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TARGETING AUTO THEFT WITH A REGIONAL TASK FORCE AND MAPPING TECHNOLOGY

APRIL 1998

San Diego
ASSOCIATION OF GOVERNMENTS

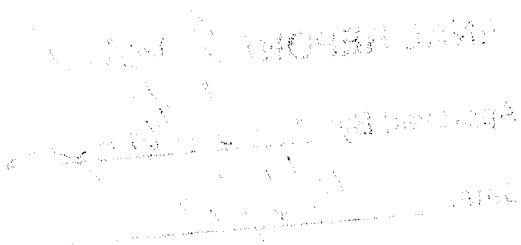
401 B Street • Suite 800
San Diego, California 92101
(619) 595-5300

FINAL REPORT

Approved By:

Date: 11/6/00

Darlanne Hoctor Mulmat
Cynthia Rienick
Roni Melton
Susan Pennell



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ABSTRACT

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San Diego, CA 92101

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ABSTRACT: Responding to rising motor vehicle thefts during the late 1980s and early 1990s, officials in the San Diego region formed the Regional Auto Theft Task Force (RATT). RATT was designed as a proactive approach to the investigation, apprehension, and prosecution of auto thieves; particularly those involved in major countywide vehicle theft operations (i.e., rings). During the first two years of RATT operation, the fact that data were fragmented along jurisdictional boundaries constrained investigations. There was a need for automated and integrated auto theft information. The Criminal Justice Research Division of the San Diego Association of Governments (SANDAG) received funds from the National Institute of Justice (NIJ) to assist RATT and evaluate the effectiveness of the task force. The project involved the development of a computer system to enhance the crime analysis and mapping capabilities of RATT. Following the implementation of the new technology, the effectiveness of task force efforts was evaluated.

This report presents the process involved in conducting the project, as well as study findings and recommendations. The assessment provides support for the value of the task force approach and use of covert operations in the reduction of motor vehicle theft. The results of the project also provide valuable information regarding implementing new technology and conducting research in the field. The design and application of new technology in the field are challenging. The issues faced during this grant highlight areas to be addressed in future projects.

ACKNOWLEDGMENTS

The efforts of a number of individuals and organizations in the completion of this project warrant recognition. The National Institute of Justice (NIJ) provided the funding for the project, with program managers Jim Trudeau, Eric Jefferis, and Nancy La Vigne providing helpful guidance. All members of the San Diego Regional Auto Theft Task Force (RATT) provided valuable input during interviews conducted twice during the course of the project, and many allowed research staff to accompany them during their investigations. Special thanks are extended to Dan Ryan (RATT), Mike Angus (RATT), Kraig Kessler (San Diego Police Department), Greg Pickett (Chula Vista Police Department Crime Analysis Unit), Ross Withers (Chula Vista Police Department), Pat Drummy (San Diego Police Department Crime Analysis Unit), Russ Pierce (RATT), Winnie Wagner (San Diego Data Processing Corporation/Automated Regional Justice Information System), Bill Hogue (RATT), and Greg Robinson (RATT) for serving on the advisory committee for the project. The following RATT staff members are acknowledged for their efforts with respect to the implementation of the research design: Mike Angus, Scott Miedecke, and Manny Alvarado. Matt Turner, Anne Prince, and Marivi Mullen are appreciated for their crime analysis and mapping efforts.

The following SANDAG staff contributed to the development of the Crime Analysis and Mapping System (CAMS): Mark Woodall, John Hofmockel, Terry Beckhelm, and Bob Parrott. Roni Melton contributed to major parts of this research by coordinating data collection, conducting interviews, and collecting data with the assistance of Tammi Thomas (a former staff member). Finally, Laura Mays and Colleen Davis conscientiously formatted this report.

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EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

In the wake of rising motor vehicle thefts during the late 1980s and early 1990s, San Diego's Regional Auto Theft Task Force (RATT) was formed in July 1992 as a proactive approach to the investigation, apprehension, and prosecution of auto thieves, particularly those involved in major countywide vehicle theft operations (i.e., rings). An innovative method for funding the program is administered by the California Department of Motor Vehicles (DMV). A $1 assessment on vehicle registrations provides the necessary monies for the salaries of RATT staff. RATT includes entities other than traditional law enforcement organizations. The task force is comprised of federal, state, and local law enforcement agencies: the Federal Bureau of Investigation (FBI), U.S. Attorney, U.S. Customs, California Highway Patrol (CHP) - Border Division, and all ten local police agencies. RATT represents an extension of the traditional task force approach, by not only including the aforementioned government agencies, but also the private sector (i.e., the National Insurance Crime Bureau (NICB)). The local prosecutor (i.e., the San Diego County District Attorney) provides legal guidance in warrant preparation and evidence requirements, as well as vertical prosecution of cases (i.e., the same District Attorney handles the case from initial hearing through final disposition).

During the first two years of RATT operation, investigations were limited by the lack of integrated auto theft information available through an automated system. The ability of this multi-jurisdictional task force was hampered because data were fragmented along jurisdictional boundaries. The Criminal Justice Research Division of the San Diego Association of Governments (SANDAG) received funds from the National Institute of Justice (NIJ) to develop a computer system to enhance the crime analysis and mapping capabilities of RATT and evaluate the effectiveness of task force efforts following the implementation of the new technology.

Consistent with process and impact evaluations, the research design for the study involved a variety of methods. Task force activities were observed to identify the RATT information needs and strategies used to combat auto theft. Interviews were conducted with RATT staff and management to further isolate data needs and document RATT activities. The information obtained was used in the development of the Crime Analysis and Mapping System (CAMS), as well as to identify successful strategies implemented by RATT detectives. Follow-up interviews were conducted following CAMS implementation to assess staff perception of the impact of the new technology.

In order to describe the scope of the local auto theft problem and assess the impact of RATT relative to other law enforcement efforts, data were compiled from official records on cases investigated by RATT, as well as through the traditional law enforcement response. A random sample of 823 comparison cases was compared to 194 cases investigated by RATT. The comparison group was selected from a computer database, containing operational countywide information on all crimes reported to the police.

The geographic display and analysis of motor vehicle theft were accomplished through the design and implementation of CAMS, using ArcView2, developed by ESRI (Environmental Systems Research Institute, Inc.). The system was designed to map the location of vehicle thefts and recoveries, conduct cluster analysis, connect theft and recovery locations, display all information in the database regarding each incident on the map, and import new data into the system. This technology was used to identify auto theft crime patterns in order to pinpoint for intervention areas with relatively high auto theft problems. Based upon this information, RATT strategies were chosen for implementation and evaluation. As the following study findings and recommendations illustrate, the results of this project provide valuable information regarding implementing new technology and conducting research in the field.

FINDINGS RELATED TO THE TASK FORCE

- This research project began by identifying characteristics of the local auto theft problem. Through this process, it was discovered that auto theft rings were targeting specific locations, and that these geographic concentrations were not uniformly distributed across the San Diego region.

- Useful approaches for reducing auto theft indicated during interviews with RATT staff and management included obtaining stiffer penalties for offenders through vertical prosecution, educating the public regarding crime prevention, utilizing the ability to track the recovery of stolen vehicles, and using automated data. The role of RATT in each of these approaches was clear except with respect to prevention. Many staff members believed that RATT had ***no*** or ***a very limited*** role in auto theft prevention and that this role should ***not*** change, while individuals in management were more likely to see the need for RATT to be involved in prevention efforts.

- The examination of RATT investigations compared to cases handled through traditional law enforcement channels revealed that vehicles in comparison cases were generally recovered in better condition, compared to vehicles involved in RATT investigations. That is, vehicles involved in RATT cases were more likely to be disassembled for parts to be sold for a profit. Further, more vehicles, on average, were associated with RATT cases, indicating a pattern of auto theft for these offenders (e.g., a career). These findings suggest that RATT successfully targeted the intended population: organized motor vehicle theft rings, composed of sophisticated, professional criminals.

- Coordination and cooperation among different levels of government and the private sector were more often evident in RATT cases than for the comparison group. The unique composition of the task force enabled RATT to achieve collaboration among agencies that was not available to detectives isolated within the traditional law enforcement response.

- An arrest of a suspect was significantly more likely to occur in RATT cases. The number of arrest charges per suspect was also significantly greater. The probability of charges being filed was also significantly greater for RATT cases. However, conviction rates and the rate of plea-bargaining were similar for the two groups.

RATT cases involved multiple charges, many of which were not related to vehicle theft, indicating that RATT targets (e.g., auto theft rings) are involved in other types of criminality (e.g., possession of weapons).

- During the study period, RATT effectiveness was enhanced through increased resources and improvements in the availability of regional automated data (i.e., the Crime Analysis and Mapping System (CAMS)). Prior to CAMS implementation, RATT staff and management indicated a need for more computer data and mapping capabilities. After CAMS was operational, interviews with RATT staff and management revealed that these data needs had been fulfilled. However, the mapping capabilities of CAMS were not fully utilized by detectives in their investigations.

- Though many successes were mentioned during interviews with RATT staff and management, areas were also noted for improvement. Specifically, lack of cooperation between outside agencies, staff turnover, and bureaucracy (e.g., lengthy procedures required prior to utilizing a confidential informant) were mentioned as impacting the task force. In addition, a decline in staff morale was noted during the study period. Since the interviews were conducted, RATT has undergone significant reorganization, which may have improved this situation.

- According to the case studies involving three different RATT strategies, arrest and conviction information indicated that the undercover sting operation was the most successful strategy employed by RATT. The undercover sting involved the investigation of 73 suspects. Of these suspects, 68 were arrested, and ***all*** arrests resulted in a conviction. The other two strategies examined (i.e., follow-up on local law enforcement leads and surveillance) were more limited in scope and resulted in minimal success (e.g., few number of motor vehicle thefts reported, autos recovered, and arrests made).

FINDINGS RELATED TO RESEARCH IN THE FIELD

- The source database for CAMS (i.e., the Automated Regional Justice Information System (ARJIS)) did not always have complete information, which limited the crime analysis and mapping capabilities. For example, the location of a theft or recovery was often missing or inaccurate. As with any database, the value of the information is dependent upon consistent and complete reporting and data entry. Future plans utilizing automated field reporting will include methods for improving data accuracy in ARJIS (e.g., inhibiting the submission of a report until all fields are complete, including edit checks to ensure that each item is accurate).

- Successful implementation of a crime analysis system requires a thorough understanding by all parties regarding the benefits and limitations of such information. If officers do not perceive automated databases as an enhancement to investigations, they will be less inclined to use them.

RECOMMENDATIONS RELATED TO THE TASK FORCE

- Since geographic concentrations of auto theft were not evenly distributed countywide, division of workload by geographic boundaries (i.e., north, south, and east) may be less efficient. RATT may want to examine the geographic distribution of motor vehicle theft revealed through CAMS and redistribute the workload accordingly.

- The priorities of RATT should be reviewed on a regular basis and discussed among the members of the Investigative Operations Committee (IOC) (i.e., the management level of RATT), with input from RATT supervisors and line staff. For example, should RATT take a proactive role in educating citizens and crime prevention? And, if so, how should such an objective be operationalized?

- To ensure that the Crime Analysis and Mapping System (CAMS) is utilized, on-going staff training regarding the benefits of the technology to RATT investigations is necessary. For example, successes related to prior use of the system could be shared at weekly staff meetings. Further, a feedback system could be implemented in which detectives would provide input regarding ways to improve the system based upon output provided by CAMS and used in investigations.

- Though RATT has reorganized since interviews were conducted with management and staff, issues raised during interviews regarding staff turnover, bureaucracy, and morale may require continued examination. The management of staff employed by the variety of agencies participating in the task force is challenging. Standards for recruiting and training RATT staff should be reviewed and consistently maintained. Clear expectations regarding performance and specific training related to RATT activities, for new detectives in particular, could assist in raising staff morale.

- Due to prior successfulness, RATT should continue to utilize undercover sting operations.

RECOMMENDATIONS RELATED TO RESEARCH IN THE FIELD

The results of this evaluation raise many issues with respect to conducting research that implements new technology in the field.

- As is often the case when conducting applied field research, particularly when the cooperation of practitioners is required, flexibility is key. The original research design for this project was adjusted to be more compatible with RATT workload. The initial study design involved an "experiment" with target and control sites. The goal was to simultaneously implement strategies in each area designed to combat auto theft and rotate these strategies between the sites to control for geographical variability. However, the reality of RATT workload limited the efforts of task force detectives related to the research effort. Therefore, the design was modified to include case studies rather than an experimental design.

- Maintaining focus on the objectives of the research project is also critical to successful evaluations. While the methodology was modified during the course of this project, the evaluation team continued to focus on the original research objectives and questions.

Partnerships between researchers and practitioners require clear communication regarding roles, responsibilities, and the purposes of the project. The research team could have been more clear regarding the link between CAMS, its association to auto theft investigations, and the evaluation, as well as the role of each member of the partnership (i.e., software designers, crime analyst, RATT staff, and researchers) in completing the research project. The research project would have had a better chance of being implemented as designed with a more clear understanding by all participants.

According to a summary of the National Law Enforcement and Corrections Technology Conference (Wagner, 1996), a number of steps are essential for the successful implementation of new technology. Other practitioners and researchers could benefit from the lessons learned in this project by incorporating the following guidelines from Wagner (listed in bold) into their implementation plans.

- **A specific problem must be solved by the new technology. Therefore, a needs assessment should be conducted prior to technology development to ensure that implementation will be useful.** Through the preparation of the grant proposal to the National Institute of Justice (NIJ), the researchers listened to RATT management regarding the problems, limitations, and needs faced by the task force. The primary needs had to do with access to regional auto theft information rather than having the data fragmented by jurisdiction, and access to a crime analyst equipped with a computer to assist officers in compiling data. The mapping capabilities were also of interest, though not an overwhelming need. Based upon the information gathered, the research design included the development of the Crime Analysis and Mapping System (CAMS) as a solution to the problems faced by RATT. A formal needs assessment following the grant award would have been helpful in assuring that the uses for the mapping system were directly related to specific RATT activities.

- **The technology must be understandable to law enforcement personnel.** With a focus on auto theft rings, the primary strategy used by RATT was the covert operation, utilizing the development of confidential informants. The usefulness of the CAMS technology in this type of investigation was never realized, and may not even be appropriate. By providing RATT staff with a thorough understanding of the applicability of the mapping system to their day-to-day operations, the research and CAMS development team could have improved the utilization of the technology.

- **Continual training and monitoring of staff on the appropriate use of the technology is required.** As has been noted in the literature, the ability to reduce crime depends on the ability to pull together and interpret accurate information about a specific problem (i.e., auto theft). The use of high-tech tools is not enough (Block, 1992). While the crime analyst who produced the maps was trained on how to create them, no training was ever provided to law enforcement personnel on the use of these maps. Thus, additional training for the crime analyst regarding methods for producing geographic information relevant to RATT tactics would have been beneficial, as well as training for RATT staff in ways to apply the information on the maps to their investigations.

- **Standardized policies and procedures regarding the use and purpose of the technology should be in place prior to implementation.** To date, these policies and procedures are yet to be delineated. In hindsight, the necessity of outlining these components prior to implementation is clear. If all the partners in this project (i.e., software designers, researchers, crime analyst, and RATT staff) were in agreement regarding the use and purpose of CAMS, the technology could be more fully utilized.

Attention to the preceding guidelines may have created an environment in which CAMS could have been implemented more completely within task force operations. As a result, a more thorough evaluation of the impact of CAMS could have been conducted.

CONCLUSION

This evaluation of the Regional Auto Theft Task Force (RATT) has produced valuable information regarding the implementation of new technology and conducting research in the field. The design and application of new technology in the field are challenging. The issues faced during this grant highlight areas to be addressed in future projects. The qualitative assessment of specific strategies designed by a multi-agency task force to combat vehicle theft provides support for use of covert operations in auto theft investigations. Finally, the comparative analysis between RATT cases and a comparable group of auto thefts investigated through the traditional law enforcement response illustrates the value of the task force approach to the reduction of motor vehicle theft.

CHAPTER 1

INTRODUCTION

INTRODUCTION

In 1994, the Criminal Justice Research Division of the San Diego Association of Governments received funds from the National Institute of Justice (NIJ) to enhance the crime analysis and mapping capabilities for a regional task force targeting motor vehicle theft in the San Diego region and to evaluate the effectiveness of task force efforts after receiving better information regarding the auto theft problem. This report presents the findings from the project. Before examining the impact of the crime analysis and mapping system, the issues related to the study are addressed in this chapter, followed by an overview of the local criminal justice response to auto theft. Chapter 2 reviews the methods used to complete the study. In Chapter 3, the stage is set for the development of the crime analysis and mapping system with an in-depth assessment of the auto theft problem in the San Diego region. Chapter 4 outlines the data system developed for targeting police efforts regarding vehicle theft. The impact of the data system on law enforcement tactics is examined in Chapter 5. The report concludes with a summary of major findings and recommendations for future efforts in Chapter 6.

MOTOR VEHICLE THEFT PROBLEM

Nationwide, the Federal Bureau of Investigation (1997) reported almost 1.4 million vehicle thefts in 1996, with a 14 percent clearance rate. The clearance rate is a measure of crimes solved, while the recovery rate illustrates when stolen vehicles were found though information about the suspect could be completely unknown. The total estimated value of stolen vehicles was approximately $7.6 billion nationwide. According to the National Crime Victimization Survey, an average of over 35,000 carjackings occur each year (Rand, 1994). These are robberies involving the use or threat of violence to obtain vehicles.

During the 1980s, motor vehicle thefts rose rapidly in the San Diego region. From 1984 through 1989, motor vehicle thefts rose 151 percent. The highest rate of auto theft occurred in 1989 (17.1 vehicles per 1,000 residents). Since 1989, the rate of vehicle theft has decreased, with annual substantial declines since 1993 (i.e., from 1993 to 1994, there was a 14% drop, from 1994 to 1995, auto theft rates fell 19%, and from 1995 to 1996, the decrease was 13%). Despite these declines, these crimes continue to represent a significant loss to individuals and insurance companies. In 1996, the value of vehicles stolen in the San Diego region exceeded $132 million, representing 59 percent of the value of all stolen property (Pennell, et. al., 1997). Only a small proportion of reported auto thefts are solved through arrest or identification of a suspect. For example, in 1996, six percent of the motor vehicle theft cases were solved (Pennell, et. al., 1997).

The California Highway Patrol (CHP) reports that 235,282 vehicles were stolen in 1996 statewide (1997). The total dollar loss statewide, based upon the average replacement value established by the Federal Bureau of Investigation (FBI), was approximately $1.2 billion. CHP data show that the San Diego region was second only to Los Angeles in the number of vehicles

stolen in California. The relatively high numbers of vehicle thefts in southern California counties are associated with the proximity to the Mexican border and the presence of major, organized vehicle theft rings. In early 1994, media reports in the San Diego region showed that a number of stolen vehicles were being taken to Mexico, where vehicle identification numbers were altered and license plates switched to avoid detection (Hughes, 1994). Also, local organized vehicle theft rings steal vehicles for resale or for parts. Vehicle thefts were an increasing concern according to media reports in the early 1990s, particularly due to violence associated with carjackings in the San Diego region and other areas of the country.

LOCAL LAW ENFORCEMENT EFFORTS TO REDUCE MOTOR VEHICLE THEFT

In response to the vehicle theft problem, the San Diego Regional Auto Theft Task force (RATT) was formed in July 1992 as a proactive approach to the investigation, apprehension, and prosecution of motor vehicle theft suspects, particularly those involved in major countywide vehicle theft operations (i.e., rings). This goal is consistent with prior research findings revealing that professional, profit-motivated auto thieves operating across jurisdictional boundaries commit many auto thefts.

> Multi-jurisdictional task forces are considered effective in the fight against vehicle theft for a variety of reasons. The crime of vehicle theft reflects mobility by its very nature. The vehicle itself is not only the object of the crime, but it is also usually the mechanism for removing the fruit of the criminal enterprise from the scene. The vehicle may be stolen in one jurisdiction, driven through several others, where it may be used in the commission of additional crimes, then abandoned or dismantled in yet another. Because the crime typically crosses jurisdictions, investigation by law enforcement officials must reflect the same ability to reach across jurisdictions. Multi-jurisdictional task forces provide law enforcement with just such a capability (Northwestern University Traffic Institute, 1994).

Further, the task force approach was chosen because it has been cited as more effective in combating crime rings, the target population for RATT.

> When car thievery exhibits higher levels of sophistication, task forces are especially useful. It takes special training and skills for law enforcement to foil these activities. Most local departments are simply too small to have the requisite skills in-house. They may, in fact, be unable even to recognize some illicit vehicle activities as being criminal. If they are able to recognize the crime, small agencies may be unable to mount an effective investigation because the incident is very unusual for them, and they lack the necessary expertise or experience. The task force is an umbrella unit to which an overwhelmed local agency can turn for personnel expertise, liaisons, and working relationships with other relevant agencies, and the specialized training and skills to conduct the investigation and collect the body of evidence that will lead to successful prosecution and conviction (Northwestern University Traffic Institute, 1994).

The State of California has established a unique method for funding local programs to address the problem of vehicle theft. RATT is funded through a $1 assessment on vehicle registrations, which was authorized under State Senate Bill 2139. Approximately $1.8 million is collected

nnually by the State Department of Motor Vehicles, which pays for the salaries of 21 investigators from several police agencies, three deputy district attorneys, and three support staff. The funds are administered by the County District Attorney's office. In addition, five FBI agents and one agent from the National Insurance Crime Bureau (NICB) are assigned to the task force, for a total of 27 investigators. FBI informant and undercover money is available to the task force, as is $240,000 from the Safe Streets Act, to be used for overtime and equipment.

RATT includes entities other than traditional law enforcement organizations, which is consistent with other programs to combat auto theft across the country (Northwestern University Traffic Institute, 1994; Illinois Motor Vehicle Theft Prevention Council, 1994). Specifically, sixteen federal, state, and local law enforcement agencies participate in RATT. The federal partners are the Federal Bureau of Investigation (FBI), U.S. Attorney, and U.S. Customs. The California Highway Patrol (CHP) - Border Division is the state agency. All ten local police agencies are represented. The task force represents an extension of the traditional task force approach, by not only including a variety of federal, state, and local law enforcement agencies, but also including the private sector (i.e., the National Insurance Crime Bureau (NICB)). The local prosecutor (i.e., the San Diego County District Attorney) provides legal guidance in warrant preparation and evidence requirements, as well as vertical prosecution of cases (i.e., the same District Attorney handles the case from initial hearing through final disposition). The task force is operated under a Memorandum of Understanding, with an Executive Board consisting of police chiefs from five local law enforcement agencies, the Chief of the CHP - Border Division, the District Attorney, the FBI Special Agent in Charge, and a member of the County Board of Supervisors. The nvestigative Operations Committee (IOC) consists of representatives of these same organizations who are responsible for the on-going management and operation of the task force. Appendix A provides a specific listing of task force and committee members.

In addition to traditional enforcement strategies (e.g., surveillance, search warrants, arrest warrants, sting operations using covert warehouses as "chop shops," and videotaped buy-busts), RATT detectives apply the following four investigative techniques in their work:

1. **theft analysis** by tracking locations and types of vehicles stolen and monitoring known "chop shops" (i.e., operations specializing in breaking down stolen vehicles into component parts for sale)

2. **maintenance of an intelligence database** by utilizing data from the California Law Enforcement Telecommunication System, the National Crime Information Center, and National Insurance Crime Bureau

3. **active liaison with all local law enforcement agencies** to provide more information

4. **recruitment, development, and careful supervision of informants** to infiltrate car theft rings using informants and undercover tactics (Casey, 1995).

LIMITATIONS OF THE TASK FORCE EFFORT: DATA NEEDS

During the first two years of RATT operation, detectives discovered that automated regional information on motor vehicle thefts was somewhat limited. The ability of this multi-jurisdictional approach to combat the activities of thieves crossing jurisdictional boundaries was

hampered because multi-jurisdictional data were not available to assist in this effort. RATT investigators relied upon fragmented information provided by individual agencies regarding vehicle theft activity in their jurisdictions. Investigators could not obtain complete information on the make and model of vehicles stolen throughout the region, the location of recovered vehicles, and the condition of vehicles when recovered. Most of the data were contained within local, County, and State computer systems, but not available in a single geographic database allowing regional analysis of trends in vehicles stolen and recovered through statistical reports and maps of the location of incidents. The value of a more integrated data system has been illustrated in previous research studies. In an evaluation of the DuPage County, Illinois, motor vehicle theft task force, the development of a database for all vehicle thefts in the task force area was one explanation listed for their success (Northwestern University Traffic Institute, 1994). The specific nature of auto theft activity has also been listed as requiring a database that can link cases together.

> ...the crime of vehicle theft reflects many levels of sophistication... A task force has the resources and specialized skills to pursue the investigation at a level uncharacteristic of most local departments. It is commonplace for a task force to process all appropriate recoveries for fingerprints and other physical evidence. The task force may then be able to link together [stolen vehicles] that occurred in the same fashion and information about the theft can be input to the task force database for analysis by location of [theft], place of recovery, type of vehicle, time of the incident, etc., to provide an intelligence-driven counteroffensive (Northwestern University Traffic Institute, 1994).

RATT investigators were interested in obtaining the following:

- motor vehicle thefts and recoveries on a regional basis, rather than segmented by jurisdiction
- motor vehicle theft trends by location
- mapping of auto thefts and recoveries to highlight crime patterns
- complete information on the make and model of vehicles stolen throughout the county
- location of recovered vehicles
- condition of vehicle at time of recovery.

RATT management wanted these data not only to assist in auto theft investigations, but to also provide information for use in public education efforts. RATT recognized that enforcement efforts are only one component in a coordinated effort to reduce motor vehicle thefts. The role that citizens and businesses can play in preventing auto thefts may have a significant impact on the number of these crimes. The missing link was regional information and trend analysis to direct both prevention and investigative efforts. This project included the development of an enhanced crime analysis and mapping system to fill this data void.

Despite limited data access, detectives believed that they were experiencing success through undercover, covert operations by purchasing stolen cars from players at all levels in auto theft rings. The fact that multiple thieves had been apprehended and convicted through a single operation was their evidence of success. To provide more systematic measures of success, this project sought to measure the impact of RATT relative to regular auto theft investigations by comparing RATT cases to vehicle theft reports handled in the traditional manner for a one-year period. In addition, the effectiveness of specific RATT strategies was examined. The methods used in the evaluation will be explained in the next chapter.

CHAPTER 2

RESEARCH METHODS

RESEARCH METHODS

The primary goal of the research project was to examine the effectiveness of the Regional Auto Theft Task Force (RATT) in reducing auto thefts relative to the traditional law enforcement response. In addition, the use of enhanced crime analysis information for targeting RATT investigations was assessed. Finally, public education and prevention efforts to reduce motor vehicle thefts were explored. The following research tasks were used to accomplish these goals.

- Determine the factors associated with successful investigations and prosecutions in vehicle theft cases investigated by RATT.
- Assess the characteristics of areas where vehicles are stolen and recovered.
- Identify factors that impede or enhance the effectiveness of enforcement strategies.
- Develop an automated geographic-based information system, containing detailed data on motor vehicle thefts, salvaged cars, tow companies, salvage yards, and other related data, to be used to analyze crime problems and target investigations and public education campaigns.
- Evaluate the effectiveness of using enhanced crime analysis information to target task force enforcement efforts in specific areas in terms of reported incidents, arrests, prosecutions, and vehicles recovered in these areas.
- Test the effectiveness of public education and prevention programs to reduce motor vehicle thefts.
- Provide recommendations regarding effective strategies to reduce motor vehicle thefts to assist other jurisdictions in implementing programs to successfully address vehicle thefts.

