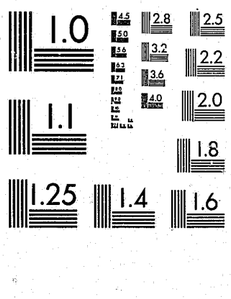

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ELECTRONICS LABORATORY • SYRACUSE, N.Y.

CRIME CONTROL TEAM

Final Report

January 1, 1970 - June 30, 1970

Award No. 69NI-0046

Prepared for
NATIONAL INSTITUTE OF LAW ENFORCEMENT
and
CRIMINAL JUSTICE

Prepared By
SYRACUSE POLICE DEPARTMENT
and
Electronics Laboratory
GENERAL ELECTRIC COMPANY
Syracuse, New York

GENERAL ELECTRIC

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(The fact that the National Institute of Law Enforcement and Criminal Justice furnished financial support to the activity described in this publication does not necessarily indicate the concurrence of the Institute in the statements or conclusions contained herein.)

ABSTRACT

The Crime Control Team (CCT) is the basic operational element of a formal organizational structure of a municipal police department. The structure was suggested in order to assign the responsibility and, hence, accountability for the control of crime to specific individuals within the department. This structure also permits the police to adopt an offensive strategy towards crime, as opposed to the defensive strategy of the conventional department.

The Team consists of a Leader, Deputy Leader and eight police officers. The Leader has the responsibility for controlling crime in a given geographical area (the conventional police beat). He has the complete authority to determine where, when and how the Team members will be deployed in a tactical sense.

The Team is basically deployed as a patrol force with the major tactical objective of intercepting crime while it is in progress. Because the Team is deployed in force during those times when the probability of crime occurring is high, the Team is also a potential deterrent to criminal activity. If the Team fails to prevent or intercept a crime, it then investigates. Thus the Team has available three major tactics, contrasted to the conventional operating procedure, which relies for the most part on a single tactic-investigation.

In July 1968, a Crime Control Team was committed to Beat 50 in Syracuse, New York. Six months later, a second Team was committed to Beats 62 and 63, which are adjacent to Beat 50. At the same time a Citizen Service unit

was committed to handle all non-criminal requests for service in the three beats. The purpose of this operation was to experimentally evaluate the Crime Control Team concept. The year-long evaluation period for the Beat 50 CCT ended in August 1969.

The results of this evaluation are interpreted as being significant. Three objective measurements were used:

1) The total amount of crime in Beat 50.

2) The total amount of Part I crime in Beat 50.

3) The clearance rate in Beat 50.

As an indication of the high performance level obtained by the Team, all crime was down 35% and Part I crime was down 45% over the previous year. The Team had a clearance rate of 34% over the experimental period. This performance can be compared to the city-wide performance for the remainder of the Syracuse Police Department of all crime down 8%, Part I crime down 30%, and a clearance rate of 22%.

PREFACE

The General Electric Company's Electronics Laboratory became involved in the criminal justice field as a result of a conference that was held in Washington, D.C. in 1966.* A major purpose of this conference was to interest industry in seeking solutions to the crime problem. At that time, the Electronics Laboratory viewed this field as a promising business opportunity and because the police are a major element of the criminal justice system, a significant portion of the Laboratory's interest was directed toward this area. The Laboratory's plans regarding the potential contribution that it might make toward increasing the effectiveness of the municipal police were conveyed to the then Chief of the Syracuse Police Department, W.H.T. Smith. Chief Smith generously offered the facilities and personnel of the Syracuse Police Department for a preliminary study. During the following year, one of the major uses the Laboratory made of this offer was to obtain a thorough grounding in the details of a municipal police operation.

The original goal of the Laboratory was to identify problem areas in the police operation that could be alleviated using modern electronic techniques. While this goal is still being pursued, another problem area was identified that appeared to have a potentially high payoff for the police, but little or no payoff for the General Electric Company, in the sense of establishing new markets for its products. This low business potential of this problem area, which concerned

*National Symposium on Science and Criminal Justice, June 22-23, 1966, Washington, D.C.

the goals, strategy, tactics and formal organizational structure of the municipal police, was brought to the attention of Laboratory management, who nevertheless encouraged the continuation of this approach.

During the following eighteen months, bits and pieces, which eventually resulted in the concept of the Crime Control Team, began to fall into place. The Crime Control Team is a basic element of an offensively deployed municipal police department and early in 1968, the Crime Control Team concept had reached the point where it was sufficiently detailed that it could be subjected to experimental evaluation.

In the meantime, John F. O'Connor had assumed the duties of Chief of the Syracuse Police Department. The plans were presented to the Chief in January, 1968, and permission was given to proceed with the experiment. The then Mayor, William Walsh, was informed of the plans, and he offered the services of his office for the program.

To facilitate initiation of the experiment, General Electric made available whatever useful personnel and facilities it possessed. During the following eighteen months, significant contributions to the program were made by some fifty General Electric people; and because of the nature of their regular duties many of these contributions were made at night and/or on weekends. Among those who made these contributions were department general managers, secretaries, engineers and management specialists.

Although the immediate resource problem was solved, there still remained some significant expenses. These were brought to the attention of the Syracuse business community and, without exception, they found the means to remove these difficulties. Among the Syracuse businesses who offered help were Reynolds Ford, Salina Chevrolet, Goodman Chrysler, Pratt Plymouth, Dictronics

Corporation, Syracuse Communications, International Business Machines, Timbello Helicopter Service, Syracuse Post-Standard and Herald-Journal, WCNY-TV, WHEN-Radio and TV, WSYR-Radio and TV, WAER, WNYS-TV, WFBL, WNDR, WOLF, WPAW and WDDS.

In mid-1969 the National Institute of Law Enforcement and Criminal Justice awarded a grant (NI-0046) to the Syracuse Police Department for continuation of the Crime Control Team experiment. Early in 1970 Dr. Michael Maltz of NILE and CJ assumed the responsibility of overseeing the project for the Institute. Dr. Maltz has made a number of valuable suggestions concerning the program, and his encouragement and suggestions for future experimentation with the CCT concept have been accepted with gratitude by those directly involved in the program.

The CCT began under the Operational Direction of Captain (now Chief) Thomas J. Sardino and continued under his guidance until the beginning of 1970. At that point Lt. Michael Burns assumed command of the operation and he has continued in this capacity until the present. Dr. J.F. Elliott of the Electronics Laboratory has been the Project Director of the program.

On January 1, 1970, Lee Alexander became Mayor of Syracuse. The program under this new city administration continues to enjoy the support and encouragement of the Office of the Mayor.

The policemen who were associated with the program during the first year's operation, deserve the admiration of their colleagues, as well as the thanks of the city of Syracuse. It is never easy to try the untried, but these officers did, at considerable personal sacrifice. These officers are Sgts. Ralph Bagnett and George Georgiade, Officers Robert Aling, Warren Darby, Riley Harrison, John Morris, Douglas Philo, Frank Sardino, Thomas Seals, and Wayne Venton.

The aid of Lt. Arthur Obrist, Lt. Henry Ours and Sgt. Joseph Hymes, of the Syracuse Police Department, was invaluable in collecting and assembling data for the program. Sgt. (now Deputy Chief) James Longo aided the Team in many of its operations.

It is impossible to mention all of the General Electric people who directly contributed to the program. The authors would be extremely remiss, however, if they did not acknowledge the help given by the following, all experts in their particular field, whether it be public relations, organization theory, psychology, employee relations, statistics, computer programming, managerial practices, technical writing, drafting, product design, or public speaking: Gilbert Dwyer, Edward Kaish, Harry Mayer, Jerry Suran, William Sollecito, Dr. Fred Schlereth, Clinton Aiken, John Irwin, Robert Dockendorff, Eugene Cook, Bart Snider, Robert Warr, Vladimir Popoff, O.S. Hautanen, R.F. Willington, Dr. Mel Sorcher, Stella Johnson, Hugh Estes, R.A. Hill, L.C. Taynton, and S.M. Danzig.

TABLE OF CONTENTS

TABLE OF CONTENTS
(continued)

TABLE OF CONTENTS
(concluded)

LIST OF ILLUSTRATIONS

LIST OF ILLUSTRATIONS
(concluded)

I. INTRODUCTION

The Crime Control Team (CCT) is the basic operational element of a formal organizational structure of a municipal police department. The structure was suggested in order to assign the responsibility and, hence, accountability for the control of crime to specific individuals within the department. This structure also permits the police to adopt an offensive strategy towards crime, as opposed to the defensive strategy of the conventional department.

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The major objective of this program (NI-0046) was to obtain a detailed evaluation of the data derived during the year-long experimental period for the CCT operation in Beat 50. Because of the timing of the grant award to the Syracuse Police Department this objective has been extended to include the evaluation of data for the first year's operation of the second CCT in Beats 62-63.

There were also several secondary objectives. The first of these was to derive a data processing system for the Teams that were event oriented, as opposed to conventional systems which are service oriented. Because the Teams were trained as experimental units, and because of the availability of

the data processing system, it has been possible to obtain data about crime that is of fundamental interest. The following type of information was obtained:

1) When and where are various types of crime committed?
2) Who detects crimes?
3) What percent of crimes are detectable by the police?
4) How are crimes cleared?

Sections II, III, and IV provide background information for the experiment; these sections discuss the organizational theory, justification of the CCT concept, the tactics used by the Team, and the means used to select, train and place a CCT unit in operation.

Section V discusses the measures and the evaluation processes used. The evaluation for Beat 50 is contained in Section VI and that for Beats 62-63, as well as additional experimental data for Beat 50, is contained in Section VII. Section VIII summarizes the experiment and provides some subjective comments.

The administrative data processing system used throughout the experiment is described in Section IX. In Section X data on the nature of the crimes that occurred during the experiment is summarized. The subjective evaluations of the students who participated in the Management Skills course are described in Section XI.

The Report concludes with Recommendations for the continuation of the program.

II. THE CRIME CONTROL TEAM CONCEPT*

The Problem

The police have at their disposal one basic means for controlling crime, that of deterrence. If the police can apprehend a significant percentage of those who commit crimes and deliver them to the courts for punishment, and the criminals are subsequently punished, then presumably others will not commit crimes because they realize that the risk to their well being is too great.

One means by which the police can significantly increase their apprehension rate is to vastly increase the size of their field forces. However, before the police can legitimately ask for any major increase in their resources, they must make every effort to demonstrate that they are expending their present resources in the most effective and efficient manner.

There are, of course, many factors that contribute to the effectiveness and efficiency of any organization. One factor is the formal structure of the organization; that is, is the work organized in such a manner that each member's task contributes in the maximum possible way toward obtaining the objectives of the organization. While examining the organizational structure of the municipal police department, the following question was posed: Who, in the department, is responsible for the control of crime? Figure 1 is the formal organization chart that has been designated as "a well organized municipal police department" by the President's Commission.[2] It can be seen that the Chief of Police has been given and has accepted the responsibility for controlling crime. Also, the Head of the Operations Bureau has accepted, from the Chief, the responsibility for controlling crime. It should be noted, however, that the Head of the Operations Bureau has also accepted the responsibility for handling traffic and non-criminal calls for service. These three areas of activity constitute the totality of police work. Thus, the Chief has not shared his responsibilities among his immediate subordinates, but has merely passed them on to a single individual. From this point on, the

*This section is abstracted from Reference 1.

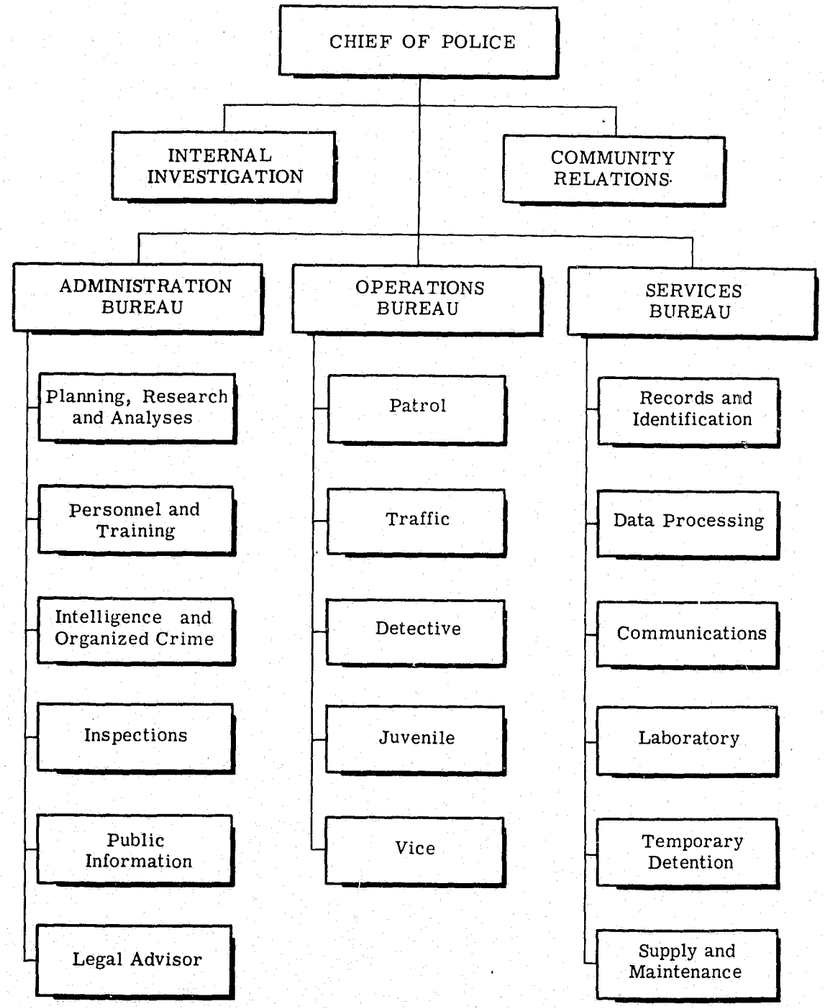

Figure 1. One Form of a "Well Organized Municipal Police Department".

division of responsibility for the control of crime becomes very hazy. Sometimes it is divided by the type of crime (vice), sometimes by who commits the crime (juvenile), sometimes by the tactic used (investigation or patrol), and so on. While this structure, somehow, ends up by giving the individual policeman a sense of responsibility for controlling crime, it has no provision for holding an individual policeman accountable if a crime does occur. Under this type of organization, the individual patrolman (the patrol being one of the principle tactics used by the police in their attempt to control crime) is so overloaded with other responsibilities, that it is unreasonable to hold him accountable for a successful criminal event. Likewise the investigator (investigation being the other major tactic used by police in their attempt to contain crime), due to a variety of causes including (1) his arrival on the scene after-the-fact, (2) the lack of physical evidence, (3) the lack of cooperation by the victim, witnesses, or the neighborhood, (4) case overload, etc., cannot be held accountable for the fact that a successful criminal event has taken place. Thus, while crime is everyone's business in a police department, no one is held accountable for it.

The disciplines of organizational theory and managerial practices have long recognized that responsibility is not likely to be discharged satisfactorily unless it has been allocated, properly and definitely, to a particular individual. Since crime is a major concern of a police department (as well as the public) it seems logical that the Chief should divide his responsibilities so that a single individual is responsible for the control of crime. This individual could then divide his responsibility for the control of crime among others whose only concern is crime. With such a division of responsibilities it would then be possible to establish "accountability."

The lack of accountability in a police department is a direct result of the manner in which the work of the department is divided. A second general principle, from organizational theory, can be stated as follows: "Work may be divided as to type, required skills or resources, cooperation needed, or by many other criteria; however, no matter which way it is divided, the division must be consistent and understandable. Furthermore, the division should be made so that work categories are mutually exclusive". Thus, while it might be possible to argue that police work in the area of crime has been divided up in a consistent manner (into patrol, investigation, vice, juvenile, etc.), these

categories are far from being mutually exclusive of one another. Because of such overlaps of categories, it has become impossible to establish a meaningful means of accountability.

Thus, until the police utilize an organizational structure that incorporates the principles of sound managerial practices, they cannot state that they are expending their present resources in the most effective and efficient manner.

The remainder of this section is concerned with one possible organizational structure for a municipal police force, where the division of work, responsibility, and accountability is delegated in a consistent and clearly understandable manner, and in such a way that the work categories are mutually exclusive. The organizational structure suggested herein is of a type called "managing by objectives;" that is, the work is divided according to the objectives (or long range goals) of the organization.

Proposed Organizational Structure

The general specifications for the organization must be:

1. All the responsibilities of the police department must continue to be met, at least, to the degree they are presently being met. That is, the police must take care of traffic, handle non-criminal calls for service and control crime.
2. Any proposed suggestion must not involve significant increases in manpower or money.
3. Changes will not be made unless the value of all of the potential benefits clearly exceed their cost.

Within the framework of these specifications an organizational structure for a police department is suggested. The structure has been designed for a medium size city. The description of the city and its police force resources are as follows:

> The city is located in the Northeast and has a population of about 220,000. The crime rate is not significantly different from that of other neighboring cities, nor from that which exists in major metropolitan areas. The police force consists of about 400 sworn personnel, distributed as follows:

30 men - Administrative Bureau

270 men - Uniform Bureau including: 196 men - Patrol Division

24 men - Tactical Patrol Force

50 men - Traffic

66 men - Investigations Bureau

34 men - Services Bureau

The present organizational structure of the department is, essentially, that shown in Figure 1.

The department receives about 100,000 requests for service per year, of which 16,000 are related to traffic (accidents and parking violations), 21,000 are concerned with a crime,* and the remaining 63,000 involve such calls as requests for emergency first aid, dog bites, lock outs, children playing ball in the street, etc.

One way of dividing up the work of a police department is based on the objectives of the department. Every police department has, essentially, three long range goals. These are:

1. To control traffic.
2. To eliminate or substantially reduce crime.
3. To provide a number of miscellaneous services requested by citizens.

These categories will pertain with regard to the problem of consistently and understandably dividing the work load. To these, of course, must be added one additional category, that of

4. Administering the department.

*It should be noted at this point, that these 21,000 calls were defined to be of a criminal nature after investigation. Obviously, previous to the investigation, many calls must be treated as a crime, but later are found to be non-criminal. Likewise, there must be many calls for service, which are not believed by police to be of a criminal nature, but after investigation are found to be criminal in nature. Presumably, these two types of requests are about equal in number.

Those individuals who work in the traffic area will be responsible for all of the problems associated with automobiles. They will be held accountable for providing satisfactory solutions to those problems. Their accountability for criminal matters or citizen service will not extend beyond that expected of any good citizen.*

The individuals who work in the area of crime will be given the responsibility of controlling crime. They will be held accountable for the occurrence of crime and for those crimes that have not been cleared. Their accountability in the area of citizen service and traffic control will not extend beyond that expected of any good citizen.

The people working in citizen service will be responsible for providing the requested service. Their accountability in other areas is, again, that expected of a good citizen.

The administrative people will be responsible for supplying those internal services that are required so that the three field groups can function properly.

The next step is to assign manpower to these four work areas. At present, the traffic situation and the administrative chores of the department are well in hand and, hence, it can be assumed that the assigned personnel will continue to discharge these responsibilities.

A police organization must always have a reserve on hand to meet unexpected emergencies. This function has traditionally been filled by the Tactical Patrol Force; hence, the Tactical Patrol will not be disturbed.

It is also realized that certain types of crimes require very specialized manpower (e.g., organized crime, forgery, counterfeiting, bunko, etc.) or

*A policeman has authority that exceeds an average citizen's; further because he wears a uniform, and has a communications system and equipment that is not possessed by the average citizen, his accountability in police work areas outside of his own is somewhat greater than that expected of the average citizen. The point here is that he will not be expected to spend a significant portion of his time in work areas other than his own.

the heavy commitment of investigative manpower (e.g., murder). There are also other specialized talents that must remain centralized (e.g., polygraph, crime lab, etc.). It appears that about 15 people from the present Investigations Bureau could perform these functions (the organized crime people are at present in the Administrative Bureau; hence, they are not being disturbed).

The police receive about 63,000 requests per year for citizen service. If it is assumed that, on the average, this type of request can be disposed of with an expenditure of 0.75 manhours of effort, then about 48,000 manhours per year will be required. Since each policeman provides about 1800 manhours per year, about 27 officers will be needed to dispose of these calls.* This number of men will be assigned to the Citizen Service group.

At the present time, the communication facility is manned by the Patrol Division. This facility is operating continuously with an assigned manpower of 20 officers.

The manpower available to form the Crime Control group is 210. (Present strength of Patrol Division and Investigations Bureau 272, less 15 men for Special Investigations, less 27 men for Citizen Service, and less 20 men for Communications.)

It is now necessary to decide the basis for the division of crime control work. There are many ways this can be done, but rather than belabor the point, the division will be made upon a geographical basis.** One geographical division of a city, which provides for somewhat equal shares of the crime problem, is the present police beat. The sample city described herein has

*It is somewhat dangerous to use an averaging technique to calculate the manpower required for this area, since no account is taken of the time rate at which request for services are received. The proper calculation would involve queueing theory.

**The Federal Government has divided its responsibility for the maintenance of law and order among the states, who in turn have successively subdivided it among the counties, cities, towns, precincts, respectively. It seems reasonable to continue this process.

23 beats. If the crime control work were to be divided among the beats, then there would be about 9 men available for each beat.

Because it is realized that supervision must be provided, and provisions made for a reserve force, the basic Crime Control Team will consist of eight officers one of whom will be the Leader and another the Deputy Leader. One principal function of the Leaders is to determine the method of deploying their teams, in the geographical, temporal, and tactical sense, so that the control of crime is optimized in their beat. Another function of the Leaders is to integrate the efforts of the team members in the sense of establishing and maintaining cooperation and continuity in the activities of the team. The Leaders and Deputy Leaders will spend the majority of the time in the field, in the same manner as a squad leader in the infantry.

The remaining six members of the team will be trained in patrol, investigative, and intelligence gathering tactics. They will be expected to exercise their initiative and function efficiently without direct supervision.

The Head of the Crime Control Sector will be responsible for the control of crime in all of the beats in his Sector. In the sample city, four Sector Heads will be required, whose principal activities will be to plan and advise Team Leaders, and to evaluate and integrate the performance of the Teams. The Sector Head will also be in a position to serve in a coordinating capacity when a particular problem concerns two or more of his beats. In addition, the Sector Head will serve as the screener and distributor of intelligence data.

The Head of the Crime Control Bureau will be responsible for the control of crime in the entire city. His principal activities will be to plan and advise, and to evaluate and integrate performance. He will serve as a screener and distributor of intelligence data, and as a coordinator between the Crime Control Bureau and other elements of the Department as well as other police agencies.

Now, summing up the distribution of the manpower, we have:

Crime Control Bureau Head	-	1 man
Crime Control Sector Heads	-	4 men
23-8 men Crime Control Teams	-	184 men
Reserve Force	-	21 men
TOTAL		210 men

The formalized structure of this proposed municipal police department is shown in Figure 2.

Advantages of Proposed Structure

The suggested organizational structure allows for the division of responsibility and provides for the appropriate accountability that is not available in conventional police organizations. Work has been divided first, according to police objectives, and then, according to geography. The organization has the advantages discussed below compared to the conventional police organization.

Flexibility - One of the first points that strikes anyone who observes conventional police operations is the lack of flexibility of the operation. For example, a police force essentially expends its resources at a constant rate, regardless of the time of day, the day of the week, the season of the year, or the amount of police business occurring at a particular time. The suggested organization permits flexibility, since the basic field units are small; hence, a change in their temporal deployment will affect only a few people.

Investigations - A crime will not be investigated twice, first by the patrol and then by an investigator. It will be investigated only once, by a member of the Crime Control Team. The initial and follow-up investigations become one. (This should be a boon to everyone since

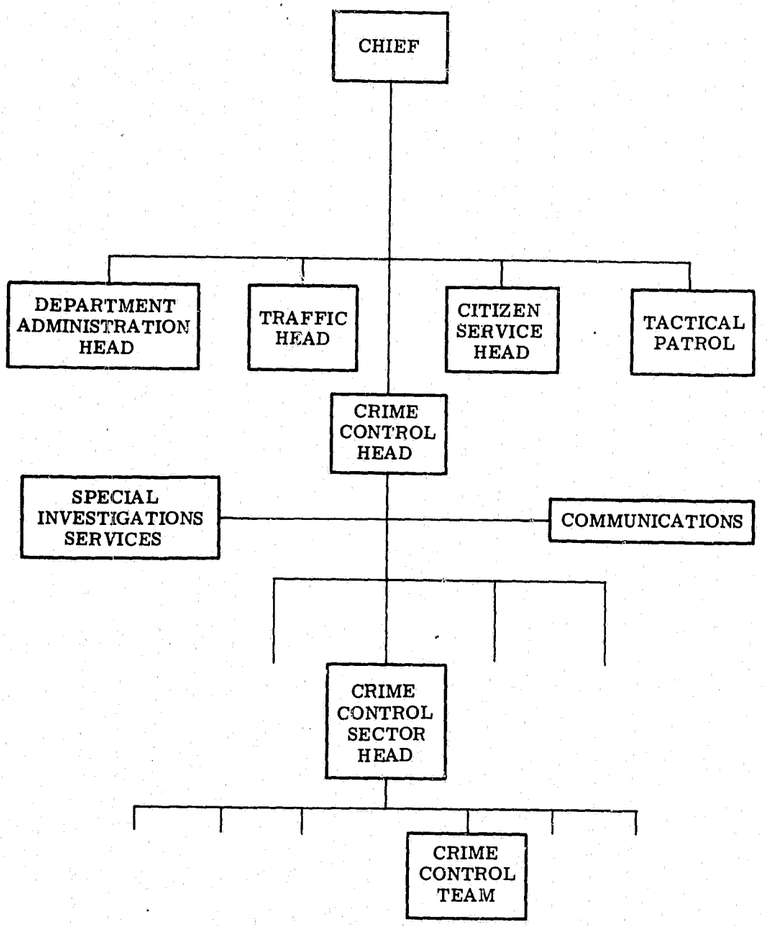

Figure 2. Structure of Proposed Municipal Police Department.

only one piece of paper will be generated rather than two; hence, only one piece to duplicate, read and file in the archives.) The investigation now assumes continuity. Data is immediately available upon which to base an early decision to investigate in detail or not to investigate at all. Countless manhours will be saved, since there will be no need for investigators to drive to and from the scene of the crime. The Team Officer will always be in the immediate area of the crime.

A Full Eight-hour Effort - The Team Member starts and ends his tour in the field. He knows what his general assignment is and receives his detailed orders and briefing from the team member that he relieves.

Esprit de Corps - The climate is established for the growth of esprit de corps and competition. Teamwork is required for the deployment of an effective Team. The individual and Team can take pride in their work, since it is clearly on display to their colleagues.

Intelligence - The Team member will develop sources of intelligence since it is clear to him that this type of activity will help him fulfill his responsibility.

Evaluation - All of the Teams are given equal amounts of crime to control. If one Team controls crime consistently better than the rest, it represents a Team that should be studied in order that other Teams can copy its tactics. If one of the Teams consistently controls less crime than the others, this team also should be studied to determine the cause of its poor performance.

Cooperation - Lateral cooperation between Teams is established. Obviously, there will be times when a Team requires additional manpower. A Team Leader will be able to obtain this help only if he has established a climate of cooperation between his and neighboring Teams.

Beat Design - The design of the crime control beat is straightforward, and the beat boundaries can be easily modified as the crime in a particular area is brought under control or tends toward lack of control. A beat consists of a geographical area, such that each Crime Control Team is allotted an approximately equal responsibility for the control of crime. A beat is designed by considering only two major factors:

1. The number of potential targets for criminal attack, i.e.,
   a. the population
   b. the number of properties
2. The vulnerability of the targets to criminal attack.

The number of targets is easily obtained from census data and can be expected to remain relatively constant over long periods of time.

The measurement of the vulnerability of a target is provided by the criminal element itself. For example, the vulnerability of all property to a Part I crime is about ten times that of all persons (i.e., there are 10 times as many property crimes as crimes against the person); the vulnerability of all business to burglaries is about twice that of all the residences (i.e., the ratio of commercial to house burglaries is about two to one).

One further factor must be considered in arriving at the target vulnerability factor of a given neighborhood: the general permissiveness of the neighborhood to the existence of crime. In general, crime will be higher in a neighborhood whose members, individually and collectively, have a low regard for law and order. This factor is gauged, quite simply, by the total amount of crime that occurs in a given area.

Civil Disorder - The Crime Control Team can be trained for riot control tactics and can be committed as a unit in time of need.

Disadvantages

The suggested structure is of a type described in the literature on organizational theory as a decentralized organization. Decentralization is usually applied to organizations that have many thousands of employees. It has also been utilized for organizations whose activities are dispersed geographically or whose responsibilities can be differentiated by geographical areas. Police business is dispersed geographically in the sense that the business can occur anywhere in the city. One characteristic of a decentralized organization is that the decision points are pushed to the lowest practical level, implying that the people at these levels are capable of making the correct decision. While past experience has shown that people, when given responsibility, seem to become good decision makers, there is no guarantee that such will be the case.

Another major problem of the suggested structure is associated with the changeover from a centralized to decentralized organization, i.e., "executive behavior*". The executive is no longer a father figure, involving himself in the day-to-day details of the organization's activities by supervising and controlling his subordinates. His principle duties are now to plan and evaluate. The pains associated with this required change in "executive behavior" have often been severe.

There appear to be two additional potential problem areas with a decentralized police organization. The seriousness of these problems cannot be realistically estimated at the present time. They are discussed, briefly, as follows.

*This problem is discussed in some detail in Reference 3.

Corruption - Many police administrators who view the proposed structure, will probably point out that such a loose organization will make the police department vulnerable to corruption. While a portion of this observation probably stems from the problem of "executive behavior", the possibility for this eventuality clearly exists. This vulnerability can be minimized by conventional techniques; internal inspection units and careful evaluation of the integrity of the crime control officer before his appointment.

Capital Investment - The present size of the police automotive fleet is such that the number of vehicles that are idle at any one time is minimal. This situation, of course, minimizes the capital investment. If the Crime Control Team is to be given a specific responsibility, then they must be given the necessary tools. Conceivably the Team Leader may decide to deploy all of his team at one time, meaning that the fleet must be sizably increased. Although this will require an increase in the capital invested, it is not obvious that the cost of operating the fleet would be significantly larger.

Summary

The number of diverse responsibilities that is delegated to individual policeman is more than any individual can be expected to discharge in an efficient manner. Because of these many and diverse responsibilities it has been virtually impossible to establish a meaningful measurement system for evaluating the performance of individual policemen. Consequently, the individual policeman has tended to emphasize those activities that have immediate, direct, and clearly observable results. Hence, the policeman becomes preoccupied with such tasks as filling out neat, detailed, and text-

book-like correct reports, making moving traffic violation arrests, locating dropped stolen cars, and so on. He performs these tasks at the expense of such activities as patrolling (in the true sense of the word) and gathering intelligence. The "system" has forced crime to take a secondary role as far as the individual policeman is concerned. (While the above remarks are made with a patrolman in mind, similar statements apply to an investigator's activities.) Thus, while crime is one of the major concerns of the nation, the organizational structure of the conventional police department has prevented it from becoming the only concern of a significant portion of the individuals in a police department.

A second aspect of police activities, under present organizational schemes, is the lack of any accountability. For example, if a purse snatch occurs, the patrolman cannot be held accountable, since he was busy with a domestic dispute at the time. The investigator, likewise, will not be held accountable since the victim was able to give only a hazy description of the snatcher. And the traffic policeman will not be held accountable, even though he was only a block away, since he was preventing a traffic jam at the time.

The organizational structure for a municipal police department suggested herein allows for an equal sharing of the responsibilities of police work. The sharing process is made so that each individual policeman has only one task to perform; and he realizes that he will be held accountable for accomplishing that task.

The Crime Control Team may not control crime to any greater degree than it is presently being controlled, because it, perhaps, does not have the tools that are necessary to accomplish the task. However, the mere fact that the Team Leader knows he will be held accountable for a successful criminal event on his beat, will cause him to insist that he be provided with

the correct tools. Also, he will insist that his Team Members be patrolling when it is time to patrol, and he will insist that time is not wasted on useless investigations. Further, he will insist that commercial establishments protect their property with appropriate alarms and lighting, and that useful, intelligence sources be developed. All of these requests are reasonable and he has a right to demand that they be acceded to.

Even if it finally boils down to the fact that crime on a beat cannot be controlled without additional manpower, this result is still a worthwhile one. At least an experimental vehicle (the Crime Control Team) will be in place, which can be used to determine how much nampower is needed to control crime at a given level. Can 10 men do the job, or are 20, 50, or 500 required? Such information clearly allows the citizenry to determine how much they are willing to spend for a given amount of law and order. This is in sharp contrast to the present situation, where the Chief feels he needs more men, but is unwilling to make any specific prognosis with regard to the effect on the crime rate that such increased resources would have.

With the conventional police organization the individual policeman is given little opportunity to exercise his initiative, judgment, or imagination. The manner in which a patrolman or investigator spends his eight hours is fairly well determined for him, with little attention given to the way that he feels regarding the most fruitful investment of his time. Policemen are conscientious, anxious to do a good job and (in the author's opinion) perfectly capable of directing their own work. The suggested organization provides a means through which the policeman can demonstrate his ability.

Finally, the position of the Crime Control officer should attract capable individuals. It offers a challenge that can be met with diligence and judgment. The position should obtain stature and respect in the community. The

Crime Control officer is not the one who gives out parking or speeding tickets, stops kids from playing in the street, nor is he apt to jeopardize his Team's effectiveness by treating citizens in a discourteous manner.

III. THE CRIME CONTROL TEAM OPERATIONAL MODE

The organizational structure described in the previous section is termed a decentralized organization. The term decentralization means different things to different people; to some, it is a philosophy of organizational life; to others, it is the geographical dispersion of the organization's operations, while still others view it in terms of decision-making. All of these viewpoints have characteristics in common; the differences are mainly degrees of emphasis.

Decentralization, as an operational means of obtaining the goals of an organization, was advocated by Alfred P. Stone, Jr. of General Motors during the 1920's. The current enthusiasm for the concept started with World War II with its greatest gains occurring during the 1950's. One of the foremost advocates during this period was Ralph J. Cordiner[4] of General Electric, who set down the modern philosophy of decentralization. Although the greatest users of the decentralization pattern have been industry, a number of governmental agencies have decentralized; notably the Army Service Forces during World War II, the Post Office, the Internal Revenue Service and the Veteran's Administration.

Pfiffner and Sherwood[5] point out that a decentralized organization differs from the centralized organization in four principal ways: (1) its formal structure, (2) the behavior of its executives, (3) the setting of its policy and decision making, and (4) its social climate.

The formal structure of a decentralized organization tends toward a flatter job-task pyramid. For example, the Patrol of the Syracuse Police Department consists of six levels; these are the Chief, the Commanders of the Operations Bureau, the Patrol Division, Platoon and Sector, and the Patrolman. The decentralized organization suggested for the same city (Figure 2 has five levels: Chief, Crime Control Head, Sector Head, Team Leader and CCT Officer.

The formal structure of a decentralized organization results in a clear distinction between administrative and operational levels. The operational levels are semi-autonomous, with the administrative levels not becoming involved in day-to-day operations.

Executive behavior is also quite different in a decentralized organization. The top level executive's major efforts are devoted to planning, policy making and evaluation of the results of the operational personnel. They refrain from interfering in current operational matters, and give advice to subordinates in a form that cannot be construed as an order or decision. These are the people who set the broad objectives and goals of the organization. Control is maintained by remote feedback rather than direct supervision.

The operational executive has complete authority to run his unit as he pleases, subject only to the broad policy established by the administrative levels. The operational executive delegates authority and absorbs any criticism caused by the mistakes of his people. He also tries to provide an atmosphere of self-reliance for his unit, where the main payoff is the attainment of desirable results. He encourages subordinates to make decisions, and strongly resists any attempt by a subordinate to evade responsibility by pushing the decision-making process back upon the executive.

In a decentralized organization the decision-making process is pushed to the lowest possible level consistent with the particular situation. The responsibility for the results of any decision remains with the person who accepted the initial responsibility for making that decision.

The social climate in a decentralized organization is relaxed and there is an atmosphere of freedom. Important to the social climate are certain generalized assumptions about people's values, beliefs, fears, drives, goals and aims. As stated by Estes, (6) "one basic assumption . . . is that most people, most of the

time, want to do a good job, they want to learn, to grow, to better their lot, to rack up a good score, . . . and they like to have their self-evaluations confirmed from the outside. In terms of this assumption then, the climate is simply one that releases people to do the good job that most of them want to do anyway."

Communication within the organization is up-and-down, horizontal, and oblique. People communicate with others with whom they have a need to talk; there is no requirement for going through chains of command. Individuals are encouraged to express their ideas and thoughts and to follow programs of self-development.

Decentralization, in many ways, is an idealistic concept whose ethical foundation is democratic. Police administrators, who have matured in the atmosphere of a centralized organization such as a municipal police department, will find that the decentralized way of life is a difficult one to follow. It will not be easy for them to delegate responsibility, to think about long-term plans rather than short-term problems, to listen rather than give orders, and to evaluate individual policemen in terms of their over-all accomplishments rather than their success or failure on an individual task.

One of the most important points brought out by writers on decentralization is that, while an individual should be assigned tasks and given the proper tools, he should never be told how to proceed to accomplish the task. If the individual feels he needs advice on how to proceed, the advice should be given, and logic and persuasion may even be used to convince him to proceed in a particular way; but the supervisor should never order the task to be carried out in a specific manner.

In return for being allowed to make such detailed decisions on how to proceed with a task, the individual must produce satisfactory results; that is,

he will be held accountable. Because of this accountability factor the individual will proceed in a way that he truly believes will yield the maximum probability of accomplishing the task.

A second important point made by decentralizationists is that an individual is not evaluated on his performance of individual tasks but, rather, on his overall performance over a long period of time. Thus, the individual is not discouraged from taking risks that have a potentially high pay-off.

These points must be kept in mind when reading this chapter.

The Crime Control Team consists of eight to ten officers who have the responsibility for controlling crime in a particular beat. The Team Leader accepts this responsibility and is held accountable for controlling crime. He makes the basic decisions of when and where the Team will be deployed. Having been given a time and place to control crime, the individual Team Member assumes the responsibility for accomplishing this task and determines the tactics he will use during his tour of duty.

GENERAL MODE OF OPERATION

The Team will first try to control crime by preventing the crime from occurring; if this tactic fails, then the Team will try to intercept the crime; if both prevention and interception fail, the Team will investigate. Thus, the Team can employ three major tactics to control crime, making it more effective than the conventional operating procedure, which relies, for the most part, on a single tactic-investigation.

Prevention

The Team can rely on a variety of methods to prevent a crime from happening:

1. By surveying, in detail, all commercial establishments for proper security precautions, and making recommendations for improvement.

The Team must insist that these recommendations be implemented.

2. By preventive patrol, meaning that the Team is on the streets in force, during all periods of high criminal activity. Every possible means must be employed to give the impression that the police are everywhere at once.
3. By anticipation. The Team must spend a considerable effort to establish personal contact with the people in the beat. This is done by leaving the patrol car and talking to as many people as possible. In this way the team learns of potential problems, becomes aware of potential troublemakers and hence, takes preventive action. Personal contact is also an excellent way of "getting the word" to undesirable elements that the Team fully intends to control crime on the beat.

Interception

If a crime is committed, it is best for all concerned - the total criminal justice system and the public - if the police can intercept the crime while it is in progress. If the police are able to intercept, then they have a "good" arrest and the prosecutor will have a high probability of disposing of the case without going to trial. The police will not need to spend time in preparing a detailed case for court or sitting through a trial. The district attorney will save manpower and the court calendar will be less crowded. Most important, involved citizens will not need to be subjected to the frustrations and delays of a trial; thus they will not become alienated to the point where they are reluctant to cooperate with the police in the future.

Sooner or later, the police must become involved in every criminal incident; obviously, they can be most efficient if they enter the matter while it is being enacted. Thus the police should place their major tactical emphasis on interception. The Crime Control Team has available two

techniques that can be developed to assure a high interception rate:

1. Random Patrol: [7] A large number of police units, moving rapidly in a random manner, is the best method of obtaining an interception. During periods of high criminal activity, all available units of the Team must be on the streets. The units must actively attempt to detect crime by checking property and individuals. They must move at a speed that is consistent with good observation but, equally important, they must move at the maximum possible velocity.

2. Citizen Participation: The probability of detecting a crime while it is in progress is a function of the number of detection units that are active. The best overall detector is the human being and the police can vastly increase the number of crime detectors available by actively encouraging the citizenry to look for criminal activity. The public must be educated by the Team with regard to detecting a crime, efficiently reporting a crime, and how to proceed while waiting for the police to arrive.

Investigation

If the Team fails to prevent or intercept a crime, it has failed. (The Team, of course, cannot be held accountable for failing to prevent or intercept a crime which occurs at a location where the police have no legitimate right to be.) The failure can only be redeemed by clearing the crime by investigation. Thus, the Team is encouraged to make useful investigations, and discouraged from making useless investigations, because it receives no credit for investigation per se. An uncleared crime is a demerit not only against the individual who was responsible for protecting the area when the crime occurred, but against the Team itself. The investigation is, therefore, not only the business of a single individual, but the business of the entire Team. Thus, lateral cooperation between Team members is established in investigative matters.

SUMMARY

The Crime Control Team, as the basic unit in a decentralized municipal police force, is almost a police force in itself. The Team Leader has the responsibility for controlling crime in his beat, just as the Chief has the responsibility for controlling crime within the city. The Team Leader decides how he can utilize his resources to best meet his responsibility.

The Team can look to central police headquarters to supply any non-criminal police services that may be required on their beat. It can also expect to receive from headquarters such services as communications, crime laboratory, organized crime information, additional manpower (if a prolonged investigation of a serious crime is required) and the necessary record-keeping.

The Crime Control Team can employ three major tactics: prevention, interception and investigation. The Team Leader's major decision is the determination of the proper mix of these tactics at any given time. It is important to note that the available tactics support and reinforce each other but, at the same time, they are self-limiting. For example, by talking to people on the beat, the Team not only can suggest proper security measures and enhance their ability to anticipate problems (the prevention tactic), but they can recruit crime detectors (interception tactic) and begin to build an intelligence system (investigation tactic). Or, by placing a large preventive patrol on the streets, the probability of interception increases significantly.

An interception or successful investigation further strengthens the prevention tactic. On the other hand, since all crime cannot be prevented or intercepted, the Team must devote a share of its efforts to investigation. However, if they expend too much of their resources on investigation they cannot prevent or intercept other crimes. The citizen detector and intelligence system can only be maintained if the citizenry see some results of their efforts. Thus, all of

the effort of the Team cannot be spent on developing these systems; some of the resources must be conserved so that a rapid and effective response can be made to the systems.

The most important aspect of the Crime Control Team concept is that it is an extremely flexible organization. Because it is small and directed by a single individual, the tactic mix can be changed rapidly. If the Team can decrease the number of crimes occurring by the preventive patrol or by interceptions, then it can begin to place more and more effort on investigations. With more manpower available for investigation, more crimes should be cleared, thus further decreasing the crimes that occur because of deterrence. With still less crimes occurring, less investigation time will be required, so still more effort can be expended on patrol.

The Crime Control Team concept is aimed at convincing the potential perpetrator that if he commits a crime he will be caught. If the police can create such a situation, then they have realized their objective. The Crime Control Team is organized to accomplish this result in an orderly and straightforward manner; the only remaining unknown is the size of the team needed to accomplish the task. This question can only be answered empirically.

The following sections discuss the details of a Crime Control Team experiment, including the required long-and-short-range planning, the means used to select leaders, team training, the necessary procedure and policy changes, public relations aspects and the means used for evaluating the experiment.

IV. IMPLEMENTATION OF A CRIME CONTROL TEAM

PLANNING

The implementation of a single Crime Control Team is a step towards the decentralization of a police department. The acceptance by the police of such a reorganization is no different than that experienced by industry. Some individuals in the department, because they see or imagine the destruction of old guard policies, under which they have enjoyed a high degree of personal security, will overtly or covertly place roadblocks in the path of the activation of the Team. Further, these individuals may continue to act in this manner for some time after the Team has been organized and placed on the streets. For this reason, it is a waste of effort to form a Team unless the initiative comes directly from the Chief or, at least, has his complete support.

Also, the Crime Control Team concept should not be evaluated until the department has drawn up long range plans, based upon the premise that the evaluation will be a favorable one. These plans accomplish two purposes:

1. They force decisions to be made at specified times.
2. They allow the administration to tentatively include complete reorganization costs in future budget requests.

In order that the long range plans remain flexible, they should not contain large amounts of detail. The initial plans used in Syracuse were as follows:

Day 1 Outline of experiment to Deputy Chiefs, etc.

Beat and alternate beat selected.

Day 15 Leader and Deputy Leader selected.

Day 22 Team selected.

Day 29 Team reviewed for compatibility

Day 31 to Day 61 Team training.

Day 31 Press Conference - local press and community leaders from selected beat.

Day 60 Final review of plans with Chief.

Day 62 Team committed.

Second Wednesday of every month: Evaluation of results with Chief.

Day 120 Second Team formed.

Day 150 Second Team committed on beat adjacent to first Team.

Day 180 First decision point - whether or not to emphasize the Team concept; draw up plans for twelve teams to be committed by Day 250

Day 365 End of experiment. Second decision point - commit force to the concept or go back to the old system.

Day 450 System implemented for entire force.

This initial plan was, of course, revised many times throughout the period of the experiment. The two major modifications were:

1. Sixty days was too short a time to form and train the first team; actually, ninety days were required.
2. The possibility of committing the entire department to the Crime Control Team concept within fifteen months was a poor guess. More recent evaluations indicate that a three year period would be required to reorganize half of the department, and a complete reorganization would require five to ten years.

The second step in implementing a Crime Control Team was to specify some basic "ground rules" for the experiment. This step is particularly important in order that the Project Director, Team Leader and the Chief understand completely what each can expect from the other. The rules used in the Syracuse project were:

1. Any nine men in the department can be used for the experiment.
2. The Leader was to be selected by the General Electric Company. *
3. The Patrol Division provides for all citizen services, PI's and automobile problems on the beat.
4. The Crime Control Team handles all criminal calls on the beat (call defined as criminal by dispatcher).
5. Beat and alternate beat are to be selected by the Chief.
6. The Crime Control Team Leader is accountable to an executive officer of the Chief's choosing.
7. The Team Leader is to be relieved of all other duties as soon as he is selected. The other eight men are to be relieved at the discretion of the Leader.
8. The Team is to be committed and assume responsibility for the beat at the discretion of the Leader.
9. The experiment is to run for one year. It can be stopped or interrupted only under the following conditions:

   a. The Project Director feels that it is failing.

*General Electric had the responsibility of directing the project in Syracuse. In the spirit of decentralization, the selection of the Team Leader was the only operational decision made by The General Electric Company. All other decisions were made by the Team Leader.

b. The Team thinks that it is failing.

c. Civil disorder.

10. If the experiment looks promising at the end of three months, a second team will be formed and committed to an adjacent beat. Regular patrol units will then be removed from the two beats.

11. The Team Leader's word is final on all investigation questions.

12. Only in matters of murder, civil disorder and organized crime can Team Leaders obtain additional manpower.

13. The Crime Team will be given a budget of $1,500.00 for the year to spend as they see fit.* The Project Director will be the only auditor of this fund.

14. The Department will supply as many vehicles as requested by the Team Leader.

15. The Team's performance will be evaluated using a set of measurements agreed to by the Team Leader, the Project Director and the Chief, before the Team is committed.

SELECTION OF TEAM LEADER

The success of the first Crime Control Team depends strongly upon the selection of a competent individual to administer the Team operationally. If the individual believes in the usefulness of the concept, is a good policeman and has leadership ability, then he will make the Team a success. On the other hand, if he accepts the assignment with the feeling that the concept has no value, or if he is not respected by his fellow officers, or does not have leadership ability, then the experiment probably will not be successful.

The identification of leaders is always a difficult task. In departments

*This money was used primarily for intelligence purposes.

where individuals in upper levels of command continue in their position by reasons of ability, rank may be a good indicator of leadership qualities. Rank is not necessarily correlated with leadership in those departments where occupation of the upper command echelons is determined by a Civil Service structure.

The criteria used for the selection of the Leader in Syracuse were that the Leader must have:

1. The rank of Lieutenant or higher.*
2. The confidence and respect of his fellow officers.
3. A high degree of reasoning ability.
4. A high degree of intelligence.
5. A high degree of self-confidence.
6. An ability to understand and communicate with others.
7. A low level of racial prejudice.
8. A high sensitivity for other people's problems.

The actual selection of the Team Leader was carried out in three steps. The first step was a screening process to identify a number of possible candidates. This step was accomplished by giving about fifteen command officers in the department a list of all the officers who had the rank of Lieutenant or higher, and asking them to select five to eight of the individuals who they felt best met the specifications outlined above. This screening quickly reduced the list from about thirty-five individuals to eight. The second step was another screening process in which the eight officers selected in the first step were interviewed

*There were two reasons for this specification; first, it was believed that a great amount of red-tape could be bypassed in getting the Team operational if the Leader could speak from a position of authority. Second, if the Team concept was successful, then individuals to fill the positions of Sector Heads and Crime Control Bureau Heads would need to be found, in order to extend the concept throughout the city. These people would be Captains or Deputy Chief's. The best training for these officers would be experience in leading a Team in the field.

by the Project Director. The interview was structured around the following set of questions:

1. Do you like your present job?
   a. Would you consider leaving your present assignment?
2. How long has it been since you have been on the streets as a patrolman or supervisor of patrolmen?
3. What is your military experience?
4. Suppose you were given the opportunity to take over the Chief's job:
   a. Would you want it?
   b. Where would you be strong?
   c. Where would you be weak?
5. What is your education?
6. Read article, page 47, March 8, 1968 issue of Life.*
   a. Tell me about the article.
   b. Give a description of the type of person you feel wrote the article.
   c. Do you believe what is said in the article?
   d. What is the basic problem of the family?
   e. Any suggestions on how they could solve their problem?
   f. What is going to happen to the boy?
7. There are seven or eight Negros in the Syracuse Police Department.
   a. Do you know any of them well, been in their homes, etc.?
   b. 2% of the force is Negro - 7% of the city is Negro. Why is there such a small percentage on the force?
   c. Is this right?

