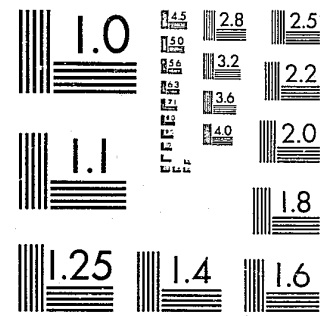


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National Institute of Justice
United States Department of Justice
Washington, D. C. 20531

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COMMUNICATIONS SYSTEMS REVIEW

AN ADVISORY REPORT

prepared for

KOOTENAI COUNTY, IDAHO

U.S. Department of Justice
National Institute of Justice

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Steve Evans, Task Advisor
Task No. 7801401
Project 17

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COMMUNICATIONS SYSTEMS REVIEW

INTRODUCTION

This advisory report of law enforcement communications in Kootenai County was prepared at the request of Sheriff Rocky Watson, Kootenai County, ID, representing the concerned law enforcement community. APCO advisor Steve Evans of the Curry County, OR Sheriff's Office performed this technical assistance task for the Associated Public-Safety Communications Officers, Inc. (APCO) under a grant from the Law Enforcement Assistance Administration (LEAA).

OBJECTIVES

Law enforcement communications in Kootenai County represents an area of major concern to the administrators of the Sheriff's Department and the local police agencies. Recognizing the existing fragmented communication systems do not meet the needs of the community and only limited resources are available for changes, the agencies contacted the LEAA for technical assistance from APCO. The objective of this assistance is to be guidance toward improving the communication and dispatching services in the county.

PROBLEM STATEMENT

Kootenai County Sheriff's Office (KCSO) currently serves a number of cities - Dayton, Hayden Lake, Athol, Fernan and Spirit Lake, contract for dispatching from the Sheriff. Coeur D'Alene (CDAL) and the Sheriff's Office each have their own 24-hour dispatching operation. Part-time dispatching for Post Falls by the Idaho State Police (ISP) is not satisfactory because it fragments operations and overloads the ability of the serving agency dispatcher.

Additionally, there is a significant dilution of dispatching effort among the three 24-hour centers now operating - Kootenai Sheriff, Coeur D'Alene and the ISP. All three agencies are located in Coeur D'Alene; all three monitor the same radio systems; each of the three has different jurisdictional responsibilities.

Recent cuts in the CETA program and budget reductions have caused all agencies to be short of dispatchers to meet their individual dispatcher needs.

The agencies concerned have expressed an interest in exploring the possibilities for improving dispatching services and overall law enforcement communications in the county. (NOTE: The ISP have their own statewide system separate from the requirements of Kootenai County and therefore are not directly addressed in this report.) There is a strong need for an organized assessment of communication conditions leading to the development of goals and objectives for a plan to improve law enforcement communications in Kootenai County.

DISCUSSION

The lack of objectives and goals for law enforcement communications is recognized by the various agencies in the county. This is reflected in a need to establish budget requirements for equipment and manpower to operate the various systems, or contract for those necessary support services.

Law enforcement service demands have risen significantly over the past six years as the population has risen 40%. Growth projection for the next six years indicates a similar increase. Much of this growth is in the more rural areas of the county where bedroom communities are being established. Additionally, recreational activities draw a significant transient population during the four summer months. These increased service requirements key a similar need in communications, not only for greater communication area coverage but also in a

need for significantly greater call handling capacity at both public access points, and police command/control levels.

Public access to law enforcement services by telephone and walk-in is inhibited in several ways. First, there is no single telephone number, such as the national emergency number 911, currently available, particularly for their summer population. Each dispatch center has its own number. This requires the person desiring help to know where and in whose jurisdiction he is in order to reach police assistance. Second, when reaching the appropriate jurisdiction, the dispatcher on duty answers the call amidst many other assigned tasks, maintaining radio watch on several circuits, dispatching calls for service, taking field reports from officers by telephone, monitoring parking lot video devices, paging, running the teletype, controlling jail access, and going to the records unit in another area to obtain information. All of these tasks are performed at times when there may be heavy foot traffic in the area. (These comments apply primarily to Kootenai County, although a few also reflect CDAL Police Department operations.)

