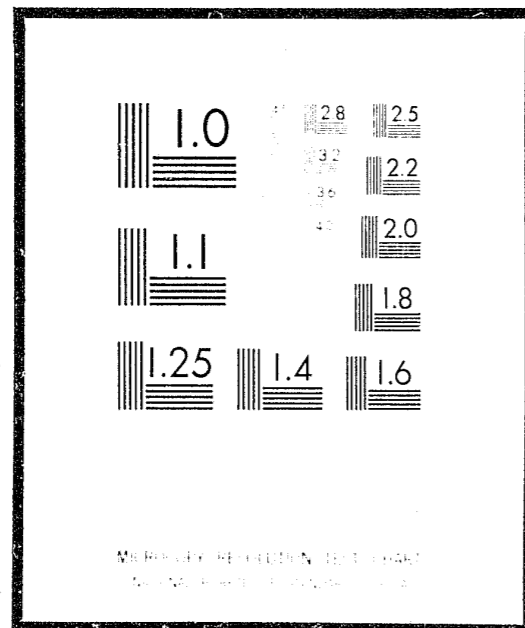


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"PAC-TAC III"
POLICE AND CITIZENS -
TOGETHER AGAINST CRIME

EXPERIMENTAL ACTION PROGRAM

Prepared for the
City of Rochester
and the
Rochester Police Department

Graduate School of Management
Rochester-Monroe County
Criminal Justice Pilot City Program

University
of
Rochester



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ROCHESTER-MONROE COUNTY CRIMINAL JUSTICE PILOT CITY PROGRAM
UNIVERSITY OF ROCHESTER
GRADUATE SCHOOL OF MANAGEMENT
Room 213, Hopeman
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Grant 74 NI-02-0002

Elizabeth Benz Croft, Director

July, 1974

ABSTRACT

The Rochester Police Department in collaboration with the Rochester-Monroe County Criminal Justice Pilot City Program have developed a project to continue, during the summer months of 1974, the experimentation with police-civilian foot patrols begun last year in Rochester, New York. PAC-TAC III (Police and Citizens - Together Against Crime) will continue to assess the benefits to law enforcement, crime control, and police community relations of teaming trained civilians with police officers and assigning them to beat areas in the City.

Sixteen PAC-TAC teams will patrol nightly in four areas of the City. Different "modes" of patrol will be evaluated, with some teams using bicycles to increase mobility and some teams supported by a mobile PAC-TAC unit. Responsive deployment of the teams will be utilized by supervisors to allow for efficient use of manpower. PAC-TAC III will test these revisions of the original experimental design to determine the best method of team deployment for eventual institutionalization. An evaluation will be undertaken to measure the project's affect on arrest, offenses, calls for service, workloads, response time, and deterrence of street crime.

PAC-TAC III, which will operate six months, is funded by \$124,999 in discretionary funds of the Law Enforcement Assistance Administration.

* * * * *

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BACKGROUND

The PAC-TAC program provided an experimental setting in which to examine a novel variation on the traditional model of police foot patrols. Civilians were employed by the police department to walk regular beats in their neighborhoods as the partners of police officers. Examination of the work of these PAC-TAC teams, sixteen in all, made it possible to reach certain preliminary conclusions about the value, for cities like Rochester, New York, of redeeming the foot patrol as an operational feature of urban police work and of employing civilians as police para-professionals.

The PAC-TAC model sought to integrate police work into the neighborhood. Not only were police officers to be removed from their patrol cars and placed on beats where they could develop ties with community residents and a keener appreciation of the life styles and values of the city's different communities, but they were also to be aided in their work by community residents who would serve as liaisons to neighborhood institutions. This team model, it was hoped, would improve police-community relations, exert some small deterrent effect on common street crimes, and help to evolve feasible divisions-of-labor between regular police officers and their new para-professional partners. The latter possibility, in particular, promised to point toward new models for organizing the work traditionally done in urban police departments. Should the work of the police-civilian teams have succeeded in any minimal respect, the PAC-TAC model would have vindicated itself in cost-benefit terms due to the savings that could accrue to urban departments from the use of

civilians in certain team policing contexts. Several of PAC-TAC's objectives were clearly shared with the recommendations regarding police made by the National Advisory Commission on Criminal Justice Standards and Goals. The success of the program was to be judged in a rigorously planned evaluation.

