CLUSTER EVALUATION

REGION M - OFFICE OF CRIMINAL JUSTICE PLANNING

PROJECT NO. 1686

CCCJ CONTRACT NO. A-1354-72

BY

K. L. MAYALL

EVALUATION SPECIALIST

FOR

REGIONAL CRIMINAL JUSTICE PLANNING BOARD
REGION M

OF THE

CALIFORNIA COUNCIL ON CRIMINAL JUSTICE

JUNE 1974

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EXECUTIVE SUMMARY

PART I: ANTI-CRIME PROGRAM: CLUSTER
          EVALUATION

PART II: A RECOMMENDED EVALUATION STRATEGY

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EXECUTIVE SUMMARY

The Region M Cluster Evaluation report is comprised of two sections dealing with different aspects of program/project monitoring, assessment and evaluation. Section I (Anti-Crime Programs: Cluster Evaluation) is restricted to an analysis of general project design and effectiveness of techniques for the Seaside, Salinas and Santa Cruz projects. Section II (A Recommended Evaluation Strategy) suggests a standardized monitoring, assessment and evaluation strategy to be used henceforth for all LEAA-OCJP financed anti-crime projects in Region M.

SECTION I - SUMMARY

Three separate and distinct crime prevention activities in Seaside, Salinas and Santa Cruz have been involved in the Region M Cluster Evaluation. The evaluative research effort, as initially conceived, contemplated a comparative study of data acquisitions and data reduction efforts that would enable the Chiefs of Police of the three jurisdictions to reach management decisions that would maximize the effectiveness of operational units in reducing criminal opportunities.

The essence of each of the three projects can be stated succinctly:

Seaside — "...reducing...burglaries...through utilizing computer-obtained predictions of where these crimes will occur and to (employ) specially trained personnel utilizing special equipment and techniques to areas designated by the (computer-obtained) predictions."

Salinas — "...integrating trained (police) officers to supply selective criminal activity information to an automated (criminal) data processing system."

Santa Cruz — "(to provide)...a computer based module for allocating (police personnel) resources in an effective and efficient manner for the Santa Cruz Police Department."

The common denominator was that each of the projects was to use a small cadre of specially trained officers to generate crime management information permitting most effective utilization of limited police manpower to reduce the incidence of crime (emphasis on crimes against property) in each of the three separate police jurisdictions. Santa Cruz (POSSE) places particular emphasis on the role of management and decision-making techniques in police manpower (patrol) allocations.

The common approach for each of the three Region M anti-crime projects was to:

- Improve police patrol techniques and effectiveness;

- Improve investigations and case clearance rates;

- Reduce the market for stolen property;

- Improve the security of burglary targets;

- Encourage public programs of education, awareness and community involvement; and

- Increase the quality of police services to the communities.

Since the Region M Cluster Evaluation was conceived as a method for accomplishing measurement of the comparative effectiveness of reasonably similar anti-crime/manpower allocation/deployment projects, the Evaluation Specialist undertook an in-depth examination of the individual projects approaches. Indeed, at the outset of the evaluation work effort in December 1973, it was anticipated that the Seaside, Salinas and Santa Cruz projects would have been supported, prior to activation, with adequate data acquisitions. It was thought that each of the jurisdictions would be in possession of solid baseline data on demographic characteristics of the communities, specific crime and incident activities including burglaries, arrests, case clearances, property recovery evaluations, etc.

As a vehicle for evaluating effectiveness of the projects, each of the police jurisdictions was to develop and maintain copies of incident reports which, in turn, would be used to identify the census tract or police grid in which incidents occurred. Such reports were to be verified for correctness.

In actual fact, as the anti-crime projects eventually were implemented in Seaside and Salinas (Santa Cruz not to become operational before September 1974), each jurisdiction endeavored to acquire further detailed knowledge concerning the local crime situation following project start-up. While much of the basic data (incident reports, arrest records, case clearance incormation, property recovery values, etc.) was available pre-project start-up, it was not always in a form that would permit easy utilization for analytical purposes.

It became apparent in late February 1974, some two months following initiation of the evaluation effort, that the greatest contribution would derive from careful scrutinization by the Evaluation Specialist of such actual performance data as might be available, supplemented by field interviews with key project personnel, to elucidate actual work techniques and procedures used or contemplated for use by Seaside, Salinas and Santa Cruz.

At this particular point in time, it became evident that the relatively short-term evaluation effort would not be comparative, but rather would be a commentary on the composite effectiveness of the several projects comprising the cluster.

As a consequence, Section I of the report deals comprehensively with the diverse project evaluation methods that prevail for each of the three separate projects, and accomplishes an interim analysis and evaluation of the anti-crime cluster as a whole, including comment on individual project deficiencies and success factors.

The study indicates that programmatic crime prevention, as contrasted with crime solution and law enforcement per se, is a relatively new experience for local police jurisdictions. Of the three projects "evaluated" in the Region M cluster, as of June 1, 1974, only one (Seaside) had been operational for a period of more than one year; another (Salinas) had been operational for substantially less than one year; while another (Santa Cruz) had not yet gone operational. Thus, comparative statistical evaluation has not been possible, nor will it be practicable until each of the projects has been effectively operational over a sustained period of time. Project administrators were unanimous in their assertions that activities had not been on-stream for a sufficient period of time to measure results other than on a tentative subjective basis.

Subjectively there is no doubt that each of the projects in its own way has contributed or will contribute to crime prevention and suppression. A common objective of each of the projects has been to encourage cooperation between the police departments and the business and residential communities which they serve. The clear intent has been to bring the police and the communities together in cooperative selective crime prevention efforts.

Police programs designed to reduce crime oftentimes have a direct effect on attitudes of the public (both law-abiding and non-law-abiding segments) towards the police establishment, which in turn affects the crime rate. Many police-community relations programs are designed with this in mind. Indeed, crime control programs are quite dependent on good community relations to achieve their goals; and therefore public relations campaigns usually are instituted concurrent with and as a part of the anti-crime project. The success of the public relations campaign should not be interpreted as a substitute for evaluation of the anti-crime project in any police jurisdiction.

Conclusions of Section I are:

● Each of the three anti-crime projects involved in the Region M Cluster Evaluation, although seeking the same general objectives of efficient management of police resources and diminution of criminal incidents, is unique in design, strength of data base, financial grant support requirements for the acquisition of equipment and police manpower staffing requirements, and each has a non-conforming evaluation design.

● Region M staff believes a useful purpose would be served by bringing together the three involved Project Directors in a series of workshops in which each of the projects would be fully described and critiqued. Through this process the three police jurisdictions will benefit from problems/successes experienced by the respective police jurisdictions in day-to-day operations, and, more importantly, as a device for generating a standardized evaluative design and evaluation methodology.

● Since crime displacement invariably affects immediately contiguous communities, invitations to the workshops should be extended to police jurisdictions that have not heretofore activated innovative anti-crime projects. Specifically, because of proximity to Seaside, both Monterey and Pacific Grove should be extended invitations to attend, as should Capitola and Aptos (through the Office of Sheriff and Coroner, County of Santa Cruz) because of their proximity to Santa Cruz and because of anticipated rapid urbanization of those areas.

● Each of the projects should continue to receive LEAA/ OCJP financial and technical assistance support during FY 1974/1975 in conformity with pre-agreed financial requirements.

SECTION II - SUMMARY

This section discusses the concept of evaluation research as it should be applied to crime prevention programs. Stress is laid on the fact that evaluation analysis should be accomplished on a regularly scheduled basis as an aid to police administration and operational management.

Evaluation is important in assessing the effectiveness of anti-crime projects and to determine their feasibility for replication in other police jurisdictions. Questions that must be addressed in any practical evaluation are:

● How can program/project effectiveness be measured?

● How reliable is the data base and accumulated statistics?

● What constitutes an effective/acceptable evaluation design?

● Who should have responsibility for project monitoring and evaluation?

● At what chronological periods in the life of a criminal justice program/project should monitoring and evaluation be conducted?

Section II provides a forthright explication of evaluation methodology, evaluation planning, evaluation implementation, program/project standardization, and evaluation component review that might be universally applied to anti-burglary-theft/crime suppression and force allocation activities similar to those confronting law enforcement jurisdictions both in Region M and throughout California.

Section II urges adoption of a standardized evaluation design for all CCCJ/OCJP financed projects henceforth proposed by Region M proponents. In the absence of a strong statewide program/project evaluation capability within the organizational structure of the Office of Criminal Justice Planning, Sacramento, it is important to create a monitoring/assessment/evaluation capability within OCJP regional staffs.

At the time a project is conceived by any Region M proponent, it should be incumbent on Region M staff to assist in the quantification of project objectives; establishment of relationships between project objectives and regional goals; identification of evaluation measures; determination of basic data needs; development of analytical methodology; establishment of schedules for periodic monitoring of project activities; and performance of comparative analyses, including cost effectiveness studies.

The essential purpose of evaluation planning is to make provisions for measuring the effectiveness of projects. Steps to realistic evaluation planning and effective project implementation are: precise statement of goals and objectives, including reference to specific quantitative measurements; establishment of a reasonably precise relationship between Regional criminal justice activity goals and specific project objectives; development of a project evaluation design (synonymous with evaluation measurement techniques); determination of data needs, recognition of data constraints, and creation of an in-project potential for maintenance of adequate reporting capabilities; and determination of methods of data analysis that will contribute to project performance evaluation. A schematic diagram of a proposed standardized criminal justice project evaluation procedure for Region M, which conceivably could have even broader applicability, is depicted on page ix of this Executive Summary.

The evaluator must determine which data values are required for effective quantitative measurement and over what time frame the measurements will be accomplished. Data requirements and data collection procedures are essential elements to effective evaluation planning. Base data acquired over a sustained period of time prior to activation of a crime prevention project affords the only really reliable technique for measuring project effectiveness in quantifiable terms.

Section II sets down basic evaluation principles that henceforth can benefit Region M project proponents seeking LEAA-CCCJ grant funding. It proposes a standardized procedure to be followed for evaluation of experimental crime prevention/suppression projects from initial conceptualization until such forward period of time as the projects have progressed from experimental to fully operational status.

Among the more important considerations in project evaluation is the need for the evaluative researcher (Evaluation Specialist) to maintain strong liaison with individuals within the proponent agencies who have administrative and operational responsibility for any given project. The Evaluation Specialist absolutely must have a comprehensive knowledge of the LEAA grant management cycle, of the criminal justice system with particular emphasis on police operations, and also with data that can influence evaluations. Of equal importance, all Project Directors who have administrative/ operational responsibilities for anti-crime projects must be generally knowledgeable concerning the intricacies, requirements and problems of evaluation without getting overly involved in statistical manipulations and evaluation technology. Such mutual collaboration will be of assistance in uncovering problems while they still are incipient, and will ease the transition of the project from the experimental phase to a more sophisticated and effective operational phase.

In order to assure timely and effective project evaluation that does not impose on project operational personnel a requirement to become experts in evaluation research, Section II proposes that an individual or individuals with programmatic evaluative research experience be added to Regional staffs throughout the State of California. An Evaluation Specialist should be added to Region M staff on a match-free basis to assist all project proponents in the counties of Monterey, Santa Cruz and San Benito with evaluation design for all LEAA-CCCJ funded activities. Criminal justice agency project proponents and Project Directors properly could and should look to the Region M staff Evaluation Specialist for technical assistance in development and direction of project evaluation design.

In the event that such technical assistance capability is approved for supplementing the Region M staff, a clear prior understanding should exist between the Region M Executive Director, operational proponents, sponsoring agencies, and the California Council on Criminal Justice/Office of Criminal Justice Planning as to what each desires or can expect to get in terms of what each wants to know concerning project success measurement.

Since program/project evaluation can fail unless the designated evaluator maintains strong and continuing liaison with the proponent law enforcement agency having primary responsibility for the project, it is recommended that the Evaluation Specialist should be a part of the permanent staff of the Regional Executive Director.

The selected Region M staff specialist should be fully knowledgeable concerning all criminal justice programs/projects, both ongoing and contemplated in Region M. This will permit constant and effective liaison with beneficiary agencies and proponents of LEAA/CCCJ grants throughout Region M, the provision of OCJP Region M staff guidance for program and project planning, monitoring and assessment of in-region projects on a quarterly basis, performance of liaison on a regular basis with OCJP's Standards and Evaluation Division in Sacramento, and also guarantee timely preparation of final project evaluation reports.
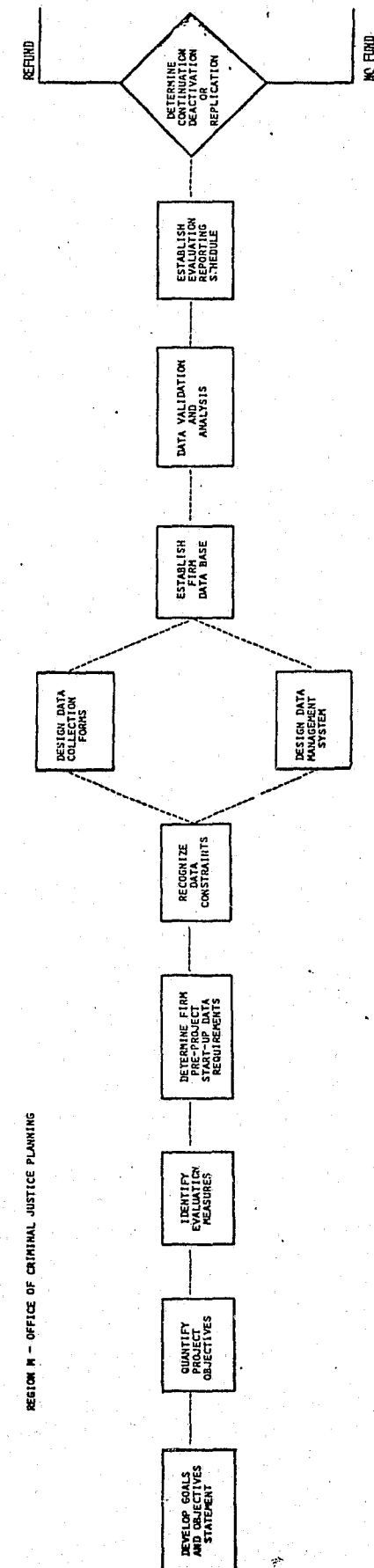
The Region M staff specialist will have evaluative research technical competence to formulate individual project criteria to:

- Quantify project objectives;

- Establish relationships between project objectives and measurable impact;

- Identify evaluation measures;

- Determine pre-project activation data needs;

- Develop methods for individual and cluster project analysis;

- Monitor ongoing project performance;

- Perform terminal program/project evaluations, including determination of the reasons for the degrees of success (or failure) achieved; and

- Assist project proponents in the continuation, coordination, and/or replication of successful anti-crime activities and in the use of a standardized evaluation format.

SCHEMATIC DIAGRAM

PROPOSED STANDARDIZED CRIMINAL JUSTICE PROJECT EVALUATION

REGION M - OFFICE OF CRIMINAL JUSTICE PLANNING

SECTION I

ANTI-CRIME PROGRAM: CLUSTER EVALUATION

Region M - Office of Criminal Justice Planning

Project No. 1686

CCCJ Contract No. A-1354-72

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FOR

Regional Criminal Justice Planning Board
Region M
OF THE

California Council on Criminal Justice

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DATA BASE INFORMATION SYSTEM -- SUMMARY REPORT.

I.   INTRODUCTION

The California Bureau of Criminal Statistics confirms that
in 1971 there were 391,157 burglaries reported throughout the
state, representing aggregate loss valued at more than $45,000,000.
Burglaries alone accounted for 55% of all felony crimes reported
in California in 1971, of which 36,522 were committed by adults
and 35,842 by juveniles. Numerically in 1971, California burglary
figures were higher than those in any of the other 49 states. As
a consequence, early in 1972 the California Attorney General said:

> "Burglary (requires)...intensive attention, because
> (it) is the (most prevalent) serious crime which keeps
> California very much in the running for the unhappy
> distinction of being America's crime capital. Law
> enforcement in California has done a good job, and is
> striving to do a better job, of making our streets
> relatively safe. (However)...the criminal who has
> caused California to have a dramatically increasing
> rate of crime is the burglar. (While)...few of our
> citizens will be the victims of rape, robbery, or
> murder...the one crime that is very apt to strike at
> any of us is burglary. (And, as a consequence, it is
> the intention of the State of California)...to signi-
> ficantly reduce the occurrence or lower the rate of
> increase of the crime of burglary...through the
> selective utilization of community and law enforcement
> resources, and to provide an evaluative description of
> the various techniques for statewide application."[1]

Although the three separate and distinct crime prevention
activities which comprise the Region M Cluster Evaluation are not
part of the State of California's Crime Specific Burglary Program,
which has been pursued in 18 separate police jurisdictions in
large urban concentrations of population, the Region M Cluster
Evaluation was conceived to measure overall goal achievement and
relative successes of the techniques used in each of the three
involved Region M police jurisdictions (Seaside, Salinas, Santa
Cruz).