*This is a story of the daily life of a Negro family in a New York City ghetto. The article served as a convenient lead-in to a discussion of the officer's attitudes towards the Negro.

   d. About 25 per cent of the police hold the rank of Sergeant or above. None of the Negro police have any rank--Why?
8. Have you ever been interviewed by a psychologist?
   a. Would you be willing to be interviewed by a psychologist?
9. If I were able to convince you of the usefulness of a new concept in operational procedures for the police, would you be willing to consider working with me for the next year to experimentally evaluate the concept?

The second step in the screening process reduced the number of potential candidates to three. Three were eliminated because they wished to remain in their present assignments; one because he did not appear to have a "low" level of prejudice; and one because he lacked reasoning ability or, at least he failed to orally demonstrate this ability.

The final step consisted of an interview of the three remaining candidates by a psychologist. The psychologist who conducted the hour-long interviews had considerable experience in the evaluation of potential leaders for industry. The results of these interviews were essentially, that there was no indication of any factors that would disqualify any of the three candidates for the position of Team Leader.

It is of interest to note, based on the limited sample, that the two screening processes provided measures of possible leadership candidates, which were not negated by the psychologist's interviews.

TEAM SELECTION

Several generalized decisions about Team personnel were made by the Team Leader and the Project Director before attempting to recruit Team members.

The first question concerned the general level of the make-up of the Team. Should it be composed of "average" policemen or the "best" policemen in the department? By using the "best", the experiment would be biased. That is,

the Team would not be representative of the personnel available to form other Teams, if the Team concept were to be implemented city-wide. Balancing this factor was an awareness that the members of the first Team would face many problems which, if solved, would not be encountered by subsequent Teams. And if these "one-time" problems were not solved, then the success of the experiment would be jeopardized. For this reason it was decided to use the "best" policemen that were available for the Team.

The second question was whether or not to use policemen who had many years of experience. It was decided to use inexperienced policemen, since it was felt that these individuals would be more receptive to new and different ideas and procedures.

Thus, although the selection of members, who were above average in personality and mental characteristics, biased the experiment in one direction, the lack of practical police experience biased the experiment in the opposite direction.

The actual appointment of an officer to the Team followed only after he had been completely briefed with regard to what would be expected of him, the nature of the experiment, and an expression by him of his desire to become a part of the program.

The team was reviewed for compatibility by having the psychologist sit in on a number of the training and discussion sessions.

TEAM TRAINING

The Team received about 100 hours of additional training. Approximately one-half of this instruction was devoted to conventional police techniques, the remainder to subjects that are not usually included in the police curriculum. Most of the conventional training was in the area of investigation techniques since the Team members had only limited experience in this area.

The other areas of instruction were varied. Brief outlines of the subject matter, why they were included, and a value judgment of their usefulness are outlined below. All of the instructors were civilians who had extensive knowledge of their subjects. The value judgments of the subjects and the instructors were made by the students at the end of the training period.

Effective Presentation

This is a public speaking course that is available to all General Electric employees. The regular course consists of about twenty-six hours of class work; the police course was shortened to eighteen hours. This course was given to the Team members in order to improve their ability to communicate. There was, however, a more important reason for the course. The course, as conducted in General Electric, involves an evaluation of each other's talks by the other students, which appeared to be a very effective means of indoctrinating Team members in the giving and receiving of constructive criticism. It was felt that such criticism was required for the deployment of an effective team.

The Team members, as a whole, rated this instruction very high. They felt it helped them to become better citizens and policemen, and that it gave them confidence in their ability to communicate. None of the Team members recognized that one of the reasons for giving the course was to familiarize them with the process of mutual criticism.

Negro History

This lecture took about ninety minutes and reviewed the history of the American Negro. Particular emphasis was placed upon the post World War II period and the civil disorders of the past few years. The lecture was followed by a ninety-minute discussion and questioning session.

Most of the Team members felt that this session was useful to them as citizens and policemen. Some of the students felt this course should have been extended to two sessions, so more details of the history could be discussed.

The Negro Attitude Toward the Police

This was a four-hour discussion session. The discussion leader was a young lady who had a detailed knowledge of the history of the interaction between the police and Negroes in Syracuse. This knowledge was detailed enough so that she was able to cite specific instances where each of the Team members had made what she considered to be a poor response to a problem in the Negro community. The discussion at times became heated. But after the first ninety minutes, both sides settled down and suggestions were made and evaluated as to how the Team should conduct itself in their contacts with Negro citizens.

Most of the Team members evaluated this session as being useful. Members who were not enthusiastic were those who had their noses bent and their attitude was understandable. The administrative personnel who attended the discussion were pleased with the session, since it clearly accomplished a number of useful points. First, it was probably the first time these policemen had ever been exposed, in depth, as to why the Negroes have the attitude that they have towards the police. Second, it clearly demonstrated that the Team members could withstand severe criticism without losing their composure. Finally, the last hour of the session proved to the Team members that there are ways to conduct police business that will not be so irritating to the Negro, and at the same time, will not reduce the dignity of the officer.

Concept of Decentralization

This was a series of twelve one-hour discussion sessions. There were a number of objectives to be realized in these meetings, including:

1. an understanding of the Crime Control Team concept,
2. the concept of responsibility and accountability,
3. the development of alternatives and their evaluation,
4. the concept of calculated risk,

5. the development of imagination.

The first two of these objectives were covered by a discussion of the contents of the first three sections of the report.

The third, fourth and fifth objectives were undertaken by examining actual police problems that had materialized in the immediate past, and by brainstorm sessions.

In general, the leader of these sessions felt that the first two of these objectives were realized; probably the last three were not. Only in rare instances were Team members able to suggest alternatives to conventional police response without considerable probing. Even after alternative solutions were made available, seldom did the Team members feel that these solutions had merit. The Team members did considerably better when the problem under consideration did not involve a need for direct physical response. For example, the results of their efforts to design a police patrol vehicle are shown in Figure 3. There were other evidences of the development of imagination; for example, having decided it would be useful to examine their beat from the air, the Team, completely on its own, arranged for helicopters and the acquisition of aerial photographs.

The team was completely unable to evaluate the usefulness of these sessions; probably because the classes were conducted in an informal manner. Until the end of the training period, the students were not aware that the classes were anything more than bull sessions.

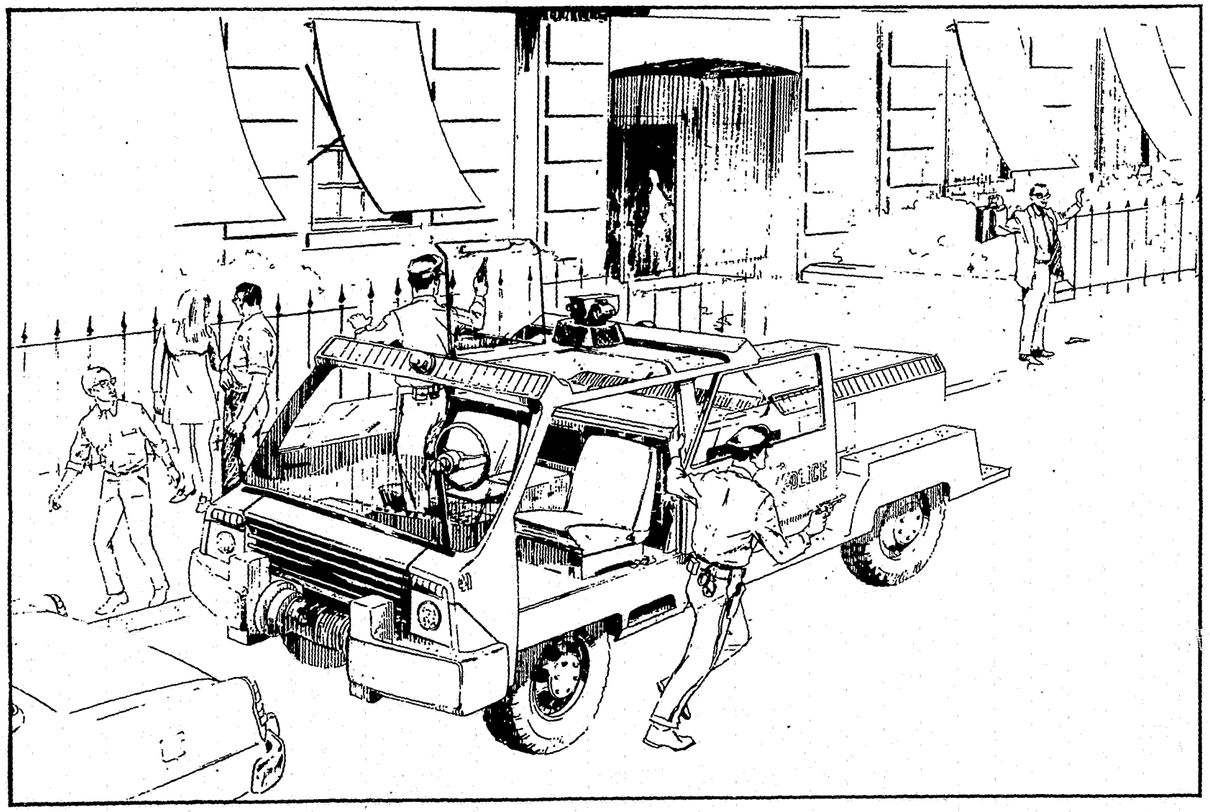

Figure 3. A Police Patrol Vehicle Designed During Crime Control Team Training Sessions.(8)

Management Skills

Very early in the experiment it was recognized that the lack of certain managerial skills within the Syracuse Police Department would be a serious impediment to reaching the full operational capabilities of the Teams.

Inherent in the CCT concept is the style used to manage the Team, which must be of the participative form rather than the classical approach. Although many members of the Syracuse Police Department have taken business courses in which they studied the principals of participative management, the conventional police operation provides few opportunities for exercising such techniques. Since the policemen in the CCT had always been managed by the classical approach, there were additional difficulties encountered because they did not know what they could expect from a participative form of management.

Further difficulties were also recognized, particularly in the areas of planning and evaluation.

Not until the program had proceeded for about 18 months was a means found for rectifying this problem. While it was obvious that a training program was required, it was not apparent how it should be implemented. The management courses offered in the local colleges did not seem to be of the form required, nor were they taught with the police environment in mind. The implementation problem was solved when a General Electric management consultant became interested in the problem. This gentleman was a commander in the Army Management School and, at present, is involved in management training in General Electric and lectures regularly on the subject of management at Syracuse University.

A basic management skills course, consisting of 16 two hour sessions, was designed. The course content is outlined below.

The Nature of Management

Who Is The Manager?

Motivational Management - Why People Work

A Philosophy of Management - Managerial Styles

Communicating Is Good Business

Interviewing Techniques

How To Be A Creative Manager

Development of Interpersonal Skills

Conference Techniques

Elements of Planning

Problems of Organization

Integration of Effort

Management Controls - Measuring

Work Planning For Managers

Decision-making Techniques

The Management of Resources

Although the course was primarily given to CCT people, officers from other elements of the Department that interfaced with the CCT were included so they would be aware of the techniques being used. Eighteen policemen attended the course:

4 - CCT policemen	3 - Deputy Chiefs
2 - CCT sergeants	2 - Captains
1 - CCT lieutenant	2 - Lieutenants
1 - Chief of Police	2 - Sergeants

1 - Deputy Sergeant - Onondaga County Sheriff's Department

The course was completed in June 1970. The attendees all expressed the opinion that the course had value and the CCT people were able to recognize specific applications to their particular operation. *

This introductory course will be followed by more advanced, recommended courses at local universities.

Summary of Training

There is no question but that the time spent on public speaking, the history of the Negro and his attitude towards the police, and the management skills was well spent. These subjects should be included in the training of all policemen.

More effective ways must be found to develop imagination and a willingness to attempt calculated risks in Crime Control Officers. It probably cannot be done in a short period. The initial sessions will probably need to be followed up with additional training, extending over a period of several years.

Experience has shown that the amount of time spent on instruction in investigation techniques was completely inadequate. The classroom instruction should have been followed with field work in the company of an experienced investigator for a period of at least several weeks.

BEAT SELECTION

The original intention was to commit the Crime Control Team to a ghetto beat. Early in the planning stages, the responsibility of developing a plan to prepare the beat population for the experiment was given to a General Electric Community Relations expert who had extensive contacts with the Negro community.

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*The student evaluation of the course is presented in more detail in Section XI.

The plan, which was developed, contained three major points:

1. The Team would be committed in an overt manner.
2. A number of meetings would be held with the members of the beat community in order to give the community a sense of involvement by allowing them to take part in the planning of the experiment.
3. Before any overt action was taken, the plans would be submitted to a selection of Negro leaders for their evaluation of the success of the plan.

The plans for committing the Crime Control Team to a ghetto beat were submitted, through several independent sources, to the Negro leaders. Almost without exception their advice was against any attempt to commit the Team in an overt manner. They felt that it would be impossible to get the community involved in the experiment and that the timing was particularly poor (June, 1968).

Several Negro leaders suggested that the team be committed in a covert manner. This possibility was examined and rejected by the police for two reasons:

1. the lack of internal security within the department would make it impossible to keep a change in police procedure secret, and
2. it would be embarrassing to the police to withdraw the Team if it were viewed with hostility by the neighborhood.

The beat that was finally selected for the experiment was known as Beat 50. It is an area of about 0.8 square miles, containing about fifty blocks. The ethnic grouping is about 30 % Negro, 5% Puerto Rican, 5% American Indian and the remainder white, principally of Italian descent. There are about one hundred businesses in the area, ranging from small grocery stores to small manufacturing plants and insurance offices. One portion of the beat is rapidly deteriorating and, within the next few years, will probably show a considerable increase in the

percentage of Negroes living there. In 1967, the beat ranked fourth in the city in terms of the total amount of crimes committed.

The principle reason for selecting this beat was that it contained a cross-section of typical police problems and the operational details of the Team could be worked out without being seriously complicated by racial considerations.

PUBLIC RELATIONS

Early in the planning stages, public relations people from the police department and the General Electric Company were informed of the experiment and asked to formulate plans regarding the publicity and community relations aspects of the program. The basic objective was to obtain a maximum of citizen cooperation for the Team during the period of the experiment.

The following specifications were set forth as guidelines for the public relations effort:

1. The initial news break of the experiment must be correct and thus, every effort should be made to prevent a premature leak.
2. The specific geographic area in which the Team would operate would not be identified in print until four to six weeks after the Team was committed.
3. Specific efforts should be made to keep community leaders in the beat areas completely informed with regard to the plans of the police.

The plan that was developed and subsequently followed is outlined below:

1. The Mayor was informed of the experiment.
2. The story was released at a meeting attended by news media executives, the Mayor, the Chief and the Team Leader. Fortunately, a meeting between these individuals had been planned to discuss the handling of news in the event of a civil disorder. The details of the experiment

were exposed at this meeting and an invitation was extended to the press to attend training sessions and to accompany Team members on patrol after the Team was committed. Team members were relieved of their previous assignments as of the date of this meeting.

3. On the same day as the meeting with the press, the members of the Department were informed of the program.
4. Two weeks before the Team was committed, a meeting was held with the political and religious leaders of Beat 50 to inform them in detail, of the program and to introduce them to the Team members. The press was not invited to attend this meeting. The religious leaders were contacted by Team members and solicited personally to attend the meeting. Political leaders (ward chairmen, city councilmen, county legislators, the state assemblymen and the state senator) were contacted personally by a respected civic leader and asked to attend the meeting. The leaders were promised they would be kept informed of the progress of the experiment through subsequent meetings.
5. During the training period, Team members spent one or two hours a day visiting the business establishments in the beat. These visits accomplished two purposes. First, they allowed the Team to examine and familiarize themselves with the security measures of each business and to make suggestions for improvements. Second, they permitted the Team to inform the business community of the nature of the experiment.
6. The final press conference was held the day before the Team was committed. The members of the Team were introduced publicly for the first time.

Without question, the plan that was developed by the public relations people proved to be an unqualified success. Throughout the first month that the Team was in the field, fifteen stories, including four editorials, were published in the local papers. Nine TV news stories, including three in depth, were aired. All of these stories were accurate and favorable to the experiment. Favorable press coverage continued throughout the period of the experiment.

The religious and political leaders were enthusiastic about the program. They developed into the major source of feedback to the police, indicating how the beat population viewed the Team.

Without exception, the business leaders welcomed the program. All suggestions that were made to increase the security of premises were accepted and acted upon by these people.

EQUIPMENT

The Crime Control Team used equipment that is standard with most police forces, or at least has been evaluated previously by the police. Four items, however, deserve additional comment.

The Team had one marked and three unmarked automobiles at its disposal. If additional vehicles were required, they were made available. The marked unit was clearly recognizable as a CCT unit, and was an effective means whereby the population of the beat could identify themselves with the Team. This unit was on the streets twenty-four hours a day. The unmarked vehicles were both new and used and were borrowed from local automobile dealers. Because of the different body styles, the use of white wall tires, and because the units were exchanged every three months, the units were seldom identified as belonging to the police.

The officers, when in uniform, wore conventional uniforms with two exceptions. They wore white shirts (the regular police use gray shirts) and a badge signifying "Crime Control Team Member" above their name tags. These changes accomplished two purposes. First, they increased esprit de corps because they separated Team members from the rest of the Department. Second, they aided the beat population to identify themselves with the Team. As the experiment continued, citizens would often request police service by asking for "a white shirted policeman, not a gray."

The CCT officers were equipped with walkie-talkies. This was the first time patrol units in Syracuse used this type of equipment on a regular and continuous basis. The success that the Team had in making personal contact with the population of the beat was, to a great extent, due to these radios. Because of this equipment, Team members were not reluctant to get out of the car and spend time talking to people on their porches, in shops and bars, and on the streets. They could remain in service and be fully aware of other police activities that were taking place in the city. The CCT officer seldom is out of service; only when he is engaged in an activity that cannot be interrupted does he remove himself from service. Because of the radio, he does not go out of service when checking buildings, developing intelligence sources, or aiding Citizen Service Units in the beat area.

The officers were also equipped with small battery-powered tape recorders which, unfortunately, were only available at the start of the program. Because of the many detailed operational problems occurring during this period, it is felt that this equipment did not receive a fair evaluation. The men were encouraged to use the recorder for certain crime reports, intelligence information

and for taking affidavits. However, the Team was not forced to use the recorders for these purposes and they seldom did. Within a few weeks, they were often not even carried by the officers. Certainly one possible reason for this unfavorable evaluation was that the Team members never really became well enough acquainted with the recorder to realize it's usefulness. (It is of interest to note that, after the recorders were returned, most of the Team members expressed the opinion that they were glad to be rid of them. It seems that during the three-month period they were being evaluated, the officers were concerned that they would either lose or break this expensive equipment.)

TEAM DEPLOYMENT

The Crime Control Team, when patrolling, has three functions:

1. To deter criminal activity.
2. To detect criminal attacks.
3. To serve as a reaction force to a criminal attack.

During daylight hours, its only function is that of a reaction force (since the citizens themselves are effective deterrents and detectors of crime). Because of the low probability of a crime occurring during the day, any manpower expended during daylight should be an absolute minimum; that is, one unit.

As darkness occurs, the ability of the citizens to protect themselves and to detect criminal attacks rapidly decreases; thus the Crime Control Team's patrol must assume these functions. The only hope of doing this effectively is to deploy the maximum possible amount of manpower during the nighttime hours.

Several other general specifications can be set forth, based on an examination of the time that crimes occur in a particular area. In Area 50, for example, very few crimes occur after 0200 hours (0400 on Saturday night). The least amount of crime occurs on Tuesday and Wednesday nights; the most occurs on Thursday and Saturday; Monday, Friday and Sunday nights have less crime than the Thursday-Saturday level.

While the above points form the basic specifications for the development of deployment schedules, there are other considerations of almost equal importance. The working conditions for policemen are difficult enough without further aggravating the situation by irregular work schedules. Three elementary rules that must be followed are:

1. Work no more than eight hours in a twenty-four hour period. These eight hours should be the same for every working day.
2. Work no more than forty hours in any seven-day period.
3. Two consecutive days off out of every seven. Time off must also be systematized so that the officer knows when he will be off duty at least two weeks in advance.

Of the three rules, the last is the one which should never, if at all possible, be violated. Nothing is more upsetting to the harmony of a family than to have family plans disrupted because of the demands of employment.* Rules 1 and 2 are important because if they are disregarded over an extended period of time, the efficiency and alertness of the policeman will be affected.

The scheduling of manpower within the above rules becomes a difficult problem with small units. It can, however, be done with sufficient planning.

*It is well known that the divorce rate among policemen is one of the highest of all professions. (This statement seems to be believed by most policemen; however, the authors have not been able to find any documentary evidence to substantiate it.) While this rate is probably due to many factors associated with the job, the uncertainty in the working schedule must be one of the major factors.

The first step is to set up a deployment schedule to be used under normal conditions (i.e., all of the Team members are available for duty). The development of the schedule follows from an examination of the temporal distribution of crime. For example, after the Crime Control Team had been on the streets for two months, the temporal distribution of crime indicated that manpower should be deployed as shown in Figure 4.* The assignment of days off is shown in Figure 5. One possible deployment schedule is shown in Figure 6. Although it is impossible to adhere rigidly to the first rule with such a small unit, the schedule is so designed that the officer works four of his five days during the same eight-hour period, the fifth tour is scheduled with as little change as possible.

The second step is concerned with the deployment of manpower in the event one of the Team members is not available for duty (sickness or furlough). A glance at the regular deployment schedule shows that at only certain times during the week is it possible for a problem to arise. These are the times when only one unit is on duty. Thus, a set of rules must be set down to cover these eventualities. These rules are shown in tabular form in Figure 7.

Information such as is contained in Figures 6 and 7 is easily stored in a computer, and any required deployment changes can be quickly made available to the proper personnel.

INVESTIGATION PROCEDURE

One difficulty in establishing any investigation procedure is that the bulk of the Crime Control Team's manpower is deployed at night, while a major portion of follow-up investigation work must be performed during the daylight hours.

*For a number of reasons (having to do with the size of Area 50, the number of vehicles available, the desirability of allowing some of the Team members to have Saturday or Sunday off, etc.), the maximum force which could be deployed consistently in one twenty-four-hour period was 6 units, exclusive of the Leader and Deputy Leader.

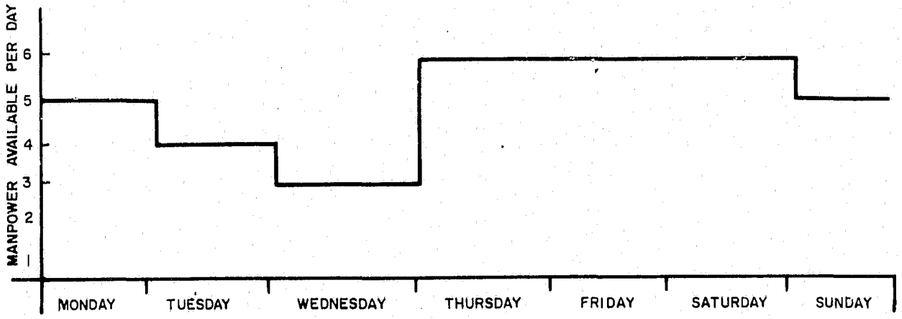

Figure 4. The Distribution of Manpower by the Day of the Week

DAYS OFF

TEAM MEMBERS	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
1		X	X				
2		X	X				
3		X	X				
4	X						X
5	X						X
6					X	X	
7			X	X			

Figure 5. Schedule of Rest Days

DUTY HOURS

DAY	0800	1000	1200	1400	1600	1800	2000	2200	2400	0200	0400	0800
Mon.	2	6	6	6	6	7 1	7 1 2	7 1 2	3 7 1 2	3 2	3	3
Tues.	4	4	4	4	6	6 7	6 7	6 7	5 7	5	5	5
Weds.	4	4	4	4	6	6	6	6	5	5	5	5
Thurs.	4	4	4	4	6	6 1 3	6 1 2 3	6 1 2 3	5 1 2 3	5 2	5	5
Fri.	4	4	4	4	1	1 3 7	1 3 2 7	1 3 2 7	5 3 2 7	5 2	5	5
Sat.	4	4	4	4	1	1 3	1 3 2 7	1 3 2 7	3 2 7	2 7	5	5
Sun.	5	5	6	6	6 1 7	6 1 3 7	1 3 7	1 3 7	3	2	2	2

Figure 6. Deployment Schedule under Normal Operational Conditions

MAN NOT AVAILABLE FOR DUTY	DAY	REDEPLOYMENT
1	Friday Saturday	No. 3 tour shifted to 1600-2400 No. 3 tour shifted to 1600-2400
2	Monday Sunday	Deputy Leader covers No. 7 tour shifted to 1600-2400 No. 3 tour shifted to 0000-0800
3	Monday Sunday	No. 2 tour shifted to 0000-0800 No. 7 tour shifted to 1800-0200
4	Tuesday, Wednesday Thursday, Friday, Saturday	Deputy Leader covers
5	Tuesday Wednesday Thursday, Friday Saturday Sunday	No. 7 tour shifted to 0000-0800 Deputy Leader covers No. 2 tour shifted to 2000-0800 No. 3 tour shifted to 0000-0800 Deputy Leader covers
6	Monday Tuesday Wednesday Thursday Sunday	Deputy Leader covers No. 7 tour shifted 1600-2400 Deputy Leader covers No. 1 tour shifted to 1600-2400 No. 1 tour shifted to 1200-2000
7		No redeployment required

Figure 7. Rules for Changing Deployment Schedule in the Event a Team Member is Not Available for Duty.

Thus, any investigation that requires significant amounts of manpower dictates that the work rules outlined in the previous section on deployment be violated.

Three fundamental considerations have guided the investigation procedure used by the Syracuse Crime Control Team:

1. Violations of the deployment work rules should be minimized.
2. The procedure should prevent any tendency to establish investigation specialists within the Team.
3. The procedure should encourage an attitude of teamwork in investigation matters (i.e., any publicity resulting from a successful investigation should not cite individuals, but rather the Team as a whole).

The outline of the investigation procedure used is:

1. The Team Officer responding to the initial complaint has the responsibility for disposing of the complaint in a satisfactory manner.
2. This Officer has the authority to make the following decisions:
   a. Is there a high probability that follow-up investigation will result in an arrest of the perpetrators? If the decision is yes, then -
   b. Should a follow-up investigation be made?
   c. What is the manpower required?
   d. What specific tasks should be assigned to the additional manpower?
   e. When should the investigation process be stopped and the case closed?
3. If the officer decides he will make the follow-up investigation, he informs the Team Leader, and the officer is removed from his regular duty tour until the necessary follow-up is completed.
4. Warrants are served by whatever Team Member is available at the time the warrant is issued.

5. Occasionally there may be crimes where it is necessary for the police to "show the flag" for public relations reasons, even though it is obvious that investigation will prove fruitless (e.g., crimes that have received excessive news coverage, or where the victim is a prominent citizen, and so on). In these instances the Team Leader has the responsibility for performing the investigation in a satisfactory manner.

DATA PROCESSING

Data processing equipment was used for two purposes during the experiment. The first was to perform statistical calculations on those measures that were selected for the evaluation of Team effectiveness. The equipment was also used to provide administrative information to the Team Leader. Although the practical need for an administrative data processing system for the experiment was questionable, the experiment offered the opportunity to innovate with different systems and to evaluate their usefulness.

Most conventional police data processing systems suffer from one or more of the following difficulties, when viewed from the standpoint of crime:

1. They are principally service-oriented rather than event-oriented. That is, they are usually concerned about when and where the police service was required, rather than where and when the event occurred.
2. The location of the event is either overspecified (by an exact street address) or underspecified (by a reporting area, usually a census tract).
3. The input to the system is clumsy, in the sense that the data must be acquired from a number of different source documents of different formats.
4. The type of crime is underspecified, since either the legal or FBI definition is used. A police administrator is not only interested in the fact that a robbery took place, but also in knowing whether it was a

hold-up or a mugging, since these are distinctly different police problems. Likewise, he is interested in whether an assault was the result of a family dispute or a barroom brawl, or if a theft was from a house, automobile or business.

5. The outputs of the systems are usually difficult to digest because of the quantity and format of the output.

The data processing system that was designed and implemented and utilized for the Crime Control Team attempted to alleviate these difficulties. The system is event-oriented in that it is principally concerned with the time and location of a crime. The location of the event is specified to within a single block and a single side of the street. The type of crime is described in terms of basic police problems.

The only inputs to the system are generated by the Team Member, and are recorded on two simple forms. The outputs of the system are mainly graphical in format. The implemented system tries to answer at least two questions for the Team Leader:

1. In the past, when, where and how did criminals make their attacks?
2. In the past, did you have your manpower deployed correctly to meet these attacks?

In addition, the system was used to collect information of a more general nature, such as: Who causes crimes? Could the police have detected the crime? If the crime was cleared, how was it cleared? etc.

Data Input

All the data input to the system was generated directly by the Team Member and recorded on two forms using a format that could easily be transferred to punch cards. Particular attention was given to the design of these forms, making sure that they contained all of the required administrative data and took

less than one minute to fill out. The forms were not official documents and they were sent directly to the Project Director by the Team Member.

Internal Crime Report

The pertinent information on a crime was recorded on the Internal Crime Report form shown in Figure 8. Blanks I through IV identify the beat, the specific crime, the date and day of the week that the crime occurred. Blank V is a value judgment of the weather made by the officer (in the sense of whether it was good or bad for the particular season of the year). Blank VI locates the crime by block number and side of the block according to the map shown in Figure 9. The time the crime was detected appears in Blank VII. The time the crime occurred which often, of course, can only be estimated, is in Blank VIII. The Team Members were encouraged to fix this time as close as possible, and a space is included in VIII for an indication of how accurate the officer believed his guess to be.

In IX, the crime is classified in several different ways, with the type identified more specifically from the table on the right side of the form. Blank X tells who detected the crime and XI notes whether the police patrol could have detected the crime. Once again, this is a value judgment by the officer. A crime is defined as detectable by the police if, in the normal course of patrolling, the crime could have been intercepted by the police while it was in progress. If the crime was cleared or unfounded, this is recorded in XII, and why it was cleared is recorded in XIII. The method of clearance refers to basic action that permitted the police to clear the crime. If the police answered a complaint and apprehended the criminal at the scene of the crime, or if the victim identified the criminal by name, then the crime is cleared because of citizen action. If the police detected the crime and made an immediate apprehension at the scene, this is an interception. If the crime was cleared by fingerprints, from

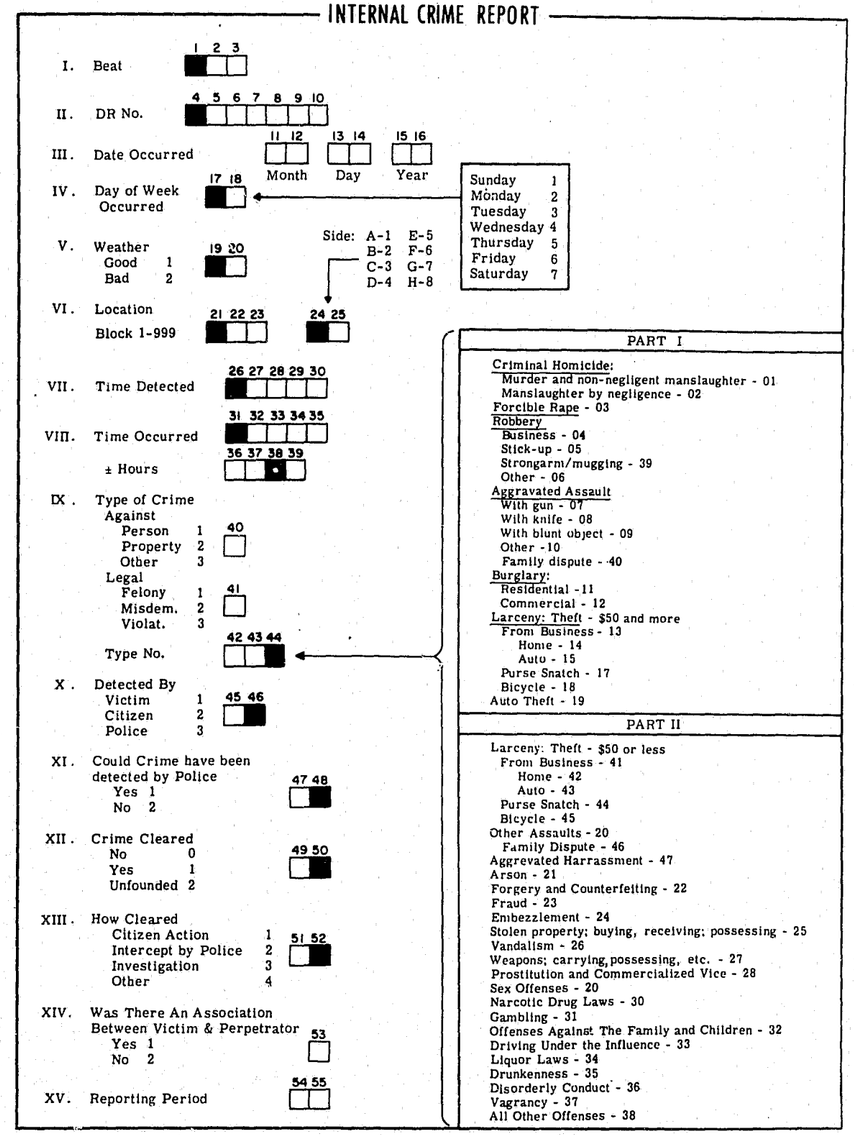

Figure 8. Form for Recording Pertinent Crime Data.

SYRACUSE POLICE DEPARTMENT

CRIME CONTROL TEAM
AREA 50

SYRACUSE, N.Y.

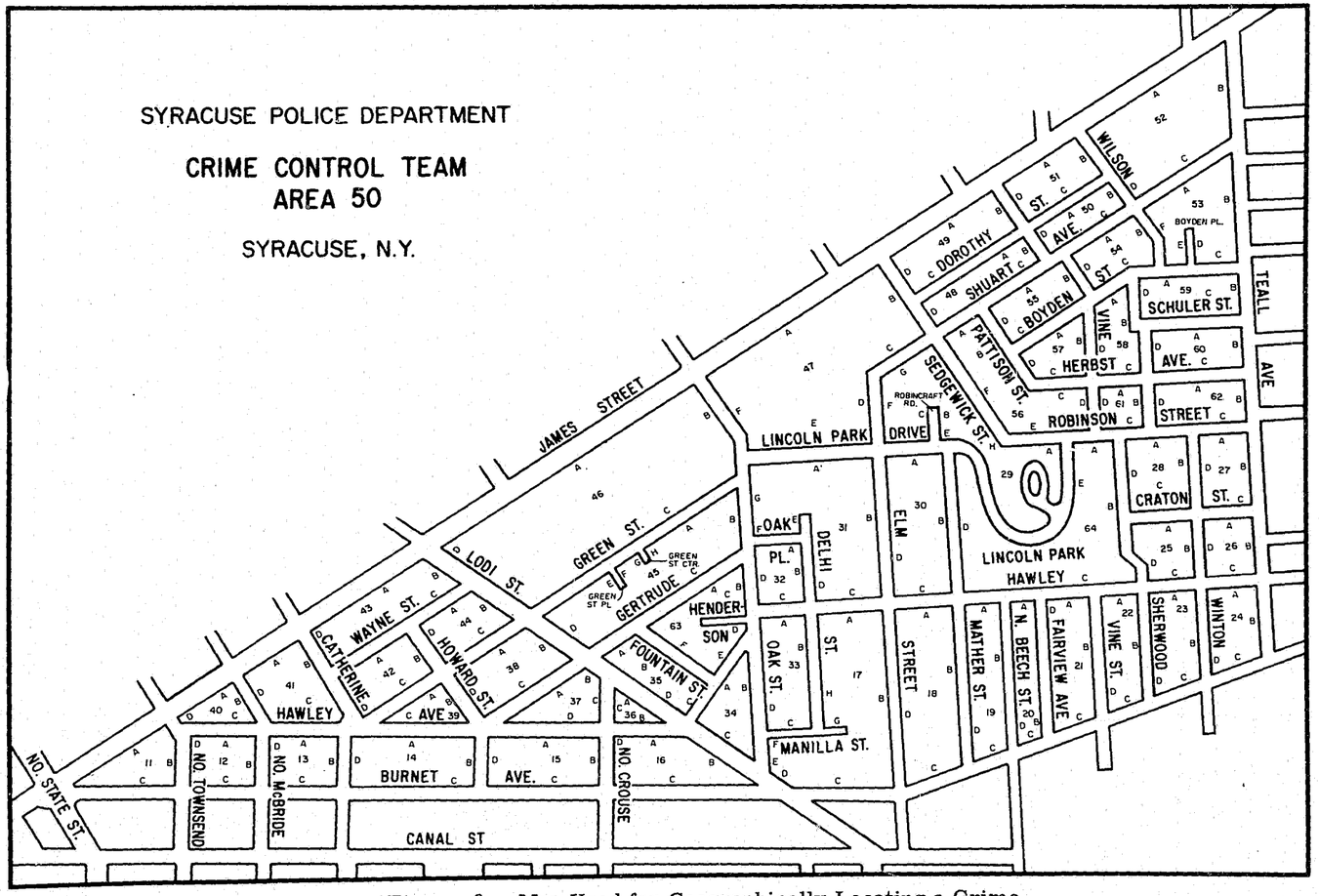

Figure 9. Map Used for Geographically Locating a Crime

physical descriptions, from informer information, confessions, and so on, it is termed cleared by investigation.

XIV records whether there was a previous association between the victim and perpetrator. XV identifies the particular twenty-eight day reporting period during which the crime occurred.

Note that if the crime is not cleared immediately, Items XII-XIV are not filled out. If the crime is cleared at a later date, the same form is used but only Items II, XII, XIII and XIV are filled out. The numbers above the blocks on the forms refer to the specific column on an IBM punch card where this piece of data is entered.

Internal Officer's Log

Data concerning the way that the Crime Control Team was deployed temporally and tactically is derived from the Internal Officer's Log form, Figure 10. This form, again, is not an official document, and was sent directly to the Project Director by the Team Member. The purpose of this form is not to account for the way that the officer spent every minute of his duty tour but, rather, to keep track of how much effort was devoted to active patrol or to investigation. No attempt was made to record the amount of time spent on prevention or public relations activities or the time devoted to the development of intelligence sources. Thus, the sum of the times recorded in the log are not expected to add up to eight hours.

The form, in general, is self-explanatory, with a few exceptions. The boxes labeled IBM identify the particular officer. Mobile patrol time is defined as time spent in actively attempting to intercept crime. Investigation time includes the time spent in responding to a criminal complaint (the initial investigation) plus the time spent on follow-up investigations.

Patrol time is recorded as follows: The hours of the day are printed

INTERNAL OFFICER'S LOG

Date of Start of Tour — Month 1 2 | Day 3 4 | Year 5 6

IBM No. 7 8 9 10 | Miles Driven 11 12 13 | Beat 76 77

MOBILE PATROL

00	0000	0300	0600	0900	1200	1500	1800	2100	2400
05	002	038	074	110	146	182	218	254	
10	003	039	075	111	147	183	219	255	
15	004	040	076	112	148	184	220	256	
20	005	041	077	113	149	185	221	257	
25	006	042	078	114	150	186	222	258	
30	007	043	079	115	151	187	223	259	
35	008	044	080	116	152	188	224	260	
40	009	045	081	117	153	189	225	261	
45	010	046	082	118	154	190	226	262	
50	011	047	083	119	155	191	227	263	
55	012	048	084	120	156	192	228	264	
60	0100	0400	0700	1000	1300	1600	1900	2200	
05	014	050	086	122	158	194	230	266	
10	015	051	087	123	159	195	231	267	
15	016	052	088	124	160	196	232	268	
20	017	053	089	125	161	197	233	269	
25	018	054	090	126	162	198	234	270	
30	019	055	091	127	163	199	235	271	
35	020	056	092	128	164	200	236	272	
40	021	057	093	129	165	201	237	273	
45	022	058	094	130	166	202	338	274	
50	023	059	095	131	167	203	239	275	
55	024	060	096	132	168	204	240	276	
60	0200	0500	0800	1100	1400	1700	2000	2300	
05	026	062	098	134	170	206	242	278	
10	027	063	099	135	171	207	243	279	
15	028	064	100	136	172	208	244	280	
20	029	065	101	137	173	209	245	281	
25	030	066	102	138	174	210	246	282	
30	031	067	103	139	175	211	247	283	
35	032	068	104	140	176	212	248	284	
40	033	069	105	141	177	213	249	285	
45	034	070	106	142	178	214	250	286	
50	035	071	107	143	179	215	251	287	
55	036	072	108	144	180	216	252	288	

INVESTIGATION

DR 14 15 16 17 18 19 20 — Hours 21 22 23

DR 24 25 26 27 28 29 30 — Hours 31 32 33

DR 34 35 36 37 38 39 40 — Hours 41 42 43

DR 44 45 46 47 48 49 50 — Hours 51 52 53

DR 54 55 56 57 58 59 60 — Hours 61 62 63

DUTY TOUR

16 17 18 → 19 20 21

MOBILE PATROL

22 23 24 → 25 26 27

28 29 30 → 31 32 33

34 35 36 → 37 38 39

40 41 42 → 43 44 45

46 47 48 → 49 50 51

52 53 54 → 55 56 57

58 59 60 → 61 62 63

64 65 66 → 67 68 69

70 71 72 → 73 74 75

Figure 10. Form for Recording Patrol and Investigation Time

between the three pairs of horizontal lines. The hours are divided up into five-minute segments by the scale along the left hand side of the chart. Time thus moves from top to bottom of the chart and then to the top of the next column. The time, 1230 hours, is represented for example by the number 151, 0510 hours by number 063, and 2300 hours by the number 277.

An example of a completed log is shown in Figure 11. The officer's tour of duty lasted from 0000 hours to 0800 hours. This is recorded in boxes 16, 17, 18, and 19, 20, 21 with the number 001 and 097. His first patrol started at 0010 hours and a horizontal line was drawn through the number 003 which corresponds to that time. At 0500 hours, he investigated a crime, DR173205, and spent thirty minutes on the problem. The end of the first patrol is noted by a line through the number 011, and a vertical line connects the number 003 and 011. The investigation time is recorded in the appropriate space in the upper right-hand corner of the form. The officer resumed patrolling at 0120 hours and the fact is noted with the line through number 017, and so on. At the end of the tour, the officer transforms the numbers from the chart, representing the start and end of each patrol segment, to the appropriate boxes on the lower right hand side of the form. This officer actually made five separate patrols and was actively engaged in attempting to intercept a crime for about 405 minutes during his eight-hour tour.

Printouts

A number of graphic printouts are available from the data processing system. Two typical outputs are shown in Figures 12 and 13. Figure 12 shows the temporal distribution of crime in Beat 50 according to the day of the week and the four-hour segments of the day. Similar printouts are available for any specific type of crime; e.g., thefts from autos, commercial burglaries, crimes against the person, etc. Printouts are made for the past reporting period, summaries of the past three periods, and year-to-date summaries.

INTERNAL OFFICER'S LOG

Date of Start of Tour — Month (1 2): 3 — Day (3 4): 10 — Year (5 6): 69

IBM No. (7 8 9 10): 7654 — Miles Driven (11 12 13): 61 — Beat (76 77): 50

MOBILE PATROL

	0000	0300	0600	0900	1200	1500	1800	2100	2400
00									
05	002	038	074	110	146	182	218	254	
10	003	039	075	111	147	183	219	255	
15	004	040	076	112	148	184	220	256	
20	005	041	077	113	149	185	221	257	
25	006	042	078	114	150	186	222	258	
30	007	043	079	115	151	187	223	259	
35	008	044	080	116	152	188	224	260	
40	009	045	081	117	153	189	225	261	
45	010	046	082	118	154	190	226	262	
50	011	047	083	119	155	191	227	263	
55	012	048	084	120	156	192	228	264	
60	0100	0400	0700	1000	1300	1600	1900	2200	
05	013	049	085	122	158	194	230	266	
10	015	051	087	123	159	195	231	267	
15	016	052	088	124	160	196	232	268	
20	017	053	089	125	161	197	233	269	
25	018	054	090	126	162	198	234	270	
30	019	055	091	127	163	199	235	271	
35	020	056	092	128	164	200	236	272	
40	021	057	093	129	165	201	237	273	
45	022	058	094	130	166	202	238	274	
50	023	059	095	131	167	203	239	275	
55	024	060	096	132	168	204	240	276	
60	0200	0500	0800	1100	1400	1700	2000	2300	
05	025	062	098	134	170	206	242	278	
10	027	063	099	135	171	207	243	279	
15	028	064	100	136	172	208	244	280	
20	029	065	101	137	173	209	245	281	
25	030	066	102	138	174	210	246	282	
30	031	067	103	139	175	211	247	283	
35	032	068	104	140	176	212	248	284	
40	033	069	105	141	177	213	249	285	
45	034	070	106	142	178	214	250	286	
50	035	071	107	143	179	215	251	287	
55	036	072	108	144	180	216	252	288	

INVESTIGATION

DR (14 15 16 17 18 19 20): 1732 05 — Hours (21 22 23): 015

DR (24 25 26 27 28 29 30): — Hours (31 32 33):

DR (34 35 36 37 38 39 40): — Hours (41 42 43):

DR (44 45 46 47 48 49 50): — Hours (51 52 53):

DR (54 55 56 57 58 59 60): — Hours (61 62 63):

DUTY TOUR

(16 17 18): 001 → (19 20 21): 097

MOBILE PATROL

(22 23 24): 003	→ (25 26 27): 011
(28 29 30): 017	→ (31 32 33): 026
(34 35 36): 028	→ (37 38 39): 056
(40 41 42): 058	→ (43 44 45): 060
(46 47 48): 067	→ (49 50 51): 097
(52 53 54):	→ (55 56 57):
(58 59 60):	→ (61 62 63):
(64 65 66):	→ (67 68 69):
(70 71 72):	→ (73 74 75):

Figure 11. Completed Internal Officer's Log

TOTAL NUMBER OF CRIMES IN BEAT 50

YEAR TO DATE ENDING WITH PERIOD 17 1969

DAY	HOUR NO.		
SUNDAY	0000	23	**********
	0400	10	**********
	0800	3	***
	1200	4	****
	1600	8	********
	2000	13	**********
MONDAY	0000	17	**********
	0400	2	**
	0800	10	**********
	1200	7	*******
	1600	14	**********
	2000	14	**********
TUESDAY	0000	13	**********
	0400	4	****
	0800	3	***
	1200	4	****
	1600	5	*****
	2000	11	**********
WEDNESDAY	0000	10	**********
	0400	3	***
	0800	3	***
	1200	7	*******
	1600	13	**********
	2000	7	*******
THURSDAY	0000	9	*********
	0400	5	*****
	0800	3	***
	1200	11	**********
	1600	6	******
	2000	9	*********
FRIDAY	0000	9	*********
	0400	4	****
	0800	5	*****
	1200	19	**********
	1600	11	**********
	2000	25	**********
SATURDAY	0000	21	**********
	0400	6	******
	0800	1	*
	1200	5	*****
	1600	13	**********
	2000	18	**********
SUNDAY	0000	23	**********
	0400	10	**********

TOTAL 388

Figure 12. Year-to-date Summary of the Temporal Distribution of All Crime in Beat 50

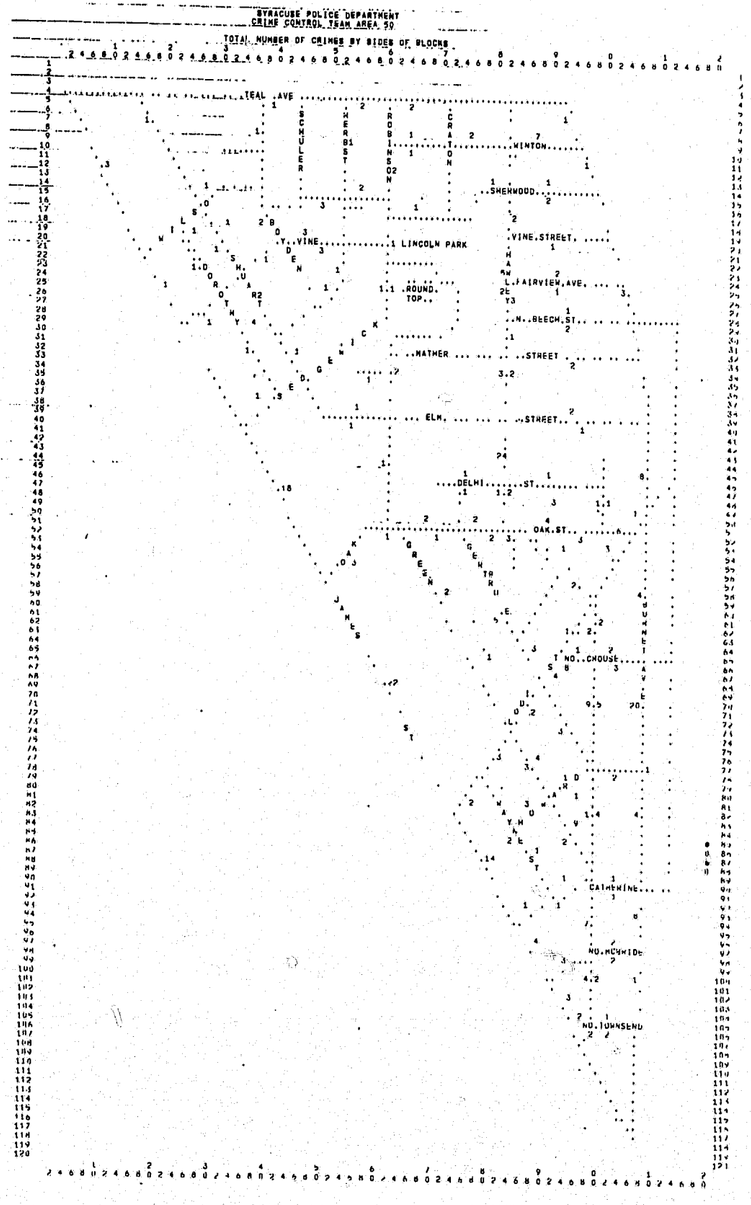

Figure 13. Year-to-date Summary of the Geographical Distribution of All Crime in Beat 50.

The geographical distribution in printouts is shown in Figure 13. The numbers on the map indicate the number of crimes of a specific type that occurred over a certain time period. Again, the printout is flexible; for example, the geographic distribution of all nighttime residential burglaries, that were cleared by investigation, could be provided. *

* The programs for the data processing systems are detailed in Section IX.

