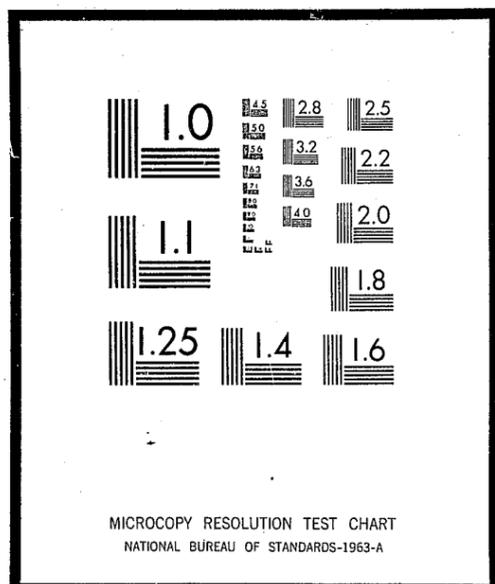


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U.S. DEPARTMENT OF JUSTICE
LAW ENFORCEMENT ASSISTANCE ADMINISTRATION
NATIONAL CRIMINAL JUSTICE REFERENCE SERVICE
WASHINGTON, D.C. 20531

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WASHINGTON OPERATIONS

EQUIPMENT SYSTEMS LIMITATIONS IN SURVEILLANCE OPERATIONS

NOVEMBER 1973

Equipment Systems Improvement Program Report
prepared for



U.S. DEPARTMENT OF JUSTICE
LAW ENFORCEMENT ASSISTANCE ADMINISTRATION
NATIONAL INSTITUTE OF LAW ENFORCEMENT
AND CRIMINAL JUSTICE

MITRE

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THE EQUIPMENT SYSTEMS IMPROVEMENT PROGRAM

Following a Congressional mandate* to develop new and improved techniques and equipment to strengthen law enforcement and criminal justice, the National Institute of Law Enforcement and Criminal Justice under the Law Enforcement Assistance Administration of the Department of Justice established the Equipment Systems Improvement Program. The objectives of the Program are to determine the priority needs of the criminal justice community to help in its fight against crime, and to mobilize industry to satisfy these needs. A close working relationship is maintained with operating agencies of the criminal justice community by assigning systems analysts to work directly within the operational departments of police, courts and corrections to conduct studies related to their operational objectives.

This document is a research report from this analytical effort. It is a product of studies performed by systems analysts of the MITRE Corporation, a not-for-profit Federal Contract Research Center retained by the National Institute to assist in the definition of equipment priorities. It is one of a continuing series of reports to support the program decisions of the Institute relative to equipment development, equipment standardization and application guidelines. Comments and recommendations for revision are invited. Suggestions should be addressed to the Director, Advanced Technology Division, National Institute of Law Enforcement and Criminal Justice, Law Enforcement Assistance Administration, U. S. Department of Justice, Washington, D. C. 20530.

Gerald M. Caplan, Director
National Institute of Law
Enforcement and Criminal Justice

* Section 402(b) of the Omnibus Crime Control and Safe Streets Act of 1968, as amended.

THE MITRE CORPORATION

WASHINGTON OPERATIONS

WORKING PAPER

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ABSTRACT: This paper presents an examination of the Michigan State Police (MSP) intelligence operations to identify equipment systems limitations in surveillance operations. This examination was performed in support of the Equipment Systems Improvement Program instituted by the National Institute of Law Enforcement and Criminal Justice.

Major operational limitations have been identified in MSP surveillances when performing the following functions:

- establishing contact with suspect,
- maintaining an inconspicuous appearance,
- maintaining contact with a mobile suspect, and
- obtaining information for directing surveillance actions.

Operational requirements for seven desired capabilities are presented and the potential benefits of having these capabilities are suggested.

THIS INFORMAL PAPER PRESENTS TENTATIVE INFORMATION FOR LIMITED DISTRIBUTION.

EXECUTIVE SUMMARY

An examination of the Michigan State Police (MSP) intelligence operations has been performed to identify equipment systems limitations in surveillance operations. This examination was performed in support of the Equipment Systems Improvement Program instituted by the National Institute of Law Enforcement and Criminal Justice.

The Michigan State Police has an extensive statewide intelligence operation involving all levels of law enforcement in the state of Michigan. The intelligence operation provides an intensive attack against selected felonious crimes (e.g. burglary and robbery) and against criminal activities in the areas of organized crime and narcotics. The primary tool used by the MSP in the intelligence operation is the covert surveillance of persons suspected or known to be participating in these types of criminal activities. Surveillance can be characterized as the secretive and continuous watching of persons, vehicles, places, or objects to obtain information concerning the activities and identities of individuals. Some of the latest commercially available equipment is utilized by MSP intelligence officers in surveillance operations. Despite this equipment, many operational limitations were found to still exist in present surveillance methods. Equipment systems limitations have been identified in MSP surveillance operations when performing the following functions:

- establishing contact with suspect,
- maintaining an inconspicuous appearance,
- maintaining contact with a mobile suspect, and
- obtaining information for directing surveillance actions.

Operational requirements are presented for seven desired equipment systems capabilities which would alleviate the limitations identified in performing these four surveillance functions. These seven desired capabilities are as follows:

- Detection of presence of a car in a garage
- Covert car motion indicator
- Inconspicuous remote viewing
- Covert mobile radio antenna

- Car/agent tracking
- Covert remote listening
- Covert reception body transceiver

Potential benefits of having these capabilities are suggested. Primary benefits are more effective utilization of resources, reduced risks at jeopardizing the surveillance, and decreased danger to undercover agents.

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SECTION I

INTRODUCTION

An examination of the Michigan State Police intelligence operations has been performed to identify equipment systems limitations in surveillance operations. This examination was performed in support of the Equipment Systems Improvement Program instituted by the National Institute of Law Enforcement and Criminal Justice.

The Michigan State Police has an extensive statewide intelligence operation involving all levels of law enforcement in the state of Michigan. The intelligence operation provides an intensive attack against selected felonious crimes (e.g. burglary and robbery) and against criminal activities in the areas of organized crime and narcotics. The primary tactic used by the MSP in the intelligence operation is the covert surveillance of persons suspected or known to be participating in these types of criminal activities. Surveillance can be characterized as the secretive and continuous watching of persons, vehicles, places, or objects to obtain information concerning the activities and identities of individuals. Covert surveillance provides a means of obtaining intelligence to develop prosecutable cases against persons removed from the street-level operation of criminal activities. It also provides a method whereby a suspect can be apprehended in the act of committing a crime under situations where standard police patrol operations are ineffective.