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[1]Evelle J. Younger, Attorney General, State of California, at a
special press conference in Sacramento, Calif., September 16, 1971.

The Region M Cluster Evaluation, as originally conceived, contemplated a review of data acquisitions and data reductions efforts that should enable the Chiefs of Police of the Cities of Seaside, Salinas and Santa Cruz to reach management decisions that would maximize the effectiveness of police units in reducing criminal opportunities (emphasis on burglaries) within their respective jurisdictions.

The essence of each of the three projects can be stated succinctly:

Seaside — "...reducing...burglaries...through utilizing computer-obtained predictions of where these crimes will occur and to (employ) specially trained personnel utilizing special equipment and techniques to areas designated by the (computer-obtained) predictions."

Salinas — "...integrating trained (police) officers to supply selective criminal activity information to an automated (criminal) data processing system."

Santa Cruz — "(to provide)...a computer based module for allocating (police personnel) resources in an effective and efficient manner for the Santa Cruz Police Department."

The common denominator is that each of the projects is to use a small cadre of specially trained officers to generate crime management information that will permit most effective utilization of limited police manpower to reduce the incidence of crime (emphasis on burglary and other crimes against property) in each of the three separate police jurisdictions.

2

The common approach in each of the three Region M anti-crime projects has been to:

- Improve police patrol techniques and effectiveness;

- Improve investigations and burglary clearance rates;

- Reduce the market for stolen property;

- Improve the security of burglary targets (commercial buildings, private residences, and other facilities); and

- Encourage public programs of education, awareness and community involvement.

II. REGION M ANTI-CRIME PROGRAM DESCRIPTION[2]

Since the Region M Cluster Evaluation was conceived as a method for accomplishing measurement of the comparative effectiveness of reasonably similar anti-crime projects functioning in each of three separate police jurisdictions, an in-depth examination of the individual project approaches is essential to eventual analysis of overall performance.

A. Seaside Crime Prevention Program (CCCJ Project No. 1152)

Traffic in dangerous drugs and hard narcotics, coupled with an ever upward trend in felony crime, of which commercial and residential burglary is the most prominent, has been apparent in Seaside since 1968-1969. Because of budget constraints, there has been no real opportunity to combat

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[2]In conventional evaluation research, "program" refers to a group of "projects" with similar aims and objectives (e.g., crime suppression-burglaries) that can be evaluated on a comparative performance basis because of common purpose considerations. Technically, "project" is a specific isolated activity which is evaluated in relation to accomplishment or non-accomplishment of specific objectives set forth in the project agreement or contract. However, for purposes of this study, no distinction is made between "program" and "project".

3

the burglary problem through the addition of police
personnel in numbers adequate to saturate the commercial/
residential communities of Seaside and still perform the
imperative day-to-day conventional police functions.
Since Seaside police manpower resources have been limited,
a determination was made in 1970 that a Special Unit should
be created to focus on areas of high commercial/residential
burglary incidents. Of particular concern was the matter
of commanding and controlling limited police manpower
through selective deployment, and as a necessary alternative
to saturation patrol.

The Seaside Crime Prevention Program, Phase I/Burglary was
conceived as a technique to reduce commercial and residential
burglary through use of computer-obtained "predictions" of
where crimes will occur and to target specially trained
personnel using special equipment and techniques to areas
designated by the predictions. Additionally, under a
separately funded Seaside Community Relations Program
(Operation Neighborhood Alert), community aides contact
business/residential owners and occupants to instruct on
business/residential security, property inventorying, and
recognition and reporting of suspicious activities.

The Seaside Crime Prevention Program was initiated on a
limited experimental basis in July 1970, with necessary start-
up funds provided by the City of Seaside. At that time, and
over ensuing months, basic data collection techniques evolved.
Standard data forms were developed for use by all Seaside
police officers responsible for the preparation of crime/
burglary reports. Report data included: report identifi-
cation, facts of occurrence (date, time, weather), area of

crime, precautionary measures (if any), physical evidence,
and merchandise identification (losses). The reports then
were reviewed for significant information, reduced to
computer punch-cards, programmed and analysed for signifi-
cant variables. The variables were tested for mathematical
significance by computer. Gradually, patterns began to
emerge, and by mid-1971 an adequate data base existed to
permit the Seaside Police Department to initiate a limited
experiment, using computer generated predictors to assign
patrol personnel to areas of imminently potential burglary.

Essentially, the computer software system accomplishes
two distinct functions. One function is to record new data
on burglaries; and the other function is to create maximum
liklihood "predictions" for burglary occurrences by census
tract. On a daily basis, all new data on burglaries (time,
weather, building type, modus operandi, items stolen, census
tract, etc.) are read into the computer disc file. When a
"prediction" is required, the computer inputs are weighted
to take account of the predictor variables. Almost simul-
taneously, all City of Seaside census tracts then are ranked
from highest to lowest as to liklihood of burglary on a
forward time basis.[3]

A.1. Objectives: Seaside Crime Prevention Program

- Utilize Seaside Community Relations Program
  aides to implement both commercial and residen-
  tial seminars on crime prevention, commercial/
  residential security and neighborhood safety,
  to maximize citizen cooperation and involvement
  in the prevention and reporting of crime and
  in the detection and apprehension of criminals,
  primarily burglars.

[3]The Computer Software System Flowchart Description used by Seaside
Police Department Program of Crime Suppression, Phase I, Burglary
is reproduced as APPENDIX A hereto.

- Utilize a combination of data-gathering and computer technology to supply daily computer predictions as to when (month/week/day/hour), where (census tract/neighborhood), and how (forceful entry/lock-picking/etc.), and under what conditions (weather/public event/parade/etc.) burglaries will occur.

- Maximize effectiveness of crime prevention (burglary) patrol in Seaside through:

    - use of Special Unit uniformed officers, utilizing an unmarked patrol car, who have received special training and whose work hours will be determined by computer prediction requirements; and

    - coordination of Special Unit activities with regular patrol and investigations, in order to have an integrated police effort against burglaries.

- Achieve an increase in burglary arrest and clearance rates.

- Reduce average police response times on burglary intercepts.

- Achieve a reduction in burglaries of at least 50% from informal inception of the program (1969/1970) through end of the formal grant phase (1974/1975).

- Provide interested law enforcement agencies throughout Region M with access to the Seaside Police Department's computerized MO file search on open cases, thus assisting in case investigation and clearance; also, with bi-weekly intelligence reports on known burglars, vehicles, usual hours of operation, associates, addresses, MOs and fences (if known).

- Train designated representatives from interested law enforcement agencies of Region M in the program, its methodology and application, and encourage the initiation of similar anti-crime programs in other police jurisdictions.

- At completion of the 1972-1975 grant period, release in booklet form accurate statistics, charts, graphs, costs, standard operating procedures, and any other information required to duplicate the Seaside crime suppression program in other law enforcement agencies in Region M.

B. Salinas Program of Crime Suppression (CCCJ Project No. 1442)

Salinas is the largest city in the Counties of Monterey, Santa Cruz and San Benito. Doubling of the population from 31,200 to 62,500 over the 10-year span, 1963-1973, has tremendously increased the demand for police service. While Salinas' crime rate is lower than the national average,

because of effective suppression activities, unfortunately, crimes against property and narcotics activities are unacceptably high, accounting for 50% of all such offenses in Monterey County.

Because of social change throughout California, the Salinas Police Department perforce responded to non-police sociological problems through support of a Public Anti-Crime Effort (PACE), which essentially is a police department public relations effort designed to assist in the dissuasion, detection and suppression of criminal violators. This particular effort suffered from personnel shortages, coupled with scarcity of information for the proper direction and coordination of available police manpower. As a consequence, CCCJ funding was sought and approved to support a Special Unit within the Salinas Police Department over a full three-year span. During the first six months of CCCJ-financed activity (August 1, 1973 through January 31, 1974), the Special Unit was comprised of one senior officer, supported from in-kind contribution (but to be funded over the ensuing 30 months with CCCJ grant funds); another senior officer and a police clerk/data processing operator, supported by CCCJ grant funds from inception through completion of the project. The two senior officers work as a team: a Crime Suppression Officer analyzes and prepares data needed for most effective deployment of operational police personnel to selected crime areas; a Community Relations Officer analyzes and prepares data needed to coordinate and direct a public relations and education program for crime suppression.

B.1. Objectives: Salinas Program of Crime Suppression

* Analyse accumulated crime data to furnish predictions as to when, where, how and under what conditions criminal activities will occur in Salinas, thus permitting most effective deployment of police personnel in selected crime areas and in furtherance of Special Unit and PACE activities.

* Implement procedures for use of collected and analysed data within the Salinas Police Department, particularly for improved crime suppression recommendations by the Special Unit and for improved coordination of PACE activities.

* Prepare accurate statistics, charts, graphs, data analyses, procedural recommendations and related documents concerned with effectiveness of the Salinas Program of Crime Suppression in the reduction of crime.

* Reduce crimes against property (burglary and theft) by 5% annually, through use of data gathering and processing equipment to furnish bi-weekly, weekly and daily information (by census tracts) on criminal related incidents.

* Special Unit personnel will be knowledgeable concerning criminal activity and narcotics traffic, allowing fullest liaison with the Tri-County Organized Crime Information Council and with the proposed Narcotics and Organized Crime Bureau of Monterey County.

C. Santa Cruz - POSSE (CCCJ Project No. 1441)

Confronted with one of the highest crime rates in the nation, and in recognition of ever-increasing levels for all types of crime, the Santa Cruz Police Department in 1969 began to formulate a data base, against which the incidence of crimes of various severities might be measured. It was rationalized that proper interpretation of the accumulated data would result in a more effective administration of police related activities. Unfortunately, the Santa Cruz Police Department experienced only limited success in translating the abundant data into usable information. It was found that extant information was not of sufficient quality on which to base command decisions, and occasionally not in sufficient quantity to reveal the actual factual situation.

Because of the Santa Cruz Police Department's increasing contact with people, more and better information was required for intelligent decision making -- and inevitably more paperwork was required to collect essential data. Automation appeared to be the best solution to the problems associated with the ever-increasing amount of record keeping data, on which to base police management decisions. Once a reasonably well managed data base had been created, through utilization of a comprehensive police incident report form devised by the Santa Cruz Police Department, the City of Santa Cruz in late 1971 made an exploratory approach to the California Council on Criminal Justice for grant support of a Police On Spot System Enforcement (POSSE) program -- a computer assisted decision making system to support police management in the allocation and deployment of police manpower resources, essentially a police command and control program.

Although the Santa Cruz system will not become operational until September 1, 1974, it eventually should provide information to allow operational commanders, crime analysts and management personnel to forecast crime and related workload needs. The intent of the system, as implied by its name POSSE -- Police On Spot System Enforcement -- will specify location, date, time and nature of all police incidents and resources needed to adequately cope with these requirements.

The Santa Cruz Police Department will implement a command and control program involving use of a carefully structured incident report form and IBM System 3 computerized information retrieval and police personnel allocations in such manner as to reduce police response times with a corollary goal of increasing arrest rates. The basic intent is to develop and implement a system to identify police problem areas, analyze police needs within the City of Santa Cruz, and to determine the best allocation of police manpower resources.

POSSE, when fully activated, should:

- Integrate the automated system into the Santa Cruz Police Department's operating procedures, to provide management reports that will enable the police commander to make accurate and objective decisions concerning police operations.

• Supply timely data describing crime and incident activity, to allow police management to adjust enforcement techniques and manpower availabilities to cope with changing events.

• Provide field commanders with a decision matrix supported by information allowing the commanders to make manpower deployment decisions (when and where to deploy available resources).

• Generate a model of an information supported decision matrix, hopefully to be used as a model by the numerous police agencies throughout Region M (Monterey, Santa Cruz and San Benito Counties).

The ultimate system should offer a rapid response capability for watch commanders to enter in the number of men available at any given time, and receive a deployment plan. [4] The ultimate result should be to significantly reduce criminal activity in the City of Santa Cruz, and also to simultaneously provide effective and efficient services of a non-criminal nature to the community.

C.1. Objectives: Santa Cruz - POSSE

• Integrate an automated system into the Santa Cruz Police Department's operating procedure (including training manuals for police managers, analysts and clerical personnel) to provide information that will enable the police commander to make accurate and objective decisions concerning force deployment. This general objective

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[4] See An Evaluation of Some Patrol Allocation Methods, by J. L. Carlin and C. L. Moodie, published in Police Magazine, September 1971.

will be measured in terms of:

- reduction of Santa Cruz Police Department overtime by 10%;

- increase in preventive patrol time by 12%;

- increase in inspectional patrol (commercial/residential building checks) by 5%.

• Provide field commanders with decision matrices supported by information facilitating manpower deployment decisions -- when and where to make deployments. Specifically, this should increase on view arrests by 10%.

• Provide police administrators and city executives with management information formats to facilitate decisions regarding manpower allocations to support existing and projected workload, particularly decisions determining the numbers and types of persons required to service the police needs of Santa Cruz. Specifically, this should reduce Santa Cruz Police Department overtime by 10%.

• Develop a feedback capability (through analysis and evaluative output product reports) for evaluating what effect, if any, these decisions had on calls for police services. Specifically, these reportes should reflect a reduction in response time for crime in progress calls by 5%.

● Formulate a model of an information supported
  decision matrix to be adapted and used by
  police agencies throughout Region M (Monterey,
  Santa Cruz and San Benito Counties). Specific
  evaluative criteria will evolve around the
  suitability of POSSE as a model system. The
  matrix of weighted values will be the main
  determinant to measure the success of POSSE
  as a model system.

III. PROPONENT ANTI-CRIME PROGRAM EVALUATION METHODS

A. Seaside Crime Prevention Program (CCCJ Project No. 1152)
   is to be evaluated in two ways: Process, and Product.

   The Process evaluation will give information from the
   computer files as to increases or decreases in the burglary
   rate as a result of the use of predictions. The process
   evaluation will be used to increase the effectiveness of
   the program while it is operational.

   The Product evaluation will rest on findings at the end
   of the grant period, specifically:

   ● Did the burglary rate decrease significantly
     over the 3-year grant period, 1972-1975?

   ● Were social costs reduced as against the cost
     of the program? Restated, was the program
     cost effective?

   ● Will the program be continued without CCCJ/LEAA
     financial support?

● Was the program a success, and did it find
  acceptance within the Seaside Police Depart-
  ment and in the Seaside business and residen-
  tial communities?

Interim measures (quarterly reports) to be used in
evaluating the program should indicate:

1) How well the program is meeting its goals;

2) Extent to which the program is contributing to the
   success of Seaside's Crime Prevention Program, Phase
   I/Burglary; and

3) Contribution of all facets (computer predictions,
   improved moveable property identification techniques,
   improved community relations) to overall program
   success.

B. Salinas Program of Crime Suppression (CCCJ Project No.
   1442) is to be evaluated in accordance with criteria set
   forth in the project agreement as follows:

   ● Crime in targeted areas will be reduced by 5%
     per annum adjusted for population growth.

   ● Analysis of criminal activity in designated
     program areas will be accomplished on a weekly
     basis.

   ● Special reports will be prepared measuring time
     spent in selected geographic areas of Salinas
     by special patrol and detective units resulting

from planned crime suppression operations vis-
a-vis actual reduction of criminal incidents in
those areas.

● Quarterly analyses of criminal activity in
targeted areas will be provided in a standard-
ized report form.

● A terminal report will be prepared on overall
project performance. The report will include
statistical information on implementation of
the program vis-a-vis reduction in crime rate.

C. Santa Cruz - POSSE (CCCJ Project No. 1441) project
evaluation design will determine to what degree the
stated project objectives and the contributions of diverse
operational components contribute to overall project success.
For the Santa Cruz Police Department's command and control
program, three specific evaluation measures have been identi-
fied:

Arrest Rates. Total number of arrests, reduced to the
incidence of stranger-to-stranger crimes, as a function
of response time.

Clearance Rates. Number of stranger-to-stranger crimes
solved, reduced to the number of stranger-to-stranger
crimes reported, as compared to similar periods of
previous months, previous quarters, previous years.
Results will indicate the contribution of the command
and control program to quantifiable impact objectives,
specifically, reduction of the Santa Cruz Police

Department overtime by 10%; reduction in response time
by 5% for "crimes in progress"; increase on view arrests
by 10%; increase preventive crime patrol by 12%; increase
commercial office and private residence surveillance by
5%.

Attitudinal Factors. Overall program evaluation will
make use of measures and data provided by POSSE's
component activities. This will include attitudes of
Santa Cruz police officers and commanders concerning:

● Use of innovative manpower allocation schemes;

● Assignment to police pool vehicles;

● Innovative routines for shift assignments;

● Changes in encounter frequency with vicitms/
offenders;

● Use of computerized data; and

● Use of a stationhouse crime location display
scheme.

Over the anticipated three-year period of project
activity, the Santa Cruz Police Department will evaluate
POSSE effectiveness by three distinct methods:

1) Utilization of a matrix of weighted values, designed
to measure accomplishments through "system change".[5]

2) Specific quantifiable "impact" objectives will be
evaluated for success through comparative studies
to improve effectiveness of manpower utilization
vis-a-vis diminution of crime incidence over the

[5]See SANTA CRUZ - POSSE EVALUATION MATRIX.

