The agency has a full-time staff of 20 professional personnel, seven of which were identified as being involved in system planning and grant application review for telecommunications projects. The State Planning Agency provides assistance to law enforcement agencies in the area of telecommunications by providing technical review of grant applications, assistance in preparation of grant applications, cost-effectiveness evaluation, system design, specification preparation, system planning, postproject evaluation and procurement assistance.

The total number of planning agencies within the State of Montana which are directly involved in law enforcement telecommunications planning activities include two state-level agencies, five regional planning agencies, two state law enforcement agencies, and the Civil Defense Agency.

The state agency of telecommunications is entitled the Montana Communications Division of the Department of Administration. This division maintains offices at Capitol Station, Helena, Montana 59609. The division is under the direction of an administrator and has three full-time professional personnel, one of which devotes full time to system planning and grant application review for law enforcement telecommunications projects.

The Communications Division has responsibility for radio and land line services and the administration of the communications functions. The division was formed in 1971 by an act of legislation and has mandatory authority for all state agencies except the Highway Patrol. The division has advisory authority for the Highway Patrol and local law enforcement agencies.

The major activities of the Communications Division include state agency system planning, wire line system planning, equipment procurement, and assistance to other agencies. The division also provides telecommunications planning assistance to the State Planning Agency responsible for LEAA funds. This assistance includes technical review of grant applications, review for concurrence to the state plan, system design, procurement procedures, specification preparation, and system planning. The State Planning Agency requires concurrence from the Communications Division as a prerequisite to a grant approval.

Both the Communications Division and the State Planning Agency report that they have individuals on their staffs that are responsible for knowledge of the Federal Communications Commission rules and regulations. Both agencies have persons responsible for monitoring and commenting on FCC dockets and both agencies make recommendations to the Governor or other officials for actions in connection with FCC proceedings.

The State Planning Agency for the State of Montana maintains close contact with the FCC, on the order of 25 to 30 times per year. The Communications Division contacts the FCC approximately twice per year.

In matters pertaining to interface with the state Public Utilities Commission, neither agency reported any contact or working relationship. Neither agency reported participation in the PUC hearings.

In-house capabilities reported by the State Planning Agency for serving law enforcement communications were reported to be procurement services. Those in-house capabilities reported by the communications department were engineering services and procurement services.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

State-level law enforcement agencies in the State of Montana which are eligible for LEAA grants include the

state Highway Patrol, the Game and Fish Agency, state Lifestock Commission, and the state Department of Justice.

In addition to 56 Prosecutor's Offices in the state, organized law enforcement agencies exist as follows:

- . 56 county law enforcement departments
- . 93 organized municipal police departments
- . 3 campus police departments
- . 7 tribal police agencies

2. Centralized, Cooperative, and Consolidated Dispatch Centers

At the time of the survey, there were six full-time 24-hour consolidated dispatch centers in the State of Montana serving two or more law enforcement agencies. All six of these centers serve areas of over 200 square miles.

Of these six consolidated dispatch centers, three each serve populations of less than 20,000 and three serve populations between 20,000 and 100,000. All six of these dispatch centers dispatch law enforcement, fire, ambulance and other agencies.

Two of these centers have adopted 911 emergency telephone service and the other four have adopted a single 7-digit emergency call number for all services.

In addition to the six consolidated centers there are 89 individual dispatch centers each serving only one police agency. Fifty-nine of these individual centers each serve areas of over 200 square miles and 30 centers each serve areas of less than 50 square miles.

Seventy-nine of these individual centers each serve populations of less than 20,000 and ten centers serve populations between 20,000 and 100,000. Four of these centers dispatch only law enforcement vehicles and the remaining 85 dispatch all public safety and other agencies.

Within the state there are four dispatch centers utilizing 911 emergency telephone service. Three of these dispatch centers serve populations of less than 20,000 and one serves a population between 20,000 and 100,000.

Of the four 911 dispatch centers, one dispatches only law enforcement vehicles and the other three dispatch all public safety and other agencies.

There are presently no law enforcement communications centers in the state utilizing computer-assisted dispatching.

The State of Montana is served by 20 separate telephone companies.

3. Spectrum Management

The State of Montana does have a statewide law enforcement frequency plan that specifies frequencies for all law enforcement agencies in the state. This plan was developed by an independent consultant under contract to the State Planning Agency and utilizes both police and local government frequency assignments.

The APCO frequency coordinator for Montana stated that he always recommends a specific frequency to an applicant and will not recommend any frequency that does not conform to the state plan. The coordinator estimated that in the year 1973 he processed 23 frequency coordinations for law enforcement agencies in the state.

The State Planning Agency reported that it will not approve the grant application for a communications system that uses frequencies not in conformance with the state frequency plan and also will not approve a grant application prior to coordination of any new frequencies required by the system.

At the time of the survey, the law enforcement department licenses on each of the frequency bands were as follows:

- . VHF low band - 107
- . VHF high band - 4
- . UHF 450 to 460 MHz - 1
- . 72 MHz Band - 1
- . 952 to 960 MHz Band - 1

The report also indicated that there are 127 law enforcement agencies in the State of Montana operating on local government channels.

Radio equipment in use by law enforcement in the State of Montana included 1788 mobile units and 172 base stations. The State of Montana presently does not have a backbone microwave system in use by law enforcement agencies but is planning the implementation of such a system.

4. Interagency Agreements

Data regarding the known numbers of interagency agreements for the purposes of dispatching or sharing of law enforcement records or maintenance facilities were not readily available. There are three known interjurisdictional pacts in force that were entered into for the purpose of sharing radio equipment facilities other than radio dispatch centers.

5. Training Programs

The State of Montana has not established minimum standards for the training of law enforcement radio dispatchers or government employee radio technicians. The state however is planning to establish such minimums in the area of law enforcement radio dispatchers and currently has a funded training program for this purpose.

(3) State Telecommunications Planning

1. State Telecommunications Plan

The State of Montana does have a statewide telecommunications plan developed in response to overall telecommunications needs. This plan however is for law enforcement only.

This law enforcement telecommunications plan is advisory and was developed in March of 1971. The plan covers the period 1971 through 1976.

Areas specifically addressed within the plan include the organization of radio networks, interagency coordination, spectrum management, and frequency allocations. The plan is addressed toward all state, county and municipal law enforcement agencies and other state agencies and was developed by an independent consultant under contract to the State Planning Agency. The state plan does have automatic review and revision procedures and was last amended in October of 1974.

2. Comprehensive Law Enforcement Plan

The comprehensive law enforcement plan that is developed annually by the State Planning Agency and submitted to the Law Enforcement Assistance Administration includes telecommunications consideration. The specific areas addressed by the plan include organization of radio networks, interagency coordination, spectrum management, frequency allocations, consolidated dispatch, data retrieval systems, procurement procedures, financial matters, traffic management, disaster operations, and reliability standards.

The comprehensive plan is addressed toward all state agencies including state law enforcement agencies and county and municipal law enforcement agencies. The comprehensive plan was developed in-house by the State Planning Agency.

(4) Policy Information

Policy positions and statements of the State Planning Agency in regard to law enforcement telecommunications are generally related to the state law enforcement telecommunications plan. Some major specific policy positions of the State Planning Agency are as follows:

- The general concept for organization of law enforcement radio networks is based on county or individual jurisdiction networks.
- Cooperative dispatch is recommended when it is necessary for two or more agencies to share a channel.
- VHF low band is the recommended frequency band usage in rural areas.
- The number of radio channels required is based on volume of radio traffic, the functions to be served, and expansion use.
- Recommended channel configurations include two-frequency simplex and mobile relay.
- The recommended command and control concept is cooperative or central dispatch.
- One statewide coordination channel is recommended.
- Point-to-point and mobile-to-mobile communications are recommended for coordination between the highway patrol and local agencies.
- Radio control links are recommended for the remote control of base stations.
- The recommendation for improved access to criminal justice systems is additional terminals.

- . The State Planning Agency does not recommend or encourage the use of computer-assisted dispatching or communication scramblers.
- . Personal portables are recommended for all sworn personnel with mobile units in the vehicles.

Legislation that exists in the State of Montana which has an effect on law enforcement communications planning includes state statutes for the establishment of an Office or Division of Communications and directives to develop state plans for communications. The State Planning Agency is not presently preparing to introduce any new legislation that would affect the planning of law enforcement communications.

The three most significant constraints on the planning or implementation of police telecommunications systems reported by the State Planning Agency included insufficient planning funds, insufficient funds for implementation, and geographical considerations.

Prior to submission to the State Planning Agency, grant applications are reviewed by regional planning councils. The State Planning Agency has in-house review procedures for grant application review and has published planning guidelines for use by prospective grant applicants.

The State Planning Agency does maintain a statewide law enforcement telecommunications equipment inventory. This inventory was initially started in January 1971 and has been subsequently updated in August of each of the succeeding years.

(5) Budgets and Expenditures

The State Planning Agency for Montana has awarded funds each year for telecommunications projects in the amounts indicated on Table V-40.

These figures represent the actual award approvals made during the periods indicated and are based on review of the project files.

Table V-40
Comparison - All Grant Awards vs Telecommunications Awards
7/1/71 to 6/30/75, State of Montana

Year	Total Dollars All Grants Awarded	Total Dollars Telecommunications Grants Awarded	Percent of Total Awards for Telecommunications	Number of Telecommunications Projects Funded
7/1/71 - 6/30/72	\$1,279,000	\$191,797	15.0%	45
7/1/72 - 6/30/73	1,531,000	221,997	14.5	118
7/1/73 - 6/30/74	1,380,000	354,850	25.7	108
7/1/74 - 6/30/75	-	18,682	-	9

Also included in Table V-40 are the total dollars expended for all areas of grants in each of the years indicated, a percent comparison for telecommunications grants, and the number of telecommunications projects funded in each year.

The total operational costs for the State Planning Agency for the 3-year period of this study are as follows:

- . 7/1/71 - 6/30/72 - \$501,664
- . 7/1/72 - 6/30/73 - \$548,217
- . 7/1/73 - 6/30/74 - \$588,442.

The State Planning Agency anticipates that the operating cost for fiscal year 1975 will total 1,036,114 and that for the same period total grants awarded will equal \$1,780,000.

The operating costs for the Montana Communications Division for the same period are as follows:

- . 7/1/71 - 6/30/72 - \$21,838
- . 7/1/72 - 6/30/73 - \$57,000
- . 7/1/73 - 6/30/74 - \$887,275.

The Communications Divisions anticipates operating costs for Fiscal Year 1975 will be \$996,921.

The communications department reported that in Fiscal Year 1974 they received \$3000 from LEAA for implementation of telecommunications projects.

The State Planning Agency estimated that approximately 2 to 10 percent of their operating costs over the 3-year period were expended for law enforcement telecommunications planning. The communications division estimated approximately 1 percent of its operating costs were expended for this purpose in Fiscal Years 1972 to 1974 but anticipate 5 percent in Fiscal Year 1975.

(6) Procurement Methods and Policies

1. Centralized Purchasing Procedures

At the state level of government there is extensive use of centralized purchasing procedures for most radio equipment. The centralized purchasing procedures are mandatory and the state goes to bid for state contracts for these procedures on an annual basis. There are no centralized purchasing procedures utilized by government agencies below the state level in the State of Montana.

2. Standard Equipment or System Specifications

The State Planning Agency reported that the only specifications used in the state for procurement of law enforcement telecommunications systems are equipment specifications. The major source of the specifications is the Communications Division and the specifications are required to meet vendor certification. Neither the State Planning Agency nor the communications division maintains a list of recommended independent consultants for telecommunications projects.

3. Equipment Sources and Vendors

The State Planning Agency reported that typically there are two or three bidders who respond to law enforcement telecommunications system procurements. The State Planning Agency and the Communications Division both reported that they do not maintain lists of recommended sources of law enforcement communications equipment.

4. Procurement Practices

In regard to the procurement of grant-funded equipment, procurements are accomplished in accordance with existing state procurement instructions. The State Planning Agency has issued some additional standard procurement instructions regarding equipment purchase.

The State Planning Agency and the Communications Division reported that in the procurement of consulting services, bids may be solicited from a single supplier regardless of the size of procurement.

Generally procurement instructions require that all proposed procurements above \$100 be advertised for the purchasing of equipment. The Communications Division requires that prebid conferences be held in the case of all procurements and the State Planning Agency leaves it to the discretion of the subgrantee as to whether prebid conferences will be held. The Division of Communication reported that prebid conferences will be held before the procurement is advertised.

The vendor participation in the procurement and implementation phase of law enforcement communications projects is limited to the vendors being required to submit to the consultant for approval any suggestions they may have for changing the systems design specifications.

(7) Project Summary

Since early in 1971 the State Planning Agency has utilized the services of a research laboratory on a consultant basis for assistance in planning and developing communications systems and requirements.

One of the most significant projects in the law enforcement communications area reported by the State Planning Agency was the installation of a solar-powered repeater that has been operational for several months without problems. This was accomplished at a location where access was very poor and conventional power sources were not available.

Data was obtained from the State of Montana for 280 grants including seven grants for new systems awarded during the period July 1, 1971 to January 1, 1975. Following these highlights are project summary sheets which describe characteristics of the projects in more detail.

- . Nearly all of the projects were for communications equipment and these were predominantly for mobile radios.
- . Only a few projects provided for formal evaluation.
- . Nearly all projects provided for communications between members of department but only a few projects provided for intrastate and interstate coordination.
- . Nearly all of the projects had as a project objective the improvement of communications service.
- . Municipalities with a population under 20,000 received 80 percent of the grant awards.

1.
which

28. NEBRASKA

(1) Organization Information

The unit of government in the State of Nebraska that is responsible for the distribution of LEAA funds is entitled the Nebraska Commission on Law Enforcement and Criminal Justice. The agency has offices in the State Capitol Building at 1420 "P" Street, Lincoln, Nebraska 68509.

The Commission is responsible for law enforcement telecommunications planning within the state. The agency is administered by an Executive Director and has a staff of 26 full-time professional personnel. The Director of the agency reports directly to the Governor's Office. Five major areas of activity are Plans and Programs, Systems, Administration, Regional Management, and Training. Within the Plans and Programs unit, there are five sections: law enforcement, courts and legal, statistical analysis, juvenile and corrections. The State Planning Agency identified two individuals as being involved on a part-time basis with system planning for law enforcement telecommunications projects. Also, there are nineteen regional planning commissions which assist the State Planning Agency and participate in planning.

In addition to the State Planning Agency, there is another unit of state government that is directly involved in law enforcement telecommunications. This agency is the Nebraska Telecommunications Bureau, which is a part of the Department of Administrative Services. The Telecommunications Bureau has its main office at 1800 N. 33rd Street, Lincoln, Nebraska 68503. The Telecommunications Bureau has one full-time professional staff member. He is involved on a part-time basis with law enforcement telecommunications projects.

This agency was formed in 1965. Its purpose is to serve all the communications needs of state government. The agency director reports to the Department of General Services and has several units under his control. The subunits are a radio section, land line section, spectrum management section, and administration. The authority of this department is mandatory over the State Police and all state agencies and advisory to county, city, and town or township agencies.

The major activities of the Telecommunications Bureau were identified as follows:

- . State agency system planning
- . Equipment procurement
- . Assistance to all state agencies.

The State Planning Agency provides assistance to law enforcement agencies in the telecommunications area by providing technical review of grant applications, assistance in preparation of grant applications and system planning.

The Telecommunications Bureau provides telecommunications planning assistance to the State Planning Agency and other planning agencies in the areas of technical review of grant applications, cost effectiveness evaluations, post project evaluation, and procurement procedures. Also, the State Planning Agency requires concurrence from the Telecommunications Bureau as a prerequisite to grant approval.

The State Planning Agency did not report any contact with the Public Utilities Commission and does not review tariffs or participate in PUC hearings. The Telecommunications Bureau indicated that they occasionally meet with the PUC for the purpose of reviewing tariffs.

In-house capabilities reported by the Telecommunications Bureau include: engineering services, legal services, financial planning, procurement services, management planning and cost accounting services.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

The Nebraska State Planning Agency reported that agencies at the state level which are eligible for LEAA grants include the State Highway Patrol, Game and Fish, Liquor Control Board and Brand Commission. Table V-41 indicates the types and quantities of law enforcement agencies that exist below state level government. In

addition to 93 Prosecutor's Offices in the state, the State Planning Agency has identified 382 organized law enforcement agencies as identified in Table V-41.

Table V-41
Nebraska Law Enforcement Agencies
Below State Level of Government

<u>Type of Agency</u>	<u>Number of Agencies in the State</u>
County Police Departments	93
Municipal Police Departments	283
Municipal Park Police Departments	1
Campus Police Departments	5

2. Centralized Cooperative and Consolidated Dispatch Centers

The Nebraska Telecommunications Bureau indicated there are 18 consolidated dispatch centers in operation. All 18 centers serve populations of from 20,000 to 100,000. Ten centers dispatch law enforcement vehicles only, five dispatch only law enforcement and fire vehicles and three centers dispatch only law enforcement and ambulance vehicles. Nine centralized centers have adopted 911 as their emergency call number.

Statistics were not available regarding single agency dispatch centers and their areas served, populations served, telephone services employed or other public safety agencies involved. As of the date of this survey, there were no law enforcement communication centers within the state using computer assisted dispatch nor were any agencies planning to use this capability.

Presently there are 63 telephone companies operating within the state.

3. Spectrum Management

The State of Nebraska does not have a statewide frequency plan for law enforcement. The Telecommunications Bureau, however, reported that preparation of such a plan is currently under consideration.

The frequency coordinator for the State of Nebraska handles all requests for frequency coordination that originate from Nebraska's law enforcement agencies. His office has determined that the following numbers of requests have been processed over the four-year period preceding this study:

- . 1971 - 23
- . 1972 - 27
- . 1973 - 36
- . 1974 - 35.

The Telecommunications Bureau reports that there are 2800 mobile units and 300 base stations presently in operation by law enforcement agencies. Currently, the state does not have a backbone microwave system in use by law enforcement agencies.

4. Inter-Agency Agreements

Inter-Agency Agreements known to exist within the state, in the area of law enforcement telecommunications, are as follows:

- . Cooperative dispatch agreements between different political entities - 18
- . Cooperative dispatch agreements between different agencies of the same political entity - 8
- . Interjurisdictional pacts for the purpose of sharing radio equipment facilities - 6
- . Interjurisdictional pacts for the purpose of sharing law enforcement records information - 26.

CONTINUED

7 OF 11

5. Training Programs

The Telecommunications Bureau reports that the state has established minimum standards for training of law enforcement radio dispatchers. However, the state does not have funded training programs for both law enforcement radio dispatchers and government employee radio technicians. Further, the state is not intending to establish minimum standards for training of government employee radio technicians.

(3) State Telecommunications Planning

1. State Telecommunications Plan

The Telecommunications Bureau reported that Nebraska presently has a statewide telecommunications plan which covers the period 1965 to 1975. The plan is mandatory by law, and the Telecommunications Bureau itself is responsible for its enforcement. The plan is addressed to state law enforcement and other state agencies, municipal and county law enforcement agencies, EMS and fire service. Specifically, the plan addresses organization of radio networks, interagency coordination, spectrum management, frequency allocations, cooperative or consolidated dispatching, interstate coordination, data retrieval systems, operational requirements, procurement procedures, maintenance, finance, configuration control, traffic management, disaster operations and reliability standards. The state plan was prepared by the Nebraska Telecommunications Bureau in conjunction with a private consulting firm.

2. Comprehensive Law Enforcement Plan

The comprehensive plan prepared by the State Planning Agency and submitted to the LEAA annually is developed with specific law enforcement telecommunications considerations. Specifically the areas regarding law enforcement telecommunications addressed by the plan include citizen access, cooperative or consolidated

dispatching, data retrieval systems, procurement procedures, and financial considerations. The plan is addressed to state law enforcement agencies, other state agencies, municipal and county law enforcement agencies. The telecommunications portion of the comprehensive law enforcement plan was developed by the State Planning Agency.

(4) Policy Information

The Telecommunications Bureau has adopted procedures and set policies for making recommendations in several areas affecting law enforcement telecommunications considerations. Some of the major policies are listed as follows:

- . Organization of law enforcement networks is based upon mobile radio districts
- . Central or cooperative dispatch is recommended for two or more agencies sharing a channel
- . Number of radio channels allocated is based on population served, number of mobiles and portables, volume of radio traffic, volume of calls for service and functions (patrol, surveillance, traffic, etc.)
- . The bureau recommends the use of tone controlled squelch
- . Cooperative or central dispatch is recommended as a command and control concept
- . Coordination channels are recommended for statewide and interstate use
- . VHF/UHF point-to-point is recommended for inter-agency point-to-point communications
- . Coordination with the highway patrol through cross monitoring is recommended
- . Radio control links are recommended for remote control of base stations

- . Additional terminals are recommended for improved access to criminal justice information systems
- . The use of communication scramblers is recommended by the Telecommunications Bureau on a statewide basis
- . Contract maintenance is recommended for state agencies.

Existing state statutes or laws that have an effect on law enforcement telecommunications planning are reported to include directives to develop a state plan for communications, directives to plan or implement communication systems, and the establishment of an office or division of communications. The Telecommunications Bureau noted that political factors, statutes, and insufficient funds for implementation placed significant constraints on the planning or implementation of police telecommunications systems.

Both the grant applicant and Telecommunications Bureau have formal responsibility to assure that grant funded telecommunications projects have been coordinated with adjacent states. While the Telecommunications Bureau is not involved, the State Planning Agency reported that it has procedures for updating fund allocations if the time between a grant application and project implementation has resulted in outdated cost figures. It also has an in-house formal checklist for grant application review. It has published planning guidelines for use by prospective grant applicants.

The Telecommunications Bureau maintains a statewide law enforcement telecommunications equipment inventory. The initial inventory took place in 1965 and was updated in 1971, 1972 and 1974.

(5) Budgets and Expenditures

1. State Planning Agency

The State Planning Agency for Nebraska has awarded funds each year for telecommunications projects in amounts

indicated in Table V-42. These figures represent the actual award approvals made during the periods indicated and are based on a review of the project files.

The total dollar amounts expended for all grants in all areas by the State Planning Agency and a percent comparison for telecommunications projects are also shown in Table V-42. Also indicated is the number of telecommunications projects funded in each year.

The operating budgets for the State Planning Agency for the same period are as follows:

- 7/1/71-6/30/72 - \$387,761
- 7/1/72-6/30/73 - \$625,153
- 7/1/73-6/30/74 - \$559,023.

Approximately 1 percent of their operating budgets were expended for law enforcement telecommunications planning.

For Fiscal Year 1975, the estimated operating cost for the agency was \$663,151.

2. Telecommunications Bureau

The operating costs for the Telecommunications Bureau for the same periods are as follows:

- 7/1/71-6/30/72 - \$30,000
- 7/1/72-6/30/73 - \$20,000
- 7/1/73-6/30/74 - \$20,000.

The Telecommunications Bureau estimated that the 1975 fiscal year operating costs will be \$26,000. The Bureau further notes the following percentages of their operating budgets expended for law enforcement telecommunications planning:

- 7/1/71-6/30/72 - 20%
- 7/1/72-6/30/73 - 20%
- 7/1/73-6/30/74 - 30%
- 7/1/74-6/30/75 - 40% (Estimated).

Table V-42
Comparison - All Grant Awards vs Telecommunications Awards
7/1/71 Through 6/30/75, State of Nebraska

Year	Total Dollars All Grants Awarded	Total Dollars Telecommunications Grants Awarded	Percent of Total Awards for Telecommunications	Number of Telecommunications Projects Funded
7/1/71-6/30/72	\$ 3,815,925	\$259,448	6.8%	59
7/1/72-6/30/73	\$ 7,123,125	390,902	5.5	47
7/1/73-6/30/74	\$ 4,512,500	380,876	8.4	30
7/1/74-6/30/75	-	40,281	-	2

(6) Procurement Methods and Policies

1. Centralized Purchasing Procedures

For statewide centralized procurements, standard and uniform procurement methods are utilized on an annual basis. Also, for centralized regional purchases, standard and uniform procurement methods are employed.

2. Standard Equipment or System Specifications

Throughout the state, various types of specifications are used in acquiring law enforcement telecommunications systems. These include equipment specifications, system functional specifications, and system performance specifications. The specifications used are prepared by the subgrantee applicants. The Telecommunications Bureau requires that system specifications be certified by the vendors and by random sample testing. In similar fashion the State Planning Agency requires acceptance testing and operational tests.

The Telecommunications Bureau maintains a list of recommended independent consultants for telecommunications. While there are no formal requirements for placement, there are formal procedures for removal from the list.

3. Equipment Sources and Vendors

Typically two or three bidders respond to the telecommunications system equipment procurements. The Telecommunications Bureau maintains a list of recommended sources of police communications equipment. However, there are neither formal requirements to be met by the applicants to be placed on the list nor formal procedures for removal from the list.

4. Procurement Practices

The State Planning Agency has issued standard procurement instructions that cover the purchase of law enforcement communications equipment. Grant funded procurements are accomplished in accordance with existing state procurement instructions that are totally accepted by the Telecommunications Bureau.

Procurement instructions leave it to the discretion of the subgrantee as to whether or not a prebid conference will be held. When prebid conferences are held, the procurement instructions of the Telecommunications Bureau require that they be held before the procurement is advertised.

Procurement instructions require that bids above the dollar value of \$1,000 for equipment, maintenance, and consulting services be advertised.

(7) Project Summary

Data was obtained from the State of Nebraska for 138 telecommunications grants awarded during the period July 1, 1971 to January 1, 1975. The project summary sheets which follow describe the project characteristics including these highlights:

- There were no projects for new systems.
- Most of the projects were for communications equipment principally mobile and portable radios.
- There were no projects which provided for formal evaluation.
- The greater majority of the projects provided for intrastate and interstate coordination and communications between members of a department.

Nearly all of the projects had as project objectives the reduction of response time, improved cost effectiveness, improved communication service and improved officer safety.

More than half of the projects were awarded to municipalities with a population under 20,000 and over one-fourth of the projects were awarded to sheriffs departments.

29. NEVADA

(1) Organization Information

The unit of government in the State of Nevada that is responsible for processing LEAA funds is the Nevada Commission on Crimes, Delinquency, and Corrections. This agency maintains offices at 430 Jeanell Drive, Carson City, Nevada 89701.

This State Planning Agency is administered by a Director and has a staff of 26 full-time professional personnel. One of these 26 persons is involved in system planning for law enforcement telecommunications projects on a full-time basis. The Nevada Commission on Crimes, Delinquency, and Corrections is divided into three major sections. These three sections are Planning, Communications, and Narcotics Control. The Communications section has major responsibility for the statewide criminal records information system and also assists in law enforcement telecommunications planning.

The state also has a State Communications Board which is made up of representatives from all the major users of communications at the state level of government. This board will soon have a full-time Director and, through the technical advisory group, will be a major planning agency for law enforcement and other statewide telecommunications planning.

The Nevada Crime Commission, through its planning agency and communications unit, provides various services to law enforcement agencies in the telecommunications area. These services include technical review of grant applications, assistance in preparation of grant applications, system design, specification preparation, and procurement assistance. The Commission receives assistance in these areas from the State Communications Board.

The State Communications Board and the Crime Commission represent the only two agencies in the state that are involved in planning activities for law enforcement telecommunications. The Crime Commission receives assistance from

the State Communications Board specifically in the areas of developing comprehensive plans, and the submission of local area plans. The State Planning Agency provides jurisdictional coordination assistance and planning guidelines to all of the law enforcement agencies in the state.

In matters pertaining to the Federal Communications Commission, the Nevada Crime Commission has an individual who is responsible for knowledge of FCC rules and regulations.

The State Planning Agency reported that it has no interface with the Public Utilities Commission.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

The state level agencies that were identified by the State Planning Agency as being eligible for LEAA grants include the State Highway Patrol, the Game and Fish Agency and the Crime Commission.

The state presently has 17 prosecutors' offices and 31 organized law enforcement departments. These include 17 county law enforcement agencies, 10 municipal police departments, two campus police departments, the Nevada Gaming Commission, and the Nevada Brands Inspection.

2. Centralized, Cooperative, and Consolidated Dispatch Centers

The state presently has 3 full-time, 24-hour, centralized, consolidated dispatch centers serving two or more law enforcement agencies. All 3 of these centers serve areas in excess of 200 square miles. Two of these centers each serve populations between 100,000 and 500,000 persons while the other center serves a population between 20,000 and 100,000. All 3 of these centers dispatch law enforcement and ambulance vehicles only.

In addition to the consolidated centers, there are 21 individual dispatch centers in the state. These centers, which serve only one law enforcement agency, serve areas divided as follows. Eighteen of these individual centers serve areas of over 200 square miles while the remaining 3 serve areas between 50 and 200 square miles. Eight of these centers serve populations of less than 20,000. Eleven centers serve populations of 20,000 to 100,000, and the remaining 2 centers each serve populations between 100,000 and 500,000. All 21 of these centers dispatch law enforcement and ambulance vehicles only.

At the present time no 911 emergency telephone service has been adopted in the state. One agency in the state has adopted a computer aided dispatch system. However, no other CAD systems are being planned at this time.

The state is served by 11 individual telephone companies.

3. Spectrum Management

At the present time the state does not have a law enforcement frequency plan. However, such a plan is currently under consideration.

The APCO frequency coordinator for the State of Nevada reported that frequency coordination is handled generally in two ways. The first is that the frequency coordinator will recommend a frequency to the applicant; secondly the applicant will select a frequency. The coordinator reported the following frequency coordination requests originating from law enforcement agencies:

- . 1971 - 80
- . 1972 - 80
- . 1973 - 80.

The coordinator also reported that currently there is one law enforcement department licensed on VHF

low band and 12 law enforcement departments licensed on VHF high band.

Estimated radio equipment in use by law enforcement in the state is reported as 1,000 mobile units and 34 base stations. The state presently has a partial backbone microwave system in use by law enforcement. The functions served include mobile repeater links, radio control links, telephone backup network, and data transmission. This system, which is presently being expanded to provide a total backbone system, has backup capability and is supported by an emergency power system. The microwave system is not dedicated to law enforcement purposes.

4. Interagency Agreements

There are 12 known cooperative dispatch agreements in force in Nevada that involve agreements between different political entities. There are additionally 8 known cooperative dispatch agreements in force between different agencies of the same political entity. In addition to the dispatch agreements there are 6 known interjurisdictional agreements for the purpose of sharing radio maintenance facilities and/or personnel, and 30 interjurisdictional agreements in force for the purpose of sharing law enforcement records information.

5. Training Programs

The State Planning Agency reported that the state currently does not have minimum standards for the training of law enforcement radio dispatchers or government employee radio technicians and there are no present plans to establish such minimum standards. The state currently does not have funded training programs for either of these two categories.

(3) State Telecommunications Planning

1. State Telecommunications Plan

It is reported that the State of Nevada does not have a statewide telecommunications plan. However, they anticipate preparing such a plan in the near future.

2. Comprehensive Law Enforcement Plan

The Comprehensive Law Enforcement Plan prepared by the State Planning Agency each year and submitted to the LEAA includes specific telecommunications considerations in a separate section of the plan. The telecommunications activities specifically addressed include organization of radio networks, interagency coordination, cooperative or consolidated dispatching, data retrieval systems, operational requirements, and traffic management. The comprehensive plan is addressed to all law enforcement agencies within the state. This plan was developed in-house by the State Planning Agency.

(4) Policy Information

The Nevada Crime Commission, with the assistance of the State Communications Board, has developed specific policies in regard to law enforcement telecommunications in the state. Many of the major policy statements are included as follows:

- . The general concept for organization of law enforcement radio networks is based upon mobile radio districts or zones.
- . Where two or more agencies must share a channel, independent dispatch with separate base stations is recommended.
- . VHF high band is the only frequency band recommended for law enforcement throughout the state.

- . Channel requirements are based on the number of mobiles and portable units.
- . Recommended channel configurations include one frequency simplex, two frequency simplex, and mobile relay.
- . Tone controlled squelch and selective call systems are recommended.
- . Cooperative or central dispatch is the recommended command and control concept.
- . 911 telephone service and call boxes are the recommended method for improved citizen access.
- . Coordination channels are recommended at the regional and statewide level.
- . Interagency point-to-point coordination is recommended.
- . Point-to-point and mobile-to-mobile coordination is recommended between municipal and county law enforcement agencies and the State Highway Patrol.
- . Both wireline and radio control are recommended for remote controlled base stations.
- . Recommendations for improved access to criminal justice information systems include additional terminals, high speed data transmission, improved switching systems, wireline systems, and private microwave.
- . Recommendations for digital systems in the state include mobile digital terminals with alpha numeric display, and mobile printers.
- . Computer aided dispatching systems and communications scramblers are recommended.
- . The use of magnetic tape recorders for logging radio and telephone traffic is recommended.

Specific legislation existing that has an effect on law enforcement communications planning includes directives to plan or implement communications systems, and directives to develop a state plan for communications. The State Planning Agency is planning to propose new legislation in the additional areas of emergency medical services and the establishment of an office or division of communications.

The three most significant constraints on the planning or implementation of police telecommunications systems were identified as political factors, insufficient funds for implementation, and inavailability of planning manpower.

Prior to submission of a grant application to the State Planning Agency, it is reviewed by regional planning councils. The state does not have a statewide law enforcement telecommunications equipment inventory at this time.

The agency has a formal procedure for assigning priorities to telecommunications grant applications. The primary requirement for priority is that grant applications specify VHF high band systems only.

(5) Budgets and Expenditures

The State Planning Agency has awarded funds each year for telecommunications projects in amounts indicated in Table V-43.

These figures represent the actual award approvals made during the periods indicated and are based on a review of the project files.

The total dollar amounts expended for all grants in all areas by the State Planning Agency, and a percent comparison of telecommunications projects are shown in Table V-43. Also indicated is the number of telecommunications projects funded in each of the periods.

The operating budget for the State Planning Agency for the same periods is as follows:

Table V-43
Comparison - All Grant Awards vs Telecommunications Awards
7/1/71 to 6/30/75, State of Nevada

Year	Total Dollars All Grants Awarded	Total Dollars Telecommunications Grants Awarded	Percent of Total Awards for Telecommunications	Number of Telecommunications Projects Funded
7/1/71 - 6/30/72	\$1,210,570	\$147,684	12.2%	10
7/1/72 - 6/30/73	1,152,586	103,601	9.0	19
7/1/73 - 6/30/74	1,362,446	222,271	16.3	12
7/1/74 - 6/30/75	-	65,802	-	6

.	7/1/71 - 6/30/72	\$ 98,487
.	7/1/72 - 6/30/73	\$245,453
.	7/1/73 - 6/30/74	\$254,575.

The State Planning Agency anticipates that the operating expenses for fiscal year 1975 will be \$254,575. The agency also anticipates total grant awards for fiscal year 1975 will be \$1,241,608.

(6) Procurement Methods and Policies

1. Centralized Purchasing Procedures

At the state level, standard procurement methods for centralized procurements exist and extensive use is made of centralized purchasing procedures for most telecommunications equipment. These centralized purchasing procedures are mandatory for state government. The extent that centralized purchasing procedures is used at the local level is unknown.

2. Standard Equipment or Systems Specifications

The types of specifications which are used in the State of Nevada for procurement of law enforcement telecommunications systems include equipment specifications, system functional specifications, and system performance specifications. The major source of specifications for law enforcement communications equipment and systems is the state or local government units.

The State Planning Agency has no requirement to ensure that specifications are met and they do not have a list of independent consultants for telecommunications projects.

3. Equipment Sources and Vendors

The State Planning Agency reported that generally there are 2 or 3 bidders who respond to law enforcement

telecommunications system procurements in the State of Nevada. The State Planning Agency does not have a list of recommended sources for law enforcement communications equipment.

4. Procurement Practices

The State Planning Agency reported that grant funded procurements in the State of Nevada are accomplished in accordance with existing state procurement instructions for equipment purchases, maintenance services, and consulting services. These procurement instructions require that procurements above a given dollar value be made on the basis of competitive bidding with the award made to the lowest compliant bidder.

In the case of competitively bid procurements, however, procurement instructions do permit factors other than cost to be given as much consideration in the selection of the successful bidder. Procurement instructions require that all proposed procurements above a value of \$2,500 be advertised. Pre-bid conferences are left to the discretion of the subgrantee.

The role typically played by vendors in the procurement and implementation phases of law enforcement communications projects is to submit competing system designs to the customer without any detailed system specifications.

(7) Project Summary

Data was obtained from the State of Nevada for 47 telecommunications grants awarded during the period July 1, 1971 to January 1, 1975. The project summary sheets which follow describe the project characteristics including these highlights:

- . There were no projects for new systems.
- . Over half of the projects were for communications equipment including mobile and portable radios.

- . There were no projects which provided for formal project evaluation.
- . The greater majority of the projects provided for communication between members of a department but only about one-tenth of these projects provided for intrastate coordination and none of the projects provided for interstate coordination.
- . The greater majority of the projects had as project objectives the improvement of communication reliability and improvement of communication service.
- . Nearly one-fifth of the projects involved statewide recipients, about one-third of the projects were awarded to municipalities with a population under 20,000 and another third were awarded to sheriffs departments.

30. NEW HAMPSHIRE

(1) Organization Information

The unit of government in the State of New Hampshire that is responsible for processing LEAA funds is entitled the Governor's Commission on Crime and Delinquency. This agency has offices at 80 South Main Street, Concord, New Hampshire 03301.

The unit is administered by a Director, two Deputy Directors for planning-programming development and grants management, and a coordinator. The unit has 10 full-time professional personnel, and the Director reports directly to the Governor's office.

The New Hampshire Communications Committee acts as the chief advisory body on telecommunications for the State Planning Agency during the grant application and funding process. Agency officials reported that they rely on the communications committee to provide both technical and coordination support. The committee is dedicated to providing statewide coordination on law enforcement communication system development, implementation and operation. The committee, according to the State Planning Agency, is said to be the force behind the state's success in implementing a telecommunications network which spans all law enforcement agencies.

Furthermore, a unit of the State Police known as the Communications Bureau, furnishes all levels of government with telecommunications planning assistance. This bureau has 10 full-time professional personnel and has mandatory authority for telecommunications planning within the State Police and all other state agencies. This unit serves in an advisory capacity to county, city and township agencies within the state.

The Communications Bureau is reported to have personnel responsible for knowledge of the rules and regulations of the Federal Communications Commission. Further, it makes recommendations to the Governor and/or APCO officials for FCC related actions. The bureau indicated that they contact the Safety and Special Radio Service Bureau of the FCC approximately six times a year.

Neither the State Planning Agency nor the State Communications Bureau reported any contact with The Public Utilities Commission and did not review tariffs or participate in PUC hearings.

The State Planning Agency, with the assistance of the Communications Committee, provides assistance to law enforcement agencies in the telecommunications area by providing a technical review of grant applications, assistance in the preparation of grant applications, system design, specification preparation, system planning, post project evaluation and procurement assistance.

The Communications Bureau of the State Police provides assistance to state and local agencies in the areas of financial planning aid, review of grant applications, grant application preparation, system design, cost effectiveness evaluations, post project evaluation, acceptance testing, procurement procedures, specification preparation and system planning.

The in-house capabilities for serving law enforcement telecommunications planning, as reported by the State Planning Agency, were engineering services, legal services, financial planning, procurement services, management planning, cost accounting services and reliability testing. The in-house capabilities reported by the Communications Bureau included engineering services, financial planning, procurement services, management planning, reliability testing and maintenance.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

In the State of New Hampshire, agencies at the state level that are eligible for LEAA grants include the State Police, Marine Patrol, Alcoholic Beverage, Attorney General and the State Prison. Table V-44 indicates the types and quantities of law enforcement agencies that exist below state level government. In addition to 11 Prosecutor's Offices in the state, the State Planning Agency has identified 224 organized law enforcement agencies as identified in Table V-44.