Six months of a program like PAC-TAC, it now seems clear, constituted too short a period of time in which some of benefits it was expected to produce should reasonably have been projected to appear. The evaluation of PAC-TAC brought this deficiency of our time-frame to light. This is especially true with respect to the use of civilians. We have learned that six months is too little time for civilians to gain the practical experience essential to the effective performance of many ordinary police duties, especially in a team context, or for reasonable or stable divisions-of-labor between civilians and police officers to emerge.

The evaluation of other projected outcomes of the experiment was also affected by the narrowness of the time-frame. To the present, it is possible to demonstrate numerically trivial but statistically significant effects of PAC-TAC on increases in arrest statistics. It may also be shown that PAC-TAC teams relieved regular patrols of many "calls-for-service," and contributed substantially to the investigation of several serious crimes. Though a community survey of citizens' responses to the program is as yet incomplete, the evidence from ethnographic field work suggests a rather complicated interpretation of team success in public relations and in integrating police work into various neighborhoods. The work of the teams, from this perspective, is seen to be a function of the "style" of the police partner, who uniformly dominates the team and determines

whether they will actively perform a public relations function. Effective public relations, in turn, appears to be possible only in neighborhoods and on beats distinguished by certain ecological and structural characteristics, mainly of a sort to facilitate an expansion and ramification of team contacts. These matters will be developed further in the evaluation report.

Though the judgment of the use of civilians in the PAC-TAC context must also await further evaluation, the basic foot-patrol model was a success. Not only did the patrols work in an effective pattern of coordination with regular police services in the city, but they also handled a substantial amount of work on beats where there was work to do and at times when there was pressure on regular patrols to divert attention to serious police matters. In addition, it was observed that many of the police officers who participated in the program were enthusiastic about the value of foot patrols as a means of bringing their work back into contact with the community. Walking a beat was the first opportunity for many of the younger officers to get out of their cars and to meet community residents in unofficial contexts. Many felt this kind of contact was extremely useful not only to themselves but also to the image of the police department in the community. Whether this contact had any substantial effect on public opinion in the six month period is open to question, but there can be no doubt that the experience of foot patrol encouraged a more responsive attitude in some officers to the residents in particular neighborhoods and made police work in these areas less difficult for them.

LESSONS OF PAC-TAC I

Rather than "Did PAC-TAC work?", the appropriate question at this time is "What lessons have been learned from PAC-TAC I?" What can be improved about the experimental model we began with? A number of factors suggest themselves on the basis of last summer's experience:

1. The teams can be given more work to do if they are permitted greater mobility on their beats. This implies the need, not for smaller beat areas but for some team-related means of locomotion within beat areas, other than that provided by regular patrols.
2. The civilian team members must be designated certain fixed responsibilities. These responsibilities, however minor, must be clearly defined and carefully taught as part of a training program (e.g., first aid, traffic direction, radio work).
3. There must be greater administrative flexibility in the use and deployment of teams. No team should be expected to work a dead beat on a dead night, and supervisors should have the discretion to extend working hours on given nights.
4. The information developed by teams and the information developed by regular patrols must be shared to a greater extent than is now the case.
5. Greater effort must be made to maintain team stability.

The suggestions in this list point back to aspects of the original experiment that can be changed to improve its operation. All relate to difficulties of scheduling, supervision, and the definition of beat areas, and thus do not reflect upon the basic PAC-TAC model. From the point of view of the concept, they require trivial modifications. One, however, is directly addressed to the structuring of activities on the teams. In the actual work of the police-civilian teams observed last summer, we were repeatedly confronted with the problem of defining functions for the civilians that they could reasonably be expected to manage. On many teams, some functions did regularly fall to civilians, e.g., carrying and monitoring the team radio. Even though it is cheaper to use a civilian than to employ additional policemen in such matters, the civilian function did not impress us as having the degree of robustness we wanted it to have. One difficulty, we felt, was that the civilians lacked the necessary degree of experience working the beat and engaging in routine police functions to make either themselves or their police partners fully comfortable in further expanding their functions. Many policemen simply refused to delegate responsibilities to their partners. Some, though a minority, refused to respond to calls in which their partners, in their opinion, would have been a hindrance or for which they had no experience. It remains questionable whether civilians so dominated by their police partners can be expected to contribute to their fullest to any of the functions we saw the PAC-TAC teams serving -- mediation of community integration, ancillary subprofessional police duties, etc. Though some police officers were justly cautious in working with civilian partners,

many seem not to have allowed their partners to define stable functions. For this reason, part of any further experimentation under the PAC-TAC model should include a specific delineation of civilian responsibilities and an effort to augment civilian experience. In addition, we see the need for a more rigorous training program in specifically useful skills like radio management and in the general rules of police demeanor.