Both agencies suffer from a shortage of manpower as indicated by excessive overtime, working on days off, and insufficient training time. The inefficiencies caused by the heavy workload and shortage of personnel create problems at the public access point where callers may wait for a response, and at the field officer level where delays are apparent.

Dispatcher training has not been adequately addressed in either agency. To obtain the maximal benefit from the system, the dispatcher must be considered a professional, and selected and trained as carefully as a police officer. The dispatcher works in a highly technical environment requiring special abilities in public contact, system operation, agency policies and procedures, knowledge of field operations, and attaining and maintaining control of a situation.

development of written operating standards, agency policies and procedures, is essential to attaining a quality communications operation.

Radio system coverage is generally adequate for Coeur D'Alene but there are several deficiencies in the Kootenai County system. Areas deemed deficient by county personnel are: southeast side of Hayden Lake, the hills northwest of Spirit Lake, and west of Rose Lake (approximately 8 miles), the back side of Twin Lake, and Fourth of July Pass from Alder Creek to Highway 3. Each of these areas is growing in population, requiring more and more police service calls. Fourth of July Pass is on a main commercial air route, and the need for adequate radio coverage here is potentially critical.

It was reported that the Sheriff's coverage was better from a former repeater site on Mica Peak than is now realized from Blossom Peak.

There have been problems with power source failure at the repeater sites. When these repeaters fail, only short-range, car-to-car coverage is available.

Radio system problems could not be adequately investigated under this technical assistance program due to the time constraints placed on APCO by the LEAA.

Radio equipments used by the agencies were purchased by the individual agency to its own requirements. They exhibit a variety of capabilities, i.e., 2, 3, 4 channels, some scanners, a variety of ages and maintenance conditions.

Because of the variety of KCSO equipments and brands, maintenance suffers from the need to stockpile a variety of spare parts on inventory. Several contractors are involved with the maintenance of these equipments. There is no central repository for repair costs or histories of the units and consequently replacement is erratic. CDAL Police Department has a single contractor for repairs.

Post Falls faces a particular problem with dispatching operations. In the past

they have been served by Kootenai County and now by the ISP. They have sufficient traffic to overload the host system (SO and now ISP). The state has indicated a desire to return the dispatching to the city; however, city budget problems have precluded this action.

Both Post Falls and Spirit Lake lost their CETA dispatchers position last year. They have not been replaced.

Channel loading is commented on quite often as a complaint. A "loose" inventory of radio equipments indicates approximately 45 mobiles and 30 portables are available among all of the county agencies on the Kootenai County UHF mobile relay 460.150 MHz, Kootenai County low band 39.820 MHz, and Coeur D'Alene UHF mobile relay 460.100 MHz channels. 20-25 mobiles can be in use during day shift, by all agencies (except ISP). This number increases by about 14 (portables) during the summer.

This number of radios is not excessive by all accepted standards when 3 channels are considered, as normal single channel loading is 50 mobiles (FCC standards for channel allocations - 900 MHz).

Work load on the dispatcher, i.e., poor work conditions and a multitude of extraneous tasks, can reduce the efficiency of the radio system significantly. Use of a standard aural brevity code and voice radio procedures among all agencies will increase the perceived efficiencies, as well as reduce margin for error during high risk inter-agency activity.

Coeur D'Alene is constructing a new facility which will provide a much improved location for their police department. Part of that new facility will be used for a new dispatch center. There appear to be considerations given toward future growth.

The agencies involved support the concept of a combined dispatching system serving all agencies in the county for communication/dispatching services. The initial steps toward agreement have been accomplished with letters of support obtained from responsible officials of the cities concerned.

