TECHNOLOGY DEVELOPMENT COMMITTEE REPORT

JUNE 1993

151592

TECHNOLOGY COMMITTEE

OFFICE OF COMMUNITY POLICING

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Mr. Don Premo
Ms. Carol Orwant
Ms. Colleen Xydis

TABLE OF CONTENTS

Executive Summary

MISSION: The Technology Committee is responsible for the identification, evaluation, and recommendation of equipment and technology for the purpose of enhancing the ability of the police department to implement community policing, improve the delivery of current services to the community, and improve officer safety.

If the police department is to be successful in providing the highest quality of police services to the residents of Montgomery County, it is imperative that the department develop innovative and adaptable strategies for responding to community concerns. Redefining the technological infrastructure and planning for the future will provide the foundation for implementing change.

Technical planning is an ongoing process that should involve a "big picture" mentality coupled with real and pragmatic evaluations from the user. The Technology Committee exists to facilitate this process.

An integrated, multi-level approach to technical planning is necessary. These plans must fall within guidelines established by other county agencies such as Department of Information Systems and Telecommunications (DIST); and be coordinated with long-range state and federal requirements. A commitment to such long range planning is the key to success.

Demands for police information come from other agencies and the community. The advent of community policing will further increase these demands. It is the department's responsibility to provide data that is accurate, relevant, concise, and accessible.

This executive summary presents the Technology Committee's initial suggestions and proposals for FY94. This committee will continue to provide suggestions and recommendations in this format. In addition to this summary the committee is in the process of compiling a detailed report with long range recommendations.

The Technology Committee has focused on three major areas:

1. equipment and technology
2. communications systems
3. computer systems

Equipment and Technology

Committee Mission: Analyze and evaluate current equipment and technology and determine emerging needs.

It is imperative that the department not lose sight of providing its operational units with basics in equipment and technology. This includes worn out and/or outdated equipment already in use which must be replaced.

Careful planning for the future should not in any way detract attention from the every day basics. A survey was done which breaks down equipment and technology needs by station and unit. It includes the following basic equipment:

* Personal Computers
* Printers
* Fax Machines
* Typewriters
* Laser Speed Guns
* Computerized Drawing of Composite Photo of Suspects
* Computerized Defendant Arrest Processing (i.e., Mugshot and Fingerprints)
* Video Cameras

Communications

Committee Mission: Analyze and evaluate all existing public safety communications systems.

The Technology Committee will presently suspend all involvement in this area as a result of a county Request For Proposal (RFP) for a Telecommunications Consultant Radio Communications Master Plan. Once a contract selection has been made, the committee will coordinate with the DIST review committee. The Technology Committee is prepared to work with the study team to ensure that the plan is consistent with the communications requirements for community policing.

Computer Systems

Committee Mission: Analyze and evaluate current information systems to determine present and future needs.

The present patchwork of systems is not conducive to quick and easy data retrieval and access. These cumbersome and incompatible systems cause a multitude of problems that affect productivity. Data entry of the same information is duplicated several times. The Technology Committee recommends that the present systems be streamlined and integrated. The most viable solution to affect this change is to enhance the CJIS system, making it relational and integrated. Doing this will make the system easier to access by the users. The enhanced CJIS system would eliminate the need for ARMS, UCR data bases and CAD magnetic tape transfer.

The Technology Committee recommends that the report writing process for the Telephone Reporting Unit (TRU) be automated. This automation will serve as a first step in department-wide implementation. This recommendation involves the purchase of 10 PC's and 1 laser printer and associated software.

Enhancing the CJIS system and automating the report writing process would allow for the immediate access of information by department personnel. Due to its multi-agency use, the committee recommends that the funds to enhance CJIS be provided by DIST's non-departmental account (NDA).

FY 94 Recommendations

The FY94 recommendations are both integral and critical to the overall transition to community policing. These short term recommendations are necessary so that long range recommendations by the Technology Committee can be accomplished in a realistic time frame.

1. Upgrade CJIS System

2. Automation of the TRU

3. Basic equipment

DETAIL REPORT

INTRODUCTION

In July 1992, committees were formed to examine the components of instituting community policing in Montgomery County. The study of emerging technology was identified as a key factor in strategy formulation.