V. EVALUATION PROCEDURES

The police have always been prodigious experimenters and the literature abounds with descriptions of techniques and equipment the police have tested. While the police must be commended for their willingness to try new methods, they must also be censured for their incompetence in carrying out experiments. Only recently have the police begun to perform controlled experiments, set up a measurement system and critically examined the measurements and, finally, presented and interpreted the data in a sophisticated manner.

It is appreciated that sociological systems present a most difficult environment for scientific experimentation and that policeman are not scientists. The police must recognize, however, that unless a valid measurement system can be implemented, it is a waste of time and money to engage in experimentation.

Experiments with sociological systems can be made and the results of such experiments can be useful. (It is rather startling to note how little the academic community has helped the police with instruction in elementary experimental procedures, in providing the police with useful measurement systems, and in aiding the police in the interpretation of experimental data.)

The Crime Control Team was an experiment in police operational procedures. Those who were responsible for planning, directing and evaluating the experiment are not experimental sociologists; hence the techniques used are, perhaps, not as detailed and sophisticated as they might have been. Nevertheless, every effort was made to insure that the experiment was performed in a manner that would not be criticized for its lack of objectivity.

In this section, the design of measures, the validity of these measures, and the handling of the data obtained using these measures for the evaluation of the Crime Control Team concept are discussed.

Much of this chapter may be difficult for policemen to follow. Concepts are presented that require volumes of supporting material. Results of calculations are given, but the details of how these calculations were made are omitted. Since this is not a text on the scientific method, nor on the science of measurement, these concepts and calculations must be accepted on faith by most readers. Hopefully, the section will serve two purposes:

1. To give the police an indication of the techniques that must be employed to evaluate the effectiveness of their present or new operational procedures.
2. To provide the details by which the Crime Control Team concept was evaluated.

TYPES OF MEASURES

The purpose of the experiment was to determine whether the Crime Control Team is a more effective technique for dealing with crime than conventional police operating procedures. If the experiment is to be deemed successful, a higher degree of effectiveness must be demonstrated to a number of different elements of society. Unfortunately, the various groups involved are likely to disagree with each other with regard to the measurement that should be used to evaluate the experiment. Further, there is, probably, an even wider divergence of opinion with regard to identifying the problem that the police are trying to solve in the first place.

The evaluation of any police operational procedure must be based upon the effectiveness with which the procedure aids the police in realizing their objectives. As noted in Section II, the police have two objectives in the area of crime:

1. To eliminate or substantially reduce crime.*

2. To apprehend all the perpetrators of crime.

A number of measures relating to the crimes reported (operational objective (1)) are provided. This group of measures is of the form,

$$C_i = \left[\frac{\text{Number of crimes reported per reporting period}}{\text{Normalizing factor}}\right]_i ,$$

where i is an index signifying a specific group or groups of crimes being considered. The normalizing factor is the (average number of crimes reported per reporting period)$_i$ during the five 28-day reporting periods immediately preceding the start of the experimental program.†

*While the elimination of crime is a legitimate goal of society or, perhaps, of the criminal justice system, it is questionable if it is a realistic goal for the police. The quality of a city police force is probably only a minor factor in determining the quantity of crime that occurs. Even if it is assumed that such a goal for the police is realistic, there is a serious question as to whether crime statistics can be used as a measure of how well the police obtain this goal. A study of the President's Crime Commission [9] indicates that the police are not able to estimate, to within an accuracy of 50%, the number of crimes that occur. Regardless of the validity of these arguments, the police cannot ignore the fact that the public in general will continue to evaluate the police by the amount of crime that is committed. It is for this reason that measures concerned with the degree to which the Crime Control Team aids the police in obtaining this objective are included. Hopefully, police administrators will not put unjustified weight on such measures in their evaluation of the experiment.

†A normalizing factor tends to minimize the influence of those factors that affect the number of reported crimes in a beat, which are peculiar to the particular beat and can be expected to remain relatively constant over the period of the experiment. Some of these factors are the geographical size of the beat, the number of possible targets for criminal attack, the general permissiveness of the beat's population to the existence of crime, etc. There are many ways to select the normalizing factor; it could be the number of reported crimes during any given reporting period, or the average number over a number of periods, or the number reported during the corresponding period last year. In general, enough data should be considered so that the normalizing factor is representative of the "average" number of crimes reported in the beat. It should not consider data that is so far back in time that there is a chance that the factors that influence the number of reported crimes have changed significantly. The five reporting periods used for the normalizing factors for C_i is in line with the above principles.

Specifically, the following C_i values were determined:‡

C_{All} = All crimes

$C_{Part\ I}$ = Part I crimes

C_{Rob} = Robbery

C_{Ass} = Assault

C_{Bur} = Burglary

C_{Lar} = Larceny

The second group of measures involves the number of crimes that are cleared (solved). These measures are of the form,

$$E_i = \frac{\text{Number of crimes cleared per reporting period}}{\text{Number of crimes reported per reporting period}} .$$

E_i, of course, varies between zero and unity. The closer that the value of E_i approaches unity, the more ideal is the police action in realizing operational objective (2). The only E_i values used were E_{All}. Thus in the following the quantity is designated simply as E.

The final group of measures are defined as follows:*

$$P_i = (\text{Number of Crimes Reported} - \text{Number of Crimes Cleared})_i$$
$$= C_i\ (\text{Normalizing Factor})_i\ (1 - E_i) .$$

This quantity provides a measure of how well the police are realizing both of their operational objectives (i.e., the reduction of crime and the apprehension of perpetrators).†

The Null Hypotheses tested by these measures are as follows:

"The operational procedures of the Team are not more effective in obtaining a low (or high) value of (C_i, E_i, or P_i) than are the conventional police operational procedures."

‡Only the measures C_{All} and $C_{Part\ I}$ were actually used for the evaluation of the CCT concept.

*The measure P_i was not used in the evaluation of the CCT concept because it presupposes that all of the beats contain the same amount of crime. The beats in Syracuse do not meet this specification.

†The assumption is made that both objectives are weighed the same.

Definition of Terms

Crimes Reported - The legal definition of a crime was used except as noted below.

Because of the impossibility of counting the number of individual crimes that occur in the following categories, or because the public does not consider them to be crimes, or because the laws are selectively enforced, these crimes were not considered when calculating the value for the "Number of crimes reported." Likewise, any arrests made for these offenses were not counted in calculating the value of the "Number of crimes cleared."

a. Prostitution and procuring
b. Sex offenses (where there is no complaint from victim)
c. Narcotic drug laws - use or possession by user
d. Gambling - engaging in
e. Driving under the influence
f. Drunkenness
g. Vagrancy
h. Curfew and loitering
i. Runaway (juveniles)
j. Public Order (disorderly conduct, etc.)

While counting the number of crimes appears to be a straightforward process, there is a possibility that the conventional recording procedure used by the police may contain a major source of error. A recent study indicates that there may be twice as many major crimes committed as are known to the police. (9)

There are two major reasons why 50% of the crimes may not be reported to the police. (9)

a. The victim did not believe the police would be effective (55%), or
b. The victim did not believe the crime was a police matter (34%).

The implication of these facts is rather startling. They suggest, for instance, that the number of reported crimes will decrease if the police are less effective; or, that even if the police were able to prevent 50% of all the crimes from occurring, there could still be the same number of crimes reported.

Any conclusions drawn from measures based on the number of crimes that are committed, must be viewed with caution. This warning is particularly appropriate as applied to the evaluation of the Crime Control Team. This Team is aggressive; and it is quite possible that they detect crimes which, under normal police procedure, would not be brought to the attention of the police. Further, a number of the Team tactics were particularly designed to obtain the public's confidence and if the Team is successful in obtaining this confidence, it is quite possible that the public would bring many criminal incidents to the attention of the Team, which, under normal police procedures, would be ignored.

Crime Cleared - The definition of a "cleared crime" is "a crime for which the perpetrator has been arrested." A crime is also defined as "cleared" (with the exception noted below) if it meets the definition of "exceptionally cleared," as outlined in the Syracuse Police Department's Criminal Investigation Bureau, D.O.P. No. 4. *

If an individual was arrested for one crime and confessed to others, the following rules applied to the other "exceptionally cleared" crimes:

a. If the Team made the initial arrest, it received credit for one clearance. Other clearances of crimes, which occurred on the Team's beat and were obtained by follow-up interrogation, were credited to the Team only if the follow-up interrogation was made by a Team member. If the follow-up interrogation was made by another element of the Department, the Team did not receive credit for these clearances. Clearance for

*A copy of D.O.P. No. 4 is included as an Addendum to this Section.

non-beat crimes,* obtained by follow-up interrogation (regardless of who made the follow-up), were credited to that particular beat.

b. If other elements of the Department made the arrest, the Team did not receive credit for beat crimes cleared by follow-up interrogation. Clearances for non-beat crimes were credited to the beat where the crime occurred.

Statistical Evaluation Techniques

Because the supporting information necessary to follow the evaluation process in detail is not included here, it is worthwhile to describe the thoughts that generated the processes that were selected.**

The purpose of the evaluation of the Crime Control Team (CCT) experiment is to provide facts upon which a police administrator can base a decision. The facts must be presented in such a form that the risks involved in making the decision are clearly contrasted with the expected gains.

The decision facing a police administrator with regard to whether or not he should implement the Team concept would be easily made if the experimental results showed that, during the experiment, crime decreased in the CCT beat to one-tenth its previous value and the clearance rate went up to 90%; or that crime increased tenfold while the clearance rate dropped to one percent. Neither of these extreme results were expected at the start of the experiment. The Crime Control Team concept was not expected to solve the crime problem (just as the police themselves will not solve the problem). The purpose of the experiment was to demonstrate whether or not the Team approach was a "better"

*Non-beat crimes are those that occurred on any beat other than the Team's beat (i.e., Beat 50).

**The statistical processes used are described in the text, "Nonparametric Statistics for the Behavioral Sciences", Siegel, S.; McGraw-Hill Book Co., Inc., N.Y., N.Y., 1956.

approach toward obtaining the goals of the police than their conventional procedures. Hopefully, it would be shown that the approach was "better", and that some statements could be made of a quantitative nature as to how much better.

An important assumption was made when the measurements C_i and E were defined. It was assumed that, whenever C_i (or E) is measured, the value obtained is independent of previous values of these parameters. That is, the number of crimes reported this week will not be determined by the number that were reported last week; and the number reported next week will be independent of the number reported this week. Although the assumption seems reasonable it is impossible to demonstrate its validity. If the assumption is not valid then the conclusions drawn by the evaluation process are open to question.

It is quite important, in the design of any experiment, that the experimenter obtain as many independent measurements as possible, consistent with the resources available in terms of time and money. For the design of the CCT experiment it was important to consider whether the measures C_i and E should be made on a daily, weekly, monthly or yearly basis. From a quantity standpoint the daily basis is desirable; but this would be expensive and the measures would be expected to fluctuate considerably. If the measures were made on a yearly basis the fluctuations would average out, but there would be only one measurement (since the time allowed for the experiment was one year) to base conclusions upon. The 28-day reporting period was selected as the time base, since it provided thirteen measurements, yet minimized the effort involved in acquiring the measurements, because the regular departmental data acquisition system could be used.

A second reason for subdividing the experiment into thirteen separate experiments is that short term extreme results can be recognized and placed in

CONTINUED

1 OF 3

their proper perspective. Suppose, for example, that as a result of a civil disorder, the amount of crime during one reporting period in a particular area of the city increased many times the usual amount. These crimes cannot be ignored; but on the other hand, the increase during that period might have been so great that it seriously affects the total amount of crime that occurred in that area for the year. This would give the impression that police effectiveness in that area was poor over the whole year when, actually, police effectiveness was poor for only one period and was normal for the other twelve periods. Thus, the use of thirteen separate experiments prevents the undue influence of an extremely good or bad short-range performance from clouding the overall performance.

It is necessary to compare the performance of the CCT with something specific, in order to evaluate it. The CCT can be compared to the department as a whole, with several different portions of the department, or it can be compared to all of the various elements in the department that are concerned with crime. The method used was (1) to compare the performance of the CCT to each of the other 22 police beats in the city and (2) to compare the 22 other beats among themselves. This means for comparison was selected, again, because of statistical reasons.

The actual comparison was made as follows: each reporting period the measures C_i and E were calculated for each of the 23 beats in the city. The beats were then ranked according to their scores. The one with the best score was ranked first, the next best second, and so on. Ranking the performance of the beats in this manner bypasses the problem of placing a value judgment on the importance of the exact score a beat obtains during a particular reporting period. For example, suppose that, during a period, one beat scored a value of E = 0.25 and another beat an E = 0.50. By ranking the beats, that is asserting that the second is better than the first, one does not need to answer the question of how much better the beat was. This is one of the more important

points to be recognized in the evaluation. That is, evaluation only results in a determination that the CCT mode of operation is "better" or "worse" than the conventional mode of operation; furthermore it allows a determination to be made with regard to the probability that such results could have been obtained by chance, and, finally, it answers the question of what the probability is that a regular element of the department could have obtained an equivalent performance. The evaluation does not yield information such as "the CCT is 10% better or twice as good as a regular element of the department;" such information is difficult to obtain because of the great difficulty in defining the meaning of such terms.

Validity of the Measures C_i and E

One of the first questions to be considered concerns the quality of the measures that were selected. That is, do the measures really measure the influence of the police on the crime problem? The validity of the measures can be demonstrated, in a negative sense, as follows. If the police operational mode is identical in all of the beats of the city, then the rank order of the scores (C_i and E) for the various beats would be expected to vary from period to period. That is, if C_i and E are good measures, then, because the police procedure is constant in all beats, one would not expect a beat or group of beats to rank consistently high or low. If a beat or group of beats did rank consistently in the same order it would imply that the measures were measuring something other than the influence of police procedure.

The Kendel Rank Correlation Coefficient* can be used for demonstrating the correlation, or lack of correlation, between the rankings of beats from period to period.

The beats are first listed in numerical order and for each reporting period

*The list of original references on this test are contained in Siegel, loc. cit. p. 223.

the rank is noted for the particular performance measure. For example, there are ten beats and five reporting periods; then, the following table might result.

	Rank				
	Reporting Period				
Beat No.	1	2	3	4	5
1	7	3	2		
2	8	1	5		
3	3	2	4		
4	1	6	8		
5	2	5	3	Etc.	
6	5	9	1		
7	6	4	6		
8	4	10	9		
9	9	8	10		
10	10	7	7		

The entries in the table indicate the ranking for each beat for that period. The correlation* between each of the rankings, in pairs, is now calculated. This results in a table of correlation coefficients.

	1	2	3	4	5
1	1	-	-	-	-
2		1	-	-	-
3			1	-	-
4				1	-
5					1

*The mechanics for making this calculation are given in Siegel, loc. cit. p. 216.

The entries on the diagonal are 1, since each column is identical to itself. If there is little correlation, the entries off the main diagonal would be expected to be near zero. The closer to zero the entries are the more faith one can place in the selected measures. If the entries are near unity, it implies that the selected measures are measuring something other than the influence of the police procedure.*

Methods of Data Analysis

It, of course, may be possible to simply look at the accumulated data and "tell" whether the CCT mode of operation is or is not a better mode of police procedure. There are two difficulties with this technique.

If the results are favorable, there is always the suspicion that the numbers turned out that way because of pure chance. In order to remove such doubts, it is necessary to state, not only that the results are favorable, but also the chance of getting a favorable result, even if the CCT mode of operation is no more effective than the conventional mode of operation. This measure of "false alarm" probability in statistical literature is termed α, and provides a confidence limit with which one can accept the null hypothesis that is being tested. If α is small then the null hypothesis can be rejected, implying that the alternate hypotheses (i.e., the CCT is a better mode of police operational procedure) is substantiated by the experiment.

The second question that occurs is concerned with the possibility that, even though the CCT mode of operation is better, it may not be apparent that it is better by just looking at a mass of data. It is, therefore, desirable to have a means available that will yield a quantitative measure of the probability of

*It is important to note that this test does not indicate whether the selected measures actually measure the influence of police procedure; it only tends to demonstrate that other factors (than the police procedure) are or are not affecting the measures.

detecting the difference, if a difference does exist. This "detection probability" is termed (1- β) in statistical literature. If the value of β is near zero, it implies that "the experiment demonstrates there is a large difference between the CCT mode and the conventional police mode of operation." If β is near unity then "the experiment has demonstrated there is little difference."

Calculation of α

Suppose there are twenty-four beats, one of which (beat X) is receiving a different police treatment than the other twenty-three. Every reporting period the beats are ranked with regard to their performance, using a particular measure. The beat that did best is ranked first, the poorest is ranked 24th. The ranks are divided into two groups: one group containing, for example, ranks of one through six; the second group, ranks seven through twenty-four. If beat X ranks among the top six in a given month this event is denoted by a "1". If beat X ranks in the other group this event is noted by a "0".

At the end of the first period, there are two possibilities; beat X is either denoted by a "1" or a "0". After two periods there are four possibilities; beat X is denoted by 11, 10, 01 or 00, and so on.

After five periods, some of the various possibilities are:

PERIOD				
1	2	3	4	5
1	11	111	1111	11111
0	10	110	1110	11110
	01	101	1101	11101
	00	100	1011	11011
		011	0111	etc.
		010	1100	
		001	1010	
		000	0110	
			etc.	

The entry (110) in the table indicates that beat X ranked in the highest group in the first and second periods and, during the third period, ranked in the other group.

After each period it is then possible to state whether beat X is performing better than the others. For example, for the first four periods, the rule for deciding if X is better is shown in the next table, where α is the confidence limit and can easily be calculated using the binomial tables.

Period 1

1 Better α = 0.25

0 Same

Period 2

11 Better α = 0.0625

10

01

00

Period 3

111 Better α = 0.0156

110

101 Better α = 0.104

011

001

010 Same

100

000

Period 4

1111 Better α = 0.004

0111

1011 Better α = 0.05

1101

1110

0011

0101

0110

1001

1010 Same

1100

1000

1000

0100

0010

0001

0000

Calculation of β

The second question, concerning the difference in performance between the beats, must be treated more carefully. The difficulty arises because it is necessary to establish some meaningful criteria by which differences in the beats are to be measured. This is most conveniently done graphically.

First, all of the scores from all of the beats (except beat X) pertaining to a particular indicator are plotted on the x-axis.

These points can fall anywhere on the x-axis, but will tend to be denser near the center, and relatively sparse near the ends.

Suppose there are N different scores. Then, a graph is plotted on the x-axis in the following way. Jump up one step of size, 1/N, at each point on the x-axis at which there is a score. This results in a rather irregular staircase which might look something like Figure 14. The curve will extend between zero and one because of the step size that was chosen.

Next, concentrate on the scores produced by the beat of interest, (i.e., beat X) and plot a stairstep curve for these values only. There will be M of these, and of course, $M < N$. The step size is 1/M, so that the curve will again reach unity.

Now, consider these two curves. It is clear that if the performance of beat X is better than the group as a whole, then the curve for that beat will tend toward the left of the group curve (assuming it is desirable to obtain low score values). Intuitively, then, the further to the left, the better the performance of the beat.

In order to use this intuitive idea of the difference between a beat and the group as a whole, it is necessary to quantify the degree of difference. This can be accomplished in the following manner.

Plot X vs. A, which will be a function on the unit square as shown in Figure 15.

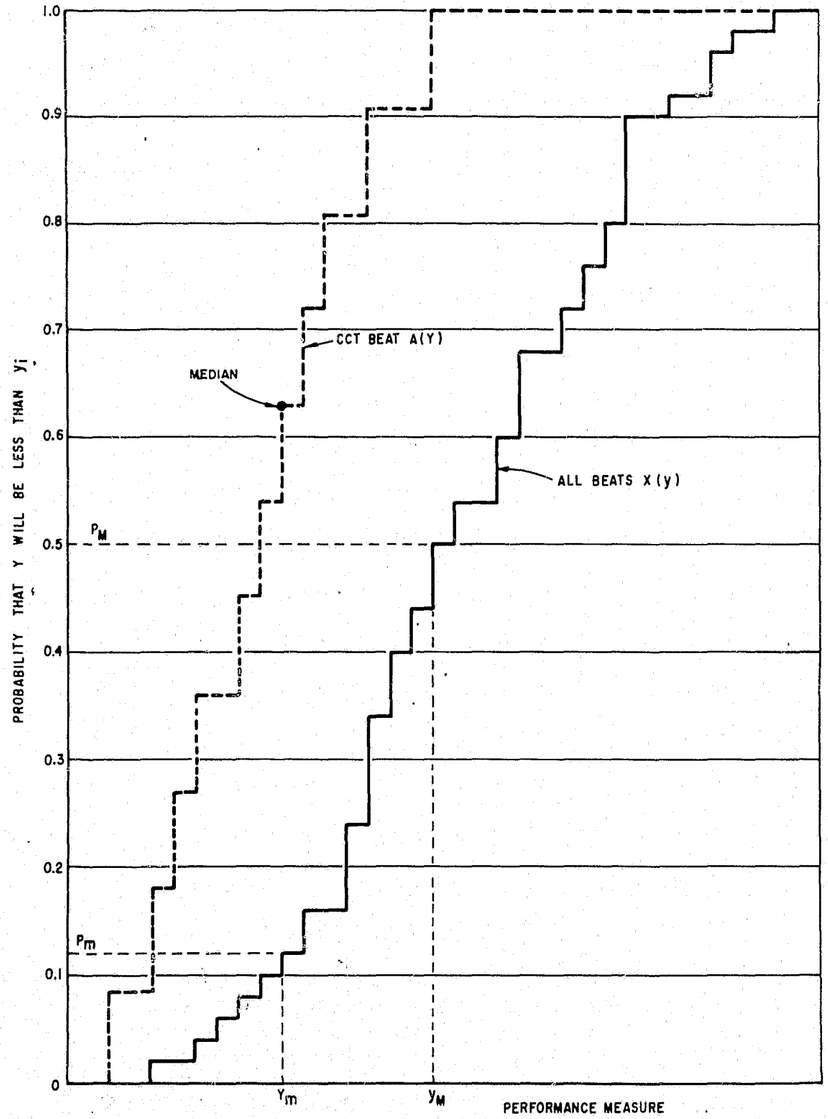

Figure 14. The Cumulative Distribution for All Beats, and the Experimental Beat using the Performance Measure (Y)

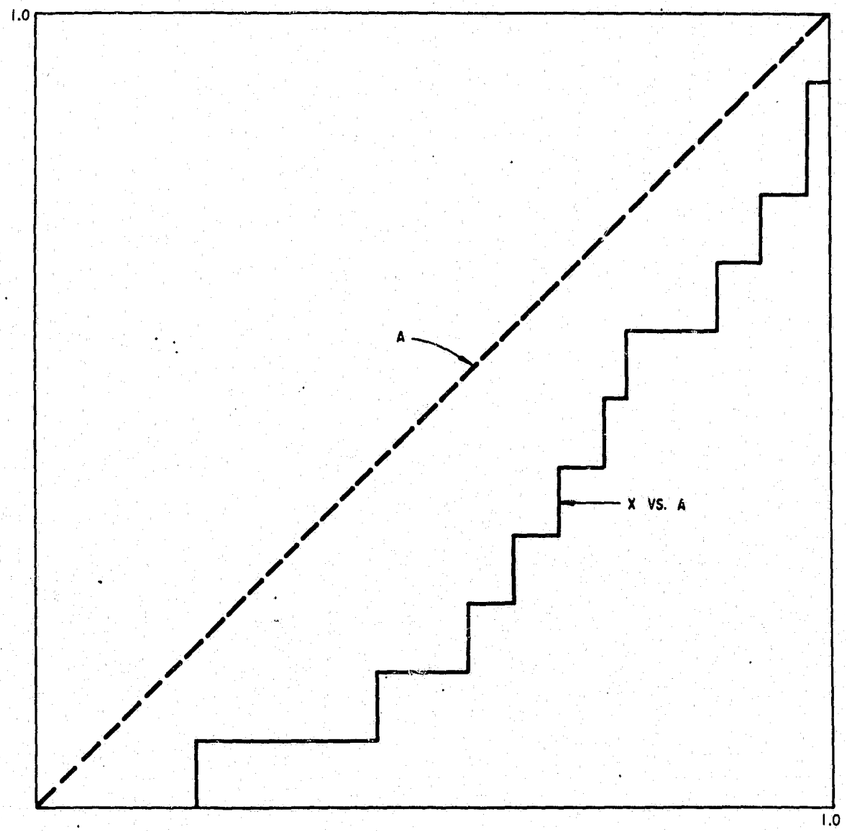

Figure 15. The Cumulative Distribution A(Y) for the Experimental Beat Plotted as a Function of the Cumulative Distribution for all Beats X(Y)

The probability a beat ranks in the top six, can then be computed using the following equation:

$$P_i = \int_0^1 \sum_{j=n}^{N} \frac{(n-1)!}{(j-1)!(n-j)!} A^{j-1} (1-A)^{n-j} \, dx(A) \qquad (1)$$

where N = 24

n = 18

If the probability calculated from Equation (5) is near unity, then the difference in the performance between beat X and the other beats in the city is large; if the probability is near zero then the difference is small.

The two probabilities calculated, α and $(1-\beta) = P$, are termed the level and power of the statistical tests used. The quantity, α, is a measure of the possibility that "one claims that the performance of beat X is superior to the performance of other beats when in actuality there is no difference." $(1-\beta)$ is a measure of the probability that "one claims the performance of beat X is the same as the other beats when in actuality there is a difference."

Display of the Evaluation

It is important to note that a value judgment was made in the preceding example, when the decision was made to group the highest six beats together (and score them "1") and the other eighteen beats together (and score then "0"). This type of judgment should not be made by an experimenter. To circumvent this problem, all possible decisions with regard to what constitutes a "1" and "0" score must be presented; in this way the final decision of whether an experiment is successful, marginal, or unsuccessful, is left to the police administrator.

The final display of the data is, therefore, presented in the following tabular form:

MEASURE (C_i or E)

% of Police Units	α	$(1-\beta)$
95.6	a	m
91.3	b	n
86.95	c	o
82.60	d	p
78.25	e	q
73.90	f	r
69.55	g	s
65.20	h	t
60.85	i	u
56.50	j	v
51.15	k	w

The table is read as follows:

As measured by the quantity (C_i or E) the CCT, during the experimental period, performed better than (95.6, 78.25 or 51.15%) of the other police beats in the city. If there were no difference in the police treatment of any of the beats, the probability would be (a, or e, or k) that, by chance, the data would substantiate the above statement. Furthermore, the probability, P_i, of the CCT performing at this confidence level (a, or e, or k) is (m or q or w).

A police administrator would use this information to decide if he wanted to implement the CCT within his department as follows. For example, suppose he would implement the CCT concept only if he could be assured that the CCT performance would be better than he is presently obtaining from 74% of his units using the conventional operational procedure. The risk he would take in implementing the CCT is then, f. If f is, for example, 0.01, then he would

assume a small risk; if f is 0.6 then it would be unwise for him to implement the concept, since the probability of obtaining the desired performance is small. If the administrator is willing to take the risk measured by f, then r implies the probability that, when the concept is implemented, the department's performance will be better than 74% of the units using the conventional procedure. If, for example, $r \approx 0.5$ he would implement the CCT procedure; if $r \approx 0.1$, he probably would not, because the amount of improvement would be trivial.

OTHER MEANS OF EVALUATION

The evaluation procedures presented in the previous pages are involved and, unfortunately, may be almost meaningless to those uninitiated in the techniques used. These evaluation methods are used for only one reason: so that the handling of the data and the conclusions drawn cannot be questioned by anyone regardless of the degeee of mathematical sophistication he applies.

This book, however, is for police administrators, and if the evaluation process used is not understood by them, there would have been little point in writing the book. For this reason, two additional evaluation methods are presented. The first of these involves the use of the cumulative distribution curves of the measures (C_i and E). The risks are still stated in terms of probabilities but these probabilities can now be stated only as approximations. The final method uses a common technique used by the police to evaluate performance, and involves the use of control beats. The use of this method permits very little to be said about the risks involved.

Of course, since all three methods make use of the same data, the evaluation using the different methods should, in general, agree. The methods differ only in the degree to which they specify the assurance that "if the experiment were repeated over and over again the performance demonstrated in the first experiment would be confirmed by the latter experiments."

Cumulative Distribution Curves

The cumulative distribution curves of the CCT beat and the other beats may be used to evaluate the CCT procedure. The curves are drawn as outlined in the previous pages, Figure 14. Since these curves are only approximations of the true distributions, the conclusions made using such curves are only approximations.

The curves can be used in many ways. For example, the median value of performance measure is y_m for the CCT; that is, there is a probability of about 0.5 that the CCT will perform at or better than this level. The probability that a conventional unit would perform at or better than this level, y_m, is p_m, or about 0.12. The CCT is almost sure to perform better than y_m, while there is only a 0.5 probability, p_m, that a regular unit would perform this well. The probability that one-half of the units in the department would perform this well is 0.5^{12}, an exceedingly small number.

Control Beats

A common method used by the police for evaluating a police procedure such as the Crime Control Team is to use control beats. The improvement, compared to the past performance, of the experimental beat is compared to the same quantity for the control beats.

Commonly used measures of performance are concerned with amounts of crime, and with clearance rates.

The first set of measures is defined as:

$$c_i = \left(\frac{A}{B} - 1\right)$$

where both A and B are the "average number of crimes reported per reporting period". A is calculated using data for the reporting periods of the experiment; B is calculated using data for the same number of periods previous to the start of the experiment. Specifically c_i calculated for all crime and Part I crimes, where a complete year of data is used to calculate the averages, A and B.

A second performance measure is defined as

$$e = \frac{\text{Number of crimes cleared}}{\text{Number of crimes reported}}$$

The definition of terms is the same as used previously.

The ideal control beat would have exactly the same physical, sociologic and economic characteristics as the experimental beat. How these characteristics are measured is far from clear and, even if they were measurable, the probability of finding a beat that matched the experimental beat would be small. The control beats must meet at least the following minimum specifications:

a. At the start of the experiment they must have approximately the same amounts of crime as the experimental beat.

b. In the immediate past the trend of crime in the control beat must be the same as in the experimental beat. That is, if the amount of crime is tending to increase in the experimental beat the control beats must also have this characteristic.

Figures 16 and 17 indicate how well some possible control beats match these specifications for all crime and for Part I crimes (beat 50 being the experimental beat). The following table lists the possible control beats (using subjective judgment), from the best to worst, for matching the experimental beat.

	Part I	All Crime
best	56	56
↓	55	47
	54	55
	49	54
worst	47	49

Thus, while all of these beats may be used as controls, it must be realized that those beats near the bottom of the list are probably not as good a control as those appearing near the top of the list.

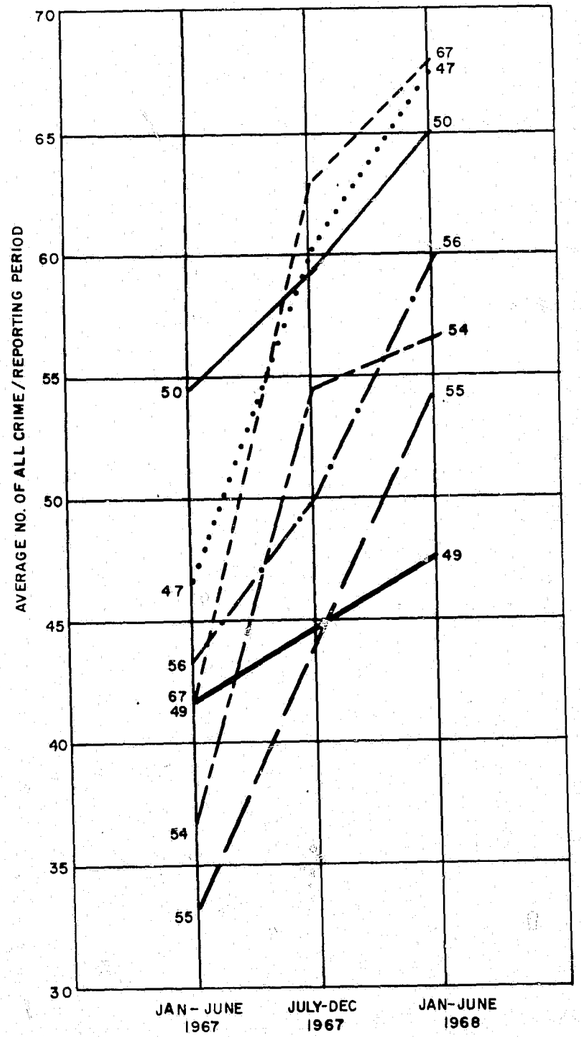

Figure 16. Possible Control Beats using All Crime as a Performance Measure. Beat 50 is the Experimental Beat.

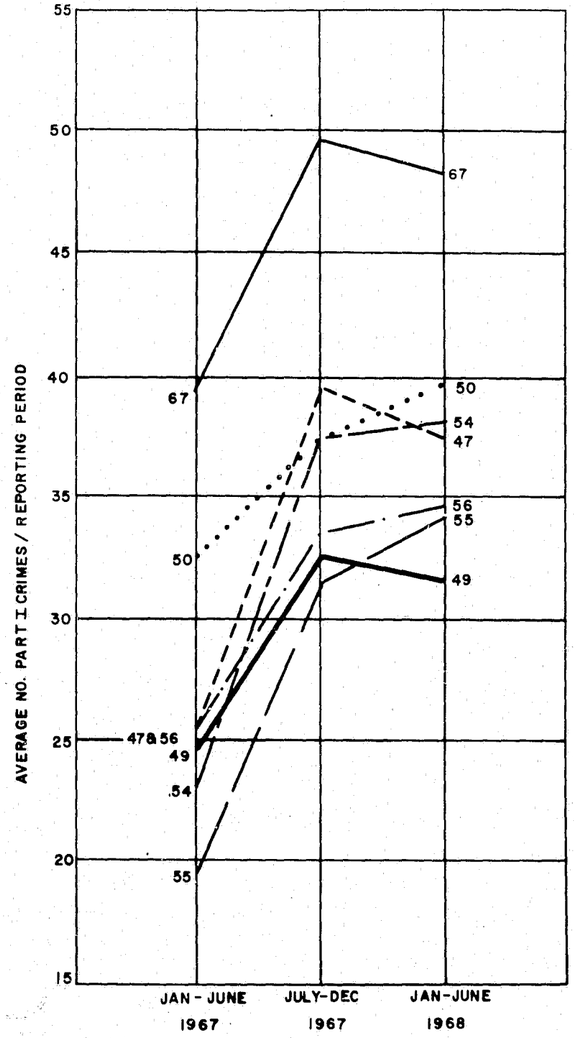

Figure 17. Possible Control Beats using Part I Crime as a Performance Measure. Beat 50 is the Experimental Beat.

ADDENDUM

SYRACUSE POLICE DEPARTMENT
Investigation Bureau

Criminal Investigation Division — D.O.P. No. 4

To: All CID Personnel — 22 October 65

Subject: Guide Lines for Unfounding or Clearing a Case

The following guidelines will be used in the unfounding or clearing of cases.

I. Unfounded Cases:

A. "Unfounded" means that the investigation proves that the crime did not happen or was not attempted.

B. Do not unfound a case just because the stolen property is recovered, because the property stolen is of little value, because the victim refuses to prosecute, or because no arrest is made.

II. Offenses Cleared by Arrest:

A. An offense is "Cleared by arrest" when at least one person is;
1. Arrested
2. Charged with the commission of the offense, and
3. Turned over to the Court for prosecution (whether following arrest, Court summons or Police notice).

B. Several crimes may be cleared by the arrest of one person.

III. Exceptional Clearances:

A. In certain practical situations the Police are not able to follow the three steps outlined above for a "Clearance by arrest" yet they have done everything possible in order to clear the case. If all the following questions can be answered "yes", then the offense may be listed as exceptionally cleared;
1. Has the investigation definitely established the identity of the offender?
2. Is there enough information to support an arrest, charge, and turning over to the court for prosecution?
3. Do you know the exact location of the offender?
4. Is there some reason outside the Police control that stops you from arresting, charging, and prosecuting the offender?

(Page 1 of 2)

B. An Offense can be exceptionally cleared when it falls into one of the following categories:

1. Suicide of the Offender (the person responsible is dead)
2. Double Murder (two persons kill each other)
3. Death bed confessions (the person responsible dies after making the confession)
4. Offender killed by Police
5. Confession by Offender already in your custody or serving sentence (this is actually a variation of a true clearance by arrest -- you would not "apprehend" the Offender but in most situations like this the Offender would be prosecuted on a new charge)
6. An Offender prosecuted in another City for a different Offense (you attempt to return him for prosecution, but the other jurisdiction will not release him to you)
7. Extradition is denied
8. The Victim refused to cooperate in the prosecution
   (a) The case will be submitted to the Assistant District Attorney for review and only upon his recommendation will the case be closed exceptionally
9. For some reason outside your control, an Offender is prosecuted for a less serious charge than that for which you arrested him
10. The handling of a Juvenile Offender either orally or by written notice to parents in instances involving minor Offenses such as Petit Larceny. No referral is made to Juvenile Court as a matter of publicly accepted Police Policy.

NOTE: The recovery of property does not clear a case. The clearance of a case as discussed here does not have anything to do with when you may "close" a case or discontinue investigation.

By direction of the Chief of Police

Samuel Nappi

Samuel Nappi
Deputy Chief
Invest. Bureau

Index Subject: Unfounding or clearing cases:
Clearing or unfounding cases:

VI. BEAT 50 EXPERIMENTAL RESULTS FOR THE FIRST YEAR

RAW DATA

The rank orders of the beats for each of the reporting periods of the experiment are presented in Tables I, II, and III, where the performance measures used are $C_{Part\ I}$, C_{All} and E. If the performance of a beat was good during a particular reporting period it appears near the top of the tables. The scores actually obtained by each beat during the experiment are not displayed because it would be too space-consuming and would add nothing to the discussion.

It should be noted that the tables contain data over a span of fourteen reporting periods. During the tenth period there were a series of minor civil disorders in Syracuse and, consequently, most of the twenty-eight days of this period, the Team was deployed elsewhere in the city in other units. For this reason, the data for the tenth period was not used.

At the beginning of the seventeenth period a second Team was deployed in beats 62 and 63. Thus, these beats are not involved in the evaluation process after the sixteenth period.

VALIDITY OF MEASURES

The correlation matrices for the measures $C_{Part\ I}$, C_{All} and E are given in Tables IV, V, and VI. The entries in the matrices of $C_{Part\ I}$ and E are in general, small, indicating that the individual measurements are reasonably independent of each other from month to month. The same cannot be said for the measure, C_{All}. The entries along the main diagonal show a strong short range correlation, implying that the individual measurements of C_{All} are not independent. Because of this correlation any conclusions drawn from this measure must be viewed with caution. This warning is particularly true with regard to the quantity, α.

TABLE I

RANKING OF BEATS USING $C_{PART\ I}$ AS PERFORMANCE MEASURE

	Reporting Period												
Rank	8	9	11	12	13	14	15	16	17	18	19	20	21
1	68	49	50	66	62	50	50	63	68	58	66	66	52
2	60	53	67	62	53	63	67	50	67	66	54	50	67
3	53	68	62	50	48	58	61	62	48	53	46	47	50
4	66	52	60	56	47	53	63	65	59	49	49	67	48
5	50	47	49	67	59	62	65	49	65	50	59	61	51
6	49	66	66	65	46	66	60	51	53	68	53	49	56
7	59	63	54	63	49	54	56	66	66	56	67	53	65
8	51	48	55	47	63	55	66	64	61	47	52	64	65
9	57	50	46	46	60	67	47	55	58	48	61	61	66
10	63	54	68	51	58	68	48	48	56	67	65	65	49
11	58	67	59	53	55	52	53	67	46	59	47	48	46
12	47	64	56	48	67	61	68	52	51	54	58	59	68
13	61	57	47	49	64	60	55	53	64	60	68	58	58
14	67	46	53	61	68	46	62	59	49	46	50	56	47
15	62	59	52	52	65	59	49	47	50	57	55	46	55
16	55	62	58	55	66	49	51	68	60	51	51	68	61
17	65	56	64	54	50	47	64	56	54	65	64	52	54
18	48	51	63	68	54	51	58	61	47	55	60	54	53
19	46	65	51	64	51	65	52	58	57	64	48	60	59
20	52	58	65	59	56	56	54	60	55	52	56	55	69
21	54	61	48	60	57	48	57	46	52	61	57	57	57
22	64	60	61	57	61	64	46	54					
23	56	55	57	58	52	57	59	47					

TABLE II

RANKING OF BEATS USING C_{ALL} AS PERFORMANCE MEASURE

	Reporting Period												
Rank	8	9	11	12	13	14	15	16	17	18	19	20	21
1	68	67	50	66	48	50	53	66	66	66	66	67	50
2	67	47	66	67	62	63	67	50	67	49	67	50	67
3	66	48	67	62	47	62	63	63	50	48	49	66	66
4	50	52	60	50	46	47	61	48	48	67	50	49	49
5	46	50	49	65	53	58	48	65	46	50	48	61	52
6	47	61	62	51	50	61	49	62	47	53	47	47	64
7	49	53	46	49	64	55	50	53	65	58	51	51	56
8	59	49	52	48	63	48	58	51	56	46	46	65	46
9	62	46	58	47	66	46	55	67	64	47	65	46	68
10	63	58	48	52	58	49	62	52	49	68	52	48	48
11	52	66	51	46	68	67	65	49	61	51	53	64	61
12	53	68	68	68	67	53	47	64	68	54	61	52	47
13	60	63	54	61	49	66	56	47	51	59	54	59	58
14	57	62	64	63	65	59	51	55	59	65	64	53	54
15	48	57	47	64	60	68	64	56	55	64	59	56	51
16	51	54	63	54	55	52	46	58	53	56	55	68	53
17	54	59	65	55	57	5k	60	46	54	57	60	58	59
18	61	64	56	59	59	54	66	68	58	55	68	54	65
19	65	56	53	56	51	65	54	59	60	60	58	60	55
20	56	51	59	53	52	60	68	61	52	61	56	57	60
21	64	55	55	58	61	56	52	54	57	52	57	55	57
22	55	60	61	57	56	64	59	60					
23	58	65	57	60	54	57	57	57					

TABLE III

RANKING OF BEATS USING E AS PERFORMANCE MEASURE

Rank	Reporting Period 8	9	11	12	13	14	15	16	17	18	19	20	21
1	68	68	67	67	67	62	67	66	67	68	50	50	50
2	50	61	66	50	49	61	56	59	64	66	51	64	52
3	67	50	50	68	64	65	59	64	56	46	49	48	58
4	46	64	68	64	50	67	64	56	59	64	64	68	68
5	59	58	59	66	61	64	61	50	46	47	59	67	64
6	64	67	58	57	68	52	66	47	50	67	58	59	59
7	51	47	51	58	59	51	49	67	58	49	47	58	66
8	65	46	56	60	60	49	58	53	68	56	67	65	56
9	60	66	47	52	65	66	50	48	65	65	52	47	61
10	66	55	54	47	58	55	47	51	47	58	61	66	49
11	61	59	65	54	66	54	62	58	55	50	54	46	51
12	47	53	61	61	55	58	63	61	54	51	65	52	65
13	55	62	57	46	57	59	53	60	48	48	55	56	48
14	52	65	48	56	53	50	54	49	66	54	60	54	46
15	53	60	49	54	46	53	51	54	57	59	46	53	55
16	56	56	55	62	51	68	68	52	60	57	53	55	47
17	48	48	64	63	47	46	48	46	51	61	57	57	67
18	54	63	46	51	54	48	65	68	52	55	56	61	53
19	62	52	52	59	62	56	52	65	53	53	48	60	54
20	49	51	53	53	63	57	46	57	49	52	68	51	60
21	58	57	60	48	56	47	57	55	61	60	66	49	57
22	63	54	63	49	52	60	60						
23	57	49	62	55	48	63	55						

TABLE IV

CORRELATION MATRIX FOR THE PERFORMANCE MEASURE $C_{PART\ I}$

Period	8	9	11	12	13	14	15	16	17	18	19	20	21
8	1	0.16	0.12	-0.02	0.07	0.24	0.13	0.04	0.13	0.33	0.05	0.24	-0.24
9		1	0.12	0.13	0.25	0.08	-0.03	0.12	-0.06	0.36	0.28	0.25	0.15
11			1	0.21	0.10	0.37	0.10	0.08	-0.06	0.26	0.29	0 06	0.02
12				1	0.04	0.12	0.36	0.34	0.13	0.19	0.17	0.47	0.34
13					1	0.08	-0.07	0.12	0.21	0.31	0.10	0.12	-0.19
14						1	0.19	0.17	0.06	0.30	0.32	0.05	-0.10
15							1	0.26	0.16	0.12	-0.08	0.41	0.24
16								1	0.09	0.07	0.04	0.42	0.41
17									1	0.26	0.12	0.21	0.10
18										1	0.14	0 26	0.01
19											1	0.23	0.02
20												1	0.27
21													1

TABLE V

CORRELATION MATRIX FOR THE PERFORMANCE MEASURE C_{ALL}

Period	8	9	11	12	13	14	15	16	17	18	19	20	21
8	1	0.35	0.30	0.41	0.26	0.21	0.01	0.19	0.30	0.29	0.35	0.36	0.32
9		1	0.27	0.08	0.22	0.29	0.15	-0.04	0.29	0.05	0.00	0.08	0.21
11			1	0.46	0.23	0.15	0.02	0.29	0.28	0.45	0.45	0.34	0.48
12				1	0.23	0.16	0.15	0.54	0.59	0.35	0.72	0.68	0.48
13					1	0.40	0.30	0.35	0.32	0.42	0.29	0.22	0.15
14						1	0.34	0.29	0.23	0.34	0.30	0.28	0.15
15							1	0.36	0.23	0.26	0.30	0.30	0.14
16								1	0.54	0.42	0.53	0.52	0.39
17									1	0.43	0.56	0.58	0.47
18										1	0.52	0.36	0.35
19											1	0.69	0.44
20												1	0.45
21													1

TABLE VI

CORRELATION MATRIX FOR THE PERFORMANCE MEASURE E

Period	8	9	11	12	13	14	15	16	17	18	19	20	21
8	1	0.47	0.31	0.32	0.33	0.11	0.08	0.19	0.26	0.26	-0.14	0.32	0.17
9		1	0.25	0.34	0.34	0.07	0.22	0.08	0.34	0.24	0.11	0.46	0.18
11			1	0.31	0.29	0.06	0.32	0.30	0.31	0.35	0.15	0.33	0.27
12				1	0.28	-0.01	0.15	0.11	0.29	0.25	0.25	0.32	0.17
13					1	0.23	0.30	0.09	0.21	0.17	0.28	0.13	0.16
14						1	0.21	-0.02	-0.08	0.03	0.22	-0.01	0.21
15							1	0.53	0.25	0.28	0.20	0.21	0.26
16								1	0.21	0.26	0.21	0.28	0.23
17									1	0.34	0.03	0.55	0.15
18										1	-0.04	0.28	0.22
19											1	0.07	0.21
20												1	0.34
21													1

CUMULATIVE DISTRIBUTION CURVES

The cumulative distribution curves for the CCT beat and for the other twenty-two beats are shown in Figures 18a, 19a, and 20a, where $C_{Part\ I}$, C_{All} and E are used as the performance measures. The distributions of the CCT beat, as functions of the distributions of the other beats plotted on the unit square, are shown in Figures 18b, 19b, and 20b.

CALCULATIONS OF α AND $(1-\beta)$

The quantities α and $(1-\beta)$ are displayed in Table VII. The left hand column specifies the decision level for definition of a "good" performance. Since there are twenty-three beats in Syracuse, if the decision level for a "good" performance is a ranking of third or better, then these three beats will have exhibited a better performance than 87%; i.e., $(23-3)/23 \approx 0.87$) of the beats in the city. Likewise, if a "good" performance is defined by a ranking of sixth or better then these six beats will have had a better performance than 74% of the beats in the city, i.e., $(23-6)/23 \approx 0.74$.

The second column, α, indicates the confidence level with which the Null Hypothesis can be accepted. For example, suppose the "good" performance level using the measures $C_{Part\ I}$ is set at a ranking of second or better (91% of the other beats), then the confidence level for accepting the Null Hypothesis

> "The operational procedures of the CCT are not more effective in obtaining a low value of $C_{Part\ I}$ than are conventional police operational procedures"

is 0.002. Since this confidence limit is so small, the experimental results imply that the null hypothesis is probably not true.

The third column in the Table, $(1-\beta)$, provides a probability of the CCT performing at this confidence level. Continuing the above example, the probability is 0.2 that the performance of the CCT beat, as measured by

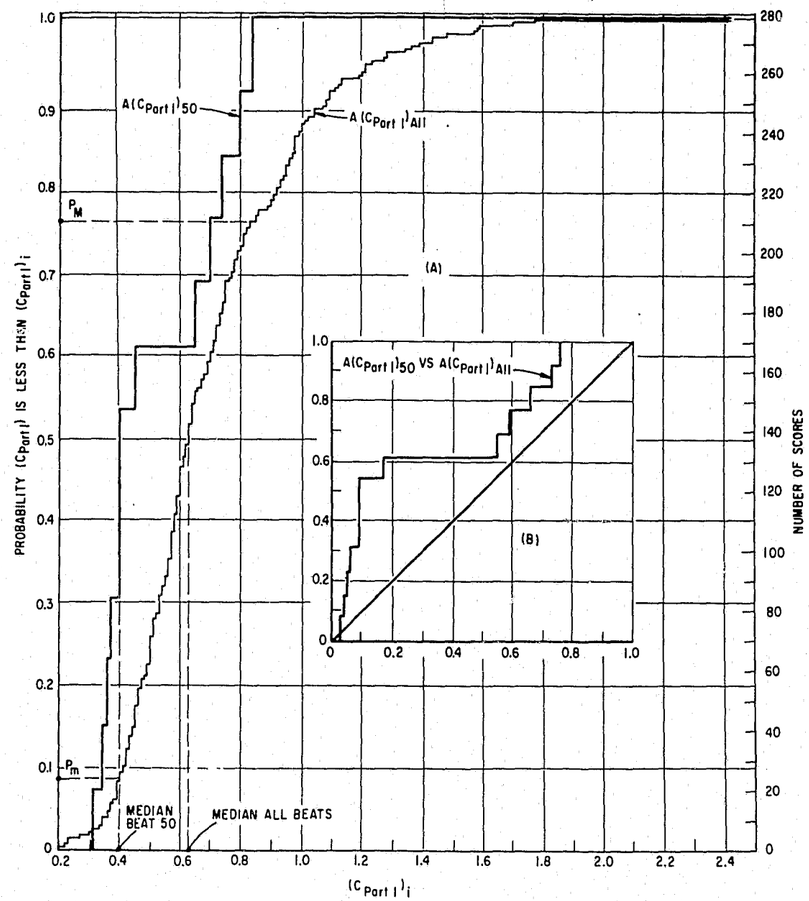

Figure 18. (a) Cumulative distributions for the CCT beat and for the other beats; and (b) the distribution of the CCT beat as a function of the distribution of the other beats, using $C_{Part\ I}$ as the performance measure.