SANTA CRUZ - POSSE EVALUATION MATRIX

Weighted Values (1-10 Range)

SPECIFIC OBJECTIVES	RELIABILITY	FLEXIBILITY	SIMPLICITY	MODULARITY	TRANSFERABILITY
1. Automated System					
2. Deployment Decision Matrix					
3. Management					
4. Feedback					
5. Model Program					

three-year period of project activity. Quantifiable "impact" objectives are:

- Process 50,000 data cards (calls for police service);

- Prepare 10 evaluative output product reports;

- Develop 20 matrices for decision making;

- Design 8 management report formats; and

- Develop training manuals for police managers, clerical personnel and analysts.

3) Specific "project performance" objectives will be measured in terms of improved police department management and flexibility acquired through use of the automated system.

IV. REGION M, OFFICE OF CRIMINAL JUSTICE PLANNING, INTERIM
     ANALYSIS/EVALUATION OF THE ANTI-CRIME CLUSTER

A. Cluster Analysis Work Procedure

At the outset of the Region M Cluster Evaluation work
effort in December 1973, it was anticipated that the three
projects (Seaside, Salinas, Santa Cruz) would have been
supported, prior to activation, with adequate data acqui-
sitions. In essence, it was assumed that each of the
three police jurisdictions would be in possession of solid
baseline data on burglaries, arrests, case clearance, pro-
perty recovery evaluations, etc., prior to start-up of the
projects.

As a vehicle for evaluating effectiveness of the respec-
tive projects, each of the police jurisdictions was to
develop and to maintain copies of incident reports which,
in turn, would be used to identify the census tract (or
police grid in the case of Santa Cruz) in which crimes
against property occurred. Such reports were to be verified
for correctness. Abstracts therefrom were to be key punched
in a standard format (which format unfortunately varied from
one police jurisdiction to another) and maintained by the
respective Project Directors in each of the three separate
police jurisdictions for processing and eventual analysis.

In actual fact, as the anti-crime projects eventually
were implemented, each of the three police jurisdictions
endeavored to acquire further detailed knowledge concerning
the local crime situation (emphasis on burglaries) following
project start-up. While much of the required basic data
(incident reports, arrest records, case clearance information,
property recovery values, etc.) was available within each of
the respective jurisdictions pre-project start-up, it was
not always in a form that would permit easy utilization for
analytical purposes.

Although the Region M Cluster Evaluation effort origi-
nally was conceived as a vehicle for accomplishing compara-
tive measurements of performance for the three projects
involved in the cluster, it became apparent in late February
1974, some 3 months following initiation of the evaluation
effort, that the greatest contribution would derive from a
careful scrutinization by the Evaluation Specialist of such
actual performance data as might be available, supplemented
by field interviews with key project personnel, to elucidate
actual work techniques and procedures used or contemplated
for use by Seaside, Salinas and Santa Cruz. In brief, the
Region M Cluster Evaluation effort will not be comparative,
but rather will be a commentary on the composite effective-
ness of the several projects comprising the cluster.

The composite evaluation of effectiveness is necessi-
tated by the fact that none of the three projects (Seaside,
Salinas, Santa Cruz) were initiated simultaneously, neither
were the projects adequately designed for experimental
purposes with rigid experimental controls. As a consequence,
they must be considered, for purposes of the Region M Cluster
Evaluation effort, as tests within different police juris-
dictions of crime prevention/abatement procedures, techniques
for encouraging community involvement, and improved command
and control for operational patrol units.

In order to impute meaning to such basic data figures
as were available, it was determined by the Region M Cluster
Evaluation technician that in each instance a successful
analysis/evaluation design for anti-crime projects would
require:

> Thorough knowledge of the community (physical
> features, social composition, economic status,
> demographic characteristics) in which the project

is to function. To protect business and residential communities, it is important to have knowledge of the numbers, types, locations, occupancy patterns, and something of the "hardness" or "softness" of crime targets in these communities. It is necessary to know the composition of the people frequenting these communities, in order to effectively recruit community support.

● Thorough knowledge of the community crime/burglary problem. This requires Special Unit familiarity with business/residential areas with high incidence of crimes against property and also with patterns of occurrence (time of day, methods of entry, types of property "liberated", etc.).

● Knowledge of individuals with crime records. This infers Special Unit access to reliable crime files, arrest reports, results of interrogations, tip information and criminal intelligence reports. Illustrative of this is the Seaside Police Department's maintenance of up-to-date files on known burglars, including such information as: names of known felons and suspects, nicknames and aliases, addresses of regular or occasional habitation, sex, age, race, physical description, associates, typical modus operandi, usual areas of operation, fences, etc.

● Knowledge of local resources and constraints. It is axiomatic that an effective anti-crime program/project requires commitments of police manpower, resources and time, including special skills, materials and equipment. All of the foregoing can be limited or thwarted by financial, operational, equipment and/or administrative constraints. These constraints usually derive from policies and priorities of the senior police administrator who is in position to determine the number and quality of police officers, equipment, services, intra-departmental cooperation and other resources that will be available for an anti-crime Special Unit effort. In each of the Region M projects, a fortunate prior commitment was made by each of the Chiefs of Police to use a select sworn officer cadre, plus a police clerk to implement the effort, supplemented by regular patrol as necessary, reserve forces, and community group action.

B. Special Unit Training and Effectiveness

Crime prevention and abatement projects of the type activated by Seaside, Salinas and to be activated by Santa Cruz, which are the focus of the Region M Cluster Evaluation, have requir⎯⎯⎯ a prior determination by the Chiefs of Police in each of the three jurisdictions that stipulated levels of police manpower, equipment, services, intra-departmental cooperation, and civic agencies support would be available.

These prerequisites were essential if the Project Director of the Special Unit was to function effectively within the conventional police department, with public and private agencies, and with the general public.

In each instance the Special Units in Seaside, Salinas and Santa Cruz have been or are to be staffed with highly motivated individuals who have received special training in patrol, security, investigation, police intelligence, public and community relations, and rudimentary project performance analysis.

Formulation of each Special Unit crime prevention/crime abatement team must involve a unique training program designed to acquaint all Special Unit members with such essentials as: project objectives, project organization/administration, time-phased operational plan, special procedures for LEAA-financed activities, demographic features prevailing in the Special Unit's area of operations, team operational standards, performance of commercial and residential security inspections, crime scene investigative procedures, interrogation/search/arrest techniques, surveillance, use of criminal records, special reporting requirements, community relations, and occasional liaison with courts, corrections and LEAA-OCJP personnel.

B. Public Involvement

An important requisite for success in any crime prevention project is an informed citizenry. Therefore, a basic requirement for each of the three projects involved in the Region M Cluster Evaluation has been to make the citizens of Seaside, Salinas and Santa Cruz aware of the specially conceived law enforcement effort to reduce the incidence of crimes against

property, with particular emphasis on burglaries. In order to achieve success, each of the separate police jurisdictions has endeavored by various stratagems to convey information to the public concerning benefits to the client communities in each of the jurisdictions supporting Special Unit crime suppression/abatement projects.

Essentially, the public relations effort for anti-crime projects must be carefully conceived to:

- Educate the general public concerning the seriousness of the local crime/burglary situation;

- Acquire public support for the Special Unit crime prevention effort;

- Promote a favorable commercial/residential community reaction to "hardened" targets through use of effective locks, improved lighting, installation of properly engineered alarm systems, property inventorying and identification, etc.; and

- Encourage public cooperation with the Special Unit to improve crime/burglary reporting and to cooperate in the apprehension of criminals.

Public involvement and commitment can best be assured through carefully pre-planned press conferences preceeding activation of the Special Unit function, exercise of commercial/residential security checks, presentation of seminars on crime prevention to local civic groups, release of pamphlets and automobile bumper strips concerned with crime abatement

and burglary reduction, and through recourse to special educational seminars within each of the police jurisdictions designed to encourage direct public actions concerned with crime suppression. In each of the three projects involved in the Region M Cluster Evaluation effort, specific public actions taken to assure project success have included: improvement in lock-up and light-up of both commercial establishments and residential properties; improvement of general security, including property identification measures that will make it difficult to "fence" stolen items; improvement in property inventorying; improvement in burglary reporting which, in turn, contributes to improved detection and higher rates of apprehension of burglars.

D. Physical Security

Crimes against property rates can be reduced by Special Unit survey of security weaknesses in the commercial and residential communities of any police jurisdiction and through encouragement of property owners to take the initiative to improve physical security of their property.

Each of the three projects involved in the Region M Cluster Evaluation effort have used or intend to use these techniques:

- Analysis of physical security information obtained from local crime incident reports;

- Conduct of commercial/residential security inspections;

- Use of security hardware displays and the maintenance of security information centers;

- Improved street and facility lighting;

- Improved building security ordinances enacted by city/municipal authorities; and

- Promotion of community enthusiasm for support of commercial and residential building inspections during course of construction and/or renovation.

An acceptable technique for evaluation of effectiveness of improvement in physical security would be for each anti-crime Special Unit to maintain data on:

- Total numbers of security inspections conducted quarterly (commercial establishments and private residences to be recorded separately);

- Numbers of commercial establishments complying with Special Unit security inspection recommendations;

- Numbers of private residences complying with Special Unit security inspection recommendations;

- Numbers of burglaries committed against targets complying with Special Unit security inspection recommendations (commercial establishments and private residences to be recorded separately); and

- Demonstration (or presentation of a short film) on door locks, hinges, windows, security hardware and other protective devices including effective alarm systems.

Efforts of Seaside and Salinas to improve the physical
security of businesses, residences and other facilities
that have been the targets of burglaries were reviewed by
the Region M Cluster Evaluation technician as of June 1,
1974. The survey indicated that 476 burglaries had been
reported in Seaside during the immediately preceeding 12-
month period (June 1, 1973 - May 31, 1974), and that 400
burglaries had been reported in Salinas during the same
period. Comparative baseline data for the previous 12-month
period in Seaside revealed a decrease in burglaries by 20%.
Comparative baseline data for the previous 12-month period
in Salinas revealed a decrease in burglaries by 23%.

In summation, the Special Units' crime prevention
efforts both in Seaside and in Salinas, as well as the
project contemplated for early activation in Santa Cruz,
confirm that an increased effort will be required on the
part of burglars to penetrate selected burglary sites that
have been effectively "hardened" as a consequence of physical
security measures.[6]

E. Police Patrol and Surveillance

A generally accepted hypothesis for each of the three
separate police jurisdictions with which the Region M Cluster
Evaluation has been concerned is that improved preventive
patrol and surveillance of suspects will result in a marked
decrease in burglary rates through deterrence, while simul-
taneously increasing the apprehension and clearance rates
for burglaries actually committed.

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[6]See SEASIDE - RESIDENTIAL BURGLARIES and SALINAS-RESIDENTIAL AND
COMMERCIAL BURGLARIES, also SALINAS - BURGLARY INCIDENCE TABLE
and SEASIDE, SALINAS POLICE DEPARTMENTS COMPARATIVE BASELINE DATA.

SEASIDE - RESIDENTIAL BURGLARIES

Annual Totals
(unadjusted for
population growth)

KEY: — — — 1972
———— 1973
············ 1974

Frequency of Burglary

0 50 100 150 200 250 300 350 400 450 500 550 600 650 700 750 800 850 900 950 1000

1965
1966
1967
1968
1969
1970
1971
1972
1973
1974 - (estimated)

27-b

Residential

Residential & Commercial

SALINAS — BURGLARY INCIDENCE TABLE

27-c
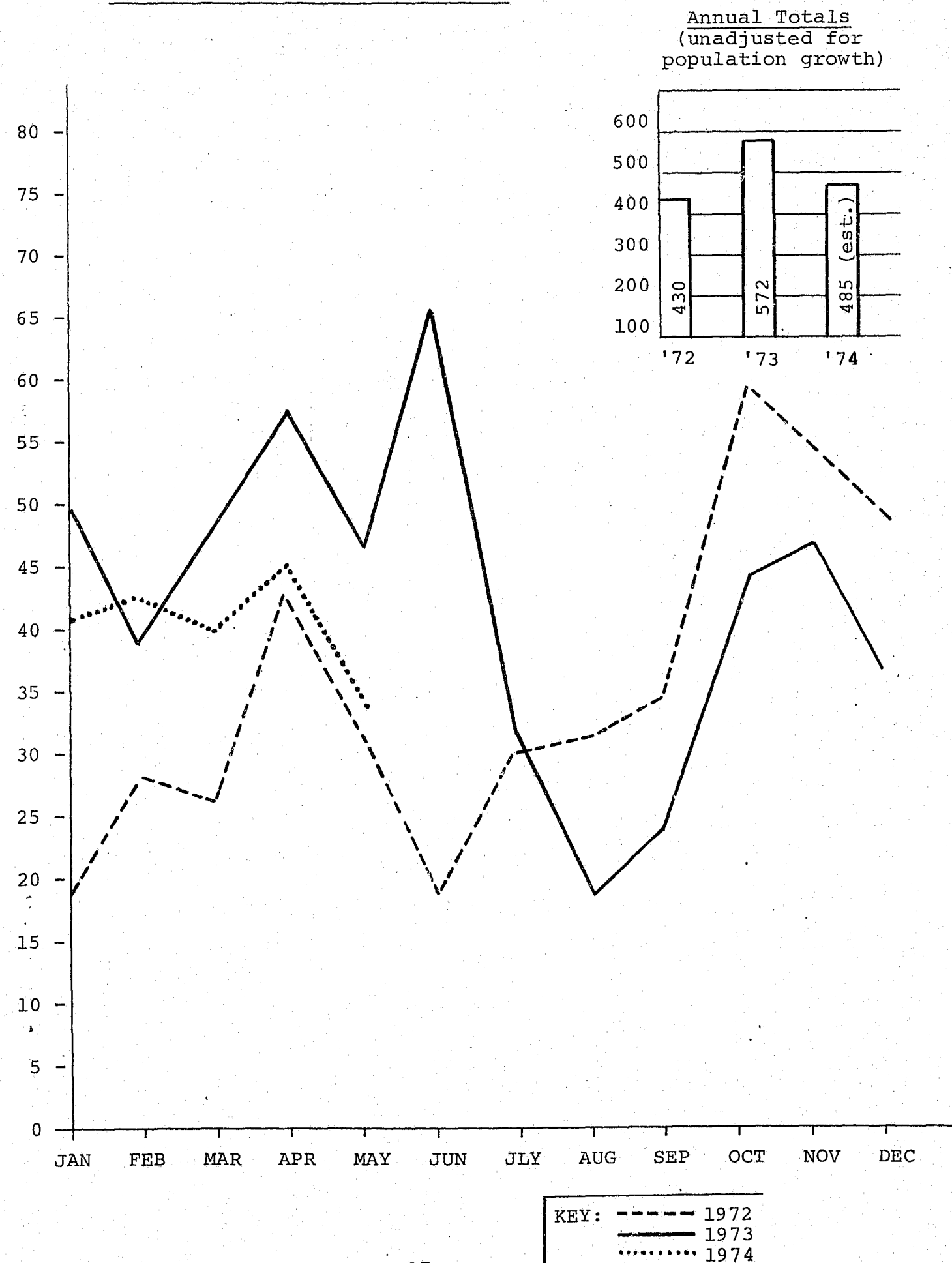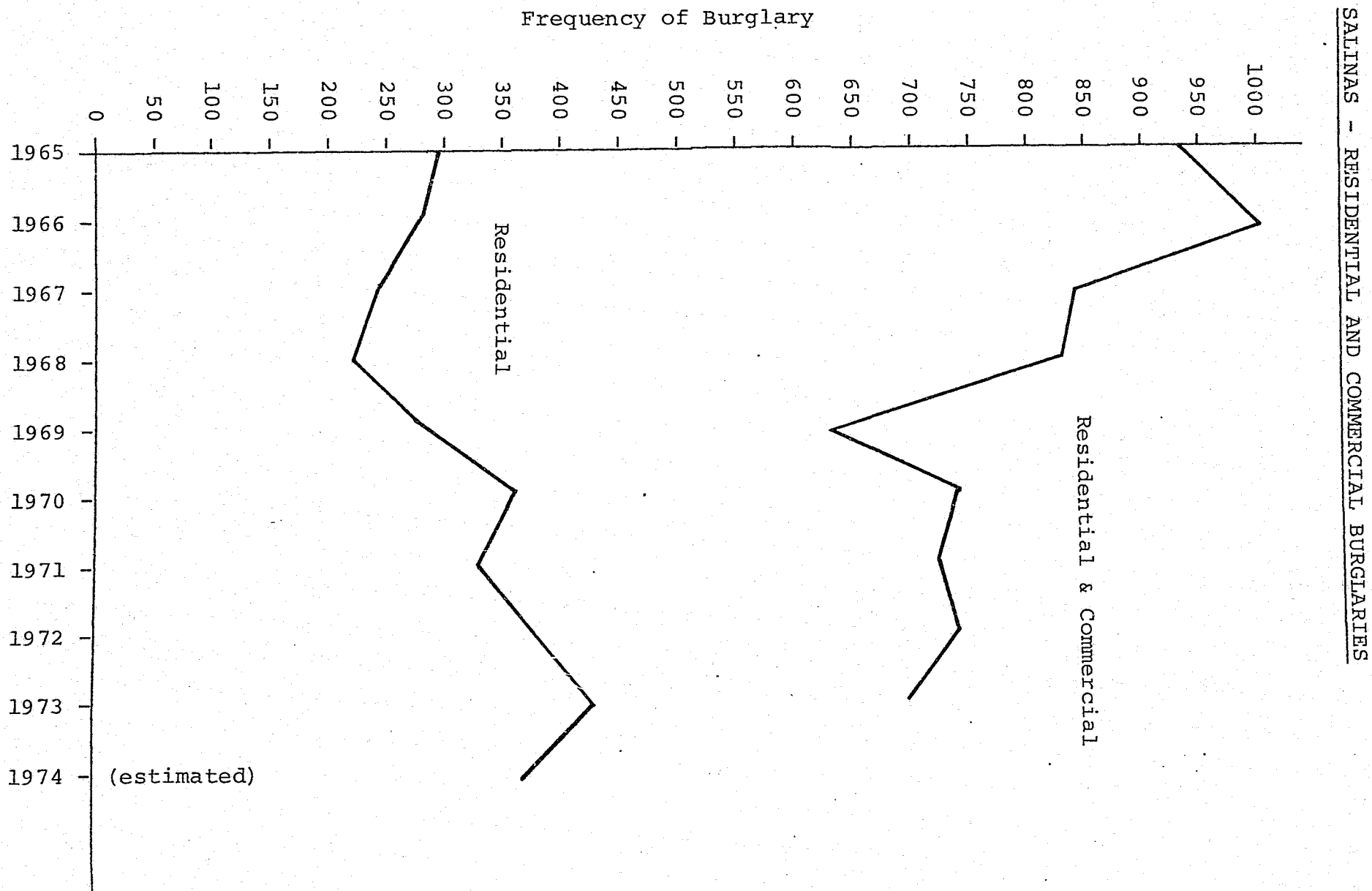
	1965[a]	1966	1967	1968	1969	1970	1971	1972	1973[b]	1974[c]
RESIDENTIAL	287	269	240	225	283	364	316	368	420	155
COMMERCIAL	647	708	601	610	351	379	413	354	275	138
TOTALS	934	1,004	841	835	634	743	729	722	695	293