REVISION FOR 1974

Our objectives for 1974 are: (1) to increase the speed with which teams can move within beat areas when necessary; (2) to introduce scheduling flexibility into team administration and deployment; and (3) to examine the feasibility of employing civilians as second members of regular mobile patrols within the context of a mobile support system for foot-patrols. Let us address each of these objectives by specifying them in terms of an experimental design.

(1) Expediting Team Mobility. The objective in a foot-patrol system should not be to produce a constant rate of either fast or slow movement within a beat area. Movement that is too rapid discourages attention to details and impedes public contact; movement that is too slow diminishes the area that can be covered and reduces the number of civilian contacts that can be made. Obviously this can be taught to patrolmen, if their own experience does not suggest it. But the limitation of the foot patrol is that the range of speeds within which the team may determine its own rate of movements is limited by the fact that the team is on foot and both partners are not equally capable of the same rates of movement for the same periods of time.

One solution to problems of movement faced by foot patrols is to supply teams with some auxiliary means of transportation that will enable them to patrol a beat area at rates appropriate to different functions, while at the same time preserving the essential character of foot patrol. The experience of 1973 suggests that such auxiliary transportation would increase the workload of teams by decreasing the inefficiency of the basic foot patrol system, and lessening the fatigue of team members. Of the various means of transportation we have considered to serve these ends (scooters, bicycles, motor bikes, etc.) the one we have found most flexible is the bicycle. Providing flexibility in terms of speed and capacity, bicycles will enable teams to maintain their essential openness to civilian contact. We propose to define six beat areas in one part of the city in which to experiment with teams employing bicycles.

(2) Police-Civilian Mobile Support Systems. PAC-TAC teams provide a cheaper means of maintaining two-person foot patrols. What basis is there to project such cost benefits to regular mobile patrols? The answer to this question depends on defining some functions of two-man mobile patrols that need not employ two policemen. Though it seems obvious that there are some things that civilians could do in team policing circumstances, the real benefits of civilians under the PAC-TAC model were supposed to derive from community relations. Putting civilians into police cars thus would seem to contradict the logic with which PAC-TAC began -- getting policemen out of their cars. But, as we have suggested earlier, one of the difficult problems in evaluating how specifically to use civilians as "para-professionals" -- a difficulty, at

least, of our initial design -- was that civilians lacked experience. Their police partners were justifiably cautious in allowing responsibility to devolve into their hands. They had not seen the police side of police work; rarely had any of them been exposed to the less routine duties encountered by police officers. The initial view we had of this spectrum of police activity encouraged us to seek to insulate the civilians from all but routine service functions and public relations. We now see this as a mistake. It now seems to us unlikely that fully effective trust and cooperation between police officers and civilians can be developed unless the civilian is able to participate meaningfully as a supporting partner in team actions. We do not want to make civilians into trained policemen, but it is apparent to us that the civilian must be placed in a position to gain more exposure to police work and to gain it in a relatively short period of time. We propose to do this by placing civilians in police cars, with their partners, and delegating to the motorized PAC-TAC team specific responsibilities as a "support system" for PAC-TAC foot patrols.

Experimentally, a further area of the city will be defined to include six beat areas. Six PAC-TAC teams will be available to work these beats. On any given night, however, only five of these beats will be patrolled on foot. Five teams will be walking, and a sixth team will be patrolling among the beat areas in a marked police car. The work of this team will center on the function of supplying "support services" for any of the foot patrols -- transportation, back-up, communications relays, etc. Otherwise, this team will engage in routine mobile patrol within the area of these six beats, responding at its own discretion to any calls

in its area. The civilian in these circumstances will act as an aide to the police officer.