Technology contributes to better decisions by making available quality information relevant to specific decisions. Quality information consists of data that is accurate, relevant, timely and concise in a usable form. The need to provide information is influenced by factors other than an individual officer's need for information. There is an increasing demand for data from outside sources. It is also the responsibility of public safety personnel to provide details, statistics and documents to the community and corporate sector. The customers of the department include not only the community and corporate sectors, but internal county agencies and other criminal justice agencies. Focusing on service delivery to all these customers is going to place additional pressure on the system. The requests for information continue to increase. If nothing is done, the ability of the police department to meet these requests will continue to decrease.

For the police department to be successful in providing the highest quality of police services for Montgomery County, it is imperative that we develop innovative and adaptable strategies for responding to community concerns. Refining our technological infrastructure and planning for the future will provide the foundation for implementing change. Technical planning is an ongoing process that requires a department wide effort. The planning and implementation stages should incorporate ideas from all levels of the organization to identify the techniques and methods that will be required to effect change.

MISSION: The Technology Committee is responsible for the identification, evaluation, and recommendations of equipment and technology that could, (1) enhance the ability of the department to implement community policing, (2) improve the delivery of current services to the community, and (3) enhance the safety of police personnel. The committee must also determine the impact such technology and equipment would have on the department over the forthcoming 3 to 5 year planning period.

GOAL: To ensure a thorough and complete technology and equipment review is undertaken on a department-wide basis.

OBJECTIVE: Identify current and emerging equipment and technology needs of the department's various functional entities.

STRATEGIES:

1. Identify, evaluate, and recommend current and emerging equipment and technology that provides police department employees with productivity enhancing tools.

2. Identify, evaluate, and recommend current and emerging equipment and technology that enhances and improves the delivery of current services to the community.

3. Identify, evaluate and recommend current and emerging equipment and technology that enhances the overall safety and welfare of the police employee and community members.

4. Identify, recommend and implement those pilot projects that will serve as the basis for the department's equipment and technology enhancement efforts.

5. Develop a comprehensive plan to ensure a systematic approach is employed for equipment and technology acquisition.

6. Develop acquisition timetables for equipment and technology recommendations to coincide with the County's budgetary process.

7. Respond to identified equipment and technology concerns of the other subcommittees and those specifically tasked by the Steering Committee.

OBJECTIVE: Analysis of all current informational computer data systems.

STRATEGIES:

1. Identify and examine all existing data systems currently on-line within the criminal justice system.

2. Identify and examine all anticipated mandated reporting systems currently under development at the state and federal level.

3. Identify and examine all existing software programs currently under development.

4. Identify and examine relevant software programs not currently utilized that would enhance our community policing efforts.

5. Identify, develop, or recommend software enhancements that would ensure and improve statistical analysis, information availability, and evaluation of community policing.

6. Identify, recommend, and implement those pilot projects that will serve as a basis for the department's equipment and technology enhancement efforts.

7. Identify a methodology to ensure that a systematic integration of all informational systems is developed that will facilitate our community policing efforts.

OBJECTIVE: Analyze and evaluate all existing public safety communications systems.

STRATEGIES:

1. Review and evaluate the department's existing communication systems network.

2. Review and recommend current communications technology regarding system enhancements and/or replacement.

3. Develop a comprehensive plan for short-term communications deficiencies.

4. Evaluate existing communications technology (e.g., cellular phones, land-line systems, M.D.T.'s, etc.) for enhanced effectiveness of all public safety entities.

5. Identify, recommend, and implement those pilot projects that will serve as the basis for the department's equipment and technology enhancement efforts.

6. Identify a methodology to ensure that a systematic integration of all communication systems is developed in order to facilitate our community policing efforts.

7. Develop acquisition timetables for equipment and technology recommendations to coincide with the county's budgetary process.

8. Respond to identified equipment and technology concerns of the other subcommittees and those specifically tasked by the Steering Committee.