FINDINGS

1. Kootenai County law enforcement is currently served by three full-time dispatching centers: Kootenai County Sheriff (KCSO), City of Coeur D'Alene (CDAL) and the Idaho State Police (ISP). Part- and full-time dispatching service is provided for several cities by KCSO on contract.
2. The City of Post Falls is served on an interim basis by ISP.
3. Law enforcement services and supporting communication services have increased significantly over the past 6 years, and a similar growth is expected in the future.
4. There is no single countywide telephone access number available to the public for emergency public safety services. A person desiring help must know who to call - a serious situation during the summer months with the large transient population.
5. Dispatching functions in KCSO and CDAL departments are sometimes subordinated to other "make work" tasks.
6. KCSO, CDAL and Post Falls suffer dispatcher personnel shortages due to reductions in the CETA program.
7. Agency dispatchers are not adequately trained. As a result, communication operations do not function at an efficient level.
8. Radio coverage of the county, KCSO, area is not complete. Several significant

gaps exist near Hayden Lake, Rose Lake, Spirit Lake, Twin Lakes, and Fourth of July Pass. These areas are increasingly in need of law enforcement services and radio communication.

9. There have been instances reported of power failure at the repeater sites. Mobile radio coverage and operations are severely limited under these conditions.
10. There is a variety of radio equipment in use throughout the county, causing deficiencies in overall radio system capability and maintenance.
11. Channel loading (radio traffic per channel) is perceived as being too high by personnel. The number of radios per available channels is light by FCC loading standards. The conclusion, then, is that current practices and procedures allow the system to appear heavily loaded.
12. Radio procedures and aural brevity codes are not standardized through the agencies.
13. Coeur D'Alene is constructing a new facility which provides a dispatching area with room for growth.
14. The law enforcement agencies of the county have expressed a strong desire to improve their communications capability and, if necessary, to support a single communication service.

RECOMMENDATIONS

1. The law enforcement agencies of Kootenai County should establish a committee of the administrative heads of these agencies, to develop and oversee law enforcement communications within the county.

Major tasks for this committee:

- a) determine agency participation and committee procedures;
- b) develop goals and objectives for communication support of county law enforcement;
- c) determine if these goals and objectives can be best met through a single communications-providing agency, either cooperatively supported or through contract arrangement with an existing agency;
- d) develop an agreement to be executed by the agencies involved (sample form attached);
- e) establish standard procedures, aural brevity codes, etc., for use by all agencies;
- f) establish standard equipment and configuration for future procurements which determine minimum capabilities for future operations;
- g) establish dispatcher job classifications as a professional position, with provisions for more intensive training;
- h) determine if other public safety emergency services should be included in the cooperative center;
- i) obtain the services of communications consulting firm to establish facility requirements, system requirements, and perform the necessary engineering design to obtain the initial center equipments and subsequent additions to meet the growth or changes;
- j) the General Telephone Company (or appropriate serving company) should be included in the overall planning at an early date.

2. The following recommendations are made, whether or not a cooperative communications agency is established. Although some are specific, they are meant to be used by each agency of the county in improving their communications operations.

KCSO should obtain the services of a communications engineering consultant to:

- a) determine radio coverage requirements and deficiencies in those areas reported as deficient - near Haden Lake, Spirit Lake, Rose Lake, Twin Lakes and Fourth of July Pass;
 - b) recommend system changes necessary to meet requirements as well as the associated costs involved;
 - c) determine methods and costs to provide adequate back-up power for mobile relay sites.
3. Dispatcher workload should be evaluated in light of department priorities and, where practical, duties should be limited to those which permit an efficient communications operation and provide maximum officer safety.
 4. Communications equipments of each agency should be inventoried to determine types, make, channel capability, scanning capability, age, condition, and maintainability; this inventory to be compared against the maintenance service capability available within the county.
 5. Current and future communications needs should be established, equipment configurations to meet these needs developed, and, on comparison with the inventory, a program for replacement and future acquisition developed.
 6. The General Telephone Company representative should be contacted at an early date for discussions concerning implementation of the nationwide emergency telephone number, 9-1-1. Other public safety agencies of the county, such as fire and emergency medical, should be included in these considerations.
 7. Investigate potential sources for funding support of the communications program such as: LEAA; Civil Defense Preparedness Agency, Region 8, Bothell, WA; Department of Transportation - Highway Safety Funds; and appropriate State agencies.