While one function of this particular experimental variation is to augment civilian experience, it also provides another means of improving team mobility and team work-capacity. For instance, the mobile PAC-TAC team automatically creates the possibility of a back-up situation involving two policemen and two civilians. This provides another cost justification of this model, since it eliminates the need for foot patrols consisting of two policemen. The teams of two police officers experimented with in 1973 were allocated to high crime areas of the city and performed very effectively. In effect, however, the mobile PAC-TAC support team supplies a second police officer to any patrol situation requiring multiple police action. These situations, in our experience, arose infrequently enough to justify placing the second police officer in a support team capacity. The savings involved permit us to maintain additional personnel.

(3) Administrative Flexibility. The third variation on the 1973 experimental model involves introducing supervisory discretion into team deployment. Adhering to a fixed set of beats and a fixed schedule for patrols introduces inefficiency into the use of the teams. From the police perspective, it makes sense to permit a supervisor to determine how many teams will work on given nights, how long they will work, and where they will work. Last summer's experience pointed out the futility of the foot patrol in "dead" areas on "dead" nights; little work was done and very few public contacts were made.

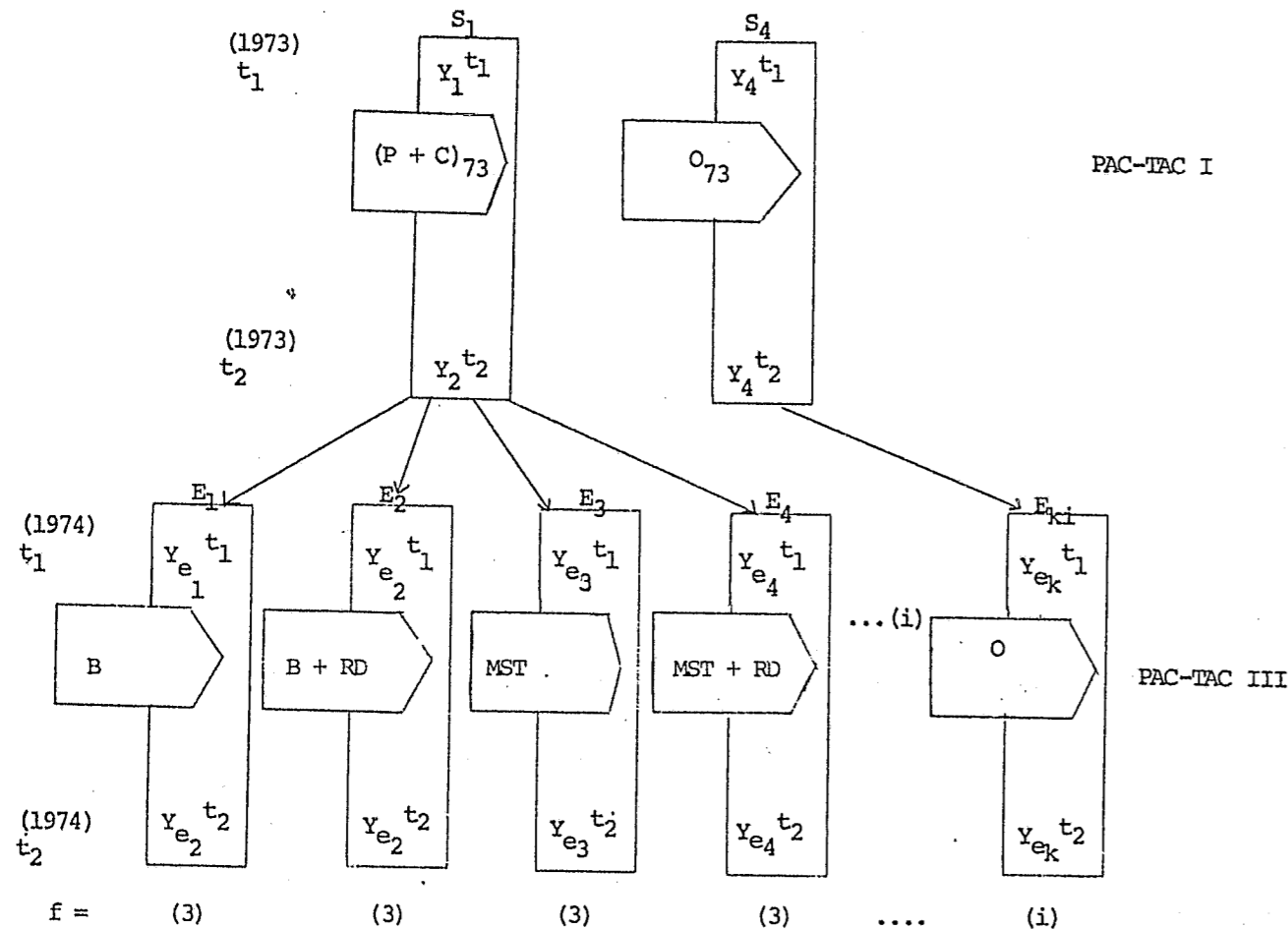
To eliminate this source of waste, we propose an operational model in which the supervisor in each area will have the discretion to allocate three of the six teams under his control into any of several meaningful beats. He will have the discretion to mobilize all or none of these three teams on given nights, to cut short or extend nightly hours, or to transfer teams among beat areas. The beats he may use will be defined by the experimenters, but will form a set so defined that meaningful work-loads can be found for all of the teams each night. Thus, besides the three fixed beats covered every night, each area will have three teams that may "float" among defined beats. This kind of flexibility puts the supervisor in a position to maximize the usefulness of the teams.