The Michigan State Police intelligence officers utilize some of the latest commercially available equipment in surveillance operations. This equipment and associated specialized technical services are provided through a Technical Services Unit. Personnel in the Technical Services Unit attempt to meet the demands of intelligence officers by direct application of commercially available equipment and modification of equipment to meet a special purpose. Despite these efforts, many operational limitations still exist in present surveillance methods. These limitations result from inadequate equipment or from a lack of equipment capability to perform a desired function.

General and crime specific surveillance operations are delineated in Section II followed by criminal characteristics in Section III. Operational limitations are given in Section IV. In defining these operational limitations, no attempt has been made to evaluate the effectiveness of the basic intelligence function or to suggest equipment systems which would require major changes in the present methodology and procedures utilized in surveillances. Emphasis has been placed upon those operational limitations considered amenable within the Equipment Systems Improvement Program. Thus, problem areas where

equipment systems are known to exist or where equipment systems are being actively pursued by private industry are not explored in depth. Operational requirements are presented in Section V for seven desired capabilities in surveillance operations. Potential benefits of these seven capabilities are suggested in Section VI.

SECTION II
SURVEILLANCE OPERATIONS

GENERAL SURVEILLANCE

The basic role of surveillance is to obtain information concerning the activities and identities of individuals. Some specific objectives of surveillance within this role are to:

- Obtain evidence of a crime
- Locate persons by watching their haunts and associates
- Obtain detailed information about a subject's activities
- Check on the reliability of informants
- Locate hidden property or contraband
- Obtain probable cause for obtaining search warrants
- Prevent the commission of an act or to apprehend a subject in the commission of an act
- Obtain information for later use in interrogation
- Develop leads and information received from other sources
- Know at all times the whereabouts of an individual
- Obtain admissible legal evidence for use in court

A secondary role, although perhaps as important, is the protection of undercover agents involved in the investigative process. This role becomes paramount for certain types of surveillances (e.g., a narcotics buy and bust¹ situation). General techniques and procedures utilized in surveillances are delineated in the following paragraphs. Unique aspects of crime specific surveillances are presented in following sub-sections.

¹Undercover agent buys drugs from a seller and then makes an arrest.

Criminal activities on which surveillances are conducted are primarily identified through informants, undercover agents, and standard police operations. Informants are developed primarily by undercover agents because of their close contact with the criminal element. The undercover agent will often live in a locality or will frequent places where close association can be obtained with a suspect or his friends. In addition, the agent will discreetly disseminate information or create a situation which will cause the suspect to become interested and make an approach.

The information supplied from the above sources and from any subsequent follow-up investigations (including attempting to validate informant information) are compiled for study by the surveillance team before the surveillance is actually initiated. The team normally consists of four officers, either currently engaged in undercover work or having extensive investigative experience. MSP agents will normally have considerable experience working as detectives before being assigned to a surveillance team. Officers from other police agencies participating in a surveillance under the direction of MSP may have less training and experience than the MSP officers. This situation may cause additional difficulties in surmounting some of the equipment limitations presently existing in surveillance operations.

Standard Surveillance Equipment

Individual MSP undercover agents are assigned a standard commercially available car along with special investigative equipment carried or mounted in the car. This basic equipment consists of the following:

- a. Communications - Covertly mounted (not visible from interior of car) high band (four channel), 100-watt mobile radio. The antenna is a standard or modified AM car radio antenna (height adjusted for $\frac{1}{4}$ wave length) mounted in standard location (normally front right fender) for specific car make and model. A low band (four channel) mobile radio is also covertly mounted in car and uses the same antenna as the high band. A walkie-talkie is normally carried by one of the team members. Presently, a Bell and Howell Model 300 (4-frequency, 1.5 watts) or Model 247 (2-frequency, 1.7 watts) is utilized by MSP agents.
- b. Weapons - A .38 special service revolver and a .38 special snub-nose revolver is standard issue, although agents primarily use other types of handguns (e.g. 9 mm). An army standard issue M-1 Carbine or 12-gauge pump shotgun is also carried in the trunk of the car.

- c. Protective Garments - A vest type body armor, manufactured by David Aircraft, is standard issue to all MSP agents. It is a 10.75-pound nylon vest with front and back plates which prevent penetration from most common handguns and shotguns.
- d. Vision Equipment - Standard 7 x 50 pair of binoculars.
- e. Sound Recording - Standard cassette tape recorder. Some agents have an electrical connector between mobile radio and tape recorder to provide direct recording of voice radio traffic.
- f. Photographic Equipment - Kodak Instamatic (Model 700 or 704) or a Minolta cartridge type (Model 800 Auto Pak or Model 600x) for general mug identification photographs.
- g. Personal Appearance - Sundry clothing, including hats, wigs, and glasses, to change appearance.
- h. Miscellaneous Equipment - Report forms, evidence containers, flashlight, bar for entering locked doors and windows during raids, etc.

Other equipment and technical services are available to officers in the field from the MSP Technical Services Unit. This equipment includes clandestine audio and video recording devices, cameras (still and motion) with telephoto lenses and limited night photography capability, night vision scopes, body transmitters and surveillance vans. Due to the complexity and technical nature of some of this equipment, a Technical Services Officer normally responds to a field request by providing instruction in equipment operation or by personally setting up and operating the equipment during the surveillance.

Standard Surveillance Techniques

Surveillance techniques vary considerably depending on type of surveillance (moving or stationary), number of team members, and criminal activity under investigation. The moving surveillance via automobile is of primary concern in this examination. Foot (moving) surveillance and stationary surveillance (i.e. the continuous watching of a place, object or person from a fixed point) are also implied, as many of the techniques and equipment systems limitations are common to all types of surveillance operations. MSP primarily uses a single-manned, four-car surveillance team. Less than four cars have been found to be ineffective for most surveillances because of greater chances of detection and increased risks to the officers' safety.

A major aspect which impacts on the surveillance operations is the extent of information available to the agents. Information leading to the initiation of a surveillance comes from many sources, including informants, investigations performed by agents, uniformed police records, and the news media. Many surveillances are also initiated for the sole purpose of generating leads to possible criminal activities. For these surveillances, the agents invariably have little information to aid them in conducting the surveillance.

A surveillance is normally initiated by the four team members where one has the eyeball² and where the other team members have different vantage positions (i.e., can rapidly assume the eyeball, provide direct visual cover, or cover possible exit paths). The eyeball agent and position are changed frequently to minimize suspicions from the suspect and other persons in the area. This suspicion frequently requires the eyeball agent to assume a poor vantage point. Binoculars are utilized for enhancing identification (e.g., persons, car registration numbers, etc.) where possible. Some situations require an agent to temporarily move in closer or drive past the suspect or location under observation to perform the identification.