Table V-44
New Hampshire Law Enforcement Agencies
Below State Level of Government

<u>Type of Agency</u>	<u>Number of Agencies in the State</u>
County Police Departments	10
Municipal Police Departments	200
Campus Police Departments	14

2. Centralized, Cooperative and Consolidated Dispatch Centers

The State Planning Agency indicated that there are 31 full-time, 24-hour, centralized, cooperative or consolidated dispatch centers existing within the state. Of these 31, five serve an area of less than 50 square miles, 11 serve an area of 50 to 200 square miles, and 15 serve an area of over 200 square miles. Eight of these centers serve a population of less than 20,000; 21 serve populations of between 20,000 and 100,000; one serves a population of between 100,000 to 500,000; and one serves a population of over 500,000. Twenty-two of these centers dispatch law enforcement, fire and ambulance vehicles; two dispatch only law enforcement and ambulance vehicles; and seven centers dispatch other agencies in addition to law enforcement, fire or ambulance. One center has adopted 911 emergency telephone service. It serves a population of from 20,000 to 100,000 and dispatches other agencies in addition to law enforcement, fire or ambulance. However, all 31 centers have adopted a statewide, toll free "800" number which is used to access the State Police for law enforcement, fire and ambulance.

In addition to the consolidated centers, there are 19 individual dispatch centers. None have yet adopted 911 as the emergency telephone number. Four individual centers serve an area of less than 50 square miles and 15 serve an area between 50 and 200 square miles. Fifteen centers serve populations less than 20,000 and four serve populations between 20,000 and 100,000. Fifteen centers dispatch

only law enforcement and ambulance vehicles while four centers dispatch other agencies in addition to law enforcement, fire or ambulance. While 911 has not been implemented, all 19 centers have adopted the "800" series number for law enforcement, fire and ambulance.

Computer aided dispatch systems are not in use within the state, and no plans currently exist to add a computer assisted dispatching capability. Telephone service in the state is provided by 12 separate telephone companies.

3. Spectrum Management

The State of New Hampshire presently has a frequency plan. It was developed by an independent consultant and the Communications Bureau of the State Police. The plan specifies or recommends specific frequencies for all law enforcement agencies in the state. The plan recommends frequency assignments from the police and local government classifications.

Local and county law enforcement agencies use VHF high band. All mobiles have a 4-channel capability. The State Police radio system is entirely VHF low band, and all mobiles have at least four channels.

Present licenses for law enforcement include one in VHF low band, 209 in VHF high band, and one in UHF 470 MHz area. Equipment covered by these licenses include 930 mobile units and 100 base stations. The state also has a backbone microwave system in use by law enforcement agencies and it is used for the following functions: mobile repeater links, interagency coordination and radio control links. The system has backup capability and is supported by an emergency power system. It is not, however, dedicated solely to law enforcement services.

The APCO frequency coordinator reported the following number of requests for frequency coordination received from law enforcement agencies:

. 1971 -
. 1972 - 22
. 1973 - 63
. 1974 - 41.

The State Planning Agency has reported that they will not approve a grant application for a communication system which uses frequencies not in conformance with the state plan. They also will not approve a grant application for a communications system prior to coordination of any new frequencies required by the system.

4. Interagency Agreement

The State Planning Agency reported 150 cooperative dispatch agreements in force involving different political entities. Additionally, there are 30 cooperative dispatch agreements in force involving different agencies of the same political entity; three known agreements in force for the sharing of radio equipment facilities, and three contract law enforcement agreements in force.

5. Training Programs

The state has not established minimum standards for training of law enforcement radio dispatchers but plans to do so and already has established standards for training of government employee radio technicians. The state currently has a funded training program for government employee radio technicians.

(3) State Telecommunications Planning

1. State Telecommunications Plan

The State of New Hampshire presently has a state-wide telecommunications plan. The plan is advisory and covers the period 1970 to 1975. It is addressed to state law enforcement agencies, federal agencies, emergency

medical services, municipal and county law enforcement agencies. The plan addresses itself to the organization of radio networks, interagency coordination, spectrum management, frequency allocations, cooperative or consolidated dispatching, interstate coordination, data retrieval systems, operational requirements, procurement procedures, operational training, maintenance, finance, configuration control, disaster operations and reliability standards. The plan was developed by the Communications Bureau of the State Police with the assistance of the State Planning Agency, equipment manufacturers and a private consulting firm. The state plan was last amended January 1975. The plan provides any law enforcement agency with direct radio communication with all levels of law enforcement throughout the state.

2. Comprehensive Law Enforcement Plan

The Comprehensive Law Enforcement Plan, prepared by the State Planning Agency with assistance from the Communications Bureau and submitted to LEAA each year, is developed with specific law enforcement telecommunications considerations. In general, the telecommunications portion of the plan is directed to interagency coordination, cooperative or consolidated dispatching, procurement procedures and configuration control. The plan is addressed to state law enforcement and other state agencies, and to municipal and county law enforcement agencies.

(4) Policy Information

The State Planning Agency's policy for organization of law enforcement radio networks is based upon county networks or individual jurisdiction networks. The agency recommends VHF high band usage for urban, suburban and rural areas.

Additional agency positions or policies are as follows:

- . Tone controlled squelch is recommended.
- . Selective call systems are recommended.

- . Cooperative or central dispatch and mutual aid pacts are recommended as command and control concepts.
- . 911 service is recommended for law enforcement only.
- . Implementation of a statewide coordination channel interstate channel, county coordination channel and a regional or district coordination channel is recommended.
- . VHF point-to-point radio is recommended for inter-agency coordination.
- . Personal portables are recommended for all sworn personnel with mobile units in vehicles.
- . The use of magnetic tape recorders is recommended for logging radio and telephone traffic.

The State Planning Agency identified political factors and insufficient funds for implementation as placing significant constraints on the planning or implementation of police telecommunications systems.

The agency has a formal list of priorities to be used in the evaluation of telecommunication grant applications. The agency reports that it has developed procedures for updating fund allocations if the time between grant application and project implementation has resulted in outdated cost figures. Also, the agency has developed formal procedures to determine when a grant should be terminated and has an in-house formal checklist or review procedure for grant application review. The State Planning Agency has published planning guidelines for use by prospective grant applicants and require the applications to contain a statement of the problem, statement of requirements, manpower requirements, follow-on funding requirements and post implementation project evaluation. Prior to review by the State Planning Agency and the Communications Committee, grant applications are reviewed by a regional planning council. The State Planning Agency maintains a statewide, law enforcement telecommunications equipment inventory. The initial inventory took place January 1975.

(5) Budgets and Expenditures

1. State Planning Agency

The State Planning Agency for New Hampshire has awarded funds each year for telecommunications projects in amounts indicated on Table V-45. These figures represent the actual award approvals made during the periods indicated and are based on a review of the project files.

The total dollar amounts expended for all grants in all areas of the agency and a percent comparison of telecommunications projects is also shown on Table V-45. Additionally indicated is the number of telecommunications projects funded in each of the periods.

The operation budgets for the agency for the same period are as follows:

- . 7/1/71-6/30/72 - \$226,600
- . 7/1/72-6/30/73 - \$374,000
- . 7/1/73-6/30/74 - \$397,100.

Approximately 1 percent of their operating budget was expended for law enforcement telecommunications planning.

For the period from 7/1/74 to 6/30/75, the State Planning Agency anticipates a similar operating budget and also a similar amount awarded totally for all grants.

2. Communications Bureau

The bureau's operating budgets are as follows:

- . 7/1/71-6/30/72 - \$122,000
- . 7/1/72-6/30/73 - \$126,000
- . 7/1/73-6/30/74 - \$138,000
- . 7/1/74-6/30/75 - \$140,000 (Estimated).

Table V-45
Comparison - All Grant Awards vs Telecommunications Awards
7/1/71 Through 6/30/75, State of New Hampshire

Year	Total Dollars		Percent of Total		Number of
	All Grants Awarded	Telecommunications Grants Awarded	Awards for Telecommunications	Telecommunications Projects Funded	
7/1/71-6/30/72	\$1,630,000	\$130,092	8.0%		29
7/1/72-6/30/73	\$2,000,000	346,826	17.3		85
7/1/73-6/30/74	\$2,202,000	312,763	14.2		141
7/1/74-6/30/75	-	124,693	-		41

Approximately 4 percent of their operating budget was expended for law enforcement telecommunications planning.

All grant awards to the Communications Bureau are for State Police communications systems.

(6) Procurement Methods and Policies

1. Centralized Purchasing Procedures

The State Planning Agency reports that extensive use is made of centralized purchasing procedures for most radio equipment. These procedures are mandatory. However, there are no centralized county-wide purchasing procedures.

2. Standard Equipment or System Specifications

Throughout the state, various types of specifications are used in acquiring law enforcement telecommunications systems. These include equipment specifications, system functional specifications and system performance specifications. The major source of specifications for law enforcement communications equipment and systems is the Communications Bureau of the State Police. The State Planning Agency requires that system specifications be met by acceptance testing, operational tests and vendor certification. The State Planning Agency maintains a list of recommended independent consultants for telecommunications. However, there are no formal requirements to be met by consultants to be placed on the list, and the agency has not developed formal procedures for removal of consultants from the approved list.

3. Equipment Sources and Vendors

Typically four to six bidders respond to law enforcement telecommunications system procurements in the

state. The Communications Bureau of the State Police maintains a list of recommended sources of law enforcement communications equipment and has formal requirements and procedures for placement and removal of concerns from this list.

4. Procurement Practices

The State Planning Agency has issued standard procurement instructions that cover the purchase of law enforcement communications equipment and maintenance services. Procurement instructions for equipment require that all proposed procurements be advertised.

For equipment and maintenance services, procurement instructions require that all procurements be made on the basis of competitive bidding with award made to the lowest compliant bidder. However, local procurements may be accomplished according to state contract shopping lists. If local agencies request another vendor's equipment, the State Planning Agency will pay up to the contract price after alternate equipment quality is verified.

In the procurement and implementation phases of telecommunication projects in New Hampshire, the vendors play varying roles. In some instances, they are permitted to submit suggestions for changing the consultants specifications without approval of the consultant. In other cases, vendors are required to submit to the consultant for approval any suggestions they may have for changing the system design specifications.

(7) Project Summary

Data was obtained from the State of New Hampshire on 296 telecommunications grants, all of which were for new systems and were awarded between July 1, 1971 and January 1, 1975. The following project summary sheets describe their characteristics including these highlights:

All of the projects were for communications equipment including consoles, mobile and portable radios,

base stations and mobile repeaters and command and control centers.

- . All of the projects provided for formal evaluation.
- . All of the projects provided for intrastate and interstate coordination, communications between members of a department and communications between law enforcement departments.
- . Project objectives for all projects included the reduction of response time, improvement of inter-agency coordination, improved communication reliability, relief of channel congestion, improved communication service and improved officer safety.
- . Nearly 80 percent of the grants were awarded to a municipality with a population under 20,000.

31. NEW JERSEY

(1) Organization Information

The LEAA funding agency for the State of New Jersey is the State Law Enforcement Planning Agency (SLEPA), and maintains offices at 3535 Quakerbridge Road, Trenton, New Jersey 08625.

The agency is administered by an Executive Director and has a staff of 47 professional personnel all serving on a full-time basis. The Executive Director reports directly to the Governor's office via a Governing Board. The Governing Board consists of appointees by the Governor from all areas of the criminal justice community.

SLEPA has three units each with specific responsibility in the areas of Planning, Operations, and Administration. The Operations unit has separate sub-units for grant application processing in the areas of Impact City, Police Programs, Corrections Programs, Juvenile Delinquency Programs, Court Programs, and Data Processing Programs. The Police Programs sub-unit consists of a Chief, four Principal Program Analysts and one Senior Program Analyst. These six individuals are identified as spending part of their time in system planning and grant application review for law enforcement telecommunications projects.

In addition to SLEPA there are three separate planning agencies which have partial responsibility for telecommunications in the state. The first is the State Division of Systems and Communications which interfaces with county and local law enforcement agencies in the area of the State Crime Information System, a computerized information network operated by the Division. Second, is the Division of Communications of the New Jersey State Police only and the third is the Bureau of Telecommunications which is responsible for communications requirements of all State Government agencies except the State Police.

The New Jersey State Police supports a frequency coordination unit for law enforcement which operates under the auspices of APCO and this unit does provide some system planning assistance to county and local law enforcement agencies as a by-product of frequency coordination activities.

The State Planning Agency, SLEPA, processes all grant applications centrally and does not have regional units for sub-review. The agency does, however, receive assistance from county planning agencies and county and local law enforcement agencies in the development of comprehensive plans. This assistance is in the form of submitted local area plans. No formal agreements exist for receiving this assistance but some informal agreements have been developed.

Within SLEPA there is no one with responsibility for interface with the Federal Communications Commission nor is there any activity between these two agencies. SLEPA relies on the APCO coordinator for assistance in FCC matters.

The State Planning Agency did not report any contact with the Public Utilities Commission and does not review tariffs or participate in PUC hearings. The in-house capabilities for serving law enforcement telecommunications planning were reported to be financial and management planning.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

SLEPA reported that in addition to local and county law enforcement agencies and county prosecutors offices, two agencies of state government are eligible for LEAA funding. These agencies are the Division of State Police and the Division of Criminal Justice. Table V-46 indicates the types and quantities of law enforcement agencies that exist below state level government. SLEPA estimates that there are 522 organized law enforcement departments in the state.

Table V-46
New Jersey Law Enforcement Agencies
Below State Level of Government

<u>Type of Agency</u>	<u>Number of Agencies in the State</u>
County Police Departments	2
County Park Police Departments	9
Prosecutors' Offices	21
Municipal Police Departments	460
Municipal Park Police Departments	1
Campus Police Departments	11
Public Housing Police Departments	7

2. Centralized, Cooperative, and Consolidated Dispatch Centers

Exact figures regarding the locations, quantity, and services provided by dispatch centers in the state were not available, however, estimates were included as follows:

- . There are an estimated 150 centralized, cooperative and consolidated dispatch centers in the state of which only one has adopted 911 telephone service.
- . 130 of these centers serve an area of under 50 square miles and the remainder have coverage over areas of between 50 and 200 square miles.
- . 48 of these centers serve populations under 20,000; 100 serve populations between 20,000 and 100,000, and two serve between 100,000 and 500,000.

The State Planning Agency estimates that 310 single agency dispatch centers operate in the state, however, statistics are not available regarding areas served, populations served, telephone services employed, or other public safety agencies involved.

Totally within the state there are five locations utilizing 911 telephone service and each of the five locations serve populations between 100,000 and 500,000. All five dispatch fire and ambulance service in addition to police.

Computer aided dispatch systems exist in two law enforcement agencies in the state and five other police departments currently have plans to add this capability.

Telephone service in the state is provided by seven separate telephone companies.

3. Spectrum Management

The State of New Jersey is currently considering the development of a statewide frequency plan but no plan has as yet been prepared.

Present licenses for law enforcement include 367 in VHF low band, 307 in VHF high band, 26 in UHF, and 5 in 470 MHz area. The APCO frequency coordinator reported the following number of requests for frequency coordination received from law enforcement agencies:

- . 1971 - 145
- . 1972 - 167
- . 1973 - 176.

SLEPA has indicated that the shortage of available frequencies has placed serious constraints on telecommunications planning. Other significant constraints were identified as political factors and insufficient implementation of funds.

There is no statewide backbone microwave system for law enforcement use in New Jersey. However, microwave systems do exist on the New Jersey Turnpike and the Garden State Parkway. Each of these systems is controlled by representative authorities.

4. Interagency Agreements

Representatives of the State Planning Agency stated that they are aware that some interagency agreements exist specifically in the area of coordinated or consolidated dispatching. However, statistics are not kept on the number and types of such agreements.

5. Training Programs

New Jersey reported that no minimum standards have been established for training law enforcement dispatchers or government employee radio technicians; nor does the state have funded training programs for either of the two categories. The state is however, planning to establish minimum standards for training law enforcement radio dispatchers.

(3) State Telecommunications Planning

1. State Telecommunications Plan

New Jersey does not presently have a statewide comprehensive telecommunications plan but does anticipate preparing one. However, some agencies within the state have developed plans for their own requirements.

2. Comprehensive Law Enforcement Plan

The comprehensive plan prepared by the State Planning Agency and submitted to LEAA each year is developed with specific law enforcement telecommunications considerations. In general, the telecommunications portion of the plan is directed to organization of land mobile radio systems and the statewide information system. The telecommunications portion of the plan was prepared based on a knowledge of requirements as indicated in local and regional area plans, and with input from state officials and frequency coordinators.

(4) Policy Information

The policy positions of the State Planning Agency are generally related to specific projects and are determined based on individual applicant needs and justification. Some significant agency policies are detailed below:

- . Tone-coded squelch is recommended for most systems.
- . 911 service is recommended for law enforcement only.
- . Regional or district coordination channels are recommended.
- . Personal portables are recommended for all personnel with no mobile units in vehicles.
- . The use of magnetic tape recorders is recommended for logging radio and telephone traffic.

The State Planning Agency has developed formal procedures to determine when a grant should be terminated by which are included in an applicant's guide that has been published by SLEPA. The applicant's guide lists specific details that are required in the application and some of the constraints and policy statements that the applicant should be aware of. No agency in the state has been charged with maintaining a complete inventory of all telecommunications equipment and hence no such inventory exists. Each local agency has responsibility for maintaining its own inventories as does the state government for its departments.

The State Planning Agency is reportedly planning to offer legislation regarding directives to plan or implement specific communications systems and plans.

(5) Budgets and Expenditures

The State Planning Agency for New Jersey has awarded funds each year for telecommunications projects in amounts indicated in Table V-47.

These figures represent the actual award approvals made during the periods indicated and are based on review of the project files.

The total dollar amounts expended for all grants in all areas, by the State Planning Agency and a percent comparison for telecommunications projects is shown on Table V-47. Also indicated is the number of telecommunications projects funded in each year.

The operating budgets for the State Planning Agency for the same periods are as follows:

. 7/1/71 - 6/30/72	\$ 816,000
. 7/1/72 - 6/30/73	\$1,126,000
. 7/1/73 - 6/30/74	\$1,556,000.

Approximately 5% of their operating budget was expended for law enforcement telecommunications planning.

Table V-47
Comparison - All Grant Awards vs Telecommunications Awards
7/1/71 to 6/30/75, State of New Jersey

Year	Total Dollars All Grants Awarded	Total Dollars Telecommunications Grants Awarded	Percent of Total Awards for Telecommunications	Number of Telecommunications Projects Funded
7/1/71 - 6/30/72	\$11,870,000	\$ 675,439	5.7%	19
7/1/72 - 6/30/73	\$14,388,000	592,797	4.1	19
7/1/73 - 6/30/74	\$16,703,000	1,144,863	6.9	24
7/1/74 - 6/30/75	-	432,046	-	8

Between 6/30/74 and 10/10/74, SLEPA has approved an additional eight telecommunications projects for funding of \$432,046. Budgets for operating costs and grants awards are the same for 7/1/74 - 6/30/75 as the period 7/1/73 to 6/30/74.

(6) F. Procurement Methods and Policies

1. Centralized Purchasing Procedures

There are no centralized purchasing procedures in effect in the State of New Jersey that involve all units of government. Purchases by state agencies are controlled by a state purchasing department and each department files requests with this office. Specifically in the area of law enforcement communications purchases, the Department of State Police prepares bid requests and specifications which are then processed by the purchasing department.

Units of local government all process their own purchases generally in a like manner.

2. Standard Equipment of System Specifications

Throughout the state various types of specifications are used for acquiring law enforcement telecommunications systems. These include equipment specifications, system functional specifications, and system performance specifications. In the majority of cases, specifications for law enforcement communications equipment and systems are obtained from vendor associated consultants.

The State Planning Agency does not maintain a list of approved consultants or vendors and depends on the recipients of grants to ensure that state and local laws are adhered to. The SLEPA does, however, review the project activities to determine compliance with LEAA guidelines and state laws.

3. Equipment Sources and Vendors

In most equipment procurements two or three vendors submit bids and the bids received are evaluated by each grant recipient. As mentioned above, the SLEPA does review the purchasing procedures to ensure compliance to applicable laws.

4. Procurement Practices

In cases of equipment purchases or maintenance services purchases for grant funded procurements, accomplishment is in accordance with existing state laws. The State Planning Agency has, however, issued special instructions regarding grant funds for consulting services.

State procurement rules require that all purchases over \$2,500 must be on the basis of competitive bidding unless there is specific justification for a sole source. Additionally, all procurements over \$2,500 must be advertised.

The holding of pre-bid conferences is not required but in those cases where pre-bid conferences are utilized they are generally held after the procurement has been advertised.

In the procurement and implementation phases of telecommunications projects in New Jersey, the vendors play varying roles. In some instances they are asked to prepare bid specifications and they typically submit competing system designs to the customers without detailed system specifications. Where a consultant is responsible for specifications, the vendors are permitted to submit suggested changes without approval of the consultant. Generally these types of suggested changes would be forwarded to the consultant for consideration.

(7) Project Summary

Data was obtained from the State of New Jersey for 70 telecommunications grants including 17 for new systems awarded between July 1, 1971 and January 1, 1975. The project summary sheets which follow indicate characteristics of the projects including these highlights:

- . The greater majority of the projects were for communications equipment principally hand held portables.
- . Over one-fifth of the projects provided for formal evaluation.
- . The greater majority of the projects provided communications between members of a department and almost half of the projects provided intrastate coordination but a very small percent provided interstate coordination.
- . Three-fourths of the projects had as a project objective the reduction of response time.
- . Ten of the projects were awarded to regional recipients.

32. NEW MEXICO

(1) Organization Information

The unit of government in the State of New Mexico that administers and distributes LEAA funds is called The Governor's Council on Criminal Justice Planning. The agency maintains offices in Santa Fe, New Mexico and receives mail at Post Office Box 1770, Santa Fe, New Mexico 87501.

The agency is administered by an Executive Director and is directly under the Office of the Governor. The agency has a staff of 14 full-time professional personnel, one of which devotes part of his time to system planning and grant application review for law enforcement telecommunications projects.

The State Planning Agency provides assistance to law enforcement agencies in the telecommunications area by providing technical review of grant applications and assistance in preparation of grant applications. The State Planning Agency reported that there are other agencies in the state that provide similar services to law enforcement departments. These agencies include the state agency of telecommunications, and regional, county, municipal planning agencies. The agencies that were reportedly directly involved in law enforcement telecommunications planning activities include the State Planning Agency and the State Division of Communications.

The State Planning Agency reported that they receive telecommunications planning assistance from the State Division of Communications in the areas of: development of the comprehensive plans, submission of local plans, and post project award evaluation. There are no formal agreements existing for the receipt or provision of the services.

The state agency of telecommunications referred to above is entitled the New Mexico Department of Radio Communications. This department maintains offices at the State Police Complex, Santa Fe, New Mexico 87501.

The department is administered by a Radio Communications Engineer and is directly under the Governor's office. The department has several major units of responsibility. These

sections include: radio, spectrum management, research and planning, engineering, maintenance, and administration. The research and planning unit is the specific unit that is responsible for law enforcement telecommunications planning.

The department was formed by an act of legislation in 1966 and has mandatory authority for all communications for state level agencies. The department has advisory authority for county, city and local agencies. The agency has a staff of 23 full-time professional personnel, of which three devote part of their time to system planning and review of grant applications for telecommunications projects.

The major activities of the Department of Radio Communications in regard to law enforcement telecommunications include state agencies system planning, county, city and local planning, spectrum management, equipment procurement, engineering maintenance, and assistance to other agencies. The Department of Radio Communications provides telecommunications planning assistance to the State Planning Agency by providing technical review of grant applications, review for concurrence to state plan, system design, procurement procedures, preparation of specifications, and operational training. The State Planning Agency requires concurrence from the Department of Radio Communications as a prerequisite to grant approval .

Planning services provided to law enforcement agencies by the Department of Radio Communications include review of grant applications, system design, procurement procedures, specification preparation, system planning, and operational training. These same services are provided to regional, county and city planning agencies. There are no formal agreements or memos of understanding existing between the Department of Radio Communications and other agencies for the provision or receipt of these planning services.

Interface between the State of New Mexico and the Federal Communication Commission is the responsibility of the Department of Radio Communications. The department has a person within the agency who is responsible for knowledge of FCC rules and regulations and also responsible for monitoring and commenting on FCC dockets.

The department reported that they participate in FCC proceedings approximately one time per year and have contact with the Safety and Special Radio Services Bureau approximately six times per year.

The State Planning Agency further reported no contact or interface with the State Public Utility Commission. However, the Department of Radio Communications stated that they occasionally meet with the PUC for the purpose of reviewing tariffs as they affect law enforcement telecommunications and they do participate occasionally in PUC hearings.

The in-house capabilities reported by the Department of Radio Communications for serving law enforcement communications planning include engineering services, and procurement services. The in-house capabilities reported by the State Planning Agency include procurement services, management planning, and cost accounting services.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

The state level of law enforcement agencies in the State of New Mexico that are eligible for LEAA grants include the State Police, the Governor's Organized Crime Prevention Commission, the State's Universities Security Forces and the Medical Investigator Office. The State of New Mexico has 13 prosecutors officers. Additional law enforcement agencies within the state include the Department of Motor Vehicles, the Department of Transportation, the Alcohol Beverage Control Board, 32 county law enforcement departments, 92 municipal police departments, and six campus police departments. There are 133 law enforcement departments in the state.

2. Centralized, Cooperative and Consolidated Dispatch Centers

At the time of the survey, the State of New Mexico had 19 full-time, 24-hour, consolidated dispatch centers serving two or more law enforcement agencies. All 19 of

these dispatch centers serve areas in excess of 200 square miles.

Sixteen of these dispatch centers each serve populations of less than 20,000 persons while three serve populations between 20,000 and 100,000. All 19 of these centers dispatch law enforcement vehicles only.

In addition to the 19 consolidated centers there are 49 individual dispatch centers in the state; that is, those centers which serve only one police department. Of these 49 centers, 22 serve areas of less than 50 square miles, 23 serve areas over 200 square miles, and six serve areas between 50 and 200 square miles.

The population served by these individual centers include 22 centers serving populations of less than 20,000, 26 centers serving populations between 20,000 and 100,000, and three centers serving populations between 100,000 and 500,000.

All of these individual dispatch centers dispatch law enforcement vehicles only.

911 emergency telephone service has not been adopted by any of the consolidated dispatch centers; however, it has been adopted by four of the individual dispatch centers. Of these four centers, three serve populations between 20,000 and 100,000 persons and one center serves a population between 100,000 and 500,000. All four of these centers dispatch law enforcement, fire, and ambulance vehicles.

Within the state of New Mexico, there is not currently any law enforcement communications center utilizing computer aided dispatch and there are no present plans to add this capability.

The state of New Mexico is served by 20 separate telephone companies.

3. Spectrum Management

The State of New Mexico has a statewide law enforcement frequency plan that was prepared in-house by the Department of Radio Communications. This frequency plan specifies frequencies for all law enforcement agencies in this state and utilizes frequency assignments in the police-only, special emergency, and highway maintenance spectrum areas.

The APCO frequency coordinator for the State of New Mexico reported the following number of requests for coordination that originated from law enforcement agencies with the state during the three years preceding this study:

- . 1971 - 100
- . 1972 - 300
- . 1973 - 357

The frequency coordinator stated that in all cases he recommends a specific frequency to the applicant and will not recommend any frequency that does not conform to the state frequency plan.

Neither the Department of Radio Communications nor the State Planning Agency will approve a grant application which uses frequencies not in conformance with the state frequency plan. The Department of Radio Communications will approve a grant application prior to coordination of any new frequencies; however, the State Planning Agency's policy is the opposite.

In the State of New Mexico there are nine law enforcement departments licensed on VHF low band, 85 licensed on VHF high band, and one licensed on UHF. Within the state there are presently 1800 mobile units and 226 base stations in use by law enforcement.

The State of New Mexico has a backbone microwave system in use by law enforcement agencies. The law enforcement functions served by this system include intercity private telephone, interagency coordination, and radio control links. The microwave system has a back-up

capability and is supported by an emergency power system. The microwave system is not dedicated solely to law enforcement purposes.

4. Interagency Agreements

At the time of this report there was one cooperative dispatch agreement in force in the State of New Mexico that involved different political entities. There was additionally one dispatch agreement in force involving different agencies of the same political entity.

A total of 26 interjurisdictional agreements are in force in the state for the purpose of sharing the radio equipment facility other than radio dispatch centers. The total known number of contract law enforcement agreements in force in this state is 50.

5. Training Programs

The State of New Mexico has not established minimum standards for the training of law enforcement radio dispatchers or government employee radio technicians and there are no plans at the present time to establish such standards.

(3) State Telecommunications Planning

1. State Telecommunications Plans

The State of New Mexico does have a statewide telecommunications plan that was developed in response to overall telecommunications needs. This plan was developed in October of 1973 by the Department of Radio Communications and is advisory in nature.

The specific areas covered by the plan include the organization of radio networks, interagency coordination, and cooperative or consolidating dispatching. The plan is

addressed to all municipal and county law enforcement agencies and emergency medical services. The State Planning Agency requires conformance with this state plan in telecommunication system planning.

3. Comprehensive Law Enforcement Plan

The Comprehensive Law Enforcement Plan prepared yearly by the State Planning Agency and submitted to the Law Enforcement Assistance Administration includes telecommunications considerations. The areas specifically addressed in the plan include organization of radio networks, interagency coordination, citizen access, cooperative or consolidated dispatching, data retrieval systems, and operational training.

This comprehensive plan is addressed to all law enforcement agencies within the state and to the fire service. The telecommunications portion of the comprehensive law enforcement plan was developed in-house by the State Planning Agency.

(4) Policy Information

Policy positions taken and policy statements made by the State Planning Agency regarding law enforcement telecommunications are generally related to the statewide communications plan and the law enforcement frequency plan. Some of the major policy statements of the State Planning Agency in regard to law enforcement telecommunications activities are as follows:

- . The recommended general concept for organization of law enforcement radio networks is based upon mobile radio districts or zones and county networks
- . When it is necessary for two or more agencies to share a channel the State Planning Agency recommends either cooperative dispatch or independent dispatch with share based station
- . The recommended frequency band usage for all law enforcement in the state is VHF high band

- . Recommended channel configurations include two frequency simplex and mobile relay
- . The use of tone-controlled squelch is recommended
- . The recommended command and control concept is cooperative or central dispatch
- . A statewide coordination channel is recommended for law enforcement
- . The recommended method for interagency point-to-point coordination is VHF point-to-point or microwave links
- . Coordination between local agencies and the state police is recommended on point-to-point or mobile-to-mobile communication
- . Either radio or wire line control is recommended for remote control of base stations
- . The use of communications scramblers is not recommended
- . Personal portable radios are recommended for foot control only
- . The use of magnetic tape recorders is recommended for logging of radio and telephone traffic.
- . Centralized agency maintenance is recommended.

The State Planning Agency reported that the only legislation existing in the State of New Mexico that has effect on law enforcement communication planning is the legislation of the establishment of an office or division of communications. The State Planning Agency is not presently proposing any state legislation that would effect law enforcement communications.

The State Planning Agency reported that insufficient funds for implementation is the only significant constraint on the planning or implementation of police telecommunications systems.

Both the Department of Radio Communications and the State Planning Agency reported that since July 1971 approvals or disapprovals of grant requests by both agencies have never been reversed by other levels of authority. The State Planning Agency has an in-house formal checklist for review procedure for grant application review but has not published planning guidelines for use by prospective grant applicants. Grants are reviewed by regional planning councils before submission to the State Planning Agency.

There is no record of a statewide law enforcement telecommunications equipment inventory being maintained by either the State Planning Agency or the Department of Radio Communications.

(5) Budgets and Expenditures

The State Planning Agency for New Mexico has expended funds for telecommunications projects in the amounts indicated on Table V-48.

These figures represent the actual award approvals made during the periods indicated and are based on the review of the project file.

Also indicated on Table V-48 are the total dollars expended for all grants in all areas, a percent comparison for telecommunications projects, and the number of telecommunications projects funded in each of the given years.

The operating budget for the State Planning Agency in the same three year period is as follows:

.	7/1/71-6/30/72 - \$171,928
.	7/1/72-6/30/73 - \$345,700
.	7/1/73-6/30/74 - \$384,500

The State Planning Agency estimated that between 1/3 and 1/2 of one percent of their operating cost are expended for law enforcement telecommunications planning. The State Planning Agency further estimated that their operating budget for fiscal year 1975 would be \$450,000 and that their total amount expended for all grants in fiscal 1975 would be \$3,118,025.

Table V-48
Comparison - All Grant Awards vs Telecommunications Awards
7/1/71 Through 6/30/75, State of New Mexico

Year	Total Dollars All Grants Awarded	Total Dollars Telecommunications Grants Awarded	Percent of Total Awards for Telecommunications	Number of Telecommunications Projects Funded
7/1/71-6/30/72	\$2,452,000	\$30,292	1.2%	16
7/1/72-6/30/73	\$2,908,777	83,156	2.9	13
7/1/73-6/30/74	\$3,031,515	99,259	3.3	6
7/1/74-6/30/75	-	62,000	-	4

The operating cost for the Department of Radio Communications for the same periods is as follows:

- . 7/1/71-6/30/72 - \$400,000
- . 7/1/72-6/30/73 - \$418,000
- . 7/1/73-6/30/74 - \$498,000

The Department of Radio Communications estimated that approximately 5 percent of their operating cost are expended for law enforcement telecommunications planning. The Department of Radio Communications further estimated that its operating costs for Fiscal Year 1975 were \$517,000.

During Fiscal Year 1974 the Department of Radio Communications received \$88,000 from LEAA and \$35,000 in 1975 fiscal year for the purposes of telecommunications projects.

(6) Procurement Methods and Policies

1. Centralized Purchasing Procedures

In the State of New Mexico, there are standard uniform procurement methods for centralized procurement. These centralized purchasing procedures are mandatory for state agencies but not for local agencies. The state goes to bid on an annual basis for state contracts for centralized purchases and the State Planning Agency and Department of Radio Communications both encourage centralized purchasing for small purchases.

2. Standard Equipment or System Specifications

In the State of New Mexico, equipment specifications are the only type of specifications used for the procurement of law enforcement telecommunications. Their major source of the specifications is the Department of Radio Communications.

Neither the State Planning Agency nor the Department of Radio Communications maintains a list of recommended independent consultants for telecommunications projects.

3. Equipment Sources and Vendors

Typically there are four to six bidders who respond to law enforcement telecommunications system procurement in the State of New Mexico. Neither the State Planning Agency nor the Department of Radio Communications maintains a list of recommended sources for law enforcement communications equipment.

4. Procurement Practices

In New Mexico, grant funded procurements are accomplished in accordance with the existing state procurement instructions in the areas of equipment, maintenance services, and consulting services. The Department of Radio Communications has issued some standard instructions to cover the purchase of law enforcement communications equipment.

The Department of Radio Communications reported that procurement instructions require that bids be solicited from at least three suppliers whenever the procurement exceeds a given dollar value for equipment purchases and that procurements be made on the basis of competitive bidding with award made to the lowest compliant bidder.

The State Planning Agency reported that in the case of competitive procurements, the instructions permit factors other than cost to be given as much consideration in selecting the successful bidder.

Regarding procurement of equipment or maintenance services, the instructions require that all procurement above \$1,000 be advertised. The State Planning Agency does not require prebid conferences; however, the Department of Radio Communications requires these conferences in procurements over \$1,000 for equipment. The Department of Radio Communications reported that prebid conferences are held before procurements are advertised and that procurements should be confined to in-state vendors when they can satisfy specifications.

The typical vendor participation in the procurement or implementation phases of law enforcement projects includes submitting competing system designs to a customer without any detail system specifications.

(7) Project Summary

Data was obtained from the State of New Mexico on 41 telecommunications grants including 18 for new systems awarded during the period July 1, 1971 to January 1, 1975. Following these highlights are project summary sheets which describe characteristics of the projects.

- . Nearly all of the projects were for communications equipment including mobile and portables radios and base stations.
- . More than a fifth of the projects provided for formal evaluation.
- . Over half of the projects provided for communications between law enforcement departments and intrastate coordination with only a small percentage of the projects providing interstate coordination.
- . Nearly four-fifths of the projects had as a project objective the improvement of communication service.
- . Approximately half of the grants were awarded to municipalities with a population under 20,000 and nearly a third of the grants were awarded to sheriffs departments.

33. NEW YORK

(1) Organization Information

The unit of government in the State of New York that administers and distributes LEAA funds is the New York State Division of Criminal Justice Services. This agency maintains offices at 270 Broadway, New York, New York, 10007.

The agency is administered by a Commissioner who reports directly to the Office of the Governor and has a full time professional staff of 52 persons and one part time professional employee. Three full time professionals and one part time professional are involved in system planning for law enforcement telecommunications projects and in grant applications reviews.

Assistance provided to law enforcement agencies in the area of telecommunication by the State Planning Agency includes the technical review of grant applications, assistance in preparation of grant applications, cost-effectiveness evaluation, system design, specification preparation, system planning, and procurement assistance.

Another agency of state government which provides services to law enforcement agencies is the New York State Division of Communications which is a part of the Office of General Services. The Division of Communications maintains offices in the Empire State Plaza Tower, Albany, New York, 12223. The division was established in 1960 by an act of legislation and has mandatory authority over state agencies and advisory authority to county, city and local agencies.

The division has a full time professional staff of eight persons, two of which devote part time to system planning for law enforcement telecommunications projects. The major activity of the division includes engineering services and operation of the state telecommunications system.

The Division of Communications is involved in state agency system planning, wire line system planning, equipment procurement, and assistance to other agencies. The division does not provide telecommunications planning assistance to the State Planning Agency.

The State Planning Agency reported that there are two state level agencies, one municipal planning agency, one state law enforcement agency, and one county law enforcement agency that are directly involved in law enforcement telecommunications planning. The State Planning Agency further reported that they do not receive telecommunications planning assistance from any other agencies.

The Division of Communications reported that it has a person within the agency who is knowledgeable of FCC Rules and Regulations and FCC dockets. The State Planning Agency also has a knowledge of FCC Rules and Regulations through its Technical Programs Group.

Interface between the state and the Public Utilities Commission is accomplished on an advisory basis by the Division of Communications. The Division does participate in PUC hearings on occasions. The State Planning Agency reported no involvement with the Public Utilities Commission with respect to law enforcement communications planning and design.

The in-house capabilities for serving law enforcement telecommunications planning were reported by the State Planning Agency to be engineering services, financial planning, procurement services, management planning, and cost accounting services. The in-house capabilities reported by the Division of Communications for law enforcement telecommunications planning included engineering services, financial planning and procurement services.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

State level law enforcement agencies in the state of New York include the New York State Police, the Liquor

Control unit, the Drug Abuse Control Commission, the Port Authority Police and Parkway Police. Other law enforcement agencies within the state include two county law enforcement departments and an estimated 600 organized municipal police departments.

2. Centralized, Cooperative and Consolidated Dispatch Centers

As of the date of this survey the State Planning Agency reported that there were an estimated 45 full time 24-hour, consolidated dispatch centers in the State of New York serving two or more law enforcement agencies. Approximately 40 of these centers serve areas of less than 50 square miles each while five serve areas between 50 and 200 square miles each.

It is estimated that 39 of these consolidated dispatched centers serve populations of between 20,000 and 100,000 persons while three serve populations between 100,000 and 500,000. One center serves a population of less than 20,000 and two additional each serve populations of over 500,000.

All 45 of these consolidated dispatch centers dispatch law enforcement, fire and ambulance vehicles.

It is further estimated that there are approximately 500 single-agency dispatch centers existing in the state. The areas and populations served and the type of dispatching provided by these individual centers was not readily available.

Within the state there are thirteen dispatch centers currently using 911 emergency telephone service.

Ten of the centers utilizing 911 service dispatch law enforcement, fire and ambulance vehicles.

Computer assisted dispatching is currently being used by one law enforcement communication center in the state and there are three centers that have plans to add this capability.

The State of New York is presently being served by 61 separate telephone companies.

3. Spectrum Management

The State of New York does have a statewide law enforcement frequency plan that was developed by an independent consultant. This frequency plan recommends specific frequencies for some but not all law enforcement agencies in the state. Specifically excluded from the plan were the law enforcement agencies in New York City and the New York State Police. The state law enforcement frequency plan utilizes police only, and local government frequency assignments.