THE EXPERIMENTAL SCHEME

The experimental scheme for PAC-TAC I was factorial; with respect to each "outcome" variable, the scheme permitted judgements of the effects of team size, team composition (police and civilian members); and presence or absence of any foot patrol. Of the combinations of factors examined last year, this year's experiment will further examine variations on the two-person police-and-civilian team (last year's P + C stimulus). Team size will not be manipulated again, nor shall we further examine the two-police team.

We may thus represent our proposal for 1974 as in Figure 1, where the relevant factors present in the 1973 experiment are depicted as giving rise to four experimental variations in 1974. Schematically, we have four separate experiments that alter the original (P+C) stimulus, and we label these variations E_1 through E_4 . In point of fact, of course,

Figure 1. Experimental Scheme for PAC-TAC III



Where:

- B = Bicycles
- RD = Responsive Deployment
- MST = Mobile Support Team
- f = No. of beats
- t = time
- S_i = Sampling areas during PAC-TAC I
- E_i = The four experimental variations in PAC-TAC III
- Y_i = Dependent variables in each experiment
- K_i = Control areas for each experimental area (i=1,...,4)

the scheme again represents a factorial experiment since factors E₁ and E₂, factors E₃ and E₄, and factors E₂ and E₄ share common stimuli -- bicycles, mobile support teams, and responsive deployment, respectively. Each of the four experimental blocks has three (P + C) teams allocated to it. There are, in addition, i E_k's, or control areas, corresponding to the i different beat areas utilized in the set of experimental variations. It is convenient to think of each experimental variation as a set of beats, each of which we may number as a b_i. Thus, $b_i \in E_i$. In terms of matching beats and control areas, we shall follow the following rule: where possible, some beats in each experimental area will be matched with beats in the remaining areas, including controls (i.e., $\forall b_i \in E_i, \exists b_j \in E_j \ni b_j = b_i, \forall i, j: i \neq j$). The matching criterion in the 1974 experiment will be an index number from street crimes. (This is less preferable than matching on various demographic characteristics, but we resort to it in lieu of census materials valid for 1974).

In the schematic representation, the stimulus for each E_i is labelled representing the particular variation on (P + C) introduced in that set of beats. Thus, the bicycle is introduced in E₁, the bicycles plus responsive deployment in E₂, the mobile support team in E₃, and the mobile support combined with responsive deployment in E₄. The Y's in each block represent the various dependent variables -- or "outcomes" -- that will be measured in connection with each experiment. The scheme makes explicit the possibility of comparing the Y's in 1974 with the Y's in 1973, as well as considering only the comparisons possible in 1974.

Each E will be geographically contained in one area of the city. Three (P + C) teams will be allocated to each of these areas, making twelve teams in all. E₁ and E₃ will involve three fixed beat areas, whereas E₂ and E₄, enjoying responsive deployment, will operate in a larger set of defined beats.