When the suspect changes locations (normally via his personal car), one agent may assume the eyeball directly behind the suspect or on an intersecting street. Separation distances vary according to the situation (e.g., rural or urban area and agent's knowledge of suspect's habits and places he frequents). The other agents may assume a "caravan" position or "bracketing" position (traveling on parallel streets). The second car in the caravan will make the turn and assume the eyeball. The eyeball car is changed often and the agents change their physical appearance by the use of different clothing, glasses, wigs, etc. A subject who believes he is being followed may perform one or more of the following tricks in order to confirm his suspicions:

- Alternate fast and slow driving
- Commit flagrant traffic violations
- Park frequently
- Drive into dead-end streets
- Stop suddenly around curves and corners.

²Undercover agent having visual contact responsibility of person, place or object under surveillance.

Some common methods used by suspicious suspects (sometimes standard practices whether they are suspicious or not) are as follows:

- Disobey traffic control laws
- Use double entrance to driveways
- Cut through parking lots
- Drive through congested areas
- Use decoys and traps.

These tactics, as well as other uncontrolled variables (e.g., car accident blocking street), frequently result in the eyeball (visual contact) being lost. When this occurs, the team immediately assumes a search mode. The success of the search is dependent upon the skill of the team members, their knowledge of the suspect's habits and the area (streets, highways, parking locations, etc.), and sometimes luck.

Constant communication is maintained, when possible, with other surveillants. Code words are utilized extensively to combat the possibility of monitoring. The effectiveness of the voice codes varies considerably with the level of experience of the team members and the amount of time they have been working as a team.

When a suspect leaves his car, one agent will normally follow on foot. Depending upon the surroundings and the anticipated place to be visited by the suspect, the agent on foot may be joined by a second agent. The main goal is to keep visual contact with the suspect at all times or at least visual contact of all possible exits available to the suspect. It is desirable for the agents other than the eyeball to be in their car while maintaining visual contact in order to maintain communications between agents. The eyeball agent will normally carry a walkie-talkie.

Identification of persons met by a suspect is a common objective in surveillance. One method is for the agent to get close enough to overhear their conversations. This method frequently provides information on the suspect's plans which may have a strong impact on further surveillance actions. This method is usually difficult, however, because of the surroundings (e.g., sitting in a car, standing outside in a parking lot). Another method, providing the person meeting with the suspect leaves the area in a car, is to have a patrol car stop the person for some type of traffic violation or automobile defect. This method is a very effective one assuming a patrol car can be contacted in the immediate area.

FELONIOUS CRIME SURVEILLANCE

Burglary and robbery are the two most frequent felonious crimes where surveillance is utilized. Usually, a person that is strongly suspected or known to be committing these crimes, has been identified by an informant or through the investigative process. Little, if any, information may be known about his habits, places frequented, and modus operandi.

These types of surveillances are normally activated for the sole purpose of apprehending a suspect while in the act of committing a crime. Depending upon the extent of the expected danger to a potential robbery victim, a suspect may be arrested before the crime has been committed. This situation normally results in a less serious charge against the suspect, but it is necessary in many situations to limit the danger to the expected victim.

These surveillances may be limited to specific days of the week and specific times of day when the suspect is expected to commit a crime. The maximum time a surveillance will normally be maintained is two weeks.

The surveillance may be initiated on the suspect at his place of employment, at his home, or any place he is known to frequent. It is common for the surveillance to be initiated at the suspect's home and to follow him on lengthy trips to other cities and back home. The surveillance is normally discontinued when the suspect is thought to be retired for the night.

ORGANIZED CRIME SURVEILLANCE

Surveillances concerned with organized crime activities involve obtaining intelligence information and legal evidence for development of prosecutable cases. Evidence gathering surveillances are primarily directed at persons committing an offense or at persons directly involved in a conspiracy. A person is charged with the crime of conspiracy if he conspires together with one or more persons to commit an offense prohibited by law, or to commit a legal act in an illegal manner. To build a case of conspiracy, patterns of persons contacted, locations frequented, and actions taken by suspects must be developed and recorded. The wide variation in characteristics of persons involved in organized crime results in considerable differences in the surveillance operational characteristics.

Surveillances directed at persons involved in organized crime can be characterized as "getting the suspect up and putting him to bed". Although all the surveillances do not involve continuous watching of a

person to this extent, organized crime surveillances invariably require a person's total activity to be identified over a long period of time (sometimes for months). For these surveillances, the teams work in shifts with a person's daily activities normally covered by two surveillance teams.

A typical surveillance of a high level organized crime figure involves initial contact at the person's home, lengthy observations at his home while waiting for him to leave, visual contact during his frequent moves and stops at various locations (e.g., bars, restaurants, businesses, residences), and continuous observation until he returns home and no more activity (leaving his home or receiving visitors) is expected. These surveillances invariably include driving long distances to other cities, occasional foot surveillances, and many hours of observation at one location.

A surveillance on a person suspected of involvement in organized crime at the street level may only require observation during known times of illegal business transactions. These surveillances require the agents to be in close contact with neighborhood areas, thus making it extremely difficult to maintain an inconspicuous appearance. For these situations, the agents have to make special efforts to assume the dress and behavioral characteristics of persons in the neighborhood. This requirement is especially true in surveillances involving organized crime figures dealing in narcotics because the agent will frequently be in direct contact with suspects. Exposure of the agent during the arrest and subsequent court case normally requires his work assignment to be shifted geographically.

Surveillance operations on organized crime figures does afford some flexibility in allocation of the agent's work assignments because the criminal activity is not highly transient (i.e., persons involved normally stay in a given geographic area and have repetitious actions). Thus, if information is obtained to indicate little or no criminal activity is planned that is of concern to the agents, the resources of the surveillance team can be assigned to other areas. Sources of this information are informants, conversations of suspects overheard by agents, and patterns of activity of suspects identified by previous surveillances.

NARCOTICS SURVEILLANCE

There are two types of narcotics investigations where surveillance is used extensively. One type deals with the illegal diversion of

legally possessed narcotics (e.g., by doctors, pharmacists, and wholesalers). The other type deals with the pushing³ of illegally possessed narcotics. For both types, the surveillance team agents make extensive use of informants and street peddlers to obtain leads to major retailers and suppliers. The approach generally taken is to make small buys of narcotics at first to obtain the seller's confidence and then to attempt to make larger buys which will require the street peddler to go to his source. In some situations, the agent can work through the street peddler to buy directly from his source.

In the process of developing leads involving an informant, the agent may have the informant make the first buy while the surveillance team observes to validate the information supplied by the informant. This buy is normally followed by the undercover agent witnessing a buy by the informant in the presence of the seller or the agent actually making the buy accompanied by the informant. Subsequent buys (and the arrest) are normally performed by the agent without the presence of the informant. This procedure minimizes the chance of exposure of the informant. In addition, when a buy and bust is made, it is undesirable to have the informant present because of potential danger to the informant (the agent feels a moral obligation to protect the informant) and the possibility that the informant may be required to give testimony in court. The decision to make an arrest is primarily dependent upon the agent's judgement concerning how fruitful the seller will be in developing leads to a larger source or to other persons involved in the criminal activity.