The State of New York has two APCO frequency coordinators and they divide the state into northern and southern sections. The number of frequency requests for coordination that originated from law enforcement agencies within the state and were processed by the frequency coordinators is as follows:

- . 1971 - 115
- . 1972 - 222
- . 1973 - 149

Frequency coordination within the state requires the applicant to select the desired frequency. The coordinator will recommend the use of a frequency that does not conform to the state plan provided he sees no objection to its assignment. The coordinators estimate that there are 9076 law enforcement departments licensed in all areas of the frequency spectrum in the State of New York.

The State of New York does not have a backbone microwave system for law enforcement use. There are no current plans to provide this microwave capability.

The State Planning Agency reported that it will not approve a grant application for a communications system prior to coordination of new frequencies required by the system. However, they will approve a grant application for a communications system calling for frequencies not in conformance with the state frequency plan.

4. Interagency Agreements

The State Planning Agency reported that there are approximately 50 to 75 cooperative dispatch agreements in force in the State of New York. These involve agreements between different political entities. They further reported that there are two or three known interjurisdictional pacts in force for the purpose of sharing radio equipment facilities other than radio dispatch centers.

5. Training Programs

The State of New York has not established minimum standards for the training of law enforcement radio dispatchers or government employee radio technicians. The state is planning to establish these minimums for the radio dispatcher category and does not have any funded training program at this time for either category.

(3) State Telecommunications Planning

1. State Telecommunications Plan

The State of New York does not have the statewide telecommunications plan, and does not anticipate preparing such a plan.

2. Comprehensive Law Enforcement Plan

The Comprehensive Law Enforcement Plan prepared annually and submitted to the Law Enforcement Assistance Administration by the State Planning Agency includes telecommunications considerations in a separate section of the plan.

The plan specifically addresses the organization of radio networks, interagency coordination, spectrum management, frequency allocations, consolidated dispatching, data retrieval systems, operational requirements, procurement procedures, technical training, operational training, maintenance, financial considerations, configuration control, traffic management, and reliability standards.

The comprehensive plan is addressed to state agencies, state law enforcement agencies, and county and municipal law enforcement agencies. The telecommunications portion of the Comprehensive Law Enforcement Plan was developed in-house by the State Planning Agency.

(4) Policy Information

Significant and major policy positions of the State Planning Agency relating to law enforcement telecommunications are as follows:

- . The concept for organization of law enforcement radio networks is based upon mobile radio districts.
- . Central or cooperative dispatching is recommended when two or more agencies share a radio channel.
- . The use of VHF high band is recommended in suburban and rural areas.
- . The use of UHF is recommended for urban areas.
- . The required number of radio channels is based upon the number of mobiles and portables, the volume of radio traffic, and functions to be served.

- . The use of tone-controlled squelch is recommended.
- . Cooperative or central dispatch is the recommended command and control concept.
- . Coordination channels are recommended at the district level and at the statewide level.
- . VHF point-to-point links are recommended for interagency coordination.
- . Point-to-point communication is recommended for coordination between the state police and local law enforcement agencies.
- . The use of personal portables is recommended for all sworn personnel including foot patrol officers and detectives.
- . The use of magnetic tape recorders for logging of radio and telephone traffic is recommended.
- . Centralized agency maintenance is recommended.

The Division of Communications recommends improved citizen access by utilizing the 911 emergency telephone number for law enforcement, fire and emergency medical services. The Division also recommends a statewide coordination channel.

The State Planning Agency reported that existing state statutes that affect law enforcement communications planning includes legislation for the establishment of the Division of Communications. The State Planning Agency is not proposing new state legislation that would affect law enforcement telecommunications. However, the Division of Communications is proposing new legislation in the area of spectrum management.

The State Planning Agency reported that since July 1971 approvals of grant request by the agencies have never been reversed, however, on five occasions disapprovals by the State Planning Agency have been reversed by higher levels of authority.

The State Planning Agency has formal procedures for updating funding allocations when the time between the grant application and project implementation has resulted in outdated cost figures. The agency also has formal procedures to determine when a grant should be terminated and has an in-house formal review procedure for grant application review. The planning agency further reported that grant applications are reviewed at the regional planning level prior to submission.

The three most significant constraints on the planning or implementation of police telecommunications systems reported by the State Planning Agency were the shortage of available frequencies, political factors, and insufficient funds for implementation.

At the present time, neither the Division of Communications nor the State Planning Agency maintains a statewide law enforcement telecommunications equipment inventory.

(5) Budgets and Expenditures

The State Planning Agency for New York has awarded funds each year for telecommunications projects in the amounts indicated on Table V-49. These figures represent the actual award approvals made during the periods indicated and are based on a review of the project file.

Also included on Table V-49 is the total dollars expended for all grants for law enforcement for each of the periods indicated, a percent comparison of dollars expended for telecommunications projects, and the number of telecommunications projects funded in each of the years.

The operating budgets for the State Planning Agency for the same period are as follows:

.	7/1/71 - 6/30/72	-	\$ 935,910
.	7/1/72 - 6/30/73	-	\$1,247,480
.	7/1/73 - 6/30/74	-	\$1,471,265

The State Planning Agency reported that the percent of operating costs that were expended for law enforcement telecommunications planning has increased each year starting with

Table V-49
Comparison - All Grant Awards vs Telecommunications Awards
7/1/71 to 6/30/75, State of New York

Year	Total Dollars		Total Dollars		Percent of Total Awards for Telecommunications	Number of Telecommunications Projects Funded
	All Grants	Awarded	Telecommunications Grants Awarded	Telecommunications Awards for Telecommunications		
7/1/71 - 6/30/72	\$40,826,000		\$ 105,811	0.3%		1
7/1/72 - 6/30/73	47,496,000		4,161,699	8.8		16
7/1/73 - 6/30/74	47,496,000		711,053	1.5		4
7/1/74 - 6/30/75	-		327,566	-		1

approximately 1 percent and in Fiscal Year 1972, 2 percent in Fiscal Year 1973, 4 percent in Fiscal Year 1974, and anticipated 5 percent in Fiscal Year 1975. The estimated operating costs for 1975 are approximately \$1,000,000, and the estimated total dollars awarded for all grants for Fiscal Year of 1975 will be \$46,658,000.

The budgets for the Division of Communications for each of the same periods is estimated at \$200,000 for operating cost each year with approximately 10 percent being expended for law enforcement telecommunications planning. They are responsible for annual expenditures of \$12,000,000. The Division of Communications has not received any grant funds from the State Planning Agency for telecommunications projects for the period of time covered by this report.

(6) Procurement Methods and Policies

1. Centralized Purchasing Procedures

The State Planning Agency reported that there is extensive use of centralized purchasing procedure for most radio equipment procured by state-level agencies and that these purchasing procedures are mandatory. It is unknown whether centralized purchasing procedures are used or are mandatory at the county or local level.

2. Standard Equipment or System Specifications

Equipment specifications are the only type used in the State of New York for procurement of law enforcement telecommunications systems. The source of the specifications is unknown to the State Planning Agency and there are no requirements by the agency to ensure that specifications are met.

Both the State Planning Agency and the Division of Communications maintain lists of recommended independent consultants for telecommunications, however, there are no formal requirements for additions to or removal from this list. It could not be determined whether either agency had ever removed a firm from this list for cause.

3. Equipment Sources and Vendors

It was reported that typically there are four to six vendors who respond to law enforcement telecommunications system procurements in the State of New York. Neither the State Planning Agency nor the Division of Communications maintains a list of recommended sources for police communications equipment.

4. Procurement Practices

The State Planning Agency reported that all grant funded procurements are accomplished in accordance with existing state procurement instructions in all areas of equipment purchases, maintenance services, and consulting services.

Procurement instructions require that procurements of equipments or maintenance services above \$1200 be advertised.

The amount of participation by equipment vendors in the procurement or implementation of law enforcement communications projects was not readily available at the time of this survey.

(7) Project Summary

Data was obtained from the State of New York for 22 telecommunications grants including one grant for a new system awarded during the period July 1, 1971 to January 1, 1975. Following these highlights are project summary sheets which describe characteristics of the projects in more detail.

All of the projects were for communications equipment predominantly dispatch consoles, mobile radios, hand held portables, base stations and logging type tape recorders.

There were no projects which provided for formal evaluation.

Essentially all of the projects provided for intrastate coordination, the greater majority provided for communications between law enforcement departments and none of the projects provided for interstate coordination.

All of the projects had as a project objective the reduction of response time and nearly all of the projects had as project objectives improved cost effectiveness and relief of channel congestion.

More than three-fourths of the grants were awarded to regional recipients.

34. NORTH CAROLINA

(1) Organization Information

The unit of government in the State of North Carolina that is responsible for the administration of LEAA grant funds is the North Carolina Division of Law and Order. The mailing address of this State Planning Agency is P.O. Box 27687, Raleigh, North Carolina 27611.

The agency is administered by an Administrator and an Assistant Administrator and has a staff of 35 full-time professional personnel. The Administrator reports to the Governor's Office through the Department of Natural and Economic Resources and the Division of Community Assistance. The organizational chart for the State Planning Agency identifies several major areas of activity. These are: youth and corrections programs, police, courts, and grant management. Within these units, one individual was identified as being involved full-time with telecommunications projects. The State Planning Agency reported that no other planning agency in the state assists it in telecommunications planning activities.

The State Planning Agency reported that they have no contact with the Public Utilities Commission. Further, they do not participate in PUC hearings or tariff reviews.

The State Planning Agency does not interface with the Federal Communications Commission except through consultants. However, the State Highway Patrol reported that it has personnel responsible for knowledge of FCC Rules and Regulations. In addition, it meets with the Field Operations Bureau of the FCC approximately six times a year and with the Safety and Special Radio Service Bureau approximately 12 times a year.

The State Planning Agency provides assistance to law enforcement agencies in the telecommunications area by providing a technical review of grant applications, assistance in the preparation of grant applications, cost-effectiveness evaluations, system design, specification preparation, system planning, post project evaluation, acceptance testing and procurement assistance.

The State Planning Agency reported that in-house capabilities include engineering services, financial planning and procurement services.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

In the State of North Carolina, agencies at the state level that are eligible for LEAA grants include the State Highway Patrol, Liquor Control Board, and State Bureau of Investigation. Table V-50 indicates the type and quantities of law enforcement agencies that exist below state level government.

Table V-50
North Carolina Law Enforcement Agencies
Below State Level of Government

<u>Type of Agency</u>	<u>Number of Agencies in the State</u>
County Police Departments	102
Municipal Police Departments	373
Municipal Park Police Departments	1
Campus Police Departments	<u>18</u>
	494

2. Centralized, Cooperative and Consolidated
Dispatch Centers

Specific figures regarding quantities, locations, and services provided by centralized dispatch centers in the state were not readily available. However, the State Planning Agency reported that there were 246 individual dispatch centers as of 1970. The overwhelming majority of these centers serve areas of less than 50 square miles, serve populations of less than 20,000 and dispatch only law enforcement vehicles. All of the individual centers have adopted a single seven digit emergency call number.

However, while it was determined that two centralized dispatch centers adopted 911 services, none of the individual centers had utilized this service. Both 911 centers dispatch law enforcement, fire and ambulance vehicles. One of these centers serves a population of less than 20,000 and the other serves a population of from 100,000 to 500,000.

Presently there are 35 telephone companies operating within the state.

As of the date of this survey, there were no law enforcement communication centers using computer assisted dispatch. However, three centers have planned projects to add a computer assisted dispatching capability.

3. Spectrum Management

The State of North Carolina has a prepared frequency plan that was developed by an independent consultant. The plan specifies or recommends specific frequencies for all law enforcement agencies in the state. Law enforcement agencies within the state use frequency assignments from the police only spectrum, the local government spectrum and the State Bureau of Investigation spectrum.

The frequency coordinators processed the following number of applications for coordination from law enforcement agencies:

.	1971 - 190
.	1972 - 189
.	1973 - 133
.	1974 - 222

The State Planning Agency reported that, starting in July 1971, a study was conducted to determine the extent of congestion on law enforcement radio channels throughout the state.

The State Planning Agency reported that it will not approve a grant application for a communication system which uses frequencies not in conformance with the state frequency plan. However, it will approve a grant application for a system prior to coordination of any new frequencies required by the system.

The State Highway Patrol of North Carolina presently has a backbone microwave system which was funded by other than LEAA sources. The following law enforcement functions are served by the microwave system: mobile repeater links, radio control links, and a telephone backup network. The system has a backup capacity, is supported by an emergency power system and is dedicated to law enforcement purposes.

4. Interagency Agreements

Specific information on the quantities and types of interagency agreements were not readily available.

5. Training Programs

The state has not established minimum standards for training of either law enforcement radio dispatchers or government employee radio technicians. However, the state is planning to establish minimum standards for training of law enforcement radio dispatchers and has a funded training program for law enforcement radio dispatchers. The State Planning Agency reported that, since 1971, 85 percent of the telecommunications grants have included funds for the training of project personnel.

(3) State Telecommunications Planning

1. State Telecommunications Plan

North Carolina does have a telecommunications plan for use by law enforcement agencies. The plan covers the period 1970 to 1976. The Governor's Committee on Law

and Order is responsible for its enforcement, and it specifically addresses the organization of radio networks, interagency coordination, spectrum management, frequency allocations, citizen access, cooperative or consolidated dispatching, interstate coordination, data retrieval systems, operational requirements, procurement procedures, operational training, maintenance, financial consideration, configuration control, traffic management, disaster operations, and reliability standards. The plan is addressed to the State Bureau of Investigation and municipal and county law enforcement agencies. The plan was developed by the State Planning Agency with the assistance of a private consulting firm. The plan has automatic review and revision procedures and was last amended in July 1974.

2. Comprehensive Law Enforcement Plan

The comprehensive plan prepared by the State Planning Agency and submitted to LEAA each year is developed with specific law enforcement telecommunications considerations. These considerations are contained in a separate section of the plan. The plan specifically addresses the same areas addressed in the telecommunications plan. The plan speaks to the State Bureau of Investigation and municipal and county law enforcement agencies. The telecommunications portion of the Comprehensive Law Enforcement Plan was developed by the State Planning Agency and a private consulting firm.

(4) Policy Information

The State Planning Agency has adopted procedures and has set policies for making recommendations in several areas affecting law enforcement telecommunications considerations. Some of the major policies are listed as follows:

- . The organization of law enforcement networks is based upon mobile radio districts, county networks and individual jurisdiction networks.
- . VHF high band and UHF are recommended for radio systems in urban, suburban and rural areas.

- . Implementation of land mobile radio systems for law enforcement in the 960 MHz range is encouraged.
- . The number of radio channels required is based on the number of mobiles and portables, volume of radio traffic and the volume of calls for service.
- . The use of tone controlled squelch is recommended.
- . Mutual aid pacts, independent dispatch and cooperative or central dispatch are recommended command and control concepts.
- . Improved citizen access, including 911 for all emergency services and emergency seven-digit numbers, is recommended.
- . Coordination channels are recommended for state-wide, regional and county use.
- . VHF/UHF point-to-point interagency coordination is recommended.
- . Radio control, wireline control and radio control with wireline backup is recommended for remote control of base stations.
- . Additional terminals, leased wireline and private microwave are recommended for improved access to criminal justice information systems.
- . The use of computer assisted dispatching is encouraged.
- . The use of magnetic tape recorders for logging of radio and telephone traffic is recommended.

Existing legislation that has a direct effect on law enforcement telecommunications planning includes Highway Patrol Communications and Emergency Medical Services (EMS) legislation.

The State Planning Agency reported that a shortage of available frequencies, a multiplicity of telephone companies and political factors have placed significant constraints on the planning or implementation of police telecommunications systems.

(5) Budgets and Expenditures

The State Planning Agency for North Carolina has awarded funds each year for telecommunications projects in amounts indicated on Table V-51.

These figures represent the actual award approvals made during the periods indicated and are based on a review of the project files.

The total dollar amounts expended for all grants in all areas by the State Planning Agency and a percent comparison of telecommunications projects is also shown on Table V-51. Also indicated is the number of telecommunications projects funded in each of the periods.

The operating budgets for the State Planning Agency for the same periods are as follows:

. 7/1/71 - 6/30/72 = \$ 805,400
. 7/1/72 - 6/30/73 = \$1,283,600
. 7/1/73 - 6/30/74 = \$1,423,000

For fiscal year 1975 the estimated operating cost for the State Planning Agency was \$1,538,700.

(6) Procurement Methods and Policies

1. Centralized Purchasing Procedures

The State Planning Agency reported that at the state government level, there are no centralized purchasing procedures for radio equipment. However, the State Planning Agency encourages joint or centralized purchasing for small purchases. At the local level, extensive use is made of centralized purchasing procedures. Such procedures are encouraged but are not mandatory.

Table V- 51
Comparison - All Grant Awards vs Telecommunications Awards
7/1/71 to 6/30/75, State of North Carolina

Year	Total Dollars All Grants Awarded	Total Dollars Telecommunications Grants Awarded	Percent of Total Awards for Telecommunications	Number of Telecommunications Projects Funded
7/1/71 - 6/30/72	\$11,021,000	\$3,440,643	31.2%	48
7/1/72 - 6/30/73	\$13,235,000	1,787,248	13.5	28
7/1/73 - 6/30/74	\$13,235,000	158,373	1.2	8
7/1/74 - 6/30/75	13,235,000	1,750,000	13.2	23

2. Standard Equipment or System Specifications

The State Planning Agency reported that throughout the state various types of specifications are used for acquiring telecommunications systems. These include equipment specifications, system functional specifications, and system performance specifications. The specifications used are prepared by independent consultants. The State Planning Agency requires that system specifications be met by acceptance testing, operational tests, and vendor certification. The State Planning Agency does not have a list of recommended independent consultants for telecommunications.

3. Equipment Sources and Vendors

Typically 2 or 3 bidders respond to law enforcement telecommunications system procurements. The State Planning Agency has a list of recommended sources of law enforcement communications equipment. The State Planning Agency has formal requirements to be met by applicants wishing to be placed on the approved list. Further, there are formal procedures for removal of concerns from the list.

4. Procurement Practices

The State Planning Agency reported that it has issued standard procurement instructions for the purchase of law enforcement communications equipment, maintenance services, and consulting services.

In the case of competitively bid procurements, procurement instructions permit factors other than cost, such as excellence of the proposal and past performance of the vendor, to be given as much consideration as cost in selecting the successful bidder.

When pre-bid conferences are held, procurement instructions for equipment and maintenance services require that they be held after the procurement has been advertised.

Procurement instructions require that bids of \$2500 or more be advertised.

In the procurement and implementation phases of law enforcement communications projects, vendors must conform to specifications.

(7) Project Summary

Data was obtained from the State of North Carolina on 84 telecommunications grants including 62 for new systems awarded during the period July 1, 1971 to January 1, 1975. The project summary sheets which follow describe the project characteristics including these highlights:

- . Nearly all of the projects were for communications equipment principally dispatch consoles, mobile and portable radios and base stations.
- . Almost all of the projects provided for formal evaluation.
- . Almost all of the projects provided for communication between members of a department and a greater majority provided for communications between law enforcement departments and intrastate coordination but only a very small percentage provided for interstate coordination.
- . Most of the projects had as project objectives improvement of communication service, reduction of response time, improvement of interagency coordination, improvement of communication reliability and improved officer safety.
- . Over half of the grants were awarded to regional recipients.

35. NORTH DAKOTA

(1) Organization Information

The unit of government in the State of North Dakota that is responsible for the distribution of LEAA funds is the North Dakota Combined Law Enforcement Council. The agency address is Box B, Bismarck, North Dakota 58505.

This State Planning Agency is administered by an Executive Director and has a full-time professional staff of 10 persons. The Executive Director reports directly to the Governor's Office. The State Planning Agency reported that of the 10 full-time personnel, three are involved on a part-time basis with law enforcement telecommunications projects.

The State Planning Agency provides assistance to law enforcement agencies in the telecommunications area by providing a technical review of grant applications, assistance in preparation of grant applications, cost effectiveness evaluations, system design, specification preparation, system planning and procurement assistance. In addition, there are five regional planning agencies within the state that are directly involved in law enforcement telecommunications planning activities.

In addition to the State Planning Agency and regional units, there is also a unit of state government entitled the North Dakota State Radio Communications Unit which assists in all areas of law enforcement including telecommunications planning. The unit is located at Fraine Barracks. Its mailing address is Box 1817, Bismarck, North Dakota 58505. This unit has a staff of 21 full-time professionals, of which one is involved on a full-time basis with law enforcement telecommunications projects.

The unit was formed in 1951 by an act of legislation. The Director reports to the Director of State Institutions and has several subunits under his control. These are a radio section, spectrum management section, research and planning section, engineering section, maintenance and administration. The authority of this department is mandatory over the Highway Patrol and all state agencies and is advisory to county and city agencies.

The major activities of the State Radio Communications Unit were identified as follows:

- . State agency system planning
- . County and city system planning
- . Local agency system planning
- . Spectrum management
- . Wire line system planning
- . Equipment procurement
- . Engineering maintenance

The State Radio Communications Unit provides telecommunications planning assistance to the State Planning Agency in the areas of technical review of grant applications, review for concurrence to the state plan, system design, specification preparation, system planning and operational training. The State Planning Agency does require concurrence from the State Radio Communications Unit as a prerequisite to grant approval. The State Radio Communications Unit also provides telecommunications planning services to all planning agencies within the State.

Neither the State Planning Agency nor the State Radio Communications Unit interface with the Public Utilities Commission. Neither agency reviews tariffs nor participates in PUC hearings.

In matters regarding the Federal Communications Commission, the State Planning Agency reports no interface at all. However, the State Radio Communications Unit has personnel who are responsible for knowledge of FCC rules and regulations. The State Radio Communications Unit participates in FCC proceedings two to three times a year. The unit meets with the FCC Office of Executive Director twice a year and with the Field Operations Bureau three or four times a year.

In-house capabilities reported by the State Planning Agency include engineering services, legal services, financial planning, procurement services and management planning. The in-house capabilities reported by the State Radio Communications Unit include engineering services, procurement services and reliability testing.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

In the State of North Dakota, agencies at the state level that are eligible for LEAA grants include the State Highway Patrol, Game and Fish, Bureau of Criminal Investigation, Attorney General, and Consumer Frauds. Table V-52 indicates the types and quantities of law enforcement agencies that exist below state level government. Also, there are four indian reservation police departments within the state.

Table V-52

North Dakota Law Enforcement Agencies
Below State Level of Government

<u>Type of Agency</u>	<u>Number of Agencies in the State</u>
County Police Departments	53
Municipal Police Departments	191
Campus Police Departments	2
	<u>246</u>

2. Centralized, Cooperative and Consolidated Dispatch Centers

The State Radio Communications Unit reported that there were 8 consolidated dispatch centers in operation within the state. All 8 of the centers serve areas of over 200 square miles. Seven of the centers serve populations of from 20,000 to 100,000 and one center serves a population of over 500,000.

In addition to consolidated centers, there are 91 individual dispatch centers. The vast majority serve populations of less than 20,000 and all 91 centers dispatch law enforcement, fire and ambulance vehicles.

While none of the consolidated centers have adopted 911 as their emergency call number, two individual center's, Minot and Grand Forks have adopted such services. These centers serve a population of from 20,000 to 100,000 and dispatch other agencies in addition to law enforcement, fire and ambulance vehicles.

There are 17 telephone companies operating within the state.

As of the date of this survey, there were no law enforcement communications centers within the state using computer-assisted dispatch nor were any agencies planning to use this capability. Effective August 1, 1975, State Radio will have this capability.

3. Spectrum Management

The State Radio Communications Unit reported that the State of North Dakota presently has a frequency plan that was developed by an independent consultant. The plan specifies or recommends specific frequencies for all law enforcement agencies in the state. There are two systems of communications for normal base and mobile communications, a third system for point-to-point communications between dispatchers and departments and there is a fourth system, a common channel, reserved for emergencies and special operations. The plan recommends frequency assignments from the police-only spectrum.

At the time of this survey, the number of law enforcement agencies using different areas of the spectrum were as follows:

. VHF low band	84
. VHF high band	13
. UHF (450 & 460 MHz)	2

Equipment covered by these licensed law enforcement radio stations include 1,200 mobile units and 120 base stations. There is no backbone microwave system in use by any of North Dakota's law enforcement agencies.

The North Dakota frequency coordinator indicated that he recommends a frequency to an applicant and will

not recommend a frequency that does not conform to the state plan. Also, a formal program has been conducted since July, 1971 to determine the extent of congestion on law enforcement radio channels throughout the state.

4. Inter-Agency Agreements

The State Planning Agency reported that within the state there are three interjurisdictional agreements in force for the purpose of sharing law enforcement records information. In addition, there are eighteen contract law enforcement service agreements in force in North Dakota.

5. Training Programs

The State Planning Agency reported that within North Dakota there has not been established, nor are there any plans to establish, minimum standards for training of either law enforcement radio dispatchers or government employee radio technicians. The state does have funded training programs for radio dispatchers and radio technicians.

(3) State Telecommunications Planning

1. State Telecommunications Plan

The State Radio Communications Unit reported that North Dakota has a statewide telecommunications plan which covers the period 1971 to 1981. The plan is mandatory, and the State Radio Communications Unit is responsible for its enforcement. The plan specifically addresses organization of radio networks, interagency coordination, spectrum management, frequency allocations, cooperative or consolidated dispatching, interstate coordination, data retrieval systems, operational requirements, operational training, financial considerations, configuration control, disaster operations and reliability standards. The plan speaks to federal agencies, emergency medical service,

state law enforcement and other state agencies, and municipal and county law enforcement agencies. The telecommunications plan was developed by the State Planning Agency, the State Radio Communications Unit and a private consulting firm. The state plan has automatic review and revision procedures and was last amended in January 1975.

2. Comprehensive Law Enforcement Plan

The comprehensive plan prepared by the State Planning Agency each year and submitted to the LEAA includes telecommunications considerations. Areas that are specifically addressed by the plan are the organization of radio networks, interagency coordination, spectrum management, frequency allocations, citizen access, cooperative or consolidated dispatching, interstate coordination, data retrieval systems, operational requirements, procurement procedures, technical training, operational training, maintenance, financial considerations, configuration control, traffic management, disaster operations and reliability standards. The plan speaks to the emergency medical service, federal agencies, state law enforcement and other state agencies, and municipal and county law enforcement agencies. The telecommunications portion of the comprehensive law enforcement plan was developed by the State Planning Agency.

(4) Policy Information

The State Radio Communications Unit has adopted procedures and set policies for making recommendations in several areas affecting law enforcement telecommunications considerations. Some of the major policies are listed as follows:

- Organization of law enforcement networks based upon mobile radio districts or zones is recommended
- Central or cooperative dispatch is recommended when two or more agencies share a channel

- VHF high band is recommended for all radio systems including urban, suburban and rural areas
- The number of radio channels required is based on number of mobiles and portables and their functions
- The use of tone-controlled squelch is recommended
- Cooperative or central dispatch is recommended as a command and control concept
- Recommendations for improved citizen access include 911 for all emergency services and a single emergency seven digit number
- Coordination channels are recommended for state-wide and regional use
- VHF/UHF point-to-point is recommended for inter-agency point-to-point communications
- Radio control links and wireline control are recommended for remote control of base stations
- Additional terminals, improved switching systems, and leased wirelines are recommended for improved access to criminal justice information systems
- Personal portables are recommended for foot patrols and detectives
- The use of magnetic tape recorders is recommended for logging radio and telephone traffic.

Legislation exists in the State of North Dakota that has a direct effect on law enforcement communications planning. This legislation includes the establishment of an Office of Communications, directives to plan or implement communication systems, and directives to develop a state plan for communications. The State Radio Communications Unit is reportedly considering new legislation in the area of system funding.

The three most significant constraints on planning or implementation of police telecommunication systems within the State of North Dakota are reported to be the shortage of available frequencies, the multiplicity of telephone companies and common carrier tariffs.

The state has formal procedures to determine when a grant should be terminated. There is also an in-house formal checklist or review procedure for grant application review. Further, there are published planning guidelines for use by prospective grant applicants.

The State Radio Communications Unit has a state-wide law enforcement telecommunications equipment inventory. The initial inventory was compiled in October 1971 and was updated January 1973.

(5) Budgets and Expenditures

1. State Planning Agency

The State Planning Agency has awarded funds each year for telecommunications projects in the amounts indicated on Table V-53.

These figures represent the actual award approvals made during the periods indicated and are based on a review of the project files.

The total dollar amounts expended for all grants in all areas by the State Planning Agency and a percent comparison for telecommunications projects is also shown on Table V-53. Also indicated is the number of telecommunications projects funded in each year.

The operating budgets for the State Planning Agency for the same periods are as follows:

.	7/1/71 - 6/30/72	\$141,000
.	7/1/72 - 6/30/73	\$237,000
.	7/1/73 - 6/30/74	\$260,000.

Table V-53
Comparison - All Grant Awards vs Telecommunications Awards
7/1/71 Thru 6/30/74, State of North Dakota

Year	Total Dollars All Grants Awarded	Total Dollars Telecommunications Grants Awarded	Percent of Total Awards for Telecommunications	Number of Telecommunications Projects Funded
7/1/71 - 6/30/72	\$1,665,000	\$80,432	4.8%	27
7/1/72 - 6/30/73	\$2,389,000	89,252	3.7	10
7/1/73 - 6/30/74	\$2,309,000	50,476	2.2	7

Approximately 3 percent of their operating budgets was expended for law enforcement telecommunications planning.

For Fiscal Year 1975, the estimated operating cost for the State Planning Agency was \$332,000.

2. State Radio Communications Unit

The operating costs for the State Radio Communications Unit for the same periods are as follows:

.	7/1/71 - 6/30/72	\$160,000
.	7/1/72 - 6/30/73	\$160,000
.	7/1/73 - 6/30/74	\$195,000.

The State Radio Communications Unit estimated that the 1975 fiscal year operating costs will be \$200,000. The unit further estimated that approximately 7 percent of their operating costs are expended for law enforcement telecommunications planning.

The dollar amounts received by the State Radio Communications Unit from LEAA funds for implementation of telecommunications projects for the same periods are as follows:

.	7/1/71 - 6/30/72	\$27,000
.	7/1/72 - 6/30/73	\$27,000
.	7/1/73 - 6/30/74	\$37,000.

(6) Procurement Methods and Policies

1. Centralized Purchasing Procedures

The State Radio Communications Unit reported that both standard, uniform and negotiated procurement methods are utilized for statewide centralized purchasing procedures. At the county or regional level, limited use is made of centralized purchasing procedures.

2. Standard Equipment or System Specifications

The State Planning Agency reported that purchases of law enforcement telecommunications equipment and systems are based upon equipment specifications, system functional specifications, and system performance specifications. The specifications used are prepared in-house by the State Radio Communications Unit or local government organizations.

The State Planning Agency has no requirements to ensure that system specifications are met, nor do they have a list of recommended independent consultants for telecommunications.

3. Equipment Sources and Vendors

Typically, 2 or 3 bidders respond to law enforcement telecommunications system procurements. The State Planning Agency does not have a list of recommended sources of law enforcement communications equipment.

4. Procurement Practices

The State Radio Communications Unit reported that there are standard procurement instructions that cover the purchase of law enforcement communications equipment.

For purchases of equipment, maintenance and consulting services, procurement instructions leave it to the discretion of the subgrantee as to whether a pre-bid conference will be held.

For equipment purchases, procurement instructions require that procurement be confined to in-state vendors when they can satisfy specifications.

Procurement instructions require that bids above \$2,500 for equipment be advertised.

In the procurement and implementation phases of law enforcement communications projects, vendors are required to submit to the consultant for approval any suggestions they may have for changing the system design specifications.

(7) Project Summary

The State of North Dakota awarded a total of 44 telecommunications grants during the period July 1, 1971 to January 1, 1975. The three project summary sheets at the conclusion of this section on North Dakota describe the nature and characteristics of these projects.

The objectives of over 90 percent of the projects included:

- . Reduced response time
- . Improved interagency coordination
- . Improved communication reliability
- . Relief of channel congestion
- . Improved communication's service
- . Improved officer safety

Almost 90 percent of the projects were classified as providing communications between law enforcement departments. Most of the grants involved the procurement of basic land mobile radio equipment including base stations, mobile units and portables.

Over half of the grant funds were awarded to municipalities with a population between 20,000 and 100,000. However, small municipalities under 20,000 and larger municipalities over 500,000 received the largest number of grants. State-wide coordination channels with mobile capability and interstate coordination were provided by the projects.

There were no projects which provide for formal project evaluation.

36. OHIO

(1) Organization Information

The unit of government in the state of Ohio that is responsible for processing LEAA funds is the Administration of Justice Division which is a part of the Department of Economic and Community Development. The Administration of Justice Division maintains offices at 30 East Broad Street, Columbus, Ohio 43215.

The Division is administered by a Deputy Director and has a full-time professional staff of 63 employees. Sixteen of these 63 employees were reported to be involved on a full-time basis and system planning and review of applications for telecommunications projects.

The agency provides assistance to law enforcement agencies in the areas of telecommunications by providing technical review of grant applications, assistance in the preparation of grant applications, system design, system planning, and post-project evaluation. This state also has six regional planning agencies which provide the same type of services to law enforcement agencies.

Planning agencies existing within the state that are directly involved in law enforcement telecommunications planning activities include the State Planning Agency, six regional planning agencies, three state law enforcement agencies, and a committee formed for law enforcement communications. The committee has representatives of five organizations including the Sheriff's Association, Police Chief's Association, State Highway Patrol, Bureau of Criminal Identification, and a representative from the Department of Administration Services.

The State Planning Agency receives telecommunications planning assistance from the regional planning agencies in the area of postproject award evaluation. This same service is also provided by the state law enforcement agencies. The State Planning Agency receives assistance from the Law Enforcement Communication Committee in developing comprehensive plans and in the submission of local area plans.

The State Planning Agency provides telecommunications planning assistance to regional planning agencies, county planning agencies, municipal planning agencies, and county municipal law enforcement agencies, in the areas of organization planning, jurisdictional coordination, and planning guidelines.

Formal written agreements have been developed and exist between these various agencies for the provision of planning services.

The State Planning Agency reported that they have no one in the agency who is responsible for knowledge of the Federal Communications Commission rules and regulations. They reported having contact with the FCC Safety and Special Radio Service Bureau approximately 12 times a year.

The State Planning Agency further reported having no interface with the Public Utilities Commission and they do not participate in PUC hearings.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

Those state level agencies that are eligible for LEAA grants include the State Highway Patrol, Marine Patrol, Game and Fish Agency, Highway Control Board, and the Bureau of Criminal Identification and Investigation.

In addition to the existing 88 prosecutor's offices in the State of Ohio there are 88 county law enforcement departments, 806 municipal police departments, 16 campus police departments, and 129 township police departments.

The State Planning Agency estimated that there are a total of 1041 organized law enforcement departments existing in the state.

2. Centralized, Cooperative and Consolidated Dispatch Centers

Information regarding the existence or nonexistence of centralized, cooperative or consolidated dispatch centers in the State of Ohio was not available from the State Planning Agency. Neither was information available regarding the number of individual dispatch centers or the number of centers utilizing 911 telephone service. The State Planning Agency did indicate at least one department having 911 telephone service and indicated that there may be a few others.

The State Planning Agency reported that the use of computerated dispatching for law enforcement communications is nonexistent in the State of Ohio and they have no knowledge of current plans to add such capability.

The State of Ohio is served by 60 separate telephone companies.

3. Spectrum Management

The State of Ohio presently has a frequency plan for law enforcement agencies within the state. This plan was developed by an independent consultant and specifies or recommends specific frequencies for all law enforcement agencies in this state. The plan utilizes frequency assignments in police only spectrum area.

Reports received regarding APCO frequency coordination in the state indicates that the frequency coordinator will recommend use of a frequency that does not conform to the state plan provided he sees no objection to its assignment.

The number of requests of frequency coordination that originated from law enforcement agencies within the state and were processed by the APCO frequency coordinator are as follows:

- . 1971 - 385
- . 1972 - 411
- . 1973 - 475
- . 1974 - 300

The State Planning Agency indicated that within the State of Ohio there are 340 law enforcement departments licensed to operate on VHF low band, 137 on VHF high band, 162 licensed on UHF 450 to 460 MHz, 1 licensed in the 72 MHz band, and 2 licensed in the 952-960 MHz band. It is also estimated that approximately 300 law enforcement agencies in the state are licensed on local government channels.

The State of Ohio presently does not have a backbone microwave system in use for law enforcement and there are no plans to add such a system at the present time.

4. Inter-Agency Agreements

Information regarding cooperative dispatch agreements and interjurisdictional pacts for the purpose of sharing radio equipment was not obtainable from the State Planning Agency. The planning agency indicated that four agreements exist of the interjurisdictional type for the purpose of sharing law enforcement records information.

5. Training Programs

The State of Ohio presently has not established minimum standards for the training of law enforcement radio technicians. There are no present plans to establish such minimums at this time. The agency has developed a funded training program for law enforcement radio dispatchers but has no such program for government employee radio technicians.

CONTINUED

8 OF 11

(3) State Telecommunications Planning

1. State Telecommunications Plan

The State of Ohio does have a statewide telecommunications plan that was developed in August of 1972 and covers the period of 1972 to 1975. The nature of the plan is mandatory for LEAA funding.

Specific areas addressed by the statewide telecommunications plan include organization of radio networks, interagency coordination, spectrum management, frequency allocations, citizen access, cooperative consolidated dispatching, and financial considerations.

The plan is addressed to all municipal and county law enforcement agencies. The plan was developed by a private consultant firm and does not have formal procedures for incorporating the existence of new inter-agency compacts into the plan. The plan further does not have automatic review and revision procedures.

2. Comprehensive Law Enforcement Plan

The Comprehensive Law Enforcement Plan prepared by the State Planning Agency each year and submitted to the Law Enforcement Assistance Administration includes specific telecommunications considerations under a separate section of the plan.

The communication areas that the plan specifically addresses include organization of radio networks, interagency coordination, spectrum management, frequency allocations, citizen access, cooperative or consolidated dispatching, data retrieval systems, financial considerations, and configuration control.

The telecommunications portion of the comprehensive plan is addressed to all state law enforcement agencies, and municipal and county law enforcement agencies. The Comprehensive Law Enforcement Plan was developed in-house by the State Planning Agency.

(4) Policy Information

The policy position of the State Planning Agency regarding law enforcement telecommunications projects is related to the state plan as previously mentioned. Some specific policy statements or policy positions are included as follows:

- . The general concept for the organization of law enforcement radio networks is based upon mobile radio districts or zones
- . The number of radio channels allocated is based upon the number of mobiles and portables and the functions to be served
- . Recommended channel configurations include one frequency simplex, 2 frequency simplex, and mobile relay
- . The use of tone controlled squelch is recommended
- . Statewide, regional or district coordination channels are recommended
- . Point-to-point and mobile-to-mobile communications are recommended for coordination between the State Highway Patrol and local law enforcement agencies
- . The recommended approaches for improved access to criminal justice information systems include additional terminals, high speed data transmission, improved switching systems, and leased wire line
- . The agency does not recommend or encourage the use of communications scramblers
- . The agency does recommend the use of magnetic tape recorders for logging of radio and telephone traffic.

The state statutes existing in the State of Ohio that have an effect on law enforcement communications planning are

related to the establishment of the Law Enforcement Communication Committee previously mentioned. The State Planning Agency does not at this time plan to propose any new legislation in the areas of law enforcement telecommunications planning.

The three most significant constraints upon the planning or implementation of police telecommunications systems were identified as the multiplicity of telephone companies, political factors, and the lack of planning manpower.

The State Planning Agency has implemented procedures for the updating of fund allocations when the time between grant application and grant implementation has resulted in outdated cost figures. The agency also has formally documented differences that exist between statutory procurement procedures and LEAA recommended practices. The agency also has formal procedures to determine when a grant should be terminated and has developed and published planning guidelines for the use of prospective grant applicants.