[a] Population 53,000
[b] Population 63,500
[c] Through May 31, 1974 only

SEASIDE, SALINAS POLICE DEPARTMENTS
COMPARATIVE BASELINE DATA

SEASIDE: June 1, 1972 - May 31, 1973   584
             June 1, 1973 - May 31, 1974   476
                                    20% Decrease

SALINAS: June 1, 1972 - May 31, 1973   492
             June 1, 1973 - May 31, 1974   400
                                    23% Decrease

SEASIDE: January - December 1972   Total 416
             January - December 1973   Total 586
             January - May   1973   Total 485 (est.)

SALINAS: January - December 1972   Total 368
             January - December 1973   Total 420
             January - May   1974   Total 362 (est.)

27-d

The basic operational aspiration of the anti-crime
Special Units has been to assure that patrol presence will
generate a psychological deterrence to burglars; also that
computer generated patrol patterns and procedures will
result in expeditious detection of burglaries and their
perpetrators.

The most effective police technique for suppressing
crime is patrol in areas of high crime potential, perfor-
mance of building security checks, informal interrogation
of suspicious persons, and routine conversation with regular
residents and businessmen who may be able to provide general
intelligence concerning potential crime.

Special Unit patrol techniques employed by Seaside and
Salinas, and contemplated for use by Santa Cruz when POSSE
becomes fully activated, include:

- Target area focus;

- Dynamic patrol schedules and patrol visibility;

- Stepped-up frequency and intensity of suspect
  surveillance;

- Undercover activities, including acquisition of
  burglary suspect and stolen goods receiver
  information;

- Knowledge of school truancy patterns; and

- Stepped-up tempo of interrogation.

28

Effective police patrol and surveillance serves several functions simultaneously, i.e.,

1) As a guard force for protection of business establishments, residential properties, and other facilities that are potential burglary targets;

2) As a surveillance force to keep burglary suspects and stolen goods receivers under reasonably regular scrutiny; and

3) As an interdiction force to abort burglaries in process.

Because of restricted police manpower availabilities, saturation patrol usually is not possible in most small police jurisdictions. The technique used or to be used in each of the anti-crime projects involved in the Region M Cluster Evaluation is to supplement regular patrol with the Special Unit team, thus permitting occasional patrol saturation on a temporary basis in critical target areas. The mere existence of the Special Unit team, however modest in size, permits optimum use of patrol manpower in census tracts where local crime occurrence is predictably high.

F. Dynamic Patrol Schedules and Patrol Visibility

Through the use of computer based systems now available or to be made available in Seaside, Salinas and Santa Cruz police jurisdictions, it is possible to obtain factual data on accomplished criminal activities by types, numbers, places and times of occurrence. From this factual data, it is possible to discern distinctive "predictive patterns" of crime by type, place and probable times of occurrence, thus facilitating Special Unit and regular patrol deployment. Thus, dynamic patrol scheduling can be based on analysis of both past and current experience in each of the three separate police jurisdictions.

A criticism voiced by one officer in Santa Cruz was that dynamic patrol schedules continuously alter normal shift schedules and patrol area assignments, thus imposing unacceptable personal inconveniences on Special Unit personnel and oftentimes on regular patrol. In view of limited funding usually made available through LEAA/OCJP grants, it would be desirable for all members of Special Unit teams to agree at the outset of the project to accommodate to shifting schedules and assignments within the Unit's area of overall responsibility. Also, realistic provisions for overtime and/or broken shift compensation should be made in the funding plan, prior to activation of the project.

Randomized patterns of patrol also have proven to be more effective than fixed or habitual patterns that can become known to the individual, intent on committing crime. As a consequence, both Special Unit and regular patrol should be random and unpredictable to potential perpetrators of crimes against property.

High visibility of police patrol through increased use of conventional patrol vehicles, while serving as a practical crime deterrent, also can be supplemented by use of special unmarked vehicles and/or plain clothes patrol to create a psychological illusion that patrol is continuous although essentially invisible. Illustratively, Seaside's Crime Prevention Program, Phase I, Burglaries has used a standard unmarked police patrol car. Cycle patrol has not been used

either in Seaside or in Salinas because the need of the patrol officer to carry a radio unit for contact with police headquarters almost guarantees prompt identification of the patrolman (even though in civilian clothes) by criminal elements within the community.

Although a certain success in crime abatement has been experienced as the consequence of use of the unmarked police patrol car, there is little doubt that the vehicle's general characteristics are most familiar to Seaside's criminal elements. Use of rental cars or camper vans that could be exchanged on a quarterly basis, thus reducing "visibility" of the unmarked unit and increasing the potential for psychological harrassment of criminal elements in the community, while considered at one time or another by the Special Units both in Seaside and Salinas was rejected as being too costly when measured against probable effectiveness.

G. Burglary Suspect and Stolen Goods Receiver Information

In all three of the police jurisdictions involved in the Region M Cluster Evaluation, suspect information has been generated from a constant analysis of burglary reports, prior arrest records, and other offender data. In Seaside, the information was assembled and maintained in such manner that it was readily available for use by the Special Unit and by regular patrol. Patrol units were regularly provided with descriptions and MOs of individuals known to be active in burglary and other crimes against property.[7]

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[7]See SEASIDE BURGLARY INTELLIGENCE SUMMARY.

SAMPLE

SAMPLE

MEMORANDUM

(SEASIDE BURGLARY INTELLIGENCE SUMMARY)

TO: ███████   DATE _____

FROM: ███████

SUBJECT: WEEKLY INTELLIGENCE REPORT

Following is information regarding burglars known to be operating in the Seaside area to include names, addresses, vehicles, running partners, and current status.

██████████, ██48 Watson Street, Seaside: has 459 and 484 cases pending, now out on bail, specializes in 459 autos. Currently he is running with ███████████ in a black 1967 Ford, with chrome rims, and lowered.

██████████, ██6 Hamilton Street, Seaside: on probation for 459PC, has made temporary change from 459PC to 10851CVC; also has charges of 499bPC and 10851CVC pending. Loner.

██████████, ██09 Trinity Avenue, Seaside: on probation, involved in 459PCs in Seaside and Monterey. Information says he is inactive until court decisions on both cases. Has been seen recently running with ███████████, driving 1969 Dodge Dart with rear end damage.

██████████, ██62 San Lucas Street, Seaside: currently has a new 459PC case pending; running with ██████████ and ██████████; available information indicates that any or all of these individuals are going to steal a 1970 red Camaro in the immediate future.

██████████, ██9 Sonoma Avenue, Seaside: on probation for 484PC. It appears that ██████████ and ██████████ are running together and specializing in 459PC autos; they drive a black/gold 1968 Mustang.

██████████, address unknown for each time he's arrested he gives a different address. Currently jailed in Oregon on weapons violation. We are holding a 459PC warrant.

██████████, ██0 Sonoma Avenue, Seaside: prime suspect for a recently committed 459PC; also observed regularly loitering in residential area acting 912PC; usually runs with ██████████.

██████████, ██26 Waring Street, Seaside: suspected of many 459's; runs with ██████████ and has choice of several vehicles including black 1965 Chevelle, blue 1967 Chev convert., or 1967 gray Chrysler Imperial registered in the name of ██████████.

██████████, ██90 Military Road, Marina: arrested by FBI and CHP for numerous violations; recently escaped while being transferred from County Jail to Federal Youth Authority, Oklahoma. Recently sighted in vicinity Ft. Ord.

31-a

██46 Sonoma

AKA ████████
███29 Palm

███ Ardeaneus
Ft. Ord
Blue '67 Chev.

███84 Vallejo
Blk/Chev. 2 dr.

███65 Trinity
(uses narcotics)

AKA ████████
███ Mingo Ave.
'71 Buick Riviera

███42 Luxton
'69 T-Bird/Gold

███ Sonoma
'65 Cad/Brn.

DR ███954   WMA   12/11/50   BLK/BRN   5'10   170

On Probation, pending Narcotics charges, last seen driving Bronze '73 Firebird, damaged right front fender. Running with ████████████. Uses narcotics.

DR ███28   NMJ   12/29/59   BLK/BRN   5'5   120

Running with ████████, ████████, ████████, PO: Tom Grinnell. On Juvenile Probation 459PC, 496, 470PC. Also has been in custody on 487,

No DR   NMA   11/9/50   BLK/BRN   6'   150

Waived rights to search, currently pending charges 10851CVC also 487PC, supposedly made Bail. PO: Wriffle. Supposedly involved in several 459PCs at Hannon Project.

DR ███741   MEX   4/18/47   BLK/BRN   5'8   160

States selling Bunk Dope. On Probation. Occasionally runs with ████████. Now living with ████████.

DR ███70   WMA   6/26/50   BRN/BLU   5'11   145

On Probation, currently pending charges from Seaside and FBI. Running with ████████ and ████████.

DR ███290   NMA   8/10/55   BLK/BRN   5'8   170

Was fencing property, until he went co-partner with ████████ in 647b activity; suspect in two commercial 459PCs. Knows that ████████ is in custody.

No DR   NMA   12/17/50   BLK/BRN   5'10   155

Subjects name is popular with informants as responsible for numerous 459s; but as yet we have been unable to make him on one. Runs with ████████ and ████████.

DR ███474   MEX   4/30/52   BLK/BRN   5'9   145

We hold a $5,000. Warrant. Variously reported as living in Oakland, Calif. and seen in Vancouver, B.C. (April 1974). Currently pending numerous felony charges.

Both in Seaside and in Salinas it was confirmed that increased burglaries in residential communities correlated in some unsubstantiated degree with truancy rates in adjacent neighborhood schools. Group surveillance of this nature, in which the Special Unit works in close collaboration with school authorities, has proven to be effective. Special Unit contact with youth groups on a "rap session" basis oftentimes has produced knowledgeable informers.

While the Special Units have found general surveillance of known or suspected burglars and receivers of stolen property to be productive, constant surveillance in a small police jurisdiction cannot be practiced because of "client" -defensive and cost-effectiveness considerations.

H. Adequacy of Baseline Data and Information Analysis

Elements of information selected for analysis in each of the three police jurisdictions involved in the Region M Cluster Evaluation must be measured against adequate baseline data. Elements of information necessary to the analysis would include the total number of burglaries occurring in each of the three jurisdictions broken down over quarterly periods to indicate:

- Entry points visible to Special Unit and regular patrol;

- Burglary detections by patrol; and

- Offender arrests by patrol.

Experience with the three projects involved in the Region M Cluster Evaluation has led to the unfortunate finding that, in the absence of completely adequate and valid baseline data, actual effectiveness can be measured only after each project has been fully operational for a minimum of one year. Of the three projects involved in the cluster, only Seaside met this criteria.

Santa Cruz reported that pre-project start-up undercover investigative efforts to acquire improved intelligence on narcotics users, shoplifters, burglars and receivers of stolen property have, over a period of time, been of prime importance in improving arrest and clearance rates.

Typically, law enforcement agencies have an abundance of filed information on known and suspected offenders, burglary sites, and fencing arrangements. This crime intelligence information, to be useful however, must be assembled and controlled in such a manner that it is readily available to operational units. Although the Seaside, Salinas and Santa Cruz Police Departments all maintain current information on known or suspected individuals, including arrest reports, crime reports, and undercover intelligence reports, there is an obvious lack of uniformity in the cateloging and analysis of such information among the several jurisdictions.

V.   CONCLUSIONS

Programmatic crime prevention, as contrasted with crime solution and law enforcement per se, is a relatively new experience for California police jurisdictions. Of the three projects "evaluated" in the Region M Cluster, as of June 1, 1974, only one (Seaside) has been operational for a period of more than one full year; another (Salinas) has been operational for ten (10) months only, while the third (Santa Cruz) has not yet gone operational. As a consequence, comparative statistical project performance evaluation has not been possible, nor will it be practicable until each of the projects has been productively operational over a sustained period of time. Indeed, for each of the three projects surveyed in Seaside, Salinas and Santa Cruz, the project administrators were unanimous in their assertions that activities had not been on-stream for a sufficient period of time to measure results other than on a tentative subjective basis.

Subjectively there is little doubt that each of the projects in its own way has contributed or will contribute to crime prevention and suppression. All of the projects have required cooperation between law enforcement agencies and the communities which they serve. A basic objective of each of the projects has been to encourage cooperation between the police departments and the business and residential communities which they serve. The clear intent has been to bring the police and the communities together in cooperative selective crime prevention efforts.

Conclusions drawn from inception of the respective projects through June 1, 1974, therefore of necessity will derive from observed deficiencies and observed success factors. Only from observed deficiencies and observed successes can one reach a reasoned conclusion at this particular point in time concerning the appropriateness of future activities for these unique anti-crime experimental efforts.

A. Observed Deficiencies

Most importantly, collectively there has been a lack of uniformity in data collection, management and analysis among the three separate police jurisdictions involved in the Region M Cluster Evaluation.

Certain minor deficiencies were observed in the Seaside Police Department Program of Crime Suppression, Phase I, Burglary. Specifically, an adequate public relations campaign was not initiated prior to start-up of the program, with the consequent result that there was some initial resistance to the new activity, both within the Seaside Police Department and in the business/residential communities. Also, it would appear that there was oversight in failure to provide an anonymous "Crime Tip" telephone, whereby concerned citizens might provide quiet and uncompromising intelligence on past and potential criminal activity within the community.

Perhaps the most exasperating deficiency on the Seaside project, however, has been recurrent and prolonged delay in achieving an acceptable communications link between the Monterey Community College's computer complex and the Seaside Police Department's Special Unit. In this particular regard, it was initially envisioned by the program administrators that the computer-phone link would be functional within six months from the onset of program activities. At the end of nineteen (19) months of operations, the system still is not operational, nor is it expected to become operational in the immediately forseeable future.

A thwarted but commendable objective of the Seaside anti-crime project was to "provide all interested local (police) agencies with access to (Seaside's) up-to-date computerized MO-file search on open cases, to assist in case clearance and investigation, and to provide the investigative divisions of all local (police) agencies with bi-weekly intelligence reports on known local burglars...vehicles...MOs...fences."

Further, Seaside was prepared to "provide all interested law enforcement agencies (in Region M) with training for their representatives in all phases and aspects of the program..." As a technique for accomplishment of this worthwhile objective, solicitations were sent out to the numerous Region M law enforcement agencies indicating that the Seaside Project Director would arrange 20 hours of staff instruction and 16 hours of field instruction with the Special Unit in all program phases, including print-out reading and analysis. Sample materials, progress reports, and program outlines were to be provided, and monthly meetings were to be convened to coordinate progress with other agencies involved. Unfortunately, the Seaside offer of collaboration did not find acceptance in other Region M law enforcement agencies.