The following questions were addressed through the aforementioned objectives.

- What are the characteristics of vehicle theft rings in San Diego, and how are the stolen vehicles and/or parts used/transported/distributed?
- What types of vehicles are targeted by vehicle theft rings and what is the modus operandi of suspects?
- What is the extent of violence involved in motor vehicle theft incidents in general, and in thefts associated with vehicle theft rings?
- What is the relationship between the locations of vehicle thefts and recoveries?

- How do investigators identify motor vehicle thefts that warrant investigation by the task force?

- Are the characteristics of motor vehicle theft cases investigated through RATT different than other cases reported throughout the county?

- What investigative techniques are effective in apprehending and prosecuting suspects involved in major vehicle theft operations?

- What is the impact of enhanced crime analysis information on targeting decisions?

- How can public education be used to reduce the risk of motor vehicle theft?

Consistent with process and impact evaluations, the research design for this project included a variety of methods. Table 2.1 summarizes the tasks involved in the project.

Table 2.1

RESEARCH METHODS

- Observation of task force activities
- Pretest/posttest interviews with task force members
- Collection of data on auto theft cases during FY 1993-94 for both RATT and traditional law enforcement investigations
- Development of Crime Analysis and Mapping System (CAMS)
- Identification of problematic areas (i.e., hotspots, target areas)
- Development of strategies to address problem areas
- Evaluation of strategy effectiveness

OBSERVATION AND INTERVIEWS

The first phase of the research involved identifying current RATT operations, information needs, strategies employed, and results and outcomes of investigations conducted by RATT to be used in the development of the Crime Analysis and Mapping System (CAMS). The information was also used to identify successful strategies implemented by RATT investigators. Using a set format for recording observations (Appendix B), SANDAG research staff observed the activities of task force investigators by accompanying officers during their covert operations to determine the following:

- methods used for identifying investigation targets
- intelligence gathering techniques used
- data available to investigators
- information needs
- the means of evaluating success of an operation.

In addition, during the first quarter of 1995, initial interviews were conducted with task force members and management, with follow-up interviews conducted approximately one year later. The following issues were addressed during these interviews:

- task force goals
- targets
- methods of identifying targets
- differences between RATT strategies and the traditional law enforcement response to auto theft
- strategies employed
- geographic concentrations of auto theft
- factors that enhance or impede investigations
- opinions regarding effective approaches
- coordination among agencies
- suggestions for improving task force operations
- characteristics of auto theft as distinguished from other types of crime
- characteristics of auto theft rings
- training received
- resources and information needed
- measures of success
- suggestions for public education efforts.

Twenty-one (21) staff members were surveyed in 1995, representing 12 local, state, and federal law enforcement agencies. Of the 22 officers interviewed one year later, eight had been interviewed previously, ten were replacements (i.e., new team members filling a position vacated by someone from their agency), and four represented new members (i.e., individuals from agencies added as task force participants since the initial interview). These individuals had been with RATT for an average of two years (the range of tenure was from 5 to over four years) and also represented 12 agencies at the local, state, and federal level.

Initial interviews were completed with nine members of the management group (i.e., the Investigative Operations Committee (IOC)) during the first quarter of 1995, and follow-up interviews were completed with eight members during the fourth quarter of 1996. At both times, two individuals were interviewed from the Chula Vista Police Department, two from the Federal Bureau of Investigations, and one each from the El Cajon Police Department, San Diego Police Department, the Sheriff's Department, and the District Attorney's Office. Additionally, a representative of the Oceanside Police Department was initially interviewed. Of the eight individuals interviewed at follow-up, three represented new members, three were replacements, and two were the same.

See Appendix C for a copy of each interview protocol.

DATA COLLECTION REGARDING MOTOR VEHICLE THEFT INVESTIGATIONS

Collection of data prior to CAMS implementation provided information on the scope of the auto theft problem and related crime patterns in the San Diego region, as well as documentation of the activities and results of RATT investigations in comparison to cases handled with the traditional law enforcement response. RATT investigations focused, according to the program design, on motor vehicle theft suspects involved in major countywide vehicle theft operations, while traditional auto theft detectives respond to all types of auto theft activity throughout their individual jurisdictions. The data were used to identify targets of enforcement efforts (e.g., auto theft rings, career auto thieves), techniques or strategies used, the length of investigations, involvement of outside agencies, property recovered, condition of recoveries, and consequences to offenders which resulted from the activities of the investigations. A copy of the data collection form used is included in Appendix D.

Sample Selection

Data were compiled for all 194 cases investigated by the Regional Auto Theft Task force (RATT) in FY 1993-94 (i.e., the experimental group) and compared to a random sample of 823 cases investigated through the traditional law enforcement response during the same time period (i.e., the comparison group). The sample for the comparison group was selected from a computer file generated through the Automated Regional Justice Information System (ARJIS), which contains operational countywide information on all crimes reported to law enforcement. To be included in the comparison group, a case had to involve at least one auto theft-related charge, such as auto theft or carjacking, as well as include suspect information. Because the majority of auto thefts reported are never solved (i.e., through the arrest of a suspect or exceptional means), selection of the comparison sample from all auto theft crimes reported to the police would result in a sample with the majority of cases with minimal investigative action. Therefore, the comparison sample was based upon cases with information about at least one suspect. Since RATT cases generally involve extensive investigations, the comparison group, as previously described, is the most comparable group available for examining the impact of RATT.

Data Sources

Arrest and investigation reports provided detailed data regarding: sociodemographic characteristics of the suspect, the source of information leading to the initial investigation, strategies used (e.g., observation, business inspection, and search warrant), and law enforcement disposition. Prosecutor and court records were accessed through the District and City Attorneys' automated systems and court case files.

The data elements are presented in Table 2.2.

Table 2.2

DATA ELEMENTS

Case-Based Data

- Length of investigation
- Number of vehicles involved
- Number of suspects
- Type of case (theft, recovery)
- Intelligence gathering techniques
- Law enforcement agencies involved

Vehicle-Based Data

- Date vehicle stolen
- Location of theft of vehicle
- Vehicle make
- Vehicle model
- Vehicle year
- Vehicle color
- Recovery status (yes/no)
- Other property recovered (yes/no)
- Recovering agency
- Date vehicle recovered
- Location of recovery of vehicle
- Vehicle identification number (VIN) status after recovery
- License number status after recovery
- Number of recoveries by type (total versus parts)
- Vehicle condition after recovery
- Use of vehicle by suspect

Defendant-Based Data

- Race/ethnicity
- Age
- Gender
- Arresting agency
- Date of arrest
- Highest arrest charge
- Other arrest charges
- Arrest disposition
- Date court case filed
- Highest charge filed
- Other charges filed
- Prosecutor disposition
- Number of conviction charges
- Date of disposition
- Highest conviction charge
- Other conviction charges
- Sentence
- Time ordered
- Plea (yes/no)
- Vertical prosecution (yes/no)
- Date of final court action

DATA LIMITATIONS

Data compiled on police strategies were limited to information available in arrest and investigation reports. In some cases, detectives may not have reported information on incidental strategies, such as observation. Also, detectives are protective of confidential informants, and data on use of informants were not always available unless informant information was used to support a search warrant. Also, the term "informant," when used in the context of a search warrant, referred to a citizen or an offender who provided information related to activity at a specific address or location. Therefore, data could not be obtained based upon the more traditional police definition of a confidential informant (i.e., a person who provides information with the expectation of receiving a reward, including monetary rewards and consideration of the informant's assistance in the processing of a pending criminal case). These types of informants are handled differently than citizen informants.

ANALYSIS

The analysis included a description of the activities of investigators from both groups (RATT versus traditional investigations). Bivariate and multi-variate analyses were used to assess the relationship between the independent (e.g., type of investigation (RATT versus traditional)) and dependent variables (e.g., arrest, prosecution, and conviction).

DEVELOPMENT OF CAMS

> Mapping software packages on the market today are much more complicated and harder to learn than a word processor or spreadsheet, and special training courses are often required to use the products effectively... One approach to overcoming this obstacle is to develop a "custom" mapping application, thereby eliminating the need for users to interact with a general-purpose mapping software package (Rich, 1995).

To provide RATT with an easy method of geographically displaying and analyzing motor vehicle theft data, the second phase of the project involved the design and implementation by SANDAG staff of the Crime Analysis and Mapping System (CAMS), using ArcView2, developed by ESRI (Environmental Systems Research Institute, Inc.). Information from ARJIS was downloaded into CAMS to avoid duplicate entry. CAMS contains all regional data available regarding motor vehicle thefts reported, tow companies, and salvage yards. The data elements for CAMS are presented in Table 2.3.

The system was designed to map locations of thefts and recoveries, conduct cluster analysis, connect thefts and associated recoveries, display all information in the database regarding each incident on the map, and import new data into the system.

A more lengthy discussion of the development of CAMS is provided in Chapter 4, and detailed documentation regarding this customized system can be found in Appendix E.

TARGET IDENTIFICATION AND STRATEGY DEVELOPMENT

Bivariate and multivariate techniques, as well as cluster and factor analysis, were initially used to identify crime patterns associated with major vehicle theft operations for auto thefts reported during FY 1993-94. Law enforcement targets were then identified utilizing the concept of "expert systems" (Hickey, 1992; Blumstein, 1990; McEwen, 1990). Geographic concentrations of auto thefts and/or recoveries were isolated through CAMS. RATT sergeants identified constraints, which were applied to the data (e.g., ten recoveries within a one-mile radius to indicate potential "chop shop" activity). The characteristics of stolen vehicles (e.g., make, model, year) were analyzed and the location of stolen and recovered vehicles was mapped. Time of theft was also considered as a variable, as has been included in other policing research across the nation (Block, 1995; Hirschfield and Bowers, 1995; Illinois Criminal Justice Information Authority, 1987). However, it is difficult to pinpoint the exact time of most motor vehicle thefts. For example, a car is parked on the street in front of a residence in the evening after work and the next morning it is gone, or a vehicle is parked in a parking lot at a transit station in the morning and in the late afternoon after work, it is missing. Thus, time was not a useful factor to include in the analysis.

Table 2.3

CAMS DATA ELEMENTS
All Auto Theft and Related Incidents

ARJIS Data

- Agency
- Incident number
- Crime code
- Type of vehicle stolen (auto, truck/bus, other)
- Vehicle make
- Vehicle model
- License plate
- Color
- City
- Name of victim(s)/suspect(s)
- Location of incident (address, x-y coordinates)
- Beat
- Date of entry into ARJIS
- Date of occurrence
- Time of occurrence
- Case status (cleared by arrest or exception, open)
- Dollar value when stolen
- Recovery status (recovered/not recovered)
- Condition of vehicle at recovery
- Dollar value when recovered
- Recovery agency
- Location of recovery

Data Entered by Hand

- Vehicle Identification Number (VIN) (obtained through CLETS[1])
- Salvage yard locations
- Tow company locations

[1] *California Law Enforcement Telecommunications System, State Department of Justice*

The intention of the research design was, through CAMS geographic analysis, to identify targets (i.e., areas with relatively high auto theft and related problems) and develop strategies to combat the problem through a collaborative effort by RATT investigators, a crime analyst funded through the grant, and the researchers. The reality of implementing such a methodology included numerous roadblocks, which will be discussed further in Chapter 5. The other research tasks involved in this project provide valuable study findings regarding the effectiveness of a task force targeting auto theft, issues involved in developing a crime analysis and mapping system, the challenges involved in implementing advanced technology in police investigations,

and the impact of new technology on police tactics which compensate for the inability to maintain a true experimental design. The multiple methods used in this research design are similar to evaluations of other task forces across the country (Coldren and Sabath, 1992; Ruboy and Coldren, 1992; Minnesota Criminal Justice Statistical Analysis Center, 1991).

EVALUATION OF STRATEGY EFFECTIVENESS AND CAMS USEFULNESS

The final phase of the project involved an evaluation of the effectiveness of the strategies implemented in the target areas, as well as the value and usefulness of CAMS. The analysis regarding the impact of CAMS included a description of task force operations before and after database implementation, based upon observation and pretest/posttest interviews with RATT investigators. With respect to the strategies employed, a process assessment documented the techniques used to address the problems identified. Originally, the effectiveness of task force strategies was also to be assessed using a pretest/posttest control group experimental design. As will be discussed further in Chapter 5, the design was modified. However, the impact evaluation still examined the difference in number of auto thefts reported in the target area before and after strategy implementation, number of suspects contacted, number of recoveries, and number of arrests and convictions resulting from the project. The limitations in the measures of success are acknowledged. In particular, reliance on the number of motor vehicle thefts reported as a measure of strategy effectiveness is problematic. As asserted by the Northwestern University Traffic Institute (1994), validity of reported crime data is questionable because variation may be the result of extraneous factors, particularly when examining a relatively small geographic area during short time periods. Further, the causal linkage between task force efforts with vehicles stolen and recovered is uncertain.

Despite these methodological difficulties, the results are preliminary indications of the impact of specific RATT strategies for combating motor vehicle theft. As will be shown in this report, the covert operation utilizing confidential informants is the strategy of choice for RATT. Team members often cite reductions in the number of stolen vehicles reported regionally as evidence of RATT's success. This study provides a more valid assessment of the impact of RATT relative to traditional law enforcement investigations of auto theft reports. In addition, the effectiveness of covert sting strategies is explored, the success of which has been questioned in the literature (Clark and Harris, 1992).

CHAPTER 3

AUTO THEFT IN SAN DIEGO

AUTO THEFT IN SAN DIEGO

This chapter presents findings from the study related to the following objectives:

- Determine the factors associated with successful investigations and prosecutions in vehicle theft cases investigated by RATT.
- Identify factors that impede or enhance the effectiveness of enforcement strategies.

The problem of motor vehicle theft and the law enforcement response to this crime was assessed for the San Diego region through interviews with RATT staff members and management. Interviews were conducted during the first quarter of 1995, and then follow-up questions were asked during the fourth quarter of 1996. Additional information was obtained from official records regarding both RATT investigations and the traditional law enforcement response to motor vehicle theft. Before examining the criminal justice response to the auto theft problem, the responses from RATT staff interviews regarding the extent of the problem and the best methods for combating auto theft are presented to provide a context within which to interpret the findings gleaned from the official record data. Following the discussion of findings from data obtained through official records, opinions from interviews about the success and effectiveness of RATT, as well as factors impeding success and areas for improvement, are examined.

AUTOMOBILE THEFT IN THE SAN DIEGO REGION

To gain a perception of automobile theft in the San Diego region, RATT staff were asked on an initial interview to characterize automobile theft rings in the region, describe areas where vehicles are frequently stolen and recovered, compare automobile thieves to other types of thieves, describe useful approaches to reducing vehicle theft, outline the role of citizens in prevention efforts, and describe how the community could best be educated. Additionally, members interviewed at follow-up were asked separate questions regarding characteristics of ring members, the size of theft rings, the types of cars which are targeted by these rings, high theft areas, frequent theft times, the level of violence associated with these thefts, and RATT's role in crime prevention efforts. Because these follow-up questions were presented in a different format (open-ended versus close-ended), they are presented separately.

Characteristics of San Diego Automobile Theft Rings

As Table 3.1 shows, 100 percent of respondents agreed that automobile theft rings target specific locations in the region. This opinion provided the impetus for the development of the Crime Analysis and Mapping System (CAMS), which was designed to identify specific geographic concentrations of auto theft activity. Respondents also characterized auto theft rings as being organized (90%), having a small number of "players" (85%), rarely using force (80%), targeting newer models of cars (75%), targeting cars with valuables left in them (70%), stealing cars at all

times of the day (65%), having a central "chop shop" location (65%), targeting cars with unique features (60%), having thieves typically between the ages of 15 and 24 (55%), and possessing a definite chain of command (50%). Less than 50 percent also described the local rings as having thieves 25 years of age and older, stealing cars primarily at night, during the day, or at dawn and dusk, willing to threaten or attack a victim for a vehicle, having a large number of players, targeting older models of cars, and with other characteristics (targeting particular models (3) and buying the bodies of the vehicles back at auctions (1)).

Table 3.1

CHARACTERISTICS OF SAN DIEGO AUTOMOBILE THEFT RINGS
RATT Staff Initial Interview, 1995

Specific locations are targeted	100%
Organized	90%
Small number of players	85%
Thieves will use no force	80%
Cars targeted are newer models	75%
Cars have valuables in them	70%
Cars are stolen at all times of the day	65%
Central "chop shop" location	65%
Cars targeted have unique features	60%
Thieves are typically between 15 and 24	55%
Possess a chain of command	50%
Thieves are typically 25 and older	45%
Cars are stolen at night	40%
Thieves will threaten the victim	35%
Thieves will attack the victim	30%
Other characteristics	20%
Large number of players	15%
Cars targeted are older models	10%
Cars are stolen at dawn/dusk	5%
Cars are stolen during the day	5%
TOTAL RESPONDENTS	**20**

NOTE: "Don't know" and blank responses not included. Percentages based upon multiple responses.

Table 3.2 presents the perception of individuals interviewed at follow-up regarding San Diego auto theft rings. According to this group of staff members, ring members vary in ethnicity, are typically males, and are younger than 30 years of age. In addition, while a variety of car types are stolen by these rings, sports utility, Japanese, and newer models are frequently targeted. While comparison between the initial interview responses and the follow-up ones should be limited due to how the questions were asked, it is interesting to note that there appears to be agreement that automobile theft rings in the San Diego region are usually small, that they typically do not use violence, and that thefts occur during all parts of the day.

Table 3.2

CHARACTERISTICS OF SAN DIEGO AUTOMOBILE THEFT RINGS
RATT Staff Follow-up Interview, 1996

Suspect Ethnicity	
Varies	64%
Black	27%
Asian	5%
Hispanic	5%
Suspect Gender[1]	
Male	80%
Varies	20%
Suspect Age[2]	
Varies	52%
30 years old or younger	48%
Ring Size	
Small (< 5)	73%
Varies	18%
Large (> 5)	9%
Car Type Targeted	
Sports utility	55%
Varies	41%
Japanese models	36%
Newer models	27%
Rental vehicles	9%
Large cars	5%
Other types	5%
When Cars Stolen[2]	
At night	43%
Varies	43%
All day	14%
Use of Violence	
No violence	50%
Sometimes	45%
Yes	5%
Other Characteristics[3]	
Commit other crimes	33%
Opportunists	22%
Varies, but the same	22%
Do purely for profit	11%
Strip the vehicle where it is parked	11%
TOTAL RESPONDENTS	**9 - 22**

[1] Ten individuals answered this question.
[2] Twenty-one individuals answered this question.
[3] Nine individuals answered this question.

NOTE: "Don't know" and blank responses not included. Percentages may not equal 100 due to rounding.

Common Theft and Recovery Areas in the San Diego Region

As described previously, there was consensus among the RATT team members initially interviewed that automobile theft rings target specific areas in the region. This view provided impetus for the creation of the Crime Analysis and Mapping System (CAMS), as well as the evaluation of the impact of CAMS. However, the respondents also agreed that the geographic distribution of thefts across the region is fairly even. Respondents mentioned that a large number of cars are both stolen and recovered in North County and South County, and that many vehicles are stolen in East County and recovered in Southeast San Diego (Table 3.3). As the research project progressed, the later view that the auto theft problem is dispersed across geographic boundaries prevailed for the eastern portion of the region, while concentrations of theft activity were clearly noted in the northern and southern parts of the region. These differences will be examined further in Chapter 5.

Table 3.3

AREAS WHERE VEHICLES ARE FREQUENTLY STOLEN AND RECOVERED
RATT Staff Initial Interview, 1995

	Stolen	Recovered
East County	29%	5%
North County	29%	35%
South County	24%	40%
City of San Diego	19%	15%
Clairemont/Kearny Mesa	14%	5%
Border	10%	0%
Miramar	10%	5%
Southeast San Diego	5%	25%
TOTAL RESPONDENTS	**21**	**20**

NOTE: "Don't know" and blank responses not included. Percentages based upon multiple responses.

Individuals at follow-up described types of areas where vehicles were frequently stolen, rather than areas of the County where they were stolen and recovered (not shown). Among the types of areas noted by these members were shopping centers (68%), large parking lots (41%), nice neighborhoods (32%), individual areas (27%), freeway corridors (23%), hotel parking lots (23%), tourist areas (10%), and apartment complexes located near freeway entrances (5%).

Automobile Thieves Compared to Other Types of Thieves

While approximately one-third (32%) of the staff members felt that there were no differences between automobile thieves and others types of thieves, the remainder felt that there were differences, but varied in their opinions about the specific differences (Table 3.4). Some felt that

Automobile thieves are more sophisticated (26%), while others felt they are less violent (21%), are frequently narcotic users (16%), have an affinity for the merchandise they steal (16%), are harder to infiltrate (10%), are more adventurous (5%), are more sophisticated (5%), show little remorse (5%), and work with smaller (5%) or larger (5%) groups of individuals (Table 3.4).

Table 3.4

HOW AUTOMOBILE THIEVES DIFFER FROM OTHER THIEVES
RATT Staff Initial Interview, 1995

No difference	32%
More sophisticated	26%
Less violent	21%
Frequent narcotic users	16%
Affinity for the merchandise they steal	16%
Hard to infiltrate/more secretive	10%
More adventurous	5%
More sophisticated	5%
Show little remorse	5%
Smaller group of individuals	5%
Work in large groups	5%
TOTAL RESPONDENTS	**19**

NOTE: "Don't know" and blank responses not included. Percentages based upon multiple responses.

OPINIONS REGARDING AUTO THEFT REDUCTION STRATEGIES

Criminal Justice Efforts

RATT staff and members of the Investigative Operations Committee (IOC) (i.e., the management level of RATT) were asked two close-ended questions regarding the best approaches that could be taken by the criminal justice system and private citizens for reducing automobile theft in the region.

As Table 3.5 shows, 87 percent of RATT staff and IOC members initially interviewed agreed that stiffer penalties for offenders would be a useful step in reducing vehicle theft, with others noting the importance of citizen awareness and education (83%), stolen vehicle recovery tracking (70%), and having more computer data available (63%). Fewer than one-half agreed that publicizing the high recovery rate, more visible patrols, and other approaches would be successful approaches.

Table 3.5

USEFUL APPROACHES FOR REDUCING AUTOMOBILE THEFT
RATT Staff and IOC Initial Interviews, 1995

Stiffer penalties for offenders	87%
Citizen awareness /education	83%
Stolen vehicle recovery tracking	70%
More availability of computer data	63%
High recovery rate publicized	37%
More visible patrol	33%
Other approaches	17%
TOTAL RESPONDENTS	**30**

NOTE: Percentages based upon multiple responses.

Citizen Efforts

When asked how citizens could contribute to reducing vehicle theft, 100 percent of RATT staff and IOC members agreed that the use of a kill switch is a useful preventative technique (Table 3.6). In addition, a large percentage of respondents also felt that locking car doors (89%), using a steering wheel lock device (89%), Neighborhood Watch (85%), parking in garages (85%), parking in well-lit areas (70%), using a car alarm (70%), and not leaving valuables in the car (67%) are other helpful techniques.

Table 3.6

SUCCESSFUL CITIZEN ACTIONS TO REDUCE VEHICLE THEFT
RATT Staff and IOC Initial Interviews, 1995

Using a kill switch	100%
Locking their car	89%
Using a steering wheel lock device	89%
Neighborhood Watch	85%
Parking in garages	85%
Parking in well-lit areas	70%
Using a car alarm	70%
Not leaving valuables in their car	67%
Using a car cover	30%
Other ways	33%
TOTAL RESPONDENTS	**27**

NOTE: "Don't know" and blank responses not included. Percentages based upon multiple responses.

How to Educate the Community

When asked how the community could be most effectively educated regarding vehicle theft prevention, individuals initially interviewed noted that information should be broadcast by the media (86%), shared at neighborhood meetings in high theft areas (81%), shared at crime prevention meetings (71%) and publicized in crime prevention brochures distributed with vehicle registrations (71%) (not shown). An additional 19 percent noted other methods such as involving insurance companies to a greater degree, posting flyers and posters, working with cargo companies, and having booths at fairs and other local events.

The Role of RATT in Crime Prevention Efforts

Staff members were asked during the follow-up interview to described RATT's role in crime prevention and education, as well as to offer their input in how this role should change in the future. Despite the fact that crime prevention and education are seen as important components of reducing automobile theft, 32 percent of those interviewed felt that RATT has no role in crime prevention and education, with an additional 41 percent characterizing this role as very small or sporadic (not shown). Others characterized their responsibilities as including public education (32%), sharing information with the media (27%), educating other law enforcement officers (14%), and attending crime prevention meetings (9%).

While 41 percent of respondents felt the nature of this crime prevention role should not change, 36 percent said that it should, 14 percent that it should be modified slightly, and ten percent said they were not sure of the role or whether it should be changed. Of the 11 individuals who felt some amount of change was necessary, six felt that the amount of crime prevention the task force does should be reduced, four felt that one specific spokesperson should be designated, three felt there should be more public service advertisements, and one felt that an 800-number should be set up (not shown).

COMPARISON OF RATT WITH TRADITIONAL LAW ENFORCEMENT RESPONSE

A sample of motor vehicle thefts reported during FY 1993-94 was selected through the Automated Regional Justice Information System (ARJIS). This random sample of 823 cases investigated through the traditional law enforcement response was compared to all automobile theft cases (194) investigated by the RATT team in the same time period. There were a total of 338 vehicles and 209 suspects involved in RATT cases (i.e., an average of 1.75 vehicles and 1.08 suspects per case). Over one-half of these cases (56%) involved automobile theft, 35 percent the recovery of a vehicle only, and ten percent other types of vehicle-theft situations (e.g., theft of vehicle parts). For the comparison group, there were 845 vehicles and 1,005 suspects involved (i.e., an average of 1.03 vehicles and 1.24 suspects per case). These comparison cases were primarily composed of automobile thefts (98%), with one percent of the sample involving the recovery of a vehicle only, and less than one percent dealing with other types of situations (not shown). The fact that RATT cases involved an average of more cars per case reflects their focus on "rings." This focus is not evident in average suspects per case because many cases are referred by other agencies with few leads, which lowers the chances for suspect identification.

With data collected from arrest and investigation reports, as well as prosecutor and court records, a number of research objectives were addressed. First, case characteristics relating to the suspect and the type of vehicle stolen for the two approaches were compared. Second, differences between the two types of investigative approaches (e.g., case identification and investigative techniques) were outlined. Third, the success of the investigations was compared in terms of vehicle recovery and the number and type of arrests, charges filed, and convictions associated with a given case.

It was expected that the types of investigative techniques would vary by type group (i.e., RATT versus traditional law enforcement response) because RATT targets different types of cases than traditional auto theft investigators. Further, the researchers expected that RATT cases would involve higher conviction rates and stiffer penalties than traditional auto theft cases.

Case Characteristics

Suspect Characteristics. As Table 3.7 shows, most automobile theft suspects in the San Diego region were male for both RATT and comparison cases (86% and 83%, respectively). This information is based upon the number of suspects rather than the number of cases. White suspects were significantly more likely to be associated with cases investigated by RATT (47% versus 29% for comparison cases). Additionally, while suspects 18 and under represented 27 percent of the suspects in the comparison group, only one in 20 (5%) of suspects involved in RATT cases fell in this category. It appeared that suspects in cases investigated by the RATT team tended to be older, with 22 percent over the age of 35 (compared to 9% of suspects in comparison cases). This age difference may reflect the fact that RATT primarily targets countywide vehicle theft operations and the more "sophisticated" criminal, rather than joyriders or opportunists.