In some cases grant applications are reviewed by a regional planning council prior to submission to the State Planning Agency. In other instances grant applications are submitted directly to the State Planning Agency.

The State Planning Agency does not maintain a statewide law enforcement telecommunication equipment inventory.

(5) Budgets and Expenditures

The State Planning Agency has awarded funds each year to public communications projects in the amounts indicated on Table V-54.

These figures represent the actual award approvals made during the periods indicated and are based on a review of projects on file.

Also indicated in Table V-54 are the total dollar amounts expended for all grants by the State Planning Agency, a percent comparison to telecommunications projects only, and indications

Table V-54
Comparison - All Grant Awards versus Telecommunications Awards
7/1/71 to 6/30/75, State of Ohio

Year	Total Dollars All Grants Awarded	Total Dollars Telecommunications Grants Awarded	Percent of Total Awards for Telecommunications	Number of Telecommunications Projects Funded
7/1/71 - 6/30/72	23,740,247	\$2,579,248	10.9%	112
7/1/72 - 6/30/73	26,594,582	4,264,691	16.0	181
7/1/73 - 6/30/74	21,838,533	1,800,454	8.2	65
7/1/74 - 6/30/75	-	378,252	-	25

of the number of telecommunications projects funded in each of the periods.

The operating budgets for the State Planning Agency for the same period are as follows:

- . 7/1/71-6/30/72 - \$1,650,000
- . 7/1/72-6/30/73 - \$2,216,000
- . 7/1/73-6/30/74 - \$2,216,803.

The State Planning Agency indicated that for fiscal year 1972 approximately 10 percent of the operating budget was expended for law enforcement telecommunications planning. For fiscal year 1973 the amount was 7 percent, for fiscal years 1974 and 1975 the amount was 3 percent.

The State Planning Agency further indicated that the anticipated operating budget for fiscal year 1975 would be \$2,434,000 and that the amounts expended for all grants for fiscal year 1975 would be \$27,237,000.

(6) Procurement Methods and Policies

1. Centralized Purchasing Procedures

The State Planning Agency reported that at state level of government there are no centralized purchasing procedures in effect for the procurement of LEAA funded law enforcement telecommunications equipment. They reported, however, a limited use of centralized purchasing procedures at the county and municipal levels for the purchase of grant funded law enforcement telecommunications equipment.

2. Standard Equipment or System Specifications

The type of specifications that are used in the State of Ohio for procurement of law enforcement telecommunications systems include equipment specifications, system functional specifications, system performance specifications. Major sources of specifications for law enforcement

communications equipment are independent consultants and vendor associated consultants.

The State Planning Agency reported that they do keep a list of recommended consultants for telecommunications. They do not, however, have formal procedures to be met by consultants to be placed on the list nor are there formal procedures for removal of consultants from the approved list. The State Planning Agency reported that they have never removed a consultant from this list for cause.

3. Equipment Sources and Vendors

The State Planning Agency reported that typically two or three bidders will respond to a law enforcement telecommunications system procurement. The agency does not keep a list of recommended sources for law enforcement telecommunications equipment.

4. Procurement Practices

The State Planning Agency reported there are no procurement instructions in existence regarding maintenance services and consultant services; however, the agency has its own standard procurement instructions covering the purchase of law enforcement communications equipment. The standard instructions require that these procurements be solicited from at least three suppliers whenever the procurement exceeds a given dollar value and that all procurements be made on the basis of competitive bidding with the award made to the lowest compliant bidder.

Procurement instructions require that all proposed procurements above \$2,500 be advertised and that prebid conferences be held. When prebid conferences are held they are to be held before the procurement is to be advertised.

The State Planning Agency reported that when vendors are involved in the procurement implementations phases of law enforcement communications projects, they

are required to submit to the consultant for approval any suggestions they may have for changing the system design specifications.

(7) Project Summary

Data was obtained from the State of Ohio on 385 telecommunications grants awarded during the period July 1, 1971 to January 1, 1975. The project summary sheets which follow describe the project characteristics including these highlights:

- . None of the projects were for new systems.
- . Nearly all of the projects were for communications equipment, principally mobile and portable radios and base stations.
- . Nearly all of the projects provided for formal evaluation.
- . Essentially all of the projects provided for intra-state and interstate coordination and communications between members of the department.
- . The projects all included the listed project objectives in the summary table following, except for the project, improved cost effectiveness.
- . Nearly all of the projects were awarded to regional recipients.

37. OKLAHOMA

(1) Organization Information

The unit of government in the State of Oklahoma which is responsible for processing LEAA funds is entitled the Oklahoma Crime Commission. This unit has offices at 5235 North Lincoln Boulevard, Oklahoma City, Oklahoma 73105.

The agency is administered by an Executive Director and Deputy Director and has a full-time professional staff of 17 persons. The Executive Director of the agency reports directly to the Governor's Office.

The State Planning Agency is divided into six divisions as follows: Planning, Assistance and Information, Finance and Grants Management, Administration, Program Management and Evaluation. Within these units, the State Planning Agency identified one individual as being involved on a full-time basis with law enforcement telecommunications and projects.

In addition to the State Planning Agency there are (in the preparatory stage) thirteen regional planning agencies and the Department of Public Safety which assists in all areas of law enforcement including telecommunications planning. Also involved in law enforcement telecommunications is the Oklahoma State Board of Public Affairs. This unit has its main office at 306 State Capitol Building, Oklahoma City, Oklahoma 73105. The Board has 12 full-time professional staff members, three of which are involved on a full-time basis with law enforcement telecommunications projects. Attached to the State Board of Public Affairs is the Office of the State Communications Coordinator. Formed in 1974 by an act of legislation, it has one individual serving on a full-time basis with law enforcement telecommunications projects. Its primary purpose is to provide a total management system for Oklahoma State Communications.

The State Board of Public Affairs reports directly to the Governor's Office. Its major units include a radio section, spectrum management section, research and planning section, engineering section and maintenance section. The board has mandatory authority over all state agencies including the state

law enforcement agency but has no involvement with local law enforcement agencies.

The major activities of the Board were identified as follows:

- . State agency system planning
- . Wire line system planning
- . Equipment procurement
- . Assistance to other agencies.

The State Planning Agency provides assistance to law enforcement agencies in the telecommunications area by providing system planning and operational training. The State Board of Public Affairs provides telecommunications planning assistance to the State Planning Agency in the areas of technical review of grant applications, review for concurrence with the state plan, cost effectiveness evaluations, system design, post-project evaluation, procurement procedures, specification preparation and system planning. However, the State Planning Agency does not require concurrence from the Board as a prerequisite to grant approval. The Board also provides telecommunications planning services to state, regional, university, county and city or local planning agencies.

In-house capabilities reported by the State Planning Agency include: legal services, financial planning and cost accounting services. In-house capabilities reported by the State Board of Public Affairs include: engineering services, legal services, financial planning, procurement services, management planning and cost accounting services.

The State Planning Agency reports no interface with the Public Utilities Commission. While the State Board doesn't review tariffs, it has an advisory relationship with the Public Utility Commissions and participates in PUC hearings.

In matters regarding the Federal Communications Commission, the State Planning Agency reports no interface at all with the FCC. However, within the Office of the State Communications Coordinator there are personnel responsible for knowledge of FCC rules and regulations and for monitoring and commenting on FCC dockets. The State Communications

Coordinator indicated that he contacts the Office of General Counsel for the FCC approximately once a year, the Office of the Chief Engineer approximately four times a year, the Field Operations Bureau approximately four times a year, the Broadcast Bureau approximately twice a year, and the Safety and Special Radio Service Bureau approximately twice a year.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

In the State of Oklahoma agencies at the state level that are eligible for LEAA grants include the State Department of Public Safety, State Bureau of Investigation, Department of Corrections, and the State Board of Public Affairs. Table V-55 indicates the types and quantities of law enforcement agencies that exist below state level government.

Table V-55
Oklahoma Law Enforcement Agencies
Below State Level of Government

Type of Agency	Number of Agencies
County Police Departments	77
Municipal Police Departments	372
Municipal Park Police Departments	2
	<u>451</u>

2. Centralized, Cooperative and Consolidated Dispatch Centers

The State Planning Agency indicated that there are 58 full-time, 24-hour centralized, cooperative or consolidated dispatch centers existing within the state. Forty-eight of these centers serve an area of from 50 to 200 square miles, eight serve an area of less than 50 square miles and two serve an area of over 200 square miles. Population figures indicate that 39 of these consolidated

centers serve populations of less than 20,000, 17 serve populations of from 20,000 to 100,000, and two serve populations of from 100,000 to 500,000. All 58 centers dispatch other agencies in addition to law enforcement, fire or ambulance.

In addition to the centralized centers, there are 372 individual dispatch centers. Two-hundred seventy-three serve areas of less than 50 square miles, 22 serve areas of from 50 to 200 square miles and 77 serve areas of over 200 square miles. The vast majority of these centers serve populations of less than 20,000 and dispatch other agencies in addition to law enforcement, fire or ambulance. All single agency centers have adopted a seven digit emergency call number for law enforcement, fire and ambulance. While nine consolidated centers have adopted 911 service, no single-agency centers have utilized 911 as their emergency number. All nine centers serve populations of from 20,000 to 100,000 and dispatch law enforcement, fire and ambulance vehicles.

Computer aided dispatch is presently being considered by three law enforcement communication centers in the State. However, there are no computer aided dispatch systems existing as of the date of this study.

Telephone service within the State is provided by 48 separate telephone companies.

3. Spectrum Management

The State Planning Agency reports that Oklahoma does not have a statewide frequency plan for law enforcement. However, a frequency plan is currently under preparation. It is being prepared by an independent consultant, and it will specify or recommend specific frequencies for some, but not all, law enforcement agencies in the state. The plan will recommend frequency assignments from police and local government classifications.

Present licenses for law enforcement include nine low band, 360 in VHF high band, and 5 in UHF 450 to 460 MHz area. Equipment covered by these licenses

include 2,250 mobile units and 433 base stations. The State Planning Agency reported that there is no backbone microwave system in use by law enforcement agencies.

The frequency coordinator for the state reported the following requests for coordination:

- . 1971 - 160
- . 1972 - 185
- . 1973 - 240
- . 1974 - 300.

4. Interagency Agreements

The State Planning Agency indicated that agreements are generally not formalized. The agency does not monitor, arrange or evaluate interagency agreements.

5. Training Programs

The State has not established minimum standards for training of law enforcement radio dispatchers. However, there are minimum standards for government employee radio technicians. Also, the state is planning to establish minimum standards for training of law enforcement radio dispatchers and has a funded training program for law enforcement radio dispatchers.

(3) State Telecommunications Planning

1. State Telecommunications Plan

The State of Oklahoma does not presently have a completed statewide telecommunications plan serving overall telecommunication needs but did report that it is presently preparing such a plan.

2. Comprehensive Law Enforcement Plan

The comprehensive plan prepared by the State Planning Agency and submitted to the Law Enforcement Assistance Administration annually is developed with specific law enforcement telecommunications considerations. Specifically the plan addresses data retrieval systems and equipment purchase. The comprehensive plan speaks to state, municipal and county law enforcement agencies. The telecommunications portion of the comprehensive law enforcement plan was developed by the State Planning Agency.

(4) Policy Information

The State Board of Public Affairs has adopted procedures and set policies for making recommendations in several areas affecting law enforcement telecommunications considerations. Some of the major policies are listed as follows:

- . Radio frequency policy is based on geographic area, agency size, and power, range, etc.
- . UHF is recommended for urban and suburban areas and VHF highband is supported for rural areas
- . The number of radio channels required is based on the population served, volume of calls for service and functions (patrol, surveillance, traffic, etc.)
- . Channel configuration recommendations are based on need. The Highway Patrol recommends mobile relay and vehicular repeaters
- . The Highway Patrol's concept for organization of radio networks is based upon mobile radio districts
- . The State Board of Public Affairs recommends the use of tone controlled squelch
- . For establishing output power and tower requirements for law enforcement radio systems, a

propagation model and propagation measurements are recommended approaches

- . Cooperative or central dispatch is recommended as a command and control concept
- . 911 for all emergency services is recommended for improved citizen access
- . Coordination channels are recommended for state-wide, interstate, and county use
- . Microwave links and VHF/UHF point-to-point are recommended for interagency point-to-point coordination
- . Coordination channels between the Highway Patrol and local agencies provide capability for point-to-point communication and cross monitoring
- . The implementation of a backbone microwave system is recommended
- . Radio control and wireline control are recommended for remote control of base stations
- . Additional terminals and improved switching systems are recommended for improved access to criminal justice information systems
- . The use of computer assisted dispatching is recommended
- . The use of magnetic tape recorders for logging of radio and telephone traffic is recommended
- . Centralized agency maintenance is recommended wherever possible
- . Personal portable radios are recommended for foot patrol and tactical units.

Existing state statutes or laws having an effect on law enforcement telecommunications planning are in the areas of the establishment of a Division of Communications, directives to plan or implement a communication system and plans for emergency medical services. The State Board of Public Affairs is planning to propose state legislation regarding the establishment of an office or division of communications, 911 legislation, directives to develop a state plan for communications and emergency medical services legislation. Three constraints on the planning or implementation of police telecommunications systems were identified as political factors: a shortage of available frequencies and, most especially, insufficient funds for implementation.

The State Planning Agency indicated that the grant applicant is the agency which has formal responsibility to ensure that grant funded telecommunication projects have been coordinated with adjacent states. The State Planning Agency has procedures for updating fund allocations if the time between grant application and project implementation has resulted in outdated cost figures. The agency also has formal procedures to determine when a grant should be terminated and has an in-house formal checklist or review procedure for grant application review. In addition, the State Planning Agency has published planning guidelines for use by prospective grant applicants. The guidelines require the applications to contain a statement of the problem, statement of requirement, manpower requirements, follow-on funding requirements, post implementation project evaluation, maintenance and consultant consolidations.

Prior to submission to the State Planning Agency, review of grant applications is conducted by regional planning councils. In addition, the State Board of Public Affairs indicated that the State Clearinghouse plays a role in grant application review prior to submission to the State Board.

The State Planning Agency reported that it keeps a state-wide law enforcement telecommunications equipment inventory. Their computer inventory file is updated whenever payment of funds is made.

(5) Budgets and Expenditures

1. State Planning Agency

The State Planning Agency has awarded funds each year for telecommunications projects in amounts indicated on Table V-56. These figures represent the actual award approvals made during the periods indicated and are based upon a review of the project files.

The total dollar amounts expended for all grants in all areas by the State Planning Agency and a percent comparison for telecommunications projects are shown on Table V-56. Also indicated is the number of telecommunications projects funded in each year.

The operating budgets for the State Planning Agency for the same periods are as follows:

.	7/1/71 - 6/30/72	\$253,813
.	7/1/72 - 6/30/73	\$411,568
.	7/1/73 - 6/30/74	\$456,000

For fiscal year 1975 the estimated operating cost for the agency was \$488,800.

2. State Board of Public Affairs

The operating costs for the State Board of Public Affairs for the same periods are as follows:

.	7/1/71 - 6/30/72	\$ -
.	7/1/72 - 6/30/73	\$840,000
.	7/1/73 - 6/30/74	\$974,000

The State Board of Public Affairs estimated that the 1975 fiscal year operating costs will be \$1,200,000. The Board further estimates that approximately 9.6% of their operating costs will be expended for law enforcement telecommunications planning in fiscal year 1975.

Table V-56
Comparison - All Grant Awards vs Telecommunications Awards
7/1/71 to 6/30/75, State of Oklahoma

Year	Total Dollars All Grants Awarded	Total Dollars Telecommunications Grants Awarded	Percent of Total Awards for Telecommunications	Number of Telecommunications Projects Funded
7/1/71 - 6/30/72	\$5,938,000	\$ 34,306	5.8%	6
7/1/72 - 6/30/73	\$5,964,000	327,703	5.5	82
7/1/73 - 6/30/74	\$5,964,000	348,765	5.8	87
7/1/74 - 6/30/75	-	322,148	-	148

(6) Procurement Methods and Policies

1. Centralized Purchasing Procedures

The State Planning Agency reported that there are no statewide or regional centralized purchasing procedures in the procurement of law enforcement telecommunications equipment. However the State Board of Public Affairs indicated that extensive use is made of statewide centralized purchasing procedures for state agencies. These procedures are mandatory. Municipalities do not have mandatory centralized purchasing procedures.

2. Standard Equipment or System Specifications

The type of specifications which are used by the State of Oklahoma for procurement of law enforcement telecommunications systems are equipment specifications only. The State Planning Agency reports that vendors are the main source of such specifications. Further, the State Planning Agency notes that it has no requirements to ensure that system specifications are met nor does it keep a list of recommended independent consultants for telecommunications. However, the State Board of Public Affairs reports that it requires that system specifications be met by operational tests and that it keeps a list of independent consultants for telecommunications. Further, it has formal requirements for list placement and formal procedures for removal of consultants from the approved list.

3. Equipment Sources and Vendors

Typically 2 or 3 bidders respond to law enforcement telecommunications system procurements within the state. The State Planning Agency does not keep a list of recommended sources of law enforcement communications equipment. However, the State Board of Public Affairs does keep such a list and has formal requirements for list placement and formal procedures for removal of concerns from the list.

4. Procurement Practices

The State Planning Agency has not issued any standard procurement instructions that cover the purchase of law enforcement communications equipment, maintenance services or consulting services. However, the State Board of Public Affairs has issued such standard procurement instructions. Its instructions require that procurements above a given dollar value be made on the basis of competitive bidding with the award made to the lowest compliant bidder.

The procurement instructions of the State Board of Public Affairs require that all proposed procurements be advertised. Procurement instructions leave it to the discretion of the subgrantee as to whether a pre-bid conference will be held. When such conferences are held, they are generally held after the procurement has been advertised.

In the procurement and implementation phases of law enforcement communications projects, vendors typically submit competing system designs to the customer without any detailed system specifications.

(7) Project Summary

Data was obtained from the State of Oklahoma for 323 telecommunications grants including 25 for new systems awarded during the period between July 1, 1971 and January 1, 1975. The following project summary sheets describe their characteristics including these highlights:

- . All of the projects were for communications equipment, principally for mobile radio equipment.
- . The projects did not provide for formal evaluation.
- . Nearly all of the projects provided for communications between members of a department with approximately 10 percent providing for intrastate coordination and essentially none providing for interstate coordination.

. Nearly all of the projects had as a project objective the improvement of communication service with improvement of communication reliability running as a close second.

. Four-fifths of the grants were awarded to municipalities with a population under 20,000.

38. OREGON

(1) Organization Information

The unit of government in the State of Oregon that is responsible for processing LEAA funds is the Oregon Law Enforcement Council. This State Planning Agency has offices at 240 Toddard Street, S. E., Salem, Oregon 97301.

The agency is under the direction of an Administrator who reports to the Governor. The agency employs 21 full-time professional personnel, one of whom devotes part-time to system planning and grant application review for telecommunications projects.

Telecommunications assistance provided to law enforcement agencies by the State Planning Agency includes technical review of grant applications, assistance in preparation of grant applications, and procurement assistance. The State Planning Agency and other law enforcement agencies receive additional assistance from three other units within the state. These are the Governing Board of the Law Enforcement Data System, the State Board on Public Standards and Training, and the representatives of the Associated Public Safety Communications Officers.

The State Planning Agency reported that there are two state level agencies that are directly involved in law enforcement telecommunications planning activities. There are also regional planning agencies and councils of governments that have some involvement in telecommunications activities in that they review and submit grant applications within their own areas.

The State Planning Agency reported that it does not have interface with the State Public Utilities Commission and does not participate in Public Utilities Commission hearings.

The State Planning Agency reported that its in-house capabilities for serving law enforcement telecommunications planning include legal services and procurement services.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

In the State of Oregon, law enforcement agencies at the state level of government that are eligible for LEAA grants include the State Police and the Law Enforcement Data System. The state has 36 prosecutors' offices. Additional law enforcement agencies within the state include 36 county law enforcement departments and 182 organized municipal police departments.

2. Centralized, Cooperative, and Consolidated Dispatch Centers

There were 8 full-time, 24-hour, centralized, cooperative or consolidated dispatch centers serving two or more law enforcement agencies existing in the State of Oregon. Four of these centers each serve areas of between 50 and 200 square miles. The remaining four centers each serve areas over 200 square miles.

Four centers each serve populations of less than 20,000, one center serves a population of between 20,000 and 100,000, two centers serve a population of between 100,000 and 500,000, and one center serves a population over 500,000.

Five of these consolidated dispatch centers dispatch law enforcement and fire vehicles only, while one center dispatches only law enforcement vehicles. The remaining two centers dispatch other agencies in addition to law enforcement, fire, and ambulance vehicles.

Three of these consolidated centers have installed 911 telephone service as their emergency call number and one center has adopted a seven-digit emergency call number for law enforcement only.

The number of individual dispatch centers existing in the State of Oregon is unknown at this time. There are 3 dispatch centers in the state using 911 emergency telephone service. Each of these three centers serves a population of less than 20,000 persons and dispatch law enforcement and fire vehicles only.

Presently, there are no communications centers in the state using computer-assisted dispatching. However, two such systems are planned in the near future.

The State of Oregon is served by 26 separate telephone companies.

3. Spectrum Management

The State of Oregon presently does not have a state-wide law enforcement frequency plan. The APCO frequency coordinator requires that applicants for frequency coordination select the frequency on which they wish to operate.

The numbers of requests for frequency coordination that originated from law enforcement agencies within the state are as follows:

.	1971 - 65
.	1972 - 112
.	1973 - 90.

The state presently does not have a backbone microwave system in use by law enforcement agencies. However, such a system is being planned.

4. Interagency Agreements

Figures were not available regarding the number of cooperative dispatch agreements or interagency/interjurisdictional pacts that are in force in the State of Oregon relative to law enforcement telecommunications.

5. Training Programs

The state does not have minimum standards for the training of law enforcement radio dispatchers or government employee radio technicians. Further there are no plans to establish such minimums at this time. The state also does not have funded training programs for either of these two categories.

(3) State Telecommunications Planning

1. State Telecommunications Plan

The State of Oregon does not have a statewide telecommunications plan. However, the state does anticipate preparing such a plan.

2. Comprehensive Law Enforcement Plan

The Comprehensive Law Enforcement Plan prepared by the State Planning Agency each year and submitted to LEAA includes telecommunications considerations as they relate to data retrieval systems only. The comprehensive plan is addressed toward all state, municipal, and county law enforcement agencies and was developed in-house by the State Planning Agency.

(4) Policy Information

The State Planning Agency for the State of Oregon has not established positions or planning policies with respect to telecommunications projects. At the present time the only recommendations available relate to recommendations for cooperative or central dispatch and the use of 911 telephone service for law enforcement, fire, and emergency medical services.

There are no existing state statutes in Oregon that have an effect on law enforcement communications planning nor

does the State Planning Agency intend to propose any new legislation in the near future.

The three most significant constraints on the planning or implementation of police telecommunications systems were reported to be the shortage of available frequencies, political factors, and insufficient funds for implementation.

The State Planning Agency has procedures for updating fund allocations when the time between grant application and project implementation has resulted in outdated cost figures. The agency further has an in-house formal checklist or review procedure for grant application review but has not published planning guidelines for use by prospective applicants.

The State Planning Agency does not have a statewide law enforcement telecommunications equipment inventory.

(5) Budgets and Expenditures

The State Planning Agency for Oregon has awarded funds each year for telecommunications projects in the amounts indicated on Table V-57.

These figures represent the actual award approvals made during the period indicated, based on a review of the project files.

Also indicated on Table V-57 is the total dollar expended for all grants for the same periods, and the percentage comparison expended on telecommunications projects. The final column lists the number of telecommunications projects funded in each of the three periods.

The operating budgets for the State Planning Agency for the same periods are as follows:

.	7/1/71-6/30/72	-	\$161,839
.	7/1/72-6/30/73	-	\$200,000
.	7/1/73-6/30/74	-	\$305,906

Table V-57

Comparison - All Grant Awards vs. Telecommunications Awards
7/1/71 to 6/30/75, State of Oregon

Year	Total Dollars		Percent of Total		Number of
	All Grants Awarded	Telecommunications Grants Awarded	Telecommunications Awards for	Telecommunications	
				Projects Funded	
7/1/71 - 6/30/72	\$3,846,000	\$ 136,841	3.6%		9
7/1/72 - 6/30/73	\$4,694,000	867,663	18.5		18
7/1/73 - 6/30/74	\$5,446,000	616,140	11.3		12
7/1/74 - 6/30/75	-	1,154,770	-		9

The State Planning Agency estimated that approximately one percent of their total operating costs are expended for law enforcement telecommunications planning. The agencies estimated operating costs for fiscal year 1975 as \$304,500. The agency further estimates that total dollars for all grants for fiscal 1975 will be \$5,446,000 or the same as fiscal year 1974.

(6) Procurement Methods and Policies1. Centralized Purchasing Procedures

The State Planning Agency reported that there are mandatory standard procurement methods for centralized procurement existing for state level agencies. The state goes to bid for state contracts for centralized purchases annually and the agency does encourage centralized purchasing for small purchases. At the local level of government there is a limited use of centralized purchasing procedures. However, it is not known if these procedures are mandatory.

2. Standard Equipment or System Specifications

The types of specifications that are used in the State of Oregon for procurement of law enforcement telecommunications systems include equipment specifications, system functional specifications, and system performance specifications. The major source of specifications is in-house development by another state or local organization. The State Planning Agency has no requirements to ensure that systems specifications are met. The agency further does not have a list of recommended independent consultants for telecommunications.

3. Equipment Sources and Vendors

The typical number of bidders that respond to law enforcement telecommunications systems procurements

in the State of Oregon is 2 or 3. The State Planning Agency does not have a list of recommended sources of law enforcement communications equipment.

4. Procurement Practices

In cases of procurement of equipment, maintenance services, or consulting services in the State of Oregon grant funded procurements are accomplished in accordance with existing state procurement instructions. The State Planning Agency has additional standard procurement instructions covering these same items. The standard State Planning Agency procurement instructions for purchasing equipment requires that bids be solicited from at least 3 suppliers whenever the procurement exceeds a given dollar amount.

In competitive bid procurements the procurement instructions permit factors other than cost to be given as much consideration as cost in selecting the successful bidder.

Procurement instructions require that all proposed procurements above \$2,500 dollar value be advertised. Holding of a pre-bid conference is left to the discretion of the sub-grantee.

Equipment vendor participation in the procurement or implementation phases of law enforcement communications projects includes vendors typically submitting competing system designs to the customer without any detailed system specifications. Vendors are permitted to submit suggestions for changing the consultants specifications without consent of the consultant.

(7) Project Summary

Data was obtained from the State of Oregon on 38 telecommunications grants, including 5 for new systems, awarded between July 1, 1971 and January 1, 1975. The project summary sheets which follow indicate characteristics of the projects including these highlights:

- . Over half of the projects were for communications equipment, principally for radio base stations with a substantial number for mobile and portable radios. Nearly a fifth of the grants were for consolidated central dispatch systems and approximately one-tenth of the grants for 911 implementation.
- . Nearly all of the grants provided for communications between law enforcement departments and for intrastate coordination but only a small percentage provided for interstate coordination.
- . Approximately three-fourths of the grants has as a project objective improved officer safety.
- . Nearly four-fifths of the grants were awarded to regional recipients.

39. PENNSYLVANIA

(1) Organization Information

The agency in Pennsylvania which is responsible for the administration of LEAA funds is the Pennsylvania Governor's Justice Commission. This unit has offices at P. O. Box 1167, Federal Square Station, Harrisburg, Pennsylvania 17108.

The agency is administered by an Executive Director and has a full-time professional staff of 110 persons. Of these personnel, 60 are involved on a part-time basis with law enforcement telecommunications and projects. The Executive Director of the agency reports directly to the Attorney General. Major areas of activity include criminal justice statistics, evaluation and monitoring, comprehensive planning, and subgrant management.

In addition to the State Planning Agency, the Bureau of Management Services, Governor's Office of Administration, (EMS/OA) through its Telecommunications Management Division is involved in law enforcement telecommunications planning.

The Telecommunications Division, BMS/OA has seven full-time professional personnel of which two are involved on a part-time basis with law enforcement telecommunications projects. It was created in June 1969 and was designed to serve as a vehicle for centralizing the management of the Commonwealth's telecommunications. The Division Chief reports to the Director of Bureau of Management Services and has several units under his control. The subunits include the following sections: land line, radio, research and planning, and administration. Directives issued by this office govern the telecommunications activities of all state agencies including Civil Defense, State Police, Military Affairs, Health (EMS), Governor's Justice Commission (LEAA grant allocation), etc. County, city, town or township agencies and emergency medical when such guidance is requested by any of these agencies or the State Planning Agency.

The major activities of the Telecommunications Management Division, BMS/OA were identified as follows:

- . State agency system planning
- . County and city system planning
- . Local agency system planning
- . Wire line system planning
- . Equipment procurement
- . Assistance to other agencies

Together with eight regional planning councils, the State Planning Agency provides assistance to law enforcement agencies in the telecommunications area by providing technical review of grant applications, assistance in preparation of grant applications, cost effectiveness evaluations, system planning and post project evaluation. The Telecommunications Management Division, BMS/OA reports that it provides telecommunications planning services to state and local agencies in areas which include: review of grant applications, grant application preparation, system design, cost effectiveness evaluations, post project evaluation, acceptance testing, procurement procedures, specification preparation, system planning, and technical and operational training.

The State Planning Agency (G. J. C.) reported that they have no contact with the Public Utilities Commission while the Telecommunications Management Division reported informal contact including rate change proposals by the Common Carrier.

Within the State Planning Agency, there is no one with responsibility for interface with the Federal Communications Commission nor is there any activity between these two agencies.

In-house capabilities reported by the State Planning Agency included legal services, financial planning and cost accounting services. The in-house capabilities reported by the Bureau of Management Services included systems design services, financial planning, procurement services, management planning and cost accounting services.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

The State Planning Agency indicated that state-level agencies which are eligible for LEAA grants include the State Police and Department of Justice. Table V-58 indicates the types and quantities (estimated) of law enforcement agencies that exist below state-level government.

Table V-58
Pennsylvania Law Enforcement Agencies
Below State Level of Government

Type of Agency	Number of Agencies
County Police Departments	1
Municipal Police Departments	1400
Campus Police Departments	12
Liquor Control Board	1
Game Commission	1
Fish Commission	1
Bureau of Cigarettes and Beverage	1

(2) Centralized, Cooperative and Consolidated Dispatch Centers

Figures regarding the locations, quantity, and services provided by consolidated dispatch centers in the state were not available. Similarly, for individual dispatch centers, meaningful statistics were not readily available regarding areas served, populations served, telephone services employed or other public safety agencies involved.

Totally within the state there are twenty locations utilizing 911 telephone service. Thirteen of the centers

serve populations under 20,000, five serve populations between 20,000 and 100,000, and two serve between 100,000 and 500,000.

No law enforcement agency in the state is presently using a computer assisted dispatch system. However, one law enforcement agency is currently planning a CAD system.

At the time of the survey, there were 58 individual telephone companies serving the state.

3. Spectrum Management

The State of Pennsylvania presently does not have a statewide law enforcement frequency plan. Figures regarding numbers of law enforcement departments licensed on various frequency bands and numbers of mobiles and portables were not available.

The APCO frequency coordinator, on occasion, will recommend a specific frequency to the applicant. In other instances, the coordinator requires the applicant to select the frequency. The frequency coordinators processed the following numbers of applications for coordination with law enforcement agencies:

- . 1971 - not available
- . 1972 - 166
- . 1973 - 318
- . 1974 - 322

The State Planning Agency reported that there is no backbone microwave system in use by law enforcement departments within the State of Pennsylvania.

4. Inter-Agency Agreements

Figures were not available regarding numbers and types of inter-agency agreements in the area of law enforcement telecommunications.

5. Training Programs

Pennsylvania reported that no minimum standards have been established for training law enforcement radio dispatchers or government employee radio technicians; nor does the state have funded training programs for either of the two categories. However, the state is planning to establish minimum standards.

(3) State Telecommunications Planning

1. State Telecommunications Plans

The State of Pennsylvania does not presently have a completed statewide telecommunications plan but did report that a plan is presently being prepared.

2. Comprehensive Law Enforcement Plan

The Comprehensive Law Enforcement Plan prepared by the State Planning Agency and submitted to the LEAA each year is developed with specific law enforcement telecommunications considerations. Areas specifically addressed by the plan regarding law enforcement telecommunications include: interagency coordination, cooperative or consolidated dispatching, data retrieval systems, operational requirements and financial considerations. The plan is addressed to state, municipal and county law enforcement agencies. The telecommunications portion of the Comprehensive Law Enforcement Plan was developed entirely by the State Planning Agency.

(4) Policy Information

The State Planning Agency has adopted procedures and established policies in several areas affecting law enforcement telecommunications. Some of the major policies are listed as follows:

- . Central or cooperative dispatch is recommended for two or more agencies sharing a channel
- . Propagation measurements, vendor recommendations and estimates are used for establishing output power and tower height requirements for law enforcement radio systems
- . Cooperative or central dispatch is recommended as a command and control concept
- . 911 for all emergency services is recommended for improved citizen access to public safety agencies
- . Coordination channels are recommended for regional and county use
- . Cross monitoring between the State Police and local agencies is recommended
- . The state is planning the implementation of a backbone microwave system
- . Additional terminals are recommended for improved access to criminal justice information systems.

The State Planning Agency reported that they are planning to propose legislation in the near future in the areas of directives to plan or implement communications systems and directives to develop a state plan.

The three most significant constraints on planning or implementation of police telecommunications systems within Pennsylvania are reported to be insufficient planning funds, insufficient funds for implementation and availability of planning manpower.

The State Planning Agency indicated that it has developed formal procedures to determine when a grant should be terminated. It also has an in-house formal checklist or review procedure for grant application review. The agency has also published planning guidelines for use by prospective grant applicants. Applications must contain a statement of the problem, statement of requirement, procurement procedures to be used,

technical justification, manpower and training requirements, follow-on funding requirements, facility requirements, specification compliance testing, frequency availability, system description and maintenance consolidations.

Review of grant applications for telecommunications systems is conducted by regional planning councils, county planning councils, and by A-95 groups prior to submission to the State Planning Agency.

(5) Budgets and Expenditures

The State Planning Agency for Pennsylvania has awarded funds each year for telecommunications projects in amounts indicated on Table V-59.

These figures represent the actual award approvals made during the periods indicated and are based upon review of the project files.

The total dollar amounts expended for all grants in all areas by the State Planning Agency and for telecommunications projects is also shown on Table V-59. Also indicated is the number of telecommunications projects funded in each year.

The operating budgets for the State Planning Agency for the same periods are as follows:

- . 7/1/71-6/30/72 - \$2,531,653
- . 7/1/72-6/30/73 - \$3,271,854
- . 7/1/73-6/30/74 - \$3,066,823

Approximately 1 percent of their operating budget was expended for law enforcement telecommunications planning.

For Fiscal Year 1975, the estimated operating cost for the agency was \$3,599,106.

Table V-59
Comparison - All Grant Awards vs Telecommunications Awards
7/1/71 Through 6/30/75, State of Pennsylvania

Year	Total Dollars All Grants Awarded	Total Dollars Telecommunications Grants Awarded	Percent of Total Awards for Telecommunications	Number of Telecommunications Projects Funded
7/1/71-6/30/72	\$22,275,699	\$ 72,145	0.3%	4
7/1/72-6/30/73	\$26,303,225	1,259,489	4.9	38
7/1/73-6/30/74	\$30,332,938	635,391	2.1	44
7/1/74-6/30/75	-	415,245	-	13

(6) Procurement Methods and Policies

1. Centralized Purchasing Procedures

At the state government level, there are no centralized purchasing procedures in effect. However, the State Planning Agency encourages joint or centralized purchasing for small purchases. The extent that centralized purchasing procedures are used at the county or local level is not known.

2. Standard Equipment or System Specifications

In the State of Pennsylvania, purchases of law enforcement telecommunications equipment and systems are based upon equipment specifications, system functional specifications, and system performance specifications. The specifications used are prepared by independent consultants.

The State Planning Agency has no requirements to ensure that system specifications are met, nor do they maintain a list of independent consultants for telecommunications.

3. Equipment Sources and Vendors

Typically two or three bidders respond to law enforcement telecommunications system procurements in the state. The State Planning Agency does not maintain a list of recommended sources of law enforcement communications equipment.

4. Procurement Practices

Procurement of equipment, maintenance services, and consulting services for grant funded programs is in accordance with existing state laws.

In the case of competitively bid procurements, procurement instructions permit factors other than cost, such as excellence of the proposal and past performance of the vendor, to be given as much consideration as cost in selecting the successful bidder.

Procurement instructions require that bids of \$1,500 for equipment and maintenance services be advertised.

(7) Project Summary

Data was obtained from the State of Pennsylvania on 99 telecommunications grants including 8 for new systems awarded during the period July 1, 1971 to January 1, 1975. Following these highlights are project summary sheets which describe characteristics of the projects.

- . Almost all of the projects were for communications equipment, principally hand held portables, mobiles and base stations.
- . A small percentage of the projects provided for formal evaluation.
- . While almost all of the projects provided for communication between members of a department, about half of the projects provided for intrastate coordination and only a very small percent provided for interstate coordination.
- . Most of the projects had as a project objective the improvement of communication service.
- . Almost a third of the grants were awarded to regional recipients and approximately a half of the grants were awarded to municipalities with a population under 20,000.

40. RHODE ISLAND

(1) Organization Information

The unit of government in the State of Rhode Island which is responsible for processing LEAA funds is the Governor's Justice Commission, which has offices at 197 Taunton Avenue, East Providence, Rhode Island.

This State Planning Agency is administered by an Executive Director. It has a full-time professional staff of 29 persons. The agency presently has one full-time person involved in system planning and grant application review for law enforcement telecommunications projects.

The State Planning Agency provides assistance to law enforcement agencies in the area of telecommunications by providing a technical review of grant applications, assistance in the preparation of grant applications, cost-effectiveness evaluations, system design, specification preparation, system planning, postproject evaluation, acceptance testing for digital equipment, and procurement assistance. There are no other agencies in the State of Rhode Island providing these same types of services.

At present, no one at the state level of government has responsibility for matters pertaining to the Federal Communications Commission. This responsibility could, however, be accepted by the State Planning Agency if the necessary personnel have been added to the staff.

The State Planning Agency presently has no interface with the Public Utility Commission in regard to tariffs as they affect law enforcement communications.

The in-house capabilities reported by the State Planning Agency include engineering services, financial planning, procurement services, management planning, and cost accounting services.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

Law enforcement agencies at the state level of government which are eligible for LEAA grants were identified as the State Police, Motor Vehicle Department, the Natural Resources Department, and the Drug Control Department. Other law enforcement agencies existing within the state include 39 municipal police departments and two campus police departments. The entire state is served by one Prosecutor's Office.

2. Centralized, Cooperative, and Consolidated Dispatch Centers

The State of Rhode Island presently does not have a centralized, cooperative, or consolidated dispatch center that serves two or more law enforcement agencies. There are approximately 40 individual dispatch centers, which serve only one police department. Of these 40 centers, 31 serve areas between 50 and 200 square miles and nine each serve areas of less than 50 square miles. Thirty-four of these centers serve populations of under 20,000 persons. Twenty thousand to 100,000 population areas are served by five centers and one center serves a population between 100,000 and 500,000. All 40 of these individual dispatch centers dispatch law enforcement vehicles only.

There are no computer-aided dispatching systems operational in the State of Rhode Island, and there are presently no plans to add this capability.

The State of Rhode Island is served by two individual telephone companies.

3. Spectrum Management

The State of Rhode Island has a statewide frequency plan for law enforcement which was prepared by an equipment vendor. The frequency plan is an inventory of existing frequencies of local law enforcement agencies and utilizes police-only frequency assignments.

The APCO frequency coordinator for the State of Rhode Island reported that in some cases he recommends the specific frequency to an applicant, and in other cases, the applicant selects the frequency. The coordinator will recommend use of a frequency that does not conform to the state plan, provided he sees no objection to its assignment.