In the case of Salinas there appeared to be a lack of sophistication in the data base on which the entire program was premised. In May 1974 the Salinas Crime Suppression Officer acknowledged that: "Statistical data compilation has been hampered by the lack of a card sorter...which... has made it necessary to manually extract specific data by type of incident." It also would appear that the proposed training of Special Unit personnel for gathering selective criminal data for data processing treatment, including instruction in use of the IBM System 3, has fallen short of original expectations. While the same May 1974 report observes that "Although continuing manpower shortages have precluded the utilization of data as a means of assigning extra crime suppression teams...", in discussions with the Salinas Crime Prevention Officer, the Region M Evaluation Specialist gained an impression that the Special Unit had not adequately liaisoned with regular patrol, with the

consequent unfortunate result that the crime suppression
program had not been unreservedly accepted by the regular
patrol and investigative cadres of the Salinas Police
Department. Exemplary of this apparent deficiency was the
casualness with which regular patrol officers viewed the
pin maps and prediction activities of the Special Unit.

It would appear that regular patrol and investigations
has made no real commitment to use Special Unit information
and, for the most part, makes little use of it in beat and
patrol force resource allocations. Conversely, adequate
input from patrol to the Special Unit concerning patrol's
needs is not apparent. Rather, there tends to be an
isolation of the Special Unit which is viewed in some sub-
stantial measure by patrol as being a PR unit of the Salinas
Police Department, rather than the more proper role of the
Special Unit as crime data analysts or technicians. Illus-
tratively, again in May 1974, the Crime Suppression Officer
reported that "...in the area of community relations...we
have been able to present an accurate picture of the various
aspects of crime to a wide range of community groups in an
effort to increase (public) awareness of the crime problem
and (of) the individual citizen's role in crime suppression."

The degree of sophistication employed by the Special
Unit in data analysis has not progressed beyond the "Pin
Map" technique recommended for police use by O. W. Wilson
in the late 1930's. In discussions with the Region M
Evaluation Specialist, the Salinas Police Department Program
of Crime Suppression administrators were forthright in
expressing their opinions that the more complex evaluation
methodologies practiced by Seaside and contemplated for use
by Santa Cruz probably would not be appropriate for use by
Salinas.

B. Observed Success Factors

The Seaside Police Department sought LEAA/OCJP grant
funds for support of an anti-crime project that already
had been pre-tested over a span of nearly 1 1/2 years on
a limited trial basis with municipal support. During
this interim trial period a reasonably reliable data base
was established against which to measure future performance.
Also, the Seaside project was initially conceived with the
assistance of a reserve police officer (Dr. James Nivette)
who also is a knowledgeable evaluation research methodolo-
gist. As a consequence, Seaside's Crime Prevention Program,
Phase I, Burglary, operating in conjunction with the earlier
CCCJ funded Police Community Relations Program, benefited
from a reasonably clear statement of objectives, a realistic
approach to achievement of objectives, a positive coordi-
nation of Special Unit activities with those of regular
patrol and investigation, data and computer analysis tech-
niques that have undergone necessary adjustments and
refinement based on project experience, and a generally
acceptable programmatic evaluation scheme based on process
and product, viz.,

> "The process evaluation will give information from
> the computer files as to increases and decreases in
> the burglary crime rate as a result of the use of
> predictions. This evaluation will be conducted for
> the purpose of increasing the effectiveness of the
> program while it is in operation.

"The product evaluation will rest on the final out-
come at the end (of the project). Did crime go
down significantly (over previous years)? Is the
social cost reduced, in excess of the cost of the
program (over previous years)? What needs to be
done to make the program better for (future) years?

"Questions of this kind are answered in a terminal
or product sense. What did we accomplish? Were
we successful and did we stay within the budget?
These questions can be answered only at the end of
the program."

Although the Seaside project has enjoyed measurable and
demonstrable success as an anti-crime modality, as evidenced
by decreasing rates of commercial and residential burglaries
in the Seaside Police Department's jurisdiction (at a time
when rates in some other police jurisdictions in Monterey
County were increasing), there is some evidence that the
Seaside effort may have brought about crime displacement,
rather than crime reduction.[8]

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[8]See COMPARATIVE TABLE OF CRIME INCIDENCE - MONTEREY BAY AREA.

COMPARATIVE TABLE OF CRIME INCIDENCE - MONTEREY BAY AREA

RESIDENTIAL BURGLARY

1974
- P. GROVE: 67
- MONTEREY: 101
- CARMEL: 13
- SALINAS: 155
- SEASIDE: 202

1973
- P. GROVE: 187
- MONTEREY: 280
- CARMEL: 61
- SALINAS: 420
- SEASIDE: 586

1972
- P. GROVE: 100
- MONTEREY: 210
- CARMEL: 47
- SALINAS: 368
- SEASIDE: 416

1971
- P. GROVE: 108
- MONTEREY: 198
- CARMEL: 50
- SALINAS: 316
- SEASIDE: 359

0 50 100 150 200 250 300 350 400 450 500 550 600
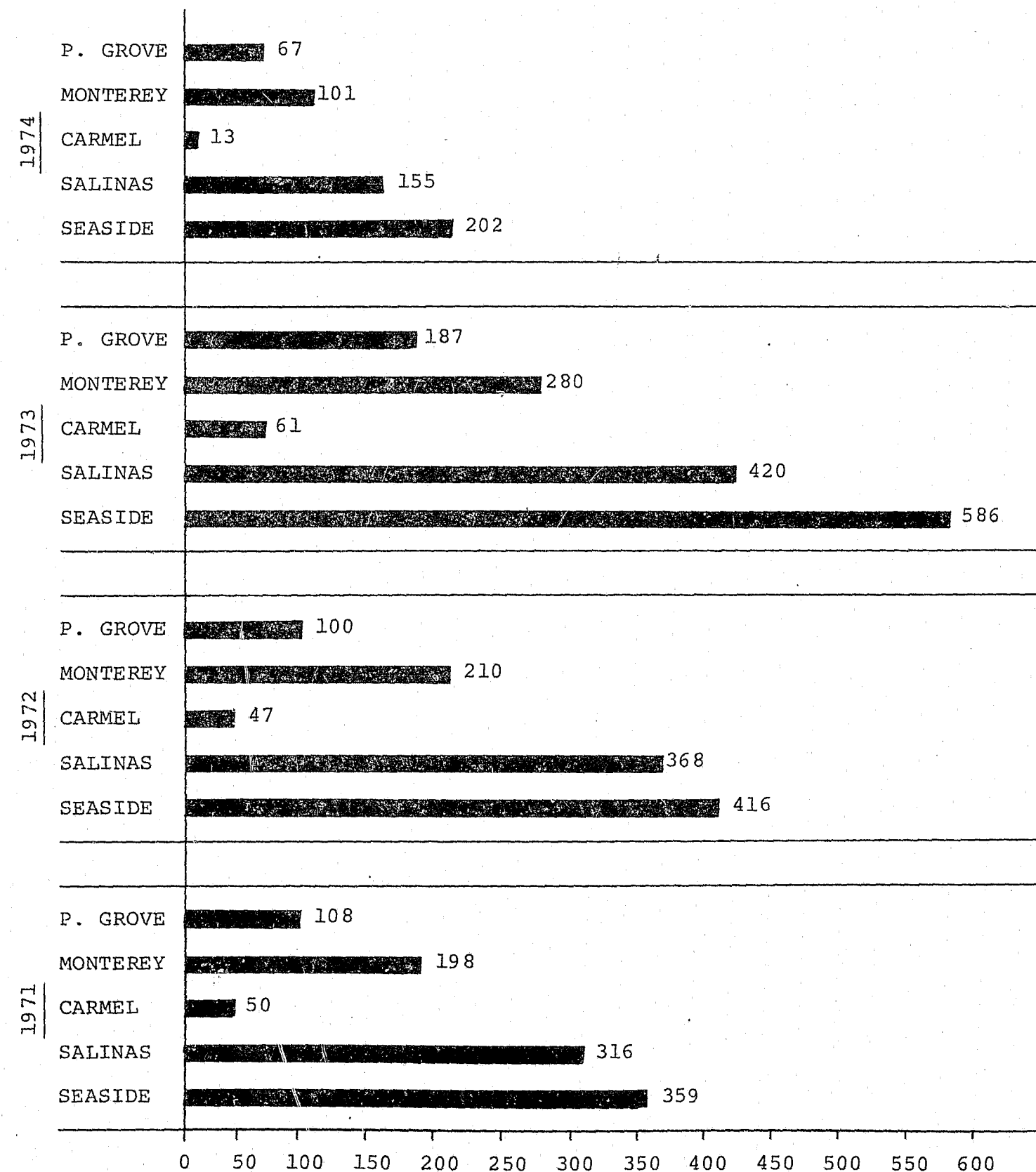
A noteworthy contribution to effectiveness of the Salinas Police Department Program of Crime Prevention (although not provided for in the original program design) has been the installation of an anonymous "Crime Tip" telephone line. The "Crime Tip" telephone at the Salinas Police Department is answered by a tape recording device, thus enabling any individual who has knowledge of a crime committed, or of a crime about to be committed, or information of a sensitive nature about criminal activities, to relay such intelligence to police authorities on a completely anonymous basis. According to the Salinas Project Director, during the initial six month period that has elapsed since installation of the "Crime Tip" line, a total of 316 calls have been recorded, of which only 27 were "valueless". In one manner or another, the seriously motivated calls yielded sufficiently solid intelligence to result in numerous juvenile interceptions, misdemeanor and felony arrests and case clearances. Since the monthly rental cost of the "Crime Tip" equipment is nominal, the service clearly has been cost effective.

Although the Santa Cruz Police Department has long recognized the importance of a comprehensive data base information system,[9] it recently concluded that the Form CAR-68, which had been in use since 1970, does not contain enough information elements to satisfy POSSE data base and data analysis requirements. As a consequence, a special task force has been collaborating with Public Systems, Inc., to evolve a more comprehensive Form CAR-74 which will be used exclusively for police incident reporting when POSSE becomes operational in September 1974. The Region M Evaluation Specialist has noted that the comprehensive Form CAR-74 is a product of intra-Santa Cruz Police Department planning and ingenuity, with PSI functioning only in an advisory role.

[9] See Analysis of Santa Cruz Police Department's Existing Data Base System -- Summary Report, APPENDIX B, attached hereto.

One of the most interesting factors observed in the cluster has been the pre-project activation approach practiced by Santa Cruz-POSSE. Recognizing the innovative and experimental nature of the Police On Spot System Enforcement (POSSE), the Santa Cruz Police Department entered into a contract with Public Systems, Inc., effective September 1973, to provide technological expertise in project conceptual design, orientation for Santa Cruz Police Department personnel, and to pre-test the system before it goes operational in September 1974. Training seminar workshops involve approximately one-third of the Santa Cruz Police Department. Preponderantly, the training seminar workshop participants are from patrol and investigation, resulting, however, in a further significant "trickle down" to other elements of the force.[10]

C. Recommendations

Each of the three anti-crime projects involved in the Region M Cluster Evaluation, although seeking the same general objectives of efficient management of police resources and diminution of criminal incidents, is unique in design, strength of data base, financial grant support requirements for the acquisition of equipment and police manpower staffing requirements, and evaluation methodology.

Region M staff believes a most useful purpose would be served by bringing together the three involved Project Directors and other key personnel in a series of workshops, in which each of the projects would be fully described and critiqued. Through this process the three police
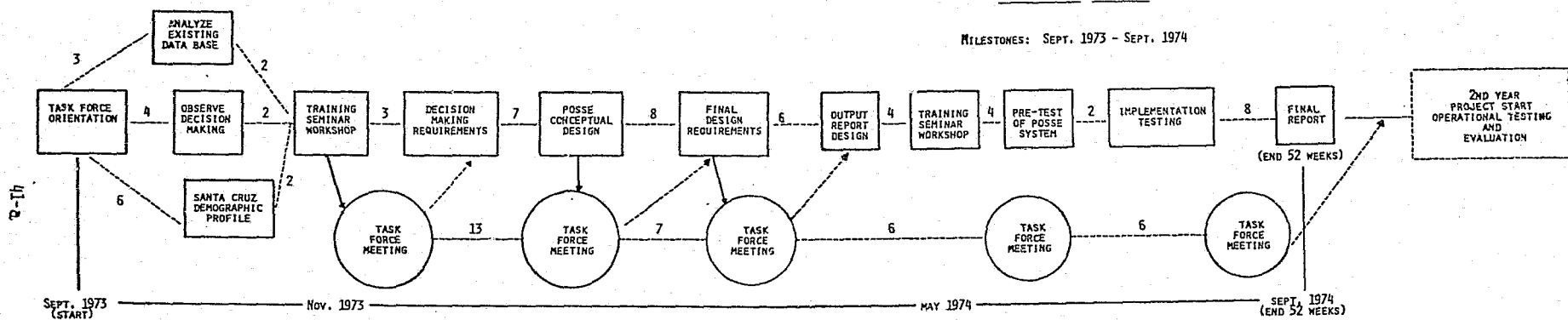
[10] See SANTA CRUZ POLICE DEPARTMENT - PROJECT POSSE Milestones: September 1973 - September 1974.

R-17

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                    ┌──────────┐
                    │ ANALYZE  │
            3       │ EXISTING │    2
          ┌─────────│DATA BASE │────┐
          │         └──────────┘    │
┌──────────┐    4  ┌──────────┐  2  ┌──────────┐   3  ┌──────────┐   7  ┌──────────┐   8  ┌──────────┐   6  ┌──────────┐  4  ┌──────────┐  4  ┌──────────┐  2  ┌──────────────┐   8  ┌──────────┐      ┌───────────────┐
│TASK FORCE│───────│ OBSERVE  │─────│ TRAINING │──────│ DECISION │──────│  POSSE   │──────│  FINAL   │──────│ OUTPUT   │─────│ TRAINING │─────│ PRE-TEST │─────│IMPLEMENTATION│──────│  FINAL   │      │   2ND YEAR    │
│ORIENTATION│      │ DECISION │     │ SEMINAR  │      │ MAKING   │      │CONCEPTUAL│      │ DESIGN   │      │ REPORT   │     │ SEMINAR  │     │ OF POSSE │     │   TESTING    │      │  REPORT  │      │ PROJECT START │
└──────────┘       │ MAKING   │     │ WORKSHOP │      │REQUIREMENTS│    │ DESIGN   │      │REQUIREMENTS│    │ DESIGN   │     │ WORKSHOP │     │  SYSTEM  │     └──────────────┘      └──────────┘      │ OPERATIONAL TESTING │
      │            └──────────┘     └──────────┘      └──────────┘      └──────────┘      └──────────┘      └──────────┘     └──────────┘     └──────────┘                          (END 52 WEEKS) │      AND      │
      │   6          ┌──────────┐ 2                                                                                                                                                                   │  EVALUATION   │
      └──────────────│SANTA CRUZ│─┘                                                                                                                                                                   └───────────────┘
                     │DEMOGRAPHIC│
                     │ PROFILE  │
                     └──────────┘
                              ╱TASK╲       13      ╱TASK╲      7      ╱TASK╲        6       ╱TASK╲        6      ╱TASK╲
                             │FORCE │──────────────│FORCE │──────────│FORCE │───────────────│FORCE │─────────────│FORCE │
                             │MEETING│             │MEETING│         │MEETING│              │MEETING│            │MEETING│
                              ╲____╱               ╲____╱            ╲____╱                 ╲____╱               ╲____╱
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SEPT. 1973 ───────────────── NOV. 1973 ───────────────────────────────────── MAY 1974 ──────────────── SEPT. 1974
(START)   (END 52 WEEKS)

jurisdictions will benefit from problems encountered and successes experienced by the respective projects in efforts to improve day-to-day operations and, more importantly from the point of view of the Region M Cluster Evaluation, as a device for generating a standardized evaluation design and evaluation methodology.

Because crime displacement invariably effects immediately contiguous business and residential communities, invitations to the workshops probably should be extended to police jurisdictions that have not heretofore activated innovative anti-crime projects. Specifically, because of proximity to Seaside, both Monterey and Pacific Grove should be extended invitations to attend, as should Capitola and Aptos (through the Office of Sheriff and Coroner, County of Santa Cruz) because of their proximity to Santa Cruz and because of anticipated rapid urbanization of those areas.

Each of the projects should continue to receive LEAA/OCJP financial and technical assistance support, as requested during FY 1974/1975 (effective July 1, 1974) in conformity with the pre-agreed financial support requirements.

SEASIDE POLICE DEPARTMENT PROGRAM OF CRIME SUPPRESSION

PHASE I, BURGLARY

COMPUTER SOFTWARE SYSTEM FLOWCHART DESCRIPTION

There are two basic functions to the computer software system. One accepts new data on burglaries, and the other creates maximum likelihood predictions for burglary by census tract. These predictions take into account time of day, weather, method of entry, and type of item stolen. The program is written in COBOL and is presently a part of the Burroughs 2500 system at Monterey Peninsula College.