During the total investigative process, each agent of a surveillance team may be developing leads individually. When one agent meets an informant, usually at least one other agent will provide cover (protection) normally from his car. If the agent meeting with the informant expects to be out of visual contact with the team members, the agent will usually have a hidden body transmitter so that all the team members can overhear their conversation (through their mobile car radios). When the agent is dealing with a seller, a body transmitter will normally always be worn, and all members of the surveillance team (normally a total of four) will participate in the operation.

During the situations where an agent is dealing directly with a seller or supplier, the other team members will assume positions of vantage to provide immediate response to calls for the agent's protection or for assistance in making an arrest. Typical locations where buys take place are bars, seller's residence and seller's car in a parking lot. A seller will frequently meet the agent at a pre-arranged location and require the agent to take a ride in the seller's

³Illegal supplying or selling of narcotics.

car to make the transaction. Under this situation, the other team members assume a moving surveillance mode to maintain continuous visual contact with the seller's car.

Narcotic investigations also involve the typical surveillance whereby a suspect is being watched continually to identify persons contacted and locations frequented. This situation normally occurs in process of developing leads and obtaining background information on potential suspects.

SECTION III

CRIMINAL CHARACTERISTICS

Michigan State Police law enforcement activities involving surveillance operations are primarily in support of investigations of Part I Offenses (as defined by the Uniform Crime Report) and criminal activities in the areas of organized crime (includes wagering and loan sharking) and narcotics. These investigations are performed independently by MSP as well as in conjunction with other law enforcement agencies by five dedicated groups within the organizational structure of the MSP Intelligence Section. The five groups are the Michigan Intelligence Network (MIN), the MIN Team (MINT), the MIN Gang Squads (MINGS), the Narcotics Unit, and the Diversion Investigation Unit (DIU). These five groups, consisting of approximately 150 MSP intelligence officers and an unknown number of local law enforcement officers perform intelligence operations throughout the state. A major portion of their activities are concentrated in the Detroit metropolitan area. Surveillance is an intrinsic function of the intelligence and investigative process performed by these five dedicated law enforcement groups. In fact, many of the functions of these groups depend almost totally on the ability to perform effective surveillances. Without this capability, law enforcement agencies would have little or no control over a large segment of criminal activity.

Typical criminal characteristics pertaining to surveillance operations in the areas of selected felonious crimes, organized crime, and narcotics are given in the following paragraphs. Since there are numerous variations in the characteristics associated with the different subject crimes, and even many variations for the same crime, emphasis is placed on defining those characteristics which impact the surveillance operation where major equipment system limitations have been identified (see Section IV). Characteristics provided are based upon limited observations of actual surveillances and numerous discussions with MSP personnel involved in surveillance operations. Only limited documented information is available concerning the specific characteristics pertaining to surveillance operations. This fact is consistent with the confidentiality desired in intelligence operations.

FELONIOUS CRIME

Surveillance operations by MSP against felonious crime are primarily conducted by the MINGS. The MINGS group, implemented in 1970, utilizes the concept of a combined effort of state, county, and local law enforcement agencies in the state of Michigan for the detection and apprehension of non-syndicated criminal gangs, who perpetrate (often

across jurisdictional lines) the crimes of robbery, breaking and entering (including safe burglary), rape, auto theft, worthless document operations and other selected felonious crime. The concept of MINGS is to conduct covert surveillance and to observe the commission of a crime. The unique feature of MINGS is the investigative surveillance concept afforded many separate police jurisdictions, both large and small, in attacking a common criminal endeavor.

Criminal characteristics are given for the crimes of burglary and robbery. Extreme variations in the characteristics of other felonious crime where surveillance techniques are used prevent a general classification.

a. Burglary - The following characteristics pertain to a general description of a burglary suspect under surveillance:

1. Suspect's residence is typical of lower and middle class residences in general.
2. Habitual semi-skilled amateur or professional who normally "cleans" himself (takes evasive action) between place of residence and target.
3. Primarily operates alone.
4. Car is primary mode of transportation.
5. Targets are frequently in a city within 50 to 100 miles from suspect's residence.
6. Unknown schedule of hitting targets. Frequently, more than one target will be hit in same day. Several days may elapse before hitting another target.
7. Targets are hit during both day and night time.

b. Robbery - The following characteristics pertain to a general description of a robbery suspect under surveillance:

1. Suspect's residence is typical of lower and middle class residences in general.
2. Frequently has an accomplice who is met shortly before hitting target.
3. Normally a professional who "cleans" himself several times between place of residence and target.

4. Car is primary mode of transportation. Frequently will change to another car (sometimes stolen) before "hitting" target.
5. Targets are normally in a city removed from the suspect's residence.

ORGANIZED CRIME

Surveillance operations against organized crime activities are conducted by the MIN and MINT Groups. The MIN system provides for a central intelligence repository for nearly 300 law enforcement agencies. The information is analyzed and categorized for the use of participating agencies. The purpose of the MIN is to build a bank of intelligence data for both strategic and tactical use. Emphasis of this group is on predicting the directions and trends of the criminal effort and on exposing the vulnerabilities of organized criminal groups. This strategic intelligence is utilized by the MINT (the tactical arm of the MIN Task Force) to develop prosecutable cases against the top structure of the criminal syndicate throughout the state of Michigan. In addition, the MIN and MINT surveillance resources (manpower and equipment) are utilized in support of investigations of unique or difficult criminal cases where standard police investigative techniques have failed to produce sufficient evidence.

The variations and intricacies of organized crime activity make it difficult to define definitive criminal characteristics affecting surveillance techniques. The core of organized crime activity is the supplying of illegal goods and services to a large number of citizen customers. These activities include gambling, loan sharking, narcotics, and other forms of vice. Organized crime is also known to be extensively and deeply involved in legitimate business. The very nature of these activities and the fact that high level organized crime figures are removed from street-level daily operations results in a portrayal of behavioral and environmental characteristics very similar to many businessmen and typical citizens.

The following characteristics pertain to a general description of organized crime figures under surveillance who are close to or participating in street-level activities:

- Suspect's residence is typical of lower and middle class residences in general.
- Normally, suspect does not have a legitimate job.
- Exhibits a dilatory attitude toward scheduled activities except for those that are completely self-serving.

- Frequently carries a handgun.
- Car is the primary mode of transportation, although suspect may be afoot (especially when collecting betting slips, etc.). Switching cars and drivers frequently to confuse investigators is a common tactic.
- Location of operations is frequently changed (e.g. betting slips and money turn in locations).