The frequency coordinator reported the following requests for frequency coordination received from law enforcement agencies within the state.

.	1971 - Unknown
.	1972 - 8
.	1973 - 19
.	1974 - 9.

The frequency coordinator and the frequency inventory list prepared by a vendor indicate that at the present time four law enforcement departments are licensed to operate on VHF low band, 33 are licensed on VHF high band, one is licensed on UHF 450 MHz, and one is licensed on UHF 480 MHz.

The State Planning Agency reports that Rhode Island does have a backbone microwave system in use by law enforcement agencies. The functions served by this system include radio control links. This microwave system has backup capability, is supported by an emergency power system, and is primarily dedicated to law enforcement purposes.

4. Interagency Agreements

The number of interagency agreements existing in the state for cooperative dispatch, sharing of radio equipment facilities, or sharing of law enforcement records information is unknown to the State Planning Agency.

5. Training Programs

The State of Rhode Island has not established minimum standards for training of law enforcement radio dispatchers or government employee radio technicians. The state does, however, plan to establish such minimum standards in the future. The state presently does not have funded training programs for either of these two skill categories.

(3) State Telecommunications Planning

1. State Telecommunications Plan

The State of Rhode Island presently does not have a statewide telecommunications plan. However, the preparation of such a plan is a top priority for the State Planning Agency if the staff positions are approved.

2. Comprehensive Law Enforcement Plan

The Comprehensive Law Enforcement Plan prepared by the State Planning Agency and submitted to the LEAA includes specific telecommunications considerations, which are covered in a separate section of the plan.

The specific areas addressed in the telecommunications portion of the plan include organization of radio networks, interagency coordination, cooperative or consolidated dispatching, data retrieval systems, financial planning, and configuration control.

The plan is addressed to all state agencies with law enforcement power, and municipal law enforcement agencies. The plan was developed in-house by the State Planning Agency.

(4) Policy Information

Specific State Planning Agency policy positions as described herein are subject to review and change based on the preparation and adoption of a statewide telecommunications plan. This new plan is presently being formulated. Some present policy positions of major consequence are as follows:

- . General concept for organization of law enforcement radio networks is based on regional information and dispatch centers.
- . Central or cooperative dispatch is recommended when two or more agencies share a channel.
- . At present, specific recommendations are not made for frequency usage in either urban, suburban, or rural areas.
- . Recommended channel configurations include one-frequency simplex, two-frequency simplex, mobile relay, vehicular repeaters.

- . The use of tone-controlled squelch is recommended.
- . Seven-digit emergency numbers and call boxes are recommended to improve citizen access to public safety agencies.
- . Coordination channels are recommended at the regional and statewide level.
- . Recommendations for interagency point-to-point coordination include microwave links and VHF point-to-point links.
- . Point-to-point and mobile-to-mobile coordination channels are recommended between the State Police and municipal law enforcement agencies.
- . Recommendations for improved access to criminal justice information systems include additional terminals, high-speed data transmission, improved switching systems, and the use of private microwave.
- . Porta-mobile type units are recommended for all sworn personnel.
- . Magnetic tape recorders are recommended for logging of radio and telephone traffic.

At present, there is no legislation in the State of Rhode Island which has an effect on law enforcement communications planning.

The three most significant constraints on the planning or implementation of police telecommunications systems were identified as shortage of available frequencies, political factors, and inavailability of planning manpower.

The State Planning Agency has adopted procedures for updating fund allocations when the time between grant application and project implementation has resulted in outdated cost figures. The agency also has published planning guidelines for use by prospective grant applicants. The State Planning Agency currently does not have a statewide law enforcement telecommunications equipment inventory.

(5) Budget and Expenditures

The State Planning Agency for Rhode Island is awarded funds each year for telecommunications projects in the amounts indicated in Table V-60. These figures represent the actual award approvals made during the periods indicated and are based on a review of the project files.

The total dollar amounts expended for all grants in all areas by the State Planning Agency were not readily available at the time of this study; therefore, the percentage of expenditures that were for law enforcement telecommunications projects cannot be indicated. Shown in Table V-60 is the number of telecommunications projects funded in each of the time periods.

The State Planning Agency indicated that the operating budgets for Fiscal Years 1972, 1973, and 1974 were as follows:

. 7/1/71 - 6/30/72	\$129,800
. 7/1/72 - 6/30/73	\$142,400
. 7/1/73 - 6/30/74	\$275,700.

The State Planning Agency reported that Fiscal Years 1972-74 no part of their operating budget was expended for planning law enforcement telecommunications projects. It does indicate that approximately 5 percent of Fiscal Year 1975 operating expenses will be expended in the area of law enforcement communications planning. The agency indicated that the operating budget for Fiscal Year 1975 will be approximately \$275,700.

Table V-60
Comparison - All Grant Awards vs Telecommunications Awards
7/1/71 Thru 6/30/75, State of Rhode Island

Year	Total Dollars All Grants Awarded	Total Dollars Telecommunications Grants Awarded	Percent of Total Awards for Telecommunications	Number of Telecommunications Projects Funded
7/1/71 - 6/30/72		\$ 177,750		4
7/1/72 - 6/30/73		138,559		4
7/1/73 - 6/30/74		1,275,212		12
7/1/74 - 6/30/75		183,859		4

(6) Procurement Methods and Policies

1. Centralized Purchasing Procedures

At the State Agency level centralized purchasing procedures are used extensively for the procurement of most radio equipment. There are both standard and negotiated procurement methods for centralized procurements at the State Agency level. The centralized purchasing procedures are mandatory and the state goes to bid for state contracts on a frequency basis. At the local level there is limited use of centralized purchasing procedures and these centralized procedures are not mandatory.

2. Standard Equipment or Systems Specifications

The type of specifications used for the procurement of law enforcement telecommunications systems in the state vary and include the equipment specifications, system functional specifications, and system performance specifications. Generally the specifications are developed in-house by a local or state government agency or are supplied by a vendor. The State Planning Agency uses acceptance testing as a means to ensure that specifications have been met and the State Planning Agency does not have a list of approved independent consultants for telecommunications.

3. Equipment Sources and Vendors

As a general rule there are four to six bidders who respond to law enforcement telecommunications system procurements in the state. The State Planning Agency does have a list of approved sources for law enforcement communications equipment but does not have formal requirements to be met by applicants wishing to be placed on the list. Additionally, there are no formal procedures for the removal of companies from this list and no company has ever been removed from the list for cause.

4. Procurement Practices

The State Planning Agency follows the standard procurement instructions issued by the LEAA to cover the procurements of equipment, maintenance services, and consulting services. These instructions require that at least two bids be received whenever procurements exceed a given dollar value.

Procurement instructions also require that all proposed procurements be advertised. However, in the case of competitively bid procurements, factors other than cost can be given as much consideration as cost in selecting the successful bidder. Procurement instructions further require that prebid conferences be held in all cases of procurements over a given dollar value. These prebid conferences must be held after the procurement has been advertised.

The role of the vendors in the State of Rhode Island is typically to submit competing system designs to the customer with or without detailed systems specifications.

(7) Project Summary

Data was obtained from the State of Rhode Island on 24 telecommunications grants awarded during the period July 1, 1971 to January 1, 1975. Following these highlights are project summary sheets which describe characteristics of the projects in more detail.

- . The projects included planning projects, communications projects, computer terminal projects, command and control center projects, consolidated central dispatch projects and microwave projects.
- . The projects did not provide for formal evaluation.
- . Projects provided for intrastate and interstate coordination.

- . The projects included among their project objectives those listed in the summary sheet except for public access.
- . One-third of the grants were awarded to regional recipients and over two-fifths of the grants were awarded to municipalities with a population between 20,000 and 100,000.

41. SOUTH CAROLINA

(1) Organization Information

The unit of government in the State of South Carolina that is responsible for processing LEAA funds is The Office of Criminal Justice Programs. This agency has offices at 1205 Pendleton Street, Columbia, South Carolina 29201.

This State Planning Agency reports directly to the Governor's Office and is administered by a Director. The State Planning Agency has 23 full time professional personnel, one of whom devotes full time to system planning and grant application review for telecommunications projects for law enforcement. There are five other full time professional staff members that devote part of their time to law enforcement telecommunications grant application review.

The agency provides technical review of grant applications, assistance in the preparation of grant applications, cost effectiveness evaluation, system design, specification preparation, system planning, post project evaluation, acceptance testing, procurement assistance, and operational technical training.

There are no other agencies in the State of South Carolina that provide these services to law enforcement agencies. However, there are several planning agencies that are involved in communications planning activity. These include the State Planning Agency, 10 regional planning agencies, and one municipal planning agency.

The State Planning Agency provides telecommunications planning assistance specifically in regard to organization planning, jurisdictional coordination, and planning guidelines, to the regional and municipal planning agencies and to all law enforcement agencies within the state. Formal agreements for provisions of these services exist between the State Planning Agency and the 10 regional planning agencies.

The State Planning Agency has one person responsible for knowledge of the Federal Communications Commission rules and regulations. This person is also responsible for monitoring and commenting on FCC dockets. The agency reports contact with the Safety and Special Radio Service Bureau of the FCC approximately three times a year.

The State Planning Agency reported no involvement or interface with the Public Utility Commission. They do not attend PUC hearings.

The in-house capabilities for serving law enforcement telecommunications planning are reported to be engineering services, legal services, financial planning, procurement services, management planning, cost accounting services, and reliability testing.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

Those state level agencies reported to be eligible for LEAA grants include the State Highway Patrol, the Marine Patrol and Game and Fish Agency, and the Liquor Control Board. The state has a total of 16 prosecutor officers, 48 county law enforcement departments, 180 municipal police departments, eight campus police departments, and one airport police agency. The State Planning Agency estimates that there are 257 organized law enforcement departments existing in the State of South Carolina.

2. Centralized, Cooperative, and Consolidated Dispatch Centers

At the time of this report there were 20 full time, 24-hour, centralized, cooperative or consolidated dispatch centers existing in the state serving 2 or more law enforcement agencies. These centers each serve areas of over 200 square miles.

Populations served by these centers include: 14 centers serving populations between 20,000 and 100,000, four centers serving populations between 100,000 and 500,000, one center serving a population less than 20,000, and one center serving a population of over 500,000.

Thirteen of these consolidated centers dispatch law enforcement vehicles only, three dispatch law enforcement vehicles and ambulance vehicles, three dispatch law enforcement, fire and ambulance vehicles, and one center dispatches all public safety vehicles plus those of other local government agencies.

The 911 telephone service has been implemented by one of the consolidated dispatch centers and one other center has established a separate 7-digit emergency call number to serve law enforcement fire and ambulance service.

In addition to the consolidated centers, there are 237 individual centers existing in the state which serve only one law enforcement department. Of these individual centers 150 serve areas under 50 square miles, 57 serve areas between 50 and 200 square miles and 28 serve areas over 200 square miles.

These individual centers include 206 centers serving populations under 20,000, 28 centers serving populations between 20,000 and 100,000, two centers serving populations of 100,000 to 500,000 and one center serving a population of over 500,000.

The one dispatch center utilizing 911 serves a population between 20,000 and 100,000 persons and dispatches law enforcement, fire, ambulance, and other agencies.

No dispatch facility in the State of South Carolina is using computer-aided dispatching and there are no plans presently known for incorporating this service.

The State of South Carolina is served by 32 individual telephone companies.

3. Spectrum Management

The State of South Carolina has a frequency plan that has been prepared in-house by the State Planning Agency with assistance from consultants and other agencies. The frequency plan recommends specific frequencies for all law enforcement agencies within the state and uses assignments in the police-only frequency spectrum.

The State of South Carolina has one APCO frequency coordinator. The coordinator recommends frequencies to an applicant and will not recommend frequencies that do not conform to the state plan. The State Planning Agency will not approve a grant application for a communication system which uses frequencies not in conformance with the state frequency plan.

The APCO coordinator reported the following applications for frequency coordinations that originated from law enforcement agencies within the state:

- . 1971 - 18
- . 1972 - 23
- . 1973 - 109

It is reported that there are 78 law enforcement departments licensed in the VHF low band spectrum, 83 licensed in VHF high band, and 69 licensed in UHF 450 to 460 MHz. There are 30 law enforcement agencies in the state licensed to operate on local government frequency assignments.

Radio equipment used by law enforcement agencies in the state include 2,675 mobile units and 250 base station units.

The State of South Carolina presently does not have a backbone microwave system in use by law enforcement agencies and does not now plan the implementation of such a system.

4. Interagency Agreements

The State Planning Agency reported an estimated 8 agreements exist for the purpose of sharing radio equipment facilities, one agreement for the purpose of sharing radio maintenance facilities, and three agreements exist for the purpose of sharing law enforcement records information.

5. Training Programs

The State of South Carolina has not established minimum standards for training of law enforcement radio dispatchers or government employee radio technicians. The state does plan to establish minimum standards of training for law enforcement radio dispatchers and has established training classes at the Criminal Justice Academy. These training classes have been funded by the State Planning Agency.

(3) State Telecommunications Planning

1. State Telecommunication Plan

The State of South Carolina does not have a state-wide telecommunications plan.

2. Comprehensive Law Enforcement Plan

The Comprehensive Law Enforcement Plan prepared by the State Planning Agency each year and submitted to the Law Enforcement Assistance Administration includes specific telecommunications considerations in a separate section of the plan.

The plan specifically addresses organization of radio networks, interagency coordination, spectrum management, frequency allocations, citizen access, consolidating dispatching, interstate coordination, data retriever system, operational requirements, procurement procedures, technical and operational training, maintenance, financial considerations, configuration control, and reliability standards.

The plan is specifically addressed to all state law enforcement agencies and municipal and county law enforcement agencies. The comprehensive plan was developed in-house by the State Planning Agency.

(4) Policy Information

The State Planning Agency policies are related to the law enforcement frequency plan and a formal law enforcement communications system plan. Specific policies or procedures adopted by the State Planning Agency are as follows:

- . Central or cooperative dispatching is recommended when two or more agencies share a channel
- . The required number of radio channels is based upon the number of mobile and portable units and the volume of radio traffic
- . Recommended channel configurations include one frequency simplex, mobile relay, and repeaters
- . Tone-controlled squelch and selective call systems with digital control are recommended
- . The recommended command and control concept is cooperative or central dispatch
- . Recommendations for improved citizen access include 911 telephone service for law enforcement, fire, and emergency medical services, or emergency 7-digit numbers

- . Regional or district coordination channels are recommended using VHF point-to-point for inter-agency coordinations
- . Coordination between the State Highway Patrol and local agencies is recommended utilizing point-to-point communications
- . Radio or wire line control is recommended for remote control based stations
- . Recommendations for improved access to criminal justice information systems include high speed data transmission, improved switching systems, leased wire line, and private microwave
- . Communications scramblers are not recommended
- . The use of magnetic tape recorders for logging of radio and telephone traffic is recommended.

Existing statutes in South Carolina that have an effect on law enforcement communication planning include directives to plan and implement communication systems and directives to develop the state plan for communications. The State Planning Agency is not presently proposing new legislation that would have an effect on law enforcement telecommunications planning.

The most significant constraints on the planning or implementation of police telecommunications systems in the State of South Carolina are reported to be the multiplicity of telephone companies, political factors, and differences between jurisdictional boundaries and telephone company central office boundaries.

The State Planning Agency has adopted formal procedures to determine when a grant should be terminated and has also published planning guidelines for use by prospective grant applicants. These planning guidelines are presently in the process of being amended and updated. The State Planning Agency reported that grant applications are reviewed at the regional planning level prior to submission to the State Planning Agency.

Since September 1972 the State Planning Agency has had a statewide law enforcement telecommunications equipment inventory. It is being updated as the state frequency plan is being implemented.

(5) Budgets and Expenditures

The State Planning Agency has awarded funds each year for telecommunications projects in the amount indicated on Table V-61. These figures represent the annual award approvals made during the periods indicated and are based on a review of the project's files.

Included in Table V-61 are the total amounts of grants awarded in all areas by the State Planning Agency, a percent comparison to telecommunications projects, and the number of telecommunications projects funded in each period.

The operating budgets for the State Planning Agency for the same period are as follows:

. 7/1/71 - 6/30/72 - \$ 502,397
. 7/1/72 - 6/30/73 - \$ 737,579
. 7/1/73 - 6/30/74 - \$ 796,000

The State Planning Agency reported that for Fiscal Year 1973 approximately 1.5 percent of the operating costs were expended for law enforcement telecommunications planning. In Fiscal Year 1974 approximately 2.1 percent of the operating costs were expended in this area and for Fiscal Year 1975 it is anticipated that 2 percent of the operating costs will be devoted to law enforcement telecommunications planning.

The State Planning Agency also anticipates that their operating budget for Fiscal Year 1975 will be \$880,000 and that the total amount for all grants awarded will be \$1,551,096.

Table V-61
Comparison - All Grant Awards vs Telecommunications Awards
7/1/71 to 6/30/75, State of South Carolina

Year	Total Dollars All Grants Awarded	Total Dollars Telecommunications Grants Awarded	Percent of Total Awards for Telecommunications	Number of Telecommunications Projects Funded
7/1/71 - 6/30/72		\$1,012,025		24
7/1/72 - 6/30/73		271,357		11
7/1/73 - 6/30/74		817,057		26
7/1/74 - 6/30/75		192,133		3

(6) Procurement Methods and Policies

1. Centralized Purchasing Procedures

In the State of South Carolina there is limited use of centralized purchasing procedures for law enforcement telecommunications equipment procurement. The centralized purchasing procedures are not mandatory. At the local level there are no centralized purchasing procedures.

2. Standard Equipment or System Specifications

The types of specifications used in the State of South Carolina for the procurement of law enforcement telecommunications systems include equipment specifications, systems functional specifications, and systems performance specifications. These specifications are usually prepared by independent consultants or in-house by the State Planning Agency.

The State Planning Agency ensures that the system specifications are met by acceptance testing, operational testing, and vendor certification.

The State Planning Agency has a list of recommended independent consultants for telecommunications. However, there is a contractual agreement with one consultant to serve all the agencies in the state and there are formal procedures for cancelling the contract.

3. Equipment Sources and Vendors

Typically there are 2 or 3 vendors who will respond to law enforcement telecommunications system procurements in the State of South Carolina.

The State Planning Agency has a list of recommended sources of law enforcement communications equipment and has requirements that must be met by applicants wishing to be placed on the list. Through the equipment specifications the State Planning Agency has procedures for removing concerns from the list. However, no firm has been removed for cause.

4. Procurement Practices

The State Planning Agency has issued standard procurement instructions that cover the purchases of law enforcement communications equipment, maintenance services, and consultant services. The standard procurement instructions require that bids be solicited from at least three suppliers wherever the procurement exceeds a given dollar value.

Procurement instructions also require that procurements above a given dollar value be made on the basis of competitive bidding with award made to the lowest compliance bidder. However, the instructions also permit facts other than cost to be given as much consideration as cost in selecting the successful bidder.

Procurement instructions further require that prebid conferences be held in procurements for equipment and for consultant services. Prebid conferences are held after the procurement has been advertised. There is a requirement for advertising for bids if the procurement for equipment is over \$2500.

The State Planning Agency for South Carolina has a consultant under contract for planning for all agencies, and vendors are required to submit to the consultant firm for approval any suggestions they may have for changing the system design specifications.

(7) Project Summary

Data was obtained from the State of South Carolina on 63 telecommunications grants including 24 for new systems awarded during the period July 1, 1971 to January 1, 1975. The project summary sheets which follow describe the project characteristics including these highlights:

- Nearly all of the projects were for communications equipment, principally mobile radios, hand held portables and base stations.
- Over half of the projects provided for formal evaluation and almost all of the awards for new systems provided for formal evaluation.
- A greater majority of the projects provided for intrastate coordination with a very small percentage of these projects providing for interstate coordination.
- Nearly all of the projects included as project objectives the improvement of communication reliability and the improvement of communication service.
- Almost a third of the grants were awarded to regional recipients and over a third of the grants were awarded to municipalities with a population under 20,000.

42. SOUTH DAKOTA

(1) Organization Information

The unit of government in the State of South Dakota responsible for the distribution of LEAA funds is the Division of Law Enforcement Assistance. The Division has offices at 118 West Capital Street, Pierre, South Dakota 57501.

The agency is administered by a Director and has a full-time professional staff of nine persons. The Director of the agency reports directly to the Department of Public Safety.

The State Planning Agency is divided into five sections as follows: Police, Courts, JD/Adult Corrections, Indian Justice, and Grants Management. Within these units, the State Planning Agency identified two individuals as being involved on a part-time basis with law enforcement telecommunications grant applications and projects.

In addition to the State Planning Agency there are six regional planning agencies that assist in all areas of law enforcement including telecommunications planning. Also, the State Radio Communications Division is directly involved in law enforcement telecommunications. This unit has its main office in the Attorney General's Office, Box 1238, Pierre, South Dakota 57501 and has 34 full-time professional personnel of which three are involved on a part-time basis with law enforcement telecommunications projects.

This unit was formed in 1945 by an act of legislation. The Division Director reports to the Attorney General's office and has several units under his control. The subunits are a radio section, spectrum management section, research and planning section, engineering section, maintenance and administration. The authority of this department is mandatory over the State Highway Patrol and all other state agencies, and advisory to county and city agencies.

The major activities of the State Radio Communications Division are as follows:

- . State agency system planning
- . County and city system planning
- . Local agency system planning
- . Spectrum management
- . Equipment procurement
- . Engineering maintenance
- . Assistance to other agencies.

The State Planning Agency provides assistance to law enforcement agencies in the telecommunications area by providing a technical review of grant applications, assistance in preparation of grant applications, cost effectiveness evaluations, post-project evaluation and procurement assistance. The State Radio Communications Division provides telecommunications planning assistance to the State Planning Agency and law enforcement agencies in the areas of technical reviews of grant applications, system design, review for concurrence to the State Plan, acceptance testing, procurement procedures, specification preparation, system planning, and operational training.

Both the State Planning Agency and State Radio Communications Division reported no interface at all with the Public Utilities Commission. Neither group reviews tariffs nor participates in the Public Utilities Commission hearings.

While the State Planning Agency reported no contact with the Federal Communications Commission, the State Radio Communications Division indicated that they had personnel who were responsible for knowledge of the rules and regulations of the FCC. They report contact with the Field Operations Bureau once a year and the Safety and Special Radio Service Bureau of the FCC approximately four times a year.

In-house capabilities reported by the State Planning Agency include financial planning and procurement services. The in-house capabilities reported by the State Radio Communications Division include engineering services, legal services, financial planning, procurement services and management planning.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

In the State of South Dakota, agencies at the state level that are eligible for LEAA grants include the State Highway Patrol and Attorney General (Divisions of Drugs and Substance Control and Criminal Investigation). In addition, the State Planning Agency reported that below state level government there are 64 county police departments.

2. Centralized Cooperative and Consolidated Dispatch Centers

Within the State of South Dakota, there are 13 consolidated dispatch centers in operation. The State Radio Communications Division reported that all 13 centers serve areas of over 200 square miles and dispatch other agencies in addition to law enforcement, fire or ambulance. Seven of these centers serve populations of less than 20,000; five serve populations of from 20,000 to 100,000; one serves a population of between 100,000 and 500,000.

In addition to the consolidated centers, there are 121 individual dispatch centers. 57 serve areas of less than 50 square miles, and 64 serve areas of more than 200 square miles. The vast majority of the individual centers serve populations of less than 20,000. 57 of these centers dispatch law enforcement, fire and ambulance vehicles; the remaining 64 centers dispatch other agencies in addition to law enforcement, fire or ambulance.

None of the consolidated centers have adopted 911 emergency call number service. However, three individual dispatch centers have adopted 911 as their emergency number. Within this group, two centers serve populations of from 20,000 to 100,000, and one serves a population of from 100,000 to 500,000. All three dispatch other agencies in addition to law enforcement, fire or ambulance. Presently there are 38 telephone companies operating within the state.

As of the date of this survey, there were no law enforcement communication centers within the state using computer assisted dispatch nor were any agencies planning to use this capability.

3. Spectrum Management

The State Radio Communications Division reported that they are currently preparing a frequency plan. It will recommend frequency bands for some law enforcement agencies, and specific frequencies for other law enforcement agencies within the state. Law enforcement agencies use frequency assignments from the police only spectrum area and the local government spectrum area. At the time of this report, the number of law enforcement agencies using different areas of the spectrum are as follows:

. VHF low band	121
. VHF high band	1
. UHF 450 and 460 MHz	5

Equipment covered by law enforcement department licenses include 1,222 mobile units and 200 base stations.

Information received from the APCO frequency coordinator indicates that the coordinator will only recommend a frequency to the applicant which conforms to the state frequency plan. The coordinator processes the following numbers of applications for coordination with law enforcement agencies:

. 1971 - 57
. 1972 - 70
. 1973 - 80

The state presently has a backbone microwave system in use by law enforcement agencies. The law enforcement functions served by the microwave system include: mobile repeater links, interagency coordination, and radio control links. The system does not have a backup capability and is not solely dedicated to law enforcement purposes. However, it is supported by an emergency power system.

4. Interagency Agreements

The State Planning Agency reported that there are seven cooperative dispatch agreements in force that involve agreements between different political entities. In addition, there are nine interjurisdictional agreements in force for the purpose of sharing law enforcement records information.

5. Training Programs

The State Radio Communications Division reported that the state has not established minimum standards for training of either law enforcement radio dispatchers or government employee radio technicians. However, plans do exist to establish minimum standards for radio dispatchers. The state currently has a funded training program for law enforcement radio dispatchers.

(3) State Telecommunications Planning

1. State Telecommunications Plan

The State Radio Communications Division reported that there is presently a statewide telecommunications plan. This advisory plan covers the period 1965 to 1974. Specifically it addresses organization of radio networks, interagency coordination, spectrum management, frequency allocations, interstate coordination, operational requirements, procurement procedures, financial considerations, and configuration control. The plan speaks to state law enforcement and other state agencies, and to municipal and county law enforcement agencies. The state telecommunications plan for law enforcement was developed by the State Radio Communications Division.

2. Comprehensive Law Enforcement Plan

The comprehensive plan prepared by the planning agency each year and submitted to the LEAA included telecommunications considerations. Areas that are specifically addressed by the plan are interagency coordination, cooperative or consolidated dispatching, interstate coordination, and data retrieval systems. The plan is addressed to state law enforcement and other state agencies, and to municipal and county law enforcement agencies. The telecommunications portion of this plan was developed totally by the State Planning Agency.

(4) Policy Information

The State Radio Communications Division has adopted procedures and set policies for making recommendations in several areas affecting law enforcement telecommunications considerations. Some of the major policies are listed as follows:

- Organization of law enforcement networks based upon mobile radio districts
- UHF is recommended for urban areas while VHF low band is recommended for suburban and rural areas.
- Central or cooperative dispatch and independent dispatch with shared base station are recommended for two or more agencies sharing a channel.
- The number of radio channels required is based on population served, number of mobiles and portables and volume of radio traffic.
- The use of tone-controlled squelch is recommended.
- Recommendations for improved citizen access include IN-WATTS for police/emergency complaints.
- Coordination channels are recommended for statewide use.

- VHF/UHF point-to-point is recommended for inter-agency point-to-point communication.
- Radio control and wireline control are recommended for remote control of base stations.
- Additional terminals, high speed transmissions, improved switching systems, and leased wireline are recommended for improved access to criminal justice information systems.
- The use of magnetic tape recorders is recommended for logging of radio and telephone traffic.
- Centralized agency maintenance is recommended wherever possible.

State statutes or laws that exist which have an effect on law enforcement telecommunications planning are reported to be in the areas of emergency medical services legislation, directives to develop a state plan for communications, directives to plan or implement communications systems, and the establishment of a division of communications. The State Radio Communications Division is reportedly planning to propose state legislation in the area of LETS funding by the state when LEAA funding ceases. Three constraints on planning or implementation of police telecommunications systems were insufficient planning funds, insufficient funds for implementation, and lack of planning manpower.

The State Planning Agency indicated that they had procedures for updating fund allocations if the time between grant application and project implementation had resulted in outdated cost figures. The agency also has formal procedures to determine when a grant should be terminated and an in-house formal checklist or review procedure for grant application review. In addition, the State Planning Agency has published planning guidelines for use by prospective grant applicants. Prior to review by the State Planning Agency, grant applications are reviewed by a regional planning council. The State Planning Agency does maintain a statewide law enforcement telecommunications equipment inventory. The initial inventory took place in July 1975.

(5) Budgets and Expenditures

1. State Planning Agency

The State Planning Agency for South Dakota has awarded funds each year for telecommunications projects in amounts indicated on Table V-62.

These figures represent the actual award approvals made during the periods indicated and are based upon a review of the project files.

The total dollar amounts expended for all grants in all areas by the State Planning Agency and a percent comparison for telecommunications projects is shown in Table V-62. Also indicated is the number of telecommunications projects funded in each year.

The operating budgets for the State Planning Agency for the same periods are as follows:

- . 7/1/71-6/30/72 - \$167,000
- . 7/1/72-6/30/73 - \$195,000
- . 7/1/73-6/30/74 - \$326,000

For fiscal year 1975, the estimated operating cost for the agency is \$342,000.

2. State Radio Communications Division

The operating costs for the State Radio Communications Division for the same periods are as follows:

- . 7/1/71-6/30/72 - \$322,408
- . 7/1/72-6/30/73 - \$421,538
- . 7/1/73-6/30/74 - \$461,544

The State Radio Communications Division estimated that the 1975 fiscal year operating costs will be \$541,940. The division further estimates that 20 percent of their operating costs are expended for law enforcement telecommunication planning.

Table V-62
Comparison - All Grant Awards vs Telecommunications Awards
7/1/71 Through 6/30/74, State of South Dakota

Year	Total Dollars All Grants Awarded	Total Dollars Telecommunications Grants Awarded	Percent of Total Awards for Telecommunications	Number of Telecommunications Projects Funded
7/1/71 - 6/30/72	1,218,000	\$446,921	36.7%	121
7/1/72 - 6/30/73	1,471,000	69,531	4.7	44
7/1/73 - 6/30/74	1,707,000	182,758	10.7	12

(6) Procurement Methods and Policies

1. Centralized Purchasing Procedure

The State Radio Communications Division indicated that at the state and county government levels, centralized purchasing procedures are used extensively. These procedures are mandatory for state agencies, and generally the state goes to bid for state contracts for centralized purchases at periods in excess of 12 months. Joint or centralized purchasing for small purchases is encouraged.

2. Standard Equipment or System Specifications

In the State of South Dakota, purchases of law enforcement telecommunications equipment and systems are based upon equipment specifications, system functional specifications, and system performance specifications. The specifications used are prepared in-house by the State Radio Communications Division. The division requires that system specifications be met by acceptance testing, operational tests, vendor certification, and random sample testing. The division does not maintain a list of recommended independent consultants for telecommunications.

3. Equipment Sources and Vendors

Typically, two or three bidders respond to law enforcement telecommunications system procurement. The State Radio Communications Division does maintain a list of recommended sources of law enforcement communications equipment. However, there are no formal list placement requirements and no formal procedures for removal of concerns from the list.

4. Procurement Practices

The State Radio Communications Division has issued standard procurement instructions that cover the purchase of law enforcement communications equipment.

Procurement instructions require that bids above \$1,000 for equipment be advertised.

Procurement instructions for equipment, maintenance, and consulting services leave it to the discretion of the subgrantee as to whether a pre-bid conference will be held.

Procurement instructions for equipment require that procurement be confined to in-state vendors when they can satisfy specifications.

In the procurement and implementation phases of law enforcement communications projects, vendors are required to submit to the consultant for approval, any suggestions they may have for changing the system design specifications.

(7) Project Summary

Data was obtained from the State of South Dakota on 171 telecommunications grants awarded between July 1, 1971 and January 1, 1975. The following project summary sheets describe their characteristics including these highlights:

- . There were no grant awards for new systems.
- . Essentially all of the grants were for communications equipment, principally mobile and portable radios and base stations.
- . The projects did not provide for formal evaluation.
- . Nearly all of the projects provided for intrastate and interstate coordination and communication between law enforcement departments.

Nearly all of the grants included as project objectives the reduction of response time, the improvement of interagency coordination, improved communications reliability, the improvement of communication service and improved officer safety.

Nearly one-third of the grants were awarded to sheriffs departments and over a half of the grants were awarded to municipalities with a population under 20,000.

43. TENNESSEE

(1) Organization Information

The unit of government in the State of Tennessee which is responsible for processing LEAA funds is the Tennessee Law Enforcement Planning Commission. This unit maintains offices in the Capitol Hill Building at 301 Seventh Avenue, North, Nashville, Tennessee 37219.

The agency is administered by a Director and two Assistant Directors for Planning and Grants Administration. The agency has a staff of 29 full-time professional personnel and reports to the Governor via the Division of Urban and Federal Affairs. The Criminal Justice Planning section is divided into seven subunits identified as Courts, Police, Corrections, Manpower Development, Evaluation, Juvenile Delinquency, and Criminal Justice Information Systems. The Police subunit is directly involved in the law enforcement telecommunications planning area. Two individuals are identified as serving in a full-time capacity for system planning and grant application review for law enforcement telecommunications projects.

The State Planning Agency provides assistance to law enforcement agencies in the telecommunications area by providing technical review of grant applications, cost-effectiveness evaluations, system design, specification preparation, system planning, post project evaluation, acceptance testing, and procurement assistance. In addition, the Tennessee APCO chapter and Tennessee Department of Safety, along with regional and municipal planning agencies, provide telecommunications assistance to law enforcement agencies.

The State Planning Agency receives assistance from regional and municipal planning agencies as well as state law enforcement agencies. Most aid given is in the development of comprehensive plans.

Within the State Planning Agency there are personnel who are responsible for knowledge of the rules and regulations of The Federal Communications Commission. The agency keeps abreast of FCC developments and activities through the Federal Register and trade journals and professional periodicals. The

State Planning Agency also relies on the APCO chapter for assistance in FCC matters. Further, the planning agency also indicated that they contact the Safety and Special Radio Service Bureau of the FCC approximately four times a year.

The planning agency did not report any contact with the Public Utilities Commission and does not review tariffs or participate in PUC hearings. The in-house capabilities for servicing law enforcement telecommunications planning included engineering services, legal services, financial planning, procurement services and reliability testing.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

In the State of Tennessee, agencies at the state level that are eligible for LEAA grants include the State Supreme Court, Department of Correction, Department of Mental Health, Department of Public Health, District Attorney Generals, Attorney General and Department of Safety. Table V-63 indicates the type and quantities of law enforcement agencies that exist below state level government. In addition to 27 Prosecutor's Offices in the state, the State Planning Agency has identified 327 organized law enforcement agencies as shown in Table V-63.

Table V-63

Tennessee Law Enforcement Agencies Below State Levels of Government

<u>Type of Agency</u>	<u>Number of Agencies in the State</u>
County Police Departments	94
Municipal Police Departments	214
Municipal Park Police Departments	3
Campus Police Departments	16

2. Centralized, Cooperative, and Consolidated Dispatch Centers

At the time of this report, there were 24 consolidated dispatch centers existing within the state. All 24 centers serve areas of from 50 to 200 square miles. The vast majority of centers serve populations of less than 20,000, and all centers dispatch law enforcement, fire and ambulance vehicles. Six centers have adopted 911 as their emergency call number.

In addition to the consolidated centers, there are 156 individual dispatch centers, all of which dispatch only law enforcement vehicles and have adopted a single 7-digit emergency call number. Within this group, 29 centers have adopted 911 service. The vast majority of all 911 centers serve populations of less than 20,000 and dispatch only law enforcement vehicles. As of the date of this survey, there were no law enforcement communication centers using computer-assisted dispatch. The Metropolitan Nashville Police Department and the Knoxville Police Department are presently planning to add computer-assisted dispatch capabilities.

Presently, there are 30 telephone companies operating within the state.

3. Spectrum Management

The State of Tennessee presently has a frequency plan based on a base and mobile point-to-point and inter-regional system. The frequency plan was developed by an independent consultant with assistance from the state APCO chapter. It specifies or recommends specific frequencies for all law enforcement agencies in the state. The plan recommends frequency assignments from the police only classification.

From data collected from the APCO frequency coordinator, it was determined that the following numbers of requests for frequency coordination have been processed:

- . 1971 - 92
- . 1972 - 89
- . 1973 - 149
- . 1974 - 174

The State Planning Agency reported that it will not approve a grant application for a communications system that uses frequencies not in conformance with the state plan. Frequency coordination is carried out during the grant review process.

The State Planning Agency indicated that a major constraint on telecommunications planning was the shortage of available frequencies and since July 1971 a formal program has been conducted to determine the extent of congestion on law enforcement radio channels.

Present licenses for law enforcement departments include 360 on VHF low band, 212 on VHF high band, and 120 on the UHF band. Equipment covered by these licenses includes 2335 mobile units and 390 base stations.

The planning agency reported that there is no backbone microwave system in use by law enforcement agencies within the State of Tennessee.

4. Interagency Agreements

Within the state there are 24 cooperative dispatch agreements in force involving different political entities. Additionally, there are 24 pacts in force for sharing radio maintenance facilities and/or personnel; 16 agreements for sharing law enforcement records information; and four contract law enforcement agreements in force.

5. Training Programs

Tennessee reported that no minimum standards have been established for training law enforcement dispatchers or government employee radio technicians; nor does the state have funded training programs for either of the two categories. The state is, however, planning to establish minimum standards for training of law enforcement radio dispatchers and government employee radio technicians.

(3) State Telecommunications Planning

1. State Telecommunications Plan

The State of Tennessee currently has a statewide law enforcement telecommunications plan. This advisory plan covers the period 1973 to 1978. The plan is addressed to state, municipal and county law enforcement agencies and the emergency medical service. Specifically, it speaks to organization of radio networks, interagency coordination, spectrum management, frequency allocations, cooperative or consolidated dispatching, interstate coordination, data retrieval systems, operational requirements, procurement procedures, maintenance, finance, configuration control and reliability standards. The plan was developed by a private consulting firm and was last amended January 1974.

2. Comprehensive Law Enforcement Plan

The comprehensive plan prepared by the State Planning Agency each year and submitted to the LEAA included telecommunications considerations. This plan is addressed to state, municipal, and county law enforcement agencies. The comprehensive plan generally references the State Telecommunications Master Plan and only specifically addresses cooperative or consolidated dispatching. The telecommunications portion of the comprehensive plan was developed totally by the State Planning Agency.

(4) Policy Information

The State Planning Agency's policy position regarding organization of law enforcement radio networks is based on mobile radio districts. Regarding improved access to criminal justice information systems, they recommend additional terminals, installing high-speed data transmission equipment, and the utilization of a leased wire line. Concerning frequency band usage, the planning agency recommends UHF in urban areas and VHF high band and UHF in suburban and rural areas. The agency is also planning a pilot evaluation project of 960 MHz equipment when it becomes available.

Additional agency policies or positions are as follows:

- . Tone controlled squelch is recommended.
- . Cooperative or central dispatch and independent dispatch are recommended as command and control concepts.
- . For improved citizen access to public safety agencies, 911 for law enforcement only and a single 7-digit emergency number are recommended.
- . A county coordination channel, regional or district coordination channel, statewide coordination channel and interstate channel for Highway Patrol use only are recommended.
- . VHF point-to-point and hotlines (Highway Patrol only) interagency coordination is recommended.
- . Coordination with the Highway Patrol via point-to-point communications is recommended.
- . Personal portables with no mobile units in vehicles are recommended for use of foot patrol, detectives, and as vehicular mounted portable systems.
- . The use of magnetic tape recorders is recommended for logging of radio and telephone traffic.
- . Implementation of a backbone microwave system.

State statutes or laws that have an effect on law enforcement telecommunications planning are reported to be in the area of Emergency Medical Services (EMS) legislation. The state is not at the present time proposing any new legislation that would affect law enforcement telecommunications.

The State Planning Agency identified three significant constraints that affected implementation of police telecommunications systems. There is a shortage of available frequencies, insufficient funds for implementation, and the lack of planning manpower.