Previously identified factors which show relevancy for predicting burglaries are used. Correlational and regression studies (see description elsewhere) have derived both weighting factors (potency) and the criteria for relevancy for each variable as it relates to predicting the likely time, weather conditions, MO, and items taken for each census tract.

Initially, the software reacts to the operator's wishes to update the data file, or request a prediction. A description of software function in each case follows. If the file is to be updated, the program checks for valid or invalid month or day. If the data is valid, the information is read into the disk file and the appropriate counters for time, weather, building type, MO, and items stolen are updated. This process continues until all new data on burglaries for the day has been read into the disk file.

A somewhat more complicated model is used if a prediction is requested. This is because not only is data being sorted by day of week, month, and census tract, but the appropriate weights must be applied to the predictor variables of time, weather, building, MO (4 variables) and items stolen. This results in a weighted prediction as to census for the city as a whole. The system operates as follows: the anticipated burglary register is set to zero (or initialized), weights are applied to predictor variables mentioned earlier (time, etc.), and the census prediction is made. These values are computed separately for each census area and all census areas are then ranked from highest to lowers as to likelihood of burglary and the highest probably census area is selected. The relevant information as to time of day, weather, four methods of entry (location, type of entry, type of forceful entry, and direction of entry) and items stolen are then printed for the

highest census tract. A set of decision rules are built into this prediction as follows:

a. If there are tracts of equally high priority, data on both census areas are printed as described above.

b. If the high priority time is "unknown", the second priority time is printed, along with a caution, "time uncertain".

c. If data as to the four characteristics of MO are equally high (or low) in likelihood, then a "data inconclusive" signal is printed in the MO section of the output.

If the above conditions are met, and if there are more than five total burglaries for the high probability census area, then a new set of secondary decision rules and logic applies. These are considered in the following sequence:

a. Is there more than 50% probability for a weather condition in the particular high probability census area? If so, print the weather condition as a guide.

b. Is there greater than 50% likelihood on any one of the four MO conditions? If so, print MO likelihoods.

c. Computer percentages of stolen items for the census area. If percentages for any item is greater than 10%, print actual percentage and type of item to be suspicious of if observed.

The software system then asks the operator if a second priority prediction is desired. If the operator wishes, the same routine is followed for the second highest predicted census area. This includes all of the decision rules to be operative in the software system, as in the first priority area, although data on the high probability area is left out of the second set of calculations. This approach approximates a "stepwise" method of calculating burglary predictions. When the computations are completed, the program prints the results in natural language to be used by the patrolmen in their daily patrol of census areas.

A SUGGESTED SUMMATIVE EVALUATION TECHNIQUE

Since a great deal of the success of the program is based on the accuracy of prediction, it is suggested that the following method be used in conjunction with other data to determine a part of the overall summative evaluation of the program.

A table of daily "hits" or "misses" should be tabulated as follows:

DECEMBER 1973

PREDICTED -vs- ACTUAL BURGLARIES

by

census tract

HIGH PRIORITY	SECOND PRIORITY	ACTUAL REPORTED
*5	6 -@8	*5 -@8
7	8	5
*5	6 - 7 -@8	3 -*5 -@8
*5	10	*5
*6	11	*6
*1	2 -@5 - 6 - 7	*1 -@5
5	6 -@8	@8
5	@8	@8
7	8	·1
*5	6 - 7 - 8	*5
*6	@11	*6 - 7 -@11
*5	6	4 -*5
*5	6 - 8	1 -*5
1	@5	2 -@5 - 9 - 10
7	8	5
1	@5 -@6 - 7	@5 -@6 - 8
*7	8	*7
*5	6	*5
*8	10	1 -*8
6	8	2
7	@8	6 -@8
1	@5 - 6 - 7	@5 - 8
5	6	3 - 8
8	10	6
1	5	7 - 8
6	7 -@8	@8 - 11

* shows High Priority predicted burglary

@ shows Second Priority predicted burglary

For the month of December 1973, 84.6% of the burglaries occurred where they were predicted. Of the burglaries that occurred, 62% were in census tracts 5 - 6 - 8 with the majority being in tracts 5 - 8.

Of course, actual burglaries will be less in frequency (an unknown) than printed. Therefore, it is suggested that frequency be left out of the paradigm for evaluation.

A table of observed vs. expected burglary rate can thus be tabulated. A master table can be developed and updated daily for burglary activity in the city. This observed vs. expected table can be easily subjected to a chi-square analysis to determine the statistical significance of the rate of "hits" and "misses" as follows:

$$\chi^2 = \sum \sqrt{\frac{(F_O - F_E)^2}{F_E}}$$

The value of chi-square can be determined as significant with $(R-1) + (C-1)$ degrees of freedom (df) where R= number of rows, and C= number of columns. In this case, the df=10, since R=11 and C=11.

Thus, it would be possible to suggest that the method of prediction of burglaries is better than chance prediction. This would support the overall functional evaluation of the program. This method would also strengthen the understanding of the operation of the program in terms of its value as an operational program in a different setting.

It would be wise to consider that each city would have different predictive weights for input variables, and thus some basic data should be gathered for a new application. Whether or not our weights would apply under different circumstances is a question open to debate and a fruitful one for further research.

ANALYSIS OF SANTA CRUZ POLICE DEPARTMENT'S EXISTING DATA BASE
INFORMATION SYSTEM -- SUMMARY REPORT

INTRODUCTION

The allocation of manpower in the patrol force and their effective geographical distribution is one of the most difficult problems faced by the police administrator. The development of effective solutions to the problems facing police patrol divisions starts with a specific and quantitative description of the data base from which decisions are made relative to allocating manpower.

Ideally, data depicting needs for police service based on call types, time of occurrence, and location, should dynamically generate reports allowing a patrol commander to allocate and command his force. This data should also be used to forecast and schedule manpower resources based on the prediction of calls for service.

NEED FOR ANALYSIS OF EXISTING INFORMATION BASE

The purpose of this phase of the study is to collect the baseline data available from the Santa Cruz Police Department for use in prediction and manpower allocation calculations. This phase of the study also deals with the identification of deficiencies in the existing information data base.

The data collection effort and analysis of the existing data base of the Santa Cruz Police Department is in direct support of the manpower allocation and prediction capabilities of the POSSE project. Data to support the analysis of calls for service must describe:

- The event
- The time and day that it occurred and the time required to complete the service
- The location of the event

It is also desirable to collect information about:

- The persons involved
- The disposition of the event
- The requirements for follow-up activity
- The amount and type of police services rendered

Data to support the analysis of activity profiles include:

- The description of the activity
- The position involved
- The time and day that it occurred and the time required to complete the activity

DATA BASE

All available sources reporting field officers activities and calls for service were reviewed to determine the data elements that could be routinely captured.

The available source documents applicable to this study are:

- Form CAR-68's
- IBM System 3 punched cards (1-1/2 years of 96 column binary cards, 2-1/2 years of 80 column cards)
- Case assignment reports, printout data covering a 4 year time period
- Traffic Citation Violation Reports covering a 4 year time period
- Assignment Summaries covering a similar time period
- Traffic Reports for the same time period

Analysis of the available source documents revealed that the majority of required data elements were captured in the data cards prepared from the Form CAR-68's, the Traffic Citation and Complaint forms, and the Crime Reports.

The data elements obtainable for detailed analysis from the Form CAR-68 data cards includes:

- The dispatch number (A index number)
- The case number (if assigned)
- How the incident was reported (telephone, in person, radio, mail, teletype, other)
- The beat number (1-5 beats depending on workload and manpower available)
- The Zone and Quarter Zone (2-16 Zones and 1-4 Quarter Zones, these are small geographical areas of the city)
- Day of week
- Day of year (Julian calendar)
- The incident type (there are twelve general categories)
- If an arrest was made or not (coded 1 or 0)
- The officer assigned to the call (by badge number)
- What division the officer assigned works in
- The unit assigned (by badge number)
- The hour in which a call was dispatched
- The time arrived (time assigned field unit reported he arrived at location or event)
- The time when the officer is back in service (time assigned field unit reported he was available for next assignment)
- Ambulance dispatched (if dispatched -- by company)
- Tow truck dispatched (if dispatched -- by company)
- Fire unit dispatched (if dispatched -- by type of unit)
- Coroner dispatched (if dispatched)
- Officer assistance (if an assist unit is assigned by badge number only)

These source documents can be supplemented by:

- Patrol Personnel Assignment Schedules
- Arrest Report and Citation forms
- Crime Reports
- Traffic Reports
- Vehicle Reports
- Traffic Citation
- Complaint Form

PROBLEM AREAS

Analysis of the available source documents revealed several problem areas. The major source documents (the IBM punch cards, case assignment reports, printout data, and assignment summaries) generated for use by management personnel to aid them in decision making, are all based on the coding of the Form CAR-68's. Since the Form CAR-68 is the basic source document from which all other major source documents are generated, any errors made in coding will automatically create inaccuracies in all reports generated from it.

Errors in coding the Form CAR-68 is related directly to the information available to code from:

- The city map used by the dispatcher to assign patrol units to specific calls for service is not up-to-date. It was last revised on August 1, 1968 by the City Planning Department. Not only is it difficult to dispatch a patrol unit to a street not shown on the map, it is also difficult to code the "Beat", "Zone", and "Quarter Zone" boxes properly.

- The city map used by the dispatcher does not have block numbers on it. This creates errors in coding the "Zone" "Quarter Zone" boxes because of the grid overlay developed by SCPD.

- The information available to code the "Beat" box is not reliable and cannot be used in calculations related to this study. The reason being that the beat boundaries change often without being documented. In other words, what Beat 1 was geographically last night may not be the same tonight.

Another problem area is the instructions for coding the Form CAR-68 in which:

- The dispatched time is rounded off to the nearest hour
- All calls for service without a specific location, that results in a car being dispatched, is coded in the City Hall zone, Zone 8, Quarter Zone 4. It appears that these calls for service are related to warrants processed by the Service Division. Such coding will have to be deleted in order to perform more accurate calculations.

Another problem of the Form CAR-68 is:

- The lack of recorded time between the time a call for service comes in and the time a patrol unit is dispatched.
- The amount of time used up by an assist unit is not recorded.

There is one other major problem related to crime analysis:

- We will not be able to compare crime rates with demographic data due to the fact that

  --all crime data is based on a grid system, the zone, quarter zone system, and

  --all demographic data is only available by either census track or by planning area

RECOMMENDATIONS

The effectiveness and accuracy of prediction and manpower allocation calculations can be enhanced by the following short range and long range planning recommendations.

- On a short term planning basis, it is recommended that the existing data base be used for this study, specifically the Form CAR-68 data cards.

- An error edit routine should be programmed to eliminate incorrectly coded CAR-68 data cards and un-necessary information.

- The Santa Cruz city map, prepared for the Police Department by the City Planning Department and the Public Works Department, used by the police dispatcher should be updated immediately and block numbers added for more accurate coding of future data to be used in this study.

- On a long term planning basis, there should be a programmed capability of dealing with data on a census tract block number basis in order to better relate demographic characteristics to this study.

- We should base the prediction and manpower allocation calculations on historical workload rates.

SECTION II

A RECOMMENDED EVALUATION STRATEGY

REGION M - OFFICE OF CRIMINAL JUSTICE PLANNING

PROJECT NO. 1686

CCCJ CONTRACT NO. A-1354-72

BY

K. L. MAYALL
EVALUATION SPECIALIST

FOR

REGIONAL CRIMINAL JUSTICE PLANNING BOARD
REGION M

OF THE

CALIFORNIA COUNCIL ON CRIMINAL JUSTICE

T A B L E O F C O N T E N T S

I. CONCEPT OF EVALUATION

Programmatic crime prevention, as contrasted with crime solution and enforcement, is a relatively new experience for California police jurisdictions. Evaluation of crime prevention programs usually have been casual and unstructured. Carefully designed and administered evaluations, however, can be used most effectively to determine whether to continue, stop, or modify a program/project; to justify the use of state, county or municipal funds to support the program/project; or to determine if the program/project should be replicated in other jurisdictions. Expansion or replication of an innovative anti-crime program/project should be avoided before the experimental projects have been evaluated.[1]

Of the three projects "evaluated" in the Region M cluster, only one (Seaside) had been operational for a period of at least one full year; another (Salinas) had been active for a period of less than ten (10) months, and the third (Santa Cruz) was not yet operational. As a consequence, comparative statistical project performance evaluation was not possible, nor will it be practicable until each of the projects has been productively operational over a sustained period of time.

Although some police jurisdictions do initiate crime prevention projects in the expectation of almost immediate results in terms of crime reduction, a realistic evaluation based on statistical and empirical measurement can not be done until the project has been operational over an absolute minimum period of one year, and preferably over a longer period.

It is evident that effectiveness of Special Unit crime prevention activities, if evaluated on a short-term basis, can only be subjective and will not yield a true measure of impact. Actual

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[1] See Evaluation of Crime Control Programs, also Criminal Justice Research: Evaluation In Criminal Justice Programs, published in April 1972 and in June 1973 respectively by the U.S. Department of Justice, Law Enforcement Assistance Administration, National Institute of Law Enforcement and Criminal Justice, Washington, D.C.

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performance can only be evaluated on a long-term basis and after a thoroughly reliable data base has been established.

Since all three of the projects (Seaside, Salinas and Santa Cruz) are financed in large measure by the California Council on Criminal Justice through a Law Enforcement Assistance Administration (LEAA) block grant, RCJPB/Region M requested that a short-term evaluative effort be made "in-house" to ascertain if a rigorous statistical evaluation would serve a useful purpose during the early life cycles of the projects. Perhaps a more important objective was to have the short-term Evaluation Specialist devise a general evaluation methodology that might have universal application to CCCJ-financed projects prepared by Region M proponents in the future.

Review of literature by the Evaluation Specialist revealed that nationally there has been little comparative statistical evaluation of crime suppression projects. Conventionally, there has been subjective assessment of project impact, such assessment usually being done by the project proponent or Project Director, thus introducing an inevitable bias in the findings. In each of the three projects "surveyed" in Seaside, Salinas and Santa Cruz, the project administrators were unanimous in their opinions that the activities had not been operational for a sufficient period of time to measure results other than on a tentative subjective basis.

Subjectively, there is little doubt that each of the three projects in its own way has contributed or will contribute to crime prevention and suppression. All of the programs involve cooperation between law enforcement agencies and the communities which they serve. A basic objective of each of the projects is to encourage cooperation between law enforcement agencies and the business and residential communities. The clear intent is to bring the police and the communities together in selective crime prevention efforts.

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Quite similar crime prevention Special Units have been authorized and are operational both in the Seaside Police Department and in the Salinas Police Department. In both cases, the Special Unit, restricted in size to three to four individuals, functions in a dual capacity. One function is to work in a "community relations" role with civic groups to implement a program of public education in crime prevention techniques. The second function is essentially one of analyzing active crime patterns, with special emphasis on crimes against persons and property (burglary/theft/robbery), and to command and control police manpower through selective deployment of patrols to geographic areas (census tracts) of potential criminal activity.

The essential purpose of these anti-crime projects is to reduce the incidence of crime by means of community involvement through a specially trained community relations police cadre; and secondly, by means of crime prediction techniques and intelligence, to be shared with patrol officers in the performance of regular duties to effectively suppress crime.

II. IMPLEMENTATION PROCEDURES

Each crime prevention Special Unit should be staffed with fully qualified officers endowed with good administrative leadership qualities. Project Directors particularly should have benefited from specialized crime prevention training, either through the Police Officer's Standards and Training (P.O.S.T.) Management Service or through the National Crime Prevention Institute.

Implementation of projects, both in Seaside and Salinas, has involved collaboration with civic clubs, business associations, neighborhood groups and private individuals, to assure joint approaches to before-the-fact crime prevention.

Within each police jurisdiction, actual implementation of projects, and determination of manpower level requirements, has depended on realistic assessment of the ethnic-socio-economic composition of the community population; nature and extent of crime within the business/residential areas; geographical features of the police jurisdiction; size of the police agency; and the number of police officers/civilians available to the Special Unit.

Crime prevention project efforts will be successful only to the degree that the crime prevention unit can generate and maintain enthusiastic support from all departmental personnel. Effective liaison must prevail between the crime prevention Special Unit, regular patrol and investigation officers. Regular patrol and investigation officers must be kept constantly aware of the techniques, objectives and activities of the Special Unit.

III. COMMUNITY ACTION CONTRIBUTIONS

Municipal codes generally specify minimum standards to safeguard property and public welfare by regulating and controlling the design, construction, quality of materials, use and occupancy, location and maintenance of commercial buildings and structures within a city and also with built-in security equipment. These security standards for business/residential structures cover minimum standards for doors, locks, window glass, roof openings, special security measures, and burglar alarms. For private and multiple dwelling security, the commercial building code is modified in terms of leniency.

Burglary/theft can be reduced significantly through Special Unit recommendations to commercial businesses and to home owners of measures that will tighten up security. Such recommendations usually are made as a consequence of detailed security inspections of commercial establishments and private residences by the crime prevention cadre.

At a predetermined interval after the initial security inspection, the Special Unit should carry out a follow-up inspection to determine the degree to which original inspection recommendations were either accepted or ignored.