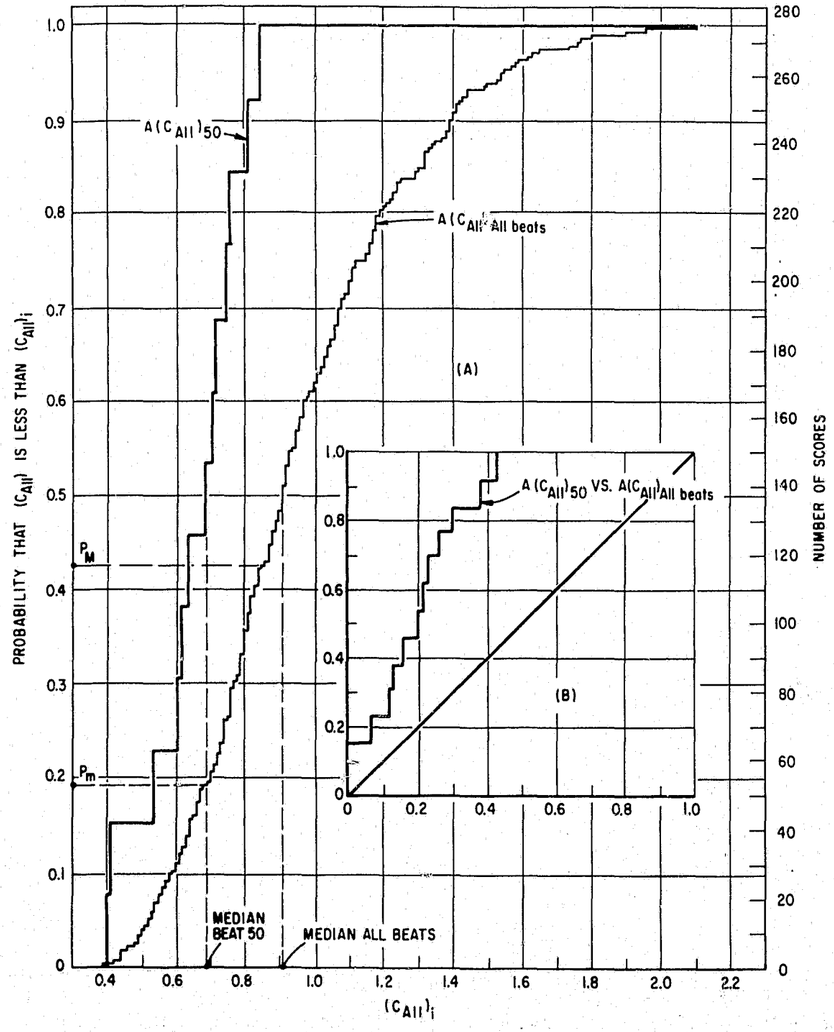

Figure 19. (a) Cumulative distributions for the CCT beat and for the other beats; and (b) the distribution of the CCT beat as a function of the distribution of the other beats, using C_{All} as the performance measure.

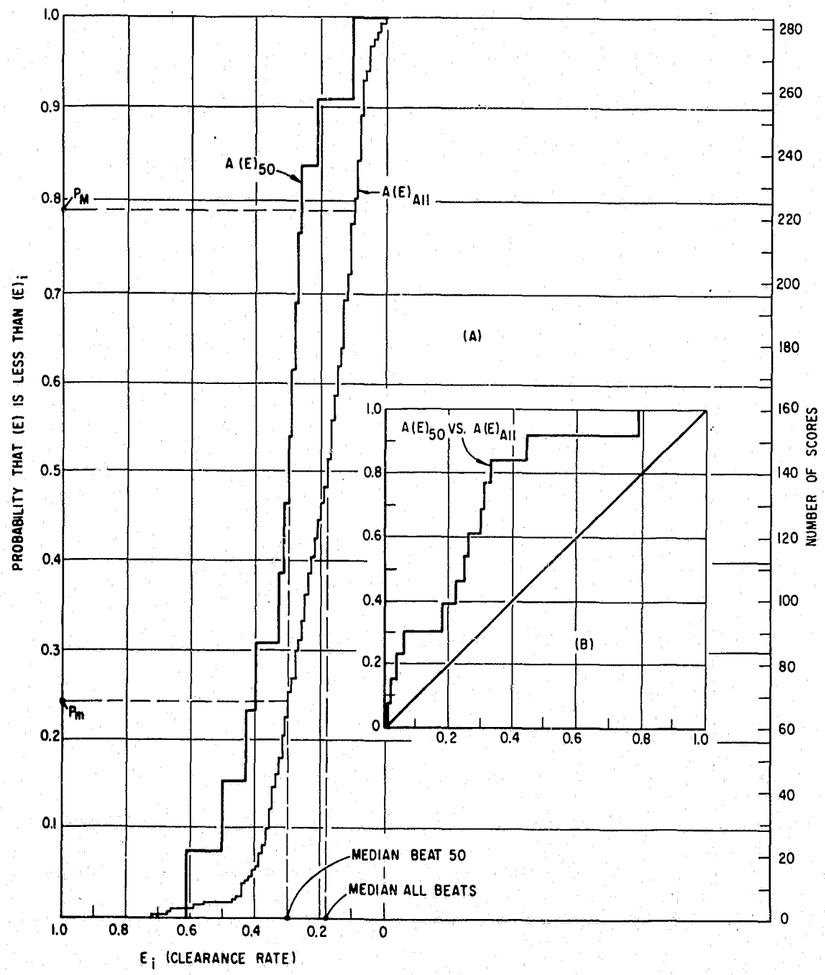

Figure 20. (a) Cumulative distributions for the CCT beat and for the other beats; and (b) the distribution of the CCT beat as a function of the distribution of the other beats, using E as the performance measure.

TABLE VII
EVALUATION SUMMARY

% of Police Beats	α	1-β	Other Beats*
$C_{Part\ I}$			
96	$\leq$ 0.021	0.80	66
91	0.002	0.80	--
87	0.001	0.82	--
C_{All}			
96	$<$ 0.021	0.77	66
91	0.005	0.87	66, 67
87	0.004	0.85	66, 67
83	0.000	0.95	66, 67
E			
96	$<$ 0.021	0.86	67, 68
91	0.005	0.84	67
87	0.001	0.94	

As measured by C_i or E the CCT, during the 13 periods of the experiment, performed better than ___ % of the other units. If there were no difference in the police treatment of beats the probability that, by chance, the data would substantiate this statement is α. The probability that the CCT will perform at this confidence level (α) is (1-β).

*The same or an even stronger statement can be made with regard to other beats.

$C_{Part\ I}$ will not be "better" than 91% of the other beats in the city.*

The final column in Table VII lists the other beats (if any) in the city about which the same or stronger statements can be made.

USE OF CUMULATIVE DISTRIBUTION CURVES

The cumulative distribution curves may be used to obtain approximate measures of the differences in the performance between the CCT beat and the other beats. Table VIII is a summary of a few of the ways this may be done. The quantities P_m and P_M are the probabilities that one beat will perform as well as or better than the median and worst performance of the CCT beat. For example, the probability a beat will obtain a better E score than the median CCT performance (that is, a clearance rate of 28%) is 0.24. The probability that two beats will perform better is $(0.24)^2 \approx 0.06$. Likewise there is a 0.76 probability that one beat will perform better than the worst performance of the CCT beat as measured by $C_{Part\ I}$. The probability is only $(0.76)^4 \approx 0.32$ that four beats will obtain a better $C_{Part\ I}$ score.

EVALUATION USING CONTROL BEATS

The performance of the CCT beat is compared to the performance of several control beats in Table IX. As pointed out in Chapter VI the control beats are ordered from best to worst, in the sense that beat 56 is probably a better control than is beat 47; as judged from the crime statistics over the preceding eighteen months before the start of the experiment. A minus sign indicates that crime decreased in the beat during the period of the experiment, as compared to the amount of crime which occurred in the beat during the thirteen reporting periods prior to the start of the experiment.

*At the risk of offending readers who are well-versed in mathematical terminology, these statements can be put in simpler terms. Using the same example - "the probability of the CCT performing better than 91% of the other beats, as measured by $C_{Part\ I}$, is 0.998. The probability that the CCT will always perform better than 91% of the other beats is 0.80."

TABLE VIII

USE OF CUMULATIVE DISTRIBUTION CURVES

Measure	P_m	P_M
$C_{Part\ I}$	0.09	0.76
C_{All}	0.19	0.43
E	0.24	0.79

The probability, P_m, that a Beat will perform better than the median performance of the CCT Beat, and the probability, P_M, that a Beat will perform better than the worst performance of the CCT Beat.

TABLE IX

EVALUATION WITH THE USE OF CONTROL BEATS

Beat	$C_{Part\ I}$	C_{All}	Clearance Rate (E)
50	-62.0%	-24.5%	33.9%
56	-51.7	+ 1.6	20.6
55	-41.7	+31.4	14.3
54	-31.1	+ 5.3	16.0
49	-51.3	-11.0	17.0
47	-54.8	- 9.4	21.8

For completeness, a summary of the performance of all the beats for the year is provided in Tables X, XI and XII. *

DISCUSSION OF RESULTS

Several facets of the experimental results deserve emphasis. The first is the consistency of the results. Regardless of the measure or the particular evaluation scheme used, the performance of the CCT beat is superior when it is compared to that of the majority of the other beats in the city.

Second, although a few beats in the city matched or outperformed the CCT beat when measured by C_i or E, no beat was able to perform in all three areas, C_{All}, $C_{Part\ I}$, and E, as well as the CCT beat.

The final point deserving of emphasis is that the calculated values for α and $(1-\beta)$, Table VII, indicate that there would be little risk associated with accepting the CCT mode of operation and there would be a high probability that the CCT mode would provide a significant increase in the performance of the municipal police. (This statement, of course, assumes that if the concept were implemented city-wide in Syracuse, or that the experiment was duplicated in another city, the total spectrum of sociological conditions would be the same as they were in Beat 50 during the evaluation period.)

* The entries in Tables X and XI are not expected to agree in detail with those in Table IX. The normalizing factors in Tables X and XI consist of data for five periods; those in Table IX consist of data for thirteen periods.

TABLE X

YEAR'S SUMMARY $C_{PART\ I}$

RANK	BEAT	PART I	INCREASE OR DECREASE
1	66	0.458	-54%
2	50	0.520	-48
3	53	0.538	-46
4	49	0.554	-45
5	67	0.557	-44
6	68	0.592	-41
7	47	0.655	-35
8	65	0.660	-34
9	48	0.660	-34
10	51	0.697	-31
	City	0.703	-30
11	46	0.713	-29
12	59	0.728	-28
13	56	0.736	-27
14	58	0.747	-25
15	61	0.778	-23
16	52	0.778	-23
17	60	0.785	-22
18	54	0.787	-21
19	64	0.793	-20
20	55	0.820	-18
21	57	1.175	+12

TABLE XI

YEAR'S SUMMARY C_{ALL}

RANK	BEAT	C_{ALL}	INCREASE OR DECREASE
1	67	0.650	-35%
2	66	0.650	-35
3	50	0.654	-35
4	49	0.780	-22
5	48	0.787	-21
6	47	0.823	-19
7	46	0.863	-14
	City	0.917	- 8
8	51	0.957	- 4
9	68	0.958	- 4
10	53	0.958	- 4
11	65	1.000	- 0
12	64	1.000	- 0
13	61	1.005	+ 0
14	52	1.018	+ 2
15	59	1.042	+ 4
16	54	1.100	+10
17	56	1.122	+12
18	58	1.149	+15
19	55	1.199	+20
20	60	1.262	+26
21	57	1.472	+47

TABLE XII

YEAR'S SUMMARY E

RANK	BEAT	CLEARANCE RATE (E)
1	50	33.9%
2	64	31.0
3	68	30.6
4	67	30.3
5	59	29.8
6	66	25.2
7	58	24.1
8	47	21.8
	City	21.6
9	51	21.7
10	65	21.3
11	56	20.6
12	46	20.4
13	61	20.3
14	48	17.5
15	49	17.0
16	54	16.0
17	52	15.9
18	60	14.8
19	55	14.3
20	53	13.8
21	57	13.2

VII. ADDITIONAL EXPERIMENTAL RESULTS

The original goal of the present program was to evaluate the CCT concept in Area 50 during the first year of its operation. A grant was obtained but, because of administrative problems, work on the grant was not started until after the first year of operation had been completed. Thus, it has been possible to obtain additional data for Area 50, as well as data for the second Team in Areas 62 and 63. This information is presented in this section.

RAW DATA

The rank orders of the beats for the reporting periods 17-30 for Area 50 and for periods 4-17 for Areas 62 and 63, using the performance measures $C_{Part\ I}$, C_{All}, and E, are presented in Tables XIII-XVII.

CUMULATIVE DISTRIBUTION CURVES

The cumulative distribution curves for Beats 62 and 63 are shown in Figures 21a, 22a and 23a where $C_{Part\ I}$, C_{All} and E are used as performance measures. The distributions for Beats 62 and 63, as functions of the other beats plotted on the unit square, are shown in Figures 21b, 22b and 23b.

DISCUSSION OF ADDITIONAL RESULTS

Beat 50 - The performance in Beat 50 continued at the high level attained during the initial experimental period, regardless of the particular measure, or combination of measures, used.

Beat 62 and 63 - The performance of the CCT in Beats 62 and 63 has been considerably less impressive than the performance in Beat 50. All crime and

Part I crime has remained at essentially the same level as it was before the second Team became operational (this is also true of the City as a whole). The clearance rate in Beats 62 and 63 has improved considerably in the past year. Figure 23b clearly indicates that by this performance measure the Beat 62-63 Team performed better than most of the other beats in the city. Nevertheless there are a number of beats (Table XV) whose clearance rates are better than that of Beats 62 and 63.

In evaluating the performance of the second Team it should be kept in mind that there were several differences in Areas 62 and 63:

- The CCT manpower per beat level was reduced; while 8 CCT policemen were committed to Beat 50, only 8 men were committed to Beats 62 and 63 together.*
- Approximately one-third of the Beat 62-63 Team are rookie policemen.
- Only a small portion of the people in Beat 63 are permanent residents of the area. Most of the population are students of Syracuse University or people who are acquiring training at the large medical complex in the area. Thus the population of 63 is transit compared to that of Beat 50.
- Beat 63 has a large narcotics problem, plus the unrest associated with university people and their hangers-on. Both of these problems have required considerable attention and have depleted the manpower available for street crime.

*The Syracuse Police Department, previous to the CCT taking over the complete police function in Beats 50, 62, and 63, had committed about 23 policemen to these areas. (3 - one man patrol units, requiring 4.6 men/unit; plus, on the average of 3 investigators/beat for a total of 22.8 men). Since the CCT has taken over these areas two 8-man CCT's and 8-man Citizen Service Unit or 24 men are committed to the area. The manpower consumed by the Citizen Service Unit is considerably larger than would be required if the whole city were to use the CCT concept. At present the Citizen Service Unit is very inefficient in the sense that it is often completely over or underloaded with requests for service. This situation exists because it is deployed in a very limited geographical area.

- Because of manpower limitations in the Department, capable leadership was not immediately available for the second Team.

It is not clear which of the above or which other factors (or combination of factors) is responsible for the fact that the performance of the Beat 62-63 Team has not matched that of the Beat 50 Team.

TABLE XIII

RANKING OF BEATS USING $C_{PART\ I}$ AS PERFORMANCE MEASURE

Reporting Period

Rank	22	23	24	25	26	27	28	29	30
1	50	48	66	66	66	66	68	56	57
2	49	46	48	49	67	59	55	48	48
3	59	66	49	50	68	56	58	54	50
4	51	53	65	48	56	49	66	53	66
5	53	65	50	68	54	53	59	52	65
6	46	67	47	65	50	65	46	58	68
7	47	51	46	46	65	46	65	59	64
8	66	50	51	64	59	52	50	47	53
9	56	49	67	51	52	50	47	46	51
10	78	47	59	67	47	68	54	61	49
11	68	59	64	55	48	48	53	49	56
12	65	68	54	58	53	47	61	51	59
13	48	61	53	59	61	64	49	68	52
14	52	56	55	53	64	61	64	65	60
15	54	52	61	61	49	67	48	55	46
16	58	55	68	47	46	61	56	66	47
17	61	58	56	56	58	54	57	50	54
18	64	54	58	54	55	55	60	64	55
19	55	64	61	52	60	51	52	57	58
20	60	57	52	61	51	58	67	60	67
21	57	60	57	57	57	57	51	67	61

TABLE XIV

RANKING OF BEATS USING C_{ALL} AS PERFORMANCE MEASURE

Reporting Period

Rank	22	23	24	25	26	27	28	29	30
1	50	48	66	66	66	50	50	48	58
2	66	67	50	51	50	66	55	50	48
3	44	49	49	50	68	49	47	47	50
4	67	50	48	47	67	60	68	51	66
5	48	47	67	49	49	65	49	49	47
6	53	51	46	64	54	48	46	58	68
7	47	66	54	67	47	52	66	61	46
8	65	46	64	68	65	56	51	66	49
9	58	65	47	48	61	53	48	56	51
10	46	53	65	46	48	47	59	64	67
11	54	68	68	65	56	46	53	52	55
12	51	55	55	55	58	68	56	46	64
13	64	61	51	54	64	55	64	55	53
14	68	59	58	59	59	67	65	54	56
15	52	64	59	58	52	58	54	65	65
16	61	52	53	52	51	54	61	53	61
17	56	54	56	53	46	64	67	68	54
18	59	56	52	61	53	61	57	67	60
19	55	58	61	56	55	52	58	59	52
20	60	57	57	60	60	60	22	57	59
21	57	60	60	57	57	57	60	60	57

TABLE XV

RANKING OF BEATS USING E AS PERFORMANCE MEASURE

	Reporting Period													
Rank	4 17	5 18	6 19	7 20	8 21	9 22	10 23	11 24	12 25	13 26	14 27	15 28	16 29	17 30
1	67	68	50	50	50	60	67	64	59	68	59	59	53	60
2	64	66	51	64	52	50	65	68	64	51	65	55	67	68
3	56	46	49	48	58	46	51	59	50	56	50	60	48	58
4	59	64	64	68	68	64	47	55	56	58	67	48	52	66
5	46	47	59	67	64	68	68	51	58	67	60	50	50	59
6	50	67	58	59	59	58	59	46	68	59	64	64	46	46
7	58	49	47	58	66	67	48	58	65	64	58	51	47	64
8	68	56	67	65	56	59	64	47	52	50	61	58	64	48
9	65	65	52	623	623	56	55	66	49	623	66	46	61	47
10	47	58	61	47	61	65	56	65	55	60	49	57	67	61
11	623	50	54	66	49	623	49	56	47	47	54	623	56	49
12	55	51	65	46	51	51	623	48	46	66	56	47	55	54
13	54	48	55	52	65	54	46	50	623	54	48	68	46	57
14	48	54	60	56	48	60	50	623	51	65	51	67	54	65
15	66	59	46	54	46	52	58	52	60	48	52	65	59	623
16	57	623	53	53	55	61	52	54	67	52	68	53	51	52
17	60	57	623	55	47	49	66	67	53	49	623	66	58	56
18	51	61	57	57	67	48	61	57	57	53	55	56	64	55
19	52	55	56	61	53	47	54	49	48	57	53	54	68	50
20	53	53	48	60	54	53	57	60	56	55	46	61	623	51
21	49	52	68	51	60	55	60	53	54	46	47	49	47	57
22	61	60	66	49	57	57	53	61	61	61	57	52	66	53

TABLE XVI

RANKING OF BEATS USING $C_{PART\ I}$ AS PERFORMANCE MEASURE

Rank	Reporting Period													
	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	59	58	54	61	52	49	48	65	64	66	59	55	56	57
2	68	66	46	66	56	59	46	48	49	56	56	68	54	48
3	48	49	59	64	48	51	65	46	66	54	66	58	48	64
4	65	53	66	47	64	56	51	64	48	59	46	59	52	65
5	61	57	49	65	51	46	53	49	65	61	65	46	58	56
6	58	56	61	51	58	47	66	59	46	65	52	65	59	68
7	56	54	52	623	67	65	59	47	623	52	49	54	61	46
8	64	68	58	49	46	53	61	54	58	623	53	64	46	51
9	67	59	65	48	61	623	49	51	68	68	64	57	53	59
10	46	47	53	59	49	52	47	66	51	64	48	61	57	66
11	51	48	64	58	55	54	67	55	59	67	61	66	51	623
12	53	60	47	56	54	68	56	60	55	47	47	47	47	52
13	66	46	55	53	47	48	52	56	56	48	623	66	65	49
14	57	65	67	67	66	66	58	58	54	46	68	623	55	53
15	623	64	51	46	623	58	57	67	60	58	54	48	64	54
16	54	51	68	52	68	61	55	623	52	53	60	49	49	58
17	60	55	60	57	59	64	68	53	61	49	55	53	68	60
18	49	623	48	54	65	67	54	68	47	55	51	60	623	55
19	55	67	623	68	60	55	64	61	53	60	58	52	66	47
20	47	52	56	60	53	60	623	57	67	51	67	51	60	61
21	52	61	57	55	57	57	60	52	57	57	57	67	67	67

TABLE XVII

RANKING OF BEATS USING C_{ALL} AS PERFORMANCE MEASURE

Rank	Reporting Period													
	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	66	66	66	67	56	49	48	49	66	66	59	55	48	48
2	67	58	49	61	52	66	49	66	623	68	65	47	58	55
3	56	49	67	49	57	67	67	54	64	56	56	56	56	623
4	65	48	65	65	623	623	51	65	49	65	49	59	51	66
5	46	46	61	66	49	65	65	46	65	623	66	68	61	56
6	61	67	52	623	64	58	47	48	55	54	52	46	49	68
7	48	53	48	51	61	53	55	64	68	61	60	65	47	46
8	47	59	46	47	58	48	46	67	54	58	55	51	55	47
9	64	54	51	59	56	56	53	55	46	59	53	49	64	51
10	59	65	47	64	68	54	623	47	59	49	48	61	65	64
11	55	68	53	46	46	61	66	56	48	47	46	623	52	49
12	68	47	54	52	54	46	68	58	67	67	58	53	54	65
13	49	56	55	56	59	47	59	623	58	64	68	54	57	53
14	58	51	59	58	51	59	61	59	47	52	47	57	623	60
15	51	57	60	48	65	64	56	68	52	55	61	64	46	51
16	54	623	623	53	48	52	57	51	51	48	623	48	59	67
17	623	64	64	54	47	68	54	57	56	51	54	66	53	54
18	53	55	56	68	53	51	64	53	61	46	64	58	66	59
19	60	60	57	60	60	55	58	61	60	53	51	52	68	58
20	57	61	58	57	55	60	52	52	63	57	67	67	60	52
21	52	52	68	55	57	57	60	60	57	60	57	60	67	57

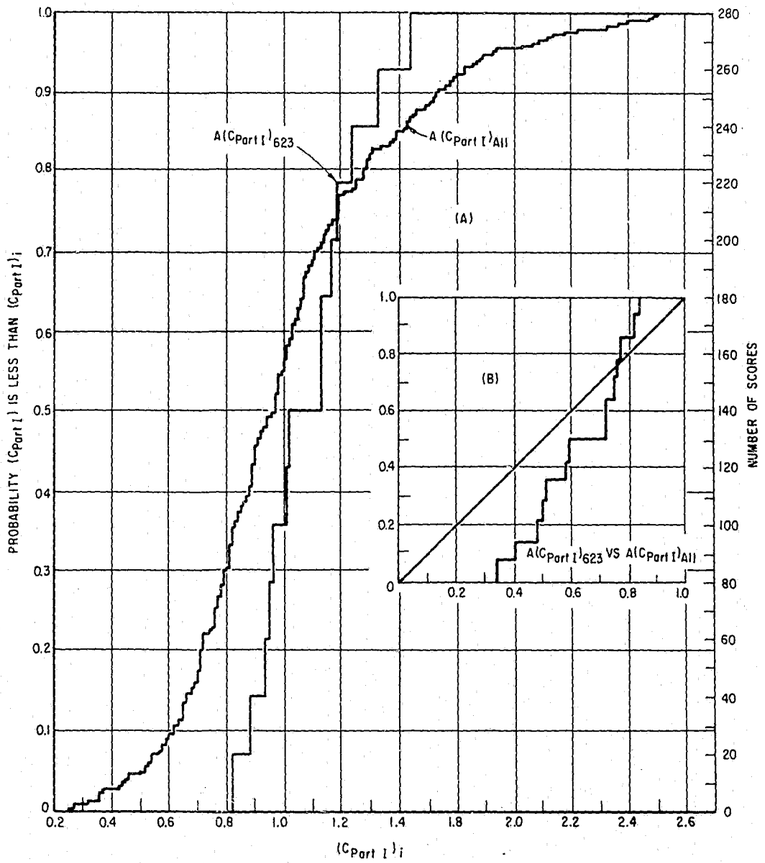

Figure 21. (a) Cumulative distributions for 62 and 63 beats and for the other beats; and (b) the distribution of 62 and 63 beats as a function of the distribution of the other beats, using $C_{Part\ I}$ as the performance measure.

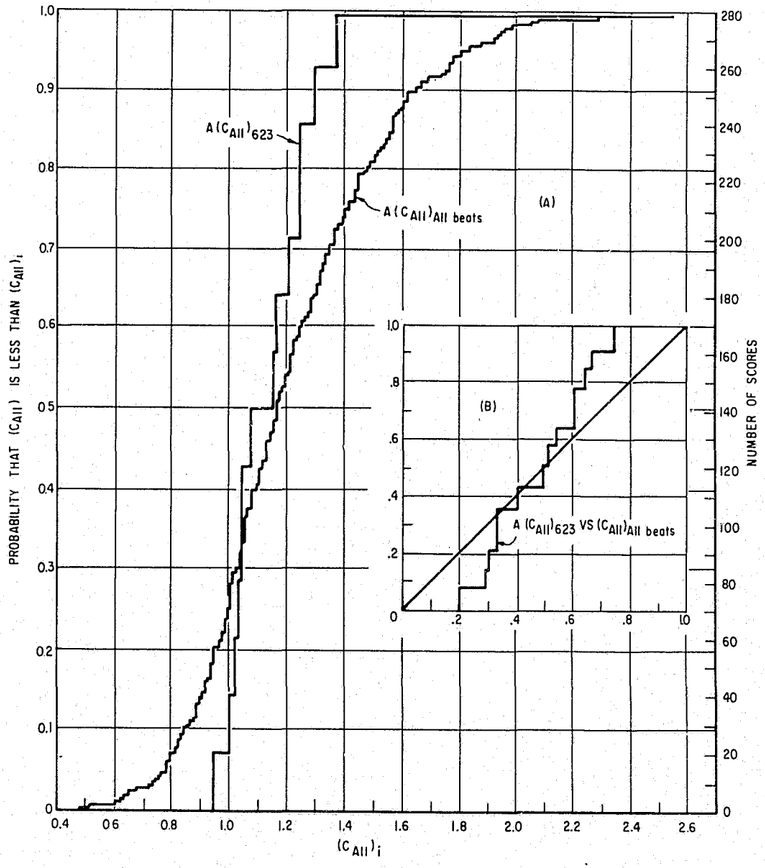

Figure 22. (a) Cumulative distributions for 62 and 63 beats and for the other beats; and (b) the distribution of 62 and 63 beats as a function of the distribution of the other beats, using C_{All} as the performance measure

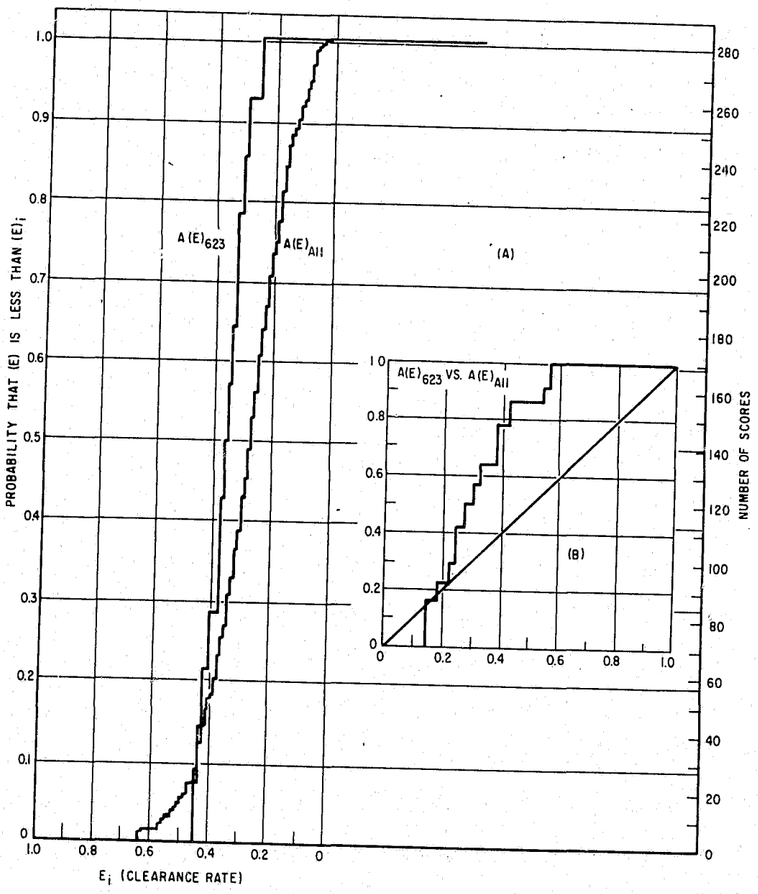

Figure 23. (a) Cumulative distributions for 62 and 63 beats and for the other beats; and (b) the distribution of 62 and 63 beats as a function of the distribution of the other beats, using E as the performance measure

VIII. CONCLUSIONS

The results discussed in Sections V and VI lead to sterile conclusions regarding the CCT experiment. Generally stated, the experiment demonstrated that crime has been controlled in Area 50 to an acceptable level, and the performance has been superior to all other areas in the City. The performance of the second Team in Areas 62 and 63 has not been nearly as dramatic. All crime and Part I crime in these areas has remained at the same level as it has throughout the City. Although the clearance rate has improved considerably in the past 14 months it is still not one of the best in the city.

A number of reasons were set forth in the previous Section as rationalizations for the disappointing results in 62 and 63; however, at this point in the experimental program it is not possible to demonstrate which of these, if any, are germane.

The extrapolation of these general conclusions, as to whether or not a police administrator should implement the CCT concept in his Department, must be left to the individual reader.

It is incumbent on any experimenter to advance his own interpretation of an experiment, to point out its strengths and weaknesses, the reasons for the results that were obtained, the facts that were learned and, in the present case, the meaning of the experiment to future municipal police organizations. For several réasons the following subjective comments are directed only at the experimental results in Area 50. First, the major goal of this program

was to evaluate the first Team; second, the first Team has been in operation long enough so that the results are quite clear and a period has been available for reflection upon those results. Finally, all of the available experimental variables have not been adjusted, in Areas 62 and 63, to allow for an understanding of the results in these areas.

The subjective comments which follow are of three types. The Project Director (JFE) and the Team Leader (TJS) during the first 18 months of the experiment agree, in general, on the subjective evaluation of the experiment. These areas of agreement are discussed in the first half of this Section. These two people, however, have different backgrounds and supplied different roles in the experiment; thus their detailed views of the experiment, which form the latter part of this Section, might be expected to differ.

GENERAL REMARKS

Reasons for Success

There is general agreement that the Crime Control Team in Area 50 performed outstandingly compared to the bulk of the Syracuse Police Department during the period of the experiment, regardless of the measure or combination of measures used to evaluate the performance. However, the experiment <u>does not</u> demonstrate that this performance was due in its entirety, or even in part, to the formal organization concept of the Crime Control Team. The performance might have been the result of using above average policemen, superior leadership, the Hawthorne Effect *, or a combination of these and other unrecognized factors. It is the task of future experimenters to sort out those factors that are significant and those that are not.

*The term "Hawthorne Effect" is now commonly used to designate the influence that participating in an experiment may have upon the subject's behavior.

If the success of the experiment was due to the use of superior policemen and field leadership, then the task of the police administrator is clear. He must obtain and develop the type of personnel used in the CCT experiment to increase the effectiveness of his organization.

The success of the experiment may have been due to the Hawthorne Effect. Certainly the environmental factors surrounding the experiment were such that the Hawthorne Effect may have prevailed. The Mayor, other civic leaders, and the Chief of Police were personally interested in the project. A major industry was involved and devoted a portion of its resources to the program. The press, radio and television featured many stories about the experiment and the exploits of the Team. The success of the experiment could have resulted from the fact that these people wanted and expected it to be a success. If the Hawthorne Effect did indeed play a dominant role in the experiment, the police administrator's task is again clear; he must find a more effective means of motivating his policemen.

In a sense it is actually not important to determine the reasons for the success of the experiment. The fact remains: it has been demonstrated that the effectiveness of the municipal police can be increased significantly without an increase in manpower or financial resources. The Crime Control Team organizational concept, at least, provided a climate where good policemen can operate effectively and exercise imaginative leadership; and where the Hawthorne Effect can be used to advantage.

Public Relations and the Development of an Intelligence Network

A number of the recommendations made by the President's Commission were concerned with the interface between the police and the community. Much of the Commission's concern in this area was motivated by the threat of continued civil disorders. However, the Commission also noted that the police can do little about crime unless they receive the active cooperation and help of the community. Although the Commission did not state it so bluntly, it seemed to say: "to be effective against crime the police must have a viable intelligence system, and one means of implementing such a system is through an active community relations effort."

The police have probably always recognized the importance of good community relations and a functioning intelligence system. Since the advent of the motorized patrol, however, the police have found no effective means of remaining in personal contact with the neighborhood population; and their intelligence systems, for the most part, are limited to the use of hard-core informants.

During the past few years most police departments have made honest attempts to improve the interface between themselves and, particularly, the minority group communities. These efforts have generally involved two approaches. First, departments have established community relations sections, whose activities are probably best described as public relations. They try to tell the police story through the press and/or by talking to various community organizations. The second approach has been to broaden the training of the

police, particularly in the areas of minority group history and culture. At best, these efforts have only been modestly successful. The first approach lacks the necessary coordination that links the individual citizen to the beat patrolman for cooperative action. Regardless of the good intentions of the patrolman after he steps out of the community relations class, they are soon eroded away by the daily confrontations he faces on the streets. It is difficult for the patrolman to be an advocate of racial tolerance and understanding in the face of the realities of his job. Furthermore it is not at all clear to the patrolman how his efforts in this area can make his job easier or how they can ever by objectively measured.

The Crime Control Team experiment indicated one way that the gap between the police and the community could be shortened. One of the reasons the Team became a part of the community was because the Team Members could see how their community relations efforts were paying off, in the very real sense of clearing crimes. That is, the community relations activities were effective in setting up a useful intelligence system.

Although the importance of community relations was recognized during the planning stages of the experiment, it was essentially viewed as a means of informing the beat population of the plans of the police. The possibility of obtaining the active cooperation of the citizens was not seriously considered; nor was it realized that the program would activate an intelligence network.

The most important characteristic of the CCT community relations effort is that it is a policemen-to-individual citizen relationship.

Reviewing the early history of the experiment there were two principle tactics used by the Team to immediately obtain the cooperation of the beat population.

Person-to-Person Contact - The first hint of the effectiveness of policeman-to-citizen contact was obtained before the Team became operational. It occurred during a survey of business establishments on the beat for proper security precautions (see Section V). The amazement of the business people, caused by the visit of a policeman who only wanted to learn of problems and suggest improved security measures, was only matched by the amazement of the policemen when they were confronted by a friendly business community.

The personal contact with political leaders by Team Members, to request that they attend meetings, was successful and served to promote their interest in the program.

Meetings, which involved the Pastor and interested parishioners, were held in churches located in the beat.

Using the business, political and religious people as a nucleus, the community relations program was rapidly expanded. During the summer evenings a Team member would stop at a home where people were sitting on the porch or steps, introduce himself, sit down and start talking. Soon neighbors would drift over. This approach never failed to collect a group of five to ten people. The same basic approach was successful when the officers would stop a person on the street and engage him in conversation.

Removal of Neighborhood Irritations - Every neighborhood has irritations, and the people have often exhausted their resources in trying to solve the problem. In the first few weeks the Team identified a number of these irritations and, by one means or another, were successful in removing them.

For example:

A motorcycle gang had established their hangout in a bar in Beat 50 and, for blocks around the bar, the citizens were upset at the presence of this group in their neighborhood and having their sleep disturbed by the cycles roaring up and down the streets late at night. The problem had been brought to the attention of the police many times but no solution was forthcoming. Within two weeks after the Team was committed the gang was completely eliminated from the area.

The Little League for years had raised money by having a week-end carnival on a vacant lot in the area. In the past few years the affair had been so disrupted by rowdies that the administrators of the League had decided to cancel the event in 1968. The Team assured the Little League people to go ahead and have the carnival, and it would not be disturbed by neighborhood toughs. The first night of the carnival several CCT officers were present throughout the evening; the second night, one officer was present; on the final night the CCT officers stopped for a few minutes or just drove by as part of their regular patrol. Through the weekend the area around the carnival was peaceful.

One evening while talking to a CCT officer a group of neighbors complained about an old automobile that had been standing on private property for a considerable length of time. They felt it was an eyesore and they didn't like their children playing in it. The officer located the owner and found out that he didn't want the car but didn't know how to dispose of it. The officer had it towed away within an hour.

Actions like these quickly convinced large groups of citizens that the CCT could get things accomplished and that the Team Members were personally concerned with the welfare of the neighborhood.

This Community relations effort accomplished two things for the Team (over and above the fact that many citizens became convinced that policemen could be nice people, worked hard, and were obviously underpaid). First, it often allowed the Team to direct its attention to a situation before it developed into a police problem (for example, the Little League affair or the motorcycle gang). Second, many crimes were cleared because a citizen sought out a CCT member he knew and passed on information, or because the CCT member knew someone who would give him the information required (that is, it established an intelligence network).

What the Police Have Yet to Learn about Community Relations and Intelligence

The success of the Community relations effort during the experiment was matched only by the lack of a complete appreciation by Team Members of the usefulness of good community relations and the availability of a functioning intelligence system. This lack of appreciation continued throughout the experiment despite the fact that, time and again, the officers could see the results of their efforts.

To most policemen the term intelligence implies the use of an informer to divulge information about the commission of a crime. This image is just as outdated as that of a beautiful blonde worming national defense plans out of the Chief of Staff. The police are preoccupied with the idea that the only way to solve a crime is to have someone point out the responsible individual,and when this does not happen they are likely to become frustrated and give up.

This frustration has often led individual policemen to a very questionable conclusion - that ghetto neighborhoods have accepted crime as a way of life, and that the people in those neighborhoods do not want their persons and property to be safe from criminal attack. Such a conclusion simply makes no sense. The police must adopt, as a working hypothesis, the idea that in every neighborhood, the vast majority of people earnestly want to be free of the fear of criminal attack; furthermore, most of these people would like to help the police but they simply do not know how to do it without compromising their status in the community.

Using this hypothesis, the problem is clear: How do the police create an environment that allows them to make use of this latent source of help? One way is for the policeman to become an integral part of the community; he must spend every moment that he can afford talking to people - talking about anything but specific criminal events. He must contact hundreds of people and, if he can perform a small favor for someone, he must go out of his way to do it. The more successful he is at becoming a part of the neighborhood, the more he will be able to tap the community for aid when it is required for a specific police problem.

When the police have established this kind of rapport, they have set in place a basic element of an intelligence system - the information sources.

The concentrated community relations effort of the CCT, during the first few months, developed a number of information sources. But the Team certainly did not expand the system rapidly and at times it is even questionable whether they were able to maintain the original network. At this writing, some 24 months into the operation, some of the Team members are beginning to fully

realize how important the policeman-to-individual citizen contact is in accomplishing his mission - the control of crime. But there are still some 400 policemen in Syracuse, and many thousands in the rest of the country, who do not have this appreciation. A way must be found to convince policemen of the importance of intelligence, and to demonstrate to them that there are other means of obtaining information than from informers or by the direct questioning of individuals. They must be taught how to cultivate information sources and how to correlate and evaluate the information that such sources generate. This is not an easy task because it takes considerable time to establish an intelligence system; and an even longer time before it produces useful results.

Certainly one of the most important points demonstrated by the CCT experiment is that it showed how the police can obtain an on-going and effective community relations program, which in turn can lead to the establishment of intelligence sources.

The Need for an Investigations Unit

The Crime Control Team experiment demonstrated several interesting points about the investigation of crimes.

The results of the experiment certainly lead to questions about the need for a sizable investigation unit, per se, within a municipal police department. Of the 600 or so crimes that came to the attention of the Team during the period of the experiment, all were disposed of satisfactorily by the Team without additional investigative manpower from other elements of the Department. Furthermore, the investigations were carried out in such a manner as to not seriously violate any of the work rules outlined in Section V. The satisfactory disposition of these cases is attested to by two facts: (1) the high clearance rate of the Team compared to other police areas in the city and (2) the absence

of any complaints, from either internal or external sources, to the department, to the effect that the Team's investigative efforts were unsatisfactory. Thus, the contention that a municipal police department must have an investigative force, since only such people have the time to satisfactorily investigate a crime, is not substantiated by this experiment.

Detectives often advance the proposition that the victims of criminal attack insist on having the crime investigated by a plainclothes detective. The experiment does not support this contention. Not once during the disposition of the 600 crimes handled by the CCT was this thought evoked by a citizen. The comments that were made were to the effect that the victim was pleased that the investigation was handled by a uniformed officer.

Establishment of Accountability

One of the major purposes of the CCT experiment was to determine whether individual policemen could be held accountable for the control of crime. The experiment did not answer this question. Certainly it is possible to extend accountability for the control of crime down to, at least, the Team Leader level. Whether it was extended further, to the individual Team Member, is open to question. There are a number of reasons why it is impossible to evaluate this point.

The Team Members were concerned about the period-to-period results of the experiment; i.e., they were eager to know whether or not the experiment was being successful. Thus, they were obviously holding themselves accountable for their performances. These officers, however, are all good, hard-working, conscientious policemen; hence, it is not clear that this "self-accountability" was a result of the formal organizational structure of the Crime Control Team.

These officers would probably have held themselves accountable for good performance regardless of the organizational structure of the Team.

In one sense accountability is a negative concept because its main purpose is to act as a lever to correct poor performance. From the very beginning of the experiment the Team's performance, as well as individual performance, was good; thus there was no great need to exercise the accountability concept.

A system of accountability implies that a means of measuring individual performance is available. The available resources did not permit the development of such a measuring system and, even if such a tool were in place, a one-year period is probably too short a time to evaluate a policeman, take corrective action and evaluate the effect of the action.

Accountability also implies that a means of rewarding good performance and punishing poor performance is available. The rewards and punishments available to the Team Leader consisted of little more than allowing a Team Member to remain with the program. A more definite system of rewards must be found before complete accountability can be expected.

Thus, while it is impossible to state whether an individual policeman can be held accountable for controlling crime, there was no indication that accountability was not extended further down the organizational ladder than in conventional police departments.

Flexibility of Deployment

The experiment clearly demonstrated that it is possible to deploy a police force in a non-uniform manner without compromising the overall police function. That is, during the daylight hours and at night during the middle of the week, the Team consistently had only one unit available; on weekend nights

there were often five or six units available. This deployment scheme was implemented with only eight men since no reserve manpower was available. Furthermore it was possible to accommodate all requests for days off, extended military and sick leave and vacations, and still satisfactorily control crime in Beat 50.

While the long-term flexibility of the Team's deployment was demonstrated the short-term flexibility was not. Because a rapid or short-term change in the deployment schedule often interfered with the officer's part-time employment, such changes were seldom made. This limitation on the Team Leader's authority to deploy his manpower in the manner he thinks best seriously compromises the ability of the Team Leader to control crime in his beat.

Mistakes and Unresolved Problems

Although many mistakes were made during the Crime Control Team experiment most were rectified and probably had little overall effect on the results.

A serious error, however, was made during the planning and implementation stage of the experiment; the means used to activate the Team failed, almost completely, to insure the active cooperation of the remainder of the Syracuse Police Department. It is, of course, impossible to evaluate the effect that this item had on the experimental results. But, certainly, if the CCT concept were expanded in Syracuse it could only be accomplished by overcoming the negative attitude of a significant part of the department. This problem could perhaps have been avoided if it had been recognized earlier in the planning stage.

There were a number of causes for the negative attitude that prevailed. Some of these were:

1. The Project Director was a civilian who was telling the police how to run their organization.
2. The Project Director's negative views on the usefulness of the investigation tactic were well known to the investigators in the Department.
3. A news article, printed early in the program, implied that the CCT Members were the elite of the Department.
4. The upper command echelon of the Department was not involved directly in the planning stage.
5. There was no planned effort to inform individual policemen about the nature of the experiment.

A considerable portion of the problem could probably have been avoided if the commanding officers in the Department had been directly involved in the planning and evaluation portion of the program.*

There was no reason why the individual policemen were not informed of the details of the experiment. If an explanation had been given, and the policemen were aware that the project had the support of the commanding officers, a more favorable attitude within the Department might have resulted.

A completely satisfactory procedure for investigating crime was not established. It is not clear whether the investigation procedure outlined in Section IV will not work, or whether the Team simply did not make it work.

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* This general principal is apparently well known to psychologists. One way of obtaining the cooperation of people is to convince them that the project is their idea, or that the success of the project depends on their knowledge and talents.

In general, if a crime required more than the investigative efforts of a single officer, the Leader or Deputy Leader supplied the organizational plan for the investigation and provided the initiative for the follow-through. The Team Members would not take command of the situation, mobilize the required resources and integrate the investigation activities. It is not understood why the suggested investigation procedure was not used but there are a number of possible reasons:

1) The reluctance of a policeman to accept leadership from another policeman of equal rank.
2) The lack of understanding of the suggested procedure.
3) The Team Member's lack of self-confidence in his leadership ability.
4) The conscious or unconscious assuming of command by the Leader or Deputy Leader (i.e., the problem of executive behavior).

Because the suggested procedure was not, or could not be, adopted, there was often duplication of effort, lack of speed in carrying the investigation to completion and missed opportunities.

A satisfactory communications network within the Team was not established. A means by which the Team Member who was coming on duty could be quickly brought up-to-date on the status of police business within the beat was not found. The conventional method of reading reports (if they are available) is wasteful of time and simply does not fulfill the requirement.

Efforts were made to hold periodic Team meetings, to discuss Team problems, additional training, and to review the Team's performance. Often the meetings were valuable. It was difficult, however, to obtain an attendance of more than one-half of the Team Members without seriously interfering with the Team Member's rest periods or his part-time employment.

A way must be found to assure complete communications within the Team, even if it requires decreasing the amount of time that the officer spends in the field.

Future Implications of the Experiment to Municipal Police Departments

The Crime Control Team Experiment has some major implications for municipal police organizations, if the results of the experiment can be confirmed by further field experimentation.

Foremost among these is that present police organizations will be dichotomized. One portion will be concerned with automobile and citizen service problems; another will be exclusively concerned with crime. These areas of police work are totally different and require completely different personnel qualifications. (The President's Commission on Law Enforcement and Administration of Justice recommended that such a division of police work be made. The Commission, however, did not suggest a practical means for implementing their recommendation.) Those policemen who work in the area of crime must be highly motivated, dedicated, well educated and imaginative.

Police work is, presently, not an attractive career to many highly qualified individuals because of the (1) low pay and (2) the nuisance aspects of the job, such as taking reports of dog bites and handing out parking tickets. The organizational structure of police departments, based on Crime Control Team units, lays the groundwork for the dispersal of these objections. The Crime Control Team Officer is only concerned with crime, not with other police services. The Crime Control Team concept, if fully implemented within a city, will probably involve no more than 50% of the present manpower of the police

department. Thus, a major pay increase (say 50% more than present salaries) to attract and hold competent people would not be financially impossible.

This increase in salary should not be in the form of an increase in base pay. Some portion (say 20%) should be determined by the amount of formal education the officer has obtained beyond high school. The remainder is compensation for the unusual working conditions of the CCT Officer, who must work at night and on weekends (since these are the periods when the incidence of crime is highest), and often must work irregular hours. Increased compensation would accomplish a number of things, among which are the following:

1) Because the value of education is recognized in a financial way, police service would be more attractive to people with college training. (The President's Commission also recommended that the police establish several pay levels for candidates entering police careers. The amount of education that the candidate had received would determine his entrance pay level.)

2) With a 30-50% increase in salary, a CCT officer could be required to give up moonlighting activities. Most policemen must now moonlight to provide a reasonably comfortable standard of living for their families. The concern for these secondary occupations, in many instances, causes a serious mental and physical drain with the result that the officer cannot perform at top efficiency in his primary occupation.

3) Using a portion of the pay as compensation for unusual working conditions would serve as a stimulus to the CCT Officer to maintain a high level of performance.

Another major change, which will be forced upon present police departments by the Crime Control Team concept, is the requirement that the police develop leaders. Crime Control Leaders must exhibit the same type of leadership ability that is expected of an infantry squad leader. The present civil service system of promotion does not assure the availability of such leadership.

Still another implication of the Crime Control Team concept is that it offers the policeman a chance to attain professional status. The CCT Officer is a decision-maker. Decisions must be made in terms of the long-range goals of the Team - the control of crime - and not necessarily upon the most immediate means of disposing of an individual problem. The better educated and trained the CCT Officer becomes, in such fields as psychology, sociology and public relations, the better will be his ability to make the correct decisions.

It is possible to deploy Crime Control Teams on an experimental basis, but to do so city-wide would require changes in the law in many areas. For example, a Chief of Police in New York State cannot deploy his men at those times that he feels they are most needed. He must use a three-shift system. That is, by law, police administrators are forced to maintain, essentially, the same number of policemen on the streets throughout the day and week, regardless of the need at any given time. The majority of crime occurs at night and on weekends and this is the time when the police should be deployed in force. There are, likewise, certain times during the day and week, when crime is essentially non-existent. The manpower available during these

periods should be reduced to a minimum. Police administrators must be given the option of deciding when their policeman work, if efficient use is to be made of the major resources of the police.