The planning agency has developed procedures for updating fund allocations if the time between a grant application and project implementation has resulted in outdated cost figures. The agency also has formal procedures to determine when a grant should be terminated and an in-house formal checklist or review procedure for grant application review. The agency has published planning guidelines for use by prospective grant applicants, and the applications must contain a statement of the problem, state of requirements, procurement procedures to be used, technical justification, manpower requirements, follow-on funding requirements (for personnel), specification compliance testing, post implementation project evaluation, and system description. Prior to review by the State Planning Agency, grant applications are reviewed by a regional planning council.

The agency maintains a statewide law enforcement telecommunications equipment inventory. The initial inventory was accomplished in January 1969 and has been updated annually since that time.

(5) Budgets and Expenditures

The State Planning Agency has awarded funds each year for telecommunications projects in amounts indicated in Table V-64. These figures represent the actual award approvals made during the periods indicated and are based on a review of the project files.

The total dollar amounts expended for all grants in all areas by the planning agency and a percent comparison of telecommunications projects is also shown on Table V-64. Also indicated is the number of telecommunications projects funded in each of the periods.

The operating budgets for the planning agency for the same period are as follows:

- . 7/1/71 - 6/30/72 - \$280,800
- . 7/1/72 - 6/30/73 - \$451,800
- . 7/1/73 - 6/30/74 - \$498,500

Table V-64
Comparison - All Grant Awards vs Telecommunications Awards
7/1/71 to 6/30/74, State of Tennessee

Year	Total Dollars All Grants Awarded	Total Dollars Telecommunications Grants Awarded	Percent of Total Awards for Telecommunications	Number of Telecommunications Projects Funded
7/1/71 - 6/30/72	\$6,425,000	\$2,159,369	33.6%	22
7/1/72 - 6/30/73	\$7,878,000	2,202,308	28.0	44
7/1/73 - 6/30/74	\$9,143,000	2,603,205	28.5	15

For the period from 7/1/74 to 6/30/75, the agency anticipates an increase of 20 percent in the operating budget. However, it anticipates the amount awarded totally for all grants to remain constant with the previous year's award.

(6) Procurement Methods and Policies

1. Centralized Purchasing Procedures

The State Planning Agency reports that there is limited use of centralized statewide purchasing procedures in the procurement of law enforcement telecommunications equipment. These procedures are utilized only by the Highway Patrol. Further, the agency encourages joint or centralized purchasing for small purchases only at the local level. Extensive use is made of centralized purchasing procedures at the county level for most radio equipment.

2. Standard Equipment or System Specifications

Throughout the state various types of specifications are employed in acquiring law enforcement telecommunications systems. These include equipment specifications, system functional specifications and system performance specifications. In the majority of cases, specifications for law enforcement communications equipment and systems are prepared in-house by the State Planning Agency.

All specifications utilized in the purchase of communications equipment funded via grants from the State Planning Agency must be submitted to the Agency for approval. The planning agency requires that system specifications be met by acceptance testing, operational tests and vendor certification. The agency does not maintain a list of recommended independent consultants for telecommunications.

3. Equipment Sources and Vendors

Typically two or three bidders respond to law enforcement telecommunications system procurements in the state. The State Planning Agency does maintain a list of recommended sources of law enforcement communications equipment. There are formal requirements to be met by applicants to be placed on the list. Further, the State Planning Agency has formal procedures for removal of concerns from the list.

4. Procurement Practices

For LEAA grants, the State Planning Agency has issued standard procurement instructions that cover the purchase of law enforcement communications equipment, maintenance services and consulting services.

For competitively bid procurements, instructions permit factors other than cost, such as excellence of the proposal and past performance of the vendor, to be given consideration in selecting the successful bidder.

The holding of prebid conferences is not required, but in those areas where they are utilized, they are generally held after the procurement has been advertised. Further, procurement instructions require that bids for equipment, maintenance and consulting services above \$2500 be advertised.

In the procurement and implementation phases of law enforcement communications projects, vendors are required to submit any suggestions they may have for changing the system design specifications to the consultant for approval.

(7) Project Summary

Data was obtained from the State of Tennessee on 82 telecommunications grants of which 65 were for new systems awarded between July 1, 1971 and January 1, 1975. The project summary sheets which follow indicate characteristics of the projects including these highlights:

- . Nearly all of the projects were for communications equipment, principally consoles, mobile and portable radios and base stations and over half of the projects were for command and control centers and consolidated central dispatch systems.
- . Approximately three-fourths of the projects provided for formal evaluation.
- . Almost all of the projects provided for intrastate coordination and communications between law enforcement departments and none of the projects provided for interstate coordination.
- . Half of the grants were awarded to regional recipients.

44. TEXAS

(1) Organization Information

The unit of government in the State of Texas that is responsible for the distribution of LEAA funds is the Criminal Justice Division. The Division has offices at 610 Brazos Street, P.O. Box 1828, Austin, Texas 78767.

This State Planning Agency is administered by an Executive Director and a Deputy Director and has a full-time professional staff of 55 persons. The Executive Director of the agency reports directly to the Governor's Office. The organizational chart for the State Planning Agency identifies several major areas of activity. These are Police, Courts, Corrections, Citizen Involvement and Technology, Planning, and Grant Administration. Within these units, three full-time personnel are assigned to law enforcement telecommunications projects.

In addition to the State Planning Agency, the following groups were identified as playing a direct role in law enforcement telecommunications planning activities: the Department of Public Safety, Department of Corrections, Parks and Wildlife, and regional, metropolitan (county), and municipal planning agencies.

The State Planning Agency provides assistance to law enforcement agencies in the telecommunications area by providing technical reviews of grant applications, assistance in preparation of grant applications, system design, specification preparation, system planning, post project evaluation and procurement assistance.

The State Planning Agency reported that its in-house capabilities for serving law enforcement telecommunications planning include:

- . Legal services
- . Financial planning
- . Procurement services
- . Management planning.

The State Planning Agency reported that no one within the agency was responsible for knowledge of the rules and regulations of the Federal Communications Commission.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

In the State of Texas, agencies at the state level that are eligible for LEAA grants include the Department of Public Safety, Game and Fish, Department of Corrections, and the State University Police Department. Table V-65 indicates the types and quantities of law enforcement agencies that exist below state level government.

Table V-65
Texas Law Enforcement Agencies
Below State Level of Government

<u>Type of Agency</u>	<u>Number of Agencies in the State</u>
County Police Departments	254
Municipal Police Departments	620
Municipal Park Police Departments	1
Campus Police Departments	42
	<hr/> 917

2. Centralized, Cooperative and Consolidated
Dispatch Centers

The State Planning Agency reported that there were three consolidated dispatch centers in operation within the state. One center serves an area of less than 50 square miles, one serves an area of from 50 to 200 square miles, and one serves an area of over 200 square miles. All 3 centers serve populations of from 20,000 to 100,000 persons and dispatch only law enforcement vehicles.

In addition to the consolidated centers, there are 874 individual dispatch centers, the majority of which serve populations of less than 20,000 persons. All 874 individual centers dispatch only law enforcement vehicles. None of these centers have adopted either 911 or a seven digit emergency call number. As of the date of this survey, there were no law enforcement communications centers within Texas using computer-assisted dispatch nor were any agencies planning to use this capability.

3. Spectrum Management

The State of Texas has a prepared frequency plan that was developed by an independent consultant. The plan specifies or recommends frequency bands, but not specific frequencies for law enforcement agencies in the state. The plan is based on a statewide VHF highband system generally utilizing police only frequencies for both statewide mobile-to-mobile and statewide intercity use.

The APCO frequency coordinator for the state reported the following numbers of requests for coordination by law enforcement agencies:

- . 1971 - 93
- . 1972 - 610
- . 1973 - 813
- . 1974 - 422

The State Planning Agency reported that there are 10,700 mobile units and 780 base stations presently in operation in Texas. The State Planning Agency also reported that there is no backbone microwave system in use by law enforcement agencies within the State of Texas.

The APCO frequency coordinator indicated that, in most instances, he will recommend a frequency to an applicant. In some cases the coordinator will also recommend use of a frequency that is not in conformance with the state plan.

The State Planning Agency reported that it will not approve the grant application for a communication system

which uses frequencies not in conformance with the frequency plan. However, the State Planning Agency will approve the grant application for a communications system prior to coordination of any new frequencies required by the system.

4. Inter-Agency Agreements

There are 350 interjurisdictional pacts in force for the sharing of law enforcement records information. No other formal interagency agreements are reported. However, the State Planning Agency reported that many informal agreements exist.

5. Training Programs

Within the State of Texas, there has not been established, nor are there any plans to establish, training programs for either law enforcement radio dispatchers or government employee radio technicians. The state does not presently have any funded training programs for either radio dispatchers or radio technicians.

(3) State Telecommunications Planning

1. State Telecommunications Plan

The State of Texas has a telecommunications plan for law enforcement which covers the period 1971 to 1980. The plan specifically addressed the organization of radio networks, inter-agency coordination, spectrum management, frequency allocations, cooperative or consolidated dispatching, interstate coordination, data retrieval systems, procurement procedures and maintenance considerations. The plan speaks to regional planning units, federal agencies, and state, municipal and county law enforcement agencies. The plan was developed by a private consulting firm and later modified by the State Planning Agency. It was last amended in August 1972.

2. Comprehensive Law Enforcement Plan

The comprehensive plan prepared by the State Planning Agency each year and submitted to LEAA is developed with specific law enforcement telecommunications considerations. The comprehensive plan specifically addresses data retrieval systems, procurement procedures, and financial considerations. The plan speaks to regional planning units, federal agencies, municipal and county law enforcement agencies, state law enforcement and other state agencies. The telecommunications portion of the comprehensive law enforcement plan was developed by the State Planning Agency.

(4) Policy Information

The State Planning Agency has procedures and policies for making recommendations in several areas affecting law enforcement telecommunications considerations. Some of the major policies are listed as follows:

- The organization of law enforcement networks is based on county networks, individual jurisdiction networks, and intercity networks
- UHF is recommended for radio systems in urban areas. VHF highband is recommended in suburban and rural areas
- The State Planning Agency has encouraged the implementation of land mobile radio systems for law enforcement in the lower TV channels (470 MHz range)
- Tone controlled squelch is recommended
- Coordination channels are recommended for state-wide use
- VHF/UHF point-to-point communication and teletype is recommended for interagency coordination

- . Coordination channels between the Department of Public Safety and local agencies are recommended for point-to-point and mobile-to-mobile communication
- . Radio control and wire line is recommended for remote control of base stations
- . Additional terminals, high-speed data transmission, improved switching systems, and leased wire lines are recommended for improved access to criminal justice information systems
- . Personal portables are recommended for all sworn personnel with mobile units in the vehicles
- . The State Planning Agency recommends the use of magnetic tape recorders for logging of radio and telephone traffic.

The State Planning Agency reported that it is planning to offer legislation in the areas of security and privacy of record information which would impact on data retrieval systems.

The agency identified three factors which have placed significant constraints on the planning and implementation of police telecommunications systems:

- . Shortage of available frequencies
- . Insufficient funds for implementation
- . Tower site acquisition.

The State Planning Agency has procedures for updating fund allocations if the time between grant application and project implementation has resulted in outdated cost figures. Also, the agency has an in-house formal checklist or review procedure for grant application review. However, there are no formal procedures to determine when a grant should be terminated. In addition, the State Planning Agency has published planning guidelines for use by prospective grant applicants.

A review of grant applications for telecommunications systems is conducted by regional planning councils and the Governor's Office - Division of Planning and Coordination prior to submission to the State Planning Agency. The agency does not have a state-wide law enforcement telecommunications equipment inventory.

CONTINUED

9 OF 11

(5) Budgets and Expenditures

The State Planning Agency has awarded funds each year for telecommunications projects in amounts indicated on Table V-66. These figures represent the actual award approvals made during the periods indicated and are based on a review of the project files.

The total dollar amounts expended by the State Planning Agency for all grants in all areas and a percent comparison for telecommunications projects, is shown in Table V-66. Also shown is the number of telecommunications projects funded in each year.

The operating budgets for the State Planning Agency for the same periods are as follows:

. 7/1/71 - 6/30/72 - \$ 869,000
. 7/1/72 - 6/30/73 - \$1,327,000
. 7/1/73 - 6/30/74 - \$1,327,500.

For fiscal year 1975 the estimated operating cost for the agency is \$1,420,000.

(6) Procurement Methods and Policies

1. Centralized Purchasing Procedures

The State Planning Agency reported that at both the state and local government level extensive use is made of centralized purchasing procedures for most radio equipment. These procedures are mandatory for all levels of government. Further, the State Planning Agency encourages joint or centralized purchasing for small purchases.

2. Standard Equipment or System Specifications

The State Planning Agency reported that in the State of Texas, purchases of law enforcement telecommunications equipment and systems are based on equipment specifications,

Table V-66
Comparison - All Grant Awards vs Telecommunications Awards
7/1/71 Thru 6/30/74, State of Texas

Year	Total Dollars All Grants Awarded	Total Dollars Telecommunications Grants Awarded	Percent of Total Awards for Telecommunications	Number of Telecommunications Projects Funded
7/1/71 - 6/30/72		\$4,413,188		26
7/1/72 - 6/30/73		1,672,963		7
7/1/73 - 6/30/74		2,373,806		13

system functional specifications and system performance specifications. The specifications used are prepared by independent consultants. The State Planning Agency requires that system specifications be met by acceptance testing, operational tests, vendor certification and random sample testing. The State Planning Agency does not have a list of recommended independent consultants for telecommunications.

3. Equipment Sources and Vendors

The State Planning Agency reported that typically 2 or 3 bidders respond to law enforcement telecommunications system procurements in the state. The State Planning Agency does not have a list of recommended sources of law enforcement telecommunications equipment.

4. Procurement Practices

Statewide procurements for LEAA projects in the State of Texas are accomplished according to state statutes. For regional procurements, the State Planning Agency has issued standard procurement instructions for the purchase of law enforcement telecommunications equipment, maintenance and consulting services.

The State Planning Agency procurement instructions require that all regional procurements for equipment be made on the basis of competitive bidding with the award being made to the lowest compliant bidder.

In the case of competitively bid regional procurements for consulting services, procurement instructions permit other factors, such as excellence of the proposal and past performance of the vendor, to be given as much consideration as cost in selecting the successful bidder.

For consulting services, procurement instructions leave it to the discretion of the subgrantee as to whether a prebid conference will be held. When such prebid conferences are held, procurement instructions require that

they be held after the procurement has been advertised. Procurement instructions for telecommunications equipment require that bids above \$2500 be advertised.

In the procurement and implementation phase of law enforcement telecommunications projects, vendors are required to submit to the consultant for approval any suggestions they may have for changing the system design specifications.

(7) Project Summary

Data was obtained from the State of Texas on 46 telecommunications grants including 39 for new systems awarded during the period July 1, 1971 to January 1, 1975. Following these highlights are project summary sheets which describe characteristics of the projects.

- . The greater majority of the projects were for communications equipment, principally mobile and portable radios, base stations and consoles and over one-fifth of the projects were for planning.
- . Essentially all of the projects provided for formal evaluation.
- . Nearly all of the projects provided for communications between law enforcement departments, a greater majority provided for intrastate coordination and only one project provided for interstate coordination.
- . The greater majority of the projects included as project objectives the reduction of response time, the improvement of interagency coordination, and the improvement of communication service.
- . Over 90 percent of the grants were awarded to regional recipients.

45. UTAH

(1) Organization Information

The unit of government in the State of Utah that is responsible for the administration of LEAA grant funds is the Utah Law Enforcement and Planning Agency. This State Planning Agency has offices in Room 304, State Office Building, Salt Lake City, Utah 84114.

This agency, which is a part of the Department of Public Safety, has a Director and ten full-time and two part-time professional personnel on its staff. Nine of these persons devote part of their time to system planning and grant application review for law enforcement and telecommunications projects.

The agency provides assistance to law enforcement agencies in the telecommunications area by providing a technical review of grant applications, assistance in the preparation of grant applications, cost effectiveness evaluations, post-project evaluations, and procurement assistance.

Other agencies in the State of Utah that provide similar assistance to law enforcement agencies include the Telecommunications Coordinator, the AdHoc Committee for Communications, the State Information Center, and the Public Safety Committee.

Planning agencies within the state that are directly involved in law enforcement telecommunications planning activities include three state level agencies, one county planning agency, and one municipal planning agency.

The State Planning Agency receives telecommunications planning assistance in the area of participation in and the developing of comprehensive plans from the Communications Unit of the Department of Highways. The agency also receives assistance in post-project award evaluation from the Communications Unit of the Department of Highways and from the State Highway Patrol.

The State Planning Agency provides telecommunications planning, assistance and planning guidelines to other state planning agencies, regional planning agencies, and all law enforcement agencies in the state. There are no formal agreements among the agencies for providing these services.

Another organization at the state level of government that provides telecommunications planning assistance to law enforcement agencies and to the State Planning Agency is the Utah State Department of Highways through its Telecommunications Coordinator. The Telecommunications Coordinator is assisted in all law enforcement communications planning activities by the State Highway Patrol.

The Telecommunications Coordinator of the Department of Highways along with the representatives from the State Highway Patrol are involved in state agency system planning, county and city system planning, local agency system planning, spectrum management, wireline system planning, equipment procurement, engineering maintenance and assistance to other agencies.

Services provided jointly by the Telecommunications Coordinator and the Highway Patrol to the State Planning Agency include the technical review of grant applications, review for concurrence with the state plan, cost-effectiveness evaluations, system design, procurement procedures, specification preparation, system planning, technical training, and operational training. The State Planning Agency requires concurrence from the Telecommunications Coordinator as a prerequisite to grant approval.

The above listed services are also provided by the Telecommunications Coordinator and the State Highway Patrol to city, county and regional planning agencies in the State of Utah and to the emergency medical services.

There is a formal agreement between the Department of Highways and the Highway Patrol for joining forces to provide these services.

The responsibility for interface with the Federal Communications Commission lies with the Telecommunications Coordinator in the State of Utah. The Coordinator is responsible for monitoring and commenting on FCC dockets and does make recommendations to the Governor or other officials for actions in connection with FCC proceedings. The Coordinator reported that he has contact with several bureaus of the Federal Communications Commission during the given year. These include 20 to 30 contacts with the Safety and Special Radio Services Bureau, three contacts with the Field Operations Bureau, four contacts with the Office of the Chief Engineer, and two contacts with the Office of General Counsel.

Neither the State Planning Agency or the Telecommunications Coordinator reported any interface or contact with the State Public Utilities Commission.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

The state level agencies reported to be eligible for LEAA grants are the State Highway Patrol, Liquor Control Board, and the Business Regulation Agency. The State of Utah has 50 prosecutor's offices to serve the courts. Additional law enforcement agencies in the state include the State Corrections Officers, 29 organized law enforcement departments, 130 organized municipal police departments, and five campus police departments.

2. Centralized, Cooperative, and Consolidated Dispatch Centers

The State Planning Agency reported that there were 29 full-time 24-hour consolidated dispatch centers in the State of Utah that service two or more law enforcement agencies. Sixteen of these consolidated centers are operated by the State Highway Patrol. The square mile areas, populations served, and the type of dispatch service provided was not readily available. However,

it was known that two of the consolidated centers have implemented 911 emergency telephone service.

In addition to the 29 consolidated dispatch centers there are 24 individual dispatch centers existing in the State of Utah that serve only one police department each, plus 11 part-time centers. None of these centers have installed the 911 emergency telephone service.

Of the two centers using the 911 telephone service, both dispatch law enforcement and ambulance vehicles only. None of the dispatch centers in the State of Utah is currently using computer-aided dispatching. However, two dispatch centers have current plans to add this capability.

The State of Utah is serviced by thirteen individual telephone companies.

3. Spectrum Management

The State of Utah has a law enforcement frequency plan that was prepared jointly by the Telecommunications Unit of the Department of Highways and the Utah Highway Patrol. The frequency plan recommends frequency bands but not specific frequencies for law enforcement agencies in the state. The plan utilizes both police and local government frequency spectrums.

The APCO frequency coordinator for the State of Utah reported that frequency coordination is processed by either the applicant selecting a frequency or the coordinator recommending one. The coordinator prefers not to recommend any frequency that does not conform to the state plan but will in some cases, recommending a frequency not in conformance with the plan if he sees no other objection to its assignment.

The frequency coordinators for the State of Utah reported that in 1973 they processed 69 applications for frequency coordination that originated from law enforcement agencies within the state.

The State Planning Agency reported that it will not approve a grant application for a communications system that uses frequencies not in accordance with the state frequency plan and will not approve a grant prior to coordination of any new frequencies required by the system.

Records indicated that there are 29 law enforcement departments licensed to operate on VHF lowband, 159 licensed on VHF highband, and one licensed on UHF. Radio equipment in use in the state by law enforcement agencies includes 3300 mobile units and 204 base stations.

The State of Utah presently does not have a backbone microwave system in use by law enforcement agencies but is planning the implementation of such a system.

4. Interagency Agreements

The State Planning Agency reported that there are cooperative dispatch agreements in force in the state. However, the number of such agreements is unknown. There are eight known agreements for dispatching services between different agencies of the same political entity and 16 known interjurisdictional pacts in force for the purpose of sharing radio equipment facilities other than dispatch centers.

The State Planning Agency reported that it also has knowledge of eight interjurisdictional agreements that were entered into for the purpose of sharing radio maintenance and facilities and also has knowledge of six contract law enforcement services agreements in the state.

5. Training Programs

The State of Utah has not established minimum standards for training of law enforcement radio dispatchers or government employee radio technicians. However, they do expect to establish such minimum for radio dispatchers.

The state presently has a funded training program for government employee radio technicians but not for law enforcement radio dispatchers.

(3) State Telecommunications Planning

1. State Telecommunications Plan

The State of Utah does have an advisory statewide telecommunications plan that was developed in 1970. This plan, which is addressed to state and federal agencies and all law enforcement agencies within the state, specifically addresses the organization of radio networks, interagency coordination, spectrum management, frequency allocations, citizen access, cooperative or consolidated dispatching, inter-state coordination, data retrieval, operational requirements, financial considerations, configuration control, and disaster operations.

The plan was developed by in-state consulting services and is currently being revised. Because of the needed revision the State Planning Agency does not require conformance with the plan in law enforcement telecommunications system planning. The plan does not have formal procedures for incorporating the existence of new interagency contacts and does not have automatic review and revision procedures.

2. Comprehensive Law Enforcement Plan

The Comprehensive Law Enforcement Plan that is developed annually by the State Planning Agency and submitted to the Law Enforcement Assistance Administration contained telecommunication considerations.

Telecommunications areas specifically addressed in the plan include interagency coordination, citizen access, data retrieval systems, financial considerations, and configuration control. The comprehensive plan is

addressed to all municipal, county and state law enforcement agencies and other state agencies and federal agencies. The telecommunications portion of the Comprehensive Law Enforcement Plan was developed in-house by the State Planning Agency.

(4) Policy Information

Policy positions or statements by the State Planning Agency are based upon the findings and recommendations of the agency, the Telecommunications Coordinator, and the State Highway Patrol. Some of the major policy statements and recommendations are as follows:

- . The concept for organization of law enforcement radio networks includes individual jurisdiction networks, county networks, and mobile radio districts or zones.
- . Central or cooperative dispatch is recommended when two or more agencies share a channel.
- . The only frequency band recommended for use by law enforcement agencies is VHF highband.
- . The use of tone controlled squelch is recommended.
- . Cooperative or central dispatch and/or mutual aid pacts are recommended for command and control.
- . Coordination channels are recommended at the county, regional, interstate, and statewide levels.
- . Point-to-point and mobile-to-mobile communications is recommended for coordination between the Highway Patrol and local agencies.
- . The use of magnetic tape recorders is recommended for logging of radio and telephone traffic.
- . Centralized agency maintenance is recommended.

Existing legislation in the State of Utah that has an effect on law enforcement communications planning includes directives to plan or implement communications systems, directives to develop a state plan for communications, and emergency medical services legislation.

The State Planning Agency reported that they will soon propose new legislation in the area of computerizing criminal records.

The three most significant constraints on the planning or implementation of police telecommunications systems were reported to be political factors, insufficient funds for implementation, and geographic considerations.

The State Planning Agency reported that it does have procedures for updating fund allocations when the time between a grant application and project implementation has resulted in outdated cost figures. It has formally documented any difference that exists between the state statutory procurement procedures and LEAA recommended practices. The State Planning Agency has formal procedures to determine when the grant should be terminated, and in-house formal checklists for grant application review. It has developed planning guidelines for use by prospective grant applicants. The State Planning Agency reported that prior to submission of grants applications to the planning agency they are reviewed by the county and regional planning agencies and the A-95 Clearinghouse.

The State Planning Agency does not have a statewide law enforcement telecommunications equipment inventory.

(5) Budgets and Expenditures

The State Planning Agency for Utah has awarded funds each year for law enforcement telecommunications projects in the following amounts:

.	7/1/71 - 6/30/72
.	7/1/72 - 6/30/73
.	7/1/73 - 6/30/74

These figures represent the actual award approvals made during the periods indicated and are based on a review of the project files.

The State Planning Agency could not provide an estimate of the percentage of these operating costs that were expended for law enforcement telecommunications planning and further could not provide dollar amounts to indicate the total dollars spent in each period for all types of grants.

The State Planning Agency indicated that its operating budgets for the three periods indicated are as follows:

.	7/1/71 - 6/30/72	\$210,363
.	7/1/72 - 6/30/73	\$258,142
.	7/1/73 - 6/30/74	\$334,494
.	7/1/74 - 6/30/75	\$343,334

The operating budgets for the Communications Unit of the Department of Highways, which includes the expenses of the Telecommunications Coordinator, are as follows:

.	7/1/71 - 6/30/72	\$ 189,985
.	7/1/72 - 6/30/73	\$ 163,934
.	7/1/73 - 6/30/74	\$ 965,257
.	7/1/74 - 6/30/75	\$1,058,300

The Telecommunications Coordinator reported that of the above operating costs the amounts expended for law enforcement telecommunications planning included 10 percent in Fiscal Year 1972, 25 percent in Fiscal Year 1973, 50 percent in Fiscal Year 1974 and 60 percent in Fiscal Year 1975.

The Telecommunications Coordinator further reported that he has not received grant funds for the planning of telecommunications projects during any of the fiscal years covered by this report.

(6) Procurement Methods and Policies

1. Centralized Purchasing Procedures

The State Planning Agency and the Telecommunications Coordinator reported that there is extensive use of centralized purchasing procedures for most radio equipment in the State of Utah and that there are standard procurement methods for centralized procurements. These centralized purchasing procedures are mandatory for both state and local government agencies. The state goes to bid on an annual basis for state contracts for centralized purchases. However, it is not known how often the county or regions would go to bid for such contracts. Counties generally use state contracts.

2. Standard Equipment or System Specification

The types of specifications which are used in the State of Utah for procurement of law enforcement telecommunications systems include equipment specifications, system functional specifications, and system performance specifications.

The major source of specifications for law enforcement communications equipment and systems is the Communications Unit of the Department of Highways, the Highway Patrol, or from independent consultants. The State Planning Agency requires that system specifications be met by random sample testing.

The State of Utah does have a list of recommended independent consultants for telecommunications. The state also has formal requirements to be met to be included on this list and formal procedures for removal from the list. The State Planning Agency has never removed a consultant from this list for cause.

3. Equipment Sources and Vendors

In general there are two or three bidders who respond to a law enforcement telecommunications system

procurement in the State of Utah. The State Planning Agency does not have a list of recommended sources for law enforcement communications equipment.

4. Procurement Practices

The procurement of law enforcement communications equipment, maintenance services, and consulting services is accomplished in accordance with existing state procurement instructions. The State Planning Agency has issued further standard instructions covering these procurements.

The State Planning Agency procurement instructions require that bids be solicited from a list of at least three suppliers whenever the procurement exceeds a given dollar value. However, in some cases, the agency will permit bids being solicited from a single supplier.

Procurement instructions require that all procurements above \$1,000.00 be made on the basis of competitive bidding with the award being made to the lowest compliant bidder. All procurements above \$1,000.00 are advertised.

Procurement instructions further require that procurements above \$1,000.00 will be made only after pre-bid conferences have been held. The pre-bid conferences must be held prior to bid advertisement.

Procurement instructions further require that procurements be confined to in-state vendors when they can satisfy the specifications. While the above listed procurement instructions policies pertain to all state agencies, county and local agencies are required to use either the state procedures or their own procedures if these are more stringent.

Equipment vendor participation in the procurement and implementation phases of law enforcement communications projects is limited to the vendor being required to submit to the consultant for approval any suggestions they may have for changing the system design specifications.

(7) Project Summary

Data was obtained from the State of Utah on 80 telecommunications grants including 14 for new systems awarded during the period July 1, 1971 to January 1, 1975. Following these highlights are project summary sheets which describe the characteristics of the projects in more detail.

- . Nearly all of the projects were for communications equipment, principally mobile and portable radios.
- . Nearly half of the new systems provided for grant evaluation.
- . Approximately half of the projects pertained to communications between members of a department and between law enforcement departments and nearly that number provided for intrastate coordination but only a small percentage provided for interstate coordination.
- . Over half of the projects had as project objectives improvement of communication service and improved interagency coordination.
- . Thirteen of the grants were awarded to regional recipients.

46. VERMONT

(1) Organization Information

The unit of government in the State of Vermont that is responsible for the administration of LEAA grant funds is the Governor's Commission on the Administration of Justice. This unit maintains offices at 149 State Street, Montpelier, Vermont, 05602.

The agency is administered by an Executive Director and a Program Coordinator and has 10 full-time professional personnel. In addition, the agency has the services of two full-time professional staff members in telecommunications planning. The Executive Director reports directly to the Governor's Office.

The Governor's Commission on the Administration of Justice relies on the Communications Section of the Division of Administration Services of the Vermont Department of Public Safety for all technical aspects of telecommunications planning. The Communications Section has 14 full-time professional personnel and has mandatory authority for telecommunications planning within the State Police organization. This unit serves in an advisory capacity for all other state, county, city and township agencies.

The Communications Section reported having personnel responsible for knowledge of FCC rules and regulations and indicated participating in FCC proceedings on an average of 1 to 4 times a year. The unit also indicated that they contact the FCC approximately 18 times a year.

The State Planning Agency and the Communications Section reported that they have no contact with the Public Utilities Commission, and neither unit participates in PUC hearings.

The planning agency provides assistance to law enforcement agencies in the telecommunications area by providing technical review of grant applications, assistance in preparation of grant applications, system design, specification preparation, system planning, post project evaluation, acceptance testing, procurement assistance, technical training and operational training. The Communications Section provides assistance to

state agencies in the areas of grant application preparation, system design, post project evaluation, acceptance testing, specification preparation, system planning, technical training and operational training. However, in regard to grant applications for law enforcement telecommunications projects, the State Planning Agency does not require concurrence from the Communications Section as a prerequisite to grant approval.

The inhouse capabilities of the planning agency for serving law enforcement telecommunications planning include engineering services, legal services, financial planning, procurement services, management planning and reliability testing. These in-house capabilities of the planning agency for serving law enforcement telecommunications planning include engineering services, legal services, financial planning, procurement services, management planning and reliability testing. These in-house capabilities include technical contributions provided by the Department of Public Safety.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

In the State of Vermont, agencies at the state level that are eligible for LEAA grants include the State Police, the Attorney General and the State's Attorney. Table V-67 indicates the types and quantities of law enforcement agencies that exist below state level government. In addition to 14 Prosecutor's Offices in the State, the State Planning Agency has identified 85 organized law enforcement agencies as shown in Table V-67.

2. Centralized, Cooperative and Consolidated Dispatch Centers

The State Planning Agency indicated there are 3 full-time, 24-hour centralized, cooperative or consolidated dispatch centers existing within the state. All three centers dispatch local law enforcement and fire vehicles, in addition to the State Police, local government and other agencies.

Table V-67
Vermont Law Enforcement Agencies
Below State Level of Government

<u>Type of Agency</u>	<u>Number of Agencies in the State</u>
County Police Departments	14
Municipal Police Departments	71

The planning agency reported that 62 single agency dispatch centers operate in the state not including State Police dispatch centers. Of these, 48 individual dispatch centers serve an area of less than 50 square miles and 14 serve an area of over 200 square miles. The majority of these individual centers serve populations of less than 20,000 persons. Of the single agency centers, 44 dispatch only law enforcement vehicles, 2 dispatch only law enforcement and fire vehicles and 15 dispatch other agencies in addition to law enforcement, fire or ambulance.

Neither the consolidated dispatch centers nor the single agency dispatch centers utilize 911 telephone service. The state recommends a dial-"O" police emergency call number concept.

As of the date of the survey, there were no law enforcement communication centers using computer assisted dispatch nor were any agencies planning to use this capability.

Telephone service in the state is provided by 13 separate telephone companies.

3. Spectrum Management

The State of Vermont presently has a frequency plan which converted a mixed frequency system to a common UHF system. Local police departments transmit and receive on 3 frequencies. These frequencies are (1) a local frequency for intraagency communication, (2) a common statewide frequency for direct short range interagency communication, and (3) a second statewide frequency used to access repeaters for longer range communication. A fourth channel, a common frequency, has been assigned statewide to the Department of Public Safety. The frequency plan was developed by the Department of Public Safety, and it specifies or recommends the specific frequencies for all law enforcement agencies in the state. The frequency plan recommends frequency assignments from the police only classification.

The frequency coordinator for the state reported the following requests for frequency coordination:

.	1971	-	-
.	1972	-	7
.	1973	-	20
.	1974	-	23.

The data indicate there are 86 departments licensed on UHF. Equipment covered by these licenses includes 505 mobile units and 103 base stations.

The State Planning Agency has reported that they will not approve a grant application for a communications system which uses frequencies not in conformance with the state plan. However, they will approve a grant application prior to coordination of any new frequencies required by the system. Assurance of coordination must be included as a grant contingency.

A microwave system is used by law enforcement agencies for the following functions: mobile repeater links, interagency coordination, radio control links, telephone backup network and a telecommunications data channel. The microwave system has a loop network which serves as its backup. The system is supported by an emergency power system. It is not, however, dedicated solely to law enforcement services.

4. Interagency Agreement

Within the state there are 45 cooperative dispatch agreements in force involving different political entities. In addition, there exists one agreement for the sharing of radio equipment facilities, one agreement for the sharing of radio maintenance facilities and personnel, two agreements for the sharing of law enforcement records information and 15 contract law enforcement agreements.

5. Training Programs

Within the State of Vermont, minimum standards for training of law enforcement radio dispatchers and government employee radio technicians have not been established. However, the state plans to fund a training program for law enforcement radio dispatchers.

(3) State Telecommunications Planning

1. State Telecommunications Plan

The State of Vermont presently has a statewide telecommunications plan. Essentially it is an advisory statement of the present telecommunications system. It was prepared by the Department of Public Safety and it covers the period 1970 to 1975. The plan is addressed to state law enforcement, other state agencies, municipal and county law enforcement agencies. Specifically the plan discusses the organization of radio networks, interagency coordination, spectrum management, frequency allocations, citizen access, interstate coordination, data retrieval systems, financial considerations and configuration control.

2. Comprehensive Law Enforcement Plan

The Comprehensive Law Enforcement Plan prepared by the State Planning Agency each year and submitted to the LEAA included telecommunications considerations. The plan is directed toward state law enforcement, municipal law enforcement, and county law enforcement agencies. Areas that are specifically addressed by the plan are interagency coordination, cooperative or consolidated dispatching and data retrieval systems. The telecommunications portion of this plan was developed jointly by the planning agency and Department of Public Safety.

(4) Policy Information

The policy of the State Planning Agency regarding organization of law enforcement radio networks is based upon mobile radio districts, individual jurisdiction networks and the statewide interagency network. UHF is recommended in urban, suburban and rural areas. The agency recommends that radio channels be allocated according to the State Frequency plan. Relative to the use of criminal justice information systems, they recommended adding terminals, installing high speed data transmission equipment, improving switching systems, the utilization of a leased wire line and private microwave.

Additional agency policies or positions are as follows:

- . Tone controlled squelch is recommended
- . Selective call systems (beepers) are recommended
- . Cooperative or central dispatch, independent dispatch and mutual aid pacts are recommended as command and control concepts
- . A dial "O" system for improved citizen access to public safety agencies is recommended

- . A statewide coordination channel, county coordination channel, and a regional or district coordination channel are recommended
- . Microwave links (teletype) and UHF point-to-point interagency coordination are recommended
- . Personal portables are recommended for all sworn personnel with mobile units installed in vehicles.

Existing state statutes that affect law enforcement telecommunications planning are reported to be in the area of emergency medical services legislation, directives to plan or implement communication systems and directives to develop a state plan for communications. The agency is not planning to propose any new legislation that would affect law enforcement telecommunications.

The State Planning Agency identified three significant constraints on implementation of police telecommunications systems. These are: a shortage of available frequencies, Canadian implications north of Line A, political factors and the lack of planning manpower.

The State Planning Agency has developed a formal list of priorities to be used in the evaluation of telecommunications grant applications. The agency has developed procedures for updating fund allocations if the time between grant application and project implementation has resulted in outdated cost figures. The agency also has formal procedures to determine when a grant should be terminated and an in-house formal checklist and review procedure for grant application review. The agency has published planning guidelines for use by prospective grant applicants and require the grant applications to contain a statement of the problem, statement of requirement, manpower and training requirements, facility requirements, post-implementation project evaluation, and technological evolutionary adaptabilities. The agency maintains a statewide law enforcement telecommunications equipment inventory. The initial inventory occurred in March 1970, and inventory is updated as equipment is delivered and installed.

(5) Budgets and Expenditures

1. State Planning Agency

The State Planning Agency has awarded funds each year for telecommunications projects in amounts indicated in Table V-68. These figures represent the actual award approvals made during the periods indicated and are based on a review of the project files.

The total dollar amounts expended by the State Planning Agency for all grants in all areas and a percent comparison of telecommunications projects are shown in Table V-68. Also indicated is the number of telecommunications projects funded in each of the periods.

The operating budgets for the State Planning Agency for the same period are as follows:

. 7/1/71 - 6/30/72 - \$140,000
. 7/1/72 - 6/30/73 - \$141,800
. 7/1/73 - 6/30/74 - \$198,000

For the period 7/1/74 - 6/30/75, the agency anticipates an operating budget increase of 50 percent over the previous year's expenditure. The total grant awards are expected to be identical to the amount awarded the previous year although planning grants are expected to increase by 200 percent.

2. Communication Section, Department of Public Safety

The Communication Section's operating budget is reported as follows:

. 7/1/71 - 6/30/72 \$268,500
. 7/1/72 - 6/30/73 \$229,400
. 7/1/73 - 6/30/74 \$284,900
. 7/1/74 - 6/30/75 \$250,400 (estimated)

Table V-68
Comparison - All Grant Awards vs Telecommunications Awards
7/1/71 thru 6/30/75, State of Vermont

Year	Total Dollars All Grants Awarded	Total Dollars Telecommunications Grants Awarded	Percent of Total Awards for Telecommunications	Number of Telecommunications Projects Funded
7/1/71 - 6/30/72	\$ 907,000	\$252,181	27.8%	65
7/1/72 - 6/30/73	\$1,105,000	0	0	0
7/1/73 - 6/30/74	\$1,272,000	34,043	2.8	18
7/1/74 - 6/30/75	-	55,388	-	11

Approximately 3 percent of the operating budget was expended for law enforcement telecommunications planning.

(6) Procurement Methods and Policies

1. Centralized Purchasing Procedures

The State Planning Agency reported that extensive use is made of mandatory statewide centralized purchasing procedures in the procurement of law enforcement telecommunications equipment. However, there are no centralized purchasing procedures at the county or regional level.

2. Standard Equipment or System Specifications

The type of specifications which are used by the State of Vermont for procurement of law enforcement telecommunications systems include equipment specifications, system functional specifications and system performance specifications. The major source of these specifications is the Department of Public Safety. The State Planning Agency requires that system specifications be met by acceptance testing, operational tests, vendor certification and random sample testing.

The State Planning Agency does not maintain a list of recommended independent consultants for telecommunications.