Table 3.7

SUSPECT CHARACTERISTICS BY CASE TYPE
RATT Evaluation, San Diego Region, FY 1993-94

	RATT	Comparison
Suspect Gender		
Male	86%	83%
Female	14%	17%
Suspect Race[1]		
Black	4%	16%
White	47%	29%
Hispanic	39%	49%
Other	10%	6%
Suspect Age[1]		
Under 18	5%	27%
18 to 24	41%	34%
25 to 35	32%	31%
Over 35	22%	9%
TOTAL	**182 to 206**	**844 to 989**

[1] *Differences significant at .05 level.*

NOTE: Cases with missing information are excluded. Percentages may not equal 100 due to rounding.

Vehicle Characteristics. With respect to the type of vehicle stolen, it is interesting to note that for both RATT and comparison cases, older vehicles (i.e., those with a model year of 1980 or prior) were the least likely to be involved in either RATT or comparison cases during the time period investigated (14% and 20%, respectively) (Table 3.8). These data are based upon the number of stolen vehicles involved rather than the number of cases. RATT cases were significantly more likely to involve stolen vehicles with more recent model years. That is, 27 percent of the stolen vehicles involved in RATT cases had model years of 1990 through 1994, compared to only 21 percent of the stolen vehicles in comparison cases. In addition, 41 percent of the stolen vehicles in RATT cases had model years between 1985 and 1989, while only 34 percent of the stolen vehicles in comparison cases fell into this category. This finding contradicts the information obtained during interviews with RATT management and staff, illustrating the value of analysis.

Table 3.8

AGE OF STOLEN CAR BY CASE TYPE
RATT Evaluation, San Diego Region, FY 1993-94

Model Year	RATT	Comparison
1990 or newer	27%	22%
1985 – 1989	40%	34%
1980 – 1984	18%	24%
Older than 1980	14%	20%
TOTAL	**336**	**845**

NOTE: Differences significant at .05 level. Cases with missing information excluded. Percentages may not equal 100 due to rounding.

Case Investigations

Case Identification. As expected, the process of identifying cases for investigation differed remarkably from the RATT approach compared to more traditional law enforcement methods (Table 3.9). For the RATT cases, investigations usually originated within the team, either through referrals (49%) or through detectives on the team (27%). Other sources of information involved in RATT case investigation included private citizens (14%) and confidential informants (10%). On the other hand, comparison cases were identified primarily through general investigation following the report of a stolen vehicle by a citizen (88%), with other identification sources including patrol officers (8%), private citizens (2%), RATT referrals (1%), and other methods (less than 1%).

Table 3.9

CASE IDENTIFICATION BY CASE TYPE
RATT Evaluation, San Diego Region, FY 1993-94

	RATT	Comparison
RATT Referral	49%	1%
RATT Detective	27%	0%
Private Citizens	14%	2%
Confidential Informant	10%	0%
General Investigation	0%	88%
Patrol Officers	0%	8%
Other Sources[1]	0%	<1%
TOTAL	**181**	**822**

[1] Other sources include officer knowledge and U.S. Border Patrol.

NOTE: Cases with missing information are excluded. Percentages may not equal 100 due to rounding.

Once a case was identified, the strategies utilized by the two approaches also varied to some degree (Table 3.10). While officers involved in both RATT and comparison cases utilized the San Diego Users Network (SUN) database quite frequently, members of the RATT team appeared to use other databases more frequently (i.e., the Department of Motor Vehicles (DMV), District Attorney's (DA), Automated Regional Justice Information System (ARJIS), and National Insurance Crime Bureau (NICB) databases). However, the comparison group was more likely than RATT to use the California Law Enforcement Telecommunication System (CLETS). Additionally, while other investigative techniques (such as cameras, surveillance, informants, arrest warrants, consensual searches, and financial/business records) were used in a number of RATT cases, they were virtually absent from investigations conducted by the comparison group.

Table 3.10

INVESTIGATIVE STRATEGIES BY CASE TYPE
RATT Evaluation, San Diego Region, FY 1993-94

	RATT	Comparison
San Diego Users Network (SUN) database	83%	90%
California Law Enforcement Telecommunication System (CLETS) database	58%	98%
Cameras/photographs	45%	8%
Department of Motor Vehicles (DMV) database	42%	3%
District Attorney's (DA) database	28%	<1%
Automated Regional Justice Information System (ARJIS) database	23%	6%
National Insurance Crime Bureau (NICB) database	19%	0%
Surveillance	18%	1%
Marshal database	14%	1%
Utilizing informants	13%	<1%
Other databases[1]	12%	6%
Arrest warrants	11%	1%
Consensual searches	11%	2%
Financial/business records	9%	<1%
Body wires	7%	<1%
Citizen complaint	7%	1%
Controlled buy(s)[2]	7%	<1%
Fourth amendment waiver searches	7%	<1%
Search warrants	7%	<1%
Video cameras	7%	<1%
Business inspections	3%	0%
Undercover inquiry	3%	0%
Other strategies	19%	9%
TOTAL	**193**	**823**

[1] *Other databases include criminal history, traffic, probation, adult institutions, and California Identification (Cal-ID), an automated database of fingerprints.*

[2] *Includes controlled buys of vehicles and vehicle parts for RATT cases and controlled buys of drugs for comparison cases.*

NOTE: Cases with missing information are excluded. Percentages based upon multiple responses.

Agency Involvement. In the course of an investigation, a number of different agencies in the region may play a role throughout the investigation. Other agencies may arrest suspects, recover vehicles, refer cases for further investigation, search probationers or parolees, serve search warrants, or provide background information. As Table 3.11 shows, a number of different agencies, both within and beyond the San Diego region, coordinated with the RATT team. In addition, a variety of agencies were also involved in the case investigated by the comparison group, including the San Diego Police Department, San Diego County Sheriff's Department, Escondido Police Department, and Oceanside Police Department. However, the proportion of cases involving coordination with an outside agency was greater for RATT than the comparison group.

Table 3.11

AGENCY COORDINATION BY CASE TYPE
RATT Evaluation, San Diego Region, FY 1993-94

	RATT	Comparison
RATT	100%	<1%
San Diego Police Department	49%	50%
Sheriff's Department	27%	30%
Other agencies[1]	16%	2%
Out of county/state/country	16%	6%
Chula Vista Police Department	14%	5%
Federal agencies[2]	12%	2%
California Highway Patrol	10%	4%
National City Police Department	9%	4%
El Cajon Police Department	8%	4%
Coronado Police Department	7%	1%
Escondido Police Department	6%	11%
National Insurance Crime Bureau (NICB)	6%	0%
La Mesa Police Department	5%	3%
Carlsbad Police Department	3%	1%
Marshal	3%	<1%
Oceanside Police Department	3%	10%
TOTAL	**194**	**823**

[1] *Other agencies include the San Diego County District Attorney and Probation Departments.*
[2] *Federal agencies include U.S. Customs, Federal Bureau of Investigations, U.S. Border Patrol, U.S. Immigration and Naturalization Service (INS), Federal parole, and the Drug Enforcement Administration.*
NOTE: Percentages based on multiple responses.

Case Outcome

Vehicle Recovery. Ninety-six percent (96%) of the RATT cases involved recovered vehicles, as did 93 percent of the cases in the comparison group. On average, RATT cases were associated with an average of 1.05 recoveries per case (with an average of .88 vehicles recovered and .19 parts), while the comparison cases were associated with an average of 1.00 recovery (with an average of 1.00 vehicle recovered and .00 parts) (not shown).

As Table 3.12 shows, there appeared to be little difference in the recovery status of the stolen vehicle by case type. This information is based upon the number of vehicles involved rather than the number of cases. While more than one-half of all recovered vehicles were released to their owners (60% in RATT and 66% in comparison cases), approximately one-third were stored or impounded (39% in RATT and 34% in comparison cases) and very few were actually destroyed (1% in RATT and less than 1% in comparison cases). Other types of property were recovered in eleven percent of RATT cases and 12 percent of comparison cases (not shown).

Table 3.12

RECOVERY STATUS BY CASE TYPE
RATT Evaluation, San Diego Region, FY 1993-94

	RATT	Comparison
Released	60%	66%
Stored/impounded	39%	34%
Destroyed	1%	<1%
TOTAL	**265**	**726**

NOTE: Cases with missing information are excluded. Percentages may not equal 100 due to rounding.

For the RATT cases, 73 percent of recovered vehicles were actually found by the RATT team, with the Sheriff's Department recovering eight percent and the San Diego Police Department recovering seven percent (Table3.13). This information is based on the number of stolen vehicles involved rather than cases. For the comparison cases, the law enforcement agencies most frequently responsible for the recovery of the vehicle were the San Diego Police Department (39%), Sheriff's Department (21%), and Oceanside Police Department (11%).

Table 3.13

RECOVERY AGENCY BY CASE TYPE
RATT Evaluation, San Diego Region, FY 1993-94

	RATT	Comparison
RATT	73%	<1%
Sheriff's Department	8%	21%
San Diego Police Department	7%	39%
El Cajon Police Department	3%	2%
Oceanside Police Department	3%	11%
California Highway Patrol	2%	4%
Chula Vista Police Department	2%	4%
Coronado Police Department	1%	1%
La Mesa Police Department	1%	7%
National City Police Department	<1%	2%
Other Agencies[1]	<1%	3%
Agency outside the county/state/country	0%	6%
TOTAL	**304**	**775**

[1] *Other agencies include the Carlsbad Police Department, U.S. Customs, U.S. Border Patrol, and U.S. Immigration and Naturalization Service (INS).*

NOTE: Cases with missing information are excluded. Percentages may not equal 100 due to rounding.

While there was little difference between the two approaches in whether a vehicle was recovered or its recovery status, there were significant differences in the condition of the vehicle at the time of the recovery. These data are based upon the number of stolen vehicles involved rather than the number of cases. Specifically, vehicles recovered in comparison cases were more likely to be driveable, compared to RATT cases (84% versus 60%, respectively) and less likely to have had their ignition altered (40% versus 54%) (not shown). In addition, as Table 3.14 shows, while one-half (50%) of all vehicles in the comparison group were recovered in the same condition as when they were stolen, only 22 percent of the vehicles in RATT cases were recovered unharmed. Vehicles recovered in RATT cases were most likely to have been vandalized (56%) or stripped (44%). Further, the vehicle identification number (VIN) was more likely to have been tampered with in RATT cases (24% in RATT versus 2% in comparison cases) and the license plate was more likely to have been removed (44% in RATT versus 12% in comparison cases) (not shown). Following this general pattern of results, RATT vehicles were more likely to be sold or used for their parts or accessories, when contrasted to the comparison cases (Table 3.15). These findings suggest that RATT does target more sophisticated thieves than the comparison group.

Table 3.14

CONDITION OF RECOVERED VEHICLE BY CASE TYPE
RATT Evaluation, San Diego Region, FY 1993-94

	RATT	Comparison
Vandalized	56%	35%
Stripped	44%	20%
Engine/transmission stripped	24%	2%
Same condition	22%	50%
Body metal stripped	20%	4%
Wrecked	11%	12%
Other condition	2%	0%
Burned	1%	<1%
TOTAL	**262**	**739**

NOTE: Cases with missing information are excluded. Percentages based upon multiple conditions.

Table 3.15

SUSPECT VEHICLE USE BY CASE TYPE
RATT Evaluation, San Diego Region, FY 1993-94

	RATT	Comparison
Sale of vehicle/parts	61%	6%
Parts/accessories	44%	6%
Personal use	33%	51%
Commit another offense	18%	44%
Other	2%	2%
TOTAL	**206**	**188**

NOTE: Based upon multiple uses. Cases with missing information are excluded.

Arrest of a Suspect. For cases in which a suspect had been identified, the likelihood of an arrest being made was significantly greater when the RATT team targeted the case. Specifically, while 59 percent of the RATT cases resulted in the arrest of a suspect (118), only 46 percent of the comparison cases did (432). Further, while RATT cases involved an average of 4.18 charges against the suspect, comparison cases only involved 3.21. In addition, while a suspect was identified in each of the RATT cases, no suspect was identified in 23 percent of the comparison cases. RATT and comparison cases were similar with respect to the proportion of arrests with at least one drug-related charge (17% for RATT and 19% for the comparison group) or weapons offense involved (5% for RATT and comparison cases). The proportion of suspects with at least one auto theft charge involved at arrest was significantly higher for the comparison group (96% of 407 cases), compared to RATT investigations (73% of 116 cases) (not shown). These differences are indicative of the fact that RATT attempts to reduce the activity of auto theft rings that can involve other types of criminal activity in addition to stealing vehicles (e.g., possession of weapons).

The majority of arrests for RATT cases were made by the RATT team (46%), with 19 percent being made by the San Diego Police Department, and nine percent by the Sheriff's Department (Table 3.16). For the comparison cases, the Sheriff's Department was the most frequent arresting agency (35%), followed by the San Diego Police Department (18%) and Oceanside Police Department (16%).

Table 3.16

ARRESTING AGENCY BY CRIME TYPE
RATT Evaluation, San Diego Region, FY 1993-94

	RATT	Comparison
RATT	46%	0%
San Diego Police Department	19%	18%
Sheriff's Department	9%	35%
Chula Vista Police Department	5%	7%
Other agencies[1]	7%	1%
California Highway Patrol	3%	2%
El Cajon Police Department	3%	2%
National City Police Department	3%	1%
Oceanside Police Department	3%	16%
La Mesa Police Department	2%	12%
Carlsbad Police Department	0%	1%
Coronado Police Department	0%	<1%
Agency outside the state/country	0%	4%
TOTAL	**118**	**432**

[1] *Other agencies include Carlsbad Police Department.*

NOTE: Cases with missing information are excluded. Percentages may not equal 100 due to rounding.

As Table 3.17 shows, for both RATT and comparison cases, "felony theft" (which excludes motor vehicle theft) was most frequently the highest arrest charge (64% and 49%, respectively). However, while "motor vehicle theft" represented approximately one-third (31%) of highest arrest charges for the comparison cases, it only represented eleven percent of highest arrest charges in RATT cases. The involvement of defendants in other types of criminality may be responsible for the highest charge being something other than auto theft for RATT cases. This difference could also be related to the involvement of prosecutors on the team who provide guidance in collecting evidence and determining charges. Other charges for both types of cases included felony narcotics charges, burglary, and other misdemeanor and felony charges.

Table 3.17

HIGHEST ARREST CHARGE BY CASE TYPE
RATT Evaluation, San Diego Region, FY 1993-94

	RATT	Comparison
Felony theft	64%	49%
Motor vehicle theft	11%	31%
Felony narcotics	9%	3%
Burglary	4%	5%
Felony weapons	3%	0%
Other misdemeanor[1]	3%	2%
Other felony[2]	3%	1%
Felony parole/probation violation	2%	0%
Robbery	0%	5%
Felony assault	0%	4%
TOTAL[3]	**116**	**407**

[1] *Other misdemeanor includes miscellaneous traffic violations, other theft, joy riding, marijuana and other drug charges, driving under the influence, and assault and battery.*

[2] *Other felony includes homicide, assault, sexual assault, forgery, escape, kidnapping, and arson.*

[3] *Does not include cases arrested by or transferred to out-of-county agencies.*

NOTE: Cases with missing information are excluded. Percentages may not equal 100 due to rounding.

Filing of Charges. In addition to differing in terms of whether or not an arrest was made, the comparison groups also varied in whether or not the charges were filed and in how many charges were filed. Specifically, while charges were filed in 82 percent of RATT cases (mean number of charges 8.12), only 39 percent of the comparison cases involved charges being filed (mean number of charges 3.38). The inclusion of prosecutors on the RATT team is probably responsible for the higher filing rate. There was little difference in the percentage of cases which involved filing at least one drug charge (13% in RATT versus 16% in comparison cases) or at least one weapons offense (9% in RATT versus 6% in comparison cases). However, filings with at least one auto theft charge were significantly more likely to occur in the comparison group (92%) compared to RATT cases (69%) (not shown).

As Table 3.18 shows, "felony theft" was the most frequent highest filed charge (in addition to being the most frequent charge at arrest) for both types of cases (73% for RATT and 52% for comparison cases). However, while 18 percent of cases in the comparison group resulted in "motor vehicle theft" listed as the high charge, this was only true for four percent (4%) of RATT cases.

Table 3.18

HIGHEST CHARGE FILED BY CASE TYPE
RATT Evaluation, San Diego Region, FY 1993-94

	RATT	Comparison
Felony theft	73%	52%
Burglary	7%	9%
Felony narcotics	7%	4%
Felony weapons	4%	<1%
Motor vehicle theft	4%	18%
Misdemeanor[1]	3%	6%
Other felony[2]	2%	1%
Robbery	0%	5%
Felony assault	0%	4%
TOTAL	**107**	**278**

[1] *Misdemeanor includes assault and battery, vandalism, miscellaneous traffic violations, joy riding, marijuana and other drug charges, and driving under the influence.*

[2] *Other felony includes forgery and kidnapping.*

NOTE: Cases with missing information are excluded. Percentages may not equal 100 due to rounding.

Case Disposition. When the same Deputy District Attorney prosecutes a case from the beginning through final disposition, the process is streamlined and the likelihood of conviction is increased. This technique is referred to as vertical prosecution. Vertical prosecution was significantly more likely to occur in RATT cases (86%) than comparison cases (29%). This difference is not surprising since RATT was designed to include vertical prosecution. However, case type was not related to whether or not a plea bargain was met between the prosecution and defense (85% for RATT and 78% in comparison cases).

Cases investigated by the RATT team were more likely to result in guilty pleas or verdicts (96%), compared to the comparison cases (91%), but this difference did not reach statistical significance (not shown). In addition, while the relative frequency differed somewhat, RATT and comparison cases were similar in that the two most frequent conviction charges were "motor vehicle theft" and "felony theft", based upon highest charge (Table 3.19). Other charges included burglary, felony narcotics, felony weapons, felony assault, other misdemeanor and felony charges, and robbery. There was little difference in the percentage of cases involving at least one drug-related conviction (8% for RATT versus 8% for comparison cases) or at least one weapons-related conviction (4% for RATT versus 2% for comparison cases). However, convictions involving at least one auto theft charge were significantly more likely in comparison cases (82%) than RATT cases (65%). Finally, while RATT cases were associated with a mean of 1.94 charges at conviction, convictions in comparison cases were associated with significantly fewer (1.26). These results are similar to the pattern of charges at arrest and filing.

Table 3.19

HIGHEST CONVICTION CHARGE BY CASE TYPE
RATT Evaluation, San Diego Region, FY 1993-94

	RATT	Comparison
Motor vehicle theft	43%	52%
Felony theft	37%	18%
Burglary	8%	7%
Felony narcotics	7%	3%
Felony weapons	2%	1%
Felony assault	1%	3%
Other misdemeanor[1]	2%	9%
Other felony[2]	1%	<1%
Robbery	0%	4%
Total	**103**	**254**

[1] *Other misdemeanor includes vandalism, mischief, trespassing, miscellaneous traffic violations, assault and battery, other theft, joy riding, marijuana and other drug charges, and driving under the influence.*

[2] *Other felony includes kidnapping.*

NOTE: Cases with missing information are excluded.

Differences were also found between the two types of cases in the time convicted defendants were ordered to serve, with RATT defendants ordered to serve an average of 20.30 months compared to the defendants in the comparison group who were ordered to serve an average of 15.6 months. However, these differences were not statistically significant.

PERCEPTION OF RATT SUCCESS

Given the previously-discussed findings from official record data, the success of RATT in combating auto theft is explored further through opinions provided by RATT staff and management regarding reasons for success, impact of RATT activities on vehicle theft, effectiveness of the team, factors impeding success, and areas for improvement.

Reasons Why a Task Force is More Effective Than More Traditional Responses

During initial interviews, individuals were asked a close-ended question regarding why they felt that a multi-agency task force approach is more effective than traditional law enforcement (Table 3.20). One hundred percent (100%) of respondents agreed that a task force approach is more aggressive and proactive, making it more effective than the typical law enforcement response. In addition, 90 percent or more noted the greater availability of resources, the role of the District Attorney in compiling a case, vertical prosecution, collaborative efforts between prosecutors and detectives, greater availability of manpower, shared common goals, better communication, and higher arrest, prosecution, and conviction rates as benefits of the task-force approach.

Table 3.20

PERCEPTION OF WHY A TASK FORCE IS MOST EFFECTIVE
RATT Staff and IOC Initial Interviews, 1995

More aggressive/proactive	100%
Greater resources	97%
Role of District Attorney in compiling a case	97%
Vertical prosecution	97%
Collaboration between prosecutors and detectives	93%
More manpower	93%
Share common goals	93%
Better communication	90%
Higher arrest, prosecution, and conviction rates	90%
Stiffer punishment for the offender	87%
Working at the same location	87%
More officer training	63%
Personal dynamics of staff	63%
Access to more databases	60%
Deterrence to potential thieves	60%
Strong leadership	60%
Other reasons	27%
TOTAL RESPONDENTS	**30**

NOTE: Percentages based upon multiple responses.

The Impact of RATT on Automobile Theft in the Region

Members of the RATT team and IOC were asked during the initial interview how likely they thought success in various areas would be. They were asked to make this judgement for each area on a three-point scale, where 1 was "very likely", 2 was "less likely", and 3 was "least likely." As shown by the mean ratings in Table 3.21, the prosecution of a greater number of defendants, increased law enforcement coordination, positive change in other areas (e.g., more intelligence regarding cargo theft), fewer "chop shops." and fewer motor vehicle thefts were seen as areas where success was most likely.

For the follow-up interview, members were asked to rate which characteristics of the auto theft market had been impacted by the activities of the task force in the past year on the same three-point scale. These individuals felt that other areas (e.g., a higher level of concern about auto theft among patrol officers and reduced insurance fraud) had been most impacted, followed by more defendants being prosecuted, fewer motor vehicle thefts, increased law enforcement coordination, and fewer "chop shops."

Table 3.21

PERCEPTION OF THE IMPACT OF RATT
RATT Staff and IOC Initial and Follow-up Interviews, 1995 and 1996

	Initial[1]	Follow-up[2]
More defendants prosecuted	1.13	1.20
Increased law enforcement coordination	1.17	1.47
Other areas	1.17	1.00
Fewer "chop shops"[3]	1.22	1.52
Fewer motor vehicle thefts	1.33	1.23
Fewer vehicles crossing the border	2.23	2.35
Increased citizen awareness	2.43	2.30
Increased car manufacturers awareness	2.55	2.52
Fewer vehicles stripped	n/a	2.03
Fewer rings	n/a	1.70
TOTAL RESPONDENTS	**6 - 30**	**2 - 30**

[1] *Respondents on the initial interview were asked how likely each outcome was on a 3-point scale, with 1 being "most likely," 2 "less likely," and 3 "least likely." These data reflect the mean response.*

[2] *For the follow-up interview, respondents were asked what areas had been impacted on a 3-point scale, with 1 being "most impacted," 2 "less impacted," and 3 "least impacted." These data reflect the mean response.*

[3] *Only IOC respondents were asked to rate this item on the initial interview.*

The Effectiveness of RATT

RATT staff were asked both initially and at follow-up to rate RATT on a variety of characteristics on a 5-point scale, with 1 designated as "very good," 2 as "good," 3 as "fair," 4 as "poor," and 5 as "very poor." As Table 3.22 shows, the RATT components which garnered the highest ratings initially included the effectiveness of investigations (95%), the effectiveness of arrests (90%), the effectiveness of convictions (90%), the effectiveness of prosecutions (90%), the location and set-up of the office (86%), and RATT staff morale (86%). Areas with low ratings included the deterrence capabilities of the task force, training opportunities, and mapping capabilities.

Comparing the results of the follow-up interview with responses at the beginning of the study shows that individuals expressed greater satisfaction with the availability of computer databases, mapping capabilities, and other resources as time passed. However, on the negative side, only 36 percent of respondents, compared to 86 percent of those interviewed initially, now rated staff morale as high. In addition, the effectiveness of arrests, investigations, and convictions were also noted as being very good or good, though the percentage noting the effectiveness of prosecutions dropped somewhat.

Table 3.22

COMPONENTS OF RATT RATED AS "VERY GOOD" OR "GOOD"
RATT Staff Initial and Follow-up Interviews, 1995 and 1996

	Initial	Follow-up
Effectiveness of investigations	**95%**	**86%**
Effectiveness of arrests	**90%**	**91%**
Effectiveness of convictions	**90%**	82%
Effectiveness of prosecutions	**90%**	73%
Location/set-up of office	86%	82%
RATT staff morale	86%	36%
Coordination with other agencies	76%	n/a
Availability of resources	71%	**91%**
Availability of computer databases	62%	**95%**
Number of staff	57%	68%
Leadership	52%	55%
Deterrence to future auto-thieves	43%	59%
Availability of training	38%	32%
Availability of mapping capabilities	14%	50%
Coordination with members of own team	n/a	77%
Coordination with other task force teams	n/a	59%
Coordination with outside investigating agencies	n/a	41%
Coordination with outside non-investigating agencies	n/a	41%
TOTAL RESPONDENTS	**21**	**22**

Factors Impeding Success

RATT staff were asked a close-ended question regarding what factors, if any, impeded the ability of the task force to reduce motor vehicle theft (Table 3.23). Most striking from the comparison between the initial and follow-up interview of RATT staff is that, while concerns regarding a lack of cooperation between outside agencies, staff turnover, and bureaucracy remained a concern at both time periods, initial concerns about equipment shortages, insufficient databases, and insufficient money for "buys" did not continue to be issues one year later. In addition, while there was less of a manpower shortage on the task force than was expected, there were greater shortfalls for each team, and insufficient information sharing was a bigger problem than originally anticipated.

Table 3.23

FACTORS IMPEDING SUCCESS OF THE PROGRAM
RATT Staff Initial and Follow-up Interviews, 1995 and 1996

	Initial	Follow-up
Equipment shortage	67%	18%
Lack of cooperation with outside agencies	62%	55%
Upper management/leadership/bureaucracy	57%	54%
DA changing policies concerning motor vehicle theft arrests	52%	45%
Personality conflicts	52%	36%
Personnel turnover	48%	50%
Insufficient "buy" money	43%	4%
Information not available from databases	38%	9%
Efforts duplicated in outside agencies	33%	23%
Lack of cooperation with other in-house teams	33%	41%
Manpower shortage within team	32%	9%
Manpower shortage within task force	29%	41%
Insufficient information sharing between teams	24%	45%
Other factors	24%	23%
Lack of goal or mission	19%	14%
Not working as a team	19%	32%
Limited evidence for court hearings	10%	9%
TOTAL RESPONDENTS	**21**	**22**

NOTE: Percentages based upon multiple responses.

For the initial interview, the ARJIS system was most frequently cited by RATT staff as a database with insufficient information (7), followed, by CLETS (4), and Department of Motor Vehicles (4). During follow-up interviews, only two individuals noted inadequate information available from databases as impacting their efforts to reduce auto theft.

Other concerns voiced by respondents during the initial interview included the lack of a mapping system, in-house policies, the need for vehicle color in the databases, the difficulty of tracking recovered vehicles across different jurisdictions, and insufficient information. For the follow-up interview, other problems which were discussed included the lack of training for new detectives, the inflexible work hours, the fact that officers were not held accountable for their actions, and that funds were not available for officers to work overtime.

There was a lack of agreement for RATT staff, both on the initial interview and at follow-up, regarding what constituted the biggest obstacle to success. At the initial interview, a lack of cooperation with outside agencies (20%), equipment shortages (15%), and changes by the District Attorney (15%) were the most frequent responses. For the follow-up interview, the modal response was regarding the fact that upper management and bureaucracy impeded success (29%), with others citing the lack of cooperation with outside agencies (14%), and personnel turnover (14%) (not shown.)