Even if future evaluations of the Crime Control Team concept show that the concept is only marginal with regard to increasing police effectiveness, it is difficult to see what the police have to lose by adopting the concept. It certainly extends accountability to a much lower level, thereby allowing administrators to examine the performance of their organization to a considerably greater depth than is presently possible. Further, the Crime Control Team concept provides a training ground for leadership early in a policeman's career (as Deputy and Team Leaders), a facility which, if it exists at all under the present structure, is of questionable value. Finally, and most important, the Crime Control Team provides the opportunity for an officer to be a true "policeman" in the sense that he envisioned when he first joined the department. As a Crime Control Team officer he is trusted to do his job, he makes important decisions as to how best to accomplish his task, he sees the results of his actions and planning in the long range sense, and he can make a meaningful contribution to the solution of one of the most pressing social problems in America.

THE EXPERIMENT AS VIEWED BY THE PROJECT DIRECTOR

The Project Director (JFE) of the Crime Control Team experiment is a physicist in an industrial laboratory. Since he is isolated from political pressures, the viewpoints of editorial writers, and the opinions of policemen and police administrators, his comments on the experiment can be considerably more blunt than those of the other author.

This author was, and remains, completely opposed to the use of crime statistics to evaluate this or any other police operational experiment. The fact that these measures were favorable to the CCT experiment does not negate this opinion. This stand has been taken for two reasons.

First, there is no evidence whatsoever that crime statistics accurately reflect the amount of crime that occurs. What independent data does exist (i.e., the survey of the President's Crime Commission) indicates, in fact, that these statistics are in serious error. This survey data cannot be ignored because criminal justice people do not believe it, or because they do not understand how the facts could possibly be as they are. If crime statistics are to be used as an evaluation tool, then it is necessary that some indication of their absolute accuracy be obtained. It certainly makes no sense to use measures, which may well be in error by 50%, in order to evaluate an operational procedure whose expected improvement may only be of the order of 10-20%.

Second, this author is not aware of any evidence that demonstrates that the quality of a municipal police force has any significant and/or long-term effect upon the amount of crime that is reported. Certainly within this country there must be some excellent, well-staffed and equipped municipal police departments. Likewise, there must be some poorly-managed, under-staffed and ill-equipped departments. If this is so, and the quality of a police department directly affects the amount of crime, then the crime statistics should have long ago singled these departments out. Such is not the case.

Police administrators must stop accepting plaudits when crime decreases in their city, and engaging in extensive ratiocinations when crime increases. The effort expended on this game of numbers can more effectively be expended

upon educating the public, politicians and the news media that if crime statistics measure anything, it is only the success or failure of the total criminal justice system.

The author's conclusions are, therefore, based only upon the single objective measure, E, the clearance rate. Because so much emphasis is placed on this number, it is worthwhile to examine its accuracy. E is calculated from two measured quantities, the number of reported crimes and the number of clearances. The number of reported crimes, for the CCT beat, is considered to be extremely accurate for the following reason. It was recognized early in the experiment that the most devastating demonstration of failure would be for someone to point out a single instance where figures were being juggled to make the CCT concept look good. Thus, Team Members were continually admonished that, whenever it came to their attention that possibly a crime had been committed, they were to write a crime report. The author has on a number of occasions witnessed a Team member actually convincing a citizen he was a victim of a crime. Thus, if an inaccuracy exists in counting the number of crimes it is on the high side tending to make the calculated E value for the CCT beat smaller than it actually is. The author does not believe that a similar claim can be made for the number of crimes reported in other beats. At least, from previous observations, it appears that most policemen will refrain from writing a crime report on a questionable incident.

The counting of the number of clearances for both the CCT beat and the other beats were made by people in the Department who had no connection with the experiment. In order to assess the accuracy of this tally, a sample of 161 clearances from the CCT beat (Beat 50) and 46 clearances from Beat 56 were

examined in detail. The details of these clearances are summarized in Tables XVIII and XIX. Fourteen of the clearances in Beat 50 did not meet the definition of cleared as stated in the Addendum of Section V (four were unfounded crimes). Five of the clearances credited to Beat 56 did not meet the definition (three of the five were unfounded crimes). This implies that the clearance rates reported in Table XII could be in error, on the high side, by about two percent.

One convenient way to obtain a high clearance rate is to clear a number of crimes when a person is arrested on another charge. As can be seen from the tables, the clearances claimed by this method are insignificant for both beats.

A second way to increase the clearance rate is to write crime reports on trivial incidents (such as juvenile assaults, or family disputes) and then clear the case by the simple expediency of the victim not desiring prosecution. Fifty-eight, or about 40%, of the sample of the cleared crimes in Beat 50 could possibly be of this type; while 23, or 56%, of the sample of the cleared crimes in Beat 56 could possibly be of this nature.

Possibly the most convincing piece of data attesting to the genuineness of the CCT clearance rate is that 42% of the clearances in the sample were by arrest, but only 17% of the clearances credited to Beat 56 were by arrest.*

If there are inaccuracies in calculating the clearance rate, E, the recognized error sources would all tend to increase the difference between the clearance rate of the CCT beat and that of the other beats.

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* It is also of interest to note that the Part I clearance rate for the sample examined is 17% for Beat 56 while the rate for Beat 50 is 22%.

TABLE XVIII

METHOD OF CLEARANCE IN A SAMPLE FROM BEAT 50 (CCT) CLEARANCES

	Cleared by Arrest	Exceptionally Cleared					Totals
		Juvenile Disposition	Referred to DA*	No Prosecution Desired by Victim	Arrested on Another Charge	Death of Suspect	
Type of Crime							
Assault	17	9	2	22			50
Grand Larceny	6			2			8
Petit Larceny	2	3		6			11
Rape	1			1			2
Burglary	13	4		1	1		19
Robbery	2						2
Harassment, etc.	8	1	4	9			22
Pos. of Weapon	3						3
Bribery	1						1
Criminal Misc.	1			8			9
Criminal Trespass.	1			1			2
Pos. of Stolen Prop.	2						2
Sodomy	1					1	2
Arson		1					1
Theft of Services			1	4			5
Forgery	1			1			2
Child Neglect	1			1			2
Stolen Auto	2			2			4
Total	62	18	7	58**	1	1	147

*These cases, "in the interest of justice", were not prosecuted by the District Attorney. This category also includes those cases referred to another agency for disposition, such as the Family Court or Welfare Dept.

**Eight of these cases were not prosecuted because suspect made restitution to victim.

TABLE XIX

METHOD OF CLEARANCE IN A SAMPLE FROM BEAT 56 CLEARANCES

	Cleared by Arrest	Exceptionally Cleared				Totals
		Juvenile Disposition	Referred to DA*	No prosecution desired by Victim	Arrested on Another Charge	
Type of Crime						
Assault	2	4		7		13
Petit Larceny		1		3		4
Burglary		1		1	1	3
Harassment, etc.	1			8		9
Criminal Misc.		1		3		4
Criminal Trespass	1	1		1		3
Child Neglect			1			1
Stolen Auto	2					2
Exposure	1					1
Unlawful Ass.		1				1
Total	7	9	1	23**	1	41

*These cases "in the interest of justice", were not prosecuted by the District Attorney. This category also includes those cases referred to another agency for disposition such as Family Court or Welfare Department.

**Two of these cases were not prosecuted because the suspect made restitution to the victim.

When examining clearance rates, it is well to be aware of the effect which, for the lack of a better term, the author calls "the proximity of headquarters clearance rate phenomena". This phenomenon exists; at least it exists in Syracuse and is illustrated by Figure 24 where the clearance rate for a beat is plotted as a function of the distance from police headquarters to the geographic center of the beat. It is clear that the nearer a beat is to headquarters, the more it is likely to have a high clearance rate. These data imply that the police, in Syracuse at least, spend an inordinate amount of their effort clearing crimes that take place near headquarters. The importance of this observation is that those beats which compete with the CCT beat in clearance rate (i.e., 67, 68, 64, and 59) received a disproportionate share of police attention during the period of the experiment.

In summing up the author's views on the performance measure, E, there are two major points: (1) If it had been possible to enforce the same rigid measurement specification on the other beats in the city as were applied to the CCT beat, the performance of the CCT would have probably been placed in an even better light than the data suggests: (2) For reasons that are not completely understood, regular police operations concentrated a disproportionate share of its manpower, during the period of the experiment, in several beats that are located near police headquarters. The performance of these beats, as measured by E, could not be expected to apply on a citywide basis without additional manpower being added to the department. But in spite of these factors the CCT beat's performance, as measured by E, was superior to all of the other beats in the city. Because this author considers E to be the only germane performance measure of a police operational procedure, it is his conclusion that the CCT mode of operation has been demonstrated to be superior to conventional methods.

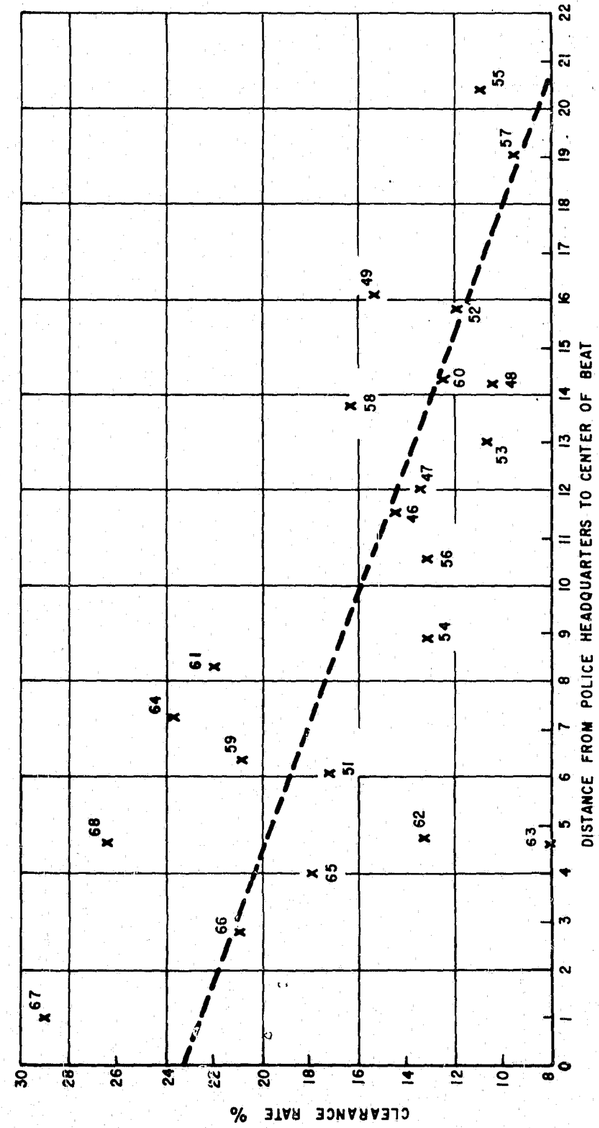

Figure 24. Proximity of Headquarters Clearance Rate Phenomena

This author would like to comment on two further points which, unfortunately, due to lack of foresight and/or funds must remain subjective.

The first comment is concerned with the feelings of the people in the CCT beat with regard to the new type of police service. That is: did they believe they were receiving better police service from the Team than they had previously experienced? In a sense, if the people felt that they were receiving better service (regardless of whether it was true or not) this is still the most important result, at least from a political point of view. One of the police's short range objectives must be, by some means or other, to reduce the so-called "fear index"* of the people.

It certainly can be said that the Team did not lose ground in this area. All of the sources that were available to this author (business, civic, political and religious leaders in the beat) indicated that significant progress had been made in reducing the fear index in Beat 50. Time will tell whether this progress can be maintained; but, at least, the police were able to buy some time in the CCT beat with the experiment.

The experiment had city-wide implications. It demonstrated to the community that the police were attempting to do something about crime in a positive way; that the city and police administrations were sufficiently concerned with the crime problem to take some risks in the hope of finding a solution. It

* Only after the experiment was well underway did a simple means of measuring the "fear index" become evident to the authors. The fear of criminal attack can be measured, presumably, by the number of people who use the streets after dark. The number of people who venture forth at these times can be measured by the number of sales at neighborhood stores that remain open at night. Thus, the ratio of nighttime to daytime sales, compared to the same quantity measured at a different time, is a fair indication of whether the "fear index" has increased or decreased.

is the author's opinion that a portion of the people in Syracuse are aware of the fact that such administration quality is not available to every city in this country.

The second group of comments is concerned with the way that Team members viewed the experiment. That is, based upon their experience in the regular patrol and as a Team Member, under which system did they feel they contributed most towards obtaining the objectives of the police? An immediate answer to this question can be obtained by pointing out that not one CCT Member asked to be returned to his previous assignment. Of course, it should be noted that this satisfaction could be due to the fact that the CCT personnel were set apart from the regular department; they were something special and everyone likes this kind of attention. Undoubtedly, this factor was important to the Team Member. There was more to it, however; the Members liked being on their own, being free from reprimand for trivial mistakes, being free to try their own ideas, and so on. Although there were things that individuals did not like about the operation, in general the Team Members were and remain enthusiastic about the CCT mode of operation. The importance of employee enthusiasm and job satisfaction in any organization cannot be overestimated.

Two aspects of the experiment were disappointing to this author. The first is somewhat hard to describe, but suffice it to say it was the lack of any demonstration of a Team Member's ability to pick up the ball and run with it. At the start of the experiment, as well as throughout the year, it was emphasized over and over that conventional police operating procedures need not be followed. In spite of this freedom, with few exceptions Team Members did little but the quotidian routine followed by good patrolmen. The Team

Members did not innovate nor were they particularly enthusiastic about evaluating innovations. Planning was absent; not even short-range plans were developed. Often good tactical moves were initiated, but the initiators did not follow through or see that they were continued in spite of the fact that the move was beginning to yield results (the author is referring here, particularly, to the development of intelligence sources). Throughout the experiment, problems arose at the interface between the Team and the remainder of the Department. Very seldom would Team Members bring these problems to their Leaders and insist they be rectified. This lack of action continued even after it had been made clear by the Chief that he would (and did) straighten out any problem that was brought to his attention.

This author appreciates that it is not easy for policemen who have always been led, had their planning done for them, and have been discouraged from innovating, to become leaders, planners and innovators overnight. But after a year it would seem that some semblance of leadership should appear; however, such was not the case.

Certainly a portion of the problem was that the Team Members did not appreciate the amount of freedom they were given; or perhaps did not believe they were really being given so much latitude. Or, even if they did believe and appreciate the situation, perhaps they did not know how to make use of it. Another part of the problem was due to the reluctance of officers to accept leadership from their peers; hence they were hesitant about trying to lead. Finally, although this author is reluctant to accept the possibility, he may have completely overestimated the innate initiative and abilities of policemen.

A second disappointment of the experiment was the failure of the Team to significantly increase the number of interceptions made of crimes in progress. The Team obtained an interception rate of 3.8% during the year, which is about a factor of six higher than the interception rate of the regular Syracuse police patrol. This value falls far short, however, of the expected rate of 10-15%. The major reason for not meeting the expected interception rate was that the Team Members were not able to approach the 100-mile travel distance per eight-hour tour, which was used in calculating the 10-15% figure. The 100-mile estimate was not obtained for two reasons: (1) it is too physically exhausting to drive such a distance and (2) this author was not able to impress the CCT with the importance of the speed of the vehicle to an effective interception patrol. All of the people connected with the experiment continued to patrol at a constant slow speed, which maximized their detection capabilities rather than their interception capabilities. As a result of this experiment, it appears that a reasonable velocity to use in the design of an interception patrol is about five miles per hour (i.e., about forty miles per tour). This perhaps could be increased to 6-7 miles per hour (i.e., about fifty miles per tour) by special training.

THE EXPERIMENT AS VIEWED BY THE POLICE OPERATION DIRECTOR

The Team Leader (TJS) approached the Crime Control Team experiment with a great amount of skepticism. The skepticism was based upon his previous 18 years as a street policeman, a patrol sergeant, an investigator and as a platoon commander. While the ideas embodied in the CCT concept appeared good on paper or in discussion sessions, two factors were of concern. The first was whether the public would accept such a drastic change in police

operations. The second, of even greater concern, was whether the rank and file of the department would accept the changes.

The first worry was shown to be completely without foundation, even before the Team became operational. All segments of the public, the news media, the business, political and civic communities, as well as the individual citizens in Beat 50, welcomed the experiment. At the time the experiment was launched the tenor of society seemed to be disposed towards allowing well formulated experimentation. Certainly few, if any, of these people really understood in detail what drastic changes the CCT implied. However, their concern about the amounts of crime and violence in their neighborhoods was apparently so intense that any indication that the police were doing something constructive was welcomed with open arms.

One of the major reasons for the success of the CCT experiment was the cooperation that was received from all of the elements in the community. This cooperation did not just happen — it was obtained because the CCT manner of policing is designed to obtain such help.

This author has always had the gut feeling that people want to help the police, but they just do not know how to go about it. The police must take the bull by the horns — they must take the first step and show the citizenry how they can help themselves. Police work in a democracy can never be anything more than helping the people to police themselves. The CCT set the stage for this first step of integrating the police and the community, and the men in the Team took that step.

The acceptance of the CCT by the other members of the Syracuse Police Department proved to be a more serious concern. The CCT experiment was

not enthusiastically received by the department, and even after some two years into the experiments the attitude, at best, can be described as one that ignores the effort in the hopes that it will someday fade away. The police resist change as does everyone and this attitude is understandable. However, the changes embodied in the CCT concept seemed to benefit all policemen — the patrolman and the police administrators. The only people who do not benefit are those who are incompetent. Their incompetence would be plainly visible to all if they were in a CCT operation.

While the resistance of the department to the CCT concept was a serious problem in the early days of the operation, after the first year the resistance was almost completely passive in nature. The CCT concept has been accepted, at least to a point where a number of good policemen have asked to become a part of the operation. The rate at which the Team concept can be expanded in Syracuse no longer depends on finding people who are willing to try the idea.

A significant portion of the success of the experiment was due to the officers who were assigned to the Team. These officers are highly motivated men — they want to be cops. This does not mean that they are only motivated in the direction of fighting crime. Rather they are motivated and dedicated to being of service to people regardless of their race or economic status. This writer is convinced that one of the problems that must be faced by police administrators is how to select new policemen who have a deep concern for people.

The additional training the CCT officers received was valuable. In this operation only the bare minimum was provided. One of the major reasons further training was not made available was that it was not recognized at the

time what was needed; or how to supply it if the need was recognized. The CCT experience quickly indicated where the training was deficient; and while there is much to be done in this area at least the proper direction to proceed has been outlined.

One of the most encouraging signs has been that the Team members, themselves, often insist that they be provided with additional training in a specific area. Such eagerness to learn to become a professional was not common in the Syracuse Police Department a few years ago.

A necessary condition for a successful CCT operation is the Leader. Without good Leaders the CCT soon degenerates into just another tactical patrol operation. He must be a person who can innovate and who encourages innovation; that is, he must be willing to take calculated risks with the expenditure of his resources. He must be a planner in order that the Team's flexibility can be brought to bear on specific problems. He must be a teacher, not only of police science but also of social subjects. And above all he must be one who is respected as a policeman by other policemen.

It is not clear whether these types of people exist in any numbers in present departments. In the past the police have certainly not encouraged the development of such individuals. The police must recognize that this type of leader is necessary if they are to become effective in controlling crime. Once the police commit themselves to this thought they will find a means of developing such capabilities.

Police operational matters have always been reserved for the police, and civilians have been kept at a distance. A large industry was never before involved in any police program, to the extent that the General Electric Company

was involved in the CCT experiment. The Syracuse Police Department learned several things from this experience.

First we have found there is a wealth of help available to the police in our community. What started with General Electric, and now involves many other elements of the community, has uncovered many people who have specialized knowledge that the police can use. These individuals are more than eager to share their knowledge with the police — they simply need to be asked. Such an abundance of talent could never be made available through internal sources.

Using these people to supply expertise, or as instructors, or just to act as sounding boards, has helped the Department's morale. Policemen have found that there are many people in the community who are concerned about the policeman's lot in life and do appreciate the difficult job he has.

The second fact we learned from our experience with General Electric is that the police have nothing to fear from these people. The more dirt, incompetence and mistakes they see, only increases their efforts to find ways to correct matters. Not once in our association with General Electric have we had cause to regret our openness and honesty with them. This does not imply, however, that these outsiders do not make problems for the police, particularly for police administrators. When these people see something wrong, they are not particularly impressed with the political or legal reasons that prevent the righting of such wrongs; nor are they impressed with past, tradition, or the fact that it may take five, ten or twenty years to get something accomplished. It is not a comfortable position to have the wrongs of the

police system continually brought to your attention and to continually be asked what you are doing to correct them. But perhaps this is what police administrators need, someone to make us feel uncomfortable. It has been too easy for us in the past to rationalize our problems out of existence, because the solutions are not easy or obvious, or require cooperation of other elements of the government or society.

The objective results of the experiment speak for themselves. The above paragraphs are only an attempt to convey a feeling, from one policeman to another, of a few of the more subjective results. At the present time the Crime Control Team concept is the most effective way this author knows for the police to serve the community. The basic thoughts are in place but they are open-ended. The future of the concept depends only upon the willingness of the police to supply the follow-through.

IX. DATA PROCESSING SYSTEM

Several programs were developed to facilitate the administration of the Crime Control Teams. These programs differ from the usual police data system in that they are event rather than service oriented.

Three types of programs are used. The first provides a graphic print-out that describes when crimes occur. The second is a map printout showing where crimes occur. The third describes the past performance of the Team's activities, in the sense of when they were deployed (as interceptors of crime), patrol velocities, and information concerned with the efficiency of investigations. The data sources and some typical print-outs are given in Section IV.

The usefulness of the system is still in doubt and is still being evaluated. During the first 18 months of the experiment, the Leaders and Deputy Leaders made little or no use of the information, probably because of a poor understanding, by the Team people, of the efficacy of the system. Most people have the impression that in order to use computers, they must have a much higher degree of education than they possess. This idea is, of course, a myth; but until recently we had little success in convincing Team members to even look at a printout. This "reluctance to use" problem is one that is common to all police data processing systems.

Whether the present system will ever be accepted and used, is problematical; if it is used we still cannot predict whether it will be of significant value.

A detailed description of each of the programs are included in this Section.

CRIME MAP PROGRAM

The Crime Map Program prints a map of the beat and inserts a number near the center of each side of the block. This number denotes the number of crimes that have occurred on the side of the block in the category as stated in the map title.

The input to the program is the title of the map, the data to implement the map printing, and the locations on the map to insert the number of crimes.

The program output is the map itself and a listing of the crime data used to generate the number of crimes.

Purpose

The Police Beat Crime Map Program enables the user to tell at a glance where crime of a given type or types has occurred in the Beat.

General Description

1. INPUT DATA CARDS

1.1 Input Card Set 1

These 6 cards contain the control flags and constants used to determine the printed output format.

1.2 Input Card Set 2

Two cards for each map delineate up to 9 different maps, each of which is based on statistics from one or more types of crime as coded on the Internal Crime Report (ICR).

1.3 Input Card Set 3

This card set fills the map array with characters pertaining to street names and boundaries. It also contains row and column information, regarding the centers of the blocks and sides of blocks, for the placing of data statistics on the map.

1.4 Input Card Set 4

This set contains data from the ICR filled out by the CCT officer as part of his Crime report. Statistics are compiled from each card as it is read in and a check is made of the variable "LBEAT". When LBEAT=0 (a blank card) is read, the program proceeds to the print-out mode.

2. OUTPUT

2.1 Card Set 1 and 2

Input constants and control flags from Card Set 1 and 2 are listed as they are read in.

2.2 Card Set 3

If the NCNTZR Flag (from Card Set 1 Cards) is not set to zero, card Set 3 will be listed as the cards are read in. If the NOUTCD Flag is set to 5 or 6 the data from Card Set 3 ordered by the program will be punched on cards to make an updated Card Set 3.

2.3 Card Set 4

The ICR data is listed as it is read in. When the blank card indicating the end of the ICRs is read the program looks for statistics and map printout instructions from Card Sets 1 and 2.

2.4 Statistics and Map Printout

A tabulation of the number of crimes that occurred in each side of the block is listed and the map is printed. This procedure is repeated until all of the requested maps have been printed.

Input Data Cards for Police Map Program

Card Set	Card	Columns	Variable	Format	Description and Use
1	1	1-4	MBLANK	A4	Used to output blank spaces on map. Alphabet characters not presently used in the program.
1	1	5-44		10A4	
1	1	45-80	MALPHA(1) To MALPHA(9)	9A4	Blank and BCD numerals 1 thru 8 for use in map.
1	2	1-	MALPH(10) To MALPH(12)	3A4	BCD numerals "9", "0", "1" for use in map.
1	3	1-80	NTITLE(1)	13A6	3 cards of alphameric Title information for use in printout.
1	4	1-80	To	13A6	
1	5	1-80	NTITLE(39)	13A6	
1	6	1-4	NOBKS	I4	No. of blocks in the map
1	6	5-8	NOUTCD	I4	Punch flag; =4, 6, or 7 punch an updated map input deck. =3, 5, 6, or 7 punch an updated block and side center deck.

Card Set	Card	Columns	Variable	Format	Description and Use
1	6	9-12	NOSDS	I4	Maximum number of block sides.
1	6	13-16	NCNTZR	I4	Flag; if not equal to zero list map data as it is read in.
1	6	17-20	NCOPY	I4	Not used
1	6	21-24	NBEAT	I4	Number of the beat.
1	6	25-28	NOPRNT	I4	Print out flag; if negative; print out map of all detectable crimes. If zero print out map of all crimes, if positive print out both maps.
2	N=odd	1-3	NODET(I)	I3	Detectable crime flag; =0 process only detectable crimes of this type, =1 process all crimes of this type.
2	N=odd	4-6	NOFBI(I)	I3	FBI number designating type of crime to process =0 means this set of cards all read in continue processing
2	N=odd	7-72	NTITLE(I)	11A6	66 characters of title data for this print out.
2	N=even	1-80	NOSMFB (I, J)	40I2	=blank, consider only type on the odd card for printout. Not blanks, up to 40 different types which are used to generate the map.
3	1	1	INFLAG	I1	Input data flag =1-5 reads characters into map array =6 reads in coordinates of centers of block and sides. =7 card set 3 is all in read in and process "Internal Crime Report" cards.
3	1-N for Inflag =5	2-71	INMAP 1, 4, 7, 10, 13, 16, 19	I3	Row coordinate
			2, 5, 8, 11, 14, 17, 20	I3	Column coordinate
			3, 6, 9, 12, 15, 18, 21	A1	Character to be printed at above map coordinates

Card Set	Card	Columns	Variable	Format	Description and Use
3	N-M for Inflag =6	2-4	I	I3	Block number of data on this card.
		5-8	IX	I4	Row } coordinates of the
		9-12	IY	I4	Column } center of the block.
3		13-76	INMAP(K) INMAP(K+8)	(17I4)	Row } coordinates of the Column } center of the sides.
4	1-N	2-3	LBEAT	I3	Beat number
4	1-N	4-10	LCRI	I7	DR. NO. or criminal activity identification number
4	1-N	11-12	MO	I2	Month) that crime occurred
4		13-14	MDA	I2	Day)
4		15-16	MYR	I2	Year)
4		17-18	NDAY	I2	Day of wk. Sunday =1, Saturday=7
4		19-20	MET	I2	Weather, in context of the season of the year 1=good 2=bad.
4		21-23	LBLK	I3	Block) where crime occurred
4		24-25	LSID	I2	Side)
4		26-30	LTIM	I5	Actual time crime was detected.
4		31-35	LOC	I5	Estimated time crime occurred.
4		36-39	ER	F4.1	Possible error in time crime occurred
4		40	LDES	I1	Crime against, =1 person =2 property =3 other
4		41	LEG	I1	Type of crime =1 felony =2 misdemeanor =3 violation
4		42-43	LTYP	I2	FBI code or type of crime
4		45	LDET		Detector of crime =1 victim =2 citizen =3 police
4		46-47	LPD	I2	Could crime be detected by policeman patrolling Beat? =1 yes =2 no
4		48-49	LKLER	I2	Is crime cleared =0 no =1 yes =2 unfounded

Card Set	Card	Columns	Variable	Format	Description and Use
4		50-51	LHO	I2	How was crime cleared =1 by citizen =2 police =3 investigation =4 other
4		52-53	LAS	I2	Had victim met perpetrator before crime was committed =1 yes =2 no
4		54-55	MINT	I2	Reporting period during which crime occurred.

Deck Setup For Police Map Program

Control Cards

Card	Column 1	8 16
1	$	$NUMB EXXXX (4 digit number)
2	$	IDENT 100-6BI, Aiken-EP3, X2667, Room 120
3	$	LIMITS 15,,,12000
4	$	OPTION FORTRAN, SYMREF
*5	$	FORTRAN
*6	$	INCODE IBMF (MAIN DECK)
*7	$	FORTRAN
*8	$	INCODE (Subroutine print out)
	$	EXECUTE
	$	LIMITS 15, 40K, 10000, 5000
	$	INCODE IBMF (DATA CARDS)
	$	END JOB

*Cards 5, 6, 7, 8 and the source decks associated with them can be replaced by the $ object Control Card and the associated Binary Decks.

Program List

```
$       IDENT   100-6B1,AIKEN-EP3,X2667,ROOM120          CAIKEN POLMAP
$       LIMITS  15,,,12000
$       OPTION  FORTRAN,SYMREF
$       FORTRAN DECK
$       INCODE  IBMF
CPOMAP          AIKEN/SURAN/ELLIOTT/POLMAPFROM INTERNAL CRIME REPORTS 43070
C               INPUT AND FILL ARRAYS.
C       NOFBI # FBI NUMBER OF SPECIAL MAPS TO PRINT, UP TO 9 IN A RUN.
C       NOFBIC # SPECIAL MAP CRIME COUNTER.
C       NODET # FLAG,#0 COUNT ONLY DETECTABLE CRIMES NOT#0 COUNT ALL CRIME
C       NODETC # DETECTABLE CRIME COUNTER
C       NOTOTC # TOTAL CRIME COUNTER.
C       NCNTZR # FLAG #0 BYPASS TEST PRINT OUTS.
        COMMON INMAP%24],MAP%120,120],MTITLE%45],
       1NCENBK%2,99],NCENT%2,9,99],NTITLE%99],NODET%9],NODETC%9,99,11],
       2NOFB%9],NOSMFB%9,40],NOFBI%9],NOFBIC%9,99,9],
       3NOTOTC%9,99,11],                JTITLE,NCNTZR,NCOPY,NOBKS,NOPRNT,NOSDS
        COMMON /CRIMES/ LBEAT%2  ],LCRI%2  ],MO%2  ],MDA%2  ],MYR%2  ],
       1NDAY%2  ],MET%2  ],LBLK%2  ],LSID%2  ],LTIM%2  ],LOC%2  ],ER%2  ],
       2LDES%2  ],LEG%2  ],LTYP%2  ],LDET%2  ],LPD%2  ],LKLER%2  ],
       3LHO%2  ],LAS%2  ],MINT%2  ]
        COMMON    NOBLOK%41,NOCRNR%41,ROW%41,COL%41,MALPHA%121
        COMMON MBLANK,MPEROD,MBURGB,MBURGC,MPROP,MBRGBT,MBRGCI,MPROPI,
       1MERGBU,MBRGCU,MPROPU
        WRITE%6,99471
        READ %5,99131 MBLANK,MPEROD,MBURGB,MBURGC,MPROP,MBRGBT,MBRGCI,
       1MPROPI,MERGBU,MBRGCU,MPROPU,%MALPHA %I],I#1,121
        WRITE%6,99121 MBLANK,MPEROD,MBURGB,MBURGC,MPROP,MBRGBT,MBRGCI,
       1MPROPI,MERGBU,MBRGCU,MPROPU,%MALPHA %I],I#1,121
  1     CONTINUE
        READ %5,9948]%MTITLE%I],I# 1,39]
        WRITE %6,9948]%MTITLE%I],I#1,39]
        IF%MTITLE%1]- 8840413,2,3
  2     STOP
  3     CONTINUE
        READ%5,9907] NOBKS,NOUTCD,NOSDS,NCNTZR,NCOPY,KBEAT,NOPRNT
        WRITE%6,9907], NOBKS,NOUTCD,NOSDS,NCNTZR,NCOPY,KBEAT,NOPRNT
        LBEAT%1]#50
        NTYPE#0
        JTITLE#0
        ITITLE#-10
  11    JTITLE#JTITLE&1
        ITITLE#ITITLE&11
        LTITLE#ITITLE&10
        READ %5,9953]NODET%JTITLE],NOFBI%JTITLE],%NTITLE%I],I#ITITLE,LTITL
       1E]
        WRITE%6,9953]NODET%JTITLE],NOFBI%JTITLE],%NTITLE%I],I#ITITLE,LTITL
       1E]
        IF%NOFBI%JTITLE],EQ.0]GO TO 13
        I#ITITLE
        READ%5,9951]%NOSMFB%I,J],J#1,40]
        WRITE%6,9952]%NOSMFB%I,J],J#1,40]
        IF%NOFBI%JTITLE]] 12,13,11
  12    STOP
  13    ITITLE#JTITLE-1
        NOTOT#0
        NODETT#0
        DO 10 I#1,NOBKS
        NOSD9#NOSDS&1
        DO 10 J#1,NOSD9
        NOTOTC%J,I,11#0
        NODETC%J,I,11#0
```

```
      NOFB%J]#0
      DO 14 I#1,9
   14 NOFBI%J,I,1]#0
      DO 10 K#1,2
   10 NCENT%K,J,I]#1
C  FILL MAP ARRAY WITH BLANKS
      DO 20 I1#1,120
      DO 20 J1#1,120
   20 MAP%I1,J1]#MBLANK
  151 CONTINUE
  174 GO TO 194
  189 WRITE%6,9954]INFLAG
  194 READ %5,9940]INFLAG,%INMAP%I1,I#1,21]
      IF%INFLAG.EQ.6] GO TO 181
      IF%%INFLAG.LE.0].OR.%INFLAG.GT.7]] GO TO 189
      IF%NCNTZR] 301,302,301
  301 CONTINUE
      WRITE %6,9941]INFLAG,%INMAP%I],I#1,21]
  302 CONTINUE
  170 DO 1700 IN#1,21,3
      MAPROW#INMAP%IN]
      MAPCOL#INMAP%IN&1]
      IF%MAPROW*MAPCOL]168,168,161
  161 IF%MAPROW-120] 167,167,168
  167 IF%MAPCOL-120] 169,169,168
  168 IF%NCNTZR]1681,1700,1681
 1681 WRITE%6,99311 MAPROW,MAPCOL
      GO TO 1700
  169 MAP%MAPROW,MAPCOL]# INMAP%IN&2]
 1700 CONTINUE
      GO TO %   151,151,151,174,194,181,197],INFLAG
  181 GO TO 183
  182 WRITE%6,9954]INFLAG
  183 READ%5,9942]INFLAG,I,IX,IY,%INMAP%K],INMAP%K&8],K#1,8]
      IF%INFLAG.EQ.7] GO TO 197
      IF%%INFLAG.LE.0].OR.%INFLAG.GT.7]] GO TO 182
      IF%NCNTZR] 303,304,303
  303 CONTINUE
      WRITE %6,9943]INFLAG,I,IX,IY,%INMAP%K],INMAP%K&8],K#1,8]
  304 CONTINUE
      IF%IX*IY.EQ.0]GO TO 183
      NCENBK%1,I1#IX
      NCENBK%2,I1#IY
      DO 171 K#1,8
      IF%INMAP%K1*INMAP%K&8].EQ.0]GO TO 183
      NCENT%1,K,I]#INMAP%K]
      NCENT%2,K,I]#INMAP%K&8]
  171 CONTINUE
      GO TO %   151,151,151,174,194,181,197],INFLAG
  197 CONTINUE
C     PUNCH CARDS FOR MAP DATA.
      K#1
      GO TO %196,196,196,190,196,190,1901,NOUTCD
  190  DO 1900 I#1,120
       DO 1900 J#1,120
       IF%MAP%I,J]-MALPHA%1]]  191,1900,191
  191  INMAP%K    1# I
       INMAP%K&7 1# J
       INMAP%K&14]# MAP%I,J]
       IF%K- 71  193 ,192,192
  192  PUNCH 9932,              %INMAP%K],INMAP%K&7],INMAP%K&14],K#1,7]
       WRITE%6,99391            %INMAP%K],INMAP%K&7],INMAP%K&14],K#1,7]
```



```
       K#1
       GO TO 1900
  193  K#K&1
 1900  CONTINUE
C      PUNCH CARDS WITH BLOCK NO. BLOCK CENTER AND SIDE CRIME NO. LOC@S.
  196 CONTINUE
      GO TO %215,215,205,215,205,205,2051,NOUTCD
  205 WRITE %6,9935]
      DO 210  I#1,NOBKS
      DO 220  K#1,8
      INMAP%K]#NCENT%1,K,I]
      INMAP%K&8]#NCENT%2,K,I]
  220 CONTINUE
      INMAP%17]#NCENBK%1,I]
      INMAP%18]#NCENBK%2,I]
      PUNCH 9938 , I,INMAP%17],INMAP%18],%INMAP%K],INMAP%K&8],K#1,8]
      WRITE%6,99361 I,INMAP%17],INMAP%18],%INMAP%K],INMAP%K&8],K#1,8]
  210 CONTINUE
  215 CONTINUE
C     READ IN CRIME REPORTS
  103 CONTINUE
      WRITE %6,9905]
  125 CONTINUE
  115 CONTINUE
      I1#1
      L#1
      READ %5,9903%IBEAT%L],LCRI%L],MO%I],MDA%L],MYR%L],NDAY%L],MET%L],
     1(BLK %L],LSID%L],LTIM%L],LOC%L],ER%L],IDES%L],IEG%L],LTYP%I],
     2(DFT%L],IPD%I],LKLER%L],LHO%L],LAS%I],MINT%L],L#1,L1]
      L#1
      IF%LPD%L1-1] 120,120,121
  120 WRITE%6,9902]%IBEAT%L],LCRI%L],MO%I],MDA%L],MYR%L],NDAY%L],MET%L],
     1(BLK %L],LSID%L],LTIM%L],LOC%L],ER%L],IDES%L],IEG%L],LTYP%I],
     2(DFT%L],LPD%I],LKLER%L],LHO%L],LAS%L],MINT%L],L#1,L1]
      GO TO 122
  121 WRITE%6,9904]%IBEAT%L],LCRI%L],MO%L],MDA%L],MYR%L],NDAY%I],MET%L],
     1(BLK %L],LSID%L],LTIM%L],LOC%L],ER%L],IDES%L],IEG%L],LTYP%I],
     2(DFT%L],LPD%I],LKLER%L],LHO%L],LAS%L],MINT%L],L#1,L1]
  122  CONTINUE
       L#1
       IF%LBEAT%L].EQ.0]GO TO 110
       MSIDE # LSID%L]
       MBLK  # LBLK%L]
       IF%MSIDE*MBLK] 112,112,111
  111  IF%MSIDE-NOSDS] 113,113,112
  113  IF%MBLK-NOBKS] 114,114,112
  112  WRITE%6,9945]MSIDE,MBLK
       GO TO 115
  114  CONTINUE
C      INTERNAL CRIME REPORT HAS BEEN READ IN.
C      UPDATE TOTAL CRIMES COUNTER.
       NOTOTC%MSIDE,MBLK,1]#NOTOTC%MSIDE,MBLK,1]&1
       NOTOTC%     9,MBLK,1]#NOTOTC%     9,MBLK,1] &1
       NOTOT #NOTOT&1
C      CHECK FOR SPECIAL%FBI] PRINT OUT.
       IF%JTITLE.EQ.0]GO TO 31
       DO 30 I30#1,JTITLE
       IXX#I30
       IF%LTYP%I].EQ.NOFBI%I30]] GO TO 32
       IF%NOSMFB%I30,1].EQ.0]GO TO 30
       DO 50 I50#2,40
       IF%LTYP%I].EQ.NOSMFB%I30,I50]]GO TO 32
```

```
   50   CONTINUE
   30   CONTINUE
C       IT IS NOT A SPECIAL PRINTOUT CRIME.
C       IS IT A DETECTABLE CRIME.
   31   IF%LPD%L]-1]115,109,115
C       YES, UPDATE DETECTABLE CRIMES COUNTER.
  109   NODETC%MSIDE,MBLK,1]#NODETC%MSIDE,MBLK,1]&1
        NODETC%    9,MBLK,1]#NODETC%    9,MBLK,1]&1
        NODETT#NODETT&1
        GO TO 115
C       SPECIAL FBI PRINTOUT IS DESIRED.
   32   IF%NODET%IXX],EQ.0]GO TO 34
   33   NOFBIC%MSIDE,MBLK,IXX]#NOFBIC%MSIDE,MBLK,IXX]&1
        NOFBIC%    9,MBLK,IXX]#NOFBIC%    9,MBLK,IXX]&1
        NOFB%IXX]#NOFB%IXX]&1
        GO TO 31
   34   IF%LPD%L]-1]115,33,115
  110   CONTINUE
        ITITLE#-10
        IF%JTITLE.EQ.0]GO TO 117
        DO 100  I100 # 1,JTITLE
        ITITLE#ITITLE&11
        LTITLE#ITITLE&10
        WRITE%6,9936]%MTITLE%I],I#ITITLE,LTITLE]
        WRITE%6,9937]%MTITLE%I],I#1,39]
        NOMAP#I100
        CALL PRNTOU%NOFBIC%1,1,1],NOMAP,NOFB%NOMAP ],ITITLE,LTITLE]
  100   CONTINUE
  117   GO TO %106,107,106],NOPRNT
  106   WRITE%6,9901]
        WRITE%6,9937]%MTITLE%I],I#1,39]
        CALL PRNTOU%NODETC,10,NODETT,ITITLE,LTITLE]
        GO TO %108,107,107] ,NOPRNT
  107   WRITE%6,9949]
        WRITE%6,9937]%MTITLE%I],I#1,39]
        CALL PRNTOU%NOTOTC,11,NOTOT,ITITLE,LTITLE]
  108   GO TO 1
 9901   FORMAT%1H1,40X,24H ALL  DETECTABLE CRIMES"]
 9902   FORMAT%61X,I3,17,5I2,I3,I2,2I5,F4.1,2I1,7I2]
 9903   FORMAT %   I3,17,5I2,I3,I2,2I5,F4.1,2I1,7I2]
 9904   FORMAT %1X,I3,17,5I2,I3,I2,2I5,F4.1,2I1,7I2]
 9905   FORMAT GENERATOR
        RESTORE
                    NON-DETECTABLE CRIMES
X       DETECTABLE CRIMES
                      W                    D A C H A P
X         W                    D A C H A P
                    W E  B                CRIMEE R I O S E
X       W E  B                CRIMEE B L O S E
        CRIME  DATE  K A  I S TIME TIMEPOS.TYPE T I R W S R        CRIME
XDATE  K A  I S TIME TIMEPOS.TYPE T L R W S R
 BEAT  ID   MO  YR D T  O I DETE OCCU ERRPF F V Y N C Y I   BEAT  ID . M
XO  YR D T  O I DETE OCCU ERRPF F V Y N C Y I
  NO.  NO.    DA   A H  C D CTED  RED  ORPM B C N Y P N O    NO.  NO.
X DA   A H  C D CTED RED OR  PM B C N Y P N O
                    Y E  K E              OV I P   U I   D
X       Y E  K E              OV I P   Y I   D
                      R                          O
X         R                    O
        END OF FORMAT
 9907   FORMAT %20I4]
 9912   FORMAT%    20X,20A4,/20X,20A4//20X,20A4]
```



```
 9913   FORMAT%20A4]
 9931   FORMAT%16H MAP COORDINATES,I8,I8.  12HOUT OF RANGE]
 9932    FORMAT%   1H5,7%I3,I3,A4]]
 9935   FORMAT%96H BLOCK BLCK TOT.   SIDE1    SIDE 2    SIDE 3    SIDE 4
     1  SIDE 5    SIDE 6    SIDE 7    SIDE 8.    )
 9936   FORMAT %1H1,27X,11A6]
 9937   FORMAT% 20X,13A6/20X,13A6,/20X,13A6]
 9938   FORMAT %1H6,I3,19I4]
 9939    FORMAT%1X,1H5,7%I3,I3,A4]]
 9940   FORMAT%   I1,7%I3,I3,A1,3X]]
 9941   FORMAT%1X,I1,7%I3,I3,A1,3X]]
 9942   FORMAT %I1,I3,19I4]
 9943   FORMAT%1X,20I4]
 9944   FORMAT%    6H BLOCK,I8,5H SIDE,I8,20H INVALID COORDINATES,2I8,]
 9945   FORMAT%26H EITHER OR BOTH OF , SIDE ,I3, 6H BLOCK,I3,7HINVALID ]
 9947   FORMAT %1H1]
 9948   FORMAT%13A6]
 9949   FORMAT%1H1,50X,10HALL CRIMES]
 9951   FORMAT%40I2]
 9952   FORMAT%37H THE ABOVE CATEGORY INCLUDES FBI NO@S .12I3,28I2]
 9953   FORMAT%I3,I3,11A6]
 9954   FORMAT%1X,10H INFLAG # ,I3,13H OUT OF RANGE]
        END
```

END OF JOB CRD COUNT 00271

```
$       FORTRAN DECK
$       INCODE  IBMF
CPOPRNT       AIKEN/ELLIOTT MAP PRINT OUT          04/30/70
      SUBROUTINE PRNTOU %NOCRS,NOMAP,NCRTOT,ITITLE,LTITLE)
      COMMON INMAP%24),MAP%120,120),MTITLE%45),
     1NCENBK%2,99),NCENT%2,9,99),NTITLE%99),NODET%9),NODETC%9,99,11),
     2NOFB%91,NOSMFB%9,40),NOFBI%91,NOFBIC%9,99,9),
     3NOTOTC%9,99,11),          JTITLE,NCNTZR,NCOPY,NOBKS,NOPRNT,NOSDS
      COMMON /CRIMES/ IBEAT%2  ),ICRI%2  ),IMO%2  ),IDA%2  ),IYR%2  ),
     1IDAY%2  ),IMET%2  ),IBLK%2  ),ISID%2  ),ITIM%2  ),ILOC%2  ),IFR%2  ),
     2IDES%2  ),IFLG%2  ),ITYP%2  ),IDET%2  ),IPD%2  ),IKIER%2  ),
     3IHO%2  ),ILAS%2  ),IMIN%2  )
      COMMON    NOBLOK%41,NOCRNR%41,ROW%41,COL%41,MALPHA%121
      COMMON MBLANK,MPEROD,MBURGR,MBURGC,MPROP,MARGBT,MBRGCI,MPROPI,
     1MERGBU,MBRGCU,MPROPU
      DIMENSION NOCRS%9,99,91
      NOMA#NOMAP
      IF%NOMAP.GT.9) NOMA#%#1
      NBIFLG#0
    1 CONTINUE
      DO 133 I # 1,NOBKS
      DO 133  J # 1,NOSDS
      IX#NCENT%1,J,I)
      IY#NCENT%2,J,I)
      IF%IX*IY.LE.0)GO TO 133
      IF%NOCRS%J,I,NOMAP1)117,117,120
  120 IF%NOCRS%J,I,NOMAP1)116,125,119
  116 NUNITS#NOCRS%J,I,NOMAP1 &1
      IF%NBLFLG.EQ.11 GO TO 139
      MAP%IX,IY)#MALPHA%NUNITS)
      GO TO 133
  117 IF%NCNTZR) 118,134,118
  134 MAP%IX,IY)#MALPHA%1)
      GO TO 133
  118 IF%NBLFLG.EQ.11 GO TO 139
      MAP%IX,IY)#MALPHA%181)
      GO TO 133
  136 IF%NBLFLG.EQ.11 GO TO 130
      MAP%IX,IY&1)#MALPHA%NUNITS)
      MAP%IX,IY  )#MALPHA%NTENS)
      GO TO 133
  140 IF%IY.LE.2)IY#3
      IF%NBLFLG.EQ.11 GO TO 131
      MAP%IX,IY  )#MALPHA%NUNITS)
      MAP%IX,IY-1)#MALPHA%NTENS)
      MAP%IX,IY-2)#MALPHA%NHDRDS)
      GO TO 133
  119 NOCRTN#NOCRS%J,I,NOMAP1/10
      NUNITS#NOCRS%J,I,NOMAP1-%NOCRTN*10181
      IF%NOCRTN-10) 121,126,122
  121 NTENS#NOCRTN&1
      GO TO 135
  122 NOCRHS#NOCRTN/10
      NHDRDS#NOCRTN-NOCRHS*1081
      GO TO 127
  125 NUNITS#11
      NTENS # 2
  135 IF%NCENBK%2,I)-IY) 151,151,136
  151 IF%IY.LE.1) IY#2
      IF%NBLFLG.EQ.11 GO TO 138
      MAP%IX,IY-1)#MALPHA%NTENS)
      MAP%IX,IY)#MALPHA%NUNITS)
```



```
      GO TO 133
  126 NHDRDS # 2
      NTENS  #11
  127 IF%NCENBK%2,I)-IY) 140,140,128
  128 IF%NBLFLG.EQ.11 GO TO 129
      MAP%IX,IY&2)#MALPHA%NUNITS)
      MAP%IX,IY&1)#MALPHA%NTENS)
      MAP%IX,IY  )#MALPHA%NHDRDS)
      GO TO 133
  129 MAP%IX,IY&2)#MBLANK
  130 MAP%IX,IY&1)#MBLANK
      MAP%IX,IY  )#MBLANK
      GO TO 133
  131 MAP%IX,IY-2)#MBLANK
  138 MAP%IX,IY-1)#MBLANK
  139 MAP%IX,IY  )#MBLANK
  133 CONTINUE
      IF%NBLFLG.EQ.11RETURN
      WRITE%6,9935)
      DO 137I#1,NOBKS
      IF%NOCRS%9,I,NOMAP1)137,137,132
  132 WRITE %6,9946) I,NOCRS%9,I,NOMAP1),%NOCRS%J,I,NOMAP1), J#1,NOSDS)
  137 CONTINUE
      WRITE %6,9950) NCRTOT
      GO TO %105,105,105,105,105,105,105,105,106,107),NOMA
  105 WRITE%6,9936)%NTITLE%I),I#ITITLE,LTITLE)
      WRITE%6,9937)%MTITLE%I),I#1,39)
      GO TO 100
  106 WRITE%6,9901)
      WRITE%6,9937)%MTITLE%I),I#1,39)
      GO TO 100
  107 WRITE%6,9949)
      WRITE%6,9937)%MTITLE%I),I#1,39)
  100  CONTINUE
      WRITE%6,9911) %I,I#1,91,MALPHA%11),%J,J#1,2)
      WRITE%6,9914)
     1%MALPHA%I),I#3,11,2),%MALPHA%I),I#3,11,2),%MALPHA%I),I#3,11,2),
     2%MALPHA%I),I#3,11,2),%MALPHA%I),I#3,11,2),%MALPHA%I),I#3,11,2),
     3%MALPHA%I),I#3,11,2),%MALPHA%I),I#3,11,2),%MALPHA%I),I#3,11,2),
     4%MALPHA%I),I#3,11,2),%MALPHA%I),I#3,11,2),%MALPHA%I),I#3,11,2)
   101 DO 108 I#1,120
      WRITE %6,9905) I,%MAP%I,J),J#1,120) ,I
  108 CONTINUE
      WRITE %6,9911)%I,I#1,91,MALPHA%11),%J,J#1,2)
      WRITE%6,9914)
     1%MALPHA%I),I#3,11,2),%MALPHA%I),I#3,11,2),%MALPHA%I),I#3,11,2),
     2%MALPHA%I),I#3,11,2),%MALPHA%I),I#3,11,2),%MALPHA%I),I#3,11,2),
     3%MALPHA%I),I#3,11,2),%MALPHA%I),I#3,11,2),%MALPHA%I),I#3,11,2),
     4%MALPHA%I),I#3,11,2),%MALPHA%I),I#3,11,2),%MALPHA%I),I#3,11,2)
      NBIFLG#1
      GO TO 1
 9901 FORMAT%1H1,40X,22H ALL DETECTABLE CRIMES )
 9905 FORMAT%1X, I3,2X,120A1,1X,I3)
 9911 FORMAT%15X,9%11,9X),A1,2%9X)1))
 9914 FORMAT%6X,60%1X,A1))
 9935 FORMAT%96H BLOCK BLCK TOT.   SIDE1    SIDE 2    SIDE 3    SIDE 4
     1  SIDE 5    SIDE 6    SIDE 7    SIDE 8.    )
 9936 FORMAT %1H1,27X,11A6)
 9937 FORMAT% 20X,13A6/20X,13A6,/20X,13A6)
 9946 FORMAT %1X,215,8%5X,I5))
 9949 FORMAT%1H1,50X,10HALL CRIMES)
 9950 FORMAT%6H TOTAL,I5)
      END
```