3. Equipment Sources and Vendors

Typically two or three bidders respond to law enforcement telecommunications system procurements in the state. The State Planning Agency does not maintain a list of recommended sources of law enforcement communications equipment.

4. Procurement Practices

State procurement instructions for equipment purchases require that all procurements be made on the basis of advertised competitive bidding with award to be made to the lowest compliant bidder.

In the procurement and implementation phases of law enforcement communications projects, vendors typically submit competing system designs to the customer without any detailed system specifications.

(7) Project Summary

Data was obtained from the State of Vermont on 94 telecommunications grants, all of which were for new systems, awarded during the period July 1, 1971 to January 1, 1975. The project summary sheets which follow describe the project characteristics including these highlights:

- . All of the projects were for communications equipment including radio dispatch consoles, mobile and portable radios and base stations.
- . All of the projects provided for intrastate coordination but none provided for interstate coordination.
- . Project objectives included reduction of response time, improvement of interagency coordination, communication reliability and communication service, relief of channel congestion and improved officer safety.
- . Nearly all of the grants were awarded to municipalities with a population under 20,000.

47. VIRGINIA

(1) Organization Information

The unit of government in the State of Virginia which is responsible for the administration of LEAA grant funds is the Virginia Division of Justice and Crime Prevention. The unit maintains offices at 8501 Maryland Drive, Richmond, Virginia 23229.

The agency is administered by a Director and Deputy Director and has a full-time professional staff of 37 persons. Of the 37 full-time personnel, seven are involved on a full-time basis with system planning for law enforcement telecommunications projects. The Director reports directly to the Governor's Office.

The police system's subunit is directly involved in the law enforcement telecommunications planning area.

The State Planning Agency provides assistance to law enforcement agencies in the telecommunications area by providing technical review of grant applications, assistance in preparation of grant applications, system design, specification preparation, system planning, postproject evaluation, acceptance testing and procurement assistance.

In addition to the State Planning Agency, there are 22 regional planning agencies, the State Police, Department of Purchasing and Supply, and eight municipal planning agencies which provide assistance to law enforcement agencies in the telecommunications area.

The Virginia Public Telecommunications Council (VPTC) hopes also to become heavily involved in law enforcement telecommunications planning. The Council has its main office at 902 9th Street, Richmond, Virginia 23219. The VPTC reported that it has 13 full-time professional personnel of which five are involved on a full-time basis with law enforcement telecommunications projects. The agency was formed by an act of legislation in July 1974 and does not have responsibility for law enforcement planning, policy or procedures at the present time.

Manpower figures for telecommunications projects for this agency appear to represent planned or hoped for arrangements.

The Council's Director reports to the Governor's Office and has several units under his control. The units are a radio section, land line section and administration. The authority of this agency is mandatory over all state agencies except the State Police. It is advisory to the State Police, county, city and town or township agencies.

The Council provides nonradio assistance, upon request, to state, regional, county, and city planning agencies. Such services take the form of system design, postproject evaluation, specification preparation and system planning primarily in the area of modem-to-modem land lines.

Neither the State Planning Agency nor the Virginia Public Telecommunications Council reported any contact with the Public Utilities Commission. Neither one reviews tariffs or participates in PUC hearings.

Within the Virginia Public Telecommunications Council there are personnel who are responsible for knowledge of the rules and regulations of the Federal Communications Commission. There are also individuals responsible for monitoring and commenting on FCC dockets. The Council participates as required in FCC proceedings and makes recommendation to the Governor or to other officials for action in connection with FCC proceedings. The State Planning Agency reported that it works with the APCO frequency coordinator in all matters pertaining to the FCC.

The State Planning Agency reported that its in-house capabilities for serving law enforcement telecommunications planning are financial planning, procurement services, management planning and cost accounting services. The in-house capabilities reported by the Council include management planning, cost accounting services and procurement services through the Department of Purchases and Supply.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

The State Planning Agency reported that the State Police was the only state law enforcement agency that was eligible for LEAA grants. Table V-69 indicates the types and quantities of law enforcement agencies that exist below state-level government. In addition to 133 Prosecutor's Offices within the state, the planning agency has identified 348 organized law enforcement agencies as shown in Table V-69.

Table V-69
Virginia Law Enforcement Agencies
Below State Level of Government

<u>Type of Agency</u>	<u>Agencies in the State</u>
County Police Departments	95
Municipal Police Departments	189
Municipal Park Police Departments	5
Campus Police Departments	59

2. Centralized, Cooperative and Consolidated Dispatch Centers

At the time of this report, the State Planning Agency reported that no consolidated dispatch centers existed within the State of Virginia. The agency reported that there are 180 individual dispatch centers. However, statistics are not available regarding areas and populations or other public safety agencies involved.

There are 134 individual dispatching centers that have adopted a single 7-digit emergency number for law enforcement, fire and ambulance. In addition, one center has

adopted 911 as its emergency number. As of the date of this survey, there were 26 telephone companies operating within the state.

There were no law enforcement telecommunications centers using computer-aided dispatch nor were any agencies planning to use this capability.

3. Spectrum Management

The State of Virginia reports that a frequency plan is currently under preparation. At present, the State Police does not have a common frequency with other law enforcement agencies. Interface between the State Police and other law enforcement agencies is via commercial telephone. The plan is being prepared primarily in-house by the State Planning Agency with assistance from the State Police. Virginia Public Telecommunications Council indicated that it will become the focal point for all state agency frequency coordination. The plan will specify or recommend frequency bands, but not specific frequencies for law enforcement agencies in the state. Areas will be assigned multifrequency low-band usage and the plan will recommend frequency assignments from the police-only classification.

From data collected from the APCO frequency coordinator, it was determined that the following numbers of requests for frequency coordination have been processed over the 4-year period preceding this study:

- . 1971 - 124
- . 1972 - 132
- . 1973 - 131
- . 1974 - 134.

Information received from the APCO frequency coordinator indicates that the coordinator recommends frequencies to applicants and, on occasion, will recommend use of a frequency that does not conform to the drafted state plan provided he sees no objection to its assignment. However, the State Planning Agency will not approve a

grant application for a communications system that uses frequencies not in conformance with the drafted state plan. A study initiated in July 1971 determined the extent of congestion on law enforcement radio channels throughout the state.

The planning agency reported that 2500 mobile units and 180 base stations are presently in operation by law enforcement in Virginia. The state presently has a backbone microwave system used only by the State Police for the following functions: intercity private telephone, mobile repeater links, interagency coordination and radio control links. The system has backup capability and is supported by an emergency power system. The microwave is dedicated to State Police law enforcement purposes.

4. Interagency Agreements

Interagency agreements known to exist within the state, in the area of law enforcement telecommunications, are as follows:

- . Interjurisdictional pacts for the purpose of sharing radio equipment facilities - 3
- . Interjurisdictional pacts for the purpose of sharing law enforcement records information - 80
- . Contract law enforcement service agreements - 1.

5. Training Programs

Within the State of Virginia, there has not been established, nor are there any plans to establish, training programs for either law enforcement radio dispatchers or government employee radio technicians. The state does not presently have any funded training programs for either radio dispatchers or radio technicians.

(3) State Telecommunications Planning

1. State Telecommunications Plan

The State Planning Agency does not presently have a statewide telecommunications plan but does anticipate preparing one. However, they have formulated a series of "Planning Districts" with the frequencies either used or proposed for each area.

In addition, the Virginia Public Telecommunications Council reported that it has produced a Master Plan for public telecommunications. Addressed to state agencies, the plan speaks primarily to public television. Drawn up in 1974, it does not directly address itself to either law enforcement or radio equipment. The plan is mandatory by law.

2. Comprehensive Law Enforcement Plan

The Comprehensive Plan prepared by the State Planning Agency and submitted to the LEAA is developed with specific law enforcement telecommunications considerations covered in a separate section of the plan. The plan specifically addresses organization of radio networks, interagency coordination, spectrum management, data retrieval systems, procurement procedures, maintenance and financial considerations. The plan is addressed to state law enforcement agencies, all other state agencies, and municipal and county law enforcement agencies.

The Comprehensive Law Enforcement Plan was prepared by the State Planning Agency with assistance from regional planning agencies.

(4) Policy Information

The State Planning Agency has adopted procedures and set policies for making recommendations in several areas af-

fecting law enforcement telecommunications considerations. Some of the major policies are listed as follows:

- . The organization of law enforcement radio networks recommended is based on mobile radio districts, county networks, individual jurisdiction networks, or a statewide frequency.
- . Central or cooperative dispatch is recommended for two or more agencies sharing a channel.
- . VHF high band and UHF are recommended for urban areas, VHF low and high bands for suburban areas, and VHF low band for rural areas.
- . The number of radio channels recommended is based on population served, number of mobiles and portables, functions (patrol, surveillance, traffic, etc.) and compatibility with existing systems.
- . The agency recommends the use of tone-controlled squelch.
- . Command and control concepts recommended are cooperative or central dispatch, independent dispatch, and mutual-aid pacts.
- . The emergency number 911 is recommended for all emergency services for improved citizen access.
- . Coordination channels are recommended for statewide, county and regional use.
- . VHF/UHF point-to-point interagency coordination are recommended.
- . The proposed frequency plan recommends point-to-point communication between the State Police and local agencies.
- . Radio control links and wire line controls are recommended for remote control of base stations.

- . Additional terminals are recommended for improved access to criminal justice information systems.
- . Personal portables are recommended for all personnel with mobile units installed in vehicles.
- . The use of magnetic tape recorders is recommended for logging radio and telephone traffic.

The Virginia Public Telecommunications Council reported that existing state statutes affecting law enforcement telecommunications planning are in the area of the establishment of a Division of Communications.

The State Planning Agency indicated that political factors and insufficient funds for implementation place significant constraints on the planning or implementation of police telecommunications systems. The State Planning Agency reported that it has procedures for updating fund allocations if the time between grant application and project implementation has resulted in outdated cost figures. The agency has adopted formal procedures to determine whether a grant should be terminated. The agency also has an in-house formal checklist or review procedure for grant application review and has published planning guidelines for use by prospective grant applications. These applications must contain a statement of the problem, statement of requirement, procurement procedures to be used, technical justification, manpower requirements, follow-on funding requirements, specification compliance testing, postimplementation project evaluation, frequency availability, and system description. Prior to review by the State Planning Agency, grant applications are reviewed by a regional planning council and county planning agency.

The State Planning Agency does not maintain a statewide law enforcement telecommunications equipment inventory at this time.

(5) Budgets and Expenditures

1. State Planning Agency

The State Planning Agency has awarded funds each year for telecommunications projects in amounts indicated in Table V-70.

These figures represent the actual award approvals made during the periods indicated and are based on a review of the project files.

The total dollar amounts expended by the planning agency for all grants in all areas together with a percent comparison of telecommunications projects is shown in Table V-70. Also indicated is the number of telecommunications projects funded in each of the periods.

The operating budgets for the State Planning Agency for the same periods are as follows:

. 7/1/71 - 6/30/72	\$383,000
. 7/1/72 - 6/30/73	\$716,000
. 7/1/73 - 6/30/74	\$954,000.

For Fiscal Year 1975 the estimated operating cost for the agency was \$1,076,000.

2. Virginia Public Telecommunications Council

The Council was formed in July 1974 and as yet has no expenses in the law enforcement area.

(6) Procurement Methods and Policies

1. Centralized Purchasing Procedures

At the State government level, centralized purchasing is used extensively. This procedure is mandatory, and generally the state goes to bid for state contracts for low-band equipment on an annual basis. The

Table V-70
Comparison - All Grant Awards vs Telecommunications Awards
7/1/71 to 6/30/75, State of Virginia

Year	Total Dollars All Grants Awarded	Total Dollars Telecommunications Grants Awarded	Percent of Total Awards for Telecommunications	Number of Telecommunications Projects Funded
7/1/71 - 6/30/72		\$205,587		10
7/1/72 - 6/30/73		137,650		11
7/1/73 - 6/30/74		384,535		60
7/1/74 - 6/30/75		151,494		37

State Planning Agency encourages joint or centralized purchasing for small purchases. There are no centralized procedures at the county level.

2. Standard Equipment or System Specifications

In the State of Virginia purchases of law enforcement telecommunications equipment and systems are based on equipment specifications, system functional specification and system performance specifications. The specifications used are prepared by the State Department of Purchases and Supply and the subgrantee applicant. The State Planning Agency requires that system specifications be met by acceptance testing, operational tests and vendor certification.

The Virginia Public Telecommunications Council has no requirements to ensure that system specifications are met, nor do they maintain a list of independent consultants or a list of recommended sources of communications equipment. The State Planning Agency does maintain a list of independent consultants for telecommunications. However, it has neither formal requirements to be met by consultants to be placed on the list nor formal procedures for removal of consultants from the approved list.

3. Equipment Sources and Vendors

Typically two or three bidders respond to law enforcement telecommunications system procurements in the state. The State Planning Agency maintains a list of recommended sources of law enforcement communications equipment. The planning agency has formal requirements to be met by applicants to be placed on the list. The concern must be a major equipment manufacturer and a provider of maintenance service. However, the planning agency does not have formal procedures for removal of concerns from the list.

4. Procurement Practices

The State Planning Agency has issued standard procurement instructions that cover the purchase of law enforcement communications equipment, maintenance services and consulting services. Procurement instructions require that bids above \$2500 be advertised.

Virginia seldom employs prebid conferences.

In the procurement and implementation phases of law enforcement communications projects, the State Planning Agency does not interface directly with vendor organizations. Vendors are active at the grantee level. Procurement activities are handled outside the State Planning Agency, generally through the Department of Purchases and Supply. The planning agency feels that this vendor policy arrangement eliminates bias which could be introduced by continuous vendor contact.

(7) Project Summary

Data was obtained from the State of Virginia on 118 telecommunications grants including 30 for new systems awarded during the period July 1, 1971 to January 1, 1975. The project summary sheets which follow describe the project characteristics including these highlights:

- . Nearly all of the projects were for communications equipment, principally mobile and portable radios.
- . Nearly a third of the projects provided for formal evaluation and all of the new system projects provided for formal evaluation.
- . Nearly all of the projects provided for communication between members of the a department with approximately one-fifth of the projects providing for intrastate coordination and very few providing for interstate coordination.

. Nearly all of the projects had as a project objective the improvement of communication service with a greater majority having as a project objective the improvement of communication reliability.

. Over half of the awards were received by municipalities with a population under 20,000.

48. WASHINGTON

(1) Organization Information

The unit of government in the state of Washington that is responsible for processing LEAA funds is The Washington Law and Justice Planning Office. This State Planning Agency has offices in the Office of Community Development, 107 Insurance Building, Olympia, Washington 98504.

The agency is headed by an Administrator and has a staff of 11 full-time professional personnel and one part-time professional. The planning agency reported that one of the full-time personnel plus the one part-time employee devote part-time to system planning and the review of grant applications for law enforcement telecommunications projects.

The agency provides assistance to law enforcement departments in the area of telecommunications by providing a technical review of grant applications, assistance in preparation of grant applications, cost effectiveness evaluations, system design, preparation of specifications, system planning, post project evaluation, acceptance testing, and procurement assistance.

The State Planning Agency reported that it is the only planning agency within the state that is directly involved in law enforcement telecommunications planning activities. The agency further reported that it does not receive telecommunications planning assistance from any other agencies but it does provide telecommunications planning assistance to county and municipal law enforcement agencies by supplying planning guidelines.

The State Planning Agency reported that it has no one responsible for knowledge of the Federal Communications Commission Rules and Regulations and it does not participate in FCC proceedings and hearings. The agency further reported that it has no agreements or working relationship with the Public Utilities Commission and does not attend Public Utilities Commission hearings.

The in-house capabilities for serving law enforcement telecommunications planning as reported by the State Planning Agency includes engineering services, financial planning, and procurement services.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

The state level agencies in the State of Washington that are reportedly eligible for LEAA grants include the State Highway Patrol and five state colleges. Below the state level the State of Washington has 39 prosecutor's offices, 39 county law enforcement agencies, 225 municipal police departments, five campus police departments, and seven Indian Reservation Police agencies. The State Planning Agency estimates that there are 276 organized law enforcement departments in the state.

2. Centralized, Cooperative and Consolidated Dispatch Centers

The State Planning Agency reported that there are five full-time 24-hour centralized, cooperative or consolidated dispatch centers existing in the State of Washington that serve two or more law enforcement agencies. One of these centers serves an area of less than 54 square miles while the other four each serve areas in excess of 200 square miles.

Populations served by these centers include 20,000 to 100,000 persons served by one center and 100,000 to 500,000 persons served by each of the other four centers.

Four of these consolidated dispatch centers dispatch only law enforcement vehicles and the one remaining center dispatches law enforcement and fire vehicles.

None of these centers has adopted a 911 emergency calling number; however, one has adopted a seven-digit emergency call number.

In addition to the five consolidated dispatch centers there is an estimated 200 individual dispatch centers that serve only one police department.

There are two individual dispatch centers in the state that have implemented 911 emergency telephone service for dispatching services. One of these centers serves a population of less than 20,000 persons while the other serves a population in excess of 500,000 persons. Both of these centers dispatch law enforcement vehicles only.

At the present time computer-aided dispatching is available in one law enforcement communications center in the state and there are plans to add this capability to one other center.

The State of Washington is served by an estimated 42 separate telephone companies.

3. Spectrum Management

The State of Washington does not have a statewide frequency plan for law enforcement.

The APCO frequency coordinator for the State of Washington reported the following number of requests for frequency coordination originating from law enforcement agencies within the state:

- . 1971 - 59
- . 1972 - 32
- . 1973 - 52

The frequency coordinator will either recommend a frequency to the applicant or require the applicant to select the frequency he desires.

The State Planning Agency reported that the State of Washington has a backbone microwave system in use by law enforcement agencies. The microwave system is used to support the criminal information system. The microwave system does not have back-up capability but it is

supported by emergency power. The microwave system is not dedicated to law enforcement purposes.

4. Interagency Agreements

The State Planning Agency reported a total of five cooperative dispatch agreements in force in the state that involve agreements between different political entities. There are five interjurisdictional pacts in force that were entered into for the purpose of sharing radio equipment facilities other than radio dispatch centers. One interjurisdictional agreement was known to be in force for the purpose of sharing radio maintenance facilities and an estimated 150 agreements were in force for the purpose of sharing law enforcement records information.

5. Training Programs

The State of Washington has not established minimum standards for training law enforcement radio dispatchers or government employee radio technicians and is not planning to establish standards. The state has no training program for either of these two skill categories.

(3) State Telecommunications Planning

1. State Telecommunications Plan

The State of Washington does not have a statewide telecommunications plan.

2. Comprehensive Law Enforcement Plan

The comprehensive plan as prepared by the State Planning Agency and submitted to the Law Enforcement Assistance Administration, includes specific telecommunications considerations listed in a separate section of the plan. The areas specifically addressed by the

plan include citizen access, cooperative or consolidated dispatching, operational requirements, procurement procedures, and financial considerations. The Comprehensive Law Enforcement Plan is addressed to state law enforcement agencies, and municipal and county law enforcement agencies. The comprehensive plan was developed in-house by the State Planning Agency.

(4) Policy Information

The State Planning Agency has developed policy positions and recommendations with respect to telecommunications projects. Some of the major positions and policies are as follows:

- The recommended concept of organization of law enforcement radio networks is based upon mobile radio regions or zones and county networks.
- Central or cooperative dispatch is recommended when two or more agencies share a channel.
- Frequency recommendations are based upon geographic areas.
- UHF frequency assignments are recommended for urban area use.
- UHF frequency assignments are recommended for suburban area use.
- VHF high band assignments are recommended for rural area use.
- The number of mobiles and portables are used to determine radio channel requirements.
- Recommended channel configurations include one frequency simplex, two frequency simplex, and mobile relay.
- The use of tone-controlled squelch is recommended.

- . The use of selective call systems is not recommended.
- . The recommended commanding control and concept is cooperative or central dispatch.
- . The recommendation for improved citizen access is 911 telephone service for law enforcement, fire, and emergency vehicle services.
- . Regional or dispatch coordination channels are recommended.
- . Microwave links are recommended for interagency point-to-point coordination.
- . Recommendations for improved access to criminal justice information systems include high speed data transmission, lease wire line, and private microwave.
- . The use of computer system dispatching is recommended and encouraged.
- . Personal portable radios are recommended for all sworn personnel with mobile units installed in all vehicles.
- . The use of magnetic tape recorders is recommended for logging of radio and telephone traffic.

The State Planning Agency reported that there are no existing state statutes in the State of Washington that have an effect on law enforcement communications planning. The agency also reported that they are not proposing any new legislation in the communications area.

The three most significant constraints on the planning and implementation of police telecommunications system were reported to be the shortage of available frequencies, multiplicity of telephone companies, and the differences between jurisdictional boundaries and telephone company central office boundaries.

The State Planning Agency has procedures for updating fund allocations when the time between the grant application and the project implementation has resulted in outdated cost figures.

The agency also has formal procedures to determine when a grant should be terminated and an in-house formal check list or review procedure for grant application review. The agency has not published planning guidelines for use by prospective grant applicants.

The State Planning Agency does not have a statewide law enforcement telecommunications equipment inventory.

(5) Budgets and Expenditures

The State Planning Agency has awarded funds each year for telecommunications projects in the amounts indicated on Table V-71. These figures represent the actual award approvals made during the periods indicated and are based on a review of the project files.

Also included in Table V-71 is the total dollar amounts expended for all grants in all areas by the State Planning Agency, a percentage comparison of telecommunications grants, and an indication of the number of telecommunications projects funded in each of the periods.

The operating budget for the State Planning Agency for the same periods is as follows:

. 7/1/71 - 6/30/72	\$392,000
. 7/1/72 - 6/30/73	\$563,000
. 7/1/73 - 6/30/74	\$563,000

The State Planning Agency estimated that approximately 1 percent of the operating budget each year is expended for law enforcement telecommunications planning purposes. The agency also anticipates an operating budget for fiscal year 1975 of \$608,000 and further anticipates total grant awards for fiscal year 1975 will be \$7,900,000.

Table V-71
Comparison - All Grant Awards vs Telecommunications Awards
7/1/71 to 6/30/75, State of Washington

Year	Total Dollars All Grants Awarded	Total Dollars Telecommunications Grants Awarded	Percent of Total Awards for Telecommunications	Number of Telecommunications Projects Funded
7/1/71 - 6/30/72	\$6,750,000	\$ 99,731	1.5%	6
7/1/72 - 6/30/73	\$8,790,000	1,018,120	11.6	41
7/1/73 - 6/30/74	\$7,900,000	1,766,796	22.4	32
7/1/74 - 6/30/75	-	192,285	-	6

(6) Procurement Methods and Policies

1. Centralized Purchasing Procedures

In the State of Washington there is limited use of centralized negotiated procurement procedures by the state and the local government agencies. These centralized negotiated procurement procedures are not mandatory. The state generally goes to bid for state contracts approximately once a year.

2. Standard Equipment or System Specifications

The types of specifications most generally used in the State of Washington for procurement of law enforcement telecommunications include equipment specifications, system functional specifications, and system performance specifications. The major source of specifications for law enforcement communications equipment systems is through independent consultants. The State Planning Agency requires that system specifications be met by vendor certification. The State Planning Agency does not have a list of approved independent consultants for telecommunications.

3. Equipment Sources and Vendors

Typically there are two or three responses to law enforcement telecommunications system procurements in the State of Washington. The State Planning Agency does have a list of sources for law enforcement communications equipment. There are formal requirements to be met for applicants wishing to be placed on this list. However, there are no known formal procedures for removal of concerns on the list. The State Planning Agency has never removed a concern from this list for cause.

4. Procurement Practices

In the State of Washington grant-funded procurements are accomplished within existing state procurement instructions. These instructions include the requirement that bids be solicited from at least three suppliers whenever the procurement exceeds a given dollar value.

Procurement instructions further require that procurements above \$2500 be made on the basis of competitive bidding with the award being made to the lowest compliant bidder. All procurements above \$2500 must be advertised. Procurement instructions leave it to the discretion of the subgrantee as to whether or not a prebid conference will be held. However, should a prebid conference be held, it will be held after the procurement has been advertised.

In cases of vendor participation in law enforcement telecommunications projects in the State of Washington, vendors are required to submit to the consultant for approval any suggestions they may have for changing the system design specifications.

(7) Project Summary

Data was obtained from the State of Washington on 84 telecommunications grants including 6 for new systems awarded between July 1, 1971 and January 1, 1975. The following project summary sheets describe their characteristics including these highlights:

- . Nearly all of the projects were for communications equipment, principally for mobile radios and hand held portables.
- . A very small percentage of the projects provided for formal evaluation but one-third of the projects for new systems provided for formal evaluation.
- . Nearly all of the projects provided for communications between members of a department, approximately one-fourth provided for intrastate coordination and none provided for interstate coordination.

- . Nearly all of the projects had as the project objective the improvement of communication reliability.
- . Over one-fifth of the grants were awarded to regional recipients and over one-third of the grants were awarded to municipalities with a population under 20,000.

49. WEST VIRGINIA

(1) Organization Information

The unit of government in the State of West Virginia responsible for the distribution of LFMMA funds is the Governor's Committee on Crime, Delinquency and Corrections. The Committee has offices at 1212 Lewis Street, Charleston, West Virginia 25301.

The agency is administered by an Executive Director and has a full-time professional staff of 42 persons. The Director of the agency reports directly to the Governor's Office.

The State Planning Agency is divided into four divisions as follows: Grants Management and Finance Division, Evaluation and Research Division, Regional Planning and Grants Development Division, and the State Planning and Grants Development Division. Within the Regional Planning and Grants Development Division, the State Planning Agency identified one individual as being involved on a full-time basis with law enforcement telecommunications planning activities.

The State Planning Agency provides assistance to law enforcement agencies in the telecommunications area by providing the technical review of grant applications, assistance in preparation of grant applications, specification preparation, system planning and procurement assistance. In addition, it was reported that the Department of Public Safety provides some technical advice to other law enforcement agencies.

The State Planning Agency indicated that their in-house capabilities for serving law enforcement telecommunications planning included procurement services.

Within the State Planning Agency there is no one with responsibility for interface with the Federal Communications Commission nor is there any activity between these two agencies.

The State Planning Agency did not report any contact with the Public Utilities Commission and does not review tariffs or participate in Public Utility Commission hearings.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

In the State of West Virginia, agencies at the state level that are eligible for LEAA grants include the State Police and the Law Enforcement Division of the Department of Natural Resources. Table V-72 indicates the types and numbers of law enforcement agencies that exist below state level government.

Table V-72
West Virginia Law Enforcement Agencies
Below State Level of Government

<u>Type of Agency</u>	<u>Number of Agencies in the State</u>
County Police Departments	55
Municipal Police Departments	237
Campus Police Departments	2
	<u>294</u>

2. Centralized, Cooperative and Consolidated
Dispatch Centers

Within West Virginia there are 65 consolidated dispatch centers in operation. Fifty-five of these centers serve areas of over 200 square miles, 5 serve areas of 50 to 200 square miles, and 5 serve areas of less than 50 square miles. Most of these centers serve populations of between 20,000 and 100,000. Twenty-one centers dispatch only law enforcement vehicles, 23 dispatch only law enforcement and fire vehicles, 3 dispatch only law enforcement and ambulance vehicles, 14 dispatch law enforcement, fire and ambulance vehicles and 4 dispatch other agencies in addition to law enforcement, fire or ambulance.

In addition to consolidated centers there are 229 individual dispatch centers. Two hundred twenty-seven serve areas of less than 50 square miles, and two serve areas of from 50 to 200 square miles. Two hundred fourteen of these centers serve populations of less than 20,000, and the remaining 15 serve populations of between 20,000 and 100,000. Statistics regarding other public safety agencies involved were not readily available.

While none of the single agency dispatch centers have adopted a 911 telephone concept, two consolidated centers are using such service. Both consolidated centers serve populations of from 20,000 to 100,000 and dispatch other agencies in addition to law enforcement, fire or ambulance.

As of the date of this survey, there were no law enforcement communication centers using computer assisted dispatch nor were any agencies planning to use this capability.

Presently there are 17 telephone companies operating within the state.

3. Spectrum Management

The State of West Virginia presently does not have a statewide frequency plan for law enforcement. The State Planning Agency, however, reports that preparation of such a plan is currently under consideration.

The APCO frequency coordinator reported the following number of requests for frequency coordination received from law enforcement agencies:

. 1971 - 150
. 1972 - 168
. 1973 - 261

The frequency coordinator indicated that he requires that the applicant select the frequency. Also, the State Planning Agency will approve the grant application for a

communications system prior to coordination of any new frequencies required by the system.

There is no statewide backbone microwave system for law enforcement use in West Virginia. However, a private corporation owns a turnpike microwave system to which the State Police are assigned.

4. Interagency Agreements

Representatives of the State Planning Agency stated that they are aware of one cooperative dispatch agreement in force between different agencies of the same political entity.

5. Training Programs

West Virginia reported that there has not been established nor are there any plans to establish training programs for either law enforcement radio dispatchers or government employee radio technicians. The State does not presently have any funded training programs for either radio dispatchers or radio technicians.

(3) State Telecommunications Planning

1. State Telecommunications Plan

West Virginia does not presently have a completed statewide telecommunications plan serving overall telecommunications needs but the state does anticipate preparing such a plan.

2. Comprehensive Law Enforcement Plan

The Comprehensive Law Enforcement Plan prepared by the State Planning Agency each year and submitted to the LEAA includes telecommunications considerations. Areas that are specifically addressed by

the plan are cooperative or consolidated dispatching, data retrieval systems and maintenance considerations. This plan is addressed to State law enforcement and other State agencies, and municipal and county law enforcement agencies. The telecommunications portion of this plan was developed totally by the State Planning Agency.

(4) Policy Information

The State Planning Agency has adopted procedures and set policies for making recommendations in several areas affecting law enforcement telecommunications considerations. Some of the major policies are listed as follows:

- Organization of law enforcement networks is based on mobile radio districts, county networks, or individual jurisdiction networks
- Central or cooperative dispatch is recommended for two or more agencies sharing a channel
- VHF low band is recommended for radio systems in suburban and rural areas
- The number of radio channels required is based on number of mobiles and portables and volume of radio traffic
- Recommendations for channel configurations are based on two-frequency simplex
- The agency recommends the use of tone-controlled squelch
- Central or cooperative dispatch is recommended as a command and control concept
- For improved citizen access, the State Planning Agency recommends emergency seven digit numbers
- Coordination channels are recommended for county use

- VHF/UHF point-to-point interagency coordination is recommended
- Wireline control is recommended for remote control of base stations
- Additional terminals and high-speed data transmission equipment are recommended for improved access to criminal justice information systems
- Personal portables are recommended for foot patrol only.

The three most significant constraints on planning or implementation of police telecommunications systems within West Virginia are reported to be a shortage of available frequencies, insufficient funds for implementation and unavailability of planning manpower.

The State Planning Agency reported that it writes the grant applications, and it has procedures for updating fund allocations if the time between grant application and project implementation has resulted in outdated cost figures. Further, the agency has formal procedures to determine when a grant should be terminated. The State Planning Agency does not maintain a statewide law enforcement telecommunications equipment inventory at this time.

(5) Budgets and Expenditures

The State Planning Agency for West Virginia has awarded funds each year for telecommunications projects in amounts indicated in Table V-73. These figures represent the actual award approvals made during the periods indicated and are based on a review of the project files.

The total dollar amounts expended for all grants in all areas by the State Planning Agency and a percent comparison of telecommunications projects are also shown on Table V-73. Additionally indicated is the number of telecommunications projects funded in each year.

Table V-73
Comparison - All Grant Awards versus Telecommunications Awards
7/1/71 to 6/30/75, State of West Virginia

Year	Total Dollars All Grants Awarded	Total Dollars Telecommunications Grants Awarded	Percent of Total Awards for Telecommunications	Number of Telecommunications Projects Funded
7/1/71 - 6/30/72	\$2,049,986	\$179,479	8.8%	26
7/1/72 - 6/30/73	\$3,787,773	57,536	1.5	28
7/1/73 - 6/30/74	\$4,288,770	310,340	7.2	110
7/1/74 - 6/30/75	-	333,104	-	70

The operating budgets for the State Planning Agency for the same periods are as follows:

.	7/1/71 - 6/30/72	\$340,740
.	7/1/71 - 6/30/73	\$437,663
.	7/1/71 - 6/30/74	\$603,093.

Approximately 1 percent of its operating cost was expended for law enforcement telecommunications planning.

For fiscal year 1975 the estimated operating cost for the agency was \$575,000.

(6) Procurement Methods and Policies

1. Centralized Purchasing Procedures

At the state government level, centralized purchasing procedures are used extensively. These procedures are mandatory for state agencies. There are no centralized purchasing procedures at the county or regional level.

2. Standard Equipment or System Specifications

In the State of West Virginia, purchases of law enforcement telecommunications equipment and systems are based upon equipment specifications only. The specifications used are prepared in-house by the State Planning Agency, by vendors, and in-house by other state or local governmental units.

The State Planning Agency has no requirements to ensure that system specifications are met, nor does it keep a list of recommended independent consultants for telecommunications.

3. Equipment Sources and Vendors

Typically two or three bidders respond to law enforcement telecommunications system procurements in the State. The State Planning Agency does not keep a list of recommended sources of law enforcement communications equipment.

4. Procurement Practices

In cases of equipment purchases or maintenance services for grant funded procurements, accomplishment is in accordance with existing state laws.

Procurement instructions require that all procurements for equipment purchases and maintenance services be made on the basis of competitive bidding with award made to the lowest compliant bidder except that local units may pay the difference to accept a higher bid.

Procurement instructions leave to the discretion of the subgrantee whether or not a pre-bid conference will be held. When a pre-bid conference is held, procurement instructions for equipment purchases and maintenance services require that it be held before the procurement is advertised.

Procurement instructions require that bids above \$2,000 be advertised for equipment and maintenance services.

In the procurement and implementation phases of the telecommunications projects in West Virginia, the vendors typically submit competing system designs to the customer without any detailed system specifications.

(7) Project Summary

Data was obtained on the State of West Virginia on 234 telecommunications grants awarded between July 1, 1971 and

January 1, 1975. The project summary sheets which follow indicate characteristics of the projects including these highlights:

- . The greater majority of the projects were for communications equipment, principally mobile and portable radios.
- . The projects did not provide for formal project evaluation.
- . The greater majority of the projects provided for communications between members of a department with nearly half of the projects providing for intrastate and interstate coordination by means of teletype data channels.
- . Three-fourths of the projects included as a project objective the improvement of communication service.
- . The greater majority of the grants were awarded to municipalities with a population under 20,000.
- . There were no projects for new systems.

50. WISCONSIN

(1) Organization Information

The unit of government in the State of Wisconsin that is responsible for the distribution of LEAA funds is the Wisconsin Council on Criminal Justice. This State Planning Agency has offices at 122 West Washington Street, Madison, Wisconsin 53703.

The agency is administered by an Executive Director and has a full-time professional staff of 25 persons. The Executive Director reports directly to the Governor's Office.

The State Planning Agency is divided into nine sections as follows: Alcoholism and Drug Abuse, Corrections, Courts, Juvenile Delinquency, Law Enforcement, General Planning, Evaluation, Manpower, and Management Information. Within these units the State Planning Agency identified one individual as being involved on a full-time basis with law enforcement telecommunications grant applications and projects.

In addition to the State Planning Agency there are ten regional planning agencies that assist in all areas of law enforcement including telecommunications planning.

The State Telecommunications Office is also involved in law enforcement communications. Organizationally, this office is located in the Department of Administration; physically, it is at 1 West Wilson Street, Madison, Wisconsin 53702. The Department of Administration is the general administrative department, and reports directly to the Governor. The State Telecommunications was created in 1964, and is responsible for planning, managing and coordinating all telecommunications for the state, including the universities. The Department of Administration has two full-time professional staff members, both of which are involved on a full-time basis with law enforcement telecommunications projects. The authority of this department is advisory to all state agencies including state law enforcement agencies.

The major activities of the Department of Administration are as follows:

- . State agency system planning
- . University system planning

The State Planning Agency provides assistance to law enforcement agencies in telecommunications through the technical review of grant applications, assistance in preparation of grant applications, system design, specification preparation, system planning, post project evaluation, acceptance testing, and procurement assistance. While the Department of Administration reported that it is not heavily involved in meaningful planning programs, it also reported that it provides telecommunications planning services to law enforcement agencies in the areas of financial planning aid, cost effectiveness evaluations, procurement procedures, and system planning.

The in-house capabilities of the State Planning Agency for serving law enforcement telecommunications planning include financial planning and procurement services. In-house expertise within the Department of Administration was reported to be in the areas of financial planning, procurement services and management planning.

In matters regarding the Public Utility Commission the State Planning Agency reported no interface. However, the Department of Administration indicated that they appear at rate hearings, meet six times per year with the PUC to review tariffs, and participate in PUC hearings.

Within the Department of Administration there are personnel who are responsible for knowledge of the rules and regulations of the Federal Communications Commission.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

In the State of Wisconsin agencies at the state level that are eligible for LEAA grants include the State High-

way Patrol, Division of Criminal Investigation and the State Protective Service. Table V-74 indicates the law enforcement agencies that exist below the state level of government.

Table V-74
Wisconsin Law Enforcement Agencies
Below State Level of Government

<u>Type of Agency</u>	<u>Number of Agencies in the State</u>
County Police Departments	72
Municipal Police Departments	158
Campus Police Departments	13
	<u>243</u>

2. Centralized, Cooperative and Consolidated
Dispatch Centers

Exact figures were not readily available regarding quantities, public safety agencies involved, areas served and populations served by consolidated and individual dispatch centers. However, the State Planning Agency determined that one consolidated dispatch center has adopted 911 as its emergency call number while four individual centers use 911 as their emergency number. Two of these centers serve populations of less than 20,000 while one center serves a population of from 20,000 to 100,000. All three centers dispatch law enforcement, fire and ambulance vehicles.

No law enforcement agency within the state is presently using a computer assisted dispatch system. However, one agency is planning to install that capability.

At the time of this report, there were 118 individual telephone companies serving the state.

3. Spectrum Management

The State of Wisconsin presently does not have a statewide frequency plan for law enforcement

Present licenses for law enforcement departments include 72 in the VHF low band spectrum area, 315 in VHF high band, and 34 in UHF 450 to 460 MHz. The frequency coordinator for the state reported the following numbers of requests for coordination:

- . 1971 - 128
- . 1972 - 110
- . 1973 - 79

The State of Wisconsin presently has a backbone microwave system in use by law enforcement agencies. The law enforcement functions served by the microwave system include: intercity private telephone, interagency coordination, and radio control links. The system has backup capability and is supported by an emergency power system. However, it is not a dedicated law enforcement system.

4. Interagency Agreements

The State Planning Agency reported that there are four interjurisdictional agreements in force for the purpose of sharing law enforcement records information. Further, there are two contract law enforcement service agreements in force within Wisconsin.

5. Training Programs

Wisconsin reported that no minimum standards have been established for training law enforcement dispatchers or government employee radio technicians; nor is the state planning to establish minimum standards for training for either of the two categories. However, the state presently has a funded training program for law enforcement radio dispatchers.

(3) State Telecommunications Planning

1. State Telecommunications Plan

Wisconsin does not presently have a statewide telecommunications plan but does anticipate preparing one.

2. Comprehensive Law Enforcement Plan

The Comprehensive Law Enforcement Plan prepared by the State Planning Agency and submitted to LEAA each year is developed with specific law enforcement telecommunications considerations. The plan specifically addresses interagency coordination, cooperative or consolidated dispatching, operational requirements, procurement procedures, configuration control, and emergency coordination. The plan speaks to state, municipal and county law enforcement agencies. The telecommunications portion of the comprehensive plan was developed by the State Planning Agency.