APPENDIX B

CONTRACTURAL AGREEMENT EXAMPLE

CONTRACTUAL AGREEMENT FOR RADIO DISPATCH SERVICE
BETWEEN THE CITY OF _____ KENTUCKY
AND THE _____ COUNTY SHERIFF'S DEPARTMENT

This Agreement is made and entered into this _____ day of _____ 197 , by and between the following agencies located in _____ County, Kentucky, specifically, the City of _____ a municipal corporation, and the _____ County, Kentucky Sheriff's Department.

WITNESSETH:

WHEREAS, the parties hereto desire to implement the Kentucky State Comprehensive Law Enforcement Plan - Telecommunications (SCLEP-TEL), relating to regional law enforcement communications, and

WHEREAS, the parties hereto desire to interface law enforcement communication between themselves and other governmental entities which operate within the County of _____, and _____ COUNTY SHERIFF'S DEPARTMENT

WHEREAS, the _____ desires to enter into a contractual agreement for communications dispatch service from the City of _____ Police Department Communications Center;

NOW, THEREFORE, it is hereby agreed by and between the parties hereto that:

1. The _____ Police Communications Center herein after called the Cooperative Communications Center (CCC), shall provide law enforcement communications service to the parties hereto, as designated in the Kentucky State Comprehensive Law Enforcement Plan-Telecommunications, a copy of which is attached hereto and made a part hereof as if formally rewritten herein.

2. The Cooperative Communications Center shall provide law enforcement communications services and appropriate auxiliary services to the parties hereto on a continuous basis, in accord with generally accepted standards of law enforcement operations and subject to provisions contained herein as the standards and provisions are specifically detailed in the Standard Operating Procedures Manual to be jointly developed.

3. F.C.C. licenses shall be modified to show The Cooperative Communications Center as a dispatch point in accordance with F.C.C. Rules and Regulations.

4. The _____ Police Department shall hold the title, and retain care, custody and control of all systems, components and facilities, except for mobile radios, portable radios, and base stations, and remote control units assigned to other parties. The _____ Police Department shall further be responsible for planning, acquiring, installing and maintaining the common communications equipment of the Cooperative Communications Center.

5. Each party shall be responsible for the custody and maintenance of all Communications equipment used by its officers, subject to compatibility of equipment with the Cooperative Communications Center.

6. The manner of employing, engaging, compensating, transferring, or discharging necessary personnel shall be subject to the Civil Service Rules of the City of _____ .. All employees of the center shall be employees of the _____ Police Department.

7. In the event of an emergency situation, as defined in the Standard Operating Procedures, arising in one or both of the individual agencies, the affected agency shall be able to utilize its local take-over position for dispatch and coordination of emergency operations.

8. All costs of operating and maintaining the Communications Center, including RT Circuits necessary for operation of the radio system, initially shall be paid by the City of _____ Police Department, subject to receiving compensation from appropriate federal, state, county or municipal funding sources, and all purchases, contracts and grants for the purpose of operating the Cooperative Communications Center shall be in the name of the City of _____ Police Department, provided

(a) That such costs shall consist of the following items: personnel salaries and benefits; depreciation of systems components; expenses, both operating and capital, which are necessary for the maintenance and improvement of the Cooperative Communications System and are not funded through federal state and county programs provided that the improvements are in compliance with the Kentucky SCLEP-TEL; all costs of collecting overdue, pro-rata service payments of the parties herein, including but not limited to court costs and reasonable attorney's fees; and such other costs as determined by the City of _____

(b) The costs as defined herein above shall be pro-rated monthly between participating parties based on the percentage of the proportion of the following compilations of each participating party as it bears to the sum total of all participating parties; (1) population; (2) a combination of population and service to be determined by the City of _____

(c) The City of _____ shall maintain financial records relating to the costs of operating and maintaining the

Cooperative Communications Center, which records shall be provided monthly to the parties or their representatives.

9. The parties hereto will be subject to all rules, regulations, and procedures in regard to the use of the Communications system as required by the F.C.C. and the Standard Operating Procedures Manual.

10. The _____ Police Department shall provide a training program for the _____ County Sheriff's Department regarding Standard Operating Procedures.