HISTORY

The department's current data processing systems are the result of an evolutionary process that has been ongoing for nearly 20 years. Over the years, systems were added or modified as needs arose. As the use of automation was implemented it was often easier to add a new system than to modify an existing one. If the department could start all over again, with hindsight, the result would certainly be fewer systems doing more work more efficiently.

Milestones of the Past

1977 Calls for service data was entered by EOC (now ECC) into county mainframe terminals. Event report, DWI report, and adult arrest report data was handwritten onto keypunch coding sheets and entered by county keypunch personnel. Statistical and UCR reports were then generated from this data. The department had no computer terminals. Event and arrest reports were stored in paper files and on micro-fiche.

1981 The ARMS system was installed. It was inefficient for statistics gathering. As a result, the UCR data entry system was developed. Event report data was entered at Records without the need for coding sheets. However, coding sheets continued to be used for arrest and DWI statistics.

1985 The CJIS system was installed. All adult arrests were entered into this system. It was not used for statistics gathering, however, because juvenile and DWI arrests were not in the system.

1988 The CAD system was installed in ECC. The data previously keyed into the mainframe by ECC was extracted from CAD, transferred to a magnetic tape, and taken to the county mainframe for statistics gathering. Calls for service data is available from CAD, but only when using a CAD terminal, and subject to time variables.

1990 Arrest data entry system for statistics gathering was developed and installed. This eliminated the use of all keypunch coding sheets.

1990 The Warrant System was developed and installed. All criminal and traffic warrants received at Records are entered into this system. This data is available for on-line inquiry from any terminal in the department.

1991 The Image System pilot was installed. Only accident reports, DWI and arrest reports were scanned into the system during the pilot.

This obvious patchwork of systems is the result of adding new systems as needs or priorities changed, rather than upgrading or replacing existing ones. There are simply too many different systems, each of which requires its own set of instructions to use. Invariably, data entry of the same information is duplicated (i.e., ARMS, CAD, CJIS, Image). This causes excessive data entry workload and redundant paper shuffling. Additionally, because of their complex nature, personnel are less likely to use them. Quite often it is necessary to gather data from event and arrest reports to ensure that they can at least have some timely information available.

Using stand alone PC's, district station crime analysts maintain files containing data which, for the most part, is duplicated in the department's mainframe systems. This practice evolved out of necessity so that they could respond to requests for ad hoc data analysis in a timely manner; something they cannot do using the mainframe systems whose data may be backlogged three weeks to three months and which does not lend itself to easy ad hoc analysis.

The department's data gathering workload is steadily increasing at a time when its staffing levels and budget are stagnant or decreasing. In addition, FBI mandates require that states completely change the way crime statistics are gathered and reported by police agencies. This will require a major overhaul of our statistics gathering process. **(REFER TO APPENDIX #2, MARYLAND INCIDENT-BASED REPORTING SYSTEM).**

CURRENT TECHNOLOGY

Equipment and Technology

Radar The department still uses microwave Doppler type radar for selective enforcement. This somewhat outdated technology has been shown to pose a potential health hazard in the form of eye, skin and other type cancers.

Typewriters The typewriter continues to be the mainstay device for filling out pre-printed forms (e.g., fingerprint cards, etc.). Many of the department's typewriters are manual, thirty year old devices in questionable working order.

Video Cameras Due to a limited number of devices, the department currently makes only limited use of video cameras for recording crime scenes, traffic accidents, etc.

Computerized Drawing of Composite Photo of Suspects The department currently has one computerized, Comp Photo Fit brand system located at Headquarters. This device is old technology. Its location is not convenient to the district stations and one device is simply not enough.

Defendant Mugshot Cameras and Fingerprinting The department currently has mugshot cameras at each district station and Headquarters that use conventional roll type film. Fingerprints are taken by the arresting officer by rolling each finger using black printer's ink and fingerprint cards.

Fax Machines The department currently has one fax machine at each district station, the Records Division and the Special Investigations Division. The use of these machines has grown to the point where it is at maximum capacity.

Personal Computers and Printers The current inventory of PC's and printers are wholly inadequate. An average of three are installed in each district station to be utilized by all station personnel for database storage, word processing and law enforcement inquiries.