Areas for Improvement

Respondents (i.e., RATT staff and management) were asked during both interviews if they felt that specific areas of their operation could be improved or modified to be more effective (Table 3.24). ***Initially***, the most frequent suggestion was for the addition of mapping capabilities (80%), with others frequently noting the necessity of having more computer databases (73%), receiving more funding (60%), providing officers with more training (57%), collaborating with more outside agencies (53%), coordinating with local police (53%), and making the task force known to the public (53%). ***One year later***, members placed more emphasis on collaborations with outside agencies, and less emphasis on computer mapping capabilities, computer databases, increased funding, and coordination with local police, compared to their responses during the initial interview.

Table 3.24

WAYS TO IMPROVE THE EFFECTIVENESS OF RATT
RATT Staff and IOC Initial and Follow-up Interviews, 1995 and 1996

	Initial	Follow-up
Having computer mapping capabilities	80%	48%
Having more computer databases	73%	27%
Receiving more funding	60%	23%
Providing officers with more training	57%	53%
Collaborating with more outside agencies	53%	77%
Coordinating with local police[1]	53%	25%
Making task force known to public	53%	47%
Having less staff turnover	50%	47%
Having more resources	50%	23%
Having more manpower	47%	33%
Providing more crime prevention/educational activities	47%	43%
Other ways	20%	30%
Having a more defined chain of command	17%	34%
TOTAL RESPONDENTS	**30**	**8 - 30**

[1] RATT staff were not offered this close-ended option on the follow-up interview.
NOTE: Percentages based upon multiple responses.

Because both RATT staff and management team members were asked identical questions initially and at follow-up, comparisons can be made between the two groups (not shown). The IOC members placed a much greater emphasis on making the task force known to the public and providing more crime prevention and education activities. RATT management may want to clarify their priorities for staff to deal with this discrepancy in views.

SUMMARY

Based upon input provided by RATT staff and management during interviews by the research team, auto theft rings in the San Diego region target specific geographic locations, are generally small in number of members, and typically do not involve violence. Further, their activity is not restricted to any specific time of day, and a variety of vehicle types are targeted. These opinions provide justification for the development of the Crime Analysis and Mapping System (CAMS) which was designed to pinpoint geographic concentrations of motor vehicle thefts. However, interview respondents also indicated that auto thefts were fairly evenly distributed geographically across the region. The applicability of CAMS to RATT investigations will be examined further in Chapter 5.

Useful approaches for reducing auto theft specified during interviews included not only stiffer penalties for offenders, but also citizen awareness and education, the ability to track the recovery of stolen vehicles, and greater availability of computer data. This grant was originally designed to improve the last two approaches by developing the Computer Analysis and Mapping System (CAMS) and examining the relative effectiveness of different enforcement strategies, including crime prevention, through an experimental design. However, interview results also indicated that RATT has ***no*** or ***a very limited*** role in crime prevention and public education and that this role should ***not*** change. This view curtailed the experimental phase of the grant in that the impact of crime prevention strategies could not be tested. The management group of RATT placed greater emphasis on the value of crime prevention and public education, indicating a need for clarification in priorities by management for staff.

The examination of RATT investigations compared to cases handled through traditional law enforcement channels revealed that RATT cases were more likely to involve Caucasians and suspects over the age of 35. In addition, it appeared that vehicles in comparison cases were generally recovered in better condition, compared to vehicles involved in RATT investigations. For example, stolen vehicles investigated by the RATT team were significantly less likely to be driveable and also more likely to have had their ignition altered. This information, coupled with the fact that more vehicles, on average, were associated with RATT cases, reflects the fact that RATT's primary target is the organized theft ring, which is composed of more sophisticated "career" criminals.

Analyses of outcome measures showed that an arrest of a suspect was significantly more likely to occur in RATT cases and that the number of arrest charges per suspect was also significantly greater. As the cases flowed through the criminal justice system, this pattern remained constant, with the probability of charges being filed significantly greater for RATT cases. These differences could be related to the fact that prosecutors are integral members of the RATT team and provide guidance in collection of evidence throughout the investigation. However, while vertical prosecution was utilized more frequently in RATT cases, the difference in conviction rates and

the rate of plea-bargaining was not significantly different. The similarity in these rates may be due to the method used in selecting the sample for the comparison group. Specific information regarding the suspect was required to be included as a comparison case. As previously discussed in Chapter 2, this criterion was necessary to create the most comparable sample. It may be that this level of intelligence in motor vehicle theft cases results in high conviction rates, confounding the results of the study.

Though many successes were mentioned during interviews with RATT staff and management (e.g., greater prosecution of defendants, greater law enforcement coordination, reduction in number of "chop shops" and vehicles stolen), the lack of difference found between RATT and comparison cases in conviction and plea-bargaining rates require further exploration. According to the staff and management members interviewed, lack of cooperation between outside agencies, staff turnover, and bureaucracy impacted the ability of the task force to be effective. Staff morale also declined during the study period. However, following the implementation of CAMS, it seems that original impediments related to deficiencies in automated data and resources were overcome, leaving operational and management issues to be addressed. Based upon views shared during interviews, RATT effectiveness could be increased by improving training for detectives (particularly new members), clearly delineating expectations for the team, holding members accountable for meeting these expectations, and building cooperation (i.e., a team spirit) throughout the task force.

CHAPTER 4

DEVELOPMENT OF THE CRIME ANALYSIS AND MAPPING SYSTEM (CAMS)

DEVELOPMENT OF THE CRIME ANALYSIS AND MAPPING SYSTEM (CAMS)

This chapter addresses the following research objective: **develop an automated geographic-based information system, containing detailed data on motor vehicle thefts, salvaged cars, tow companies, salvage yards, and other related data, to be used to analyze crime problems and target investigations and public education campaigns.**

The Crime Analysis and Mapping System (CAMS) was developed by SANDAG staff using ArcView2, designed by ESRI (Environmental Systems Research Institute, Inc.), which is an easy-to-use desktop mapping and geographic information system that can access existing data from multiple external source files (e.g., database managers, spreadsheets, ASCII files) and across networks from different systems. This PC-based software package was used to ensure that this system was portable and available for use by other law enforcement jurisdictions.

To the extent possible, data for CAMS were obtained from existing databases to avoid duplicate entry. The Automated Regional Information System (ARJIS) provides countywide information on vehicle thefts reported, as well as vehicles recovered. This information was downloaded into CAMS through the ARJIS Crime Analysis Statistical System (CASS). The geographic data maintained by the Regional Urban Information System (RUIS) and originally designed by SANDAG provided the backdrop for the information downloaded from ARJIS through CASS. Information regarding salvage yards, tow companies, and other related businesses was manually entered into CAMS. Updated information on vehicle identification numbers (VIN), condition of vehicle upon recovery, and type of cargo stolen was entered into CAMS on an as-needed basis. The data elements included in CAMS were presented in Table 2.3, Chapter 2.

SYSTEM CAPABILITIES

The original functionality of ArcView2 was expanded in CAMS to include the following capabilities: mapping of auto theft and recovery locations, conducting cluster analysis, connecting thefts and associated recoveries, providing detailed information regarding incidents on the maps (e.g., reporting agency, type of vehicle, make, model, license plate, color, city, victim information, location of theft and/or recovery, suspect information, date and time of occurrence, recovery status, and recovering agency), and importing new data into the system. Each of these functions is described below.

Series mapping allows incidents to be viewed based upon selected criteria (e.g., jurisdiction, date/time, vehicle characteristics).

The **cluster analysis** function identifies areas of selected incidents by grouping incidents according to their proximity to one another (e.g., hot spots). For example, this function can highlight areas with concentrations of vehicles recovered in a stripped condition to direct enforcement efforts regarding "chop shop" activity.

The **linking** function displays lines connecting the location where the vehicle was stolen to the area where it was recovered. The officers were interested in this type of analysis because they believed that auto thieves in certain areas of the region primarily used stolen vehicles for transportation. That is, an individual steals a vehicle in one city, travels to their destination, dumps the car nearby, and repeats the process to return home.

The **identify tool** allows all data associated with a selected incident to be displayed in detail. The data elements included in the database that can be displayed through this function include details about the vehicle, victim, recovery, and suspect.

The **import** function is used to import new data into CAMS.

Detailed documentation on this customized system is located in Appendix E.

CHALLENGES TO CAMS DEVELOPMENT

There were a number of challenges during the development of the crime analysis and mapping system. As the procedures to import data into ArcView2 were designed, it became clear that the information, originally intended for operational use through ARJIS, was not uniform.

- Many data elements included invalid information (e.g., a missing or incorrect address). This situation was particularly problematic for the CAMS design team as they developed methods for importing the data into the mapping system. As a result, many cases with invalid information were not imported into CAMS, particularly when the geographic information was invalid. Obviously, both missing cases and invalid data impacted the analysis. As has been asserted in the literature regarding the effectiveness of mapping systems, data must be complete, accurate, and timely in order for the analysis to be valuable. If quality information is not produced by the mapping system, the systems may not be used at all (Rich, 1995). As will be discussed in the next chapter, the research project was adversely impacted by incomplete data.

- The Avenue software utilized by ArcView2 did not meet the needs of the project as efficiently as originally anticipated. Therefore, the CAMS design team utilized other types of software (e.g., Visual Basic). This change substantially delayed the implementation of CAMS and subsequent problem identification for implementation of the experimental design.

- Data on recoveries were not consistently compiled, primarily because vehicles are often recovered by an agency other than the one reporting the theft. RATT provided incentive money to each agency so that all agencies could use similar methods to indicate recovering vehicles for their own agency, as well as those recovered for other agencies. Participation was voluntary and some agencies delayed their involvement.

- The make and model information was not consistently entered into ARJIS.

Further time period problems occurred because the downloading of data was not complete for each incident. For example, as illustrated in Figure 4.1, when data are imported into CAMS for April and May of 1996, vehicles stolen prior to April 1, 1996 will not be part of the data set, even though the recovery for that vehicle may appear since it occurred during the time period. This problem has implications for the linking function because the thefts and recoveries cannot be linked unless they are captured in the data set.

Figure 4.1

TIME PERIOD ISSUE

		<---------- Data Set ---------->		
	Theft	Recovery		
<--- 2/96 --->	<--- 3/96 --->	<--- 4/96 --->	<--- 5/96 --->	<--- 6/96 --->

- As with all new technology, the CAMS system developed problems periodically which the design team addressed with additional training, modest revisions to the software, and recommendations for future versions of the software.

In addition, training needs regarding the capabilities of a geographic mapping system were underestimated. After the system was installed, the crime analyst hired through the grant was trained on the mechanics of each function within CAMS. As maps were generated following this training, it became evident that additional training was needed in the relevance of each function to RATT investigations. For example, as the analyst generated maps, there were complaints that multiple incidents at a single location (e.g., a shopping mall) were displayed as a single point on the map. The cluster analysis function of CAMS is designed to highlight concentrations of incidents. By educating the analyst about how to identify concentrations of incidents through the cluster function, the maps became more meaningful.

KNOWLEDGE, USE OF, AND SATISFACTION WITH CAMS

Despite these limitations, the CAMS system was completed in December 1995. Follow-up interviews with RATT staff and management included questions regarding this new database. Specifically, individuals were asked if they were aware of this database, if they had previously requested any maps from the system (staff only), how the maps were used, how useful the maps were, and if they had used the system for any other types of data.

Of the 20 RATT staff who were aware that this database was available (two were unaware), more than one-half (11) had requested maps from the system in the past. When asked why they had requested this information, six said they were interested in seeing patterns in vehicle theft in the area, four said it aided them during an investigation, three said it confirmed information for them, two said they used it to give public presentations, and one each said they used it to gather

other statistics, to provide information to the patrol division, and for the evaluation. Eight of these individuals felt that the maps were useful, two said they were not useful, and one felt that they were both useful and not useful. Each of the individuals who reported some dissatisfaction with the maps noted that CAMS was not working properly at the time of their request (not shown).

All of the management team interviewed at follow-up had some knowledge of the Crime Analysis and Mapping System (CAMS). Of these nine individuals, three said that the system had been helpful, three said it had not been helpful, and two did not know if it was helpful or not. When asked how the system was helpful, all three noted that it had the potential to be very useful in the future, and one also noted that seeing the theft patterns visually was beneficial. When asked why the system was not helpful, two said that it was too large, one noted the need for more artificial intelligence, and one said it is not adequately utilized (not shown).

The usefulness of CAMS will be explored in the next chapter with respect to targeting RATT activities.

CHAPTER 5

ASSESSMENT OF TASK FORCE TACTICS

ASSESSMENT OF TASK FORCE TACTICS

This chapter examines the following research objectives.

- Determine the factors associated with successful investigations and prosecutions in vehicle theft cases investigated by RATT.
- Assess the characteristics of areas where vehicles are stolen and recovered.
- Evaluate the effectiveness of using enhanced crime analysis information to target task force enforcement efforts in specific areas in terms of reported incidents, arrests, prosecutions, and vehicles recovered in these areas.
- Test the effectiveness of public education and prevention programs to reduce motor vehicle thefts.
- Identify factors that impede or enhance the effectiveness of enforcement strategies.

Within the context of the operational challenges previously discussed in Chapter 2, three target sites were chosen to preserve the intention of the evaluation (i.e., assess the effectiveness of alternative RATT strategies in combating auto theft). The discussion that follows presents the results of these case studies. The effectiveness of the strategies implemented in the target areas is discussed, including a process evaluation documenting the strategies employed and an impact assessment of the effects of each strategy on motor vehicle related crimes, arrests, and vehicle recoveries.

TARGET AREA ONE: OPERATION HOTWHEELS

The original grant intended that target areas would be identified for evaluation purposes through the Crime Analysis Mapping System (CAMS). However, Operation Hotwheels began as a result of a local agency requesting the assistance of RATT. During the summer of 1995, officers at the Chula Vista Police Department contacted RATT regarding a disproportionate number of vehicles recovered with missing parts, indicating potential "chop shop" activity and possible operation of an auto theft ring(s) in the area. RATT teams frequently utilize anti-fencing tactics (e.g., undercover sting operations) to target and prosecute motor vehicle thieves because such tactics have been associated with identification of offenders with lengthy criminal histories who often escape police attention, high conviction rates, overall crime reductions, and return of property to original owners (Law Enforcement Assistance Administration, 1979).

> Since their inception in the early 1970s, police anti-fencing operations have gained considerable popularity within the police community. Program designers have been very creative in their ruses and recovering a great deal of property. The most popular form of anti-fencing action is the storefront operation, in which police present themselves to thieves as fences and knowingly purchase stolen property. These operations, which have come to be known as 'stings,' culminate in the recovery and return of large amounts of property and in the arrest and highly successful prosecution of many property offenders (Langworthy, 1989).

This type of covert operation seemed the best method for addressing the problem in Chula Vista.

The Operation Hotwheels project began during the target identification portion of the study and seemed very appropriate for inclusion in the research project due to the fact that this type of tactic is frequently used by RATT. This section highlights this undercover operation conducted in the City of Chula Vista by RATT's South team.

Implementation

After one month of preparation, the San Diego RATT team began a covert operation in September 1995: Operation Hotwheels. The goal of the project was to purchase stolen vehicles from individuals identified by confidential informants. A two-bedroom house with a detached garage was rented in the City of Chula Vista. Members of the San Diego Police Department and Federal Bureau of Investigation (FBI) provided technical information and surveillance equipment which was installed in the garage of the house to document transactions. Video and audio equipment were also helpful in enhancing officer safety and ensuring convictions.

Sources of Information

Individuals as sources of information are integral elements of police enforcement strategies, related to gathering intelligence. The three primary sources identified include citizens, confidential informants, and officers in allied law enforcement agencies. In RATT investigations, insurance companies, neighborhood watch groups, and businesses associated with the automotive industry are also solicited for information. Throughout Operation Hotwheels, intelligence about individuals involved in organized auto theft activity and characteristics of recoveries was gathered.

Description of Tactics/Strategies

Operation Hotwheels incorporated many tactics under the auspices of an "undercover operation." Definitions and specific descriptions of each tactic follow in alphabetical order.

Arrest Warrant Executed: The Courts issue a warrant for the arrest of a specific suspect based upon previous evidence collected. In this case, all warrants were served simultaneously during a "round-up."

Buy/Bust. A stolen vehicle is purchased by an undercover police officer or informant, followed immediately by an arrest. During Operation Hotwheels, most arrests were delayed until the

nclusion of the project. However, when suspects boasted about involvement in other types of criminality, posing a danger to the community, arrests were made immediately.

Buy/Patrol or Traffic Stop: Following contact with a suspect or purchase of a stolen vehicle by an undercover police officer or informant, a patrol or traffic stop is made with the purpose of conducting a field interview and obtaining a current detailed description of the suspect. Operation Hotwheels frequently utilized this tactic to officially identify suspects for future use in apprehending the suspects for prosecution.

Controlled Buys: A controlled buy involves multiple purchases of stolen items from the same suspect. This tactic was favored during Operation Hotwheels to solidify evidence for prosecution.

Follow-Up Investigation and Arrest: Several automobile thieves selling vehicles to undercover officers boasted about being involved in additional criminal activity. Each event was later investigated and verified. Suspects were immediately arrested, if the arrest didn't jeopardize the overall project. When RATT officers believed the covert operation would be compromised, arrests were postponed until the case was brought before the Grand Jury, as long as the criminal activity did not pose an immediate threat to the community. One thief admitted to involvement in armed robberies, another individual sold undercover detectives a sawed-off shotgun, and another seller bragged about a vehicle being taken during a residential burglary. These additional arrest charges, frequently resulting in longer and stiffer sentences, suggest the benefits of overt operations.

Informant Buy: While under surveillance by police, an informant is used to buy a vehicle from a suspect. In Operation Hotwheels, this approach was used when police believed that the suspect was more likely to trust the informant than a stranger (i.e., the undercover police officer).

Officer Buy: An undercover police officer buys a vehicle from a suspect, while under surveillance by other officers. For Operation Hotwheels, officers at the undercover house purchased most vehicles.

Prosecution: RATT includes prosecutors as part of the team. Deputy District Attorneys guide investigations with respect to evidence collection and the most effective methods for prosecuting each case. In attempting to curtail auto theft rings, it was determined that group prosecution was the most effective strategy. Therefore, the Grand Jury was utilized. Throughout the project, officers gathered information and evidence in order to present the final case to the Grand Jury. All evidence, suspects, witnesses, and other aspects of a case must be presented before the Grand Jury for a trial date to be set. The same district attorney prosecutes these cases from the beginning through final disposition to streamline the process and increase the likelihood of conviction. This technique is referred to as vertical prosecution.

Public Education: The area of public education and crime prevention is new for RATT. With respect to Operation Hotwheels, the media was the vehicle for public education efforts. At the termination of Operation Hotwheels, RATT distributed press packets to all media, outlining the task force and this specific project. These packets were followed by a press conference to inform the public about enforcement efforts and discourage thieves from future auto theft activity.

Surveillance: Police observe suspects for a period of time to detect or confirm illegal activity. Surveillance is used to gather evidence to support a search warrant, to determine appropriate enforcement strategies or tactics, and as part of a buy or sell tactic. In Operation Hotwheels, all officer and informant buys involved surveillance by other officers on the team to assist in gathering evidence (e.g., photograph suspects from a surveillance van strategically positioned across the street from the undercover house).

Sweep/"Round-up:" A number of uniformed officers simultaneously make arrests. In the commission of this operation, a sweep occurred at the termination of the project. All known suspects were contacted with an arrest warrant during early morning hours and gathered at a central location for interrogation and arrest. The project attempted to isolate an auto theft ring(s) and stop the associated criminal activity. Since many individuals under investigation knew one another, serving arrest warrants simultaneously reduced the opportunity for ring members to tip off one another and avoid apprehension.

Taped Conversations: Police sometimes tape conversations of suspects to gather evidence using a concealed tape recorder. During Operation Hotwheels, officers and informants frequently wore body wires to record conversations with suspects. In addition, video cameras were strategically placed in the garage of the undercover house to record conversations and interactions.

Use of Confidential Informants: A confidential informant is a person who provides information with the expectation of receiving a reward (e.g., money and special consideration in pending criminal cases). The development of confidential informants involves close supervision by detectives to ensure that information on criminal activity is forthcoming on a continuous and reliable basis. In an effort to capture the most amount of information in the shortest time period, officers established a core group of confidential informants at the commencement of Operation Hotwheels. Informants began to introduce several auto thieves and key players in auto theft rings to undercover detectives. As a result of the introduction, the suspects began selling stolen vehicles directly to RATT undercover detectives.

Termination of the Operation

In order to allow time for RATT district attorneys to complete final case preparations, three months into the project, officers stopped purchasing stolen vehicles from new suspects but continued interaction with established contacts to maintain suspect location and to accumulate additional violations with which to charge them. During this time period, the crime analyst continually updated officers on the location of suspects (e.g., residential address, jail, prison). For those individuals on community supervision, detectives contacted parole and probation officers for up-to-date information on supervision status. As the project came to a close, officers arranged for the house to be vacated, officers worked closely with the deputy district attorneys on evidence preparation, and victims were informed of their Grand Jury appearance date. Allied law enforcement agencies, as well as probation and parole offices, were contacted for staffing assistance on "round-up day." News media representatives were furnished with Operation Hotwheels informational packets. Additionally, there was a press conference held at the conclusion of the "round-up."

easures of Success

This section reveals the results of the impact assessment. In general, the data support the assertion that RATT positively impacted the community by recovering stolen vehicles, as well as arresting and convicting suspects. Table 5.1 reflects the measures of success related to Operation Hotwheels.

Table 5.1

MEASURES OF SUCCESS
Operation Hotwheels, September - November 1995

Suspects Contacted	73
Recoveries	105
Arrests	
Adults	63
Juveniles	5
Convictions	68
Conviction Rate	100%

SOURCE: RATT

During Operation Hotwheels, undercover investigators purchased 105 stolen vehicles from 73 defendants (Table 5.1). The purchased vehicles were stolen from areas throughout the San Diego region. Thus, the potential impact of Operation Hotwheels on the community could be greater than the city in which the undercover house was located. Intelligence information gathered during undercover buys suggests that each defendant stole at least one automobile per week, with an estimated $17,520,000 impact on the region (not shown). This figure does not take into account collateral financial losses incurred by the victims and insurance companies. Through the early morning "round-up," all but five suspects were apprehended. All of the individuals arrested were also convicted (68). These data indicate the effectiveness of this type of covert operation in apprehending suspects identified (93%) and obtaining convictions (100%). The high conviction rate is attributed to membership of the prosecutor in the task force through provision of on-going guidance regarding evidence collection, as well as vertical prosecution efforts (i.e., the same attorney prosecuting the case from initial hearing through sentencing).

The impact of this type of tactic on the overall community is much more difficult to decipher. This operation was initiated at the request of a local police agency, rather than through CAMS. The problem identified did not focus on a specific geographic area beyond an entire city. Measuring the impact of this tactic, based upon the area in which the operation was located, is deceiving because officers identified suspects who stole vehicles throughout the region. Thus, the regional changes in auto theft may be more indicative of Operation Hotwheels' success. Throughout the San Diego region, motor vehicle thefts declined eight percent, based upon the ree months following Operation Hotwheels compared to the three summer months prior to opening of the undercover house. However, this regional change could also be due to a number of other factors (e.g., increased use of anti-theft devices by car owners).

Summary of Findings for Operation Hotwheels

This evaluation of the RATT Operation Hotwheels indicates that the undercover operation was implemented as intended and appears to have been a success in terms of the number of suspects identified, arrested, and convicted, as well as the number of motor vehicles recovered. However, the fact that this tactic was not focused on one specific area resulted in limited analysis of the impact of the project on the community. Though the original analysis plan outlined in the research design included geographic analysis through CAMS as a primary assessment tool, this tactic did not lend itself to the types of analysis available in CAMS (e.g., cluster analysis to determine if auto-theft related problems dissipated or moved). Thus, the relative influence of this tactic versus other strategies remains unknown.

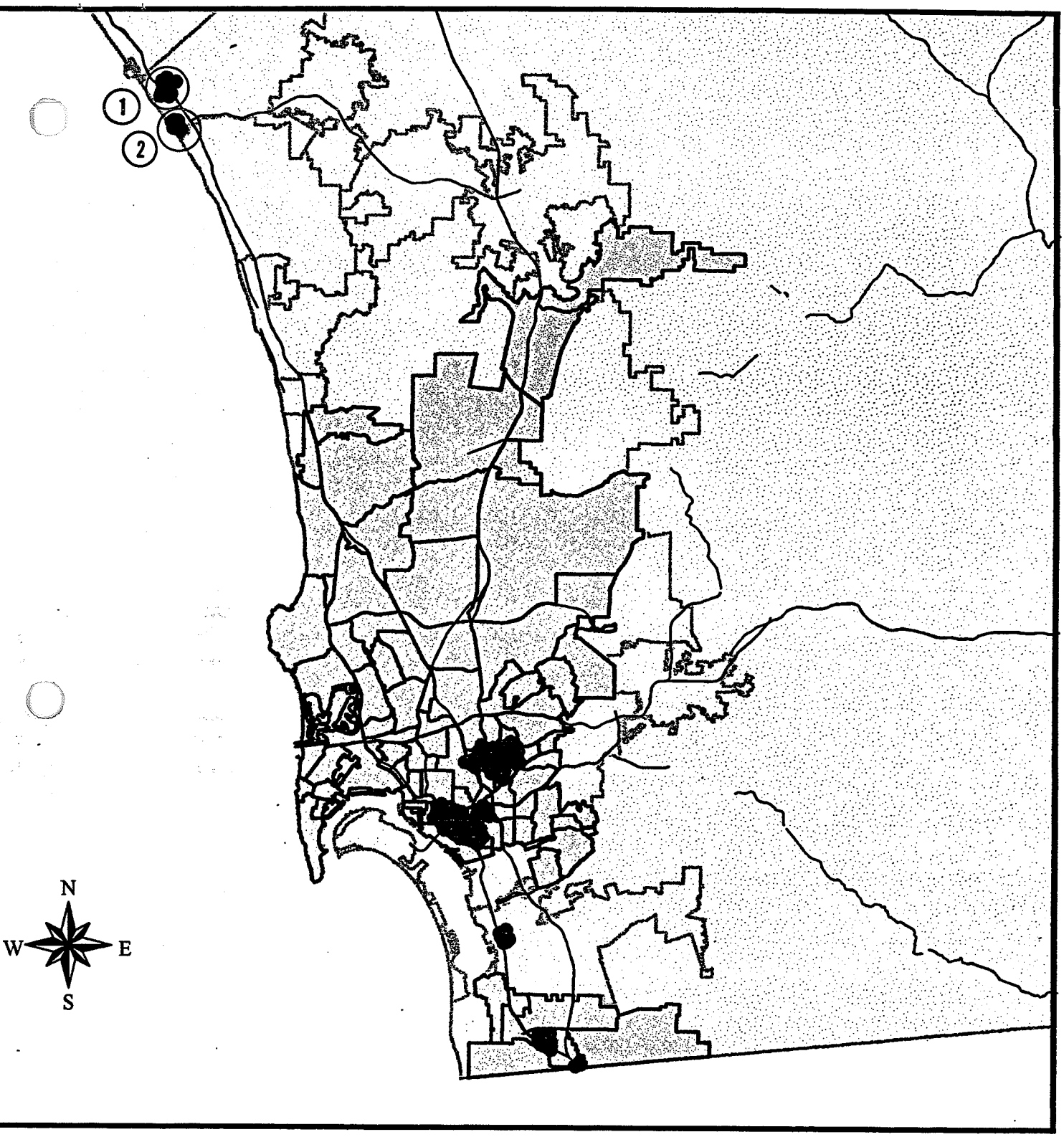
TARGET AREA TWO: TRI-CITY AREA IN NORTH COUNTY

In January 1996, the North Team of RATT was asked to utilize the Crime Analysis Mapping System (CAMS) in directing enforcement efforts through the identification of auto theft "hot spots" in the North County area. A series of maps was generated through CAMS using cluster analysis to highlight concentrations of motor vehicle theft problems. As Map 5.1 illustrates, two distinct clusters of recoveries became apparent in the northern area of the San Diego region. More detailed maps revealed an area in downtown Oceanside and another area within the same city, split by the freeway (Map 5.2). The downtown area of Oceanside was chosen as the target site because of the geographical constraint the freeway posed in managing any tactical efforts.