CRITERION VARIABLES AND PROJECTED OUTCOMES

There are several dependent variables in each experiment; some are shared among all experiments, others are not shared and thus constitute descriptive criteria.

a.) Historical Comparisons With PAC-TAC I. It will be useful to find out whether the variations tried this year offer any improvement over the PAC-TAC performance in 1973. We may examine this possibility by comparing basic crime statistics -- arrests, offenses, and calls for service -- and statistics on team work-loads -- number of team responses to calls for service, for example -- for the two experimental periods, 1973 and 1974.

b.) Criteria in 1974. In 1974, therefore, part of the evaluation effort will be directed toward collecting data that can be compared with the performance of PAC-TAC in 1973. These variables include the basic crime data for each area, as well as information describing the teams' work loads.

In addition, we shall now be interested in team response-time, since two of our stimuli should effect team mobility.

Beyond these quantitative measurements, it is also critical to include among our evaluation criteria various descriptive observations relating to team work habits and division-of-labor. Among the expectations that attach to E₃ and E₄, for example, are predictions about the effects on team cooperation and sharing of responsibility that may result from providing civilians with greater exposure to a fuller range of police responsibilities.

c.) Explicit comparisons. We may make these expectations completely unambiguous by stating them in terms of inequalities, following the usual conventions in experimental design.

First, the historical comparison is based on the prediction that the 1974 variations on the PAC-TAC stimulus will improve its performance relative to 1973. The comparisons may be stated relative to the controls during each period, but for purposes of exposition we shall specify only comparisons among blocks and across time. Thus,

$$\begin{aligned} & (Y_{E_1}^{t_2} - Y_{E_1}^{t_1}) + (Y_{E_2}^{t_2} - Y_{E_2}^{t_1}) + (Y_{E_3}^{t_2} - Y_{E_3}^{t_1}) + \\ & (Y_{E_4}^{t_2} - Y_{E_4}^{t_1}) > 4 (Y_{E_k}^{t_2} - Y_{E_k}^{t_1}), \end{aligned}$$

or, in the shorthand we shall use subsequently,

$$\sum_i (Y_{E_i}^{t_2} - Y_{E_i}^{t_1}) > 4 (Y_{E_k}^{t_2} - Y_{E_k}^{t_1}).$$

The comparisons appropriate only to the 1974 experiment stack-up as follows:

a.) For response-time

$$(\bar{Y}_{E_1} + \bar{Y}_{E_2}) > (\bar{Y}_{E_3} + \bar{Y}_{E_4})$$

b.) For team work-loads

$$(\bar{Y}_{E_2} + \bar{Y}_{E_4}) > (\bar{Y}_{E_1} + \bar{Y}_{E_3})$$

c.) For Y = deterrence of street crime

$$\sum_i (Y_{E_i}^{t_2} - Y_{E_i}^{t_1}) > \sum_k (Y_{E_k}^{t_2} - Y_{E_k}^{t_1})$$

d.) Similarly, with respect to team division of labor, letting Y = the range of functions civilians handle on the PAC-TAC teams, we might expect,

$$(\bar{Y}_{E_3} + \bar{Y}_{E_4}) > (\bar{Y}_{E_1} + \bar{Y}_{E_2})$$

Though we have allowed the operational meaning of these variables to remain implicit, the expectations we have regarding the experiment are explicitly stated in terms of these inequalities.

EVALUATION DESIGN

Evaluation of this experiment requires the collection, coordination, and analysis of several kinds of data.

1. Data on Team Work. Data on offenses, calls-for-service, and arrests must be retrieved from the records of the Rochester Police Department. The data must cover the period of the experiment and be retrieved according to several criteria of comparison: e.g., within beat areas across time; within areas adjacent to beat areas across time, etc.

Data on response-times cannot be calculated from police records, but must be specially gathered for this evaluation. To supplement the capacities of the Research and Development Section of the Police Department in gathering this information, the proposal includes monies for the hiring of a civilian research assistant. The research assistant will also aid in developing a training program for the team members and aid in defining beat areas.

2. Observations on team work and division of labor require the evaluation to field a number of trained ethnographers to walk with teams and to make comparisons among beat areas. Much of the most meaningful information obtained in 1973 was of this qualitative sort. We now feel the need to supplement these earlier observations on a larger scale and in greater depth.