Computer Systems Today the department has numerous mainframe systems each of which requires a separate sign-on sequence. The user can only be signed onto one system at a time while using one terminal. **(REFER TO APPENDIX #3, MULTIPLE SYSTEMS, CURRENT ACCESS).** The primary systems are:

ARMS (Automated Records Management System) 1981 The Records Division enters event report information about the victim(s), suspect(s), location, date and CR number into the ARMS system. This data is then available for inquiry from any police terminal. Approximately twenty years ago the Long Beach, Ca. Police Department, under a federal grant, installed the original system. Montgomery County obtained this system free of charge.

MCCJIS (Montgomery County Criminal Justice Information System) 1985 Montgomery County's CJIS is a multi agency system that facilitates the gathering of arrest, jail, and court case data into one database. This data is available for inquiry by all Montgomery County criminal justice agencies. Data entry duplication is basically eliminated, because the data entry is shared

WIS (Warrant Index System) 1990 The Records Division uses the Warrant Index System to gather information relative to arrest warrants received from the courts (both traffic and criminal). The system was developed by the County's DIST and is based on a similar system used by Prince George's County Sheriff's Office. This system gives all Montgomery County criminal justice computer terminals access to the data.

MILES (Maryland Inter-agency Law Enforcement System) MILES is a Maryland State Police system which provides all law enforcement agencies in the state access to automated files containing wanted/missing persons, stolen property, criminal history, motor vehicle records, etc. Each agency is responsible for entering, maintaining, and validating their own records in these files (except for MVA records).

UCR Databases (Uniform Crime Reporting) 1981 The FBI requires all law enforcement agencies to report crime statistics to them in a predefined format known as UCR. The department maintains a "UCR" database for this purpose, and to produce crime statistics for its own use. The system was developed in house by Montgomery County. On-line inquiries are not available. All statistics are produced using batch processing.

CAD (Computer Aided Dispatch) 1988 The Montgomery County Police and Fire Board share a stand-alone call dispatching system. Calls for police and fire services are entered into CAD by call takers. It is then routed to one of many dispatch consoles. Police calls for service data in CAD may only be accessed using a CAD terminal; each district station has one; the Records Division has three. CAD and the county mainframe are not electronically linked, therefore, CAD data must be transferred from CAD to a magnetic tape for input to the county.

Imaging Imaging is the digital storage of documents on either optical or disk storage media. The county mainframe computer is used as the document storage repository using disk storage medium.

Central to the Police Department operations is the production, distribution and storage of reports and related paper items that document the results of police operations. On an annual basis the Records Division handles approximately **600,000 pages.** The Records Division makes copies of these items available to officers of the department, victims, insurance agencies, other criminal justice agencies, courts and defense attorneys. Each distribution requires retrieval, verification, manual processing and recording of dissemination. In many cases, multiple copies of a document must be made and distributed to interested parties.

The police event reports and arrest reports are critical to the processing of cases in the criminal justice system. While the report information is entered into the ARMS and CJIS systems, the detailed information contained in the reports is critical to the processing of a case or individual in the criminal justice system and is requested by other agencies (Sheriff, States Attorney, Corrections, Public Defender or defense attorney, Probation, etc.). These reports, in most cases, are required to be retrieved from storage and duplicated several times.

In addition to the above mainframe systems there are numerous PC based applications in use throughout the Department.

TECHNOLOGICAL REQUIREMENTS

Equipment and Technology

Community policing relies on beat officers resolving problems by utilizing available resources. The level of resources within the department falls short of that which is necessary to accomplish this effectively. The resource requirements fall into the following categories:

Identification and Processing

Upgrading and purchasing additional resources in the areas of fax machines, laser speed guns, composite drawing equipment, computerized mugshot and fingerprint processing, and video cameras will enable the officer to perform related duties in less time and with greater accuracy. This will be a direct benefit to community policing.

Information Processing

The acquisition of additional typewriters, personal computers and printers will expedite paper processing and allow greater system access. Word processing alone speeds the task of memoranda, search warrant application, etc., freeing the officer to respond to policing requirements.