11. The management of the Cooperative Communications Center shall be under the authority of the _____ Police Department, and

(a) Each party hereto shall bear all legal expenses and shall be responsible for the payment of any fines due to any F.C.C., violation committed by personnel under their employ, particularly violations of Section 510, F.C.C.

(b) No party to this Agreement shall operate unauthorized equipment upon the System. Any party wishing to operate equipment upon the System shall submit such equipment for approval by the _____ Police Department prior to operating the equipment on the System.

12. The parties hereto will be responsible for the maintenance of their mobile, portable base and remote control units, but the units must be available for inspection by the service contract holder of the _____ Police Communications System.

13. The _____ County Sheriff's Department shall pay the City of _____ its pro-rata service payment for Cooperative Communications Center costs thirty (30) days after billing. Pro-rata service payments made by the aforementioned agency shall be placed in a special account to be held by the City of _____

Disbursals from said special account shall be used only to pay the costs of the Cooperative Communications Center as provided by the Agreement herein. Any interest received from such special account shall remain in said account and be used only for operational costs of the Cooperative Communications Center as provided by the Agreement herein. If the aforementioned Agency does not pay its pro-rata service payment on or before the due date, it agrees to be assessed a penalty equal to ten percent (10%) monthly of the amount of any outstanding monthly pro-rata service payment. This ten percent (10%) monthly penalty will continue for each month the Agency's monthly pro-rata service payment remains unpaid. The City of _____ may terminate all service to the Agency in the event the Agency does not pay its pro-rata service payment and penalty for a period of sixty (60) days after receiving written notice of non-payment.

14. The established pro-rata share of operating expenses of the Communications Center will be billed to the _____ County Sheriff's Department each month and will become delinquent if not paid in thirty (30) days. Notice of delinquency will be mailed on the first day of the following month by certified mail.

15. The period of this Agreement shall be sixty (60) months commencing on _____, with such exception as stated in preceding paragraphs, or until such time as both parties mutually agree to termination prior to the sixty (60) month period.

16. All gifts or grants in furtherance of the purposes of the Cooperative Communications Center issued by the County, State or Federal government or branches thereof, shall be used for the purpose of reducing the overall costs of the Cooperative Communications Center, acquisition of new or replacement equipment and for the implementation of subsequent phases of the Cooperative

Communications Center. Monies from said gift(s) or grant(s) shall be deposited in a special account in the name of the City of _____. Said special account shall be used for no other purpose than payment of costs of the Cooperative Communications Center.

17. All requests, claims, proposals and applications for federal, state or county funding for the operation of the Cooperative Communications Center shall be made by the City of _____.

18. At ninety(90) day intervals upon implementation of said Agreement, the _____ County Sheriff, or his designate, shall confer with the Chief of Police of _____, or his designate, to air grievances, evaluate current policy and advise or recommend any change or modification in procedure which might affect the quality and/or level of service provided to the _____ County Sheriff's Department.

19. Prior to submission of the cooperative Communications Center operating budget by the Chief of Police of the City of _____ to the City Manager of the City of _____, the aforementioned budget shall be subject to review by the Sheriff of _____ County.

20. Each of the parties will be responsible for the damage to any system equipment caused by the party's negligence or lack of proper care and maintenance.

21. All Police Communications Radio Dispatchers employed by the _____ County Sheriff's Department at the time of the ratification of this Agreement, shall be hired by the City of _____, subject to the approval of the City of _____ Civil Service Board. These employees will be grandfathered into the staff of the Cooperative Communications Center at the salary and

benefits received by said employees at the time of their hiring.

22. This Agreement shall be self-executing and shall become operational with respect to any named party upon execution of the Agreement by the official representative of that party. Notwithstanding any failure to execute this Agreement on the part of any party, the Agreement shall be in full force and effect between signatories.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed by the proper officials on the dates stated below.

Countersigned:

CITY OF _____, a municipal
corporation of the State of
Kentucky

BY _____
Title - City Manager

Date: _____

ATTEST: _____
City Clerk

Approved as to form & correctness:

City Attorney

COUNTY OF _____ SHERIFF

BY _____

ATTEST: _____

Date: _____

END

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END