NARCOTICS

Surveillance operations against criminal activities in narcotics are conducted by the Narcotics Unit and the Diversion Investigation Unit. Both the Narcotics Unit and the DIU mount a dedicated attack at the federal, state, and local level against persons and organizations dealing in illegal sale and use of controlled substances. The DIU's principal goal is to investigate any diversion of controlled substances into illicit drug trafficking by persons licensed to process and dispense such material (wholesale distributors, doctors, pharmacists, etc.). The Narcotics Unit has a much broader goal of obtaining state-wide intelligence on illicit drug traffic and performing investigations of the illicit sale and use of controlled substances at the street level to develop leads to large scale drug dealers. The DIU is comprised of personnel from the Michigan Department of Licensing, the Bureau of Narcotics and Dangerous Drugs (now the Drug Enforcement Agency), and the Michigan State Police. Special narcotic teams, formed to mount a dedicated attack in a given geographical area, include personnel from the prosecutor's office, the sheriff's department, the local police, and the State Police.

Persons involved in illicit drug traffic are normally either suppliers or consumers. These persons range from the organized crime boss who directs efforts of the major suppliers to the private citizen who may be an occasional unaddicted user. Since the investigative process typically requires starting at the street-level with an informant to develop leads through the street peddlers and retailers in order to identify the major suppliers, the characteristics of all persons involved are of concern in surveillance operations.

The criminal characteristics defined for persons involved in organized crime are applicable in most cases to persons dealing in illicit drug traffic. In fact, the persons at the higher levels are often the same individuals. A distinction needs to be made between those persons involved in diversion of controlled substances into illicit drug traffic by persons licensed to process and dispense such material and those persons whose mere possession of controlled substances is illegal.

a. Diversion of Controlled Substances - The following characteristics pertain to a general description of persons under surveillance who are involved in the diversion of controlled substances:

1. Suspect's residence is typical of middle and upper class residences in general.
2. Suspect has a legitimate job (normally self-employed).
3. Exhibits a dilatory attitude toward scheduled meetings for illegal business transactions.
4. Location of illegal drug sales is removed from suspect's residence and place of business. Typical locations include parking lots, bars, and restaurants.
5. When car is involved, transactions are made in seller's car.

b. Sale and Possession of Narcotics - The following characteristics pertain to a general description of persons under surveillance who are involved in the illegal sale and possession of narcotics.

1. Suspect's residence is typical of lower and middle class residences in general.
2. Suspect frequently will not have a legitimate job.
3. Exhibits a dilatory attitude toward scheduled meetings for illegal business transactions.
4. Sale of drugs frequently occurs in suspect's residence. Other common locations include parking lots, seller's car, and bars.

SECTION IV

OPERATIONAL LIMITATIONS

Operational limitations in MSP surveillance are categorized in four functional areas: (1) establishing contact with the suspect; (2) maintaining an inconspicuous appearance; (3) maintaining contact with a mobile suspect; and (4) obtaining information for directing surveillance actions. Equipment systems limitations, resulting from either inadequate equipment or from an inability to perform a specific action desired, are identified in the following paragraphs. Although these limitations are based upon an examination of MSP's surveillance operations, they are considered basic to any surveillance operations performed by law enforcement agencies throughout the country.

ESTABLISHING CONTACT WITH SUSPECT

Most surveillances are initiated on a person as opposed to an object or location. For these surveillances, initial contact is normally attempted at the suspect's residence. A situation frequently encountered is that the suspect's car is not visible at his residence. When this happens, the team has no choice but to take one or a combination of the following actions:

1. Assume the suspect's car is in the garage and continue the stakeout of his residence.
2. Assume the suspect has left his residence and initiate a search of known locations that he frequents.
3. Make an overt action to determine if the suspect is still at his residence (e.g. telephoning his residence under false pretenses).
4. Discontinue the surveillance temporarily or permanently.

All these actions have possible undesirable consequences. For example, in assuming action (1) teams have been known to "sit on a dry hole" (an empty garage) for up to three days. A lengthy observation of a suspect's residence in a residential area also usually arouses suspicion of neighbors thereby possibly jeopardizing further team activities.

In assuming action (2), one agent will continue the observation of the residence and the other team members will perform the search. This action, although necessary under this situation, defeats the

team concept of a surveillance (i.e., inability to change the eyeball agent frequently). For some suspects (e.g. persons suspected of committing burglaries), sufficient information is not known by the team members to initiate a search.

The greatest risk of action (3) is that suspicion may be aroused in the suspect to the extent that activities of primary interest to the surveillance may not be performed by the suspect. Another aspect of action (3) is that legal requirements place considerable restrictions on the actions available to the team members.

Discontinuing the surveillance (action 4) is normally only performed when one or more of the other actions has not produced fruitful results. Normally, because of the extensive efforts going into initiating the surveillance, the team is reluctant to discontinue it until positive information is available that the suspect cannot be located.

INCONSPICUOUS APPEARANCE

A frequent problem experienced by practically all agents when conducting surveillances is that of maintaining an inconspicuous appearance. This problem primarily occurs when performing the covert act of maintaining direct visual contact with a suspect or his car under situations where the agent must be in close proximity to the suspect or to potentially suspicious persons. An example of this situation is when the location of the suspect's residence is such that the neighborhood surroundings do not provide a vantage point for the eyeball agent which will not arouse suspicion of the suspect or his neighbors.

One technique used by the eyeball agent in this situation is to locate himself a considerable distance from the suspect's residence and use binoculars. Presently, the team members use standard 7 x 50 binoculars which are difficult to covertly use while sitting in a car. Binoculars are used by team members on a daily basis to assume a distant vantage point, but this action frequently arouses suspicion of persons in the immediate vicinity. A common occurrence because of this suspicion is that uniformed police are called by persons in the area, thus creating greater risks of arousing the suspicion of the suspect.

Another problem in maintaining an inconspicuous appearance stems from the requirement to use a non-standard AM/FM radio antenna on the surveillance car for the high band mobile radio. Presently, a modified fixed height antenna (corresponding to a $\frac{1}{4}$ wave length) resembling the standard AM/FM car radio antenna is utilized. Although to the casual observer the modified antenna is not noticeable, the difference is

detectable under close scrutiny. This antenna is also utilized for the low band mobile radio (for contact with the MSP uniformed officers). This dual usage of the antenna results in extremely poor transmissions on the low band frequency (the antenna is tuned for the high band). Another aspect of this problem is that most new model General Motors (GM) cars have a wire-antenna mounted in the windshield. This antenna results in extremely poor mobile radio ranges and is also more directional than the externally mounted standard AM radio antenna. Typically, a GM car is ordered without a radio (on some models an antenna is automatically included in the windshield) and the modified AM radio antenna (fixed height antenna) is installed. This situation limits the selection of car models or results in two antennas being visible on the surveillance car (wire antenna in windshield and modified AM radio antenna mounted on the front fender). This problem is compounded by the need to have a standard AM radio and antenna in the agent's car to minimize arousing suspicion of persons that associate the absence of a radio with police cars.