To address the problem of recoveries clustered in the downtown Oceanside area, the North Team formulated the following enforcement plan. The plan is presented in two sections. The first section mentions the portions of the plan that actually occurred, followed by an outline of the remainder of the plan, which was not implemented, and a discussion of why the plan was revised.

Portions of Plan Accomplished

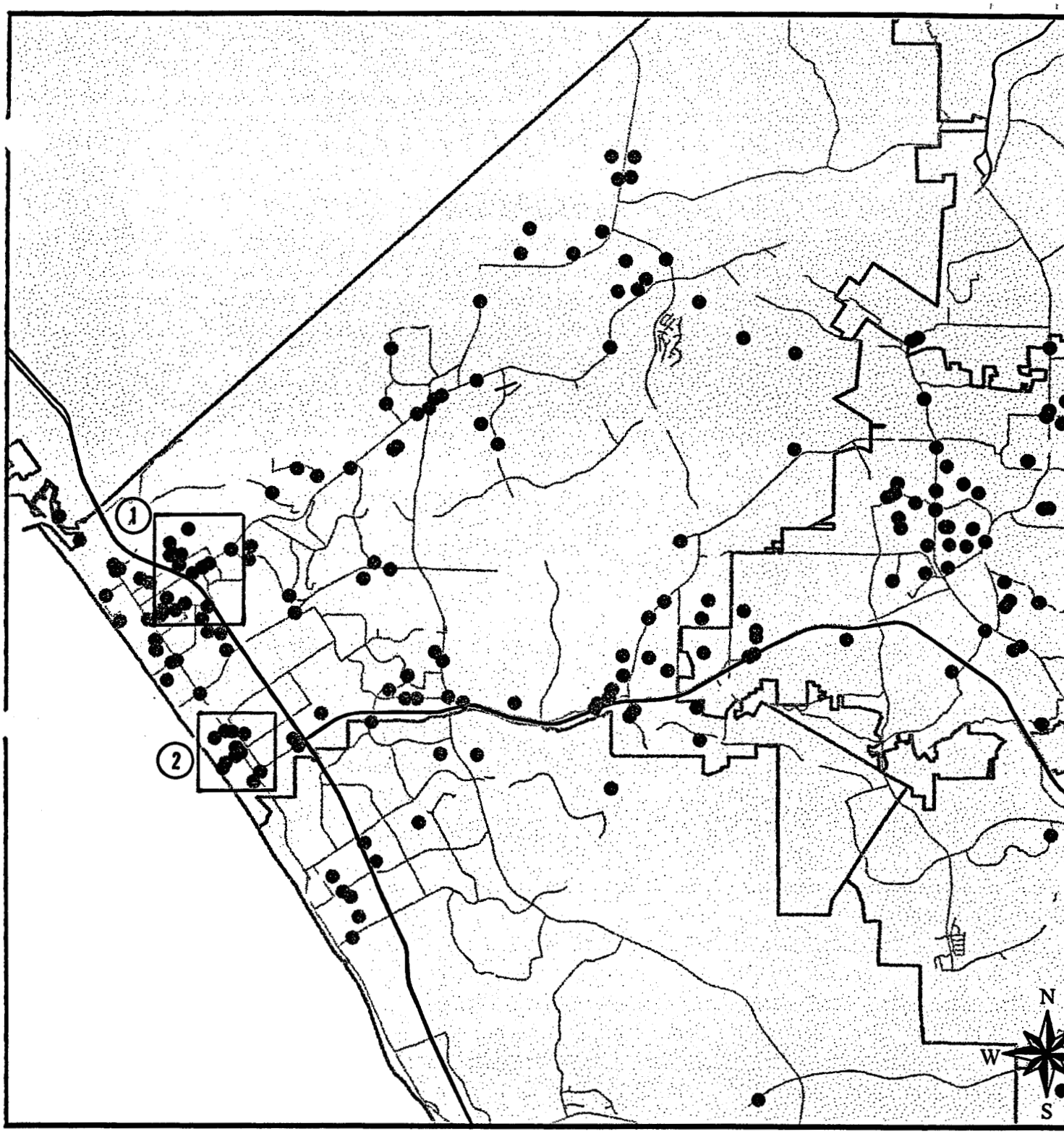
Maps illustrating the problem were shared with local patrol officers and detectives to alert them of the problem and solicit their support in the area. Specifically, these individuals were requested to refer cases in the target area to the RATT North Team, especially if the resources of the local police department could not be directed to investigate the incidents in an in-depth manner. Prevention efforts were also initiated. The detective in charge of the project co-ordinated with a local detective in the City's police department to make presentations to local business organizations (e.g., Seaside and North Townsite groups) regarding auto theft prevention. Since RATT detectives work undercover, uniform officers made the presentations.



n Diego County

MAP 5.1
San Diego County: Clustering
10/01/95 - 11/30/95
10 or More Recoveries Within .3 Radius

Recovery
Freeways
Beats
City Boundaries
County



San Diego County

MAP 5.2
Oceanside Area Recoveries: Clustering
10/01/95 - 11/30/95
All Recoveries and Clustered Recoveries

Clustered Rec
Recovery
Freeways
Major Roads
Beats
City Boundar
County

anned Tasks Not Implemented

Originally, two confidential informants were to be sent into the target area to assist in identification of suspects. However, the RATT detective in charge of this project was unable to identify any acceptable informants. The primary purpose in developing a relationship with a confidential informant was to assist in establishing a covert operation similar to Operation Hotwheels. As mentioned in the Operation Hotwheels discussion, other agencies are utilized by RATT for technical assistance. The Federal Bureau of Investigation (FBI) provides funding for the task force in establishing covert operations. The key potential informants identified did not meet the FBI requirements. Therefore, a location to conduct buys of stolen cars from individuals identified by confidential informants was not set up in the target area.

The detective in charge of the operation suspected that gang members were involved with vehicles recovered in the target area. Therefore, he planned to obtain gang intelligence from the North County Gang Task Force to assist in addressing the problem. However, other workload demands precluded meeting with gang task force members. Further, prevention efforts mentioned above were also to include articles in City of Oceanside and Oceanside Police Department newsletters, distribution of auto theft prevention pamphlets in the target area, and signs located in the target area regarding prevention. However, beyond the aforementioned presentations, no further follow-up regarding prevention occurred due to workload constraints.

The primary reason the original plan was not fully implemented is rooted in the realities of orking in the field. That is, the detective in charge of the project was alerted to more pressing uto theft problems, redirecting the efforts of the team. Specifically, the North Team detective at RATT noticed an unusually high number of Toyotas stolen in the Tri-City area based upon "hot sheet" information provided by the Oceanside Police Department. The Tri-City is defined as the general area where the cities of Carlsbad, Oceanside, and Vista meet. In addition to this information, local patrol and detectives began notifying the North Team detective at RATT of suspicious activity in this same area. The suspicious activity required immediate follow-up before the suspects relocated their activity. Therefore, the original project was abandoned. In an effort to evaluate the activities of RATT, the research design was modified to encompass these new activities by the North Team of RATT.

Identification and Implementation

In March 1996, the Oceanside Police Department distributed a "hot sheet" highlighting an unusually high number of stolen Toyota vehicles. Even though the RATT North Team was centering their efforts in the identified "hot spot" in downtown Oceanside, calls from patrol officers were directing the team to other areas of high auto theft activity. Specifically, in April 1996, patrol officers began telling RATT officers that Toyota thefts in the North County Tri-City area were on the rise. Though there was some fluctuation, increases in thefts of Toyotas were observed into the month of May. Responding to this situation, RATT conducted a project focusing in the Tri-City area for two months (May and June 1996).

Problem-Oriented Policing (POP) is a process for approaching persistent community problems at require an approach focusing on the problem and creative solutions rather than a stereotypical law enforcement response. RATT detectives utilized the POP philosophy as applied by

the Oceanside Police Department to enhance enforcement activities in the Tri-City area. Patrol officers provided valuable information in problem identification and RATT was key in formulating and executing solutions. Patrol officers concentrated on the Tri-City area by identifying suspects, suspicious activities, and problem residences. They were directed to contact RATT when they located a recovered stolen vehicle, arrested a suspect for motor vehicle theft, or received any auto theft information in the Tri-City area. In exchange, RATT followed up on key locations identified by local patrol, conducted investigations, interrogated suspects, and assisted in arrests, field interviews, recoveries, fourth amendment waiver searches, and warrants.

As suspects were detained, RATT interrogation led to contacts with additional suspects, development of confidential informants, further investigation, and, ultimately, arrest. For example, "chop shop" activity was suspected at a residence in the Tri-City area. Therefore, RATT detectives initiated a surveillance of the house. During the surveillance, heavy traffic was observed in and out of the house, leading team members to suspect that drugs were being sold. As vehicles arrived and left the residence, RATT detectives checked each license plate for possible stolen status.

Sources of Information

The primary sources of information for the project in the Tri-City area were patrol officers. The RATT North Team followed up on information provided by patrol officers, interrogated suspects to obtain more information, cultivated confidential informants, and conducted surveillance of suspect residences.

Description of Tactics/Strategies

The suppression efforts in the North County Tri-City area included many tactics, as the following alphabetical listing illustrates.

Arrest Warrant Executed: A warrant was issued, by the Courts, for the arrest of a specific suspect upon contact. Based upon information from local patrol, the RATT North Team detective assisted in obtaining arrest warrants for suspects identified through this operation.

Bait Car: In response to the increases in thefts of Toyotas, RATT initiated a request to use a bait car in the Tri-City area. A bait car is a high-profile vehicle (e.g., Toyota) placed in a strategic location to entice potential car thieves. Officers are stationed at a nearby location to conduct surveillance, document theft activity (e.g., video, photograph, write observations), and apprehend the suspect. The National Crime Insurance Bureau supplied a car. Unfortunately, insurance coverage through the City of Oceanside was delayed and was not available until after the termination of the project. However, it is anticipated that this bait car will be utilized in a subsequent project after it is fitted with electronic surveillance equipment.

Buy/Walk: A contact is made with a suspect through purchase of a stolen vehicle by an undercover police officer or informant. An immediate arrest is postponed until further investigation is conducted. Initially, this target area was to include a buy/walk tactic as part of an undercover operation supported by FBI funds. However, the criteria required for FBI funding were not met and a covert operation was not established.

Field Interview: After suspects are observed engaging in suspicious activity, they are stopped by a patrol officer and questioned about their behavior. For example, during a surveillance, suspects were observed circling a stolen vehicle. They were stopped and interviewed for further intelligence.

Fourth Amendment Waiver Searches: When offenders are on probation or parole, they are required to waive their Fourth Amendment Rights as a condition of supervision. For cases in which the suspects were under criminal justice supervision, RATT utilized this waiver to conduct searches of suspects' residences to collect evidence without a warrant.

Observation. Police observe violations during routine patrol and enforcement activities. For example, officers observed a vehicle with missing license plates with several suspects standing near the vehicle. As the officers drove closer to the scene, the suspects began to watch the officers nervously. Further investigation and computer checks revealed that the vehicle was stolen. RATT detectives were called in to interrogate the suspects for further information and potential participation as confidential informants.

Public Education: Though the original plan included public education on auto theft prevention, the redirection of the team in the Tri-City area did not warrant prevention efforts. That is, the focus was solely on identification and apprehension of suspects.

Traffic Stop. Suspects are stopped after a traffic violation is noticed in order to initiate further investigation in another case. For example, an undercover officer purchases a stolen vehicle from a suspect. The suspect leaves in another vehicle with a friend. The undercover officer requests that the suspect be stopped and interviewed. Another member of the team follows the suspect until a traffic violation occurs and then stops the suspect for questioning and/or identification.

Surveillance: RATT North Team detectives and local patrol officers focused surveillance tactics on observing suspects at their residences to confirm illegal activity and gather evidence to support a search warrant.

Use of Confidential Informants: As previously mentioned, the procurement of confidential informants resulted from leads by patrol officers. After patrol officers informed RATT detectives about suspects involved in auto theft, RATT detectives would interrogate the suspects and follow-up on information provided in exchange for possible monetary compensation and/or consideration regarding the current charges.

Termination of the Operation

The Tri-City project was conducted for approximately two months. By mid-June, there was only one outstanding suspect identified through the project. Further, Toyota thefts had decreased to only two in the Tri-City area, compared to the high levels detected at the beginning of the project.

Measures of Success

Though the Crime Analysis Mapping System (CAMS) did initially identify a "hot spot" worthy of RATT focus, competing auto theft problems redirected the efforts of the team. Therefore, CAMS was not effective in targeting task force enforcement efforts in the specific area. However, the data presented below suggest that RATT was successful in its efforts to reduce thefts of Toyotas.

The data provided by RATT (Table 5.2) support the claim that the Tri-City project was effective in recovering stolen Toyotas and other vehicles, as well as identifying and arresting suspects.

Table 5.2

MEASURES OF SUCCESS
Tri-City Project, May - June 1996

Stolen Vehicles	
Toyotas	27
Other	7
Recoveries[1]	30
Suspects	
Contacted	8
Arrested	7
At Large	1

[1] *Not necessarily related to thefts reported in the same time period.*

NOTE: Conviction information not available.

SOURCE: RATT

During the project in the Tri-City area, 34 vehicles were stolen, 27 of which were Toyotas. Eight suspects were identified as participating in criminal activity and seven were arrested.

Summary of Findings for Tri-City Project

The RATT North County Tri-City project appears to have been a success in terms of the number of suspects originally contacted and the proportion of these contacts arrested (88%), as well as number of vehicles recovered. Though the Crime Analysis Mapping System (CAMS) assisted in the identification of an initial target area for RATT enforcement, workload demands constrained continuation of the effort. As a result, similar to the situation with Operation Hotwheels, analysis of the impact of the project was limited. Originally, the analysis plan included follow-up measures using CAMS cluster analysis to determine if the concentrations of the problem dissipated or shifted, including comparisons of these measures to another area in the region with a similar auto theft problem. The number of Toyotas stolen was relatively low compared to all vehicles stolen. Therefore, a concentration was not revealed through CAMS cluster analysis, making follow-up analysis irrelevant.

ARGET AREA THREE: EAST COUNTY RETAIL PARKING LOT EFFORT

The research project attempted to identify a target area within the geographical jurisdiction of each RATT team (i.e., North, South, and East). Target identification in the East Team area was particularly challenging. The areas identified through cluster analysis in CAMS did not suggest dense hot spots of auto theft or recoveries. Parameters used in the cluster analysis for other areas of the region (e.g., ten or more incidents within a .3 mile radius) produced no hot spots due to the relatively low volume of documented auto theft and related activity in the East Team jurisdiction. Therefore, the parameters were expanded (e.g., a smaller number of incidents, a larger radius). However, this expansion resulted in clusters covering relatively large geographic areas, resulting in limited tactical alternatives to address the problems. During this process of target identification, a crime analyst at a local police department produced data on auto thefts surrounding a retail warehouse chain operating in eight locations within the region (Table 5.3). During the first quarter of 1995, the top two locations occurred in the eastern and southern areas of the region, accounting for over one-half of the thefts at locations of this retail warehouse chain. Though these thefts occurred one year prior to actual target identification and strategy implementation, the eastern location was chosen as the target site for intervention and the southern location as the comparison area (with the traditional law enforcement response) in an effort to evaluate the activities of the task force involving cooperation between law enforcement and businesses.

Table 5.3

AUTO THEFTS FROM LOCAL RETAIL WAREHOUSE CHAIN
San Diego County, January - March 1995

Location	Number of Thefts
Bayside	18
East County	45
Mid-Inland	31
Mid-Town	16
North Inland	9
South Bay	49
South City	2
South Inland	9
Total	**179**

Description of Target Area

The most active day for auto theft at this location was Saturday. The majority of the vehicles were older, with only 31 percent having 1990 or more recent model years. Chevrolets and Fords were the most popular vehicles to steal at this location, with 27 percent and 24 percent stolen, respectively. Pickups were the type of vehicle stolen in 38 percent of the cases. Just over one-half of the vehicles stolen were recovered (53%).

Description of Comparison Area

Similar to the target area, most of the vehicles taken from the comparison site were older, with 81 percent older than the 1990 model year. Of the vehicles stolen in the comparison area, the most frequent make stolen was Toyota (29%), followed by Ford (22%) and Nissan/Datsun (20%). Pickups accounted for 29 percent of the cases. The recovery rate for this location was 51 percent.

Identification and Implementation

Based upon the information provided by the Crime Analysis Unit at the San Diego Police Department and local experience in the area, the RATT East Team developed a project focusing on the entire shopping area surrounding the targeted retail warehouse store. The RATT East Team solicited the support of local patrol officers and Senior Volunteer Patrol for the 30-day intervention period (from April 15 through May 15, 1996). Each officer made high visibility patrol checks through the area, maintained a log of these checks, and collected copies of all auto theft related crime reports and field interviews occurring in the site. All information was forwarded to RATT. For these efforts, the RATT East Team conducted several surveillance operations in the parking lots in the target area. In addition, the lead detective from RATT conducted meetings with the management of the retail establishments regarding this project. In the past, he worked directly in this area and attended similar meetings and training sessions with local merchants. As a result, their employees were already aware of the on-going auto theft problem and provided law enforcement with information of any auto theft activity occurring in the parking lots. The cart collectors were especially helpful in the past. For example, employees reported suspicious activity and recorded license plate numbers in two instances, producing solid investigative leads. The detective planned to build upon this relationship in the current project.

Sources of Information

As previously mentioned, this project relied upon information from local patrol and business employees. All patrol and volunteer logs were regularly reviewed for suspicious activity reported by the RATT detective in charge of the project. None was noted during the project period. The same process occurred with crime and arrest reports, as well as field interviews. Two vehicles were reported stolen during the course of the project and the lead RATT detective requested to be notified when each was recovered so he could process the vehicles for physical evidence.

Description of Tactics/Strategies

Enhanced efforts at the retail warehouse location in the eastern region of San Diego county potentially involved the following tactics, in alphabetical order.

Aerial Surveillance: Personnel are located on the rooftops of the retail establishments and observe the parking lots. Though this tactic was considered for inclusion in this operation, prior history with aerial surveillance did not produce positive results and was therefore rejected.

gh Visibility Patrol: Both sworn police officers and members of the Senior Volunteer Patrol increased patrol of the target area parking lots in marked vehicles.

Public Education: This project involved meetings with managers of retail outlets at the site to inform them about the on-going auto theft problems and enforcement efforts.

Rolling Surveillance: Several investigators in separate vehicles roam parking lots. The first surveillance was conducted at the beginning of the project (Tuesday, April 16, 1996) because the most recent theft occurred on the Tuesday of the prior week. In addition, this early surveillance provided an illustration of RATT's commitment to the project for the local officers. If a suspect was observed attempting to steal a vehicle, the plan was for observation to continue until sufficient evidence was available for an auto theft conviction. During this early surveillance, no auto thefts were attempted. The second surveillance occurred on Tuesday, April 10, 1996, with the third on Saturday, May 4, 1996 (the most frequent day for auto thefts at the target location). During the Saturday surveillance, one vehicle with two suspects seemed to be casing the parking lots. However, no vehicle thefts were attempted during the surveillance period.

Undercover Surveillance: Officers act like employees retrieving shopping carts. This method was considered for the current project. However, prior use of this tactic did not produce successful results, so it was not utilized in this project.

Termination of the Operation

n the final day of the project, two vehicles were stolen from the target site. However, the project was not continued because the total number of vehicles stolen was relatively low.

Measures of Success

Table 5.4 shows the reported stolen vehicles, arrests, and recoveries for the period prior to the project, during the project, and for a subsequent period. Due to the erratic nature of thefts in the target and comparison sites, the data presented are not compelling with respect to the success or failure of the project. Though thefts were reduced in the target area, the comparison site experienced a decrease as well. The small number of incidents limits the analysis.

Of the vehicles stolen during the case study, three were not recovered. All of the stolen vehicles were Ford pickups. Each theft was accomplished within a short time period (from 15 to 45 minutes). Therefore, it seems that thieves acted quickly.

No arrests were made in the target area during the time periods studied. The small numbers do not provide for substantive conclusions regarding the effectiveness of the effort. Information on car prowls was also initially tabulated, with equally inconclusive results.

Table 5.4

MEASURES OF SUCCESS
EAST COUNTY RETAIL PARKING LOT EFFORT
Thefts, Recoveries, and Arrests, February - July 1996

	Two Months Prior to Project[1]	During Project Period[1]	Two Months Following Project[1]	Pre-Post Change
Target Area				
Thefts	4	3	3	-1
Recoveries	0	1	1	+1
Arrests	0	0	0	0
Comparison Site				
Thefts	6	5	3	-3
Recoveries	2	4	1	-1
Arrests	0	0	1	+1

[1] *Data for prior period is based upon February and March 1996. April and May 1996 are used for the period during the project; and June through July 1996 is the post period.*

SOURCE: The Automated Regional Justice Information System (ARJIS)

Summary of Findings for East County Retail Parking Lot Effort

Based upon the small numbers of thefts reported in the target and comparison areas, the deterrent effect of extra patrol efforts by law enforcement officers and volunteers in the target area are inconclusive. Further, based upon the low month-to-month and day-to-day volume of auto thefts in the target area, the surveillance tactic seems inefficient. In this situation, it appears that thefts did not follow an established pattern upon which a surveillance can be based. According to the RATT detective in charge of this operation, full-time roving patrol is the most effective method of addressing thefts of vehicles from parking lots and RATT efforts are better spent elsewhere. Security staff do not patrol the target and comparison sites. However, during the project period, a security guard was patrolling a neighboring parking lot. According to the RATT detective, no auto thefts occurred in this nearby parking lot since the establishment of this roving guard (January 1995). In contrast, other local stores have employed security guards who do not conduct roving patrols of their parking lots and thefts still occur with similar frequency to the target and comparison sites due to the lack of constant observation. Full-time roving patrol seems to be the most successful method for curbing auto theft from these parking lots, though it is quite costly. In light of the small number of thefts (one or two per month), retail owners may not be inclined to cover the expense.

CHAPTER 6

FINDINGS AND RECOMMENDATIONS

FINDINGS AND RECOMMENDATIONS

This chapter fulfills the final objective of the evaluation: to provide recommendations regarding effective strategies to reduce motor vehicle thefts through a coordinated approach to public education, prevention, and law enforcement to assist other jurisdictions in implementing programs to successfully address vehicle thefts.

FINDINGS RELATED TO THE TASK FORCE

- This research project began by identifying characteristics of the local auto theft problem. Through this process, it was discovered that auto theft rings were targeting specific locations, and that these geographic concentrations were not uniformly distributed across the San Diego region.

- Useful approaches for reducing auto theft indicated by RATT staff and management included obtaining stiffer penalties for offenders through vertical prosecution, educating the public regarding crime prevention, utilizing the ability to track the recovery of stolen vehicles, and using automated data. The role of RATT in each of these approaches was clear except with respect to prevention. Many staff members believed that RATT had ***no*** or ***a very limited*** role in auto theft prevention and that this role should ***not*** change, while individuals in management were more likely to see the need for RATT to be involved in prevention efforts.

- The examination of RATT investigations compared to cases handled through traditional law enforcement channels revealed that vehicles in comparison cases were generally recovered in better condition, compared to vehicles involved in RATT investigations. That is, vehicles involved in RATT cases were more likely to be disassembled for parts to be sold for a profit. Further, more vehicles, on average, were associated with RATT cases, indicating a pattern of auto theft for these offenders (e.g., a career). These findings suggest that RATT successfully targeted the intended population: organized motor vehicle theft rings, composed of sophisticated, professional criminals.

- Coordination and cooperation among different levels of government and the private sector were more often evident in RATT cases than for the comparison group. The unique composition of the task force enabled RATT to achieve collaboration among agencies that was not available to detectives isolated within the traditional law enforcement response.

- An arrest of a suspect was significantly more likely to occur in RATT cases. The number of arrest charges per suspect was also significantly greater. The probability of charges being filed was also significantly greater for RATT cases. However, conviction rates and the rate of plea-bargaining were similar for the two groups.

- RATT cases involved multiple charges, many of which were not related to vehicle theft, indicating that RATT targets (e.g., auto theft rings) are involved in other types of criminality (e.g., possession of weapons).

- During the study period, RATT effectiveness was enhanced through increased resources and improvements in the availability of regional automated data (i.e., the Crime Analysis and Mapping System (CAMS)). Prior to CAMS implementation, RATT staff and management indicated a need for more computer data and mapping capabilities. After CAMS was operational, interviews with RATT staff and management revealed that these data needs had been fulfilled. However, the mapping capabilities of CAMS were not fully utilized by detectives in their investigations.

- Though many successes were mentioned during interviews with RATT staff and management, areas were also noted for improvement. Specifically, lack of cooperation between outside agencies, staff turnover, and bureaucracy (e.g., lengthy procedures required prior to utilizing a confidential informant) were mentioned as impacting the task force. In addition, a decline in staff morale was noted during the study period. Since the interviews were conducted, RATT has undergone significant reorganization, which may have improved this situation.

- According to the case studies involving three different RATT strategies, arrest and conviction information indicated that the undercover sting operation was the most successful strategy employed by RATT. The undercover sting involved the investigation of 73 suspects. Of these suspects, 68 were arrested, and ***all*** arrests resulted in a conviction. The other two strategies examined (i.e., follow-up on local law enforcement leads and surveillance) were more limited in scope and resulted in minimal success (e.g., few number of motor vehicle thefts reported, autos recovered, and arrests made).

FINDINGS RELATED TO RESEARCH IN THE FIELD

- The source database for CAMS (i.e., the Automated Regional Justice Information System (ARJIS)) did not always have complete information, which limited the crime analysis and mapping capabilities. For example, the location of a theft or recovery was often missing or inaccurate. As with any database, the value of the information is dependent upon consistent and complete reporting and data entry. Future plans utilizing automated field reporting will include methods for improving data accuracy in ARJIS (e.g., inhibiting the submission of a report until all fields are complete, including edit checks to ensure that each item is accurate).

- Successful implementation of a crime analysis system requires a thorough understanding by all parties regarding the benefits and limitations of such information. If officers do not perceive automated databases as an enhancement to investigations, they will be less inclined to use them.

RECOMMENDATIONS RELATED TO THE TASK FORCE

- Since geographic concentrations of auto theft were not evenly distributed countywide, division of workload by geographic boundaries (i.e., north, south, and east) may be less efficient. RATT may want to examine the geographic distribution of motor vehicle theft revealed through CAMS and redistribute the workload accordingly.

- The priorities of RATT should be reviewed on a regular basis and discussed among the members of the Investigative Operations Committee (IOC) (i.e., the management level of RATT) with input from RATT supervisors and line staff. For example, should RATT take a proactive role in educating citizens and crime prevention? And, if so, how should such an objective be operationalized?

- To ensure that the Crime Analysis and Mapping System (CAMS) is utilized, on-going staff training regarding the benefits of the technology to RATT investigations is necessary. For example, successes related to prior use of the system could be shared at weekly staff meetings. Further, a feedback system could be implemented in which detectives would provide input regarding ways to improve the system based upon output provided by CAMS and used in investigations.