(4) Policy Information

The State Planning Agency has adopted procedures and has established policies for making recommendations in several areas affecting law enforcement telecommunications considerations. Some of the major policies are listed as follows:

- . Organization of law enforcement networks based upon county networks is recommended
- . UHF is recommended for urban areas, while VHF high band is recommended for suburban and rural areas
- . The use of tone controlled squelch is recommended
- . Cooperative or central dispatch is recommended as a command and control concept

- . Coordination channels are recommended for state-wide, interstate, and county use
- . VHF/UHF is recommended for interagency point-to-point coordination
- . Coordination channels between the Highway Patrol and local agencies are recommended for point-to-point interagency communication
- . Personal portables are recommended for all personnel with mobile units in vehicles
- . The use of magnetic tape recorders is recommended for logging of radio and telephone traffic

The State Planning Agency indicated that the three factors which placed the most significant constraints on the planning or implementation of police telecommunications systems were political factors, insufficient planning funds and insufficient funds for implementation.

The State Planning Agency reported that it has procedures for updating fund allocations if the time between grant application and project implementation has resulted in outdated cost figures. In addition, the agency has an in-house formal checklist or review procedure for grant application review. The State Planning Agency has published planning guidelines for use by prospective grant applicants. The grant applications are required to contain a statement of the problem, statement of the requirements, adjacent area coordination, technical justification, frequency availability, system description, and an equipment list.

Review of grant applications for telecommunications systems is conducted by regional planning councils prior to submission to the State Planning Agency. The State Planning Agency does not have a statewide law enforcement telecommunications equipment inventory.

(5) Budgets and Expenditures

1. State Planning Agency

The State Planning Agency has awarded funds each year for telecommunications projects in amounts indicated on Table V-75.

These figures represent the actual award approvals made during the period indicated and are based upon a review of the project files.

The total dollar amounts expended for all grants in all areas by the State Planning Agency and a percent comparison for telecommunications projects is shown on Table V-75. Also indicated is the number of telecommunications projects funded in each year.

The operating budgets for the State Planning Agency for the same periods are as follows:

. 7/1/71 - 6/30/72	-	\$ 733,000
. 7/1/72 - 6/30/73	-	\$ 1,036,000
. 7/1/73 - 6/30/74	-	\$ 1,036,000

Approximately 0.5 percent of their operating cost was expended for law enforcement telecommunications planning.

For fiscal year 1975 the estimated operating cost for the agency was \$1,139,600.

2. Department of Administration

The operating costs for the Department of Administration for the same periods are as follows:

. 7/1/71 - 6/30/72	-	\$ 37,684
. 7/1/72 - 6/30/73	-	\$ 53,816
. 7/1/73 - 6/30/74	-	\$ 64,633

Table V-75
Comparison - All Grant Awards vs Telecommunications Awards
7/1/71 Thru 6/30/75, State of Wisconsin

Year	Total Dollars All Grants Awarded	Total Dollars Telecommunications Grants Awarded	Percent of Total Awards for Telecommunications	Number of Telecommunications Projects Funded
7/1/71 - 6/30/72	\$10,200,000	\$ 836,856	8.2%	95
7/1/72 - 6/30/73	\$11,500,000	1,166,733	10.1	69
7/1/73 - 6/30/74	\$11,500,000	201,689	1.8	27
7/1/74 - 6/30/75	-	3,528	-	3

The Department of Administration estimated that the 1975 fiscal year operating costs will be \$72,671. The department further estimates that approximately 1 percent of their operating costs are expended for law enforcement telecommunications planning.

(6) Procurement Methods and Policies

1. Centralized Purchasing Procedures

At the state government level, centralized purchasing procedures are utilized in a limited fashion. However, the State Planning Agency encourages joint or centralized purchasing for small purchases. At the county or local level, extensive use is made of mandatory centralized purchasing procedures.

2. Standard Equipment or System Specifications

In the State of Wisconsin, purchases of law enforcement telecommunications equipment and systems are based upon equipment specifications, system functional specifications, and system performance specifications. The specifications used are prepared by independent consultants. The State Planning Agency requires that system specifications be met by acceptance testing and operational tests. The Department of Administration reported that it has a list of recommended independent consultants for telecommunications. However, there are neither formal requirements for list placement nor are there formal procedures for removal of consultants from the approved list.

3. Equipment Sources and Vendors

The State Planning Agency reported that typically only one bidder responds to law enforcement telecommunications system procurements. On the other hand, the Department of Administration reported that, typically, two or three bidders respond to such procurements. The State

Planning Agency has a list of recommended sources of law enforcement communications equipment. However, there are neither formal requirements for list placement nor are there formal procedures for removal of firms from the list.

4. Procurement Practices

The State Planning Agency has issued standard procurement instructions that cover the purchase of law enforcement communications equipment and consulting services.

Procurement instructions require that procurements above a given dollar value be made on the basis of competitive bidding with award made to the lowest compliant bidder. In the case of competitively bid procurements, procurement instructions permit factors other than cost, such as excellence of the proposal and past performance of the vendor, to be given as much consideration as cost in selecting the successful bidder.

Procurement instructions leave it to the discretion of the subgrantee as to whether a pre-bid conference will be held. The State Planning Agency procurement instructions require that bids above \$2,500 be advertised. The Department of Administration reported that its procurement instructions require that bids above \$3,000 or more or any lease of \$250 per month or more be advertised.

(7) Project Summary

Data was obtained from the State of Wisconsin on 194 telecommunications grants including 91 grants for new systems awarded during the period July 1, 1971 to January 1, 1975. Following these highlights are project summary sheets which describe characteristics of the projects.

- Nearly all of the projects were for communications equipment, principally mobile and portable radios and base stations.

- A very small percentage of the projects provided for formal evaluation.
- A greater majority of the projects provided for intrastate and interstate coordination as well as communication between members of a department.
- Nearly all of the projects had as project objectives improvement of interagency coordination, improvement of communication service and improved officer safety.
- Two-thirds of the grants were awarded to municipalities with a population under 20,000.

51. WYOMING

(1) Organization Information

The unit of government in the State of Wyoming which is responsible for processing LEAA funds is the Planning Committee on Criminal Administration. This State Planning Agency has offices in the State Office Building East, Cheyenne, Wyoming, 82002.

The State Planning Agency reports to the Office of the Governor and is directed by an Administrator. The agency has seven full-time professional personnel, two of which devote part of their time to system planning and grant application review for law enforcement telecommunications projects.

Services provided by the State Planning Agency to all law enforcement agencies in the areas of telecommunications include assistance in preparation of grant applications, system planning, postproject evaluation, and procurement.

Within the State of Wyoming there are other agencies that provide some of the above services to law enforcement units. These include the Communications Officer for the Civil Defense Agency, Communication Officer for the Department of Highways, and the Communication Unit of the Wyoming Highway Patrol.

The State Planning Agency does not receive telecommunications planning assistance from any other agency but does provide planning assistance to other state agencies.

Neither the State Planning Agency nor the Office of Civil Defense for the State of Wyoming reported any interface activity with the Federal Communication Commission. There is no person in either agency who is responsible for knowledge of the FCC rules and regulations.

The State Planning Agency further reported that they never meet with or have any interface with the Public Utilities Commission.

(2) Law Enforcement Activities

1. Organized Law Enforcement Agencies

Agencies at the state level of government that have law enforcement powers and are eligible for LEAA grants include the State Highway Patrol, Game and Fish Agency, the Attorney General's Office, the Fire Marshall, and the Brand Inspector's Office.

The State of Wyoming presently has 23 Prosecutor's Offices and 23 county law enforcement departments. Other organized law enforcement agencies include 64 municipal police departments, two campus police departments, and one county task force. The State Planning Agency estimates that there are 95 organized law enforcement departments in the state.

2. Centralized, Cooperative and Consolidated Dispatch Centers

Information from the State Highway Patrol, the Highway Department, and Civil Defense Agency indicates that there are 31 full-time, 24-hour, centralized, cooperative or consolidated dispatch centers existing in the State of Wyoming. Of these 31 centers, 19 serve areas in excess of 200 square miles while 12 serve areas between 50 and 200 square miles.

Of these centers, 26 serve populations of less than 20,000 persons, and five centers serve populations of between 20,000 and 100,000.

Five of these consolidated centers dispatch law enforcement vehicles only while the other 26 dispatch for all public safety agencies. There are 16 of these consolidated centers that have 911 emergency telephone service and the remaining 15 centers have a single 7-digit emergency call number for law enforcement, fire, and ambulance.

In addition to the 31 consolidated centers there are five dispatch centers in the state that serve only one police department. All five of these centers serve areas of less than 50 square miles.

Two of these centers serve populations of less than 20,000 persons while the other three serve populations between 20,000 and 100,000. All five of these centers dispatch law enforcement vehicles only.

In the state there are 17 dispatch centers that have 911 emergency telephone service. Fifteen of these centers serve populations of under 20,000 persons, while the other two serve populations between 20,000 and 100,000 persons. All 17 of these centers dispatch law enforcement, fire, and ambulance vehicles.

Computer-assisted dispatching is not used or planned in the State of Wyoming.

The state is served by 14 separate telephone companies.

3. Spectrum Management

The State of Wyoming does not have a statewide law enforcement frequency plan. The state does have two APCO frequency coordinators who will either recommend a certain frequency to an applicant or require an applicant to select the frequency. The APCO frequency coordinators reported the number of requests for frequency coordination that originated from law enforcement agencies is as follows:

- . 1971 - Unk.
- . 1972 - Unk.
- . 1973 - Unk.

The frequency coordinators indicate that within the state there is one law enforcement department licensed on VHF low-band, 18 licensed VHF high band, and one licensed on UHF 450 to 460 MHz.

Radio equipment in use as reported by law enforcement agencies in the State of Wyoming includes 700 mobile

units and 60 base stations. They presently do not have a backbone microwave system in use by law enforcement and there are no plans to provide such a system.

4. Interagency Agreements

In the State of Wyoming there are 40 agreements in force for the purpose of cooperative dispatching and the sharing of radio equipment facilities. At this time there are three agreements in force for the purpose of sharing law enforcement records information.

5. Training Programs

The State of Wyoming has established minimum standards for training of law enforcement radio dispatchers and government employee radio technicians. The state presently has a funded training program for law enforcement radio dispatchers but not for technicians.

(3) State Telecommunications Planning

1. State Telecommunications Plan

The State of Wyoming does not have a statewide telecommunications plan and does not anticipate such a plan.

2. Comprehensive Law Enforcement Plan

The Comprehensive Law Enforcement Plan prepared by the State Planning Agency each year and submitted to the Law Enforcement Assistant Administration includes telecommunications considerations in a separate section of the plan.

The areas specifically addressed by the plan include organization of radio networks, interagency

coordination, cooperative or consolidated dispatching, interstate coordination, data retrieval systems, operational requirements, procurement procedures, financial considerations, configuration controls, traffic management, and disaster operations.

The Comprehensive Law Enforcement Plan is addressed to all state, county and municipal law enforcement agencies, other state and federal agencies. This comprehensive plan was developed and prepared in-house by the State Planning Agency.

(4) Policy Information

The State Planning Agency has developed and adopted several specific positions or policies in regard to law enforcement telecommunications equipment. In general these specific conditions and policies relate to the fact that most radio equipment purchased in the state will operate on the Wyoming Highway Patrol frequencies. Conditions required by Wyoming Highway Patrol have been adopted by the State Planning Agency for funding purposes. Some of these conditions are as follows:

- . Written approval of the purchase of communications equipment must be obtained from the Communication Division of the Wyoming Highway Department prior to grant approval if the equipment is to operate on the frequencies of the Wyoming Highway Patrol.
- . Porta-mobile radios are not permitted to be operated on the radio frequencies of the Wyoming Highway Patrol; however they will be funded for local systems.
- . Equipment purchased in whole or in part with grant funds shall be designed and constructed in conformance with current standards established by the Electronics Industries Association and the Radio Electronics Television Manufacturers Association and must have FCC-type approval. The equipment must meet or exceed all the rules and regulations of the FCC for the Public Safety Radio Services.

All radio equipment must have four channel capabilities.

The proposed grantee will be required to undertake efforts to determine the feasibility of joint communications usage with other law enforcement agencies located within the grantee's Regional Planning Area, as part of the total project being contemplated.

The full and detailed list of requirements for radio scrambler equipment is available for those grantees considering this type of purchase.

Other major policy positions and recommendations of the State Planning Agency that directly affect law enforcement communication plans are as follows:

Central or cooperative dispatch is recommended when two or more agencies share a channel.

The VHF high band is recommended statewide for law enforcement use.

The number of required channels is based on the functions to be served.

The recommended command and control concept is cooperative or centralized dispatching.

Improved citizen access through 911 telephone service is recommended for all public safety agencies.

A statewide coordination or emergency radio channel is recommended.

Interagency point-to-point coordination is recommended on the VHF point-to-point and hot-line links.

Mobile-to-mobile communications is recommended for coordination between the State Highway Patrol and local law enforcement agencies.

The use of magnetic tape recorders is recommended for logging of radio and telephone traffic.

There is no current legislation or state statutes reported in Wyoming which have an effect on law enforcement telecommunications planning. However, the State Planning Agency and the Department of Highway are planning to recommend legislation in the areas of emergency medical services and the establishment of a Division of Communications.

The three factors identified as having the most significant constraints on the planning or implementation of police telecommunications systems included political factors, state statutes, and insufficient planning funds.

The State Planning Agency does not maintain a statewide law enforcement telecommunications equipment inventory.

The State Planning Agency has adopted procedures updating fund allocations when the time between grant applications and project implementations has resulted in outdated cost figures. The agency has further formally documented differences which exist between the state statutory procurement procedures and the LEAA-recommended practices.

The agency has formal procedures to determine when a grant should be terminated and has published planning guidelines for use by prospective grant applicants.

(5) Budgets and Expenditures

The State Planning Agency has awarded funds each year for telecommunications projects in the amounts indicated on Table V-76.

These figures represent the actual award approvals made during the periods indicated and are based on a review of the project files.

The other columns on Table V-76 indicate the total dollars expended for all grants by the State Planning Agency, a percent comparison expended on telecommunications projects, and the

Table V-76
Comparison - All Grant Awards vs Telecommunications Awards
7/1/71 to 6/30/75, State of Wyoming

Year	Total Dollars All Grants Awarded	Total Dollars Telecommunications Grants Awarded	Percent of Total Awards for Telecommunications	Number of Telecommunications Projects Funded
7/1/71 - 6/30/72	750,000	\$ 5,533	0.7%	2
7/1/72 - 6/30/73	1,000,000	84,618	8.5	17
7/1/73 - 6/30/74	1,150,000	21,307	1.9	3
7/1/74 - 6/30/75	-	59,503	-	11

number of telecommunications projects funded in each of the periods indicated.

The total operating budgets for the State Planning Agency for the same periods are as follows:

- 7/1/71-6/30/72 - \$121,041
- 7/1/72-6/30/73 - \$125,953
- 7/1/73-6/30/74 - \$169,902.

The State Planning Agency estimated that approximately 2 percent of its operating cost was expended for law enforcement telecommunications planning. The agency further indicated that their operating budget for fiscal year 1975 would be \$196,660 and that the total of all grant awards for fiscal 1975 would be \$1,150,000. The agency also estimated that the total dollars expended for telecommunications projects in fiscal 1975 would be \$90,000.

(6) Procurement Methods and Policies

1. Centralized Purchasing Procedures

Within the State of Wyoming there is a limited use of centralized purchasing procedures in the procurement of law enforcement communications equipment. These procedures are mandatory and the state goes to bid for state contracts in periods greater than 12 months.

2. Standard Equipment or System Specifications

In the State of Wyoming the specifications used for procurement of law enforcement telecommunications systems include equipment specifications only. These specifications are prepared in-house by another state or local government agency, in this case the Department of Highways. The State Planning Agency requires that system specifications are met by a vendor certification. The State Planning Agency does keep lists of the recommended independent consultants for telecommunications but does

not have formal requirements for being placed on the list of formal procedures for removal from the list. The agency has never removed a consultant from this list for cause.

3. Equipment Sources and Vendors

The typical number of bidders who respond to a law enforcement telecommunications system procurement in the State of Wyoming is two or three. The State Planning Agency does keep a list of recommended sources of law enforcement communications equipment but does not have formal requirements for being placed on the list or being removed from it. The agency has never removed a concern from this list for cause.

4. Procurement Practices

The funded procurements in the State of Wyoming are accomplished in accordance with existing state procurement instructions and in conformance with the special procurement instructions for radio equipment previously detailed. The standard procurement procedures require that bids be solicited from at least two suppliers whenever the procurement exceeds a given dollar value and all procurement of a value of \$2500 must be advertised and awarded on the basis of competitive bidding with awards made to the lowest compliant bidder.

In the case of competitive bid procurements, factors other than cost are to be given as much consideration as cost in selecting a successful bidder. Some instructions further require that for procurements in excess of \$2500, prebid conferences will be held prior to procurement advertisement.

In procurements where consultants are involved, vendors are permitted to submit suggestions for changing the consultant's specifications without the approval of the consultant.

(7) Project Summary

In the State of Wyoming significant progress has been toward consolidated dispatching through a funding procedure to incorporate communications with the dispatching done by the Wyoming Highway Patrol. For the most part, all dispatching is accomplished in this matter throughout the state.

Data was obtained from the State of Wyoming on 35 telecommunications grants including 26 for new systems awarded during the period July 1, 1971 to January 1, 1975. Following these highlights are project summary sheets which describe characteristics of the projects in more detail.

- . Nearly all of the projects were for communications equipment, principally mobile radios, portables and base stations.
- . The projects did not provide for formal evaluation.
- . More than half of the projects provided for communications between law enforcement departments, approximately half of the projects provided for intrastate coordination but none provided for interstate coordination.
- . Nearly all of the projects had as a project objective the improvement of communication service with nearly as many having as projects objectives the reduction of response time and improvement of interagency coordination.
- . Forty percent of the grants were awarded to regional recipients.

52. LOS ANGELES, CALIFORNIA

(1) Organization Information

The agencies in the government of the city of Los Angeles which are responsible for planning and implementation of law enforcement telecommunications systems for the city include the Los Angeles Police Department, the Public Utilities and Transportation Department, and a Communications Advisory Committee for the development of a citywide emergency operating center (EOC). This report on Los Angeles will deal primarily with the emergency command control communications system that the city is developing for the processing of all public safety communications. The emergency operating center and the staff are located at 200 North Main Street, Los Angeles, California 90012.

The agency responsible for maintenance and implementation of telecommunications is the Public Utilities and Transportation Department. This department has three major units identified as the Electronics Division, the Wire and Signal Division, and the Engineering and Planning Unit. Prior to the establishment of the emergency command control communications system concept, the Engineering and Planning Unit and the L. A. Police Department jointly provided all planning for law enforcement telecommunications. The Public Utilities and Transportation Department was established by city charter in 1902; it has mandatory and advisory authority in the city. The department has a full-time professional staff of 150 persons involved in communications and has one full-time person and six part-time persons involved in system planning for law enforcement telecommunications. The recently established emergency command control communications system has a staff of 14 full-time professional personnel, all of which are involved in planning for all public safety telecommunications. Ten of these full-time professional personnel are supported by LEAA funds.

Under the EOC concept a staff was developed which has representatives from the public safety agencies of the city and includes personnel from the Communications Unit of the Public Utilities and Transportation Department. The new staff is

under the command of a captain of the Los Angeles Police Department. The program organization chart for the development of the Los Angeles emergency command control communications system indicates that the mayor and council oversee a Communications Advisory Committee, which receives inputs from a technical steering committee, units of the Police Department, the Data Service Bureau, the Public Utilities and Transportation Department, and the Fire Department.

The program management office for the system development includes representatives from the Police Department, Data Service Bureau, Public Utilities and Transportation Department, and administrative support staff. This office is assisted in planning by a program management consultant for the city of Los Angeles.

The EOC Planning Group was established in 1969 and has been funded since September 1973. The purpose was to plan an overall communications system for the city, including 911 and data transmission. The program includes computer-aided dispatching, digital communications, emergency trigger and out-of-car communications, automatic vehicle location, and architectural design and upgrading of the emergency operating center. These items are included in phase one of a five-phase program estimated to run through 1980. Phase one is currently in process.

The EOC Planning Group is responsible for providing telecommunications planning assistance to the State Planning Agency responsible for LEAA funds, and prepares and reviews all grant applications for the city. The EOC Planning Group is also responsible for interface with the Federal Communications Commission in the planning and implementation of the communications system.

(2) Law Enforcement Activities

Communications for the Los Angeles Police Department are all processed from one consolidated dispatch center. The Police Department serves an area of 460 square miles and a population of 2.8 million. The present police dispatch center

dispatches only law enforcement vehicles and has a single 7-digit emergency telephone number for citizen access.

The city of Los Angeles is currently preparing a city-wide law enforcement frequency plan. This plan is being prepared by the EOC Planning Group and will utilize police and local government frequency assignments. Frequencies presently in use by law enforcement in the city include 26 VHF high bands, six pairs of UHF frequencies in the 450- to 460- MHz range and five pairs of UHF frequencies in the 512-MHz range for digital communications.

The city currently has 10 base stations and 2000 mobile units in use by law enforcement. The city has a backbone microwave system that serves intercity private telephone, radio control lengths, and TV and data transmission. The microwave system has a backup capability and is supported by an emergency power system. The microwave system is dedicated to law enforcement purposes.

The city does not have minimum standards for training of law enforcement radio dispatchers or government employee radio technicians. It does not plan to establish such minimum standards at this time. The radio dispatchers currently receive training on the job.

(3) City Telecommunications Planning

The EOC Planning Group is currently developing a city-wide telecommunications plan. The plan will cover the period March 1975 through the year of 1990 and will be mandatory by law.

Agencies responsible for enforcement of the plan will be the Public Utilities and Transportation Department and the Los Angeles Police Department. The plan will specifically address organization of radio networks, interagency coordination, frequency management, frequency allocations, citizen access, and cooperative or consolidated dispatching. Other areas addressed by the plan will include data retrieval systems, operational requirements, procurement procedures, technical training, operational training, maintenance, financial planning,

configuration control, traffic management, disaster operations, and reliability standards. This plan will be directed to law enforcement, emergency medical services, and fire service in the city, and will have automatic review and revision procedures.

Current policies affecting law enforcement telecommunications in the city include the organization of radio networks based on the division and function to be served utilizing both cooperative dispatch and independent dispatch with shared base station equipment. Present frequency band policy dictates the use of VHF high band and the UHF band for digital communications.

(4) Policy Information

The policy used to determine channel loading includes the populations served, number of mobiles and portables, the volume of radio traffic, volume of calls for service, and the functions to be served within the Police Department. The city utilizes simplex one frequency, simplex two frequency, and mobile relay channel configurations.

The EOC Planning Group recommends a 911 telephone service for all public safety and several citywide tactical channels for coordination purposes. Point-to-point coordination between base stations will be served by microwave links.

The Los Angeles Police Department information system is currently operational, and recommendations for improved access to the system include high-speed transmission and leased wire line.

Plans for mobile digital systems include mobile digital terminals with alphanumeric display as part of the recommended computer-aided dispatching system. Communication scramblers are utilized by law enforcement in Los Angeles; however, they only serve the specific functions of intelligence. Personal portables are utilized by all sworn personnel even when mobile units are included in vehicles.

Legislation existing in Los Angeles which has a direct effect on law enforcement communications planning includes an ordinance for the establishment of the Public Utilities and

Transportation Department, 911 legislation, and directives to plan, implement, and develop a city plan for telecommunications systems. The EOC Planning Group anticipates introducing new legislation in the near future in the 911 area.

The three most significant constraints on the planning or implementation of police telecommunications systems were identified as shortages of available frequencies, differences between jurisdictional boundaries and telephone company central office boundaries, and insufficient funds for implementation.

The city does maintain a citywide law enforcement telecommunications equipment inventory, which was initially started over 10 years ago and is continuously updated.

(5) Budgets and Expenditures

The Public Utilities and Transportation Department reported the following operating budgets over a 4-year period:

- . Fiscal Year 1972 - \$ 8,106,000
- . Fiscal Year 1973 - \$ 9,000,000
- . Fiscal Year 1974 - \$11,900,000
- . Fiscal Year 1975 - \$10,000,000.

These operating budgets supported a staff of approximately 338 persons of which 200 were involved in telecommunications. The department estimated that less than 1 percent of its fiscal budget was expended for law enforcement telecommunications planning.

The department further estimated that approximately \$ 1 million was expended each year for law enforcement telecommunications, including maintenance of the equipment.

(6) Procurement Methods and Policies

In the city of Los Angeles, there is extensive use of centralized purchasing procedures for most radio equipment. These central procedures are mandatory.

Basically all procurements are accomplished with system performance specifications within the city. The specifications are developed in-house by city agencies and conformance to specifications is ensured through acceptance testing, operational tests, vendor certification, and random sample testing.

Neither the EOC Planning Group nor the Public Utilities and Transportation Department maintains a list of recommended independent consultants for telecommunications or a list of recommended sources of police telecommunications equipment. Reports indicated that between 6 and 10 bidders generally respond to a police telecommunications system procurement.

The city's purchasing department has issued formal rules and regulations regarding the purchase of items by the city. Procurement instructions require that the item be solicited from at least two suppliers when the procurement exceeds \$5000.

Procurement instructions also permit factors other than cost to be given consideration when selecting the successful bidder. Generally this includes consideration regarding the lowest ultimate costs. Procurement instructions require that all proposed procurements be advertised and prebid conferences are left to the discretion of the purchasing agency. When prebid conferences are held they are held after the procurement has been advertised.

Vendor participation in the procurement or implementation phases of law enforcement telecommunications projects in the city of Los Angeles is limited to the vendor's submitting to the city any suggestions he may have for changing the system design specifications.

(7) Project Summary

The most significant program developed in the city of Los Angeles having an effect on telecommunications is the previously mentioned establishment of a program planning group and the development of an emergency command control communications system. This system when complete will tie together and centralize all telecommunications for the city government and public safety and will serve the city for many years in a cost-effective manner.

One of the most significant law enforcement communications projects reported was a city mobile command post project, which included purchasing and equipping six or seven communications trucks. This program involved expenditures of approximately half a million dollars over a 2- or 3-year period.

CONTINUED

10 OF 11

53. CHICAGO, ILLINOIS

(1) Organization Information

The agency in the government of the city of Chicago which is responsible for the planning and implementation of law enforcement telecommunications systems is the Division of Communications of the Chicago Police Department. The division is headed by a Director and maintains offices in the Police Complex at 1121 South State Street, Chicago, Illinois 60605. The division is part of the Bureau of Operational Services and was established by a directive of the Police Commissioner in 1880.

The division has both advisory and mandatory authority over law enforcement telecommunications within the city and assists the research and development unit of the police department in telecommunications planning. The division has three full-time professional personnel directly involved in system planning for law enforcement telecommunications projects and approximately 400 operational personnel.

Until recently, the Communications Division included operations and maintenance; however, a recent organizational change has removed the maintenance personnel from the division. The major activities of the Division of Communications include all city agencies' system planning, spectrum management, wire line system planning, and equipment procurement. All operational personnel for communications dispatching are also within this division.

The Communications Division provides telecommunications planning assistance to the State Planning Agency responsible for LEAA funding. This assistance includes technical review of grant applications, review for concurrence to the city plan, system planning, and operational training.

The division has personnel who are responsible for knowledge of FCC Rules and Regulations, and for monitoring and commenting on FCC dockets.

The in-house capabilities reported by the Division of Communications for serving law enforcement telecommunications planning include engineering services, financial planning, procurement services, and management planning.

(2) Law Enforcement Activities

Radio dispatching for the Chicago Police Department is centered in one dispatching facility. This center serves the entire 225 square miles of area within the city and serves a population of approximately 3.5 million people. The center dispatches law enforcement vehicles only and utilizes a single 7-digit emergency number for citizen access.

The city currently is not using computer-aided dispatching for law enforcement; however, within the next 18 months there are plans to provide 216 mobile digital terminals, which will be the start of a computer-aided dispatching system.

The city of Chicago has a city-wide law enforcement frequency plan that was developed in-house by the Communications Division and specifies the frequencies for use by law enforcement within the city. The frequency plan utilizes police-only assignments in both the 150-MHz and the 460-MHz spectrum area. Currently, the city is using 11 VHF high bands and 36 UHF bands.

Radio equipment in use by the Chicago Police Department includes 1000 mobile units, 38 base stations, 2600 portables, and 350 receivers.

The city of Chicago has established minimum standards for the training of law enforcement radio dispatchers and government employee radio technicians, and does have funded training programs in both of these categories.

(3) City Telecommunications Planning

The city of Chicago does not have a city-wide all-agency telecommunications plan; however, it does have a law enforcement telecommunications plan, which is basically the frequency plan previously mentioned.

(4) Policy Information

Current policies affecting law enforcement telecommunications in the city include the organization of radio networks based on personal portable radio districts, and a city-wide special channel. As previously mentioned, the city is currently using and recommends VHF high bands and UHF bands for law enforcement use.

The Division of Communications of the Chicago Police Department is considering the implementation of a land mobile radio system for law enforcement in the 960-MHz range. This range would be used for transmission to and from mobile terminals.

Channel requirements and loading in the city are based on the work load of quadrants and the telephone company boundaries. Channel configurations in use by the city include one- and two-frequency simplex channels, portable relay, and half duplex channels. The Division of Communications recommends the use of selective call systems for specific uses.

The recommendation for improved citizen access is 911 for law enforcement only.

Coordination channels recommended by the Division of Communications of the Chicago Police Department include a city-wide coordination channel and the statewide radio system identified as ISPERN. Recommended communications coordination between the city and the state police is mobile-to-mobile communications through the ISPERN system.

The city's recommendations for improved access to criminal justice information systems include additional terminals, high-speed transmission, improved switching, leased wire line, and coax cable. The recommended digital system is mobile digital terminals with alphanumeric display, and mobile printers.

The Division of Communications recommends the use of computer-aided dispatching and in specific cases, such as a command channel, the use of communications scramblers.

The division further recommends the use of personal portables for all sworn personnel with no mobile units in the vehicles.

The Communications Division reported that it has standard equipment specifications for all equipment involved in law enforcement telecommunications, and that its specifications are ahead of the industry.

Other than the directives issued by the police department, there are no city statutes or laws that have a direct effect on law enforcement telecommunications planning in the city of Chicago. At present, the Division of Communications is not proposing any new city legislation that will affect law enforcement communications planning.

The three most significant constraints on the planning or implementation of police telecommunications systems reported by the Communications Division are the shortage of available frequencies, common carrier tariffs, and telephone company central office boundaries.

There is a continuous inventory maintained by the Maintenance Division of the police department of all law enforcement telecommunications equipment in use in the city.

(5) Budgets and Expenditures

The Communications Division of the Chicago Police Department reported an estimated \$9 million operating budget for Fiscal Year 1973 and a \$9.8 million operating budget for Fiscal Year 1974. These budgets included \$892,000 capital expenditures in 1973 and \$6.5 million capital expenditures in 1974. Estimated operating costs for 1975 are \$6.8 million with \$520,000 being for capital expenditures. The division estimated that approximately one percent of the operating cost is expended for law enforcement telecommunications planning.

The Communications Division reported that in 1971 it received \$1.5 million from LEAA for implementation of a telecommunications project and that it presently has one grant application pending for \$900,000.

(6) Procurement Method and Policies

The Division of Communications reported that there is extensive use of centralized purchasing procedures for radio equipment in the city of Chicago and that these centralized procedures are mandatory. The agency solicits bids for centralized purchasing contracts as required.

The type of specifications used for procurement of law enforcement telecommunications systems include equipment specifications, system functional specifications, and system performance specifications. All specifications used are prepared in-house by the Communications Division and conformance is established through acceptance testing, operational testing, and random sample testing. The Communications Division does not maintain a list of recommended independent consultants or sources of police communications equipment. Typically, there are three bidders that respond to a telecommunications system procurement.

The procurement practices utilized by the city for procuring communications equipment or consulting services permit bids to be solicited from a single supplier regardless of the size of the procurement. Procurement instructions do, however, require that bids for procurement of equipment over \$1500 be advertised and the award be made to the lowest compliant bidder. The use of prebid conferences is optional and may be held before or after the procurement has been advertised.

(7) Project Summary

The most significant program developed in the city of Chicago regarding law enforcement telecommunications was the establishment of a total portable capability over the entire city.

Future plans of significant importance include the proposed installation of 911 with calling line identification (CLI) and mobile digital terminals in 216 city vehicles.

54. NEW YORK, NEW YORK

(1) Organization Information

The agency of city government in New York City responsible for planning and implementation of law enforcement telecommunications systems is the Communications Division of the New York City Police Department. The Communications Division is commanded by a Deputy Chief who is assisted by an executive officer with the rank of Deputy Inspector, and is made up of seven separate units. The units are the Research, Development and Planning Section, the Communication Section, the Current Situations Section, the Administrative Section, the Inspections and Quality Control Section, the Personnel Section, and the Installations and Maintenance Section.

Primary responsibility for land mobile telecommunications lies with the radio electronics and CCTV unit of the Installations and Maintenance Section.

The Communications Division of the police department was formed in 1986 and currently employs an estimated 990 full-time personnel. This includes 83 persons in the Installations and Maintenance Section and 900 persons in the Communications Section.

The Communications Division has the responsibility for land mobile radio dispatch and 911 telephone service. The Installation and Maintenance Section has responsibility for radio and electronics, CCTV, low tension systems, telephone systems, and cartography and drafting.

System planning for land mobile law enforcement telecommunications is provided by three full-time professional personnel in the Radio and Electronics Section. These personnel provide planning assistance to the Research, Development and Planning Section.

The authority of the Communications Division is mandatory under the city charter for the New York City Police Department.

The major activities of the Radio and Electronics Section are city agency system planning, equipment procurement, and engineering maintenance.

In-house capabilities for serving law enforcement telecommunications planning were reported to be engineering services, legal services, financial planning, procurement services, management planning, cost accounting services, and reliability testing.

The Radio and Electronics Section of the Communications Division has responsibility for knowledge of Federal Communications Commission Rules and Regulations and is responsible for monitoring and commenting on FCC dockets. The Radio and Electronics Section reported no contact with the Public Utilities Commission regarding regulatory policies affecting law enforcement communications planning.

(2) Law Enforcement Activities

Police communications for the city of New York are all processed from a multimillion dollar complex that was opened in October of 1973. All communications dispatching is accomplished from the center, which utilizes 911 telephone service for citizen access from all the boroughs of the city. There is also a backup system in each of the boroughs which can be activated if necessary.

The dispatch center serves an area of approximately 250 square miles and a population estimated near 10 million people. Dispatching from the center is provided for police service only; however, fire and ambulance calls received on 911 are transferred from the center to the appropriate agencies.

The city has developed a citywide law enforcement frequency plan which specifies frequencies in each area of the city. The plan was developed in-house by the Radio and Electronics Section of the Communications Division. The police department is presently converting its system from VHF high band to all UHF.

Frequencies in use by law enforcement in the city of New York include one VHF low band assignment, 27 VHF high band assignments, and 55 pairs on UHF 470 MHz.

Equipment in use by law enforcement in the city of New York includes an estimated 5700 portables, 3500 mobile units, and 150 base stations.

The city is presently planning a backbone microwave system. Application for the FCC licenses has been made, but the equipment has not yet been received. This microwave system will serve an intercity private telephone system, mobile repeater links, and radio control links. The system will be supported by emergency power and will be dedicated strictly to law enforcement purposes.

New York City has established minimum standards for the training of law enforcement radio dispatchers and government employee radio technicians, and has funded training programs for both of these categories.

(3) City Telecommunications Planning

The city of New York has a citywide law enforcement telecommunications plan which was developed in November of 1971 and covers a period through 1977.

The specific areas addressed by the law enforcement communications plan include organization of radio networks, spectrum management, frequency allocations, consolidated dispatching, data retrieval systems, operational requirements, procurement procedures, technical training, operational training, maintenance, financial planning, configuration control, disaster operations, and reliability standards.

The plan was developed in-house by the Communications Division of the police department and has automatic review and revision procedures. The plan was last amended in November of 1974.

(4) Policy Information

The general concept for organization of radio networks is based upon mobile radio districts. The plan being implemented utilizes the lower TV channels, and channel requirements are determined by the number of mobiles and portables, the volume of radio traffic, the volume of calls for service, and the functions to be served.

Under a dictate from the FCC, the only channel configurations used are two-frequency simplex. The Division of Communications recommends the use of tone-controlled squelch but does not recommend the use of selective call system.

The recommended method for citizen access is 911 for law enforcement, fire, and EMS. Call boxes are also recommended. The division recommends and utilizes a citywide coordination channel and recommends interagency point-to-point coordination over radio point-to-point and microwave links.

The recommended approach to coordination between the New York City Police Department and the New York State Police is currently by telephone

The recommended method for remote control of base stations is wire line control with radio control backup.

The Division of Communications reported that the system presently provides rapid access to the criminal justice information systems. The system in use in New York is called the SPRINT system and serves both computer-aided dispatching and access to criminal justice information systems.

The city law enforcement telecommunications plan recommends the use of computer-aided dispatching with two-way mobile digital terminals in the vehicles with no printers. The division also recommends the use of communications scramblers for specific uses.

Personal portable radios are recommended for all sworn personnel with no mobile units in the vehicles. The use of tape

recorders for logging of radio and telephone traffic is also recommended and in use.

The Communications Division has developed and has standard equipment specifications for all equipment required by law enforcement telecommunications.

Existing city statutes that have an effect on law enforcement telecommunications planning include the police department directive to establish a Communications Division, a 911 dictate, and directives to plan or implement communications systems.

The three most significant constraints on the planning or implementation of police telecommunications systems were reported to be agency political factors, insufficient funds for implementation, and the unavailability of implementation manpower.

The city maintains a law enforcement telecommunications equipment inventory that was initially established in 1936 and is currently updated daily with the arrival of new equipment.

(5) Budgets and Expenditures

Each section of the Communications Division establishes its own budget for each fiscal year. The expense budget of the Radio and Electronic Unit is \$500,000.00 per year exclusive of payroll. The entire division system, 911, tape recording tapes, etc. total more than \$15,000,000.00 per year.

The Radio and Electronics Unit stated that approximately 1 percent of its operating costs are expended for law enforcement telecommunications planning.

The capital expenditures by the same section for law enforcement projects are reported to be as follows:

- . Fiscal Year 1972 - \$1,500,000
- . Fiscal Year 1973 - \$1,100,000
- . Fiscal Year 1974 - \$3,100,000
- . Fiscal Year 1975 - \$9,000,000.

Funds reportedly received from LEAA for implementation of telecommunications projects in the city of New York were reported to be \$721,000 over the period 1968 through 1973, and a pending application for \$271,000.

(6) Procurement Methods and Policies

In the city of New York, there is extensive use of centralized purchasing procedures for most radio equipment. These centralized procedures are mandatory and the city goes to bid as required for new equipment.

The type of specification used for procurement of law enforcement telecommunications systems is equipment specifications only. These specifications are developed in-house by the Communications Division and compliance is ensured by acceptance testing, operational tests, and random sample testing. The city reported that there are generally four to six bidders who respond to a police telecommunications equipment procurement.

The Communications Division does not maintain a list of recommended independent consultants for telecommunications but it does have an approved bidders list for sources of communications equipment. There are no formal requirements to be met by applicants for being placed on this list, but there are formal procedures for removal of firms from the list. The Communications Division reported having removed firms from this list for cause.

The New York City Department of Purchase has issued formal procurement guidelines for the procurement of equipment, maintenance services, and consulting services. These guidelines require that bids be solicited from at least three suppliers whenever the procurement exceeds a given dollar value.

In the case of competitively bid procurements, instructions permit factors other than cost to be given consideration when selecting the successful bidder.

Procurement instructions require that all procurements above \$2,500 be advertised. Procurement instructions do not require prebid conferences.

Vendor participation in the procurement or implementation phase of law enforcement communications projects is limited to submission of suggestions for specification changes to the Communications Division for consideration. This would generally occur during prebid conferences and would be taken under advisement by the Communications Division.

The Communications Division does not have formal procedures for managing consultant services because it does not use such services.

(7) Project Summary

The most significant projects reported by the city of New York include the previously mentioned communications complex that was built and became operational in 1973. Added to this is the implementation of the SPRINT system, which provides computer-aided dispatching and improved access to criminal justice records, and the present program of converting the entire radio system to UHF-shared TV channels.

END