Concurrent with performance of the security inspections, the Special Unit should acquaint the business/residential communities with other crime deterrents, specifically, Operation Identification and Neighborhood Alert.

Operation Identification can deter crimes against property by advertising the fact that major items in commercial establishments/private residences have been inscribed with a traceable serial number or are otherwise identifiable in the event of burglary/theft and subsequent disposition through sale. Once an Operation Identification system has been accepted by commercial establishments/private residences, visible warning stickers should be affixed to the premises indicating that all items therein have been marked for ready identification by law enforcement agencies. Experience indicates that both in Seaside and Salinas where Operation Identification has been put into effect, the incidence of burglary/theft has substantially decreased.[2]

Crime prevention units also should solicit area residents to participate in Neighborhood Alert as a means of: increasing cooperation between citizens and law enforcement agencies in the protection of their own and their immediate neighbor's property; prevention of crimes against persons and property in participating neighborhoods; and increasing the apprehension rate for crimes against persons and property in the participating neighborhoods.

Essentially, this is a community public relations activity in which the Special Unit officers should present a detailed explanation of the nature and extent of crime, respective roles of police and private citizens in crime prevention, and general and specific techniques for crime prevention and suppression.

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[2] Supra, Section I, pp. 27-a, 27-b, 27-c, 27-d.

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IV. EVALUATION PLANNING, DATA REQUIREMENTS AND PROJECT ANALYSIS

Evaluation is important in assessing the effectiveness and efficiency of anti-crime projects. Questions that must be addressed in any practical evaluation are:

- How can program/project effectiveness be measured?

- How reliable is the data base and accumulated statistics?

- What constitutes an effective/acceptable evaluation design?

- Who should have responsibility for project monitoring and evaluation?

- At what chronological periods in the life of a criminal justice program/project should monitoring and evaluation be conducted?

There follows an explication of evaluation methodology, evaluation planning, evaluation implementation, program/project standardization, and evaluation component review that might be universally applicable to anti-burglary-theft/crime suppression and force allocation activities similar to those addressed in the Region M Cluster Evaluation effort.

In any anti-burglary/crime suppression/force allocation project, essential evaluation planning requires that the proponent provide for the following:

- Quantification of specific project goals and objectives;

- Development of specific evaluation measures;

- Determination of data requirements, and

- Selection of analytical methods to measure project effectiveness.

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In any project benefiting from CCCJ/OCJP grant funding, there must be a comprehensive description of the manner in which the project will be evaluated. Adherence to the four immediately aforementioned provisions will satisfy the "evaluation component" requirement.

Further explication follows:

Quantification of specific project goals and objectives. Goals and objectives should be quantified in terms of measureable levels of achievement (i.e., reduction of burglaries by X% per annum measured against a pre-determined base; increase in burglary arrests by Y% per annum against a pre-determined base year for which sound statistics exist; increase of property recovery by Z thousands of dollars value, as contrasted with the value of property recovered during a prior year for which accurate records exist).

Development of specific evaluation measures. Project evaluation measures are used to assess levels of achievement. Evaluation measures may be in terms of efficiency or effectiveness, or both.

Efficiency measures center on the allocation of police resources required to perform project activities as compared with results (cost-benefit measurement). Still another illustrative increment of efficiency would be average response time of a police unit to reach the scene of a crime.

Effectiveness measures usually evaluate the impact of the project on the target problem (crime prevention/suppression) and are reflected in decrease/increase in the incidence of burglary/theft rates or in the decrease/increase of recidivism rates.

Determination of data requirements. Data elements can be stipulated either in quantitative (statistical) or in qualitative (narrative description of project environment) terms. Constraints might preclude the acquisition of essential data elements, either because of sensitivity, or simply because demonstrably sound information has not been collected. Data element availability oftentimes can be thwarted by cost and frequency of collection. Prior to activation of a crime suppression project, a determination should be made concerning data elements most important to project performance. Also, it must be determined how and when data will be reported to the project evaluator(s).

Selection of analytical methods to measure project effectiveness. Determination must be made during the course of project planning concerning the analytical methods to be used for evaluation and also to establish the management procedures to accomplish the analysis. The selected analytical method will be unique to each program and for each cluster of projects with similar objectives. There should be uniformity in techniques for projects that are similarly conceived in terms of work plan and objectives. Data are essential inputs to evaluation; analysis is the output of evaluation.

V. EVALUATION IMPLEMENTATION

Data specified in the evaluation plan must be <u>collected</u> and then <u>managed</u> for use in analysis. Consistency in data collection is essential to evaluation accuracy. There should be consistency in data collection methods, in order to assure data uniformity. Explicit procedures should govern data collection. Data collectors should be aware of the purpose for which the collection is being done. <u>Predesigned data collection forms</u> <u>will minimize errors by data collectors</u>. Collected data should be validated, because <u>data reliability is absolutely essential</u> <u>to sound project evaluation</u>.

Data management (storage, maintenance, processing, reporting) is important, quite regardless of whether or not the data is to be manually maintained or computerized.

Data must be kept current, easily accessible and retrievable if it is to serve its essential purpose as an aid to the control, direction and evaluation of crime suppression projects.

Evaluation analysis (or assessment of progress against baseline data) is a recurrent process that should be performed regularly throughout the life of a project.

<u>Evaluation analysis</u>, whether performed by Region M staff, or by the designated Project Director, or by an independent consultant, <u>should be accomplished on a regularly scheduled basis as a tool of</u> <u>management</u>.

Project continuation should be questioned whenever project success levels fall below acceptable levels of expectation, or whenever interim evaluation indicates probable failure at the conclusion of the implementation period, or whenever subjective judgement indicates that basic objectives will not be accomplished.

In every instance there should be a terminal evaluation analysis to measure project effectiveness.

Proper diagnostic evaluation of the Region M cluster would require the measurement of relative contributions of each of the constituent projects in Seaside, Salinas and Santa Cruz. Unfortunately, such measurement is not possible at this early stage of maturity of the several projects which comprise the cluster.

VI.   A STANDARDIZED EVALUATION STRATEGY FOR USE IN REGION M

A. Overview

The most effective contribution that can be made to the Regional Criminal Justice Planning Board, Region M, as a by-product of the foregoing cluster evaluation, is some detailed commentary on evaluation planning and on the importance of adopting a standardized evaluation design for all CCCJ/OCJP financed projects henceforth proposed by Region M proponents.

It is most practical at this point in time (June 1974), in the absence of a strong statewide program/project evaluation capability within the organizational structure of the Office of Criminal Justice Planning, Sacramento, to facilitate program/project evaluation by creating a special monitoring/assessment/evaluation capability within OCJP regional staffs. Therefore, the purpose of the concluding segment of this special staff study is to elucidate a standardized procedure for program/project planning, evaluation, monitoring and analysis that might apply in future to all LEAA-OCJP funded programs/projects in the counties of Monterey, Santa Cruz and San Benito. The study, hopefully, will be referred to both by Region M permanent staff and by proponents as a model for evaluative research on all criminal justice projects proposed for future activation.

The residual portion of this staff study will deal with the interrelated disciplines of pre-planning for evaluation of anti-crime programs/projects, monitoring/assessment of activated programs/projects, and measurement of success (or failure) of programs/projects in meeting stated goals and objectives. Stress will be placed on the desirability for selection of programs/projects for which goals and objectives can be statistically quantified. In unique situations where only partial quantification is possible because of data constraints, guidance will be given concerning qualitative evaluation techniques for program/project performance. Quite regardless of whether quantitative or qualitative standards of performance (or a combination of both) are used, there still is need for a consistent technique of evaluation analysis throughout Region M.

Since both the LEAA and CCCJ/OCJP require that all grant applications contain an evaluation component, the study will address itself to the basic sub-components that comprise the overall evaluation component. The sub-components are:

- Evaluation planning;
- Evaluation monitoring; and
- Evaluation analysis.

B. Pre-Project Evaluation Planning

At the time a project is conceived by any Region M proponent agency, it should be incumbent upon the OCJP Regional staff to assist in the quantification of project objectives; establishment of relationships between project objectives and regional goals; identification of evaluation measures; determination of basic data needs; development of analytical

methodology; establishment of schedules for periodic monitoring of project activities; and performance of comparative analyses, including cost effectiveness studies.

The essential purpose of evaluation planning is to make provisions for measuring the effectiveness of projects. Steps to realistic evaluation planning and effective project implementation are: precise statement of goals and objectives, including reference to specific quantitative measurements; establishment of a reasonably precise relationship between Regional criminal justice activity goals and specific project objectives; development of a project evaluation design (synonymous with evaluation measurement techniques); determination of data needs, recognition of data constraints, and creation of an in-project potential for maintenance of adequate reporting capabilities; and determination of methods of data analysis that will contribute to project performance evaluation.[3]

Restated, a successful evaluation effort must take into consideration for each and every criminal justice project a series of evaluation components, specifically:
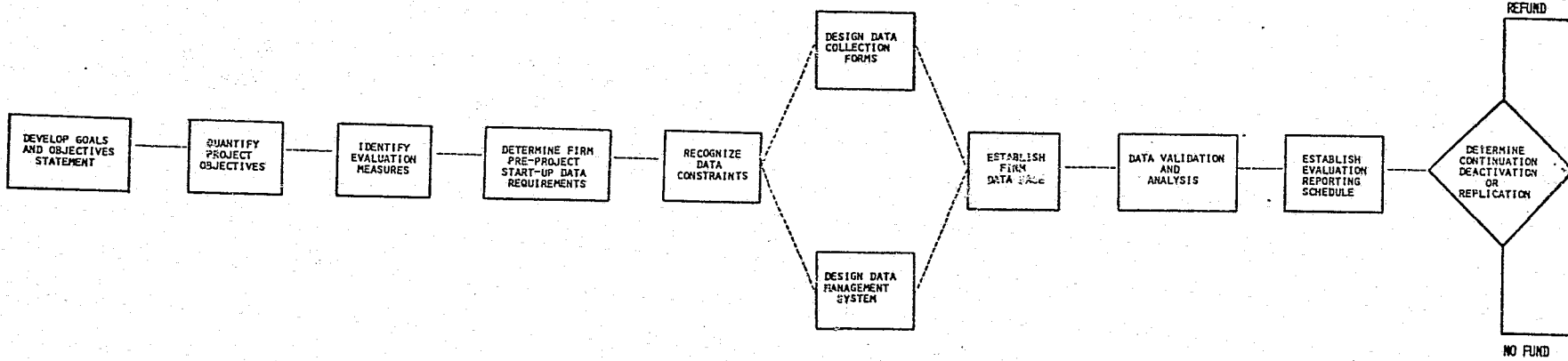
- Statement of goals and objectives -- a summary statement setting forth what the project seeks to accomplish in quantifiable terms.

- Identification of evaluation measures -- based on a clear statement of goals and objectives.

- Data requirements -- explicit determination of data elements required for effective project evaluation.

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[3] See SCHEMATIC DIAGRAM - PROPOSED STANDARDIZED CRIMINAL JUSTICE PROJECT EVALUATION, Region M - Office of Criminal Justice Planning.

SCHEMATIC DIAGRAM

PROPOSED STANDARDIZED CRIMINAL JUSTICE PROJECT EVALUATION

REGION M - OFFICE OF CRIMINAL JUSTICE PLANNING

REFUND

NO FUND

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DEVELOP GOALS       QUANTIFY       IDENTIFY        DETERMINE FIRM      RECOGNIZE                DESIGN DATA                ESTABLISH       DATA VALIDATION    ESTABLISH       DETERMINE
AND OBJECTIVES      PROJECT        EVALUATION      PRE-PROJECT         DATA                     COLLECTION                 FIRM            AND                EVALUATION      CONTINUATION
STATEMENT          OBJECTIVES     MEASURES        START-UP DATA       CONSTRAINTS              FORMS                      DATA BASE       ANALYSIS           REPORTING       DEACTIVATION
                                                   REQUIREMENTS                                                                                              SCHEDULE        OR
                                                                                               DESIGN DATA                                                                  REPLICATION
                                                                                               MANAGEMENT
                                                                                               SYSTEM
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- <u>Data collection procedures</u> -- will specify the manner in which required data will be collected, collection schedule, and the format of data collection forms to be used.

- <u>Data analysis techniques</u> -- a summary statement of how data elements will be analysed to determine project effectiveness.

- <u>Evaluation reporting schedule</u> -- must be strictly adhered to for Region M monitoring purposes and for comparative measurement against similarly conceived crime prevention projects. At the state and national levels a regular reporting schedule is of paramount importance to evaluate results of similarly conceived programs and projects in widely dispersed jurisdictions.

The statement of <u>goals and objectives</u> should deal with anticipated levels of achievement in <u>quantifiable</u> terms, also the time frame in which the anticipated levels of achievement are to be accomplished. <u>Quantification</u> normally is expressed as a number, or as a percentage, or in relation to an index.

Illustratively, the general <u>program goal</u> in the Region M Cluster Evaluation with reference to the individual projects in the cluster is to reduce the number of crimes against property in all of the involved police jurisdictions (Seaside, Salinas, Santa Cruz). <u>Quantification</u> would be a forthright statement that crimes against property would be reduced by a stipulated percentage within each of the three distinct police jurisdictions in Region M over a fixed forward period of time (conventionally 3 years under LEAA/CCCJ grants).

Wherever and whenever possible in Region M, projects with similar objectives should be implemented in such a manner that common measurement techniques can be used to determine their relative contributions to program success.

Evaluation measurement techniques require the <u>identi-fication of evaluation measures</u> to be applied to a particular program or project. Preferably measurements will be <u>quantitative</u> (numbers, percentages, indices). Occasionally <u>qualitative</u> measurement, in which the expertise of qualified individuals will govern, is necessary. Wherever and whenever possible, given adequate baseline data, <u>quantitative</u> evaluation is preferable.

Program/project evaluation measurement also will be accomplished in terms of <u>effectiveness</u> (reduction in burglary rates, reduction in recidivism), <u>efficiency</u> (within the administering police jurisdiction), and <u>attitudes</u> of police administrators, offenders, and general public acceptance.

<u>Data requirements</u> and <u>data collection procedures</u> are essential elements to effective evaluation planning. <u>Base data acquired over a sustained period of time prior to activation of a crime prevention project affords the only really realiable technique for measuring project effectiveness in quantifiable terms.</u> Determination of data needs therefor will require that program/project proponents accomplish the following:

  ○ Ascertain firm data requirements;

  ○ Recognize data constraints (existence/availability/ cost);

  ○ Evolve an effective data collection technique (collected by whom/how often/in what format);

Project objectives can be singular or multiple. In reference to the Seaside, Salinas and Santa Cruz projects, objectives are multiple in each jurisdiction. Quantification is reflected by a series of statements concerning the percentages by which crimes against property will be reduced over a given period of time, numbers of burglary interventions over a given period of time, number of appearances of Special Unit crime prevention teams before civic groups on a monthly/quarterly/annual basis, etc.

The evaluator must determine which data values are required for effective quantitative measurement and over what time frame the measurements will be accomplished.

Program goal/project objective relationships are intended to demonstrate the degree to which individual projects contribute to achievement of the program impact goal (reduction of the numbers of burglaries committed in each of the three police jurisdictions involved in the Region M cluster). For projects that are being evaluated together as parts of a program, the evaluation should attempt to determine the relative contributions of the several projects that comprise the program. In the deterrence/detection/apprehension program, goal achievements will be measured by reduction of burglaries committed in the three police jurisdictions involved in the Region M cluster. Each of the three projects seeks to reduce burglaries by such techniques as: encouragement of improved lighting in business and residential communities and for individual structures within those communities; hardening of potential burglary targets; improved surveillance of known burglars; surveillance of the stolen property market; increased patrol effectiveness; business establishment and private residential inventorying and property identification; and Neighborhood Alert activities.

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Program/project evaluation measurement also will be accomplished in terms of effectiveness (reduction in burglary rates, reduction in recidivism), efficiency (within the administering police jurisdiction), and attitudes of police administrators, offenders, and general public acceptance.

Data requirements and data collection procedures are essential elements to effective evaluation planning. Base data acquired over a sustained period of time prior to activation of a crime prevention project affords the only really realiable technique for measuring project effectiveness in quantifiable terms. Determination of data needs therefor will require that program/project proponents accomplish the following:

- Ascertain firm data requirements;

- Recognize data constraints (existence/availability/cost);

- Evolve an effective data collection technique (collected by whom/how often/in what format);

- Establish a data management system (storage/ processing/report format); and

- Establish a data validation system (realiability/ accuracy/changes in program or project objectives/ changes in supervisory administrative techniques).

Data analysis techniques require the application of uniform procedures that will yield reliability and accuracy for quantitative measurement of similar crime prevention projects. Qualitative measurement is more difficult to standardize unless the same evaluator's professional services are used for all programs/projects with similar aims and objectives in any given California OCJP region. The (regional) evaluator, functioning in fullest cooperation with the project proponent and Project Director, must analyse how qualitative factors along with quantitative data influence program/project result.