CONTINUED

2 OF 3

Input Data Cards

```
$       EXECUTE
$       LIMITS   15,35K,10000,6000
$       INCODE   IBMF
```

Card Set 1

```
R C P T I K H S T     1 2 3 4 5 6 7 8
9 0 1
    J.C.ELLIOT  C.D.AIKEN  ELECTRONICS LABORATORY RM 120 X2667/2343 4/22/70
    FOR SYRACUSE POLICE DEPARTMENT BEAT 50 CRIME CONTROL STATISTICS
        THIS RUN COVERS PERIODS   29,30,31,32
```

Card Set 2

```
Card 64   2  8  0  1  50  3
Set  1 19        NUMBER OF STOLEN CAR CRIMES
2
     0  4        NUMBER OF DETECTABLE STREET ROBBERIES AND ASSAULTS
     4 5 6 7 8 910017203944
     0 15        NUMBER OF DETECTABLE THEFTS FROM AUTOMOBILES
  1543
```

Card Set 3

```
5  6  7
5  4  1.    4  2.    4  3.    4  4.    4  5.    4  6.    4  7.
5  4  9.    4  9.    4 10.    4 11.    4 12.    4 13.    4 14.
5  4 15.    4 16.    4 17.    4 18.    4 19.    4 20.    4 21.
5  4 22.    4 23.    4 24.    4 25.    4 26.    4 27.    4 28.
5  4 29.    4 30.    4 31.    4 32.    4 33.    4 34T    4 35E
5  4 36A    4 37L    4 39.    4 40A    4 41V    4 42F    4 44.
5  4 45.    4 46.    4 47.    4 48.    4 49.    4 50.    4 51.
5  4 52.    4 53.    4 54.    4 55.    4 56.    4 57.    4 58.
5  4 59.    4 60.    4 61.    4 62.    4 63.    4 64.    4 65.
5  4 66.    4 67.    4 68.    4 69.    4 70.    4 71.    4 72.
5  4 73.    4 74.    4 75.    4 76.    4 77.    4 78.    4 79.
5  4 80.    4 81.    4 82.    4 83.    4 84.    4 85.    4 86.
5  4 87.    4 88.    4 89.    4 90.    4 91.    4 92.    5  2.
5  5 15.    5 37.    5 44.    5 52.    5 60.    5 71.    5 82.
5  5 93.    6  3.    6 16.    6 37.    6 44S    6 52H    6 60R
5  6 71C    6 82.    7  4.    7 17.    7 37.    7 44C    7 52E
5  7 600    7 71R    7 82.    8  5.    8 18.    8 37.    8 44H
5  8 52R    8 60B    8 71A    8 82.    8 94.    9  1.    9  2.
5  9  3.    9  4.    9  5.    9 19.    9 37.    9 44U    9 52B
5  9 60I    9 61.    9 62.    9 63.    9 64.    9 65.    9 66.
5  9 67.    9 68.    9 69.    9 70.    9 71T    9 72.    9 73.
5  9 74.    9 75.    9 76.    9 77.    9 78.    9 79.    9 80.
5  9 81.    9 82.    9 83W    9 84I    9 85N    9 86T    9 870
5  9 88N    9 89.    9 90.    9 91.    9 92.    9 93.    9 94.
5  9 95.    10  6.   10 20.   10 30.   10 31.   10 32.   10 33.
5 10 34.    10 35.   10 36.   10 37.   10 44L   10 59S   10 60N
5 10 710    10 82.   10 83.   10 96.   11  7.   11 21.   11 37.
5 11 44E    11 52T   11 60S   11 71N   11 82.   12  8.   12 22.
5 12 37.    12 44R   12 52.   12 600   12 71.   12 82.   12 97.
5 13  8.    13 23.   13 37.   13 44.   13 52.   13 60N   13 71.
5 13 82.    14  9.   14 24.   14 305   14 31T   14 32.   14 33.
5 14 34.    14 35.   14 37.   14 44.   14 52.   14 60.   14 71.
5 14 77.    14 78.   14 79S   14 80H   14 81E   14 82R   14 83W
5 14 840    14 850   14 86D   14 87.   14 88.   14 89.   14 90.
5 14 91.    14 92.   14 93.   14 94.   14 95.   14 96.   14 97.
5 14 98.    15 10.   15 25.   15 28N   15 37.   15 44.   15 45.
5 15 46.    15 47.   15 48.   15 49.   15 50.   15 51.   15 52.
5 15 53.    15 54.   15 55.   15 56.   15 57.   15 58.   15 59.
5 15 60.    15 71.   15 76.   15 82.   15 99.   16 11.   16 26.
5 16 270    16 37.   16 38.   16 39.   16 40.   16 41.   16 42.
5 16 43.    16 44.   16 52.   16 60.   16 71.   16 75.   16 82.
5 17 12.    17 25S   17 27.   17 38.   17 52.   17 60.   17 61.
5 17 62.    17 63.   17 64.   17 65.   17 66.   17 67.   17 68.
5 17 69.    17 70.   17 71.   17 72.   17 73.   17 74.   17 75.
5 17 82.    18 23L   18 28.   18 39R   18 52.   18 60.   18 82.
```



```
5 18100.    19 13.   19 21I   19 23.   19 29.   19 400   19 52.
5 19 60.    19 82.   19 83V   19 84I   19 85N   19 86E   19 87.
5 19 88S    19 89T   19 90R   19 91F   19 92F   19 93T   19 94.
5 19 95.    19 96.   19 97.   19 98.   19 99.   19100.   20 14.
5 20 19W    20 24.   20 30.   20 40.   20 41Y   20 42.   20 43.
5 20 44.    20 45.   20 46.   20 47.   20 48.   20 49.   20 50V
5 20 51I    20 52N   20 53E   20 54.   20 55.   20 56.   20 57.
5 20 58.    20 59.   20 60.   20 63L   20 64I   20 65N   20 66C
5 20 670    20 68L   20 69N   20 71P   20 72A   20 73R   20 74K
5 20 82.    20101.   21 15.   21 17.   21 25.   21 31.   21 38.
5 21 42D    21 52.   21 60.   21 82H   21102.   22 16.   22 26.
5 22 32S    22 36.   22 43E   22 52.   22 60.   22 61.   22 62.
5 22 63.    22 64.   22 65.   22 66.   22 67.   22 68.   22 82A
5 23 17.    23 27D   23 33H   23 34.   23 44N   23 52.   23 60.
5 23 69.    23 82W   24  1.   24  2.   24  3.   24  4.   24  5.
5 24  6.    24  7.   24  8.   24  9.   24 10.   24 11.   24 12.
5 24 13.    24 14.   24 15.   24 16.   24 17.   24 18.   24 280
5 24 33.    24 34U   24 45.   24 52.   24 60.   24 64.   24 65.
5 24 67.    24 68.   24 70.   24 71.   24 72.   24 82L   24 83.
5 24 84F    24 85A   24 86I   24 87R   24 88V   24 89I   24 90E
5 24 91W    24 92.   24 93A   24 94V   24 95E   24 96.   24 98.
5 24 99.    24100.   24102.   24103.   25 19.   25 29R   25 31.
5 25 35A    25 46.   25 51.   25 60.   25 63.   25 64R   25 650
5 25 66U    25 67N   25 68D   25 69.   25 73.   25 82E   25104.
5 26 20.    26 300   26 36R   26 47.   26 49.   26 60.   26 64T
5 26 650    26 66P   26 67.   26 68.   26 73.   26 82Y   26104.
5 27 21.    27 28.   27 31T   27 37T   27 47.   27 60.   27 73.
5 27 82.    27105.   28 22.   28 26.   28 32H   28 38.   28 45.
5 28 60.    28 73.   28 82.   28 83.   28 84N   28 85.   28 86.
5 28 87B    28 88E   28 89E   28 90C   28 91H   28 92.   28 93S
5 28 94T    28 95.   28 96.   28 98.   28 99.   28101.   28102.
5 28104.    28105.   28106.   28107.   28108.   28109.   28110.
5 28111.    28112.   28113.   29 23.   29 24.   29 33Y   29 39.
5 29 43.    29 58K   29 72.   29 82.   29105.   29113.   30 24.
5 30 34.    30 40.   30 41.   30 56C   30 62.   30 63.   30 64.
5 30 65.    30 66.   30 67.   30 68.   30 70.   30 82.   30113.
5 31 25.    31 35.   31 41.   31 52.   31 54I   31 61.   31 82.
5 31106.    31113.   32 26.   32 36.   32 42.   32 52W   32 61.
5 32 62.    32 64.   32 65.   32 66M   32 67A   32 68T   32 69H
5 32 70E    32 71R   32 73.   32 74.   32 75.   32 77.   32 78.
5 32 79.    32 81.   32 82.   32 84.   32 85.   32 86S   32 87T
5 32 88R    32 89E   32 90E   32 91T   32 93.   32 95.   32 96.
5 32 98.    32 99.   32101.   32102.   32104.   32105.   32106.
5 32113.    33 25.   33 27.   33 37.   33 43.   33 50E   33 82.
5 33113.    34 22.   34 28.   34 38.   34 44.   34 48G   34 55.
5 34 56.    34 57.   34 58.   34 59.   34 61.   34 82.   34107.
5 34113.    35 20.   35 29.   35 39.   35 45D   35 46.   35 61.
5 35 82.    35107.   35113.   36 17.   36 30.   36 40.   36 43E
5 36 46.    36 82.   36108.   36113.   37 14.   37 31.   37 40.
5 37 41S    37 47.   37 61.   37 82.   37108.   37113.   38 32.
5 38 30.    38 48.   38 82.   38108.   38113.   39 33.   39 37.
5 39 49.    39 50.   39 51.   39 52.   39 53.   39 54.   39 55.
5 39 56.    39 57.   39 58.   39 59.   39 60.   39 61.   39 62.
5 39 63.    39 64.   39 65.   39 66.   39 68F   39 69I   39 70M
5 39 71.    39 72.   39 73.   39 74.   39 75.   39 76.   39 77.
5 39 78.    39 79.   39 80.   39 81.   39 82.   39 83.   39 84.
5 39 85.    39 86S   39 87T   39 88R   39 89F   39 90F   39 91T
5 39 92.    39 93.   39 94.   39 95.   39 96.   39 97.   39 98.
5 39 99.    39100.   39101.   39102.   39103.   39104.   39105.
5 39106.    39107.   39108.   39113.   40 34.   40 35.   40 61.
5 40 82.    40108.   40113.   41 35.   41 61.   41 82.   41108.
5 41113.    42 36.   42 61.   42 82.   42108.   42113.   43 34.
```

5 43 37.	43 61.	43 82.	43100.	4310R.	43113.	44 32.
5 44 38.	44 61.	44 82.	44100.	4410R.	44113.	45 30.
5 45 39.	45 61.	45 82.	45100.	4510R.	45113.	46 27.
5 46 40.	46 46.	46 61.	46 70.	46 71.	46 72.	46 73.
5 46 74D	46 75E	46 76L	46 77H	46 78I	46 79.	46 80.
5 46 81.	46 82.	46 83.	46 84.	46 85.	46 86S	46 87T
5 46 88.	46 89.	46 90.	46 91.	46 92.	46 93.	46 94.
5 46 95.	46 97.	46 98.	46 99.	46100.	46108.	46112.
5 46113.	47 25.	47 41.	47 61.	47 74.	47 82.	47100.
5 47108.	47110.	47113.	48 23.	48 42.	48 61.	48 74.
5 48 82.	48100.	48108.	48109.	48113.	49 23.	49 61.
5 49 74.	49 82.	49100.	49108.	49113.	50 43.	50 61.
5 50 74.	50 82.	50100.	50107.	50113.	51 44.	51 57.
5 51 58.	51 59.	51 60.	51 61.	51 62.	51 63.	51 64.
5 51 65.	51 66.	51 67.	51 68.	51 69.	51 70.	51 71.
5 51 72.	51 73.	51 74.	51 75.	51 76.	51 77.	51 78.
5 51 79.	51 80.	51 81.	51 82.	51 83.	51 84.	51 85.
5 51 86.	51 88O	51 89A	51 90K	51 91.	51 92S	51 93T
5 51 94.	51 95.	51 96.	51 97.	51 98.	51 99.	51100.
5 51101.	51102.	51104.	51105.	51106.	51113.	52 45.
5 52 54.	52 64.	52 75.	52 84.	52 88.	52105.	52108.
5 52113.	53 46.	53 51.	53 65G	53 76G	53 84.	53 88.
5 53 90.	53104.	53108.	53113.	54 47.	54 49.	54 66R
5 54 77E	54 84.	54 91.	54103.	54108.	54113.	55 46.
5 55 48.	55 67E	55 78R	55 84.	55 93.	55102.	55108.
5 55113.	56 44.	56 49.	56 68E	56 79T	56 92.	56 94.
5 56101.	56108.	56113.	57 42.	57 50.	57 69N	57 80R
5 57 91.	57 96.	57100.	57108.	57113.	58 38.	58 51.
5 58 70.	58 81U	58 90.	58 98.	58 99.	58108.	58113.
5 59 36.	59 52J	59 71.	59 82D	59 89.	59 98.	59 99.
5 59108B	59113.	60 53A	60 82.	60 83E	60 88.	60 97.
5 60 99.	60108U	60113.	61 54M	61 72.	61 77.	61 83.
5 61 87.	61 96.	61 99.	61108R	61113.	62 55E	62 73.
5 62 84.	62 86.	62 95.	62 99.	62108N	62113.	63 56S
5 63 74.	63 85.	63 94.	63 99.	63108E	63113.	64 75.
5 64 79.	64 86.	64 93.	64 99.	64108T	64113.	65 58.
5 65 76.	65 87.	65 92.	65 93.	65 94N	65 950	65 96.
5 65 97.	65 98C	65 99R	651000	65101U	65102S	65103E
5 65104.	65105.	65106.	65107.	65108.	65110.	65111.
5 65112.	65113.	66 59.	66 77.	66 88.	66 91.	66 99.
5 6610BA	66113.	67 60.	67 78.	67 89.	67 99.	67108V
5 67113.	68 61.	68 79.	68 87.	68 90.	68 99.	68108E
5 68113.	69 62.	69 80.	69 87I	69 91.	69 99.	69113.
5 70 63.	70 81.	70 86D	70 92.	70 99.	70108.	70113.
5 71 64.	71 82.	71 850	71 93.	71 99.	71108.	71113.
5 72 83.	72 84L	72 85.	72 94.	72 99.	72108.	72113.
5 73 65S	73 83.	73 84.	73 95.	73 99.	73108.	73113.
5 74 66T	74 82.	74 85.	74 96.	74 99.	74108.	74113.
5 75 67.	75 81.	75 82.	75 97.	75 99.	75108.	75113.
5 76 68.	76 80.	76 87.	76 98.	76 99.	76108.	76113.
5 77 69.	77 79.	77 81.	77 88.	77 98.	77 99.	77100.
5 77101.	77102.	77103.	77104.	77105.	77106.	77107.
5 77108.	77113.	78 70.	78 78.	78 79.	78 89.	78 96D
5 78 99.	78108.	78113.	79 71.	79 77.	79 80.	79 90.
5 79 93.	79 94R	79 99.	79108.	79113.	80 72.	80 76.
5 80 81.	80 91.	80 92A	80 99.	80108.	80113.	81 73.
5 81 75.	81 82W	81 90W	81 92.	81 99.	81108.	81113.
5 82 74.	82 83A	82 88O	82 93.	82 99.	82108.	82113.
5 83 73.	83 75.	83 84Y	83 86H	83 94.	83 99.	83108.
5 83113.	84 72.	84 76.	84 85N	84 95.	84 99.	84108.
5 84113.	85 71.	85 77.	85 86E	85 96.	85 99.	85108.
5 85113.	86 70.	86 78.	86 87.	86 97.	86 99.	86108.

5 86113.	87 69.	87 79.	87 88S	87 98.	87 99.	87108.
5 87113.	88 68.	88 80.	88 89T	88 99.	88108.	88113.
5 89 67.	89 81.	89 90.	89 98.	89 99.	89108.	89113.
5 90 66.	90 91.	90 96.	90 99C	90100A	90101T	90102H
5 90103E	90104R	90105I	90106N	90107F	90108.	90109.
5 90110.	90112.	90113.	91 82.	91 92.	91 94.	91 99.
5 91108.	92 83.	92 90.	92 99.	92108.	93 84.	93 88.
5 93 99.	93108.	94 85.	94 86.	94 99.	94108.	95 83.
5 95 86.	95 99.	95108.	96 80.	96 87.	96 99.	96108.
5 97 77.	97 88.	97 99N	971000	97101.	97102M	97103C
5 97104B	97105R	97106I	97107D	97108E	98 75.	98 89.
5 98 96.	98 97.	98 98.	98 99.	98108.	99 90.	99 94.
5 99 99.	99108.	100 91.	100 92.	100 99.	100108.	101 89.
5101 92.	101 99.	101108.	102 87.	102 93.	102 99.	102108.
5103 85.	103 94.	103 99.	103108.	104 82.	104 95.	104 99.
5104108.	105 80.	105 98N	105 990	105100.	105101T	1051020
5105103W	105104N	105105S	105106E	105107N	105108D	106 96.
5106107.	107 93.	107 97.	107107.	108 91.	108 98.	108107.
5109 89.	109 99.	109107.	110100.	110107.	111101.	111107.
5111120.	112102.	112107.	112118.	113103.	113108.	113116.
5114104.	114108.	114114.	115105.	115108.	115112.	116106.

6

6 8	78 111	77 109	66 110	77 112	89 109	0	0	0	0	0	0	0	0			
6 9	56 111	56 109	48 109	56 112	64 110	0	0	0	0	0	0	0	0			
6 10	38 109	43 109	35 108	29 108	38 112	46 109	0	0	0	0	0	0	0			
6 11	108 103	111 103	106 99	106 102	110 106	0	0	0	0	0	0	0	0			
6 12	101 103	100 100	98 103	100 107	104 102	0	0	0	0	0	0	0	0			
6 13	94 104	93 100	91 103	93 107	96 103	0	0	0	0	0	0	0	0			
6 14	83 104	82 100	78 103	82 107	89 103	0	0	0	0	0	0	0	0			
6 15	71 104	70 100	66 103	70 107	76 103	0	0	0	0	0	0	0	0			
6 16	59 103	61 100	56 102	58 107	64 102	0	0	0	0	0	0	0	0			
6 17	46 98	43 83	40 96	45 107	49 106	51 103	48 101	44 99	45 90							
6 18	36 95	34 83	33 94	35 106	38 94	0	0	0	0	0	0	0	0			
6 19	30 94	30 83	29 93	30 104	31 94	0	0	0	0	0	0	0	0			
6 20	26 93	26 83	25 91	25 103	27 93	0	0	0	0	0	0	0	0			
6 21	21 92	22 83	20 90	20 101	23 91	0	0	0	0	0	0	0	0			
6 22	17 91	17 83	15 89	16 98	18 90	0	0	0	0	0	0	0	0			
6 23	12 89	12 83	10 87	11 96	13 89	0	0	0	0	0	0	0	0			
6 24	7 88	7 83	5 86	6 92	8 87	0	0	0	0	0	0	0	0			
6 25	13 77	12 72	10 76	12 81	13 79	14 75	16 74	0	0	0	0	0	0			
6 26	6 76	7 72	5 75	7 81	8 75	0	0	0	0	0	0	0	0			
6 27	6 65	7 61	5 64	7 70	8 64	0	0	0	0	0	0	0	0			
6 28	13 66	12 61	10 64	12 70	16 65	0	0	0	0	0	0	0	0			
6 29	33 58	25 61	33 57	35 57	37 59	33 57	38 55	37 48	32 53							
6 30	35 71	34 62	33 70	34 81	38 70	0	0	0	0	0	0	0	0			
6 31	45 72	44 62	40 70	43 81	45 75	45 71	47 73	50 68	0	0						
6 32	48 78	49 76	47 77	48 81	50 77	0	0	0	0	0	0	0	0			
6 33	48 91	49 84	48 91	48 99	50 90	0	0	0	0	0	0	0	0			
6 34	53 97	54 93	52 96	54 100	0	0	0	0	0	0	0	0	0			
6 35	61 92	64 88	60 90	57 95	62 94	0	0	0	0	0	0	0	0			
6 36	63 97	63 96	62 98	64 96	0	0	0	0	0	0	0	0	0			
6 37	69 95	71 95	67 92	66 94	70 98	0	0	0	0	0	0	0	0			
6 38	74 91	76 89	71 88	73 93	78 94	0	0	0	0	0	0	0	0			
6 39	82 96	83 96	80 96	82 98	0	0	0	0	0	0	0	0	0			
6 40	102 96	102 95	100 96	100 98	104 97	0	0	0	0	0	0	0	0			
6 41	95 94	96 89	92 93	94 98	98 94	0	0	0	0	0	0	0	0			
6 42	86 92	86 89	83 89	85 94	89 94	0	0	0	0	0	0	0	0			
6 43	86 82	87 81	81 77	85 84	92 87	0	0	0	0	0	0	0	0			
6 44	78 85	79 83	76 82	77 87	81 87	0	0	0	0	0	0	0	0			
6 45	59 76	58 72	52 70	61 81	69 86	65 80	64 78	63 76	61 75							
6 46	63 66	68 63	55 55	52 61	61 71	77 78	0	0	0	0	0	0	0			
6 47	45 51	47 43	38 40	38 46	40 54	44 60	50 58	53 53	0	0						

```
6 48  30  38  30  37  26  33  29  37  35  42   0   0   0   0   0   0   0   0
6 49  33  32  34  30  29  28  32  35  37  37   0   0   0   0   0   0   0   0
6 50  21  28  22  27  19  25  21  29  24  31   0   0   0   0   0   0   0   0
6 51  24  23  25  20  21  20  23  25  27  26   0   0   0   0   0   0   0   0
6 52  12  14  12   9   5   9  11  19  18  20   0   0   0   0   0   0   0   0
6 53  10  29   9  21   5  27   8  36  13  33  14  27   0   0   0   0   0   0
6 54  17  34  18  31  16  29  18  37   1  36  17  38  20  36   0   0   0   0
6 55  25  40  26  37  22  38  24  43  28  42   0   0   0   0   0   0   0   0
6 56  26  52  32  44  28  47  23  53  21  55  25  59  30  51   0   0   0   0
6 57  23  48  23  45  21  48  21  51  25  49   0   0   0   0   0   0   0   0
6 58  17  45  18  40  16  48  18  51  19  45  16  51  19  45   0   0   0   0
6 59  10  40   9  38   5  39   9  43  15  39   0   0   0   0   0   0   0   0
6 60   9  48   8  45   5  47   8  51  14  47   0   0   0   0   0   0   0   0
6 61  17  56  18  53  16  55  18  59  19  55   0   0   0   0   0   0   0   0
6 62  10  56   9  53   5  55   8  59  14  55   0   0   0   0   0   0   0   0
6 63  54  84  56  80  52  80  52  83  52  85  53  88  58  88  58  88   0   0
6 64   0   0  20  61  18  70  25  81  31  72  23  81   0   0   0   0   0   0
```

7 Card Set 4

```
5n 177477 81068 7 1 47 1 0830 0500 3.52111 1 2          9
5n 177490 81068 7 1 49 4      0400  . 2226 1 1          9
5n 177737 81168 1    56 6      0054  . 1 20 1 2 1 4      9
5n 177776 81168 1 1 15 1      0320  . 2226 1 1 1 3      9
5n 177790 81168 7 1 37 3 0335 0335  . 3234 3 1 1 2 2 9
5n 177970 81168 1 1 37 3 2145 2030  . 2126 2 1 1 4      9
5n 178045 81268 2    63 6      0648  . 2 15 1 2 1 1      9
5n 178065 81268 2 1 47 1 0830 0001 8.02112 1 1          9
5n 178105 8 168 5    47 3           .  26      1 4      8
5n 178150 81168 1 1 46 1      2350  . 2112 1 1          9
5n 178232 81268 2 1 16 3      1900  . 2215 1 1          9
5n 178261 81268 2 1 63 4 2050 2030 0.31238 1 2 1 1 1 9
5n 178290 81268 2    13 2           .  38      1 4      9
5n 178312 81268 2 1 62 4      2015 0.32238 1 1 1 3      9
5n 178599 81468 4 1 39 2 0019 0009 0.12112 3 1          9
5n 178765 81468 4 1 15 3 1600 1600  . 1220 1 2 1 3      9
5n 178851 81468 4 1 38 3 2100 1815 0.82213 1 2          9
5n 178935 81568 5 1 20 3 0600 0520 0.52112 1 1          9
5n 179445 81568 5 1 54 1      2315  . 1220 1 1 1 4 2 9
5n 179450 81668 6    47 1      2350  . 1 20 1 1 1 4
5n 179457 81768 7 1 13 3      2350  . 2115 1 1          9
5n 179471 81768 7 1 64 3      0145  . 1220 1 1 1 3 1 9
5n 179683 81768 7 1 15 3 1925 1920  . 11 8 2 2 1 3      9
5n 179633 81768 7 1 46 1      0500 5.02215 1 1          9
5n 180067 81768 7 1 18 3      2300 5.02226 3 1          9
5n 180126 81768 7 1 26 4      2000 24.02226 1 1         9
5n 180136 82368 6    52 1 0930 0200 6.0  19    2 1 1    9
5n 180146 81868 1 1 14 3      0600 4.02115 1 1          9
5n 180160 81568 5 1 46 1      2200  . 2215 1 1          9
5n 180221 81968 2 1 11 1 1135 1135  . 2213 3 2 1 3 2 9
5n 180440 81968 2 1 38 2      2350  . 2226 1 1          9
5n 180442 81968 2 1 11 2      2230  . 2226 1 1          9
5n 180516 81768 7 1 14 1      2200  . 2214 1 2      1 9
5n 180518 81968 2 1 32 4      1800  . 2214 1 1          9
5n 180686 82068 3 1 32 4 0830 0400 4.52215 1 1          9
5n 181040 82268 5 1 15 2      0446  . 2112 2 1 1 1 2 9
5n 181090 82268 5 1 64 3      1115  . 2218 1 2          9
5n 181093 82268 5 1 12 2      1030  . 2226 1 1 1 1 1 9
5n 181140 82168 4 1 63 1      1930  . 2218 1 2          9
5n 181149 82168 4 1 63 1      1930  . 2218 1 2 1 4      9
5n 181180 82268 5 1 39 1      1641  . 1220 1 2      1 9
5n 181305 82368 6 1 14 3      0018  . 2226 1 1      2 9
5n 181313 82368 6    43 1           . 2 19 1 2 1 2      9
5n 181337 82268 5 2 64 5 0650 0200 4.22111 2 1          9
```



```
5n 181417 82368 6 1 19 3      1330  . 2213 1 2          9
5n 181469 82368 6 1 15 3      1700  . 1220 1 1      2 9
5n 181955 82468 7 1 46 1 2100 2100  . 1103 2 2 1 3 1 9
5n 182339 82668 2 1 37 4 0105 0105  . 2112 2 1 1 1 2 9
5n 182535 82768 3 1 63 1 1900 050014.02114 2 2 2 3      9
5n 182564 82668 2 1 36 2      2102  . 2226 2 1          9
5n 182786 82768 3    38 3      1700  .  19 1 2 1 1      9
5n 182834 82768 3 1 18 2      2226  . 1120 1 1      1 9
5n 182890 82768 3 1 14 1      2030  . 2214 1 2          9
5n 183004 82868 4 1 16 1 1600 1500 1.02218 1 2          9
5n 183009 82868 4 1 35 3 1716 1716  . 1220 1 1          9
5n 183115 82868 4 1 52 1 2400 2300 1.02215 1 1          9
5n 183388 83068 6 1 27 2 1000 0500 5.02226 1 1          9
5n 183479 83068 6 1 16 2 1300 1245  .22215 1 1          9
5n 183676 83168 7    16 2 1102      .  19    2 1 2      9
5n 183902 9 168 1 1 27 2 0130 0130  . 1220 1 1          9
5n 183974 9 168 1    64 5           .  26 2 2 1 4       9
5n 184110 9 168 1    13 4           .  17 1 2 1 4       9
5n 184157 9 268 1 1 56 3 0500 0500  . 2226 1 1          9
5n 184290 9 268 2    63 1 1912      . 2226 1 2 1 1      9
5n 184404 9 368 3 1 37 4 0230 0230  . 1220 3 1 1 4 1 9
5n 184746 9 468      15 3           . 2119 3 2 1        9
5n 184909 82868 4 1 40 3      200099.92226 1 2          9
5n 185283 9 668 6 2 36 3 0017 0016  . 2226 3 1          9
5n 185483 9 568 5    35 2      0100 6.02238 1 2 1 4     9
```

$ END JOB

CRIME, TIME OF OCCURRENCE, PROGRAM

The input to the program is the title, the period(s) covered by the output, and the Internal Crime Report data.

The outputs of the program are:

- Listing of Internal Crime Reports
- Tabulations of number of crimes the past 4 weeks, the past 12 weeks, and the past year, tabulated in 4-hour intervals, in the following categories:

  Total crimes
  Total crimes against person
  Total crimes against property
  Total crimes against all-other
  Residential burglaries
  Commercial burglaries

- Crime summary by block and side
- List of criminal activity in the Beat.
- Type of criminal activity
- Histogram of the tabulated data

General Directions

1. INPUT DATA CARDS

The first two cards contain title information.

The next four cards give the input flags and constants used in the program.

Input Card 7 has the Internal Crime Report data on it and is repeated as often as necessary to read in all of the data that is to be processed. As each card is read in, a check is made of the variable "LBEAT". When "LBEAT" =0, a blank card has been read. The program then proceeds to the output mode.

Input Data Cards for Time of Occurrence Program

Card	Columns	Variable	Format	Description and Usage
1	1-80	NAPRO(J)	20A4	80 characters of alphameric title data
2	1-80	NAPRO(J)	20A4	
3	3-5	KMO	I3	Latest Month } To be covered by
	6-8	KMENT	I3	Period } Internal Crime Report
	9-11	KYR	I3	Year } Data
4	1-5	ISEL1	I5	Flag; if positive read an Internal Crime Report card, call Subroutine DATA to check for errors and print out the results. Then read the next card.
4	6-10	ISEL2	I5	Flag; if positive and if ISEL1 positive, subroutine DILE is called and the legend for error flags in print out of Internal Crime Reports is printed.
4	11-15	ISEL3	I5	Flag; if positive, subroutine SUMM is called and the temporal distribution of total crime is calculated and printed for the past 4 weeks, the past 12 weeks and the past year.
4	16-20	ISEL4	I5	Flag; if positive and ISEL3 is not positive the subroutine SUMM is called and the temporal distribution of total crime is calculated and printed for the past 4 weeks, the past 12 weeks, and the past year. If positive and ISEL3 is also positive the subroutine SUMM is called and the temporal distributions of crime against person, property, and all other is calculated and printed for the past 4 weeks, the past 12 weeks, and the past year. Then the temporal distribution of residential and commercial burglaries is printed for the past 4 weeks, the past 12 weeks, and the past year.
4	21-25	ISEL5	I5	Flag; if positive subroutine LOCATE is called and the geographical distribution of crime is listed for the past 4 weeks, the past 12 weeks and the past year.

Card	Columns	Variable	Format	Description and Usage
4	26-30	ISEL6	I5	Flag; if positive subroutine LISTY is called and a list of criminal activity ordered chronologically is printed for the past 4 weeks.
4	31-35	ISEL7	I5	Flag; if positive subroutine STAT is called and a summary of the criminal activity statistics for the past year is printed.
4	36-40	ISEL8	I5	Flag; if positive subroutine HISTOG is called and histograms of the temporal distribution of total crime, crimes against the person, crimes against property, crimes against all other, residential burglaries, and commercial burglaries, is printed for the past 4 weeks, the past 12 weeks, and the past year.
5	6-10	KBEAT	I5	BEAT number of data to be processed. Number of blocks in the BEAT.
6*	1, 6, 11...76	NBLK	I3	Number of the block
	3, 9, 14...79	NSID	I2	Number of sides in above block

* Note that the format for card 6 is 16 (I3, I2)

1-N	2-3	LBEAT	I3	Beat number
1-N	4-10	LCRI	I7	DR. NO. or criminal activity identification number
1-N	11-12	MO	I2	Month } that crime occurred
	13-14	MDA	I2	Day }
	15-16	MYR	I2	Year }
	17-18	NDAY	I2	Day of week Sunday =1, Saturday =7
	19-20	MET	I2	Weather, in context of the season of the year 1=good 2=bad.
	21-23	LBLK	I3	Block } where crime occurred
	24-25	LSID	I2	Side }
	26-30	LTIM	I5	Actual time crime was detected.
	31-35	LOC	I5	Estimated time crime occurred.
	36-39	ER	F4.1	Possible error in time crime occurred

Card	Columns	Variable	Format	Description and Usage
1-N (Continued)				
	40	LDES	I1	Crime against, =1 person =2 property =3 other
	41	LEG	I1	Type of crime =1 felony =2 misdemeanor =3 violation
	42-43	LTYP	I2	FBI code or type of crime
	45	LDET		Detector of crime =1 victim =2 citizen =3 police
	46-47	LPD	I2	Could Crime be detected by policeman patrolling Beat? =1 yes =2 no
	48-49	LKLER	I2	Is crime cleared =0 no =1 yes =2 unfounded
	50-51	LHO	I2	How was crime cleared =1 by citizen =2 police =3 investigation =4 other
	52-53	LAS	I2	Had victim met perpetrator before crime was committed =1 yes =2 no
	54-55	MINT	I2	Reporting period during which crime occurred.

Output

Title Cards

List of Internal Crime Report

Legend for Internal Crime Report Listing

Temporal distribution of crime by four hour segments for each day of week.

Temporal distribution of crime for each day of week.

Geographical distribution of crime by block and side.

List of criminal activity in the beat for the current period, ordered by DR. number.

Criminal activity statistics for the beat for the year to date.

Histograph showing pictorially the temporal distribution of crime by 4 hour periods and days of the week. For the current period the last three periods and the year to date.

Deck Setup For The Police Statistic Program

Column	1	8	16
	$	$ NUMB	EXXXX (4 digit number)
	$	IDENT	100-681, Aiken-EP3, X2667, Room 120
	$	LIMITS	15,,,12000
	$	OPTION	FORTRAN, SYMREF
	$	Fortran	
	$	Incode IBMF	
		Main Deck POLSURI	
		Fortran	
		Incode IBMF	
		Subroutine DATA	
		Fortran, Incode IBMF	
		Subroutine DILE	
		Fortran	
		Incode IBMF	
		Subroutine SUMM	
		Fortran	
		Incode IBMF	
		Subroutine LOCAT.	
		Fortran	
		Incode IBMF	
		Subroutine LISTY	
		Fortran	
		Incode IBMF	
		Subroutine STAT.	
		Fortran	
		Incode IBMF	
		Subroutine HISTOG.	
		Fortran	
		Incode IBMF	
	$	Execute	
	$	Limits 15, 40K, 10000, 5000	
	$	Incode IBMF	
		Date Cards	
	$	Blank card	
		End Job	

Note: The source decks may be replaced with binary package.

Program List

```
$       IDENT   100-681,AIKEN-EP3,X2667,ROOM120          CAIKEN POLSURAN
$       LIMITS  15,,,12000
$       OPTION  FORTRAN,SYMREF
$       FORTRAN.
$       INCODE  IBMF
CPOSUR        AIKEN/ELLIOTT/SURAN . POLICE STATISTICS AS OF 10/11/69
      COMMON /HIST/ NCRIMS%7,6,18),NTOT%18),MDAY%21),MHOUR%61,IASK%62)
      COMMON /T1/ISEL1,ISEL2,ISTAT,LBEAT,MO,MINT,MYR,NDAY,MET,IBLK,LSID,
     1NOC,IDES,ITYP,IDET,IPD,IKLER,IWO,IAS,ICRT,MDA,ITIM,IFG,IDIAG
      COMMON /T2/KRIM%7,6,5),KRIM2%7,6,5),KRIMY%7,6,5),JSU
      COMMON /T3/KBEAT,KMO,KYR,IPRIN%31,KMINT
      COMMON /T4/NBLK%100),NSID%100),LGEO%100,8,5),LGEO2%100,8,5),LGEOY%
     1100,8,5),NOBLK
      COMMON /T5/KROW%2,31,16),KBLOCK%2,31,16),MESOV
      COMMON /T6/KSM%2,5),KDET%3,5),KLER%3,5),KLWO%4,5),KAS%2,5),KPD%2,5
     11
      DIMENSION NAPRO%80)
      LOGICAL V
      CALL FLGFOF%5,V)
      IF%V) CALL EXIT
      DO 1 I#2,62
    1 IASK%I)#IASK%1)
    2 CONTINUE
      DO 5 J#1,20
    5 NAPRO%J)#0
      READ%5,10)%NAPRO%J),J#1,20)
      IF%V) CALL EXIT
   10 FORMAT %20A4)
      PRINT 20,%NAPRO%I),J#1,20)
   20 FORMAT %11X,20A4)
      DO 30 J#1,20
   30 NAPRO%J)#0
      READ 10,%NAPRO%J),I#1,20)
      IF%V) CALL EXIT
      PRINT 20,%NAPRO%I),J#1,20)
      READ%5,40)KMO,KMINT,KYR
      IF%V) CALL EXIT
   40 FORMAT %2X,3%I3))
      READ%5,50),ISEL1,ISEL2,ISEL3,ISEL4,ISEL5,ISEL6,ISEL7,ISEL8
      IF%V) CALL EXIT
   50 FORMAT %8I5)
      READ%5,60)KBEAT,NOBLK
      IF%V) CALL EXIT
   60 FORMAT %5X,2I5)
      DO 70 I#1,15
      MIN#%J-1)*16&1
      MAX#%J-1)*16&16
      READ%5,65) %NBLK%I),NSID%I),I#MIN,MAX)
      IF%V) CALL EXIT
   65 FORMAT %16%I3,I2))
      IF %NBLK%MAX)) 75,75,70
   70 CONTINUE
   75 IF %ISEL1) 100,100,80
   80 PRINT 85
   85 FORMAT%1H1,49X23HORIGINAL DATA PRINT OUT//)
      PRINT 90,KMINT,KYR
   90 FORMAT%45X16HREPORTING PERIOD,I3,7H   YEAR,I3)
      PRINT 95
   95 FORMAT%1H .4HBEAT,2X5HINCNT,2X2HMO,4H DAY,3H YR,4H NDA,2H W,4H BLK
     1,3H SD,5H TIME,5H OCCR,2H D,2H E,2H T,2H X,2H P,2H K,2H H,2H A,
     24H PER,12H    COMMENTS)
      IDIAG#0
```

```
      DO 96 I#1,7
      DO 96 J#1,6
      DO 96 K#1,5
      KRIM%I,J,K1#0
      KRIM2%I,J,K1#0
      KRIMY%I,J,K1#0
 96   CONTINUE
      DO 98 I#1,100
      DO 98 J#1,8
      DO 98 K#1,5
      LGEO%I,J,K1#0
      LGEO2%I,J,K1#0
      LGEOY%I,J,K1#0
 98   CONTINUE
      DO 99 I#1,2
      DO 99 J#1,5
      KPD%I,J1#0
      KSM%I,J1#0
      KAS%I,J1#0
 99   CONTINUE
      MESOV#0
      DO 105 I#1,3
      DO 105 J#1,5
      KDFT%I,J1#0
      KLER%I,J1#0
105   CONTINUE
      DO 106 I#1,4
      DO 106 J#1,5
      KLHO%I,J1#0
106   CONTINUE
      DO 107 I#1,3
107   IPRIN%I1#0
      ISTAT#0
      ISU#0
      DO 108 I#1,2
      DO 108 M#1,31
      DO 108 N#1,16
      KRON%L,M,N1#0
      KBICK%I,M,N1#0
108   CONTINUE
100   CONTINUE
101   READ%5,110,LBEAT,LCRI,MO,MDA,MYR,NDAY,MET,LALK,ISID,LTIM,LOC,FR
     1,LDES,LEG,ITYP,LDET,LPD,LKIER,IHO,IAS,MINT
      IF%V1 CALL EXIT
110   FORMAT %I3.17,5I2,I3,I2,2I5,F4.1,2I1.7I2%
      IF %LCRI1 480,480,120
120   IS1P2#ISEL1&ISEL2
      IF %IS1P21 140,140,130
130   CALL DATA
140   IF %IDIAG-1% 150,145,145
145   IDIAG#0
      GO TO 101
150   IHR#%LOC/4001&1
      IF %LOC-24001 170,160,160
160   IHR#1
170   GO TO %172,174,1761,LDES
172   KT#1
      GO TO 180
174   KT#2
      GO TO 180
176   KT#3
      GO TO 180
```



```
180   KT2#0
      IF %ITYP-11% 190,182,184
182   KT2#4
      GO TO 190
184   IF %ITYP-12% 190,186,190
186   KT2#5
190   IF %KMINT-MINT% 200,200,202
200   KRIM%NDAY,JHR,KT1#KRIM%NDAY,JHR,KT1&1
      IF %KT2.LT.4% GO TO 210
      KRIM%NDAY,JHR,KT21#KRIM%NDAY,JHR,KT2&1
      GO TO 210
202   IF %KMINT-%MINT&2%% 204,204,206
204   KRIM2%NDAY,JHR,KT1#KRIM2%NDAY,JHR,KT1&1
      IF %KT2.LT.4% GO TO 210
      KRIM2%NDAY,JHR,KT21#KRIM2%NDAY,JHR,KT2&1
      GO TO 210
206   KRIMY%NDAY,JHR,KT1#KRIMY%NDAY,JHR,KT1&1
      IF %KT2.LT.4% GO TO 210
      KRIMY%NDAY,JHR,KT21#KRIMY%NDAY,JHR,KT2&1
210   DO 220 J220#1,NOBLK
      IF %IBLK-NBLK%J220%% 220,215,220
215   KB#J220
      GO TO 230
220   CONTINUE
230   IF %KMINT-MINT% 240,240,242
240   LGEO%KB,LSID,KT1#LGEO%KB,LSID,KT1&1
      IF %KT2.LT.4% GO TO 250
      LGEO%KB,LSID,KT21#LGEO%KB,LSID,KT2&1
      GO TO 250
242   IF %KMINT-%MINT&2%% 244,244,246
244   LGEO2%KB,LSID,KT1#LGEO2%KB,LSID,KT1&1
      IF %KT2.LT.4% GO TO 250
      LGEO2%KB,LSID,KT21#LGEO2%KB,LSID,KT2&1
      GO TO 250
246   LGEOY%KB,LSID,KT1#LGEOY%KB,LSID,KT1&1
      IF %KT2.LT.4% GO TO 250
      LGEOY%KB,LSID,KT21#LGEOY%KB,LSID,KT2&1
250   IF%KMINT-MINT% 300,251,300
251   IP#MO-KMO&2
      IF %IP-1% 300,255,255
255   DO 260 J260#1,12
      ITA1#%J260-1%*200
      ITA2#J260*200
      IF %%LOC.GE.ITA1%.AND.%LOC.LT.ITA2%% GO TO 265
      GO TO 260
265   KIT#J260
      GO TO 270
260   CONTINUE
270   DO 280 J280#1,5
      IF %KRON%IP,MDA,KIT%% 290,290,272
272   KIT#12&J280
      IF %J280-4% 280,280,274
274   MESOV#1
280   CONTINUE
      IF%KIT-16%290,290,300
290   KRON%IP,MDA,KIT%#LCRI
      KBICK%IP,MDA,KIT%#IBIK
300   IF %%MET.GT.0%.AND.%MET.LE.2%% GO TO 310
      GO TO 320
310   KSM%MET,KT1#KSM%MET,KT1&1
      IF %KT2.LT.4% GO TO 320
      KSM%MET,KT21#KSM%MET,KT2&1
```

```
320   IF %%LDET.GT.01.AND.%LDET.LE.31] GO TO 330
      GO TO 340
330   KDET%LDET,KT1#KDET%LDET,KT1&1
      IF %KT2.LT.41 GO TO 340
      KDET%LDET,KT2]#KDET%LDET,KT2]&1
340   IF %LKLER-3] 350,350,360
350   LLER#LKLER&1
      KLER%LLER,KT1#KLER%LLER,KT1&1
      IF %KT2.LT.41 GO TO 360
      KLER%LLER,KT2]#KLER%LLER,KT2]&1
360   IF %%LHO.GE.11.AND.%LHO.LE.41] GO TO 370
      GO TO 380
370   KLHO%LHO,KT1#KLHO%LHO,KT1&1
      IF %KT2.LT.41 GO TO 380
      KLHO%LHO,KT2]#KLHO%LHO,KT2]&1
380   IF %%LAS.GE.11.AND.%LAS.LE.21] GO TO 390
      GO TO 400
390   KAS%LAS,KT1#KAS%LAS,KT1&1
      IF %KT2.LT.41 GO TO 400
      KAS%LAS,KT2]#KAS%LAS,KT2]&1
400   IF %%LPD.GE.11.AND.%LPD.LE.21] GO TO 410
      GO TO 420
410   KPD%LPD,KT1#KPD%LPD,KT1&1
      IF %KT2.LT.41 GO TO 420
      KPD%LPD,KT2]#KPD%LPD,KT2]&1
420   MPR#KMINT-MINT
      IF %MPR] 430,430,440
430   IPRIN%1]#1
      GO TO 470
440   IF %MPR-2] 470,450,460
450   IPRIN%2]#2
460   IPRIN%3]#3
470   GO TO 100
480   IF%ISEL2] 485,485,482
482   CALL DILE
485   IF %ISEL3] 500,500,490
490   CALL SUMM
500   IF %ISEL4] 520,520,510
510   CALL SUMM
520   IF %ISEL5] 540,540,530
530   CALL LOCAT
540   IF %ISEL6] 560,560,550
550   CALL LISTY
560   IF %ISEL7] 580,580,570
570   CALL STAT
580   IF%ISEL8] 600,600,590
590   CALL HISTOG
600   GO TO 2
      END


END OF JOB CRD COUNT 00235
```



```
$       FORTRAN
$       INCODE  IBMF
CPSUB7        AIKEN/FILIOTI/SUBAN  POLICE STATISTICS DATA   05/6/70
      SUBROUTINE DATA
      COMMON /T1/ISEL1,ISEL2,ISTAT,LBEAT,MO,MINT,MYR,NDAY,MET,LBLK,ISID,
     1LOC,LDES,LTYP,LDET,LPD,LKLER,LHO,LAS,LCRT,MDA,LTIM,LEG,IDIAG
      COMMON /T3/KBEAT,KMO,KYR,IPRIN%31,KMINT
      COMMON/T4/NBLK%1001,NSID%1001,LGEO%100,8,51,LGEO2%100,8,51),LGEOY%1
     100,8,51),NOBLK
      IF %ISEL2]240,240,10
10    M1#0
      M2#0
      M3#0
      M4#0
      M5#0
      M6#0
      M7#0
      M8#0
      M9#0
C
C
C     IF %LBEAT-KBEAT]20,30,20
C0    M1#1
C     IDIAG#1
C
30    IF %%MO.GE.11.AND.%MO.LE.12]]GO TO 40
      M2#2
      IDIAG#1
40    IF %%MINT.GE.11.AND.%MINT.LE.KMINT]] GO TO 50
      M2#2
      IDIAG#1
50    IF %KYR-MYR]60,70,70
60    M2#2
      IDIAG#1
70    IF %%NDAY.GE.11.AND.%NDAY.LE.7]]GO TO 80
      M3#3
      IDIAG#3
80    IF %%MET.GE.11.AND.%MET.LE.2]]GO TO 90
      M4#40
90    IF %NOBLK-LBLK]95,100,100
95    M5#5
      IDIAG#1
100   IF %%LSID.GE.11.AND.%LSID.LE.81]GO TO 110
      M5#5
      IDIAG#1
110   IF %%LOC.GE.01.AND.%LOC.LE.2400]]GO TO 120
      M6#6
      IDIAG#1
120   IF %%LDES.GE.11.AND.%LDES.LE.31]GO TO 130
      M7#7
      IDIAG#1
130   IF %%LTYP.GE.11.AND.%LTYP.LE.47]]GO TO 140
      M8#8
      IDIAG#1
140   IF %%LDET.GE.11.AND.%LDET.LE.3]]GO TO 150
      M9#50
150   IF %%LPD.LE.2].AND.%LPD.GE.1]]GO TO 160
      M9#50
160   IF %LKLER.LE.2]GO TO 170
      M9#50
170   IF %LHO.LE.41 GO TO 180
      M9#50
```

```
 180  IF %LAS.LE.21 GO TO 190
      M9#50
 190  IF %ISEL(1)210,210,195
 195  ISTAT#1
 200  PRINT 205,LBEAT,LCRI,MO,MDA,MYR,NDAY,MET,LBLK,LSID,LTIM,LOC,LDES,L
     1EG,LTYP,LDET,LPD,LKLER,LHO,LAS,MINT,M1,M2,M3,M4,M5,M6,M7,M8,M9
 205  FORMAT %I3,2X,I7,1X,I2,2X,I2,1X,I2,1X,I2,1X,I2,1X,I3,1X,I2,I5,I5,1
     1X,I1,1X,I1,I2,1X,I1,1X,I1,1X,I1,1X,I1,1X,I1,1X,I1,1X,I1,3X,9%2X,I2(1)
      GO TO 250
 210  IF %IDIAG-1)220,230,230
 220  IF %M4&M9-40)250,230,230
 230  ISTAT#1
      GO TO 200
 240  IF %ISEL(1)250,250,200
 250  RETURN
      END
```



```
$       FORTRAN
$       INCODE  IBMF
CPSUR6          AITKEN/ELLIOTT/SURAN  POLICE STATISTICS DILE   05/6/70
        SUBROUTINE DILE
        COMMON/T1/ISEL1,ISEL2,ISTAT,LBEAT,MO,MINT,MYR,NDAY,MET,LBLK,LSID,L
       1OC,LDES,LTYP,LDET,LPD,LKLER,LHO,LAS,LCRI,MDA,LTIM,LEG,IDIAG
        IF %ISTAT) 110,110,5
    5   PRINT 10
   10   FORMAT%/// 36H LEGEND FOR NOTATIONS UNDER COMMENTS)
        PRINT 20
   20   FORMAT%/ 31H 1 DENOTES ERROR IN BEAT NUMBER)
        PRINT 30
   30   FORMAT% 24H 2 DENOTES ERROR IN DATE)
        PRINT 40
   40   FORMAT% 35H 3 DENOTES ERROR IN DAY DESIGNATION)
        PRINT 50
   50   FORMAT% 41H 40 DENOTES ERROR IN WEATHER DESIGNATIONS)
        PRINT 60
   60   FORMAT% 54H 5 DENOTES ERROR IN BLOCK OR SIDE OF BLOCK DESIGNATION)
        PRINT 70
   70   FORMAT% 36H 6 DENOTES ERROR IN TIME DESIGNATION)
        PRINT 80
   80   FORMAT% 45H 7 DENOTES ERROR IN TYPE OF CRIME DESIGNATION)
        PRINT 90
   90   FORMAT% 52H 8 DENOTES ERROR IN FBI DESIGNATION OF TYPE OF CRIME)
        PRINT 100
  100   FORMAT% 89H.50 DENOTES ERROR IN DESIGNATIONS OF DETECTOR OF CRIME
       1OR CLEARANCE OR VICTIM ASSOCIATION)
  110   RETURN
        END
```