MOBILE SUSPECT

Covertly tracking and maintaining contact with a mobile suspect is a frequent requirement and a major problem in surveillance operations. Presently, team members depend upon the visual contact of the eyeball agent. Because of the tactics used by many of the suspects and the inherent difficulties (e.g. coping with traffic conditions and maintaining a covert appearance) in performing a moving surveillance, contact is frequently lost. Another factor which influences an agent's ability to track a suspect is that the visual contact maintained by the eyeball agent invariably affords the suspect the same ability. Thus, the eyeball agent is constantly attempting to achieve a balance between risks of losing contact and being burned⁴.

Another problem occurs when the narcotic agent is "taking a ride" with a seller. The team relies on visual contact, although additional information is normally obtained from the agent's "overt" conversation via the body transmitter. For these situations, the voice transmission is frequently lost or unintelligible because of the limited range of the transmitter and the poor sound pickup of the miniaturized body mounted microphone. When both visual contact and body transmitter reception is lost, the other team members are helpless in providing protection for the undercover agent.

⁴ Suspect becomes aware of surveillance by undercover agent.

INFORMATION FOR SURVEILLANCE ACTIONS

A surveillance team may expend several weeks in preparing a case file of information concerning a suspect's characteristics before a surveillance is initiated. A primary purpose of this information is to provide the team members data on which to base their actions during the course of the surveillance. Obviously, this information base can never be complete. Situations almost always occur during surveillances where the team members need or would like additional information.

Opportunities frequently occur during surveillances where the team members have a chance to obtain additional information. These opportunities occur primarily when the suspect is engaged in conversations with other persons that are observed during the course of a surveillance. Great efforts are made by team members to overhear these conversations, typically held in public places (e.g., parking lots, bars, and restaurants), so that the information can be used to aid in subsequent surveillance actions. For example, the conversations may indicate the location of a planned robbery. If so, action can be taken to minimize the danger to the potential victims while maximizing the chance of apprehension of the persons while in the act of committing the robbery.

Legality questions are a necessary concern of the team members when attempting to obtain needed information. A clear distinction is made between information used for subsequent surveillance actions and information admissible as evidence. The actions taken by the team members are governed by the legality of the specific action. Admissibility of this information as evidence is considered under a completely different set of guidelines. The primary guideline concerns the reasonableness of the actions taken by the agent relevant to invasion of privacy.

Another situation where information is critical to the actions of the team members is during narcotics investigations involving an undercover agent making a "buy and bust". For this situation, the team members providing protective cover rely on information received via the agent's body transmitter. This information is needed to know when to move in to provide assistance in making an arrest or to protect the "buying" agent. The present body transmitter utilized by MSP provides only one-way communication with no means for the agent to know whether the transmitter is operating or if the cover team is receiving his communication. This problem is compounded by the fact that the body transmitter has limited range capability. Thus, the team members frequently have to search for vantage points which provide them adequate reception. Because of this limited range performance and absence of a covert reception capability, agents have been exposed in locations where, unknown to them at the time, the cover team could intercept their communications.

For these situations, the cover team members are forced to take action (or inaction) which may jeopardize the surveillance mission and increase the danger to the undercover agent.

SECTION V OPERATIONAL REQUIREMENTS

Within the four functional areas defined in Section IV where limitations exist in surveillance operations, there are seven specific desired capabilities which are considered amenable to equipment system solutions. The seven desired capabilities are as follows:

- Detection of presence of a car in a garage
- Covert motion indicator
- Inconspicuous remote viewing
- Covert mobile radio antenna
- Car/agent tracking
- Covert remote listening
- Covert reception body transceiver.

The following paragraphs provide descriptions of the operational requirements for these desired capabilities. Equipment systems must be compatible with the criminal characteristics defined in Section III. However, some variation in the surveillance team's operational characteristics defined in Section II would be acceptable to accommodate particular operational and performance parameters of an equipment system providing the desired capability.

It should be noted that the operational requirements given are based on an examination of MSP surveillance operations. Although the environments and situations experienced by MSP intelligence officers in surveillance are considered basic to criminal activities throughout the country, it is suggested that a limited examination of other law enforcement agencies be performed to insure that operational requirements are defined which will provide maximum application of any developed equipment system capability.

Maximum cost ranges are given for the seven desired equipment system capabilities. These costs are intuitive best estimates based upon information from MSP intelligence officers, including Technical Service Unit officers. Major factors considered are policy toward the purchase of new equipment and consideration of the potential value of the desired capability (see Section VI).

DETECTION OF PRESENCE OF CAR IN GARAGE

In establishing initial contact with a suspect at his residence, surveillance teams need the capability of detecting the presence of a car in a closed garage. State-of-the-art technology is not known to exist which offers a system which will provide this capability.

Generally, suspect's residences are typical residential homes. The residences include single and double car garages with possibly one or two cars in the garage. Discrimination between one or two cars in a garage would also be desirable. Garage construction typically includes both wood and metal doors.

Any detection device must be containable within the agent's assigned commercially available, standard automobile. Modifications, if required, to an agent's car must be inconspicuous to the casual observer while outside the car or riding in the car, except possibly when the detection device is being used. An agent must be able to maintain a covert appearance while passing in front of the suspect's residence or using the suspect's driveway to make a turnaround. Agents are assigned a specific car, although it is a common occurrence for a substitute car to be utilized by a team member. Therefore, it would be desirable, but not mandatory, that any detection device could be easily transferred between team members' cars.

Any detection device must be capable of being operated by non-technical officers. A limited amount of training in operation of a detection device by the officers could be expected. Ease of operation, including setup and storage, are of primary importance. The intent is to have each surveillance team assigned one device. A reliability of car detection of between 80 and 90 percent would probably be compatible with a maximum cost per detection device of 1,000 dollars.

REMOTE CAR MOTION INDICATOR

For those situations where there is not an inconspicuous vantage point for the eyeball agent to view a suspect's residence, a method is needed for an agent, remotely located (not in visual contact), to detect when the suspect leaves his residence by car. This capability would allow the agent to move into the immediate area of the suspect's residence and assume visual contact only when there was a reasonable indication that the suspect (or someone associated with the suspect) was leaving his residence by car. Positive identification relating specifically to the suspect's car is not necessary. Since the agent is committed to maintaining the surveillance, occasional false indications of movements of the suspect's car would not be a major drawback in an equipment system capability.