Evaluation reporting schedule, whether it be for quarterly monitoring purposes, or for mid-term project assessment, or for interim or final product evaluation, should be firm. "Slippage" in reporting schedules should be permitted only in unusual circumstances that are pre-agreed between the Project Director, the Regional Executive Director, and OCJP/ CCCJ. Unscheduled special reports on unusual progress or unanticipated problems should be encouraged.

C. Monitoring and Evaluation

Monitoring is an important sub-component in the overall evaluation component concept. In essence, periodic monitoring is intended to assure that the program/project is being implemented in the manner set forth in the grant application

and that assessment responsibilities are being administered in conformity with the pre-agreed evaluation component that is an irrevocable part of the project agreement. Through the monitoring process (usually performed quarterly) it can be determined if corrective action needs to be taken to "track" the project, or even to determine if the operational and evaluation plans need modification.

Monitoring determines if the project is being implemented in conformity with the basic contractual agreement; if goals and objectives are being met on an appropriate time-phased basis; if the evaluation plan requires change; if there should be re-thinking, either of objectives or success levels; and also to reveal administrative/personnel/fiscal problems.

The monitoring function will give recognition to:

Project implementation. This requires determination if specified resources and operating techniques are being used, if staff functions are being properly filled, if goals/objectives are being met on schedule, and/or if unanticipated problems have surfaced. The monitor/ evaluator will have to be thoroughly familiar with project operations and with project personnel.

Evaluation component implementation. This will confirm that pre-agreed plans for evaluation are being properly performed. Involved in evaluation component implementation will be confirmation that essential data is being collected regularly and in accordance with prescribed methods, that accurate data records are being maintained, that data analysis is being performed in the manner prescribed in the project agreement, and that all required management reports are being submitted on schedule.

Program/project scope is monitored to determine if anticipated success levels are realistic in view of changed conditions in the socio-politico-economic environment since inception of the activity. The project proponent and evaluator oftentimes cannot foresee changes of a socio-politico-economic nature that will arise during a conventional 3-year project life cycle. As a consequence, the project evaluation design should provide a procedure for re-evaluating the project through mutual agreement between the project proponent/project director and the monitor/evaluator.

Scope of the evaluation plan should be regularly monitored to determine if it is an effective tool for analysis of program/project success. Where program/project goals and objectives are substantially modified after "kick-off", the evaluation design will need to be modified. Even if a program/project is implemented in strict accordance with the plan, evaluation procedures may require modification because the evaluation design is not properly compatible with project performance. Under such circumstances, modification of evaluation procedures would be both necessary and desirable. Experience might indicate that more (possibly less) data should be collected; or that collection and processing procedures should be modified; or that methods of analysis should be modified to obtain a sounder interpretation of program/project results.

D. Performance Analysis

Performance analysis is imperatively required to measure program/project success or failure and to validate the reasons for success or failure. Therefore, it is important that the evaluation design contain a performance analysis technique, a statement of how the analysis will be done, and how the results of the analysis will be applied to overall program/project evaluation.

Evaluation analysis procedures should require determination of the following:

- Who is to perform the analysis;
- When the analysis will be accomplished;
- How the analysis will be performed; and
- What use will be made of results of the analysis.

By preference the evaluation analysis should be performed jointly by the program/project director and by an evaluation technician attached either to the Region M staff or to the OCJP Sacramento staff (assuming that OCJP Sacramento were to substantially expand its evaluation staff capabilities in the future).

Evaluation analysis should be performed at periodic intervals specified in the project agreement, or when specified milestones are reached, or when critical events are encountered during the course of project implementation, and without exception upon project completion.

In the case of the Region M Cluster Evaluation, and since project activities were not initiated simultaneously in Seaside, Salinas and Santa Cruz, it was not possible to measure project objectives achievement on a comparative basis. This can only be done retroactively when each of the three projects has run its full implementation period. Interim

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success levels can be measured with some degree of satisfaction when each of the projects has been active for a minimum period of one year. Because all three of the projects involved in the Region M cluster have been plagued by slow start-up, any effort to perform a comparative performance evaluation before mid-1975 would be unrealistic.

Interim evaluations, however, oftentimes are needed to meet the needs of program management and planning. Consequently, in all projects proposed in future by Region M proponents, it is recommended that evaluations be scheduled at least three months in advance of the new fiscal year for which continuing funding will be requested. Interim analysis also will determine project probability of achieving stated objectives by the end of the full implementation period. Establishment of interim success levels and proper interpretation of findings are important to realistic evaluation planning. Demonstrated interim success levels, together with appropriate graphs, matrices, or other descriptive interpretation, are properly included in the overall program/project evaluation component.

VII. CONCLUSIONS AND RECOMMENDATIONS

A. General

This Region M staff study has attempted, on the basis of relatively short-term observation of three separate anti-crime projects in Seaside, Salinas and Santa Cruz (creating a special tactical police patrol unit, increasing the strength of the patrol force in high-crime areas during predicted peak crime hours, use of computer generated police management information, improving burglary clearance rates,

and/or "hardening" potential crime targets through improved lock-up and light-up community relations activities), to set forth some general evaluation principles that henceforth can benefit Region M project proponents seeking LEAA-CCCJ grant funding. The Region M Cluster Evaluation effort has generated a recommended standardized procedure to be followed for evaluation of experimental crime prevention/suppression projects from initial conceptualization until such forward period of time as the projects have progressed from experimental to fully operational status.[4]
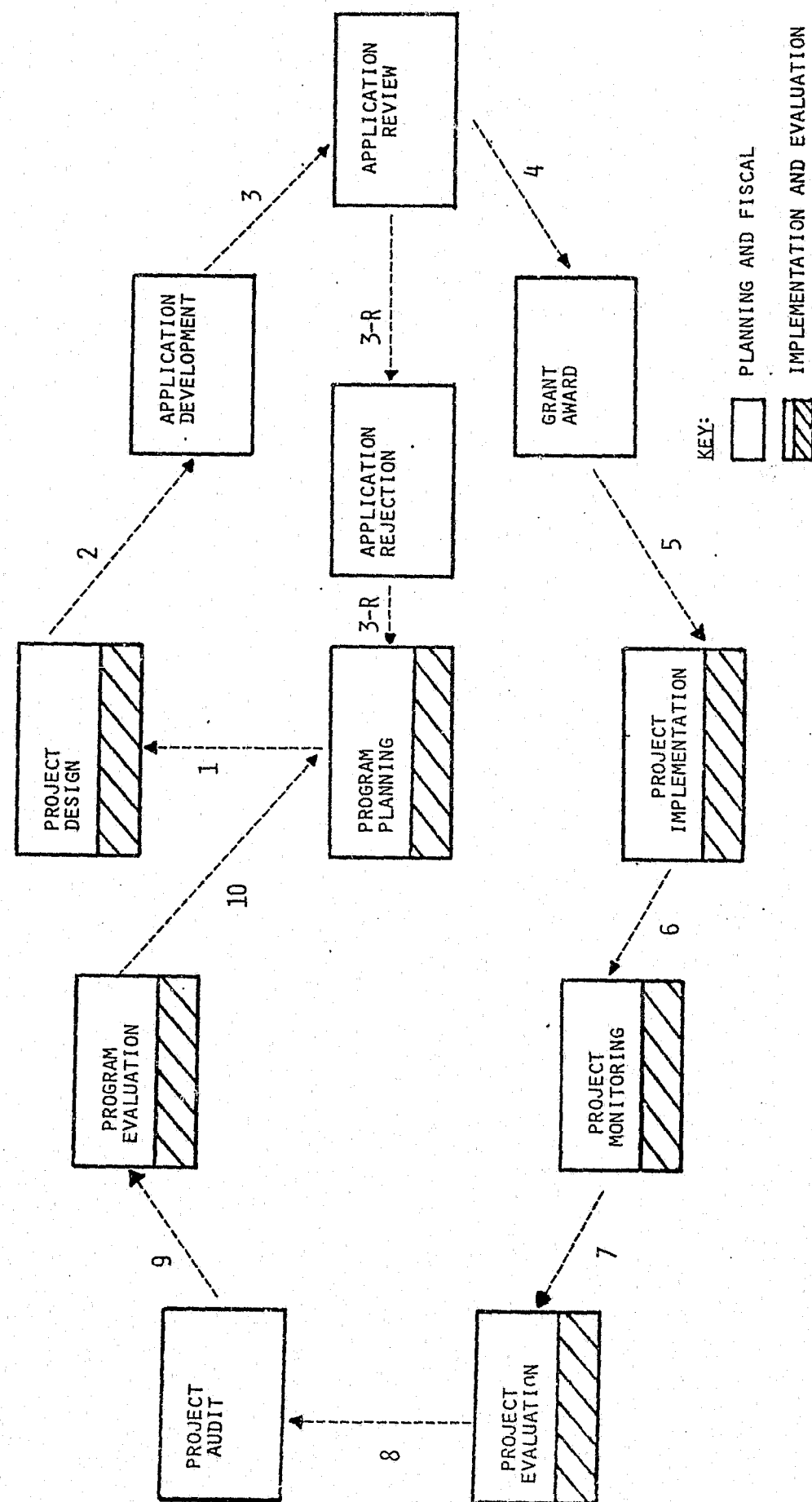
Although deficiencies in available data have presented problems for the Region M Cluster Evaluation effort, such deficiencies do not rule out the possibility of interim evaluations of these anti-crime projects. Monitoring the quality of available data, careful analysis of the data, and the collection of additional data will strengthen the evaluation process in the future. The importance of data acquisition and data management should be clearly understood from the outset of any anti-crime project if terminal evaluation is to be meaningful.

Among the more important considerations in project evaluation is the need for the evaluative researcher (Evaluation Specialist) to maintain strong liaison with individuals within the proponent agencies who have operational and administrative responsibility for any given project. The Evaluation Specialist absolutely must have a comprehensive knowledge of the LEAA grant management cycle,[5] of the criminal justice system with particular emphasis on police operations, and also with data that can influence evaluations.

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[4] Refer to SCHEMATIC DIAGRAM - PROPOSED STANDARDIZED CRIMINAL JUSTICE PROJECT EVALUATION, Region M - Office of Criminal Justice Planning, supra, p. 12-a.

[5] See GRANT MANAGEMENT CYCLE FLOW CHART.

GRANT MANAGEMENT CYCLE FLOW-CHART

KEY:

☐ PLANNING AND FISCAL

▨ IMPLEMENTATION AND EVALUATION

APPLICATION REVIEW

APPLICATION DEVELOPMENT

GRANT AWARD

APPLICATION REJECTION

PROJECT DESIGN

PROGRAM PLANNING

PROJECT IMPLEMENTATION

PROGRAM EVALUATION

PROJECT MONITORING

PROJECT AUDIT

PROJECT EVALUATION

21-a

Of equal importance, all Project Directors who have operational responsibility for anti-crime projects must be generally knowledgeable concerning the intricacies, requirements and problems of evaluation without getting overly involved with statistical manipulation and evaluation technology. Such mutual collaboration will be of assistance in uncovering problems while they still are incipient, and will ease the transition of the project from the experimental phase to a more sophisticated and effective operational phase. Assumptions that were used to justify the program in its inception should be constantly tested and verified by the Project Director in collaboration with the Evaluation Specialist, and amended as necessary during the course of actual project operations.

A well conceived and executed evaluation methodology will help both the CCCJ and proponent agencies which are implementing projects to obtain a technical appraisal of the projects' worth and potential for continuation or transferability to other regional jurisdictions. The actual and/or potential value of an anti-crime project will not be realized if it is not evaluated on a regular basis in accordance with a standardized procedure. A standardized evaluation procedure also will facilitate a comparative measurement of effectiveness vis-a-vis similarly conceived projects.

Anti-crime projects of the type involved in the Region M Cluster Evaluation (special tactical police patrol unit, increase in patrol force in peak crime hours, computer generated management information, improved clearance rates, "hardened" potential crime targets) should benefit from a proposed standardized general evaluation framework, viz.,

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- Development of a detailed project rationale;

- Selection of an evaluator (or evaluation team);

- Selection of control and experimental areas for project implementation;

- Determination of external and internal measures of effectiveness;

- Determination of data requirements;

- Development of data base;

- Collection and analysis of data;

- Modification of the project (assumptions, rationale, data collection procedures, measures of effectiveness) as necessary;

- Methods for collection and analysis of data and information, and interpretation thereof;

- Verification of project rationale in the light of operational experience;

- Description of measurable or observed changes that have resulted from project operations;

- Determination of continuation of the project in the proponent jurisdiction; and

- Determination of replication of the project in other Region M jurisdictions.

A succinct model for evaluation that might consistently be used for Region M anti-crime projects of the genre prevailing in Seaside, Salinas and Santa Cruz would include a fairly precise statement of project objectives (e.g., "putting more cops on the beat", adding a Special Unit, creating a tactical patrol force, increasing patrol force strength in high-crime areas during high crime hours, improving burglary clearance rates, "hardening" burglary targets through improved lock-up and light-up activities, and promotion of a police public relations campaign), followed by a detailed project rationale.

The project rationale would: set forth the specific crimes on which the proponent law enforcement jurisdiction would focus and on which prompt police response would be required; would indicate the capability of conventional patrol under the pre-project scheme of operations; would anticipate and stipulate improved quality of police service under the revised and improved manpower allocation scheme; would blueprint a method for the compilation, management and analysis of data essential to the evolution of meaningful evaluation on a regular basis throughout the life of an LEAA-OCJP funded project; and, finally, would provide a detailed commentary on impediments to the controlled experiment. The logic supporting the project should be modified on the basis of information generated and experience acquired during the life-cycle of the project. The final evaluation report should contain a post-project analysis of the a priori justification of the project from its inception.

Even if a particular anti-crime project is unsuccessful, the final evaluation report can provide useful information for planning by other police departments which might be considering the activation of a similar project. To achieve the greatest benefit, the tools of evaluative research should be standardized and applied realistically, with full knowledge of the unique characteristics of crime prevention/suppression evaluative techniques.

B. Specific

On March 27, 1974, Region M's Executive Director, in a briefing presentation to the OCJP Executive Director, indicated the need for more consistent project monitoring/ assessment/evaluation and for the creation of a strong program/ project evaluative research capability, either at the Sacramento level or at the Regional level. In order to assure timely and effective project evaluation that does not impose on project operational personnel a requirement to become experts in evaluation research, it was proposed that an individual or individuals with programmatic evaluative research experience be added to Regional staffs throughout the State of California.

In mid-April 1974, OCJP Sacramento recommended use of $6.24 million Part C funds to finance projects dealing with certain statewide problems that are not, in the opinion of the OCJP Executive Director, adequately addressed by the numerous regional plans. OCJP Sacramento recommended that $575,000 of contingency funds be made available to Regional Planning Boards to expand project monitoring and evaluation staff by twenty-nine (29) positions statewide, of which one

position has been tentatively allocated to Region M. The apparent rationalization behind this staffing recommendation is that an evaluation performed by criminal justice personnel at the project operation level is neither free of preconceptions, nor free from the influence of the beneficiary agency administrators.

In essence, this means that an Evaluation Specialist can be added to Region M staff on a match-free basis to assist all project proponents in the counties of Monterey, Santa Cruz and San Benito with evaluation design for all LEAA-CCCJ funded activities.

Criminal justice agency project proponents and Project Directors throughout the counties of Monterey, Santa Cruz and San Benito properly could and should look to the Region M staff Evaluation Specialist for technical assistance in development and direction of project evaluation design.

In the event that such technical assistance capability is approved for supplementing the Region M staff, a clear prior understanding should exist between the Region M Executive Director, operational proponents, sponsoring agencies, and the California Council on Criminal Justice/ Office of Criminal Justice Planning as to what each desires or can expect to get in terms of what each wants to know concerning project success measurement.

Since program/project evaluation can fail unless the designated evaluator maintains a strong and continuing liaison with the proponent law enforcement agency having primary operational responsibility for the project, it is recommended that the Evaluation Specialist should be a part of the permanent office staff of the Regional Executive Director. The selected Region M staff specialist should be

fully knowledgeable concerning all criminal justice programs/
projects, both ongoing and contemplated in Region M. This
will permit constant and effective liaison with beneficiary
agencies and proponents of LEAA/CCCJ grants throughout
Region M, the provision of OCJP Region M staff guidance for
program and project planning, monitoring and assessment of
in-region projects on a quarterly basis, performance of
liaison on a regular basis with OCJP's Standards and Evalu-
ation Division in Sacramento, and also guarantee timely
preparation of final project evaluation reports.

The Region M staff specialist will have evaluative
research technical competence to formulate individual
project criteria to:

* Quantify project objectives;

* Establish relationships between project objectives
  and measurable impact;

* Identify evaluation measures;

* Determine pre-project activation data needs;

* Develop methods for individual and cluster project
  analysis;

* Monitor ongoing project performance;

* Perform terminal program/project evaluations,
  including determination of the reasons for the
  degrees of success (or failure) achieved; and

* Assist project proponents in the continuation,
  coordination, and/or replication of successful
  anti-crime activities and in the use of a
  standardized evaluation format.

END