In addition, explicit measurements of various attitudes and work

patterns of team members must be taken via written instruments. Teams must be expected to complete daily logs of their activity, and to participate in occasional "debriefing" sessions. The objectives of these measurement efforts will be to describe the feelings of team members toward their beats, work, and partners under the different experimental manipulations. Though some of the instruments and forms used for these purposes in 1973 may be repeated in 1974, the evaluator will be expected to review and redesign these instruments where needed.

The evaluator will also rely on the police department to supply him with a great deal of routine information about the participants in the experiment. It will be necessary to examine team absenteeism and personnel turnover, the stability of team membership, etc., and to describe these phenomena, especially as they relate to team performance. Some of this information will be routinely kept by the police department, but it will be the duty of the civilian assistant to work with the project director and team supervisors to manage this information efficiently. The civilian will act as a liaison between the outside evaluators and the police department.

3. Data on Police Attitudes. The 1973 evaluation, due to budget constraints and idiosyncratic changes in the police department that would have distorted measurements, failed to address adequately a number of questions that would have necessitated a survey of the police department. It is important in experiments like PAC-TAC to consider whether "selective recruitment" of personnel might have affected the performance of the stimulus. In our case, it seemed important to dis-

cover whether the police officers who volunteered for the experiment were in important respects unrepresentative of the police department generally. In respect to standard demographic variables as well as measures on attitudes and values like career commitment, morale, etc., unrepresentative recruitment seriously impeaches the credibility of generalizing either the success or failure of the experiment to other departments or to other samples of personnel.

Thus, the 1974 evaluation should include an effort to sample the police department via a questionnaire, and the survey should be undertaken toward the beginning of the experimental period. The survey should be of modest scope and should also be administered to all PAC-TAC officers for purposes of comparison. It will be convenient to integrate this effort as part of the measurement of team attitudes.

ORGANIZATION OF THE EVALUATION

The evaluator will be selected at the beginning of the grant period, and will have total responsibility for the specific design and coordination of the measurement efforts outlined above. The evaluator will be expected to produce an evaluation report, summarizing the separate components and reporting the findings. The evaluator will work directly with the Research and Development section of the Rochester Police Department, and will utilize the services of the civilian analyst-clerk working out of that section of the department.

In addition, the evaluator will assemble a staff of personnel

trained to aid him in collecting observations and analyzing data. His own resources should be adequate to the task of analyzing all quantitative data from police records, questionnaires to team members, daily logs, personnel records of team members, and questionnaires to the police department. He may expect to be aided in the direction and supervision of the ethnographic work, and in the design of the police questionnaire, by specialists in these areas.

The specific organization of the evaluation and the exact timing of its components will be within the discretion of the evaluator, within limits established by the design. Approval of the evaluator's design will be up to the Rochester Police Department. The Rochester-Monroe County Criminal Justice Pilot City Program will judge the scientific merit of the proposed design.

TRAINING PROGRAM

As part of the new PAC-TAC program, the training of team members will be undertaken with the intention of supplying civilians with skills useful to them in their work. To design this program, the police department will assemble personnel experienced in the PAC-TAC program for the purpose of enumerating a set of specifically transferable skills. These will be integrated into a broader curriculum, and civilians will be trained around these core skills during the hours they spend in the classroom.

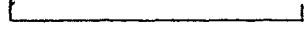
In addition, all civilians will spend approximately two hours per night, for five nights, riding as "partners" of officers on regular

patrol. As part of their training program, this component is directed at increasing the exposure of all PAC-TAC civilians to basic police functions before they begin their foot patrols.

PAC-TAC III
TIMELINE

5/1 5/15 6/1 6/15 7/1 7/15 8/1 8/15 9/1 9/15 9/29 10/1 10/15 11/1 11/15

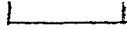
Program Development



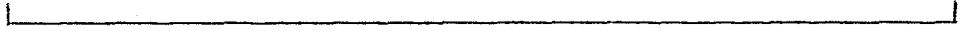
Assign Supervisor



Recruit Police & Civilians
Hire and Train PAC-TAC Teams



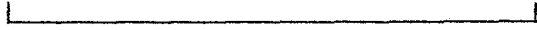
Hire Research Assistant



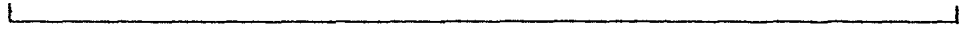
Equipment Acquisition



Initial Mode Hits Street



Commence Evaluation Mode



END