Any reliable means of detecting car motion or "intended" motion (e.g., engine start-up) would satisfy the desired capability. For the application of a transmitting device, maximum ranges of 500 feet in highly congested urban areas and 2,000 feet in remote rural areas would be sufficient for most situations. Application of sensor devices must be compatible with legal acts allowed within the framework of laws on invasion of privacy. Legal limitations must be defined locally for each application. In addition, any sensor devices utilized must preserve the covert nature of the surveillance operations, including device deployment, operation, and subsequent pickup or destruction. Car motion indication is required for continuous time periods of up to 12 hours, although situations occur which require daily repeated observations for periods of up to several weeks. Desired operating life of any sensor would depend upon the ease, including covert aspects, of replenishing its power supply or deploying a new sensor.

The eyeball agent under this situation typically is rotated approximately every 30 minutes. Therefore, indication of car motion (or intended motion) to the agent should be in the form of a self-contained device which could be easily transferred from one agent to another in a different car. The concept of each team being assigned one car motion indicator with several expendable sensors would be compatible with the surveillance operation. A total cost of 500 dollars for a receiver with two to four expendable sensors would be a reasonable design goal. A cost goal for expendable sensors is 25 to 50 dollars each.

INCONSPICUOUS REMOTE VIEWING

A method is needed to provide undercover agents the ability to view persons, places, and objects from remote locations while maintaining an inconspicuous appearance. Basically, what is needed is an equipment system which would supplant the basic capability of standard 7 x 50 binoculars without their conspicuous appearance. The equipment would be used primarily by the agent in his car while parked in areas where he would be under casual observation by persons in the general vicinity.

Magnification and field of view similar to the 7 x 50 binoculars would be adequate, although it would be desirable to have a telephoto capability. Single eyepiece viewing capability would be adequate for most circumstances.

Any technique which makes use of the agent's car (e.g., side view mirror, windshield, etc.) would be compatible with the surveillance operation. A maximum cost of 500 dollars is considered an upper limit for an inconspicuous remote viewing device.

COVERT MOBILE RADIO ANTENNA

A mobile radio antenna is needed that maintains the covert appearance of the surveillance car. Dual service of the antenna (transmission of both high and low bands) is not required providing the antenna does not take the place of the standard AM/FM car radio antenna. It would be desirable for the high band antenna to be a separate covert antenna such that the standard radio antenna could be used for the low band mobile radio or standard AM/FM car radio.

Range and omnidirectional performance characteristics are of primary importance. Other factors in the design of a covert antenna are the simplicity of installation, minimum cost (present modified AM radio antennas cost approximately 25 dollars), and adaptability to a wide range of commercially available standard automobiles.

CAR/AGENT TRACKING

A capability is needed which permits surveillance teams to covertly follow suspects and other agents in cars without constantly keeping them in visual contact. Although the basic capability desired is the same for both suspect and agent tracking, the situations are quite different.

The general requirements applicable to both desired capabilities are as follows:

- Maximum range up to one mile in urban areas and up to two miles in rural areas
- Sensor (beacon) size and weight (if applicable) compatible with covert application
- Covert external appearance of surveillance car providing tracking must be maintained
- Tracking capability in surveillance car to be easily transferred (maximum of 15 minutes by agent in field) to another surveillance car
- Cost range of 2,000 to 6,000 dollars, depending upon its versatility, performance, and reliability.

The tracking of a suspect involves the legal question of invasion of privacy. For special situations, a search warrant could be obtained which allows the agents to attach a sensor (beacon) to the suspect's car. For these situations, tracking systems are available on the

commercial market. These systems have the obvious disadvantage of limited application because of legal restrictions. Other disadvantages of existing systems are poor tracking performance, high cost and complex operation. A tracking capability is desired which would not involve the need for a search warrant for its operation. Obviously, this capability would have much broader application in surveillance operations. Maximum cost of a tracking capability which would circumvent the legal problem is in the range of 10,000 dollars.

There are no known legal barriers involved in the tracking of an agent (normally for his protection while riding in a suspect's car) since the agent can legally carry electronic equipment on his person. For this application, a tracking beacon (if that is the concept to be used) operational life of four hours would be satisfactory for most situations. It would be desirable for the agent to be able to replenish the batteries of the beacon with ones carried covertly on his person if the situation warranted. For this situation, the agent would normally have an opportunity to change the batteries in private (e.g., in a restroom). Maximum cost of an equipment system which provides agent tracking capability is in the range of 2,000 to 3,000 dollars.

It would be desirable for the agent tracking capability to be adaptable to those situations of suspect tracking where there is no legal barrier. For suspect tracking an operational life of 12 hours would be minimum in order to have broad application. An expendable beacon is also desired which would have a minimum operational life of 24 hours. Maximum cost of an expendable beacon is in the range of 50 to 100 dollars.

REMOTE LISTENING

A remote listening capability is needed which would allow surveillance team members to obtain information from conversations of suspects during the course of a surveillance. The basic capability desired consists of a voice pickup device with the following design and performance characteristics:

- Operation by an agent in surveillance car while maintaining a "reasonable" covert appearance (size limited to approximately a five cell flashlight)
- Capable of pickup of normal conversations in open space from a distance of 300 feet in typical rural and urban conditions
- Recording capability

- Mobile capability desired
- Maximum cost of around 1,000 dollars

There is a need to extend this desired capability to situations where conversations are being held in a closed car and in restaurants, bars, etc. The closed car situation is viewed as a completely different capability (or technique). Pickup of conversations in restaurants, bars, etc. can be performed by an agent in the vicinity of the persons speaking, although a covert appearance requirement is of primary importance in design of the voice pickup system.

COVERT RECEPTION BODY TRANSCEIVER

A body transceiver is needed which provides the undercover agent two-way communication with covert reception capability. The covert reception would also provide the agent knowledge of transmission reception by the cover team members, thus eliminating one of the problems with the present body transmitters. Miniaturization of system components (transceiver, batteries, microphone, antenna) is of primary importance to permit covert operation in a hostile environment. Covert operation should withstand close visual scrutiny and cursory frisking of the undercover agent, but it need not be designed to withstand intensive frisking or electronic countermeasures. Use of code words by the undercover agent alleviate the need for any transmission input device other than the covert microphone.

Continuous transmission operation is required for a minimum of six hours without overt action of the undercover agent (e.g., changing batteries). Range of two-way transmission is one mile in rural areas and one-half mile in urban areas. These requirements apply to the undercover agent while in a moving car or in residential homes, apartments, and motel rooms. Maximum cost of the covert reception body transceiver should be in the range of 1,500 to 2,000 dollars.