- Though RATT has reorganized since interviews were conducted with management and staff, issues raised during interviews regarding staff turnover, bureaucracy, and morale may require continued examination. The management of staff employed by the variety of agencies participating in the task force is challenging. Standards for recruiting and training RATT staff should be reviewed and consistently maintained. Clear expectations regarding performance and specific training related to RATT activities, for new detectives in particular, could assist in raising staff morale.

- Due to prior successfulness, RATT should continue to utilize undercover sting operations.

RECOMMENDATIONS RELATED TO RESEARCH IN THE FIELD

The results of this evaluation raise many issues with respect to conducting research that implements new technology in the field.

- As is often the case when conducting applied field research, particularly when the cooperation of practitioners is required, flexibility is key. The original research design for this project was adjusted to be more compatible with RATT workload. The initial study design involved an "experiment" with target and control sites. The goal was to simultaneously implement strategies in each area designed to combat auto theft and rotate these strategies between the sites to control for geographical variability. However, the reality of RATT workload limited the efforts of task force detectives related to the research effort. Therefore, the design was modified to include case studies rather than an experimental design.

- Maintaining focus on the objectives of the research project is also critical to successful evaluations. While the methodology was modified during the course of this project, the evaluation team continued to focus on the original research objectives and questions.

- Partnerships between researchers and practitioners require clear communication regarding roles, responsibilities, and the purposes of the project. The research team could have been more clear regarding the link between CAMS, its association to auto theft investigations, and the evaluation, as well as the role of each member of the partnership (i.e., software designers, crime analyst, RATT staff, and researchers) in completing the research project. The research project would have had a better chance of being implemented as designed with a more clear understanding by all participants.

According to a summary of the National Law Enforcement and Corrections Technology Conference (Wagner, 1996), a number of steps are essential for the successful implementation of new technology. Other practitioners and researchers could benefit from the lessons learned in this project by incorporating the following guidelines from Wagner (listed in bold) into their implementation plans.

- **A specific problem must be solved by the new technology. Therefore, a needs assessment should be conducted prior to technology development to ensure that implementation will be useful.** Through the preparation of the grant proposal to the National Institute of Justice (NIJ), the researchers listened to RATT management regarding the problems, limitations, and needs faced by the task force. The primary needs had to do with access to regional auto theft information rather than having the data fragmented by jurisdiction, and access to a crime analyst equipped with a computer to assist officers in compiling data. The mapping capabilities were also of interest, though not an overwhelming need. Based upon the information gathered, the research design included the development of the Crime Analysis and Mapping System (CAMS) as a solution to the problems faced by RATT. A formal needs assessment following the grant award would have been helpful in assuring that the uses for the mapping system were directly related to specific RATT activities.

- **The technology must be understandable to law enforcement personnel.** With a focus on auto theft rings, the primary strategy used by RATT was the covert operation, utilizing the development of confidential informants. The usefulness of the CAMS technology in this type of investigation was never realized, and may not even be appropriate. By providing RATT staff with a thorough understanding of the applicability of the mapping system to their day-to-day operations, the research and CAMS development team could have improved the utilization of the technology.

- **Continual training and monitoring of staff on the appropriate use of the technology is required.** As has been noted in the literature, the ability to reduce crime depends on the ability to pull together and interpret accurate information about a specific problem (i.e., auto theft). The use of high-tech tools is not enough (Block, 1992). While the crime analyst who produced the maps was trained on how to create them, no training was ever provided to law enforcement personnel on the use of these maps. Thus, additional training for the crime analyst regarding methods for producing geographic information relevant to RATT tactics would have been beneficial, as well as training for RATT staff in ways to apply the information on the maps to their investigations.

- **Standardized policies and procedures regarding the use and purpose of the technology should be in place prior to implementation.** To date, these policies and procedures are yet to be delineated. In hindsight, the necessity of outlining these components prior to implementation is clear. If all the partners in this project (i.e., software designers, researchers, crime analyst, and RATT staff) were in agreement regarding the use and purpose of CAMS, the technology could be more fully utilized.

Attention to the preceding guidelines may have created an environment in which CAMS could have been implemented more completely within task force operations. As a result, a more thorough evaluation of the impact of CAMS could have been conducted.

CONCLUSION

This evaluation of the Regional Auto Theft Task Force (RATT) has produced valuable information regarding the implementation of new technology and conducting research in the field. The design and application of new technology in the field are challenging. The issues faced during this grant highlight areas to be addressed in future projects. The qualitative assessment of specific strategies designed by a multi-agency task force to combat vehicle theft provides support for use of covert operations in auto theft investigations. Finally, the comparative analysis between RATT cases and a comparable group of auto thefts investigated through the traditional law enforcement response illustrates the value of the task force approach to the reduction of motor vehicle theft.

REFERENCES

REFERENCES

Block, C.R. (October 1992). "Automated Spatial Analysis as a Tool in Violence Reduction," ***CJ The Americas***, Vol. 6., No. 1, p. 7-10.

Block, R. (October 1995). ***Dangerous Places and Areas: The Environs of Rapid Transit Stations***, Paper presented at the 47th Annual Meeting of the American Society of Criminology.

Blumstein, A. (April 1990). "A Retrospective of Future Challenges," ***Criminal Justice in the 1990s: The Future of Information Management Proceedings of a BJS/SEARCH Conference***. Washington, D.C.: U.S. Department of Justice, NCJ-121697.

California Highway Patrol (1997). ***California Vehicle Theft - 1996***, Sacramento: State of California.

Casey, S. (November 1995). "Car Thieves Smell a RATT," ***FBI Law Enforcement Bulletin***, Vol. 64, No. 11.

Clark, R. and Harris, P. (1992). "Auto Theft and Its Prevention," ***Crime and Justice***, Vol. 16.

Coldren, J.R. and Sabath, M.J. (April 1992). "Multi-jurisdictional Drug Control Task Forces 1988-1990: Critical Components of State Drug Control Strategies," ***Bureau of Justice Assistance Special Analysis***, Washington, D.C.: U.S. Department of Justice.

Federal Bureau of Investigation (1997). ***Crime in the United States - 1996***, Washington, D.C.: U.S. Department of Justice.

Hickey, M. (Winter 1992). "High-Tech Help for Determining Criminal Charges," ***The Compiler: Illinois Criminal Justice Information Authority***, p. 11-12.

Hirschfield, A. and Bowers, K. (November 1995). ***Exploring Links Between Crime and Disadvantage in North West England: An Analysis Using Geographic Information Systems***, Paper presented at the 47th Annual Meeting of the American Society of Criminology.

Hughes, J. (May 8, 1994). "More vehicles 'kidnapped' to Mexico," ***The San Diego Union-Tribune***.

Illinois Criminal Justice Information Authority (April 1987). "Spatial and Temporal Analysis of Crime," ***Illinois Criminal Justice Information Authority Research Bulletin***, Chicago, IL: State of Illinois.

Illinois Motor Vehicle Theft Prevention Council (July 1994). ***Illinois Motor Vehicle Theft Prevention Council: 1993 Annual Report***. Chicago, IL: State of Illinois.

Langworthy R. (1989). "Do stings control crime? An evaluation of a police fencing operation," ***Justice Quarterly***, Vol. 6, No. 1, p. 27-45.

Law Enforcement Assistance Administration (1979). "What Happened: An Examination of Recently Terminated Anti-Fencing Operations," ***A Special Report to the Administrator, 1979***, Washington, D.C.: U.S. Department of Justice.

McEwen, J.T. (1990). "Use of Microcomputers in Criminal Justice Agencies," ***National Institute of Justice Issues and Practices***, Washington, D.C.: U.S. Department of Justice.

Minnesota Criminal Justice Statistical Analysis Center (November 1991). ***Narcotic Task Forces: At-a-Glance***, St. Paul, MN: Minnesota Planning.

Northwestern University Traffic Institute (October 1994). ***Evaluation of Illinois Auto Theft Task Forces: Final Report***, Evanston, IL: The Northwestern University Traffic Institute.

Pennell, Susan, et. al. (1997). ***Crime in the San Diego Region - 1996***, San Diego, CA: San Diego Association of Governments.

Pennell, Susan, et. al. (1994). ***Crime in the San Diego Region - 1993***, San Diego, CA: San Diego Association of Governments.

Rand, M. (1994). ***Carjacking***, Washington, D.C.: U.S. Department of Justice, Bureau of Justice Assistance.

Rich, T. F. (July 1995). "The Use of Computerized Mapping in Crime Control and Prevention Programs," ***NIJ Research in Action***, Washington, D.C.: U.S. Department of Justice, NCJ-155182.

Ruboy, M.A. and Coldren, J.R. (April 1992). "Law Enforcement Task Force Evaluation Projects: Results and Findings in States," ***Focus on What Works***, Washington, D.C.: U.S. Department of Justice, Bureau of Justice Assistance.

Uchida, C.D., Forst, B., and Annan, S.O. (May 1992). "Modern Policing and the Control of Illegal Drugs: Testing New Strategies in Two American Cities," ***NIJ Research Report***, Washington, D.C.: U.S. Department of Justice.

Wagner, W. (June 1996). "Lesson Learned from the National Law Enforcement and Corrections Technology Conference," ***I.A.C.A.***

APPENDICES

APPENDIX A

RATT PARTICIPATING AGENCIES AND COMMITTEES

PARTICIPATING AGENCIES

California Highway Patrol – Border Division

Carlsbad Police Department

Chula Vista Police Department

Coronado Police Department

El Cajon Police Department

Escondido Police Department

La Mesa Police Department

National City Police Department

Oceanside Police Department

San Diego Police Department

San Diego County Sheriff's Department

San Diego County District Attorney's Office

U.S. Customs Service

Federal Bureau of Investigation

U.S. Attorney

National Insurance Crime Bureau (NICB)

EXECUTIVE BOARD

William D. Gore
Special Agent in Charge
Federal Bureau of Investigation

Chief Richard P. Emerson
Chula Vista Police Department

Chief Robert R. Moreau
El Cajon Police Department

Chief Mike Poehlman
Oceanside Police Department

Sheriff Bill Kolender
San Diego County Sheriff's Department

Chief Jerry Sanders
San Diego Police Department

Chief Don Watkins
California Highway Patrol – Border Division

District Attorney Paul Pfingst
District Attorney's Office

Pam Slater
Third District Supervisor
San Diego County Board of Supervisors

INVESTIGATIVE OPERATIONS COMMITTEE (IOC)

William D. Gore
Special Agent in Charge
Federal Bureau of Investigation

Captain Mike Shirley
Oceanside Police Department

Chief Richard P. Emerson
Chula Vista Police Department

Captain Chuck Wood
San Diego County Sheriff's Department

John P. Massucco, Jr.
Chief District Attorney

Captain Hank Olias
San Diego Police Department

Captain James Davis
El Cajon Police Department

SSA Richard Sibley
Federal Bureau of Investigation

Captain Jim Zoll
Chula Vista Police Department

APPENDIX B

January, 1995

RATT RIDE ALONG

Officer Name: _____

Strategy(s): _____

Date: _____

SANDAG Staff: _____

The San Diego Association of Governments is conducting ride alongs with law enforcement officers as part of a federally-funded evaluation of enforcement and crime prevention efforts in response to motor vehicle theft.

1. How did this target come to the attention of RATT?

2. In this investigation have you used any other intelligence gathering techniques prior to this one?

_____ Utilizing Informants	_____ Controlled Buys
_____ Serving Search Warrants	_____ Surveillance
_____ Wiretaps	_____ One time buy-bust
_____ Sell-bust	_____ Searching financial records
_____ Use of body wires	_____ Other (please specify) _____

3. Are you planning to use any other intelligence gathering techniques to complete this investigation or what other efforts will take place?

_____ Utilizing Informants	_____ Controlled Buys
_____ Serving Search Warrants	_____ Surveillance
_____ Wiretaps	_____ One time buy-bust

_____ Sell-bust
_____ Use of body wires
_____ Searching financial records
_____ Other (please specify) _____

4. In this investigation what have you used

_____ Computer Screens
_____ Case Files (Arrest, Probation, Parole, Court Records)
_____ Insurance Files
_____ Informant Information
_____ Information from other justice agencies
_____ Land use Information
_____ Telephone Company
_____ Business Directories
_____ Other (please specify) _____

5. At what stage are you at in this investigation beginning, middle or end?

_____ Beginning
_____ Middle
_____ End

6. Up to this point, would you consider this investigation a success?

_____ Yes (why?)

_____ no (why not?)

7. What is considered a successful investigation (an arrest, a conviction, vehicle recovery)?

_____ Arrest
_____ Conviction
_____ Recovery
_____ Other (please specify) _____

8. What makes RATT more successful than regular motor vehicle investigations?

9. Is there anything you would like to see included in the SANDAG evaluation? (issues/ideas)

_____ yes (what?)

_____ no

Please write a brief description of the event.

APPENDIX C

nuary, 1995 ID Number _ _ _ _ _ _

RATT INTERVIEW
RATT Staff

Interviewer Initials _____

Agency _____

Rank/Title of Respondent _____

Date of Interview _____

The San Diego Association of Governments is conducting interviews with law enforcement officers as part of a federally-funded evaluation of enforcement and crime prevention efforts in response to motor vehicle theft in coordination with the Regional Auto Theft Task Force (RATT). The issues addressed include methods used for identifying investigation targets, data available to investigators, strategies employed for specific types of cases, and the means of evaluating the success of an operation. Your responses will be confidential, and will not be identified by name.

1. Please rank the following goals of RATT in order of importance: (NO SPACE SHOULD HAVE THE SAME NUMBER)

___ Decrease auto theft
___ Provide community awareness about auto theft
___ Locate stolen autos quicker before stripped, burned or resold
___ Recover property, other than vehicles
___ Punish the offender
___ Deter auto theft
___ Provide community safety
___ Other (please specify) _____

2. Which <u>one</u> of the following is the **primary** target of RATT?

___ The motor vehicle thief
___ The distributor of the stolen vehicles/parts
___ The buyer of the stolen vehicles/parts
___ Auto theft rings (includes all of the above)
___ Other (please explain)_____

3. How do investigators identify motor vehicle thefts that warrant investigation by the task force? (READ RESPONSES AND CHECK ALL THAT APPLY)

___ Citizen complaints
___ Informants
___ Patrol division
___ Other motor theft divisions
___ Crime Analysis Unit
___ Searching various data bases
    ___ SUN
    ___ County
        ___ DA
        ___ Criminal History (SR31)
        ___ Marshal
        ___ Traffic
        ___ Revenue and Recovery
        ___ Probation
        ___ REGIS
        ___ JURIS
        ___ Adult Institutions
    ___ ARJIS
    ___ CLETS
    ___ DMV
    ___ NICB
    ___ USINS System
    ___ RATT In-house PC's
___ Mapping capabilities to target auto theft areas
___ Motor vehicle crime reports
___ Arrest reports
___ Out-of-County requests
___ Investigate background/history/computer checks
___ District Attorney has prior knowledge of persons and their activities
___ Detective has prior knowledge of persons and their activities
___ Request from other agencies (i.e., probation department)
___ Request from private organization (i.e., insurance company, rental company)
___ Other (please specify) _____

4. Please describe how your targets and investigations differ from a single detective working on an investigation of a motor vehicle theft.

Using the frequencies below, please indicate how often you conduct the following activities. (READ RESPONSES AND PUT NUMBER IN EACH SPACE)

1 = Daily
2 = Weekly (1-6 per week)
3 = Monthly (1-3 per month)
4 = Less than once per week
5 = Less than once per month
6 = Never

___ Responding to out-of-county requests
___ Utilizing informants
___ Informing and educating residents about motor vehicle theft
___ Conducting controlled buys (more than 1 buy)
___ Serving search warrants
___ Serving arrest warrants
___ Wiretaps
___ Surveillance
___ Use of body wires
___ Searching financial records
___ Searching various data bases
    ___ SUN
    ___ County
        ___ DA
        ___ Criminal History (SR31)
        ___ Marshal
        ___ Traffic
        ___ Revenue and Recovery
        ___ Probation
        ___ REGIS
        ___ JURIS
        ___ Adult Institutions
    ___ ARJIS
    ___ CLETS
    ___ DMV
    ___ NICB
    ___ USINS System
    ___ RATT In-house PC's
    _____
___ 4th waiver searches
___ Business investigations
___ Other (please specify) _____

6. Of your investigations, in which areas of the county do most of the motor vehicle thefts occur?

6a. In which areas of the county are most motor vehicles recovered?

7. Which of the following characteristics of the auto theft market are likely to be impacted by <u>your</u> division's activities? Please rank each with 1, 2 or 3, where 1 is the most important, 2 less important, and 3 the least important. (READ RESPONSES AND PUT A NUMBER IN EACH SPACE)

___ Fewer motor vehicle thefts
___ More defendants prosecuted
___ Fewer automobiles going across the border
___ Increased citizen awareness of motor vehicle theft prevention
___ Increased car manufacturers awareness of motor vehicle theft prevention
___ Increased coordination of law enforcement agencies to investigate cases
___ Other (please explain) _____

Of the factors listed, which, if any, **IMPEDE** the division's ability to reduce motor vehicle theft (READ RESPONSES AND CHECK ALL THAT APPLY)

1. ___ Lack of a goal or mission
2. ___ Manpower shortage within task force
3. ___ Manpower shortage within team
4. ___ Lack of cooperation with other <u>in-house</u> teams
5. ___ Lack of cooperation with vehicle theft divisions in <u>outside</u> agencies
6. ___ Equipment shortage
7. ___ Insufficient sharing of information among different teams
8. ___ Inadequate information available from databases
    - ___ SUN
    - ___ County
        - ___ DA
        - ___ Criminal History (SR31)
        - ___ Marshal
        - ___ Traffic
        - ___ Revenue and Recovery
        - ___ Probation
        - ___ REGIS
        - ___ JURIS
        - ___ Adult Institutions
    - ___ ARJIS
    - ___ CLETS
    - ___ MV
    - ___ NICB
    - ___ USINS System
    - ___ RATT In-house PC's
9. ___ Limited evidence for court hearings
10. ___ Insufficient "buy" money
11. ___ Duplication of efforts among outside agencies
12. ___ DA charging policies concerning motor vehicle theft arrests
13. ___ Personality conflicts
14. ___ Personnel turnover
15. ___ Upper management/leadership/bureaucracy
16. ___ Not working as a "team"
17. ___ Other (please specify) _____

9. For those noted above, which (one) is the <u>most</u> important in **impeding** the effectiveness of your division? (READ RESPONSES TO QUESTION 8)

10. In general, how successful have you been in coordinating activities...

10a. with members of your team? (READ RESPONSES AND CHECK ONE)

____ very successful
____ somewhat successful
____ not very successful
____ very unsuccessful

Why?

10b. with members of other teams? (READ RESPONSES AND CHECK ONE)

____ very successful
____ somewhat successful
____ not very successful
____ very unsuccessful

Why?

10c. with outside agencies involved in an investigation (communication, coordination, sharing information, etc.)? (READ RESPONSES AND CHECK ONE)

____ very successful
____ somewhat successful
____ not very successful
____ very unsuccessful

Why?

10d. with outside agencies not involved in an investigation (storing vehicles, not informing marked units to stay out of area of undercover buy, etc.)? (READ RESPONSES AND CHECK ONE)

____ very successful
____ somewhat successful
____ not very successful
____ very unsuccessful

Why?

Why is a multi-agency task force approach to enforcement and crime prevention efforts in response to motor vehicle thefts more effective than traditional law enforcement? (READ RESPONSES AND CHECK ALL THAT APPLY)

1. ___ Access to more data bases
2. ___ More resources
3. ___ More manpower
4. ___ More training provided for officers
5. ___ Stiffer punishment for the offender
6. ___ All work at same location
7. ___ Work as a team, same goals and mission
8. ___ Vertical prosecution
9. ___ Work with district attorney so case does not fall through the cracks
10. ___ Personal dynamics of staff
11. ___ Better communication
12. ___ More effective in arrest, prosecution and conviction
13. ___ More aggressive/proactive
14. ___ A deterrent to future auto thieves
15. ___ DA and law enforcement work closely together
16. ___ Strong leadership
17. ___ Other (please specify) _____

___ Not more effective (why?)

11a. Referring to the choices listed above, please rank the **top three** responses that best describe how RATT is more effective than traditional law enforcement.

12. Are there ways that RATT operations could be improved or modified to be more effective? (READ RESPONSES AND CHECK ALL THAT APPLY)

___ More manpower
___ More funding
___ Work more with outside agencies
___ Coordinate with local police in auto theft investigations
___ A more definite chain of command
___ Make task force more known to public
___ Provide officers with more training
___ Have more resources (supplies) available
___ More computer database information available
___ More crime prevention, education activities
___ Computer mapping capabilities available
___ Have less staff turnover
___ Other (please specify) _____

13. Based on your experience with RATT, how would you rate RATT on the following items, using a number from 1 to 5, with (1) very good (2) good (3) fair, (4) poor and (5) very poor. (READ RESPONSES AND PUT NUMBER IN EACH SPACE)

___ Coordination with other agencies
___ Availability of resources (funding, supplies)
___ Availability of training (narcotics, firearms, etc.)
___ RATT staff morale
___ Location/set-up of office
___ Number of staff (investigators and clerical)
___ Leadership
___ Effectiveness of investigations
___ Effectiveness of arrests
___ Effectiveness of prosecutions
___ Effectiveness of convictions
___ Deterrence to future auto thieves
___ Availability of computer databases
___ Availability of mapping capabilities

14. What personal characteristics are <u>unique</u> to motor vehicle theft suspects compared to burglars or robbers?

15. What are the best approaches for a reduction of auto theft in San Diego County by the criminal justice system? (READ RESPONSES AND CHECK ALL THAT APPLY)

___ Stolen vehicle recovery tracking
___ More visible patrol
___ Stiffer penalties for offenders
___ High recovery rate publicized
___ Citizen awareness/education
___ More availability of computer data
___ Other (please specify) _____

What are the best ways for citizens to reduce auto theft in San Diego County? (READ RESPONSES AND CHECK ALL THAT APPLY)

1. ___ Locking their car
2. ___ Using the club
3. ___ Car alarm
4. ___ Car cover
5. ___ Neighborhood Watch
6. ___ Parking in well lit area
7. ___ Not leaving valuables in car
8. ___ Parking in garages and off the street
9. ___ Kill switches
10. ___ Other (please specify) _____

16a. For those noted above, which (one) is the most important way citizens can reduce auto theft?

17. Of the options listed, which, if any, are characteristics of auto theft rings in San Diego (READ RESPONSES AND CHECK ALL THAT APPLY)

___ Organized
___ The rings have a chain of command
The number of players are:
___ small in size (less than 5 key players)
___ large in size (more than 5 key players)
___ Central chop shop/warehouse location
Thieves are:
___ 15-24 yrs. in nature
___ 25 yrs.-up in nature
Cars targeted are:
___ older models
___ newer models (late 80's to present)
___ Cars with unique features (seats, doors, tires, etc.)
___ Specific locations are targeted in which to steal autos
Autos are stolen:
___ during the day
___ at dawn/dusk
___ at night
___ all of the above
___ Thieves will attack victim and take auto
___ Thieves will threaten victim and take auto
___ Thieves will use no force
___ The autos stolen often have items of value left in them
___ Other (please specify) _____

18. Effective ways to educate the public on the reduction of motor vehicle theft are: (READ RESPONSES AND CHECK ALL THAT APPLY)

___ Neighborhood/community meetings of high theft areas.
___ Crime prevention seminars.
___ Crime prevention handouts/brochures given out with auto registration.
___ Publish auto theft statistics in the newspaper or be emphasized by the media.
___ Other (please specify)_____

19. Have you received specialized training in:

	Before your assignment to Ratt	Once assigned to RATT, by your agency	Since assignment to RATT
Narcotics	___	___	___
Auto theft	___	___	___
Firearms	___	___	___
Undercover operations	___	___	___
Surveillance (equipment)	___	___	___
Use of new equipment available to law enforcement (pepper spray)	___	___	___
Use of confidential informants	___	___	___
Serving warrants (search, arrest)	___	___	___
Conducting searches (business investigations, 4th waiver)	___	___	___
POP, COP	___	___	___
Utilizing computers	___	___	___
Other _____	___	___	___

20. Do you have any other comments or suggestions regarding the enforcement and crime prevention efforts in response to motor vehicle thefts, or the RATT program?

Thank you for participating in the study. Would you like to receive a copy of the final report when it is available?

___ yes (Please complete information below)
___ no

Name _____

Address _____

_____

_____

nuary, 1995 ID Number _ _ _ _ _

RATT INTERVIEW
IOC

Interviewer Initials _____

Agency _____

Rank/Title of Respondent _____

Date of Interview _____

The San Diego Association of Governments is conducting interviews with law enforcement officers as part of a federally-funded evaluation of enforcement and crime prevention efforts in response to motor vehicle theft in coordination with the Regional Auto Theft Task Force (RATT). The issues addressed include methods used for identifying investigation targets, data available to investigators, strategies employed for specific types of cases, and the means of evaluating the success of an operation. Your responses will be confidential, and will not be identified by name.

1. Please rank the following goals of RATT in order of importance: (NO SPACE SHOULD HAVE THE SAME NUMBER)

___ Decrease auto theft
___ Provide community awareness about auto theft
___ Locate stolen autos quicker before stripped, burned or resold
___ Recover property, other than vehicles
___ Punish the offender
___ Deter auto theft
___ Provide community safety
___ Other (please specify) _____

2. Which <u>one</u> of the following is the **primary** target of RATT?

___ The motor vehicle thief
___ The distributor of the stolen vehicles/parts
___ The buyer of the stolen vehicles/parts
___ Auto theft rings (includes all of the above)
___ Other (please explain)_____

3. How do investigators identify motor vehicle thefts that warrant investigation by the task force? (READ RESPONSES AND CHECK ALL THAT APPLY)

- ___ Citizen complaints
- ___ Informants
- ___ Patrol division
- ___ Other motor theft divisions
- ___ Crime Analysis Unit
- ___ Searching various data bases
  - ___ SUN
  - ___ County
    - ___ DA
    - ___ Criminal History (SR31)
    - ___ Marshal
    - ___ Traffic
    - ___ Revenue and Recovery
    - ___ Probation
    - ___ REGIS
    - ___ JURIS
    - ___ Adult Institutions
  - ___ ARJIS
  - ___ CLETS
  - ___ DMV
  - ___ NICB
  - ___ USINS System
  - ___ RATT In-house PC's
- ___ Mapping capabilities to target auto theft areas
- ___ Motor vehicle crime reports
- ___ Arrest reports
- ___ Out-of-County requests
- ___ Investigate background/history/computer checks
- ___ District Attorney has prior knowledge of persons and their activities
- ___ Detective has prior knowledge of persons and their activities
- ___ Request from other agencies (i.e., probation department)
- ___ Request from private organization (i.e., insurance company, rental company)
- ___ Other (please specify) _____

4. Please describe how RATT targets and investigations differ from a single detective working on an investigation of a motor vehicle theft.

In which areas of the county do most of the RATT motor vehicle thefts investigations occur?

5a. In which areas of the county are most motor vehicles recovered?