END OF JOB CRD COUNT 00030

```
$       FORTRAN
$       INCODE  IBMF
CPSUR2        AIKEN/ELLIOTT/SURAN  POLICE STATISTICS SUMM   05/6/70
      SUBROUTINE SUMM
      COMMON /T3/KBEAT,KMO,KYR,IPRIN%31,KMINT
      DIMENSION KDAY%7],KTY%12],KRIP%7,6]
      COMMON /T2/KRIM%7,6,5],KRIM2%7,6,5],KRIMY%7,6,5],JSW
      IF %ISW]5,5,650
    5 IF %IPRIN%1]640,640,10
   10 DO 20 J#1,7
   20 KDAY%J]#0
      DO 30 J#1,12
   30 KTY%I]#0
      DO 40 K#1,7
      DO 40 J#1,6
      KRIP%K,J]#0
   40 CONTINUE
      DO 50 L#1,7
      DO 50 M#1,6
      DO 50 N#1,3
      KRIP%L,M]#KRIP%L,M]&KRIM%L,M,N]
   50 CONTINUE
      DO 60 I#1,7
      DO 60 J#1,6
      KDAY%I]#KDAY%I]&KRIP%I,J]
   60 CONTINUE
      DO 70 J#1,6
      DO 70 I#1,7
      KTY%I]#KTY%J]&KRIP%I,J]
   70 CONTINUE
      KTYT#KTY%1]
      DO 75 K#2,6
      KTYT#KTYT&KTY%K]
   75 CONTINUE
      PRINT 80, KBEAT
   80 FORMAT %1H1,56X,4HBEAT,1X,I3/]
      PRINT 90, KMO,KYR,KMINT
   90 FORMAT%38X32HTOTAL NUMBER OF CRIMES FOR MONTH,1X,I2,5H YEAR,I3,
     17H PERIOD,I3//]
      PRINT 100
  100 FORMAT%53X13HTIME INTERVAL]
      PRINT 200
  200 FORMAT%6X3HDAY,9X9H0001-0400,6X9H0401-0800,6X9H0801-1200,6X9H1201-
     11600,6X9H1601-2000,6X9H2001-2400,8X5HTOTAL]
      PRINT 300,%KRIP%1,J],J#1,6],KDAY%1]
  300 FORMAT%4X6HSUNDAY,5X7%6X,I3,6X]]
      PRINT 400,%KRIP%2,J],J#1,6],KDAY%2]
  400 FORMAT%4X6HMONDAY,5X7%6X,I3,6X]]
      PRINT 500,%KRIP%3,J],J#1,6],KDAY%3]
  500 FORMAT%4X7HTUESDAY,4X7%6X,I3,6X]]
      PRINT 510,%KRIP%4,J],J#1,6],KDAY%4]
  510 FORMAT%3X9HWEDNESDAY,3X7%6X,I3,6X]]
      PRINT 520,%KRIP%5,J],J#1,6],KDAY%5]
  520 FORMAT%4X8HTHURSDAY,3X7%6X,I3,6X]]
      PRINT 530,%KRIP%6,J],J#1,6],KDAY%6]
  530 FORMAT%4X6HFRIDAY,5X,7%6X,I3,6X]]
      PRINT 540,%KRIP%7,J],J#1,6],KDAY%7]
  540 FORMAT%4X8HSATURDAY,3X,7%6X,I3,6X]]
      PRINT 550,%KTY%J],J#1,6],KTYT
  550 FORMAT%5X,5HTOTAL,5X,7%6X,I3,6X]]
      IF %IPRIN%2]1640,640,560
  560 DO 570 L#1,7
```



```
      DO 570 M#1,6
      DO 570 N#1,3
      KRIP%L,M]#KRIP%L,M]&KRIM2%L,M,N]
  570 CONTINUE
      DO 572 J#1,7
  572 KDAY%J]#0
      DO 574 J#1,12
  574 KTY%I]#0
      DO 580 I#1,7
      DO 580 J#1,6
      KDAY%I]#KDAY%I]&KRIP%I,J]
  580 CONTINUE
      DO 590 J#1,6
      DO 590 I#1,7
      KTY%I]#KTY%J]&KRIP%I,J]
  590 CONTINUE
      KTYT#KTY%1]
      DO 592 K#2,6
  592 KTYT#KTYT&KTY%K]
      PRINT 594
  594 FORMAT %///]
      PRINT 596,KMO,KYR,KMINT
  596 FORMAT%31X 52HTOTAL NUMBER OF CRIMES FOR THREE MONTH PERIOD ENDING
     1,I2,I3,6HPERIOD,I3]
      PRINT 100
      PRINT 200
      PRINT 300,%KRIP%1,J],J#1,6],KDAY%1]
      PRINT 400,%KRIP%2,J],J#1,6],KDAY%2]
      PRINT 500,%KRIP%3,J],J#1,6],KDAY%3]
      PRINT 510,%KRIP%4,J],J#1,6],KDAY%4]
      PRINT 520,%KRIP%5,J],J#1,6],KDAY%5]
      PRINT 530,%KRIP%6,J],J#1,6],KDAY%6]
      PRINT 540,%KRIP%7,J],J#1,6],KDAY%7]
      PRINT 550,%KTY%J],J#1,6],KTYT
      IF %IPRIN%3]1640,640,600
  600 DO 610 I#1,7
      DO 610 M#1,6
      DO 610 N#1,3
      KRIP%L,M]#KRIP%L,M]&KRIMY%L,M,N]
  610 CONTINUE
      DO 612 J#1,7
  612 KDAY%J]#0
      DO 614 J#1,12
  614 KTY%I]#0
      DO 620 I#1,7
      DO 620 J#1,6
  620 KDAY%I]#KDAY%I]&KRIP%I,J]
      DO 630 J#1,6
      DO 630 I#1,7
  630 KTY%I]#KTY%J]&KRIP%I,J]
      KTYT#KTY%1]
      DO 632 K#2,6
  632 KTYT#KTYT&KTY%K]
      PRINT 594
      PRINT 634,KMO,KYR,KMINT
  634 FORMAT%40X35HTOTAL NUMBER OF CRIMES YEAR TO DATE,I2,I3,6HPERIOD
     1,I3]
      PRINT 100
      PRINT 200
      PRINT 300,%KRIP%1,J],J#1,6],KDAY%1]
      PRINT 400,%KRIP%2,J],J#1,6],KDAY%2]
      PRINT 500,%KRIP%3,J],J#1,6],KDAY%3]
```

```
      PRINT 510,%KRIP%4,J1,J#1,6],KDAY%4]
      PRINT 520,%KRIP%5,J1,J#1,6],KDAY%5]
      PRINT 530,%KRIP%6,J1,J#1,6],KDAY%6]
      PRINT 540,%KRIP%7,J1,J#1,6],KDAY%7]
      PRINT 550,%KTY%J1,J#1,6],KTYT
  640 JSU#1
      GO TO 820
  650 M4#1
      DO 800 M#1,5
      DO 660 K#1,7
      DO 660 I#1,6
      KRIP%K,L1#0
      KDAY%K1#0
      KTY%L1#0
  660 CONTINUE
      DO 670 K#1,7
      DO 670 L#1,6
  670 KRIP%K,L1#KRIP%K,L1&KRIM%K,L,M1
      DO 672 I#1,7
      DO 672 J#1,6
  672 KDAY%I1#KDAY%I1&KRIP%I,J1
      DO 674 J#1,6
      DO 674 I#1,7
  674 KTY%J1#KTY%J1&KRIP%I,J1
      KTYT#KTY%11
      DO 676 K#2,6
  676 KTYT#KTYT&KTY%K1
      GO TO %680,700,704,708,7121,M
  680 PRINT 690,KBEAT,KM0,KYR,KMINT
  690 FORMAT%1H1,24X49HTOTAL NUMBER OF CRIMES AGAINST THE PERSON IN BEAT
     1,I4,12HFOR MONTH OF,213,6HPERIOD ,I3]
      GO TO 720
  700 PRINT 702,KBEAT,KM0,KYR,KMINT
  702 FORMAT%1H1,47HTOTAL NUMBER OF CRIMES.AGAINST PROPERTY IN BEAT,I4,
     1 13H FOR MONTH OF,213,  6HPERIOD,I3]
      GO TO 720
  704 PRINT 706,KBEAT,KM0,KYR,KMINT
  706 FORMAT%1H1,24X, 48HTOTAL NUMBER OF CRIMES OF ALL OTHER TYPE IN BEA
     1T,I4,13H FOR MONTH OF,213,7H PERIOD,I3]
      GO TO 720
  708 PRINT 710,KBEAT,KM0,KYR,KMINT
  710 FORMAT%1H1,33X, 30HRESIDENTIAL BUAGLARIES IN BEAT,I4,13H FOR MONTH
     1 OF,213,  7H PERIOD,I3]
      GO TO 720
  712 PRINT 714,KBEAT,KM0,KYR,KMINT
  714 FORMAT%1H1,34X, 29HCOMMERCIAL BURGLARIES IN BEAT,I4,13H FOR MONTH
     1OF,213, 7H PERIOD,I3]
  720 PRINT 594
      PRINT 100
      PRINT 200
      PRINT 300,%KRIP%1,J1,J#1,6],KDAY%1]
      PRINT 400,%KRIP%2,J1,J#1,6],KDAY%2]
      PRINT 500,%KRIP%3,J1,J#1,6],KDAY%3]
      PRINT 510,%KRIP%4,J1,J#1,6],KDAY%4]
      PRINT 520,%KRIP%5,J1,J#1,6],KDAY%5]
      PRINT 530,%KRIP%6,J1,J#1,6],KDAY%6]
      PRINT 540,%KRIP%7,J1,J#1,6],KDAY%7]
      PRINT 550,%KTY%J1,J#1,6],KTYT
      IF %IPRIN%2]1800,800,730
  730 DO 740 K#1,7
      DO 740 L#1,6
  740 KRIP%K,L1#KRIP%K,L1&KRIM2%K,L,M1
```



```
      DO 742 I#1,7
  742 KDAY%I1#0
      DO 744 I#1,6
  744 KTY%I1#0
      DO 750 I#1,7
      DO 750 J#1,6
  750 KDAY%I1#KDAY%I1&KRIP%I,J1
      DO 755 J#1,6
      DO 755 I#1,7
  755 KTY%I1#KTY%J1&KRIP%I,J1
      KTYT#KTY%11
      DO 757 K#2,6
  757 KTYT#KTYT&KTY%K1
      PRINT 594
      PRINT 760,KM0,KYR,KMINT
  760 FORMAT% 38X, 36HTHREE MONTH SUMMARY FOR MONTH ENDING,213, 7H PERIO
     1D,I3]
      PRINT 100
      PRINT 200
      PRINT 300,%KRIP%1,J1,J#1,6],KDAY%1]
      PRINT 400,%KRIP%2,J1,J#1,6],KDAY%2]
      PRINT 500,%KRIP%3,J1,J#1,6],KDAY%3]
      PRINT 510,%KRIP%4,J1,J#1,6],KDAY%4]
      PRINT 520,%KRIP%5,J1,J#1,6],KDAY%5]
      PRINT 530,%KRIP%6,J1,J#1,6],KDAY%6]
      PRINT 540,%KRIP%7,J1,J#1,6],KDAY%7]
      PRINT 550,%KTY%J1,J#1,6],KTYT
      IF %IPRIN%3]1800,800,770
  770 DO 780 K#1,7
      DO 780 L#1,6
  780 KRIP%K,L1#KRIP%K,LT&KRIMY%K,L,M1
      DO 772 I#1,7
  772 KDAY%I1#0
      DO 774 I#1,6
  774 KTY%I1#0
      DO 776 I#1,7
      DO 776 J#1,6
  776 KDAY%I1#KDAY%I1&KRIP%I,J1
      DO 778 J#1,6
      DO 778 I#1,7
  778 KTY%J1#KTY%J1&KRIP%I,J1
      KTYT#KTY%11
      DO 791 K#2,6
  791 KTYT#KTYT&KTY%K1
      PRINT 594
      PRINT 790,KM0,KYR,KMINT
  790 FORMAT%47X, 20HYEAR TO DATE SUMMARY,213, 7H PERIOD,I3]
      PRINT 100
      PRINT 200
      PRINT 300,%KRIP%1,J1,J#1,6],KDAY%1]
      PRINT 400,%KRIP%2,I1,J#1,6],KDAY%2]
      PRINT 500,%KRIP%3,J1,J#1,6],KDAY%3]
      PRINT 510,%KRIP%4,I1,J#1,6],KDAY%4]
      PRINT 520,%KRIP%5,J1,J#1,6],KDAY%5]
      PRINT 530,%KRIP%6,J1,J#1,6],KDAY%6]
      PRINT 540,%KRIP%7,I1,J#1,6],KDAY%7]
      PRINT 550,%KTY%J1,I#1,6],KTYT
  800 CONTINUE
  820 CONTINUE
      RETURN
      END

END OF JOB CRD COUNT 00247
```

```
$       FORTRAN
$       INCODE  IBMF
CPSUR3          AIKEN/ELLIOTT/SURAN  POLICE STATISTICS LOCATE 05/6/70
        SUBROUTINE LOCAT
        COMMON/T3/KBEAT,KMO,KYR,IPRIN%31,KMINT
        COMMON/T4/NBLK%1001,NSID%1001,LGEO%100,8,5),LGEO2%100,8,5),LGEOY%1
       100,8,5),NOBLK
        LGSUM#0
        IF%IPRIN%1))180,180,10
   10   PRINT 20,KBEAT
   20   FORMAT%1H1,42X, 31HCRIME SUMMARY BY BLOCK FOR BEAT,I4///)
        PRINT 30,KMO,KYR,KMINT
   30   FORMAT%48X,  8HMONTH OF,2I3,  7H PERIOD,I3)
        IX#1
   40   PRINT 50
   50   FORMAT%117H  BLOCK     SIDE    AGAINST PERSON  AGAINST PROPERTY
       1ALL OTHER    RESIDENT BURGLARY   COM BURGLARY      TOTAL CRIMES)
        DO 90 LB#1,NOBLK
        JMAX#NSID%LB)
        DO 90 LS#1,JMAX
        DO 60 LT#1,3
   60   LGSUM#LGSUM+LGEO%LB,LS,LT)
        IF%LGSUM)90,90,70
   70   PRINT 80,NBLK%LB),LS,%LGEO%LB,LS,K),K#1,5),LGSUM
   80   FORMAT%3X,I3,8X,I1,2X,6%6X,I5,6X))
        LGSUM#0
   90   CONTINUE
        GO TO %100,140,180),IX
  100   IF%IPRIN%2))180,180,110
  110   PRINT 120,KMO,KYR,KMINT
  120   FORMAT%///39X, 25HTHREE MONTH PERIOD ENDING,2I3,  7H PERIOD,I3)
        IX#2
        DO 130 I#1,NOBLK
        JMAX#NSID%I)
        DO 130 J#1,JMAX
        DO 130 K#1,5
        LGEO%I,J,K)#LGEO%I,J,K)&LGEO2%I,J,K)
  130   CONTINUE
        GO TO 40
  140   IF%IPRIN%3))180,180,150
  150   PRINT 160,KMO,KYR,KMINT
  160   FORMAT%///42X, 20HYEAR TO DATE THROUGH,2I3,  7H PERIOD,I3)
        IX#3
        DO 170 I#1,NOBLK
        JMAX#NSID%I)
        DO 170 J#1,JMAX
        DO 170 K#1,5
        LGEO%I,J,K)#LGEO%I,J,K)&LGEOY%I,J,K)
  170   CONTINUE
        GO TO 40
  180   RETURN
        END


END OF JOB CRD COUNT 00052
```



```
$       FORTRAN
$       INCODE  IBMF
CPSUR5          AIKEN/ELLIOTT/SURAN  POLICE STATISTICS LISTY  05/6/70
        SUBROUTINE LISTY
        COMMON/T3/KBEAT,KMO,KYR,IPRIN%31,KMINT
        COMMON/T5/KRON%2,31,16),KBLCK%2,31,16),MESOV
        PRINT 10,KBEAT,KMINT,KMO,KYR
   10   FORMAT%1H1,26X, 33HLIST OF CRIMINAL ACTIVITY IN BEAT,I4, 11H FOR P
       1ERIOD,I3,  7H MONTHS,I3,  5H YEAR,I3///)
        IF %MESOV)40,40,20
   20   PRINT 30
   30   FORMAT%20X, 81HDATA INCOMPLETE DUE TO UNUSUALLY HIGH CRIME DENSITY
       1 IN AT LEAST ONE DAY OF PERIOD)
   40   PRINT 50
   50   FORMAT% 68H      MONTH DAY CRIME NO.  BLOCK  TIME INTERVAL
       1      COMMENTS)
        DO 110 I#1,2
        DO 110 M#1,31
        DO 110 K#1,16
        IF %KRON%I,M,K))110,110,60
   60   MNTH#IRKMO-2
        IF %K-12)70,70,90
   70   KTA #%K-11*200
        KTB #K*200
        PRINT 80,MNTH,M,KRON%I,M,K),KBLCK%I,M,K),KTA,KTB
   80   FORMAT %6X,I2,4X,I2,2X,I7,4X,I3,5X,I4,1X,I4)
        GO TO 110
   90   PRINT 100,MNTH,M,KRON%I,M,K),KBLCK%I,M,K)
  100   FORMAT%6X,I2,4X,I2,2X,I7,4X,I3,25X, 43HTIME INTERVAL COINCIDENT WI
       1TH ANOTHER EVENT)
  110   CONTINUE
        RETURN
        END


END OF JOB CRD COUNT 00033
```

```
$       FORTRAN
$       INCODE  IBMF
CPSUR4        AIKEN/ELLIOTT/SURAN  POLICE STATISTICS STAT   05/6/70
      SUBROUTINE STAT
      COMMON/T3/KBEAT,KMO,KYR,IPRIN%31,KMINT
      COMMON/T6/KSM%2,5],KDET%3,5],KLER%3,5],KLHO%4,5],KAS%2,5],KPD%2,5]
      DIMENSION N1%5],N2%5],N3%5],N4%5],N5%5],N6%5],RAT%5]
      PRINT 10,KBEAT,KMINT,KYR
   10 FORMAT% 38H1CRIMINAL ACTIVITY STATISTICS FOR BEAT,I4, 15H THROUGH
     1PERIOD,I3,  5H YEAR,I3///]
      PRINT 20
   20 FORMAT%66X, 25HTYPE OF CRIMINAL ACTIVITY]
      PRINT 30
   30 FORMAT%35X, 82HAGAINST PERSON   AGAINST PROPERTY   ALL CRIME   RES
     1IDENT BURGLARY   COMM. BURGLARY//]
      DO 35 K#1,5
   35 RAT%K]#0.
      DO 40 K#1,5
      N1%K]#0
      N2%K]#0
      N3%K]#0
      N4%K]#0
      N5%K]#0
      N6%K]#0
   40 CONTINUE
      DO 50 I#1,5
      DO 50 J#1,2
      N1%I]#N1%I]&KSM%J,I]
      N5%I]#N5%I]&KAS%J,I]
      N6%I]#N6%I]&KPD%J,I]
   50 CONTINUE
      N1%31#N1%31&N1%2]&N1%1]
      N5%31#N5%31&N5%2]&N5%1]
      N6%31#N6%31&N6%2]&N6%1]
      DO 60 I#1,5
      DO 60 J#1,3
      N2%I]#N2%I]&KDET%J,I]
      N3%I]#N3%I]&KLER%J,I]
   60 CONTINUE
      N2%31#N2%31&N2%2]&N2%1]
      N3%31#N3%31&N3%2]&N3%1]
      DO 70 I#1,5
      DO 70 J#1,4
      N4%I]#N4%I]&KLHO%J,I]
   70 CONTINUE
      N4%31#N4%31&N4%2]&N4%1]
      KSM%1,3]#KSM%1,3]&KSM%1,2]&KSM%1,1]
      DO 80M#1,5
      IF %N1%M]]80,80,75
   75 RAT%M]#FLOAT%KSM%1,M]]/FLOAT%N1%M]]
   80 CONTINUE
      PRINT 90,%RAT%M],M#1,5]
   90 FORMAT% 35H PER CENT COMMITTED IN GOOD WEATHER,7X,F4.2,13X,F4.2,
     111X,F4.2,13X,F4.2,12X,F4.2]
      PRINT 95,%N1%M],M#1,5]
   95 FORMAT% 8X, 26HNUMBER OF CRIMES IN SAMPLE,7X,I4,13X,I4,11X,I4,13X,
     1I4,12X,I4]
      DO 100 M#1,5
  100 RAT%M]#0.
      KDET%1,3]#KDET%1,3]&KDET%1,2]&KDET%1,1]
      DO 110M#1,5
      IF %N2%M]]110,110,105
```



```
  105 RAT %M]#FLOAT%KDET%1,M]]/FLOAT%N2%M]]
  110 CONTINUE
      PRINT 120,%RAT%M],M#1,5]
  120 FORMAT% 28H PER CENT DETECTED BY VICTIM,14X,F4.2,13X,F4.2,11X,F4.2
     1,13X,F4.2,12X,F4.2]
      DO 130M#1,5
  130 RAT %M]#0.
      KDET%2,3]#KDET%2,3]&KDET%2,2]&KDET%2,1]
      DO 140 M#1,5
      IF %N2%M]]140,140,135
  135 RAT %M]#FLOAT%KDET%2,M]]/FLOAT%N2%M]]
  140 CONTINUE
      PRINT 150,%RAT%M],M#1,5]
  150 FORMAT% 29H PER CENT DETECTED BY CITIZEN,13X,F4.2,13X,F4.2,11X,F4.
     12,          13X,F4.2,12X,F4.2]
      DO 160 M#1,5
  160 RAT%M]#0.
      KDET%3,3]#KDET%3,3]&KDET%3,2]&KDET%3,1]
      DO 170M#1,5
      IF %N2%M]]170,170,165
  165 RAT %M]#FLOAT%KDET%3,M]]/FLOAT%N2%M]]
  170 CONTINUE
      PRINT 180,%RAT%M],M#1,5]
  180 FORMAT%28H PER CENT DETECTED BY POLICE,14X,F4.2,13X,F4.2,11X,F4.2,
     113X,F4.2,12X,F4.2]
      PRINT 95,%N2%M],M#1,5]
      DO 190 M#1,5
  190 RAT%M]#0.
      KLER%2,3]#KLER%2,3]&KLER%2,2]&KLER%2,1]
      DO 200 M#1,5
      IF %N3%M]]200,200,195
  195 RAT %M]#FLOAT%KLER%2,M]]/FLOAT%N3%M]]
  200 CONTINUE
      PRINT 210,%RAT%M],M#1,5]
  210 FORMAT%27H PER CENT OF CRIMES CLEARED,15X,F4.2,13X,F4.2,11X,F4.2,
     113X,F4.2,12X,F4.2]
      DO 220M#1,5
  220 RAT%M]#0.
      KLER%3,3]#KLER%3,3]&KLER%3,2]&KLER%3,1]
      DO 230M#1,5
      IF %N3%M]]230,230,225
  225 RAT %M]#FLOAT%KLER%3,M]]/FLOAT%N3%M]]
  230 CONTINUE
      PRINT 240,%RAT%M],M#1,5]
  240 FORMAT% 29H PER CENT OF CRIMES UNFOUNDED,13X,F4.2,13X,F4.2,11X,
     1F4.2,13X,F4.2,12X,F4.2]
      PRINT 95,%N3%M],M#1,5]
      DO 250M#1,5
  250 RAT%M]#0.
      KLHO%1,3]#KLHO%1,3]&KLHO%1,2]&KLHO%1,1]
      DO 260M#1,5
      IF %N4%M]]260,260,255
  255 RAT%M]#FLOAT%KLHO%1,M]]/FLOAT%N4%M]]
  260 CONTINUE
      PRINT 270,%RAT%M],M#1,5]
  270 FORMAT% 35H PER CENT CLEARED BY CITIZEN ACTION,7X,F4.2,13X,F4.2,
     111X,F4.2,13X,F4.2,12X,F4.2]
      DO 280M#1,5
  280 RAT%M]#0.
      KLHO%2,3]#KLHO%2,3]&KLHO%2,2]&KLHO%2,1]
      DO 290M#1,5
      IF %N4%M]]290,290,285
```

```
      RAT %M1#FLOAT%KLHO%2,M1)/FLOAT%N4%M1)
      CONTINUE
      PRINT 300,%RAT%M1,M#1,5)
  300 FORMAT% 33H PER CENT CLEARED BY INTERCEPTION,9X,F4.2,13X,F4.2,11X
     1,F4.2,13X,F4.2,12X,F4.2)
      DO 310M#1,5
  310 RAT%M)#0.
      KLHO%3,3)#KLHO%3,3)&KLHO%3,2)&KLHO%3,1)
      DO 320M#1,5
      IF %N4%M1))320,320,315
  315 RAT %M1#FLOAT%KLHO%3,M1)/FLOAT%N4%M1)
  320 CONTINUE
      PRINT 330,%RAT%M1,M#1,5)
  330 FORMAT% 34H PER CENT CLEARED BY INVESTIGATION,8X,F4.2,13X,F4.2,
     111X,F4.2,13X,F4.2,12X,F4.2)
      PRINT 95,%N4%M1,M#1,5)
      DO 340M#1,5
  340 RAT%M)#0.
      KAS%1,3)#KAS%1,3)&KAS%1,2)&KAS%1,1)
      DO 350M#1,5
      IF %N5%M1))350,350,345
  345 RAT %M1#FLOAT%KAS%1,M1)/FLOAT%N5%M1)
  350 CONTINUE
      PRINT 360,%RAT%M1,M#1,5)
  360 FORMAT% 35H PER CENT VICTIM-PERPETUATOR ASSOC.,7X,F4.2,13X,F4.2,
     111X,F4.2,13X,F4.2,12X,F4.2)
      PRINT 95,%N5%M1,M#1,5)
      DO 370M#1,5
  370 RAT%M)#0.
      KPD%1,3)#KPD%1,3)&KPD%1,2)&KPD%1,1)
      DO 380M#1,5
      IF %N6%M1))380,380,375
  375 RAT %M1#FLOAT%KPD%1,M1)/FLOAT%N6%M1)
  380 CONTINUE
      PRINT 390,%RAT%M1,M#1,5)
  390 FORMAT% 30H PER CENT DETECTABLE BY POLICE,12X,F4.2,13X,F4.2,11X,
     1F4.2,13X,F4.2,12X,F4.2)
      PRINT 95,%N6%M1,M#1,5)
      RETURN
      END


END OF JOB CRD COUNT 00164
```



```
$      FORTRAN
$      INCODE  IBMF
CPSUR1        AIKEN/ELLIOTT/SURAN  POLICE STATISTICS HISTOG 05/6/70
      SUBROUTINE HISTOG
      COMMON /T3/ LBEAT, MO,MYR,IPRIN%31, MINT
      COMMON /HIST/ NCRIMS%7,6,18),NTOT%18),MDAY%21),MHOUR%61,TASK%62)
      COMMON /T2/KRIM%7,6,5),KRIM2%7,6,5),KRIMY%7,6,5),JSW
 9901 FORMAT%25X30HTOTAL NUMBER OF CRIMES IN BEAT,I3//)
 9902 FORMAT%20X49HTOTAL NUMBER OF CRIMES AGAINST THE PERSON IN BEAT,I3/
     1/)
 9903 FORMAT%20X47HTOTAL NUMBER OF CRIMES AGAINST PROPERTY IN BEAT,I3//)
 9904 FORMAT%20X48HTOTAL NUMBER OF CRIMES OF ALL OTHER TYPE IN BEAT,I3//
     1)
 9905 FORMAT%25X30HRESIDENTIAL BURGLARIES IN BEAT,I3//)
 9906 FORMAT%25X29HCOMMERCIAL BURGLARIES IN BEAT,I3//)
 9907 FORMAT%30X10HFOR PERIOD,I3,2X2H19,I2//)
 9908 FORMAT%19X39HTHREE PERIOD SUMMARY ENDING WITH PERIOD,I3,4H  19,I2)
 9909 FORMAT%22X31HYEAR TO DATE ENDING WITH PERIOD,I3,4H  19,I2//)
 9910 FORMAT%1H1)
 9911 FORMAT%2X15HDAY    HOUR NO.,//)
 9912 FORMAT%1XA4,A4,A1,1XA4,I4,3X,62A1)
 9913 FORMAT%11X ,A4,I4,3X,62A1)
 9914 FORMAT%/8X5HTOTAL,2X,I4)
      DO  42 I#1,7
      DO 42 J#1,6
      DO 42 K#1,18
   42 NCRIMS%I,J,K)#0
      IF%IPRIN%1))  4, 4, 2
    2 DO  3 I#1,7
      DO  3 J#1,6
      DO  3 K#1,3
    3 NCRIMS%I,J,1 )#NCRIMS%I,J,1 )&KRIM%I,J,K)
    4 IF%IPRIN%2)) 7, 7, 5
    5 DO  6 I#1,7
      DO  6 J#1,6
      NCRIMS%I,J,2 )#NCRIMS%I,J,1 )
      DO  6 K#1,3
    6 NCRIMS%I,J,2 )#NCRIMS%I,J,2 )&KRIM2%I,J,K)
    7 IF%IPRIN%3)) 31,31, 8
    8 DO 30 I#1,7
      DO 30 J#1,6
      NCRIMS%I,J,3 )#NCRIMS%I,J,2 )
      DO 30 K#1,3
   30 NCRIMS%I,J,3 )#NCRIMS%I,J,3 )&KRIMY%I,J,K)
   31 CONTINUE
   32 M4#1
      M5#2
      M6#3
      DO 41 K#1,5
      M4#M4&3
      M5#M5&3
      M6#M6&3
      IF%IPRIN%1)) 35,35,33
   33 DO 34 I#1,7
      DO 34 J#1,6
   34 NCRIMS%I,J,M4)#                    KRIM %I,J,K)
   35 IF%IPRIN%2)) 38,38,36
   36 DO 37 I#1,7
      DO 37 J#1,6
   37 NCRIMS%I,J,M5)#NCRIMS%I,J,M4)&KRIM2%I,J,K)
   38 IF%IPRIN%3)) 41,41,39
   39 DO 40 I#1,7
```

```
      DO 40 J#1,6
   40 NCRIMS%I,J,M6]#NCRIMS%I,J,M5]&KRIMY%I,J,K]
   41 CONTINUE
      NPTYP # 1
   10 NPTYPE#NPTYP
      DO 1000 I10#NPTYPE,18
      NTOT%I10]#0
      I10FLG#I10-%I10/31*3-1
      PRINT 9910
      GO TO %11,11,11,12,12,12,13,13,13,14,14,14,15,15,15,16,16,16],I10
   11 PRINT 9901,LBEAT
      GO TO 17
   12 PRINT 9902,LBEAT
      GO TO 17
   13 PRINT 9903,LBEAT
      GO TO 17
   14 PRINT 9904,LBEAT
      GO TO 17
   15 PRINT 9905,LBEAT
      GO TO 17
   16 PRINT 9906,LBEAT
   17 GO TO %18,19,20,18,19,20,18,19,20,18,19,20,18,19,20,18,19,20],I10
   18 PRINT 9907, MINT,MYR
      GO TO 21
   19 PRINT 9908, MINT,MYR
      GO TO 21
   20 PRINT 9909, MINT,MYR
   21 PRINT 9911,
   22 DO 2200 I22 # 1,7
   23 DO 2300 I23 # 1,6
      NOCRIM # NCRIMS%I22,I23,I10]
      NTOT%I10]#NTOT%I10]&NOCRIM
   24 IF%NOCRIM-62] 2401,2401,2402
 2401 NOASKS # NOCRIM
      GO TO 2403
 2402 NOASKS# 62
 2403 CONTINUE
   26 IF%I23-1] 2601,2601,2602
 2601 I22T3#%I22-1]*3&1
      I22P2#I22T3&2
      IF%NOASKS.EQ.0]GO TO 27
      PRINT 9912,%MDAY%J1,J#I22T3,I22P2 ],MHOUR%I23],NOCRIM,
     1%IASK%I],I#1,NOASKS]
      GO TO 2300
   27 PRINT 9912,%MDAY%J1,J#I22T3,I22P2],MHOUR%I23],NOCRIM
      GO TO 2300
 2602 IF%NOASKS.EQ.0]GO TO 47
      PRINT 9913,MHOUR%I23],NOCRIM,%IASK%I],I#1,NOASKS]
   47 PRINT 9913,MHOUR%I23],NOCRIM
 2300 CONTINUE
 2200 CONTINUE
   28 DO 2800 I28#1,2
      NOCRIM#NCRIMS%1,I28,I10]
   29 IF%NOCRIM-62] 2901,2901,2902
 2901 NOASKS#NOCRIM
      GO TO 2903
 2902 NOASKS#62
 2903 IF%I28-1] 2904,2904,2905
 2904 IF%NOASKS.EQ.0]GO TO 48
      PRINT 9912,%MDAY%J1,J#1,31,MHOUR%I28],NOCRIM,%IASK%I],I#1,NOASKS]
      GO TO 2800
   48 PRINT 9912,%MDAY%J1,J#1,31,MHOUR%I28],NOCRIM
```



```
      GO TO 2800
 2905 IF%NOASKS.EQ.0]GO TO 49
      PRINT 9913,                    MHOUR%I28],NOCRIM,%IASK%I],I#1,NOASKS]
      GO TO 50
   49 PRINT 9913,MHOUR%I28],NOCRIM
   50 CONTINUE
 2800 CONTINUE
      PRINT 9914,NTOT%I10]
      IF%I10FLG] 1000,43,45
   43 IF%IPRIN%2]] 44,44,1000
   44 NPTYP #I1083
      GO TO 10
   45 IF%IPRIN%3]] 46,46,1000
   46 NPTYP #I1082
      GO TO 10
 1000 CONTINUE
      RETURN
      END


 END OF JOB CRD COUNT 00143
```

Input Data Cards

```
$       EXECUTE
$       LIMITS  15,45K,1000,5000
$       INCODE  IBMF
   J.J. SURAN   J.F.ELLIOT   C.D.AIKEN   ELECTRONICS LABORATORY RM 120 X2667
   CRIME ANALYSIS PROGRAM   SYRACUSE POLICE DEPARTMENT   BEAT 50
   J.J. SURAN   J.F.ELLIOT   C.D.AIKEN   ELECTRONICS LABORATORY RM 120 X2667
   CRIME ANALYSIS PROGRAM   SYRACUSE POLICE DEPARTMENT   BEATS 62 & 63
    1   1   1   1   1   1   1   1
        50  64
 11 3 12 4 13 4 14 4 15 4 16 4 17 8 18 4 19 4 20 4 21 4 22 4 23 4 24 4 25 4 26 4
 27 4 28 4 29 8 30 4 31 7 32 4 33 4 34 3 35 4 36 3 37 4 38 4 39 3 40 4 41 4 42 4
 43 4 44 4 45 8 46 4 47 6 48 4 49 4 50 4 51 4 52 4 53 6 54 4 55 4 56 6 57 4 58 4
 59 4 60 4 61 4 62 4 63 6 64 5
    1   1   1   1   1   1   1   1
        62  84
  1 4  2 4  3 4  4 4  5 4  6 4  7 4  8 4  9 4 10 4 11 4 12 4 13 4 14 4 15 4 16 4
 17 4 18 4 19 4 20 4 21 4 22 7 23 4 24 4 25 4 26 4 27 4 28 4 29 4 30 4 31 4 32 4
 33 4 34 4 35 4 36 4 37 4 38 4 39 4 40 4 41 4 42 4 43 4 44 4 45 4 46 4 47 4 48 4
 49 4 50 4 51 4 52 4 53 4 54 4 55 4 56 4 57 4 58 4 59 4 60 4 61 4 62 4 63 4 64 4
 65 4 66 4 67 4 68 8 69 4 70 4 71 4 72 4 73 4 74 4 75 4 76 4 77 4 78 4 79 4 80 4
 81 4 82 4 83 4 84 4
5n 168282 7 968 3 1 49 2 3700 2100 6.02111 2 2 1 4   7
5n 168407 71168 5 1 19 2 0015 0015  . 1220 1 2     1 7
5n 168747 71268 6   15 2 0330 0130  . 1 34 3 1   4 1 7
5n 168921 71268 6 1 47 3 1200 1200  . 2111 1 2       7
5n 169103 71368 7 1 15 3 0418 0240  . 1220 1 2 1 4 1 8
5n 169132 71368 7   15 3      0700  . 1 32 2 2 1 3 1 8
5n 169226 71368 7 1 22 2 1700 1330 3.52111 1 2       8
5n 169375 71368 7 1 31 3      2300  . 1220 1 1 1 3   8
5n 169406 71468 1 1 51 1 0105 0105  . 2111 2 2       8
5n 169672 71568 2 1 11 1 0005 0001  . 2112 2 1 1 3 2 8
5n 169778 71568 2 1 47 5 1258 1130  . 2214 1 2       8
5n 169908 71568 2 1 58 2      2000  . 1120 1 1 1 4   8
5n 170459 71768 4 1 28 1      1925  . 3229 1 1       8
5n 170666 71868 5 1 33 1      1400  . 2218 1 2 1 1   8
5n 170814 71968 6 1 51 3      2255  . 2238 1 1       8
5n 170927 71968 6 1 34 2      0800  . 2214 1 2       8
5n 171114 71968 6   49 3 2315       . 2 26 1 1 1 4 2 8
5n 171126 71968 6 1 49 3      2255  . 2226 1 1       8
5n 171127 71968 6   42 4 2355       . 1 32 2 2 1 3 1 8
5n 171317 72068 7 1 15 3 1642 1630  . 2238 2 1       8
5n 171467 72068 7 1 37 3 2349 2349  . 11 8 2 1 1 1 2 8
5n 171467 72068 7 1 37 3 2355 2349  . 3227 3 2 1 3 2 8
5n 171467 72068 7 1 37 3 2355 2355  . 1238 3 1 1 2 2 8
5n 171512 72068 7   29 6      2000  . 2 14 1 2     2 8
5n 171525 72068 7 1 37 3 2349 2349  . 1220 1 1 1 1 2 8
5n 171526 72068 7 1 37 3 2349 2349  . 11 8 2 1 1 1 2 8
5n 171654 72168 1   16 4 1910       .   27 2 2 1     8
5n 171746 72268 2 1 16 1 0242 0230  . 1117 1 1 1 3 2 8
5n 171654 72168 1   16 4 1910       .   27 2 2 1     8
5n 172077 72268 2 1 22 2 3330 160017.22112 1 1       8
5n 172109 5 868     46 1           . 2 43 1 2       8
5n 172435 72468 4 1 47 1 1331 1300  . 2238 1 2       8
5n 172525 72468 4 2 46 4 1835 1215 6.32111 1 2       8
5n 172632 72568 5 1 46 1 0155 0155  . 2213 3 1 1 2 2 8
5n 172673 72668 6 1 40 3 0830 0030 .72215 1 1       8
5n 172954 72668 6 1 63 2      1961  . 3227 3 2 1 2 2 8
5n 173044 72668 6 1 35 1      1500  . 1220 1 1 1 4 1 8
5n 173224 72768 7   15 3 0200       .   34 3 2 1 2   8
5n 173284 72768 7   37 1 1047       . 2 26   1 1 2 2 8
5n 173292 72768 7   44 2 1133    12.02111 1 2       8
5n 173315 72768 7 1 16 4 1230 1230  . 2217 1 1 1 1 2 8
```



```
5n 173428 72768 7   59 4 1912       . 1 46   2 1 2 1 8
5n 173552 72868 1 1 15 3 0119 0119  . 3238 3 1 1 2 2 8
5n 173613 72768 7   54 3      1830  . 2238 1 1     1 8
5n 173956 72968 2 1 43 2 1918 1918  . 1117 1 1     2 8
5n 173989 72968 2 1 57 2 2058 2058  . 1338 1 2 1 4   8
5n 174062 72968 2 1 62 1 2300 2100  . 2213 1 1     2 8
5n 174204 73068 3 1 58 2 0830 0330 5.32215 1 2       8
5n 174218 73068 3 1 27 4 1640 1640  . 2218 1 2       8
5n 174225 73068 3 1 54 3 1850 1850  . 3227 1 2 1 1 1 8
5n 174338 73168 4 1 44 3 0234 0220  . 1338 1 1       8
5n 174379 72968 2 1 37 4 0930 0200 7.02112 1 1       8
$       END IOR
```

Random Patrol Statistics Program

This material describes the random patrol statistics program developed for the Syracuse Police Department.

The inputs to this program are the internal officer's log and the internal crime reports.

The program output is:

1. Listing of internal officer's logs.
2. Listing of internal crime reports.
3. Tabulation of random patrol data.
   A. Detectable crimes and intercepts at different patrol velocities.
4. Average patrol strength for past 4 weeks as a function of 4 hour segments for each day of the week.
5. Percentage of crimes police could have observed.
6. Average time on patrol per man per eight hour day tour for past 4 weeks.

Purpose

The random patrol statistics program was developed for use in evaluating manpower distribution for the CCT.

General Description

1. INPUT

   Input data consists of two types of reports.

   1.1 The internal officer's log

   1.2 The internal crime report

2. OUTPUT

   2.1 The "Internal Officer's Log" is checked for validity and listed.

   2.2 The "Internal Crime Report" is checked for validity and listed.

2.3 The random patrol data is checked for detectable crimes, and intercepted detectable crimes, this data is then tabulated as a function of the number of patrol units that would have or did detect it.

2.4 The patrol strength is tabulated over the past 4 weeks, with parameters of 4 hour intervals versus the day of the week.