SECTION VI

POTENTIAL BENEFITS

As indicated in Section III, surveillance operations are an integral part of the law enforcement activities dealing with investigations and apprehension of persons involved in felonious crime (primarily Part I Offenses), organized crime, and narcotics. Because of the intricacies and scope of the intelligence efforts involving surveillance operations dealing with these criminal activities, it would be extremely difficult, if not impossible, to quantify the impact of possible improvements in the surveillance functions through equipment systems suggested in this report. However, some obvious benefits to the actual surveillance operations can be identified in the areas of resources, effectiveness, officer safety, and morale.

Benefits in surveillance effectiveness primarily derive from providing the team members the information or ability to know when to terminate a surveillance (e.g., suspect plans no activities of interest for a given time period) and from reducing the number of unsuccessful surveillances due to suspicion by the suspect. Since team members typically have a backlog of criminal activities to pursue, the ability to discern those situations where the surveillance could be terminated early has obvious advantages, especially savings in manpower costs.

The major resource expended in surveillance operations is manpower. Costs related to manpower at MSP typically represent 50 to 75 percent of the total resources required for an intelligence task force involving extensive surveillance operations. Total costs of conducting the actual surveillance (exclusive of costs for investigative and planning efforts) are in the range of 50 to 100 dollars per hour based upon a four-man team. For some special surveillances (e.g., more than one suspect involved in specific criminal activity), this cost may double or triple.

Specific benefits pertaining to the seven desired capabilities in surveillance operations discussed in Section V are presented below.

- Detection of Presence of Car in Garage - The primary benefit of this capability would be in the possible savings in resources for those situations where a team could terminate a surveillance early if they had a positive indication that the suspect had already left his residence. An example would be the situation where a surveillance activation is initiated on a burglary suspect at his residence with the intent of apprehension of the suspect in the act of committing a crime. For many of these surveillances, initial contact with the

suspect at his residence is the only means of locating him since only limited information is known concerning his habits. Under certain situations a positive indication that the suspect is not at his residence (e.g., his car is not present) would be sufficient reason to terminate the surveillance until a better opportunity presented itself. Under these situations, the capability to detect the presence of a car in a garage could eliminate the expenditure of a team's resources under circumstances which have little chance of success.

Other advantages of this capability are: (1) elimination of most overt acts to determine whether a suspect is present which reduces the risk of jeopardizing the surveillance; (2) reduction in exposure time of agents to suspects' neighborhoods which minimizes suspicion; and (3) increases in team members morale by minimizing the time spent watching a "dry hole".

- b. Car Motion Indicator - This capability would eliminate the frequent problem of creating suspicion from the suspect and his neighbors in surveillances where there is not a good vantage point for the eyeball agent. It would also provide a positive indication of suspect activity, thus reducing the probability of the eyeball agent missing the suspect leaving his residence, particularly under situations of lengthy surveillances.

Both of these aspects impact highly on an agent's effectiveness to perform a surveillance. In some cases where there is not a good vantage point, more team members must be used to cover several possible exits from the residence to ensure maintaining contact. In addition, for the case where the suspect leaves his residence without being detected, many hours are often lost (and possibly criminal activity not observed) during the time the team members are either watching a "dry hole" or attempting to establish contact with the suspect away from his residence.

- c. Inconspicuous Remote Viewing - The capability to inconspicuously view persons and locations from remote vantage points would eliminate the frequent suspicions aroused by presently required overt actions of team members. These suspicions result in an agent being subjected to unnecessary exposure and danger and create high risks of jeopardizing the surveillance. In addition, the witnessing of these overt actions by persons not involved in the suspected criminal activity creates an awareness of surveillance operations in the general public which is detrimental to maintaining the confidentiality desired in intelligence operations. These situations occur

on a daily basis for surveillance operations and frequently require an agent to take an undesirable overt action (e.g., leave his car to obtain a close observation).

- d. Covert Mobile Radio Antenna - The primary benefit in obtaining a covert mobile radio antenna would be in providing an undercover agent greater freedom in his action in dealing closely with criminal figures. The covert identity of agents has been frequently exposed because of the obvious non-standard appearance of the automobile body-mounted modified antenna when observed at close ranges.

Surveillance operations are also frequently jeopardized by the inability of an agent to communicate directly with a nearby uniformed officer in a patrol car to obtain assistance. The addition of a separate covert antenna would allow the standard AM car radio to be tuned for the agent's low band mobile radio so that maximum ranges could be achieved by both high and low band mobile radios.

Both of the above situations result in higher risks to the agent's safety and added frustrations in attempting to perform several of the functions required in surveillance operations. In addition, a covert mobile radio antenna would eliminate the possible limitations in the choice of surveillance cars caused by manufacturers using the windshield antenna.

- e. Car/Agent Tracking - The ability to perform effective tracking of a suspect or agent in a moving vehicle is paramount to the basic function of a moving surveillance. For the case where the team members are providing protective cover for an agent, the agent's safety is of utmost importance. The most common reasons for an unsuccessful surveillance are (1) loss of contact with the suspect and (2) suspicion aroused in the suspect. Positive tracking ability would eliminate most of these unsuccessful surveillances.

Another advantage of a car/agent tracking capability is the elimination of many of the dangerous driving situations in surveillance operations when team members are attempting to maneuver (frequently in heavy traffic conditions) to maintain their operational position for the moving surveillance. A tracking capability would not only minimize the dangers to agents, but it would also reduce the dangers to innocent persons.

f. Remote Listening - The capability of agents to remotely listen to the conversations of suspects under surveillance would provide immeasurable benefits to surveillance operations. Many surveillances are conducted where no activity of interest is observed by the team members. Many of these surveillances could have been terminated early if information from conversations of the suspect could have been overheard. Under situations where conversations have been overheard by agents, the information frequently has contributed directly in planning future actions of the surveillance team members relative to a specific criminal activity. Other obvious benefits are reduced risks to the team members (e.g., information indicating location of a planned robbery such that precautionary measures can be taken) and the elimination of many hours of boring and frustrating observations which yield no fruitful results.

g. Covert Reception Body Transmitter - The primary benefit of this capability is in added safety to the undercover agent. This capability will also permit the agent to perform certain surveillance operations he would not normally do because of the added safety factor of having two-way communication over greater ranges. An example would be the situation where the agent was requested to meet a seller in a location that did not offer vantage points near enough for the cover team members to insure communication reception. For these situations, if the undercover agent cannot arrange a different meeting place, the investigative opportunity may be lost.

Another benefit is the flexibility afforded the team members by two-way communications. Frequently, an opportunity arises where the undercover agent has an opportunity to turn a simple "buy and bust" from a small seller of narcotics into a lead to a major supplier. Many of these opportunities are lost because the agent and cover team members cannot converse in time to take appropriate action.

END