6. Which of the following characteristics of the auto theft market are likely to be impacted by RATT's activities? Please rank each with 1, 2 or 3, where 1 is the most important, 2 less important, and 3 the least important. (READ RESPONSES AND PUT A NUMBER IN EACH SPACE)

___ Fewer motor vehicle thefts
___ More defendants prosecuted
___ Fewer automobiles going across the border
___ Increased citizen awareness of motor vehicle theft prevention
___ Increased car manufacturers awareness of motor vehicle theft prevention
___ Increased coordination of law enforcement agencies to investigate cases
___ Other (please explain) _____

7. Of the factors listed, which, if any, **IMPEDE** the division's ability to reduce motor vehicle theft (READ RESPONSES AND CHECK ALL THAT APPLY)

1. ___ Lack of a goal or mission
2. ___ Manpower shortage within task force
3. ___ Manpower shortage within team
4. ___ Lack of cooperation with other <u>in-house</u> teams
5. ___ Lack of cooperation with vehicle theft divisions in <u>outside</u> agencies
6. ___ Equipment shortage
7. ___ Insufficient sharing of information among different teams
8. ___ Inadequate information available from databases
    - ___ SUN
    - ___ County
        - ___ DA
        - ___ Criminal History (SR31)
        - ___ Marshal
        - ___ Traffic
        - ___ Revenue and Recovery
        - ___ Probation
        - ___ REGIS
        - ___ JURIS
        - ___ Adult Institutions
    - ___ ARJIS
    - ___ CLETS
    - ___ MV
    - ___ NICB
    - ___ USINS System
    - ___ RATT In-house PC's
9. ___ Limited evidence for court hearings
10. ___ Insufficient "buy" money
11. ___ Duplication of efforts among outside agencies
12. ___ DA charging policies concerning motor vehicle theft arrests
13. ___ Personality conflicts
14. ___ Personnel turnover
15. ___ Upper management/leadership/bureaucracy
16. ___ Not working as a "team"
17. ___ Other (please specify) _____

8. For those noted above, which (one) is the <u>most</u> important in **impeding** the effectiveness of your division? (READ RESPONSES TO QUESTION 7)

Why is a multi-agency task force approach to enforcement and crime prevention efforts in response to motor vehicle thefts more effective than traditional law enforcement? (READ RESPONSES AND CHECK ALL THAT APPLY)

1. ___ Access to more data bases
2. ___ More resources
3. ___ More manpower
4. ___ More training provided for officers
5. ___ Stiffer punishment for the offender
6. ___ All work at same location
7. ___ Work as a team, same goals and mission
8. ___ Vertical prosecution
9. ___ Work with district attorney so case does not fall through the cracks
10. ___ Personal dynamics of staff
11. ___ Better communication
12. ___ More effective in arrest, prosecution and conviction
13. ___ More aggressive/proactive
14. ___ A deterrent to future auto thieves
15. ___ DA and law enforcement work closely together
16. ___ Strong leadership
17. ___ Other (please specify) _____

___ Not more effective (why?)

9a. Referring to the choices listed above, please rank the **top three** responses that best describe how RATT is more effective than traditional law enforcement.

10. Are there ways that RATT operations could be improved or modified to be more effective? (READ RESPONSES AND CHECK ALL THAT APPLY)

___ More manpower
___ More funding
___ Work more with outside agencies
___ Coordinate with local police in auto theft investigations
___ A more definite chain of command
___ Make task force more known to public
___ Provide officers with more training
___ Have more resources (supplies) available
___ More computer database information available
___ More crime prevention, education activities
___ Computer mapping capabilities available
___ Have less staff turnover
___ Other (please specify) _____

11. Based on your experience with RATT, how would you rate RATT on the following items, using a number from 1 to 5, with (1) very good (2) good (3) fair, (4) poor and (5) very poor. (READ RESPONSES AND PUT NUMBER IN EACH SPACE)

___ Coordination with other agencies
___ Availability of resources (funding, supplies)
___ Availability of training (narcotics, firearms, etc.)
___ RATT staff morale
___ Location/set-up of office
___ Number of staff (investigators and clerical)
___ Leadership
___ Effectiveness of investigations
___ Effectiveness of arrests
___ Effectiveness of prosecutions
___ Effectiveness of convictions
___ Deterrence to future auto thieves
___ Availability of computer databases
___ Availability of mapping capabilities

12. What personal characteristics are <u>unique</u> to motor vehicle theft suspects compared to burglars or robbers?

13. What are the best approaches for a reduction of auto theft in San Diego County by the criminal justice system? (READ RESPONSES AND CHECK ALL THAT APPLY)

___ Stolen vehicle recovery tracking
___ More visible patrol
___ Stiffer penalties for offenders
___ High recovery rate publicized
___ Citizen awareness/education
___ More availability of computer data
___ Other (please specify) _____

14. What are the best ways for citizens to reduce auto theft in San Diego County? (READ RESPONSES AND CHECK ALL THAT APPLY)

1. ___ Locking their car
2. ___ Using the club
3. ___ Car alarm
4. ___ Car cover
5. ___ Neighborhood Watch
6. ___ Parking in well lit area
7. ___ Not leaving valuables in car
8. ___ Parking in garages and off the street
9. ___ Kill switches
10. ___ Other (please specify) _____

14a. For those noted above, which (one) is the most important way citizens can reduce auto theft?

15. Of the options listed, which, if any, are characteristics of auto theft rings in San Diego (READ RESPONSES AND CHECK ALL THAT APPLY)

___ Organized
___ The rings have a chain of command
___ Small (less than 5 key players) in size
___ Large (more than 5 key players) in size
___ Central chop shop/warehouse location
___ Thieves are young (15-24 yrs) in nature
___ Thieves are older (25yrs-up) in nature
___ Specific makes and models of cars targeted
___ Older model cars targeted
___ Newer model cars targeted
___ Cars with unique features (seats, doors, tires, etc.)
___ Specific locations are targeted in which to steal autos
___ Autos are stolen during the day
___ Autos are stolen at night
___ Autos are stolen at dawn/dusk
___ Thieves will attack victim and take auto
___ Thieves will threaten victim and take auto
___ Thieves will use no force
___ The autos stolen often have items of value left in them
___ Other (please specify) _____

16. Effective ways to educate the public on the reduction of motor vehicle theft are: (READ RESPONSES AND CHECK ALL THAT APPLY)

___ Neighborhood/community meetings of high theft areas.
___ Crime prevention seminars.
___ Crime prevention handouts/brochures given out with auto registration.
___ Publish auto theft statistics in the newspaper or be emphasized by the media.
___ Other (please specify)_____

17. Do you have any other comments or suggestions regarding the enforcement and crime prevention efforts in response to motor vehicle thefts, or the RATT program?

Thank you for participating in the study. Would you like to receive a copy of the final report when it is available?

___ yes (Please complete information below)

___ no

Name _____

Address _____
_____
_____

APPENDIX D

SAN DIEGO ASSOCIATION OF GOVERNMENTS
RATT TRACKING FORM
1995

ID _ _ _ _ _ _

COMPLETION CHECKLIST

RATT FILE	INITIALS: _____	DATE: _____
CRIME REPORT	INITIALS: _____	DATE: _____
ARREST REPORT	INITIALS: _____	DATE: _____
INVESTIGATION REPORT	INITIALS: _____	DATE: _____
SCREENS	INITIALS: _____	DATE: _____
COURT INFORMATION	INITIALS: _____	DATE: _____
QUALITY CONTROL	INITIALS: _____	DATE: _____
REVIEW/FINAL CHECKS	INITIALS: _____	DATE: _____
QUESTIONS/PROBLEMS/TO-DO LIST	INITIALS: _____	DATE: _____
_____	INITIALS: _____	DATE: _____
_____	INITIALS: _____	DATE: _____
_____	INITIALS: _____	DATE: _____
_____	INITIALS: _____	DATE: _____
_____	INITIALS: _____	DATE: _____
_____	INITIALS: _____	DATE: _____
_____	INITIALS: _____	DATE: _____
_____	INITIALS: _____	DATE: _____

NOTES

_____	INITIALS: _____	DATE: _____
_____	INITIALS: _____	DATE: _____
_____	INITIALS: _____	DATE: _____
_____	INITIALS: _____	DATE: _____
_____	INITIALS: _____	DATE: _____
_____	INITIALS: _____	DATE: _____
_____	INITIALS: _____	DATE: _____
_____	INITIALS: _____	DATE: _____

RATT FACE SHEET

ID No. __ __ __ __ __ __

Suspect Number 1
Suspect Name: _____
RATT Case No.: _____
Crime Report No.: _____
Recovery Report No.: _____
Booking No.: _____
Court Case No.: _____
System No.: _____
DOB: __ __-__ __-__ __

Suspect Number 2
Suspect Name: _____
RATT Case No.: _____
Crime Report No.: _____
Recovery Report No.: _____
Booking No.: _____
Court Case No.: _____
System No.: _____
DOB: __ __-__ __-__ __

Suspect Number 3
Suspect Name: _____
RATT Case No.: _____
Crime Report No.: _____
Recovery Report No.: _____
Booking No.: _____
Court Case No.: _____
System No.: _____
DOB: __ __-__ __-__ __

Suspect Number 4
Suspect Name: _____
RATT Case No.: _____
Crime Report No.: _____
Recovery Report No.: _____
Booking No.: _____
Court Case No.: _____
System No.: _____
DOB: __ __-__ __-__ __

Suspect Number 5
Suspect Name: _____
RATT Case No.: _____
Crime Report No.: _____
Recovery Report No.: _____
Booking No.: _____
Court Case No.: _____
System No.: _____
DOB: __ __-__ __-__ __

Suspect Number 6
Suspect Name: _____
RATT Case No.: _____
Crime Report No.: _____
Recovery Report No.: _____
Booking No.: _____
Court Case No.: _____
System No.: _____
DOB: __ __-__ __-__

Suspect Number 7
Suspect Name: _____
RATT Case No.: _____
Crime Report No.: _____
Recovery Report No.: _____
Booking No.: _____
Court Case No.: _____
System No.: _____
DOB: __ __-__ __-__ __

Suspect Number 8
Suspect Name: _____
RATT Case No.: _____
Crime Report No.: _____
Recovery Report No.: _____
Booking No.: _____
Court Case No.: _____
System No.: _____
DOB: __ __-__ __-__ __

Total RATT Case Numbers: __ __

Key Case: _____ _____
_____ _____
_____ _____
_____ _____
_____ _____

How linked: _____
_____

GENERAL CASE INFORMATION

ID No. _ _ _ _ _ _ 6

Record # 0 1 8

Record Type 0 1 10

(RATT only) Date case opened: _ _-_ _-_ _

(RATT only) Date case closed: _ _-_ _-_ _ 22

(SANDAG date) Date case opened: _ _-_ _-_ _

(SANDAG date) Date case closed: _ _-_ _-_ _ 34

__ Total # of general vehicle information sheets
36

__ Total # of suspects in case
38

____ Type of case (ONE RESPONSE)

1 Auto theft
2 Recovery only
3 Non-vehicle
4 Other _____

Intelligence Gathering Used (ALL THAT APPLY)

____ Utilizing informants
40
____ Undercover inquiry
____ Conducting controlled buys (one car only)
____ Conducting controlled buys (more than one)
____ Controlled buy of vehicle parts
____ Controlled buy of drugs
____ Controlled buy of weapons
____ Controlled buy of other _____
____ Search warrant
____ Arrest Warrant
____ 4th waiver searches
____ Consent search
____ Business inspection
____ Citizen complaint
____ Video camera
____ Surveillance
____ 35mm camera/photos
____ Use of body wires
____ Searching financial/business records
58

Searching various databases

____ SUN
County
____ DA
____ Criminal history (SR31)
____ Marshal
____ Traffic
____ Revenue and recovery
____ Probation
____ REGIS
____ JURIS
____ Adult institutions
68
____ ARJIS
69
____ CLETS
____ DMV
____ NICB
____ USINS system
____ Cal ID
74

____ Other _____

____ Unknown
76

Agencies	Involvement
CHP	__ 77
Carlsbad	__
Chula Vista	__
Coronado	__
El Cajon	__
Escondido	__
La Mesa	__
National City	__
Oceanside	__
San Diego	__
Sheriff	__
Customs	__
FBI	__
Border Patrol	__
RATT	__
NICB	__
District Attorney	__
INS	__
Marshall	__
Out of county LE Agency	__
Out of state LE Agency	__
Out of country LE Agency	__
Other _____	__ 99

Other property impounded (not in vehicle)

1 = Yes 2 = No 9 = Unknown

GENERAL VEHICLE INFORMATION

ID No. __ __ __ __ __ __ 6

Record # __ __ 8

Record Type 0 2 10

Date stolen: __ __-__ __-__ __ 16

Location of Theft

Number __ __ __ __ __ __ 22

Street __ __ __ __ __ __ __ __ __ 31
__ __ __ __ __ __ __ __ __ 40

Type __ __ __ __ 44

City _____

City Code __ __ __ __ 48

Zip Code __ __ __ __ __ 53

____ Unknown
54

Vehicle Type

Make _____ __ __ 56

Model _____ __ __ 58

Year __ __

Color _____ __ __ 62

____ Unknown
63

RECOVERY INFORMATION

Recovered: 1 = Yes 2 = No 9 = Unknown

Other property recovered (non-vehicle):
1 = Yes 2 = No 9 = Unknown

__ __ Recovering Agency
67

Date Recovered __ __-__ __-__ __ 73

____ Unknown
74

Location of Recovery

Number __ __ __ __ __ __ 80

Street __ __ __ __ __ __ __ __ __ 89
__ __ __ __ __ __ __ __ __ 98

Type __ __ __ __ 102

City _____

City Code __ __ __ __ 106

Zip Code __ __ __ __ __ 111

____ Unknown
112

Vin status (ONE RESPONSE) __ __ 114

1 OK
2 Removed
3 Altered
4 Switched
5 Multiple Vins
8 Other _____
9 Unknown
10 Not applicable

License status (ONE RESPONSE) __ __ 116

1 OK
2 Removed
3 Altered
4 No plates to begin with
5 Switched
6 Multiple plates
8 Other _____
9 Unknown
10 Not applicable

__ __ Number of recoveries
118

Type of Recovery (total should equal above)

__ __ All of vehicle(s)

__ __ Part(s) of vehicle(s)
122

Recovery Status (ONE RESPONSE) _____ 123

1 Stored/impounded

2 Released

3 Disposed according to agency

8 Other _____

9 Unknown

Vehicle Condition (ALL THAT APPLY)

1 Wrecked 124

2 Vandalized

3 Stripped

4 Burned

5 Same condition as when stolen

6 Engine/transmission stripped

7 Body metal stripped

8 Unknown

9 Other _____

10 Not applicable 134

Vehicle Driveable: 1=Yes 2=No 9=Unknown 10=Not applicable

Ignition Altered: 1=Yes 2=No 9=Unknown 10=Not applicable

Use of Vehicle/Parts by Suspect(s) (ALL THAT APPLY)

1 Parts/accessories 139

2 Sale of vehicle/parts

3 Used to commit another offense

4 Personal use

8 Other _____

9 Unknown 144

SUSPECT INFORMATION

ID No. __ __ __ __ __ __ 6

Record # __ __ 8

Record Type 0 3 10

Race ___ 11

1 = White 3 = Hispanic

2 = Black 8 = Other _____

9 = Unknown

Age ___ 12

1 = Under 18 3 = 25-35

2 = 18-24 4 = 36+

Sex: 1 = Male 2 = Female 9 = Unknown

Suspect arrested: 1 = Yes 2 = No 9 =Unknown

Primary arresting agency: __ __ 16

__ __ 18 Number of arrest charges

Date of arrest: __ __-__ __-__ __ 24

Highest arrest charge: BCS Code

_____ __ __ __ 27

Other Charges BCS Code

_____ __ __ __

_____ __ __ __

_____ __ __ __

_____ __ __ __

_____ __ __ __ 42

Drug charges involved: 1 = Yes 2 = No 9 = Unknown

Weapons charges involved: 1 = Yes 2 = No 9 = Unknown

Auto theft charges involved: 1 = Yes 2 = No 9 = Unknown

COURT CASE INFORMATION

Arrest disposition (ONE RESPONSE) ____ 46

1 Reject
2 No complaint filed
3 Filed
4 Pending
5 Unknown (out of county)
9 Unknown

__ __ 48 Number of charges filed on

Date court case filed: __ __-__ __-__ __ 54

Highest charge filed: BCS Code

_____ __ __ __ 57

Other charges BCS Code

_____ __ __ __

_____ __ __ __

_____ __ __ __

_____ __ __ __

_____ __ __ __ 72

Drug charges involved: 1 = Yes 2 = No 9 = Unknown

Weapons charges involved: 1 = Yes 2 = No 9 = Unknown

Auto theft charges involved: 1 = Yes 2 = No 9 = Unknown

Disposition (ONE RESPONSE) _____ 76

1 Diversion
2 Dismissed
3 Guilty plea
4 Convicted
5 Pending
6 FTA
8 Other _____
9 Unknown _____

__ __ 78 Number of conviction charges

Date of disposition: __ __-__ __-__ __ 84

Highest conviction charge BCS Code

_____ __ __ __ 87

Other Charges BCS Code

_____ __ __ __

_____ __ __ __

_____ __ __ __

_____ __ __ __

_____ __ __ __ 102

Drug charges involved: 1 = Yes 2 = No 9 = Unknown

Weapons charges involved: 1 = Yes 2 = No 9 = Unknown

Auto theft charges involved: 1 = Yes 2 = No 9 = Unknown

Sentence (ONE RESPONSE) _____ 106

1 Prison
2 Jail/probation
3 Jail
4 Probation
5 Pending
6 FTA Time ordered __ __ __ __ 110
8 Other _____
9 Unknown _____

Plea: 1 = Yes 2 = No 9 = Unknown

Vertical Prosecution: 1 = Yes 2 = No 9 = Unknown 112

APPENDIX E

RATT CAMS
User's Documentation
General Release 1.1

MARCH 1996

San Diego

ASSOCIATION OF
GOVERNMENTS

401 B Street, Suite 800
San Diego, CA 92101
(619) 595-5300

Technical Support: John Hofmockel, Programmer (595-5386)
Mark Woodall, Programmer (595-5371)

TABLE OF CONTENTS

INTRODUCTION

INTRODUCTION

The San Diego Regional Auto Theft Task Force (RATT) Crime Analysis and Mapping System (CAMS) was developed as part of the research study entitled A Coordinated Response to Motor Vehicle Thefts: Evaluation of Enforcement and Crime Prevention Efforts. This two-year study will evaluate the effectiveness of using enhanced crime analysis techniques to target the efforts of a regional, multi-agency task force to increase arrests and successful prosecutions of offenders and reduce motor vehicle thefts. The Criminal Justice Research Division of the San Diego Association of Governments (SANDAG) is the overall project lead. Sixteen federal, state, and local agencies work together as RATT to arrest and prosecute major auto theft rings.

RATT CAMS is a geographic information system (GIS) which allows crime analysts to query, manipulate, summarize, and map regional databases associated with vehicle thefts and recoveries. SANDAG's Research and Information System Division developed RATT CAMS using ArcView, a PC GIS product developed by the Environmental Systems Research Institute (ESRI) of Redlands, California.

RATT CAMS functionality was developed as an addition to the original functionality of ArcView. As the user becomes more familiar with RATT CAMS and ArcView, the user can make use of all the original menus, buttons, and tools.

Baseline data for a random sample of motor vehicle thefts was collected in the initial phase of the research to identify information needed by investigators and to analyze crime patterns associated with major vehicle theft rings. During the second phase, RATT CAMS was developed and implemented in collaboration with the San Diego Police Department Crime Analysis Section. The third phase will include providing crime analysis information to detectives and identifying target and control areas for enforcement and crime prevention strategies. Finally, the effectiveness of the strategies employed will be tested by comparing pre- and post-test measures of arrests, convictions, prosecutions, the level of reported incidents, and vehicle recoveries. In addition, the evaluation will include a descriptive analysis of RATT operations before and after the implementation of CAMS, based on observation, baseline and post-test data and pre- and post-test interviews with RATT detectives.

ArcView Overview

ArcView is a Windows GIS application, with most tasks accomplished using one or more buttons or menu bar items accessed with a mouse.

There are five document types associated with an ArcView project. A project is a file which stores information related to a particular task. For example, a project does not store data, but stores "pointers" to where the data reside on the computer. The five document types are:

View: A view is a map which lets you display or analyze geographic data.

Table: A table stores data. Any table may be displayed and analyzed. The rows in a table represent the feature, such as a theft or recovery. The columns in a table represent the data associated with each feature, such as location or time of day.

Chart: A chart allows you to present the data or the result of a query (e.g. summarize vehicle thefts by make or model). Charts can be area charts, bar charts, line graphs, or pie charts.

Layouts: A layout is a display of a map, table, chart, or any combination of these. The layout is basically the printed page from ArcView. You can add a legend, scale, or north arrow to maps or page titles. Tables and charts can be included in a layout, but they are only referenced and not physically placed in the layout. (Therefore, if edits are done to the table or chart, these changes are automatically incorporated into the layout.)

Script: A script contains the program which customizes ArcView, written in Avenue programming language.

CAUTION: Each document has its own specific menu items and button bars. If you are looking for the customized buttons bars for RATT CAMS, be sure you are in a View by clicking on the title bar of the view window.

RATT CAMS uses views and tables to do most of the analysis. SANDAG has customized the project using scripts, including menu buttons to do much of the work.

Documentation

The next section of this documentation provides information on the computer requirements of RATT CAMS and steps to installing the necessary files. Section 3 provides an overview of the RATT CAMS specific functions. Section 4 provides steps on getting started with the software and custom functions.

COMPUTER REQUIREMENTS AND INSTALLATION

COMPUTER REQUIREMENTS AND INSTALLATION

Computer Requirements

Although ESRI has a minimum hardware and software recommendation for running ArcView, SANDAG staff have found the following configuration is needed to run ArcView and RATT CAMS effectively:

Computer:	80486 or higher microprocessor, 66 MHz or higher, hard disk, and 1.2 megabyte or higher capacity flopping disk drive.
Hard Disk:	To install ArcView, approximately 30 megabytes of space is needed for program and tutorial files. The RATT CAMS application requires an additional 90 megabytes of available space. You should have at least 12 megabytes of space free above this to be available for temporary storage (swap space).
RAM:	16 megabytes of RAM ("memory").
Operating System:	MS-DOS 5.0 or higher, Microsoft Windows 3.1 or higher.
Monitor:	Super Video graphics adapter (SVGA), 800x600 resolution, 16K color depth, Windows accelerator strongly recommended, 2 MB of video RAM is also recommended.
Mouse:	Mouse is required.

Installation

Consult the *ArcView Installation Guide* or related documents for more information on installing ArcView 2.1.

The RATT CAMS beta version was installed by laptop computer and all files were restored to original directories on the *C:* drive. The general release 1.1 is distributed on diskette since many of the larger database files were not reconstructed since the beta release.

The process for installing these files is included with the diskettes. Future updates will be distributed on diskette.

As a result of the installation and/or update process, files in several directories will be updated. The directory structure should still be as follows:

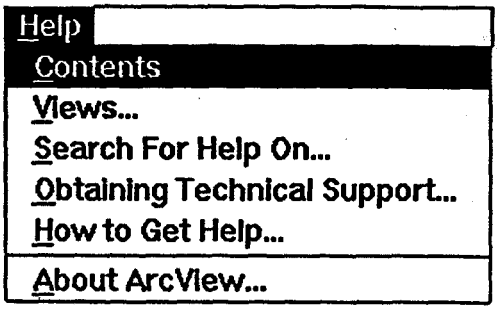
```
C:\RATT\
     BMP            <DIR>
     DATA           <DIR>
     LOOKUP         <DIR>
     THEMES         <DIR>
     THOMBRO        <DIR>
     VB             <DIR>
     XFER           <DIR>
     RATT      APR
     VBRUN300  DLL
```

The main directory is *c:\ratt*. This directory contains the project file called *ratt.apr*. A number of sub-directories are created underneath *c:\ratt*. These are all data files needed by the application.

You will also need to adjust the Windows video driver to a resolution of 800x600 with 65k colors. The color depth setting is not as important as the resolution setting. Higher resolutions may be used if desired, but you may suffer performance penalties whenever the screen is refreshed.

ArcView On-line Help

In addition to the printed documentation that comes with ArcView, there is extensive help available on-line once you are in ArcView. From the menu bar, click Help to see the Help menu items.



The pull-down Help menu.

1. CONTENTS: Click on Contents to see more general information on using ArcView, "how to" instructions for various tasks, and the ArcView tutorial.

2. VIEWS: Click on Views for more information on views and themes such as displaying a view, querying a view, etc. (Note: This help menu is when the View window is active. This help item changes depending on the window that you are in - e.g. View, Charts, etc.)

3. SEARCH FOR HELP ON: Click on Search for the glossary. Type in word(s) and click "Show Topics" to see a listing of all related help. Highlight one of the topics and click "Go To" for the information.

4. OBTAINING TECHNICAL SUPPORT: Click on Tech Support to find out how to contact ESRI, other training and support services, etc.

5. HOW TO GET HELP: Click on How To to learn how to use the Help features.

6. ABOUT ArcView: Click on About to show registration information, version number, etc.

NOTE: You may print out the help information by using the FILE menu of the Help window and clicking on PRINT TOPIC.

We suggest loading ArcView and running the tutorial before venturing on to RATT CAMS. This serves two purposes: (1) you will ensure that ArcView is installed properly, and (2) you'll begin to familiarize yourself with ArcView functionality.

RATT CAMS OVERVIEW

RATT CAMS OVERVIEW

This section describes the general functionality of RATT CAMS. Details on how to use the custom buttons and tools are documented in the next section *Getting Started.*

RATT CAMS functionality was developed as an addition to the original functionality of ArcView. As the user becomes more familiar with RATT CAMS and ArcView, the user can make use of all the original menus, buttons, and tools.

Five functions were developed: 1) Series Mapping using the RATT Query Form, 2) Cluster Analysis Mapping, 3) Drawing Links between thefts and recoveries, 4) Identifying and listing information about a theft or recovery; and 5) Importing new data.

Series Mapping

This function allows the crime analyst to view incidents based on selected criteria. Incident characteristics are input into the RATT Query Form, then selected by using the View Query button. Crime analysts can make a selection based on jurisdiction of reported incident, date/time, and vehicle characteristics. The vehicle characteristics include: year, make, model, and type. Recovery incidents can be selected by condition. Theft incidents can be selected by violation charge code. The RATT Query Form can also be used to analyze sub-sets of selected incidents.

Cluster Analysis Mapping

This function identifies clusters of selected incidents by grouping incidents according to their proximity to one another. The crime analyst enters an incident number (threshold) and radius.

Link

This function identifies the relationship between where vehicle thefts occurred and where the vehicle was recovered by drawing lines between selected thefts and/or recoveries. This function is also referred to as inter-connectivity.

Import

This function is used to import new incident data into RATT CAMS after it has been downloaded from CASS. Eight ASCII data files must first be downloaded into the *xfer* sub-directory under *c:/ratt*. Currently, the system imposes an 8,000 record limit on each ASCII text file. This should be sufficient to permit loading two months worth of data. Data file formats can be referenced in the Appendix.

RATT Identify Tool

This tool allows the crime analyst to identify an incident and list detailed data associated with that incident. Clicking this tool, then clicking on an incident lists location data (address), vehicle data (make, model, year), and person data (victim, witness, suspect). Vehicle content data is listed for recoveries. Violation charge data is listed for thefts.