2.5 The percentage of crimes that the police could have observed is listed under the categories of crimes against

1. Property
2. Personal
3. Burglary
4. All crimes.

2.6 Average time on patrol per man per eight hour duty tour for past 4 weeks.

Input Card Data

Card	Columns	Variable	Format	Description and Usage
1	1-2	JA	I2	Month
1	3-4	JB	I2	Day
1	5-6	JC	I2	Year
1	16-18	JE	I3	Start of tour of duty
1	19-21	JF JG(n)	I3	End of tour of duty
1	22, 28, 34...70	n = odd	I3	Start of patrol tour
	25, 31, 37...73	n = even	I3	End of patrol tour
2	4-10	LB	I7	DR number or criminal activity identification number
2	11-12	LC	I2	Month
2	13-14	LD	I2	Day
2	17-18	LF	I2	Day of the week, Sunday =1 Saturday =7
2	31-35	LS	I5	Estimated time crime occurred

Card	Columns	Variable	Format	Description and Usage
2	26-39	T	F4.1	Possible error in time crime occ occurred.
2	40	LJ	I1	Crime against; =1 person =2 property =3 other
2	42-43	LL	I2	FBI code for type of crime.
2	46-47	LN	I2	Could crime be detected by policeman patrolling beat? =1 yes =2 no
2	50-51	LP	I2	How was crime cleared =1 citizen action =2 police =3 investigation =4 other

Deck Setup For The Random Patrol Statistic Program

```
Column    1        8          16
          $        $ NUMB     EXXXX (4 digit number)
          $        IDENT      100-6B1, Aiken-EP3, X2667, Room 120
          $        LIMITS     15,,,12000
          $        OPTION     FORTRAN, SYMREF
          $        FORTRAN
          $        INCODE IBMF
                   DECK POLMAYI
          $        EXECUTE
          $        LIMITS 15,40K,,5000
          $        INCODE IBMF
                   DATA CARDS
                   BLANK CARD
          $        END JOB
```


Program List

```
$       FORTRAN
$       INCODE  IBMF
CPOMAY1         AIKEN/ELLIOTT/MAYER   INTERNAL OFFICERS LOG STATISTICS  5/5/70
        DIMENSION IDAY%2,7)
        DIMENSION NIY%3,19),NBI%3,19),NPNI%3,19),NPYI%3,19)
        DIMENSION A%7),B%7),JDW%7)
        DIMENSION JS%252,9),JT%252,9)
        DIMENSION JG%19),MY%13),RAV%7,6)
        DATA IDAY/4HSUND,4HAY   ,4HMOND,4HAY   ,4HTUES,4HDAY  ,4HWEDN,4HSDAY,
       14HTHUR,4HSDAY,4HFRID,4HAY   ,4HSATU,4HRDAY/
        DATA MNO,MNN,MYO,MPO,MBO,MYN,MPN,MBN/8*0/
        MY%1)#0
        MY%2)#31
        MY%3)#59
        MY%4)#90
        MY%5)#120
        MY%6)#151
        DO 2 I#1,7
        DO 2 J#1,6
        RAV%I,J)#0
    2   CONTINUE
        MY%7)#181
        MY%8)#212
        MY%9)#244
        MY%10)#274
        MY%11)#305
        MY%12)#335
        MY%13)#366
        IZ#0
        DO 3 I#1,7
        IDW%I)#0
    3   CONTINUE
        IPT#0
        IDT#0
        DO 999 I#1,3
        DO 999 J#1,19
        NIY%I,J)#0
        NBI%I,J)#0
        NPNI%I,J)#0
        NPYI%I,J)#0
  999   CONTINUE
        READ%5,345) JA,JB,JC,JE,JF,%JG%I),I#1,18)
  345   FORMAT%3I2,9X,20I3)
        JM#MY%JA)&JB
       44 IAY#JM-MOD%JM&3,28)
        IBY#IAY&27
        PRINT 9900,IAY,IBY
 9900   FORMAT%12H.PERIOD FROM,I3,  2HTO,I3)
        DO 30 M#1,252
        IF %IA) 28,28,6
    6   IXX#0
        PRINT 503,JA,JB,JC,JE,JF,%JG%I),I#1,18)
  503   FORMAT %1X,3I2,20I4)
        IF%JF-JE)20,92,21
   20   IF%JF&288
   21   IDT#IDT&IF-JE
        IDT#MY%JA)&JB
        IDYT#288*%JDT-1)
        IF %IABS%JDT-JAY)&IABS%JBY-JDT)-27)101,101,102
  102   PRINT 103,JA,JB,JC
  103   FORMAT%  4H LOG,3I3, 17HIS OUTSIDE PERIOD)
        M#M-1
```

```
      GO TO 9
  101 CONTINUE
      DO 7 I#1,18
      IF %IG%I]] 8,16,8
    8 IG%II#JG%II&JDYT
      IF %JG%II-JXX] 10,104,104
   10 IDYT#JDYT&288
      II#I
   11 JG%II]#JG%II]&288
      II#II&1
      IF%JG%II]]16,16,11
  104 IXX#IG%II
    7 CONTINUE
   16 CONTINUE
   17 DO 19 K#1,17,2
      KS#%K&1]/2
      JS%M,KS]#JG%K]
      JT%M,KS]#JG%K&1]
      IPT#IPT&JT%M,KS]-JS%M,KS]
        PRINT 9903,IPT,INT,M
 9903 FORMAT%  5H 78-9,3I2]
   19 CONTINUE
    9 CONTINUE
      READ%5,345] JA,JB,JC,JE,JF,%JG%I],I#1,18]
   30 CONTINUE
   28 CONTINUE
      PRINT 110
  110 FORMAT%// 31H   LB   C D F   S   H  J  L N P]
  385 DO 795 L#1,90
  390 READ 695,LB,LC,LD,LF,LS,T,LJ,LL,LN,LP
      PRINT 506,LB,LC,LD,LF,LS,T,LJ,LL,LN,LP
  506 FORMAT %1X,I6,3I2,I5,F4.1,I2,I3,2I2]
  695 FORMAT %3X,I7,2I2,2X,I2,12X,I5,F4.1,I1,1X,I2,2X,I2.2X,I2]
      IF%LC]92,800,395
  395 CONTINUE
      ILD#MY%LC]&LD
      IF %IABS%ILD-JAY]&IABS%JBY-ILD]-27]105,105,106
  106 PRINT 107,LB
  107 FORMAT%  3H DR,I7, 17HIS OUTSIDE PERIOD]
      GO TO 795
  105 CONTINUE
      HR#LS/100
      MIN#FLOAT%LS]-HR
      LS#HR*12.0&FLOAT%MIN/5]&288.0*FLOAT%LD-1&MY%LC]]
      TH#12.0*T&.5
      LIA#LS-TH
      LIB#LS&TH
  630 R#0
      PRINT 9902,L,JSH,M
 9902 FORMAT%  8H 103-630,3I12]
      D#LIB-LIA
      MF#1
      DO 23 M23# MF,252
      M#M23
      I#1
      IF%JS%M,I]]92,41,22
   22 IF%LIB-JS%M,I]]23,23,24
   24 M26F#M
      DO 26 M26#M26F,252
      M# M26
      IF%JS%M,I]]92,41,25
   25 IF%JS%M,I]&288-LIA]26,26,27
```



```
   26 CONTINUE
      GO TO 41
   27 DO 32 I#1,9
      IF %JS%M,I]]92,23,29
   29 IF %JT%M,I]-LIA]32,32,31
   31 IF %JS%M,I]-LIB]33,23,23
   33 IF%JS%M,I]-LIA]34,34,35
   34 IF%JT%M,I]-LIB]36,37,37
   35 IF%JT%M,I]-LIB]38,38,39
   36 P#FLOAT%JT%M,I]-LIA]/D
      GO TO 40
   37 P#1
      GO TO 40
   38 P#FLOAT%JT%M,I]-JS%M,III/D
      GO TO 40
   39 P#FLOAT%LIB-JS%M,III/D
   40 R#R&P
   32 CONTINUE
   23 CONTINUE
   41 IF%IZ]42,42,81
   42 NPC#2.*RR1.5
      R#%FLOAT%NPC]-1.0]/2.0
      IF%LP-2]53,51,53
   53 N#2
      GO TO 1050
   51 N#1
 1050 IF%LN-1]60,61,60
   60 N#3
   61 NIX%N,NPC]#NIX%N,NPC]&1
      IF%LI-11]54,54,56
   55 NBI%N,NPC]#NBI%N,NPC]&1
   54 IF%LJ-2]57,58,59
   56 IF%LI-12]54,55,54
   57 NPNI%N,NPC]#NPNI%N,NPC]&1
      GO TO 67
   58 NPYI%N,NPC]#NPYI%N,NPC]&1
   59 GO TO 67
   67 GO TO 390
  795 CONTINUE
      PRINT 980
  980 FORMAT %//]
  800 PRINT 1301
 1301 FORMAT%//1X18HRANDOM PATROL DATA//]
      PRINT 1321
 1321 FORMAT%1H&,16X,17HDETECTABLE CRIMES]
      PRINT 1323
 1323 FORMAT%42X,10HINTERCEPTS//]
      PRINT 1342
      PRINT 1343
 1342 FORMAT%1H&,35HPATROL UNITS   BURG PERS PROP TOTAL]
 1343 FORMAT%35X,23H  BURG PERS PROP  TOTAL//]
      DO 70 NPC#1,19
      RN#%FLOAT%NPC]-1.0]/2.0
      NSUM1# NBI %1,NPC]&NBI %2,NPC]
      NSUM2 #NPNI%1,NPC]&NPNI%2,NPC]
      NSUM3 #NPYI%1,NPC]&NPYI%2,NPC]
      NSUM4 #NIX %1,NPC]&NIX %2,NPC]
      PRINT 71,RN,NSUM1,NSUM2,NSUM3,NSUM4
   71 FORMAT%F8.1,I10,3I5,I7.3I5]
   70 CONTINUE
 1411 IF%IZ]43,43,87
   43 IZ#1
```

```
      DO 83 LDY#JAY,JBY
      IF%200-LDY]47,47,48
47    MD#MOD%LDY,7]81
      GO TO 49
48    MD#MOD%%LDY&11,7]81
49    JDW%MD]#JDW%MD]81
      DO 82 JSH#1,6
      LIA#48*JSH&288*LDY-335
      LIB#LIA&848
      GO TO 630
81    DW#JDW%MD]
      PRINT 9901,JSH,LDY,DW,MD,IZ,M
 9901 FORMAT%  7H 184-81,1X,2I12,F17.4,3I12]
      RAV%MD,JSH]#RAV%MD,JSH]&R
82    CONTINUE
83    CONTINUE
      DO 84 I#1,7
      DO 84 J#1,6
      RAV%I,J]#RAV%I,J]/DW
84    CONTINUE
      PRINT 1701
1701  FORMAT%//15HPATROL STRENGTH/]
      PRINT 1712
      PRINT 1713
1712  FORMAT%1H&,5X,33H  0001-0400  0401-0800  0801-1200]
1713  FORMAT%39X,33H  1201-1600  1601-2000  2001-2400/]
      DO 86 I#1,7
85    FORMAT%2A4,F5.1,5F11.1]
      PRINT 85,IDAY%1,I].IDAY%2,I],%RAV%I,J],J#1,6]
86    CONTINUE
87    CONTINUE
      PRINT 1801
1801  FORMAT%//17HOBSERVABLE CRIMES]
      PRINT 1811
1811  FORMAT%/4HTYPE,4X,18HPERCENT OBSERVABLE//]
      DO 88 I#1,19
      MYO#MYO&NPY[%1,I]&NPY[%2,I]
      MPO#MPO&NPN[%1,I]&NPN[%2,I]
      MBO#MBO&NBI%1,I]&NBI%2,I]
      MNO#MNO&NIX%1,I]&NIX%2,I]
      MYN#MYN&NPY[%3,I]
      MPN#MPN&NPN[%3,I]
      MBN#MBN&NBI%3,I]
      MNN#MNN&NIX%3,I]
88    CONTINUE
89    FORMAT%  9H PROPERTY,I9]
      IAA#IFIX%%FLOAT%MYO]/FLOAT%MYO&MYN]]*100.]
      PRINT 89,IAA
93    FORMAT%  9H PERSONAL,I9]
      IAA#IFIX%%FLOAT%MPO]/FLOAT%MPO&MPN]]*100.]
      PRINT 93,IAA
94    FORMAT%  9H BURGLARY,I9]
      IAA#IFIX%%FLOAT%MBO]/FLOAT%MBO&MBN]]*100.]
      PRINT 94,IAA
95    FORMAT% 11H ALL CRIMES,I9]
      IAA#IFIX%%FLOAT%MBO]/FLOAT%MBO&MBN]]*100.]
      PRINT 95,IAA
       PG#FLOAT%IPT]/FLOAT%%JBY-JAY]*288]
       PF#%FLOAT%IPT]/FLOAT%IDT]]*100.
      PRINT 90, PF
      PRINT 91, PG
90    FORMAT%/20HMOBILE PATROL / DUTY,F8.1,8H PERCENT]
   91 FORMAT%/23HAVERAGE PATROL STRENGTH,F8.1,4H MEN]
   92 STOP
      END
```


X. CRIME DATA

During the past two years the Crime Control Teams have been involved in about 3000 crimes. At the beginning of the experiment it was realized that the program offered a unique opportunity to obtain some basic and reliable data about crime that, seemingly, was not available in the literature. Of particular interest were questions concerning who detects crimes, how crimes are cleared and what portion of crime occurs where a police patrol could detect the crime while it was in progress. The data in the following tables attempt to answer these and other questions.

The raw data is supplied by the CCT officer responsible for disposing of the particular incident; he makes the pertinent judgments and records the data on an International Crime Report (ICR) (see Section IV, Figure 8). Because the ICR's are not used as a basis for individual performance review and are not examined within the department, it is felt that the data they contain are honest appraisals by the officer.

Two years of data for Beat 50 are displayed in Table XX , and 14 months data for Beats 62 and 63 in Table XXI. The terms used in the Tables are defined in Section IV.

Most of the data in the Tables have not been examined in detail; thus only a few comments will be made. The Tables show that only about 40-45% of all crime occurs at a location that could be observed, hence, intercepted or prevented by the police patrol. This value is in serious conflict with the 60% figure appearing in the President's Crime Commission Report.(10)

TABLE XX

CRIMINAL ACTIVITY - Beat 50

PERCENT OF EACH TYPE AND NO, IN EACH SAMPLE CATEGORY

FBI CRIME DESIGNATION PART I	COMITTED IN GOOD WEATHER		DETECTED BY VICTIM		DETECTED BY CITIZEN		DETECTED BY POLICE		CLEARED		CLEARED BY CITIZEN ACTION		CLEARED BY INTERCEPTION		CLEARED BY INVESTIGATION		VICTIM PERPETRATOR ASSOCIATED		DETECTABLE BY POLICE	
NO, DESCRIPTION	PCT;	NO;	PCT;	PCT;	PCT	NO,	PCT,	NO,	PCT,	NO,	PCT,	PCT,	PCT,	NO,	PCT,	NO,	PCT,	NO,	PCT,	NO,
OMICIDE																				
1 MURDER AND NON-NEG- LIGENT MANSLAUGHTER	1.00	1	0.	0;	1.00	1	1.00	1	1.00	0;	0;	1	1.00	1	0;	1				
2NEGLIGENT MANSLAUGHTER	0.	0	0.	0.	0.	9	0.	0	0.	0;	0.	0	0.	0	0.	0				
3 FORCIBLE RAPE	1.00	4	0.80	0.20	0.	5	0.60	5	0.	0;	1.00	3	0.33	3	0.20	5				
ROBBERY																				
4 BUSSINESS	1.00	3	1.00	0;	0;	8	0.33	3	1.00	0;	0;	1	0;	2	0.67	3				
5 STICK UP	0.81	77	0.66	0.28	0.14	99	0.59	98	0.21	0.21	0.36	96	0.66	90	0.48	96				
39 STRONG ARM/MUGGING	0.67	3	1.00	0;	0;	9	0.60	5	0.33	0;	0.33	3	0;	5	0.80	9				
6 OTHER	1.00	8	0.75	0.25	0.	8	0.25	8	0.	0;	1.00	2	0.50	5	0.62	8				
AGGRAVATED ASSAULT																				
7 WITH GUN	1.00	2	1.00	0;	0;	2	0;	2	1.00	0;	0;	1	0;	1	1.00	2				
8 WITH KNIFE	0.98	10	0.64	0.27	0.09	11	0.91	11	0.30	0.10	0.58	10	0.62	8	0.45	11				
9 WITH BLUNT OBJECT	0.82	11	1.00	0;	0;	14	0.43	14	0.58	0;	0.58	6	0.12	8	0.79	14				
40 FAMILY DISPUTE	1.00	9	0.92	0.08	0;	12	0.67	12	0.27	0;	0.50	8	0.88	9	0.50	12				
10 OTHER	0.79	39	0.78	0.28	0.02	41	0.58	40	0.29	0.12	0.54	24	0.92	31	0.58	48				
BURGLARY																				
11 RESIDENTIAL	0.78	133	0.84	0.16	0;	127	0.22	127	0.18	0.07	0.68	28	0.85	26	0.19	126				
12 COMMERCIAL /	0.74	97	0.57	0.34	0.09	69	0.26	65	0.29	0.16	0.53	17	0.15	20	0.80	85				
LARCENY,THEFT OVER $50																				
13 FROM BUSSINESS	0.78	46	0.85	0.11	0.03	42	0.18	42	0.45	0.09	0.45	11	0.16	25	0.24	42				
14 HOME	0.82	91	0.95	0.09	0.	41	0.23	42	0.23	0;	0.94	13	0.58	19	0.11	42				
17 PURSE SNATCH	0.88	10	1.00	0;	0.	12	0.25	12	0.33	0;	0.38	3	0;	4	0.83	12				
18 BICYCLE THEFT	0.89	19	1.00	0;	0;	24	0.25	24	0.50	0;	0.17	6	0.25	8	0.25	24				
19 AUTO THEFT	0.74	81	0.70	0.22	0.08	50	0.51	53	0.34	0.32	0.12	25	0.24	25	0.28	53				
PART II																				
20 OTHER ASSAULTS	1.00	7	1.00	0;	0.	8	0;	8	0.	0;	0;	0	0;	4	0.62	8				
46 FAMILY DISPUTES	0.88	93	0.88	0.05	0.07	102	0.79	103	0.28	0.09	0.46	81	0.77	71	0.68	102				
21 ARSON	0.58	4	0.60	0.40	0.	5	0.20	5	0.	0;	1.00	1	0.	2	0.40	5				
22 FORGERY AND COUNTERFEITING	0.89	9	0.82	0.18	0;	17	0.35	17	0.33	0;	0.50	6	0.80	16	0.06	17				
23 FRAUD	1.00	3	0.75	0.25	0;	4	0.50	4	0.50	0;	0.50	2	0.33	3	0;	4				
24 EMBEZZELMENT	0;	1	1.00	0.	0;	1	0.	1	0;	0;	0;	0	0;	0	1.00	1				
25 STOLEN PROPERTY; BUYING ,RECEIVING,POSSESSING,	0;	4	0.20	0.20	0.40	5	0.40	5	0;	1.00	0;	2	0;	3	0.60	5				
26 VANDALISM	0.79	148	0.79	0.17	0.04	196	0.16	200	0.24	0.12	0.24	88	0.12	92	0.78	199				
27 WEAPONS;CARRYING, POSSESSING,ECT;	1.00	8	0.20	0.38	0.96	10	1.00	10	0.12	0.50	0.37	8	0.14	7	0.38	10				
28 PROSTITUTION AND COMMERCIALIZED VICE	0.	0	0.	0;	0.	0	0.	0	0.	0;	0;	0	0;	8	0.	0				
29 SEX OFFENSES	0.77	13	0.80	0.20	0.	20	0.40	20	0.12	0;	0.75	8	0.78	9	0.35	20				
30 NARCOTIC DRUG LAWS	1.00	1	0.	0;	1.00	1	1.00	1	0.	0;	1.00	1	0;	0	0.	1				
31 GAMBLING	0.	0	0.	0.	0;	0	0.	0	0.	0;	0;	0	0;	0	0.	0				
32 OFFENSES AGAINST THE FAMILY AND CHILDREN	0.67	3	0.30	0.60	0.10	10	1.00	10	0.	0;	0.96	9	0.96	9	0.	10				
33 DRIVING UNDER THE INFLUENCE	0.	0	0.	0;	0.	0	0.	0	0.	0;	0;	0	0;	8	0.	0				
34 LIQUOR LAWS	1.00	2	0.	0;	1.00	5	0.80	5	0;	0.80	0;	5	0.25	4	0.60	5				
35 DRUNKENNESS	0.	0	0.67	0;	0.33	3	0.67	3	0.	0.50	0;	2	0;	0	0.33	3				
36 DISORDLY CONDUCT	1.00	1	0.50	0;	0.50	2	1.00	2	0;	1.00	0;	2	0;	2	1.00	2				
37 VAGRANCY	0.	0	0.	0;	0.	0	0.	0	0;	0;	0;	0	0;	8	0.	0				
38 ALL OTHER OFFENSES	0.83	6	0.90	0.	0.10	10	1.00	10	0.40	0.30	0.10	10	0.86	7	0.20	10				
LARCENY THEFT LESS THAN $50,																				
41 FROM BUSSINESS	0.78	9	0.81	0.19	0;	16	0.35	17	0.33	0.17	0.17	4	0;	5	0.12	16				
42 HOME	0.82	82	0.87	0.10	0.03	30	0.17	30	0.38	0;	0.25	4	0.25	8	0.38	88				
43 AUTO	0.83	25	0.97	0.03	0;	38	0.03	38	0.	0;	0;	1	0.09	11	0.38	37				
44 PURSE SNATCH	0.	1	1.00	0;	0;	3	0.25	4	1.00	0;	0;	1	0.50	2	0.	4				
45 BICYCLE THEFT	1.00	1	1.00	0.	0;	10	0.82	11	0.11	0.11	0;	9	0.78	9	0.	11				
47 AGGRAVATED HARASSMENT	0.79	14	0.85	0.06	0.09	34	0.67	36	0.12	0.12	0.21	24	0.46	24	0.29	35				
	3.	0	0.	0;	0;	0	0.	0	0.	0;	0;	0	0;	0	0;	0				
TOTAL SUMMARY	3.85	917	0.81	0.14	0.05	1172	0.36	1186	0.27	0.15	0.40	416	0.37	486	0.46	1179				

TABLE XXI

CRIMINAL ACTIVITY - BEATS 62 AND 63

PERCENT OF EACH TYPE AND NO, IN EACH SAMPLE CATEGORY

FBI CRIME DESIGNATION PART I	COMITTED IN GOOD WEATHER		DETECTED BY VICTIM		DETECTED BY CITIZEN		DETECTED BY POLICE		CLEARED		CLEARED BY CITIZEN ACTION		CLEARED BY INTERCEPTION		CLEARED BY INVESTIGATION		VICTIM PERPETRATOR ASSOCIATED		DETECTABLE BY POLICE	
NO, DESCRIPTION	PCT;	NO;	PCT;	PCT;	PCT	NO,	PCT,	NO,	PCT,	NO,	PCT,	PCT,	PCT,	NO,	PCT,	NO,	PCT,	NO,	PCT,	NO,
OMICIDE																				
1 MURDER AND NON-NEG- LIGENT MANSLAUGHTER	0;	0	1.00	0;	0;	1	0;	1	0;	0;	0;	0	0;	1	0;	1				
2NEGLIGENT MANSLAUGHTER	0;	0	0.	0;	0;	9	0;	0	0;	0;	0;	0	0;	9	0;	0				
3 FORCIBLE RAPE	1.00	13	0.85	0;	0.15	15	0.38	15	0.20	0.20	0.60	5	0.25	8	0.33	15				
ROBBERY																				
4 BUSSINESS	1.00	1	1.00	0;	0;	1	0;	1	0;	0;	0;	0	0;	1	1.00	1				
5 STICK UP	0.82	97	0.68	0.19	0.13	104	0.41	104	0.32	0.32	0.27	41	0.28	43	0.44	103				
39 STRONG ARM/MUGGING	1.00	2	1.00	0;	0;	2	0.50	2	0;	0;	1.00	1	0;	1	1.00	2				
6 OTHER	0.98	2	1.00	0;	0;	2	0.50	2	0.	0;	0.	1	0;	2	1.00	2				
AGGRAVATED ASSAULT																				
7 WITH GUN	0.88	5	0.71	0.14	0.14	7	1.00	7	0.14	0.29	0.43	7	0.86	7	0.57	7				
8 WITH KNIFE	0.86	44	0.87	0.06	0.06	47	0.70	47	0.36	0.09	0.42	33	0.76	33	0.57	46				
9 WITH BLUNT OBJECT	0.79	29	0.91	0.06	0.03	32	0.31	32	0.38	0.40	0.30	10	0.13	15	0.84	31				
40 FAMILY DISPUTE	0.58	32	0.79	0.07	0.14	14	0.79	14	0.14	0.14	0.43	11	0.07	8	0.43	14				
10 OTHER	0.86	29	0.82	0.12	0.06	34	0.58	36	0.32	0.09	0.55	22	0.40	25	0.45	38				
BURGLARY																				
11 RESIDENTIAL	0.85	183	0.84	0.09	0.06	223	0.09	223	0.37	0.21	0.42	19	0.13	35	0.24	222				
12 COMMERCIAL	0.85	107	0.54	0.28	0.18	113	0.19	113	0.24	0.29	0.43	21	0.05	20	0.73	113				
LARCENY,THEFT OVER $50																				
13 FROM BUSSINESS	0.86	98	0.87	0.12	0.01	139	0.10	139	0.53	0.13	0.28	15	0;	49	0.10	136				
14 HOME	0.95	55	0.89	0.11	0.	64	0.14	64	0.28	0;	0.58	8	0.30	20	.21	64				
15 AUTO	0.	0	0.	0.	0;	0	0;	0	0;	0;	0;	0	0;	8	0;	0				
17 PURSE SNATCH	0.89	13	0.89	0.11	0;	16	0.06	16	0;	0;	1.00	1	0.27	9	0.39	16				
18 BICYCLE THEFT	0.52	6	0.85	0.15	0;	13	0.08	13	0;	0;	1.00	1	0.11	9	0.15	13				
19 AUTO THEFT	0.89	93	0.76	0.13	0.12	78	0.37	79	0.21	0.38	0.41	29	0.11	37	0.43	77				
PART II																				
20 OTHER ASSAULTS	1.00	4	1.00	0;	0;	5	0.20	5	0;	0;	1.00	1	0;	1	0.40	5				
46 FAMILY DISPUTES	0.98	90	0.94	0.04	0.02	91	0.50	92	0.54	0.08	0.27	26	0.58	19	0.61	51				
21 ARSON	0.67	3	0.50	0.50	0.	6	0.17	6	0;	0;	0;	1	0.83	3	0.50	6				
22 FORGERY AND COUNTERFEITING	0.85	6	0.64	0.32	0.05	22	0.36	22	0.12	0;	0.75	8	0.86	16	0;	21				
23 FRAUD	1.00	2	1.00	0;	0;	3	0;	3	0;	0;	0;	0	0.50	2	0;	3				
24 EMBEZZELMENT	0.	0	1.00	0.	0;	1	1.00	1	1.00	0;	0;	0	0;	1	1.00	1				
25 STOLEN PROPERTY; BUYING ,RECEIVING,POSSESSING,	1.00	1	0.	1.00	0;	1	1.00	1	1.00	0;	0;	1	0;	1	0;	1				
26 VANDALISM	0.78	189	0.65	0.17	0.18	193	0.13	193	0.39	0.25	0.10	20	0.10	69	0.63	190				
27 WEAPONS;CARRYING, POSSESSING,ECT;	1.00	7	0.12	0;	0.87	8	0.87	8	0;	0.12	0.37	8	0.12	8	0.57	7				
28 PROSTITUTION AND COMMERCIALIZED VICE	0.	0	0.	0;	1.00	1	1.00	1	0.	1.00	0;	1	0;	1	1.00	1				
29 SEX OFFENSES	0.78	15	0.89	0.06	0.06	18	0.33	18	0.17	0.50	0.17	6	0;	10	0.56	16				
30 NARCOTIC DRUG LAWS	0.83	6	0.17	0.17	0.67	6	1.00	7	0.14	0.43	0.43	7	0.83	3	0.29	7				
31 GAMBLING	0.	0	0.	0;	0;	0	0;	0	0;	0;	0;	0	0;	0	0;	0				
32 OFFENSES AGAINST THE FAMILY AND CHILDREN	1.00	3	0.40	0.60	0.	5	0.80	5	0.25	0;	0.25	4	0.50	4	0.	5				
33 DRIVING UNDER THE INFLUENCE	0.	0	0.	0;	0.	0	0;	0	0.	0;	0;	0	0;	8	0.	0				
34 LIQUOR LAWS	0.	0	0.	0;	0.	0	0;	0	0.	0;	0;	0	0;	0	0.	0				
35 DRUNKENNESS	0.	0	0.	0;	1.00	1	1.00	1	0.	1.00	0;	1	0;	1	1.00	1				
36 DISORDLY CONDUCT	1.00	5	0.11	0.11	0.78	9	0.89	9	0.	1.00	0;	8	0;	7	0.67	9				
37 VAGRANCY	0.	0	0.	0.	0;	0	0;	0	0;	0;	0;	0	0;	0	0;	0				
38 ALL OTHER OFFENSES	1.00	7	0.90	0.10	0.	10	0.80	10	0.57	0.14	0.14	7	0.71	7	0.20	10				
~~39 SEE PART I; 5 AND 6~~																				
~~40 SEE PART I UNDER 9~~																				
LARCENY THEFT LESS THAN $50,																				
41 FROM BUSSINESS	0.84	99	0.88	0.11	0.01	122	0.20	123	0.54	0.12	0.20	25	0.03	37	0.13	123				
42 HOME	0.87	31	0.94	0.03	0.03	35	0.11	35	0.23	0.25	0.25	4	0;	8	0.20	35				
43 AUTO	0.79	96	0.96	0.04	0.	73	0.01	73	0;	0;	1.00	1	0;	20	0.52	73				
44 PURSE SNATCH	0.67	9	1.00	0;	0.	11	0.	11	0.	0;	0;	0	0;	3	0.	11				
45 BICYCLE THEFT	1.00	1	0.75	0.25	0.	4	0.50	4	0.50	0.	0;	2	0.75	4	0.25	4				
~~46 BETWEEN 20 AND 21~~																				
47 AGGRAVATED HARASSMENT	0.90	20	0.78	0.11	0.11	27	0.30	28	0.36	0.29	0.21	14	0.30	12	0.43	28				
	0.	0	0.	0.	0.	0	0.	0	0.	0;	0;	0	0;	0	0.	0				
TOTAL SUMMARY	2.84	1331	0.81	0.12	0.07	1692	0.22	1696	0.32	0.23	0.33	385	0.19	629	0.48	1681				

These data, if they are correct and can be generalized to be pertinent to crime in all cities, have a significant implication. That is, it is implied that even if the police had unlimited man-power they could not prevent 55-60% of the crime that takes place.

The data commented on above also have considerable interest for the theory of random patrol, and can be used to calculate average times to commit a crime. For example, there were about 1212 crimes that could have been intercepted. Of these some 146, or about 12%, actually were intercepted. The CCT has something like a 20 minute average time to visit every location in the areas of interest (see additional comments in Section VIII). Using these numbers together with Figure 1 in Reference 7, the average time to commit a crime is about 2 minutes. Similar estimates can be made for specific types of crimes where sufficient data is available, for example commercial burglaries or car clouts.

XI. STUDENT EVALUATIONS OF MANAGEMENT SKILLS COURSE

During the second quarter of 1970 a course in Management Skills was presented. The principal goal of this activity was to upgrade the management techniques of the Crime Control Team's Leaders and Deputy Leaders. Two other subgroups were included in the class, CCT Members, and other supervisory personnel within the Department who interface with the CCT operation. These subgroups were included because it was felt that they should be aware of the techniques used to manage the CCT.

Whether the goal was obtained or not can only be determined in a subjective way over a considerable period of time. Because this was the first time this type of in-house course was available to the Syracuse Police Department, and because the course was designed and taught by a person from an industrial organization, it was felt it would be worthwhile to obtain an immediate, subjective evaluation of the course from the students.

Each student was given a questionnaire containing 15 questions. He was requested to answer each question by rating it from 0 to 10 and to add any additional comments he might have. Questions 1-4 are concerned with the value of the course to the student; questions 5, 6 and 11, 12 concern study aids and physical facilities; questions 7, 8 and 10 are concerned with whether others should take the course, if so who they should be, and by whom should the course be given; questions 9, 13 and 14 evaluate the design of the course and the ability of the instructor; and question 15 is an overall evaluation of the course.

Eleven of the students have returned their forms at this writing. The individual question ratings are summarized in Table XXII. The specific comments to each question are collected in the Addendum to this section.

Evaluation

There seems to be no question on the part of the students that it was worthwhile to have taken the course. The critical comments seem to fall in two general areas:

- the course is not sufficiently oriented towards police management
- the class should not contain both policemen and command officers

It was recognized before the course started that these objections would be raised. The course was purposely directed away from police affairs because of the well-recognized danger, in courses of this type, of using specific examples drawn from the student's environment. Past experience has shown that if this step is not made, a great deal of class time is spent by the students airing their personal prejudices and gripes, and defending past decisions. The case method cannot be used in areas involving change unless the students are mature, in the sense that they can detach themselves completely from the present work environment. It was apparent early in the course that the majority of the students were not able to do this.

It is also quite clear that illustrations taken from the business environment are not accepted. So many policemen are convinced that the police function is so different, that they make no attempt to understand the general principals that apply to, and have been shown to be so useful, in other types

TABLE XXII
COURSE-END QUESTIONNAIRE SUMMARY

	1	2	3	4	5	6	7	8	9	10
1. Overall Course Content	7	10	8	8	7	10	9	7	10	10
2. Relate to Management Experience	5	8	10	5	8	9	6	7	3	10
3. Relate to Real World	7	4	?	7	9	10	7	7	7	10
4. Your Comprehension	7	7	8	9	7	7	10	8	10	10
5. Textbook	5	3	6	6	8	8	2	6	8	5
6. Handouts	8	10	8	8	8	10	10	8	10	10
7. Could Your Boss Use It?	8	10	8	9	8	8	9	8	8	0
8. Could Your Subordinates Use It?	5	2	9	10	6	8	8	8	8	10
9. Compared to Other Courses	5	?	7	10	8	?	8	8	8	10
10. If Offered by Community College/Univ. College	5	6	5	10	7	9	9	9	9	10
11. 7:00 A.M. Schedule (0 - no effect)	0	0	9	0	3	5	8	0	5	10
12. Classroom	10	5	6	10	8	10	8	5	10	10
13. Methods Used By Instructor	10	9	10	10	8	10	9	8	10	10
14. Effectiveness of Instructor	10	10	10	10	9	10	9	9	8	10
15. Overall Evaluation	7	10	9	8	8	10	10	8	7	10

of organizations. It had been hoped that, since the instructor had considerable management experience in the Army and planned to use many Army examples, the "quasi-military" as well as "you can't run a police department like a business" crutches would be avoided. This hope was not completely realized.

The decision to include such a large spread of ranks in the class was probably a poor one, and should be avoided in the future. It probably was a major deterrent to greater class participation.

At present it is not clear how this course should be followed up. There are not any more advanced level courses available at the local colleges. What courses are available appear to be much too specialized. It also is not clear how the present course should be offered in the future. The local community college does not have the qualified personnel to conduct the course; nor at this point do they seem particularly interested in discussing the matter.

Both of these problems are being examined further.

ADDENDUM

QUESTION NO. 1: What is your evaluation of the course content? Why?

Score	Student	
7	1	Good. I feel that it should apply more to direct Police Management which is difficult when you consider that we are a semi-military organization and do not have a great opportunity in decision making.
10	2	I enjoyed the course completely. Although I do not have anyone answering to me, I learned many helpful avenues even in my own area, Planning and Research. We have to make decisions and calculations that will infringe on the operations of many other people.
8	3	Very good as it directed my thinking on the subject along many new channels.
8	4	Problems dealing with police matters could have been gone over a little more.
7	5	Main topics good. Explanation of each ok. Variety of ideas from business, Army (too much) and police (not enough).
10	6	It stresses the importance of communications and opens new fields of operations for managers. The group participation concept seems to be the ultimate goal.
9	7	Very good content with exception - should be related somewhat to police management.
7	8	Excellent - but I believe it would be improved by relating more to the police administration problem.
10	9	On the basis of pure managerial science it was excellent especially from the standpoint that the material was derived from more sources than any other business course I have taken.
10	10	Good management training - in depth.

QUESTION NO. 2: To what degree did the course material relate to your management experience? Explain.

Score	Student	
5	1	About 50% because of the fact that I am not on a level to make policy.
8	2	Being only a Sergeant for a few years, my management experience has been limited, however, if and when I am able to be promoted I will then be able to put to practice the methods that I have learned in this class.
10	3	Excellent - as recently I took the Sergeant's exam for the department and the last 20 questions on the exam pertained to management and some of the questions were discussed in our class.
5	4	I personally did not have that much management experience but what there was I thought was similar after re-evaluating.
8	5	Have had little management experience, but after being shown different methods used, I think that if I ever did become a manager, I could be able to use some of the ideas presented. At least now I have some ideas on the different methods and procedures used.
9	6	In police work participation by all members is essential. It furnished me with different approaches to obtain the participation of all.
6	7	No doubt it related but would be more interesting if related more toward police management.
7	8	Several classes were outstanding and will be of great use to me.
3	9	Being a patrolman I have charge of no one but myself but in the future it will be a help I'm sure.
10	10	Handling of people. Getting production.

QUESTION NO. 3: How do you relate the material presented to the "Real World" today? Why?

Score	Student	
7	1	It would apply greatly to big corporations and companies that have a product but for a service organization only about 25%.
4	2	During the whole course, I had great difficulty relating, or connecting the various methods of management, with industry and the law enforcement field.
	3	
7	4	"Real world" will have to be explained to me first.
9	5	The world is constantly changing and in order to keep up with the changing trends, some of our ideas and methods have to change. Only by knowing the different methods of change and how they can be incorporated can we hope to alter our views. Most of all there must be a "willingness" on <u>our part</u> to change.
10	6	The course explained that we should be considerate of the feelings of others. Also that poor communication is the probable cause for 90% of the problems encountered, therefore good communications is essential.
7	7	It applies to life today as we have a closer relation with our co-workers today than we did years ago.
7	8	Problems presented are directly related to problems faced every day in management field.
7	9	Excellent for the business world but tough to place in a quasi-military organization such as the Syracuse Police Department.
10	10	Same as 2.

QUESTION NO. 4: How do you score your comprehension of material presented? Why?

Score	Student	
7	1	Examples used by instructor very good and held your interest.
7-3	2	Why that score? The handouts were very understandable, but the text was difficult to comprehend.
8	3	The instructor was very good in his presentation as he kept our attention and was continually making reference to management and how it applied to the police department.
9	4	Lou Taynton did a fine job of presenting material he had to work with. Excellent instruction.
7	5	Not being too familiar with the terms of the "business world", it was difficult at times to understand what was being said. Because of the way the course was presented, however, I do have a better understanding of the "business world" and how it operates.
7	6	The day being Monday and the time being 7 A.M. I found it very difficult to get started.
10	7	Material and method of presentation make course interesting and easy to understand (exception textbook).
8	8	Course related in many areas to previous courses taken in administration, etc.
10	9	Having taken many business administration courses in undergraduate school I would say that I had sort of a feel for this type course.
10	10	Easily assimilated.

QUESTION NO. 5: The textbook was "Principles of Management", by Terry. Twenty chapters were assigned as outside reading. How effective was the text material. Explain.

Score	Student	
5	1	Quite difficult and hard to keep your interest.
3	2	I think I have explained this question in the previous question. The text seemed very deep to me, and did not seem to open the door to proper management procedures, as understandably as the handouts or class projections.
6	3	I still have 4 chapters to read and upon completing them I am sure I will refer to the book many times in order to brush up on the subject.
6	4	It backed up the lecture given by the instructor.
8	5	Since I'm not familiar with the books available on management, I can only say that the book used in the course was quite effective as it fit in with the material presented by the instructor.
8	6	Some parts of this book were extremely heavy. Chapter 5 on Schools of Management Thought that contained calculus lost me completely.
2	7	I did not find material interesting - unable to read too long.
6	8	Many of the assigned chapters were "wordy" and presented inapplicable material.
8	9	For the most part very effective except in areas of math where it became a bit hazy and completely away from management in the police department.
5	10	Too much at one time.

QUESTION NO. 6: Over 75 separate items and 2 pamphlets were issued as supplemental material to the lectures and text material. How effective was the handout material? Why? Did you read them? Too many? Could use more? Appropriate?

Score	Student	
8	1	Yes - read them. Appropriate - Yes. About 100% better than trying to read and retain from the textbook.
10	2	Yes - read them. Too many - No. Could use more - No. Appropriate - Yes. The handouts will be an advantageous source for future reference to me in the management area.
8	3	Yes - read them. Appropriate - Yes. The information is more condensed in the pamphlets and also contains information that did not appear in the textbook.
8	4	Yes - read them. Too many - No. Could use more-?. Appropriate - Yes. How can a person receive too much additional learning!
8	5	Did you read them - Most. Appropriate - Yes.
10	6	Yes - read them. Too many - No. Appropriate - Yes. The material in the handouts was very good.
10	7	Yes - read them. Too many - No. Could use more-? Appropriate - Yes.
8	8	Yes - read them. Too many - No. Could use more - Yes. Appropriate - Yes. Several of the handouts were excellent and were an improvement on text material.
10	9	Yes - read them. Too many - No. Could use more - Yes. Appropriate - Yes. The varied sources made the course as far as I am concerned. To stick to a textbook would be a waste of time and would be too stagnant.
10	10	Yes - read them. Appropriate - Yes.

QUESTION NO. 7: Could your "boss" use this type of instruction (yes) (no). To what degree? Explain.

Score	Student	
8	1	He was in attendance. YES
10	2	
8	3	Anybody who is a boss is involved in management and a course such as this gives you more insight into the subject. YES
9	4	YES
8	5	I think anyone in authority should continue to educate himself as long as the material can be related to his line of work. Must keep up with the changing times.
8	6	No comment. My boss was in this course.
9	7	ALL bosses could use instruction in management. YES
8	8	Present D/c took course. Especially appreciated participative aspect - may improve acceptance of future policies. YES
8	9	My boss was present but I feel he was a good manager before the course, however I'm sure he got a few more ideas from the course. YES
	10	NO

QUESTION NO. 8: Could your subordinates use this type of instruction. (yes) (no)? To what degree? Explain.

Score	Student	
5	1	YES. Possibly to a certain degree as I am only on the first level of management.
2	2	NO. First of all, I do not have subordinates, and secondly, I do not believe this course is set up for the policeman. The only way it could assist him, would be through his connection with the public. The only way that I could see this course beneficial to him would be the value of being or becoming people-oriented, by this I mean with the person on the street. I question the value of this.
9	3	YES. As already been mentioned in class several times; the best way to get a promotion is to have somebody trained and ready to take your job.
10	4	YES. Because management plays a part in all walks of life not just one particular endeavor.
6	5	YES. Simplified version - 1) what is management? 2) who is a manager? 3) what it takes to be a good manager? 4) some problems in being a manager. 5) some problems in running a business. (main idea is to show that being a boss is no easy matter). Willingness to keep an open mind and a willingness to change is most important.
8	6	YES. It would prepare them for future promotion and would assist them in their daily contacts with the public.
8	7	YES. If they appear to have promotion potential.
8	8	YES. Often subordinates are not cognizant of problems faced when decisions are made.
8	9	It makes a subordinate realize what goes on in the upper echelons and why decisions are made as they are.
10	10	YES. There has not been sufficient management training in the past.

QUESTION NO. 9: How does this course compare with other courses you have taken? Explain.

Score	Student	
5	1	Fair. Other courses taken have been directly applied to police work.
?	2	I haven't taken any other management course, but I liken this to a supervision course which I was involved in, and basically, it is about the same.
7	3	I have only taken one other course at this time and that was also sponsored by GE and I think both courses were excellent and did relate very much to police work.
10	4	First one taken.
8	5	Other management courses - (?) Good instructor. Course was well prepared. Good communication between student and instructor. Good class participation (for those who participated).
	6	It would be very difficult to compare this course with others as the subject matter is entirely different.
8	7	When you take a course you are interested in you enjoy it more - this was an enjoyable course.
8	8	Directly related to many courses. Updated theories in several areas.
8	9	Yes! I am a business admin. major at Lemoyne College and it follows in line with current theory taught there.
10	10	

QUESTION NO. 10: If Community College or University College should offer the same course for policemen next year, to what degree would you recommend others in the department to take such a course. Explain.

Score	Student	
5	1	As stated before to a certain degree because course is not directly applied to police work.
6	2	My recommendation for this type of course would be to have the ranks above Sergeant take the course. I believe that this is the area which has great bearing on the morale, working capabilities, etc. of the men.
5	3	I would recommend it very highly for anybody who plans to become more than a policeman but I would not recommend it for anyone who did not care about advancement, as they would be stopping somebody else who did, from taking the course.
10	4	
7	5	Course as is - or for command officers simplified and shortened course for patrolmen (not all patrolmen are "command material"). For those that are, a course could be set up (required for all sergeants to take).
9	6	Any officer that has the desire to get ahead in the police department should take this course.
9	7	All officers above policeman should be mandated to take course.
9	8	Would recommend that course be included in any police science curriculum.
9	9	I would think that it would serve a twofold purpose. One they would accumulate credit hours toward their degrees and second they would learn the fundamentals of good management.
10	10	Not presently available to this depth.

QUESTION NO. 11: The schedule of 7-9 a.m. was arranged for the convenience of individuals having a second job or taking other courses. How important is the schedule and did the early morning hour have an effect on you and the course? (0 - no effect)

Score	Student	
0	1	
0	2	The reason I gave this the value of (0) was that to me, I'm freshest in the early hours, besides my regular hours are 7-3 and this time element doesn't bother me. As much as I enjoyed the class, each class day I found myself behind 2 to 3 hours when I got back to the office. Remember, I have no one to do my day-to-day tasks. However, I enjoyed the privilege of being able to participate in such a class.
9	3	The early morning hours did not agree with me very much as for the past 7 years I have worked 4 PM to midnight and I am not used to getting up early in the morning.
0	4	
3	5	No matter what time you schedule a course, you're not going to please everyone. The main idea is that the course is available and if you want to take it, you have to take it when it's scheduled. Working from 8 PM-4 AM made it difficult at times, to concentrate on what was being said, but on the whole, the hour of class was OK.
5	6	Yes. Explained in answering No. 4.
8	7	I found 7 AM a little early to absorb.
0	8	
5	9	I worked every night before so I was extremely tired each morning of the course. If we were spot quizzed I would have been in bad shape a few times.
10	10	Bad.

QUESTION NO. 12: The classroom was made available by University College as a community effort. How do you rate the classroom and its overall effectiveness? Explain.

Score	Student	
10	1	Good it was a small group and visual aids and communications were good.
5	2	It was customary. Cold when it was cold and hot when it was hot. At that time of day, I don't think there is that much control. Besides, that has no bearing on the course. We were there to learn, not to gather statistics on classroom temperatures or the atmosphere.
6	3	The chairs and tables were good as you could arrange them any way we wanted to during our demonstrations.
10	4	Very compatible.
8	5	Sound of trucks on highway distracting. Could have used more ventilation.
10	6	Good. If possible the police auditorium should be used.
8	7	Space adequate - chairs uncomfortable. Tables OK.
5	8	Adequate
10	9	Classroom and facilities were fine.
10	10	Good facility.

QUESTION NO. 13: The instructor did not lecture from notes nor did he read the material. How effective was his method of presentation? Explain.

Score	Student	
10	1	Excellent as he certainly knew the subject material.
9	2	I have gone to college, part-time, for 5 years, and to my knowledge I have never had an instructor who based his speaking speed on the factor of listening capabilities. This method interested me. This method, as far as I was concerned, was effective, especially at that hour in the morning. It kept me alert and ready.
10	3	Excellent as he talked fast enough to hold your interest and also moved around and I don't think anybody was ever bored or disinterested.
10	4	Excellent lecturer - very effective method.
8	5	He talked TO and WITH the students, not at them. There was always a two way communication between instructor and student. The instructor was always well prepared.
10	6	It created a more personal atmosphere.
9	7	I found this much easier to grasp.
8	8	Excellent.
10	9	Beautiful! No one can stand a robot and Mr. Taynton showed that he knew 120 minutes of what he was talking about each time out.
10	10	

QUESTION NO. 14: How effective was the instructor overall? Why?

Score	Student	
10	1	Excellent. Examples to illustrate a point were great in respect to both his military and civilian employment.
10	2	As stated above, I have gone to school for a long time, and I have never had an instructor who obtained your attention, had as much experience or who could put a point across, with proven facts, as this man did. Also, I believe this man's background has great bearing on his substantiation of facts.
10	3	Excellent because as well as holding our attention, the instructor related to our field of work continually and presented himself very well as he asked the group questions as a whole which stimulated our thinking.
10	4	
9	5	The instructor was quite effective. By his rapid rate of speed, he kept the students on their toes. He knew his material and was able to put his ideas across, even though we didn't necessarily agree with him at times.
10	6	Excellent under difficult conditions. The mixture of rank created a barrier. Although it was stated nothing would go beyond the classroom I believe most of the class did not get involved as much as they would have liked to for this reason. Most of the discussion and opinions from the class had to be dragged out by the instructor.
9	7	Excellent delivery and presentation - effective slide material presentation.
9	8	Excellent - knowledge of material presented outstanding.
8	9	The instructor was very good overall but I feel that the course could have been more pertinent to police work in the respect that the example used in class exercises never were used as examples for our job.
10	10	Enthusiastic, knowledgeable.

QUESTION NO. 15: What is the OVERALL evaluation of the program. Explain.

Score	Student	
7	1	It was beneficial to a point if it could be closer aligned to police work.
10	2	I sincerely believe that anything that I am able to learn, regardless of connotation, to any familiar field, is most beneficial. A day in school, for any learning process, is not wasted, but beneficial.
9	3	Very good - as it not only did relate to police work but the knowledge you learn can be carried over into other fields. If you can manage - you can manage anything.
8	4	I personally received very much in the concept of new management ideas and methods.
8	5	The overall program is good, but I feel that it should be shortened, and simplified, if possible, to aid those students who have never taken a management course before.
10	6	If the class makes use of the new ideas that were presented will not be known for a period of time. A measuring system should be considered so an accurate evaluation may be given at a later date.
10	7	Good for all levels and skills.
8	8	With exception of previous stated criticism re: relation to police services, found course interesting and worthwhile.
7	9	It was a good course from a business administration point of view but should be pointed more to police work next time around.
10	10	Very beneficial.

GENERAL COMMENTS/IDEAS ABOUT "How To Improve" COURSE.

Student	
1	
2	I don't think this is possible, because there is so much difference between industry and a semi-military organization, such as ours. I know that handling people is basically the same, however, in our department, with its rules and regulations, hopefully, enforced as strict as is necessary, it is almost impossible to function along the same lines or guides that industry does. If a closer comparison could be made, then I think the course would be more beneficial to our people.
3	Change the hours of the classes.
4	
5	Simplified course for non-managers. Use of overhead projector good - but had too many slides when too much reading was necessary. Also tended to talk while students were reading the slides (not necessarily on the subject reading about - was somewhat distracting). Some students a little hesitant about participating in "skits" in front of command officers. Class should, as mentioned previously, be divided into different groupings. Include more police work into the course. More of a comparison of "General problem areas" in police work as compared with the same areas in business. (Don't have to discuss any one particular problem).
6	The only improvements that can be made is the separation of ranks to obtain better class participation, and a change in the day and time for the course.
7	
8	
9	
10	Just change to a later time.

XII. RECOMMENDATIONS

AREAS 50, 62 AND 63

The following recommendation has been made and implemented as of June 15, 1970.

- The two Crime Control Teams should be combined into a single Team.

  This recommendation has been made for the following reasons:

  - An 8-man Team is too small because sickness, leave, court appearances, etc. cause too many duty scheduling problems. A larger Team will also make more efficient use of the available manpower, particularly during those periods of the week when the probability of a crime occurring is essentially zero.

  - It is necessary that more manpower be concentrated in Beats 62 and 63 to examine whether the Team size was responsible for the fact that the performance of the second Team did not match that of the first The recommendation permits such a buildup within the present CCT manpower compliment.

  - Finding capable Leaders for the CCT type operation is recognized as a serious problem, and one which will not be solved in the immediate future. The recommendation conserves the leadership talent that is available within the Department.

ADDITIONAL RECOMMENDATIONS

The original CCT experiment may be criticized because:

- Team personnel were not representative of the level of personnel that was generally available, or would be available in the near future, to the Syracuse Police.

- The Leadership of the Team was not representative of the level of leadership talent that was generally available in the Department.

- The Hawthorn Effect applied.

Three experimental variables may have contributed to the fact that the performance of the second Team did not match that of the first Team:

- The reduction of manpower per beat by a factor of one-half.
- The transient nature of the beat population in Areas 62 and 63.
- Lack of competent leadership.

The third factor has been rectified (see above). A significant increase of manpower in the present CCT areas is impractical. Of course, nothing can be done about the transit character of the population. Because it is impossible, or impractical, to vary two of the available experimental variables as long as the CCT remains committed to the present areas, the following recommendation is made.

The CCT should assume the responsibility for supplying the complete police function in another area of the city. The area selected will be one that is more typical of the rest of the city than Beat 63. Furthermore, the manpower committed in this Crime Control Team unit should be of the order of 8 men per beat. In addition, the Citizen Service Team will be enlarged so that it can supply requested service in all of the CCT areas.

The implementation of this recommendation eliminates all of the experimental variables noted above. Furthermore, since the Citizen Service Unit would now consist of 16-20 men its efficiency would be significantly increased; hence, a few more additional men can be used to aid in the manpower buildup in Beats 50, 62 and 63.

The objections that pertained to the first experiment, as noted above, should no longer be valid. About 50 people or one-eighth of the total personnel in the Department would be involved in the CCT operation. While the CCT will continue to use the best people available, the use of such a significant

portion of the total manpower of the Department should be representative of the personnel that is available (or could be made available) to the police. Similar comments would apply to the availability of leadership personnel.

If the Hawthorn Effect was a dominant factor in the first experiment, it should, now, be reduced to an acceptable level because:

- The operation has been in existence for two years and the major publicity associated with the experiment has been dissipated.
- The operation would involve about 50 people and the argument that the CCT people are the "best of the best" would no longer be valid. That is, by using this many policemen the Team is no longer an elite organization.

Of course, it is not intended that the CCT be completely divorced from the idea of being elite. A "feeling of being special" is a way of motivating people and, hence, is a fair experimental variable. The point is that, whatever influence the Hawthorn Effect had upon the first CCT, its magnitude should be considerably reduced in the proposed experiment.

Two additional factors lend confidence that the proposed experiment will be successful.

- In the past two years most of the details of the CCT mode of operation have been optimized, including such operational procedures as: how to condition the Beat population to a drastic change in police procedure, how to implement an intelligence system, how to perform Team investigations, how to rapidly change the temporal deployment of the Team to address special crime problems, and how to implement and utilize the special training required for Team members.
- In the judgment of present Team Members, the CCT is the mode of operation that the police should use to control crime. Furthermore, they are confident that the CCT can be effective in the new Areas.

The details of how the new Team will be implemented and how additional measurements and evaluations of the CCT concept will be made are contained in the proposal "Crime Control Team II" submitted to the NILE and CJ in June 1970.

XIII. REFERENCES

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