GETTING STARTED

GETTING STARTED

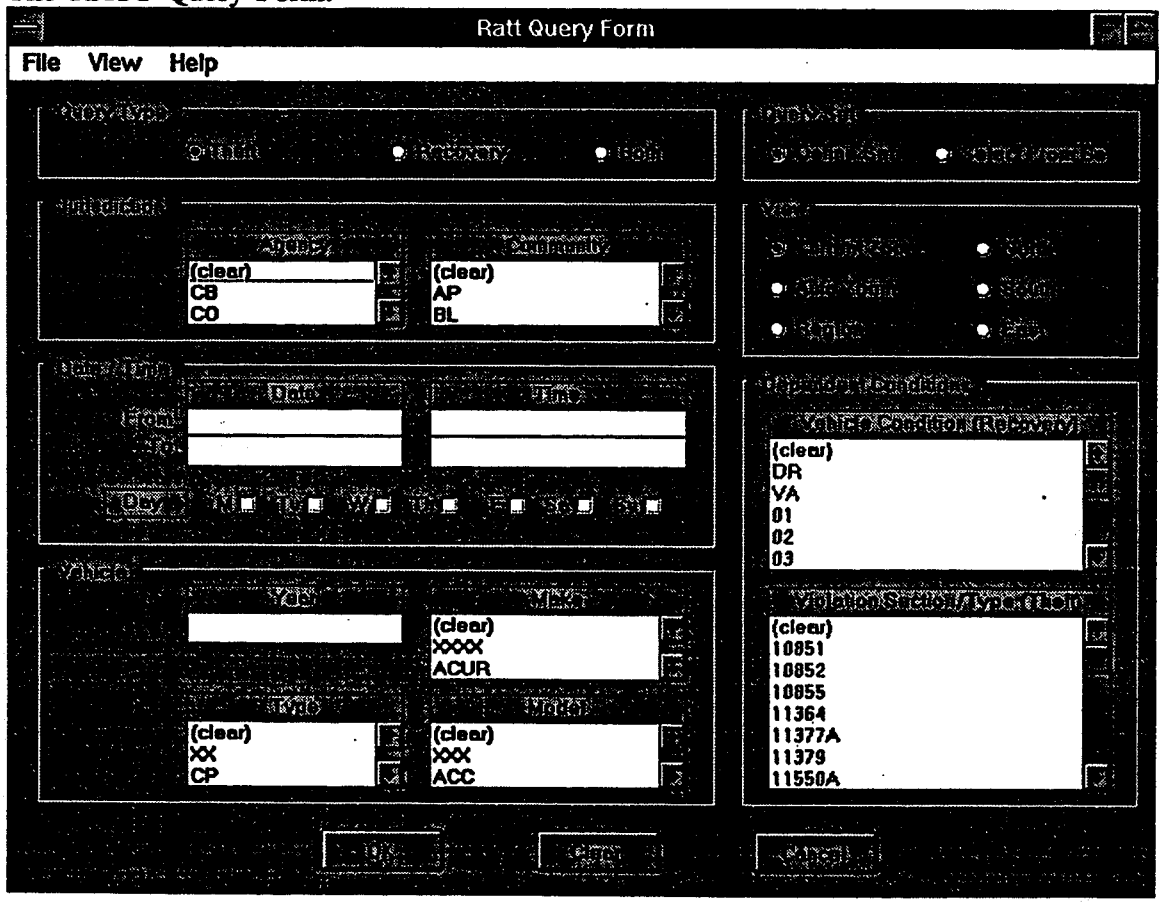
Starting RATT CAMS

Once the ArcView and RATT CAMS software have been installed, from the Windows Program Manager double-click the RATT CAMS icon to open it. Loading will take a few seconds (we've found that during this time, the icon disappears, but this is OK.)

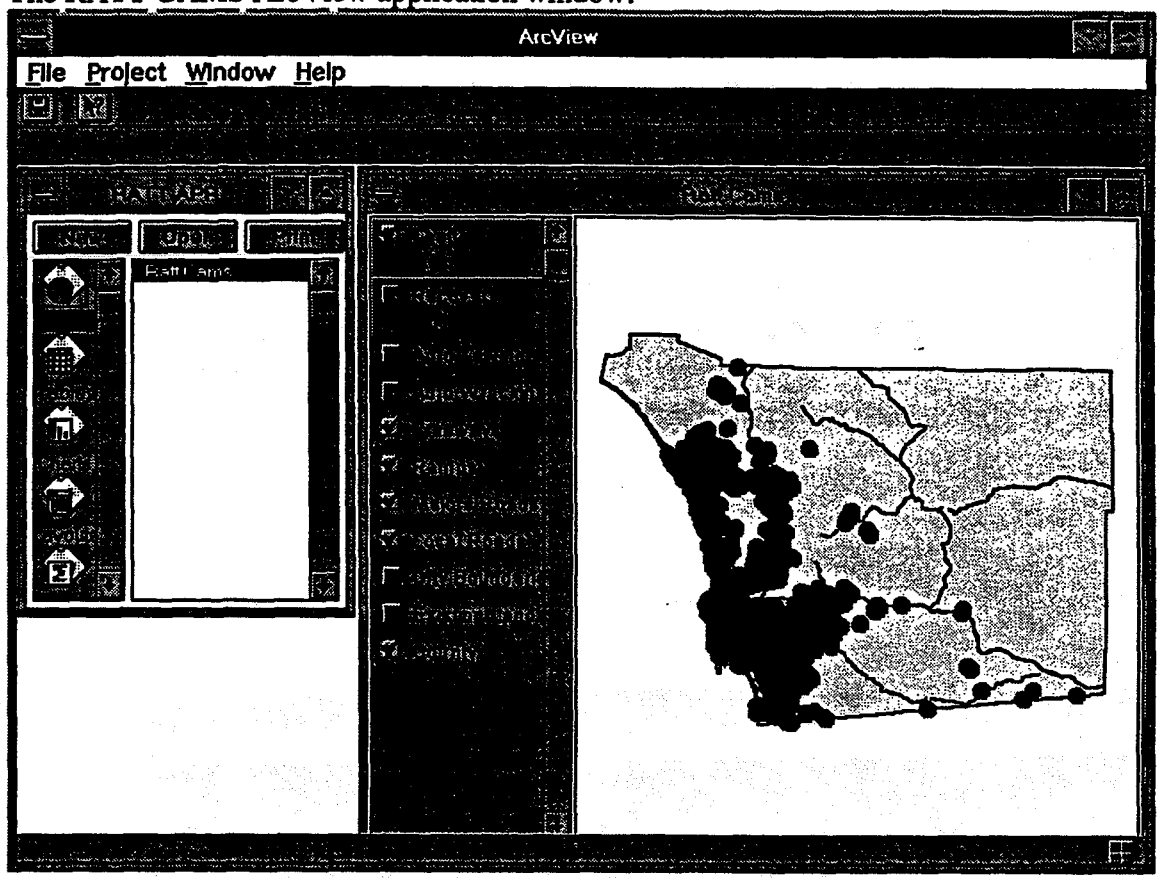
The RATT CAMS icon. 

Two windows will appear, the RATT Query Form and the ArcView application window.

The RATT Query Form.



The RATT CAMS ArcView application window.



The RATT Query Form is a Visual Basic Application called QRATT. The ALT and TAB keys are used to switch between QRATT and ArcView. Press and hold down ALT while pressing TAB repeatedly to cycle through running applications. The ArcView application window should contain a RATT.APR project window and a RATT CAMS view window. View menus, buttons, and tools will appear when the RATT CAMS view is active. Make the RATT CAMS view active by clicking the RATT CAMS view title bar.

There are five customized buttons and one customized tool button specifically programmed for RATT CAMS. The custom buttons are located on the right side of the main button bar. The custom RATT identify tool is located just to the right of the default ArcView identity tool. These custom buttons are orange to distinguish them from the default ArcView buttons.

The RATT CAMS custom buttons. 

The first button is the Query button. It selects incidents based on the query entered into the RATT Query Form. The second button is the Cluster button. It groups selected incidents based on the proximity to each other. The third button is the Link button. It draws lines between the selected thefts and/or recoveries. The fourth button is the Unlink button. It removes all link lines

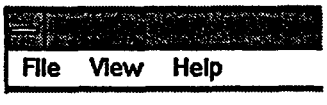
from the view. The fifth button is the Import button. It imports the eight ARJIS/CASS ASCII data files into ArcView.

The RATT CAMS Identify tool. 

The RATT identify tool gets RATT information about theft or recovery incidents and displays the data in tabular form on the screen.

The RATT Query Form (QRATT)

The RATT Query Form creates a logical query. After the query is created, it is executed by clicking the **Q** on the RATT CAMS view button bar.

RATT Query Form Menu Bar. 

Save, Load, and Exit from the **File** menu are currently disallowed. These menu options are included in anticipation of future enhancements to the system.

Query from the **View** menu displays the contents of the current logical query in a pop-up window.

SubQuery from the **View** menu has options for displaying the sub-queries described below.

About from the **Help** menu displays information about RATT CAMS, including the version number.

Query Type. 

Select the type of incident by clicking the **Theft, Recovery,** or **Both** button.

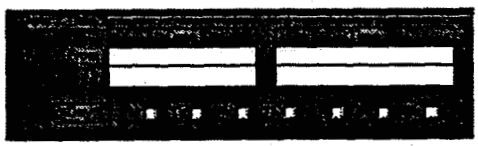
Jurisdiction. 

Select the reporting agency of the incident by scrolling the **Agency** list and clicking on the agency code. The **Agency** title bar is highlighted pink if any agency codes have been selected. Unselect an agency by clicking it again. Multiple agencies can be selected. The default is to select all agencies. The first item on all list is "(clear)". Click it to clear all selections made for that field.

Select the community of the incident by scrolling the **Community** list and clicking on the community code. The **Community** title bar is highlighted pink if any community codes have been selected. Unselect a community by clicking it again. Multiple communities can be selected. The default is to select all communities.

Note: The communities are only for the sheriff agency.

Date/Time.



Enter the From Date and the To Date in the **Date** boxes in the format *yyyymmdd*. For example: 19950601. The **Date** title bar is highlighted pink when a date is entered. The default is to select all dates.

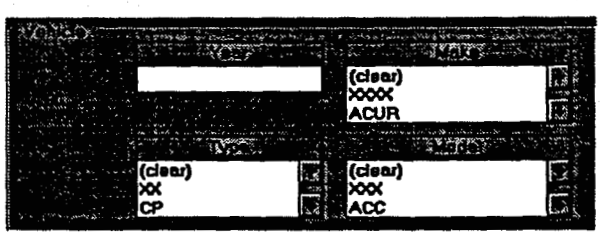
Enter the From Time and To Time in the **Time** boxes in the 24-hour clock format. Include leading zeroes, but do not include the colon. For example: 0300 = 3:00 am, 1200 = 12:00 noon, 1800 = 6:00 p.m. and 2400 = 12:00 midnight. The **Time** title bar is highlighted pink when a time is entered. The default is to select all times. The **Time** boxes should be left blank if time of incident is not a factor.

If the To Time is entered without a From Time, incidents are selected from 12:01 am (0001) to the To Time entered. If the From Time is entered without a To Time, incidents are selected up to midnight (2400).

Note: The time of 0000 or 0 in the data means no times were entered for that incident.

Select the days of the week by clicking the appropriate **Day** button boxes. Unselect a day by clicking its button again. The default is to select all days.

Vehicle.



Enter the year of the vehicle in the **Year** box as a four-digit number. For example: 1995. The **Year** title bar will be highlighted pink if an entry has been made. A range of years can be entered by separated the beginning and ending years with a dash (-). For example: 1990-1996. The default is to select all years.

Select the vehicle type by scrolling the **Type** list and clicking on the vehicle type code. The **Type** title bar will be highlighted pink if any vehicle type codes are selected. Unselect a vehicle

type by clicking it again. Multiple vehicle types can be selected. The default is to select all vehicle types.

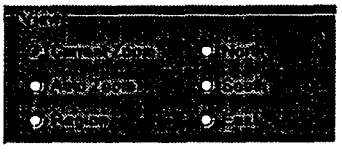
Select the vehicle make by scrolling the **Make** list and clicking on the vehicle make code. The **Make** title bar will be highlighted pink if any vehicle make codes are selected. Unselect a vehicle make by clicking it again. Multiple vehicle makes can be selected. The default is to select all vehicle makes.

Select the vehicle model by scrolling the **Model** list and clicking on the vehicle model code. The **Model** title bar will be highlighted pink if any vehicle model codes are selected. Unselect a vehicle model by clicking it again. Multiple vehicle models can be selected. The default is to select all vehicle models.

Warning: The software does not check for illogical selections. For example, selecting Toyota Accord will create an empty set of incidents.

Query Set. 

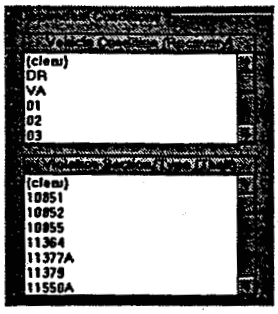
Select the set by clicking the **Define Set** or **Select From Set** radio button. The Define Set option reduces the data pool to just those incidents meeting the criteria specified on the query form. The Select From Set option runs the query against the existing data pool and selects those incidents which meet the criteria specified.

View. 

Select the map extent the software will zoom to by clicking the **Current Zoom, Auto Zoom, Region, North, South,** or **East** button. The zoom occurs automatically after the query is executed.

Current Zoom. The view window will not change.
Auto Zoom. The view will zoom to the extent of the selected incidents.
Region. The view will zoom to the entire region.
North. The view will zoom to the north part of the region.
South. The view will zoom to the south part of the region.
East. The view will zoom to the east part of the county.

Dependent Conditions.



Select the vehicle condition (for Query Type Recovery only) by scrolling the **Vehicle Condition** list and clicking on the vehicle condition code. The **Vehicle Condition** title bar will be highlighted pink if any vehicle condition codes are selected. Unselect a vehicle condition by clicking it again. Multiple vehicle conditions can be selected. The default is to select all vehicle conditions.

Select the vehicle section type (for Query Type Theft only) by scrolling the **Vehicle Section Type** list and clicking on the vehicle section type code. The **Vehicle Section Type** title bar will be highlighted pink if any vehicle section type codes are selected. Unselect a vehicle section type by clicking it again. Multiple vehicle section types can be selected. The default is to select all vehicle section types.

Due to the structure of the data sets in RATT CAMS, Dependent Conditions criteria may be set only when the Query Set option is set to Select From Set.

OK.

Click the **OK** button when finished filling out the query form. The query is updated only when the OK button is clicked.

Clear.

Click the **Clear** button to re-initialize the query form, clearing all selections.

Cancel.

Click the **Cancel** button to go to the RATT CAMS ArcView application window (and ignore any changes that have been entered into the query form).

Series Mapping Example

The following example will select and display both thefts and recoveries which were reported by the Escondido Police Department on Friday, Saturday, and Sunday.

To perform Series mapping, take the following steps:

1. Make the RATT Query Form **QRATT** active with the *ALT* and *TAB* keys.

2. For the Query Set, click the Define Set button. 

3. For Query Type, click the **Both** button. 

4. For the Jurisdiction, from the **Agency** list, single-click **ES.** 

5. For Day of Week, click the **F, Sa,** and **Su** boxes. 

6. For View, click the **Auto Zoom** button. 

7. Click OK to exit the RATT Query Form. 

8. Make the RATT CAMS view active by clicking on the RATT CAMS view title bar.

9. Click the Query button to execute the query entered in the RATT Query Form. 

10. If Necessary, click the boxes adjacent to the Theft and Recovery themes to make them visible in the View window. 

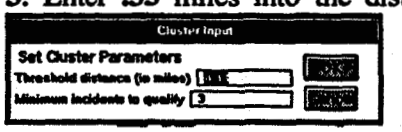
Cluster Analysis Mapping Example

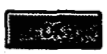
Cluster analysis can be performed at any time during the RATT CAMS ArcView session. The following example refers to the selected set defined in the Series Mapping example above. Clusters of three or more thefts which occur within one-third mile are displayed.

1. Make the RATT CAMS view active by clicking on the RATT CAMS view title bar.

2. Click the Cluster button. 

3. Enter .33 miles into the distance field. Enter 3 into the Minimum incidents field.



4. Click OK. 

Link and Unlink Example

Link and Unlink can be performed at any time during the RATT CAMS ArcView session. The following example refers to the selected set defined in the Series Mapping example above.

1. Make the RATT CAMS view active by clicking on the RATT CAMS view title bar.

2. Click the **Link** button. 

3. Pan and/or Zoom using original ArcView tools if necessary.

4. Click the Unlink button. 

RATT Identify Tool

The RATT Identify Tool can be used at any time during the RATT CAMS ArcView session to obtain information about a specific theft or recovery.

1. Make the RATT CAMS view active by clicking on the RATT CAMS view title bar.

2. Click on the RATT Identify Tool.  The cursor will change to a bullseye when it touches the view window.

3. Click on the Theft or Recovery theme name to make it active.

4. Click on an incident to display information.

Import New Data Example

The following example assumes a new data set of the eight standard files has been copied to the *c:\ratt\xfer* sub-directory.

1. Make the RATT CAMS view active by clicking on the RATT CAMS view title bar.

2. Click the Import New Data button. 

3. Do you want to continue? Click Yes.

4. Wait for the IMPORT Windows application window to finish.

5. Do you want to continue? Click Yes.

6. Wait for Information Box "Data Import Complete". Click OK.

APPENDIX

RATT CAMS
DATA FILE FORMAT

File: ACTIVITY.TXT

Description: The law enforcement action related to vehicle reporting and investigations.

Attributes:

VARIABLE	TYPE	LENGTH	COLS	DESCRIPTION
AGENCY	CHAR	2	1-2	Agency code
ACTTYPE	CHAR	2	4-5	Activity type code CC = Crime Case (Theft) RC = Recovery
ACTSEQNO	CHAR	10	7-16	Activity sequence number
FROMDATE	DATE	8	18-25	Starting date of occurrence
FROMTIME	INTEGER	4	27-30	Starting time of occurrence
FROMDAY	INTEGER	1	32	Starting day of week of occurrence
TODATE	DATE	8	34-41	Ending date of occurrence
TOTIME	INTEGER	4	43-46	Ending time of occurrence
TODAY	INTEGER	1	48	Ending day of week of occurrence
ACTGROUP	CHAR	1	50	ARJIS component type
ACTSTAT	CHAR	2	52-53	Activity status code
UPT_DATE	DATE	8	55-62	Date entered into ARJIS
END	CHAR	3	63-65	End of Record

RATT CAMS
DATA FILE FORMAT

File: CHARGE.TXT

Description:

Attributes:

VARIABLE	TYPE	LENGTH	COLS	DESCRIPTION
AGENCY	CHAR	2	1-2	Agency code
ACTTYPE	CHAR	2	4-5	Activity type code CC = Crime Case (Theft)
ACTSEQNO	CHAR	10	7-16	Activity sequence number
FROMDATE	DATE	8	18-25	Starting date of occurrence
ATMPFLG	CHAR	1	27	
BCS	CHAR	3	29-31	Bureau of Criminal Statistics code
BCSCLAS	CHAR	1	33	
HIGHFLAG	CHAR	1	35	
VIOLEVEL	CHAR	1	37	
VIOSECT	CHAR	15	39-53	
VIOTYPE	CHAR	2	55-56	
END	CHAR	3	57-59	End of Record

RATT CAMS
DATA FILE FORMAT

File: CONDTN.TXT

Description: Reported condition of the vehicle related to a law enforcement activity.

Attributes:

VARIABLE	TYPE	LENGTH	COLS	DESCRIPTION
AGENCY	CHAR	2	1-2	Agency code
ACTTYPE	CHAR	2	4-5	Activity type code
RC = Recovery				
ACTSEQNO	CHAR	10	7-16	Activity sequence number
FROMDATE	DATE	8	18-25	Starting date of occurrence
VEHCODE	INTEGER	2	27-28	Vehicle condition code
END	CHAR	3	29-31	End of Record

Examples:
Stripped
Damaged
Wheels removed
Contents missing

RATT CAMS
DATA FILE FORMAT

File: CONTENTS.TXT

Description: Reported property contained in the vehicle related to a law enforcement activity.

Attributes:

VARIABLE	TYPE	LENGTH	COLS	DESCRIPTION
AGENCY	CHAR	2	1-2	Agency code
ACTTYPE	CHAR	2	4-5	Activity type code CC = Crime Case (Theft) RC = Recovery
ACTSEQNO	CHAR	10	7-16	Activity sequence number
FROMDATE	DATE	8	18-25	Starting date of occurrence
ARTICLE	CHAR	20	27-46	
RECAGCY	CHAR	2	48-49	
REPVALUE	INTEGER	1	51	
RECVALUE	INTEGER	8	53-60	
END	CHAR	3	61-63	End of Record

RATT CAMS
DATA FILE FORMAT

File: LOCATION.TXT

Description: Reported place of occurrence of a law enforcement vehicle activity.

Attributes:

VARIABLE	TYPE	LENGTH	COLS	DESCRIPTION
AGENCY	CHAR	2	1-2	Agency code
ACTTYPE	CHAR	2	4-5	Activity type code CC = Crime Case (Theft) RC = Recovery
ACTSEQNO	CHAR	10	7-16	Activity sequence number
FROMDATE	DATE	8	18-25	Starting date of occurrence
BEAT	INTEGER	3	27-29	Beat
CENBLOCK	CHAR	5	31-35	Census Block
CENTRACT	INTEGER	6	37-42	Census Tract
COMMCODE	CHAR	2	44-45	Community code
CSTNAME	CHAR	20	47-66	Cross street name
CSTPRE	CHAR	2	68-69	Cross street prefix
CSTTYPE	CHAR	2	71-72	Cross street type
APTNO	CHAR	5	74-78	Apartment number
LOCTYPE	CHAR	1	80	Location type
ZIPCODE	INTEGER	5	82-86	Zip Code
STDENOM	CHAR	1	88	Street denominator
STNAME	CHAR	20	90-109	Street name
STNO	INTEGER	6	111-116	Street number
STNUMER	CHAR	1	118	Street numerator
STPREDIR	CHAR	2	120-121	Street prefix
STTYPE	CHAR	2	123-124	Street type
COORDX	INTEGER	7	126-132	Mapping 'X' coordinate
COORDY	INTEGER	7	134-140	Mapping 'Y' coordinate
END	CHAR	3	141-143	End of Record

RATT CAMS
DATA FILE FORMAT

File: PERSON.TXT

Description: Individuals reported to be involved with a law enforcement vehicle activity.

Attributes:

VARIABLE	TYPE	LENGTH	COLS	DESCRIPTION
AGENCY	CHAR	2	1-2	Agency code
ACTTYPE	CHAR	2	4-5	Activity type code CC = Crime Case (Theft) RC = Recovery
ACTSEQNO	CHAR	10	7-16	Activity sequence number
FROMDATE	DATE	8	18-25	Starting date of occurrence
AGE	INTEGER	3	27-29	Age
BUILD	INTEGER	2	31-32	Build
DOB	DATE	8	34-41	Date Of Birth
EYES	CHAR	3	43-45	Eye color
HAIR	CHAR	3	47-49	Hair color
HEIGHT	INTEGER	3	51-53	Height
WEIGHT	INTEGER	3	55-57	Weight
RACE	CHAR	1	59	Race code
SEX	CHAR	1	61	Sex code
ROLESEQ	INTEGER	3	63-65	Role sequence number
ROLETYPE	INTEGER	1	67	Role type (Victim, Witness, Suspect)
END	CHAR	3	69-71	End of Record

RATT CAMS
DATA FILE FORMAT

File: SUSPECT.TXT

Description: Report action by the suspects related to a law enforcement activity.

Attributes:

VARIABLE	TYPE	LENGTH	COLS	DESCRIPTION
AGENCY	CHAR	2	1-2	Agency code
ACTTYPE	CHAR	2	4-5	Activity type code CC = Crime Case (Theft)
ACTSEQNO	CHAR	10	7-16	Activity sequence number
FROMDATE	DATE	8	18-25	Starting date of occurrence
SUSACT	INTEGER	5	27-31	ARJIS suspect action
END	CHAR	3	32-34	End of Record

RATT CAMS
DATA FILE FORMAT

File: VEHICLE.TXT

Description: Reported vehicle related to a law enforcement activity.

Attributes:

VARIABLE	TYPE	LENGTH	COLS	DESCRIPTION
AGENCY	CHAR	2	1-2	Agency code
ACTTYPE	CHAR	2	4-5	Activity type code CC = Crime Case (Theft) RC = Recovery
ACTSEQNO	CHAR	10	7-16	Activity sequence number
FROMDATE	DATE	8	18-25	Starting date of occurrence
BLUVALUE	INTEGER	8	27-34	Blue Book value
RECAGCY	CHAR	2	36-37	Recovery agency
RECBEAT	INTEGER	3	39-41	
VALUE	INTEGER	8	43-50	
REPAGCY	CHAR	2	52-53	
STATE	CHAR	2	55-56	State code for license
VEHTYPE	CHAR	2	58-59	Vehicle body style code
VEHENG	CHAR	14	61-74	
VEHLICNO	CHAR	10	76-85	Vehicle license number
VEHLWCOL	CHAR	3	87-89	Vehicle lower color code
VEHMAKE	CHAR	4	91-94	Vehicle make code
VEHMODEL	CHAR	3	96-98	Vehicle model code
VEHSEQNO	CHAR	3	100-102	Vehicle sequence number
VEHSTAT	CHAR	2	104-105	
VEHUPCOL	CHAR	3	107-109	Vehicle upper color code
VEHVIN	CHAR	20	111-130	Vehicle Identification Number
VEHYEAR	INTEGER	4	132-135	Vehicle year
END	CHAR	3	136-138	End of Record

APPENDIX F

SUMMARY OF TEST STATISTICS

Chi-Square Tests

Case Type	X^2 (2, N=1,017) = 322.13, p < .001
Suspect Gender	X^2 (1, N=1,195) = .62, p = .43
Suspect Race	X^2 (3, N=1,129) = 37.56, p < .001
Suspect Age	X^2 (3, N=1,026) = 54.24, p < .001
Vehicle Year	X^2 (3, N=1,181) = 13.81, p < .005
Vehicle Recovered	X^2 (1, N=1,169) = 3.15, p = .08
Recovery Status	X^2 (2, N=991) = 3.99, p = .14
Property Recovered	X^2 (1, N=719) = .42, p = .52
Recovered Vehicle Driveable	X^2 (1, N=726) = 46.74, p < .001
Vehicle Ignition Altered	X^2 (1, N=541) = 8.89, p < .005
VIN Status	X^2 (1, N=993) = 129.98, p < .001
License Status	X^2 (1, N=999) = 115.71, p < .001
Suspect Arrest	X^2 (1, N=1,149) = 10.68, p < .001
Drug Charge(s) at Arrest	X^2 (1, N=524) = .10, p = .75
Weapon Charge(s) at Arrest	X^2 (1, N=523) = .00, p = 1.00
Auto Theft Charge(s) at Arrest	X^2 (1, N=524) = 57.07, p < .001
Arrest Disposition	X^2 (3, N=842) = 89.97, p < .001
Drug Charge(s) Filed	X^2 (1, N=388) = .37, p = .54
Weapon Charge(s) Filed	X^2 (1, N=388) = .56, p = .46
Auto Theft Charge(s) Filed	X^2 (1, N=388) = 31.17, p < .001
Vertical Prosecution	X^2 (1, N=354) = 92.47, p < .001
Plea Bargain	X^2 (1, N=358) = 1.85, p = .17
Case Disposition	X^2 (1, N=388) = 2.67, p = .10
Drug Charge(s) at Conviction	X^2 (1, N=358) = .00, p = 1.00
Weapon Charge(s) at Conviction	X^2 (1, N=358) = .17, p = .07
Auto Theft Charge(s) at Conviction	X^2 (1, N=358) = 11.09, p < .001

T-tests

Number of Vehicles Per Case	t (1,017) = -6.78, p < .0001
Number of Suspects Per Case	t (1,017) = 1.74, p = .08
Number of Recoveries	t (1,093) = -3.25, p = .001
Number of Vehicles Recovered	t (1,094) = 9.59, p < .0001
Number of Parts Recovered	t (1,037) = -7.18, p < .0001
Number of Arrest Charges	t (522) = -3.17, p = .002
Number of Charges Filed	t (386) = -7.99, p < .0001
Number of Conviction Charges	t (356) = -4.91, p < .0001
Time Sentenced	t (292) = -1.57, p = .12