Computer Systems - Vision

Existing systems must be streamlined and integrated. Data entry duplication must be eliminated. The current Criminal Justice Information System (CJIS) is a step in the right direction. It has almost no duplicate data, participating agencies share data where appropriate, and it is capable of expansion. The Automated Records Management System (ARMS), the Uniform Crime Reporting (UCR) databases, and the calls for service data from the Computer Aided Dispatch (CAD) magnetic tape could all be eliminated by expanding and enhancing the CJIS system. **(REFER TO APPENDIX #4, CURRENT FLOW OF POLICE REPORTS AND APPENDIX #5, PROPOSED EXPANDED CJIS).**

For the first few decades of computerized information systems, data processing was pursued to reduce clerical costs. Today technology is being similarly pursued. A change has also occurred in terms of who uses computers. In the past, the focus was on technical specialists, professionals, and managers who controlled the computing infrastructure. Now, users want to shape the technology that is implemented on their behalf. They want to control its use and determine its effect on their work. Organizations and personnel are rapidly understanding that the effective use of technology can help determine personal and organizational success. Information technology should focus on the officers' needs as a means to achieve support to community needs. **(REFER TO APPENDIX #6, "FROM PATCHWORK SYSTEMS TO INTEGRATED SOLUTIONS").**

There are fundamental shifts now occurring in the application of computers, each providing a different level of opportunity. Information technology enables departments to have a high-performance team structure, to function as integrated units despite autonomy, and to reach out and develop new relationships with external organizations. In paper-and information-intensive areas such as the police department, technologies like networking, imaging, and work flow management enables the department to eliminate bottlenecks, reduce paper document congestion, and speed the flow of information to where it is needed.

Extending image retrieval workstations to the district stations will allow the citizens the opportunity to visit their nearest district station for documents rather than traveling to Headquarters. In addition, officer's time will be saved by allowing the officer to retrieve a document and view it in the district station rather than obtaining a copy from the Records Division.

The installation of both local and area wide networks (LAN) at the district station level would leverage the investment this department has made in information capture and significantly increase its ease of access. Remote sites would no longer waste valuable people resources to deliver documents and information to other locations. Multiple users could create, access or update a single document in a more organized, efficient and professional manner. Peripheral (printer, scanner) sharing minimizes the investment necessary to produce the highest quality product. Work group computing provides tools, information and capabilities to directly support personnel who create, use or disseminate information. This would result in improvements in productivity and responsiveness. **(REFER TO APPENDIX #7, MONTGOMERY COUNTY CRIMINAL JUSTICE WIDE AREA NETWORK).**

Once the foundation of a LAN is in place, there are many applications of work group computing that produce operational advantages such as: automating the Telephone Reporting Unit (TRU) event report process. This will eventually lead to mobile computing for officers. These applications streamline report creation and processing. The current procedure captures the information in many forms: handwritten, typed, and electronic. The information may not be available for inquiry for days. Producing the electronic form of the data as the initial step is an obvious productivity improvement.

A progressive, structured plan is needed to upgrade and streamline the department's systems. Building bridges between stand alone systems is the first critical phase in a move to integrated systems. The CAD system should be linked to the county mainframe. It could automatically feed the CJIS system calls for service data. This data would then be available to the user as required. If the call resulted in a report being written, Records data entry personnel would not have to re-key the data from CAD, but would only have to add to or modify it. In addition, arrest data and event report data would all be in the same system making it easier to access.

Another major work saving consideration is the automation of the Telephone Reporting Unit in Records (TRU). This unit currently writes approximately 25% (20,000) of all event reports. The work load in TRU has reached the limit that can be handled by the existing personnel (eight people). These reports are written, as always, using pen and multi part forms.

Automating TRU would increase its efficiency and eliminate the need for pre-printed, multi part forms. In addition, the data could be electronically fed to the CJIS system. This would further reduce the data entry workload in the Records' Data Entry Section. Tests conducted using a PC based form designing system have shown that any form (eg. event report, vehicle report, etc.) can be reproduced, filled in and printed using plain paper. This would be a first step to automating event/arrest reports originating from the field using laptops, tablets and/or PC's. **(REFER TO APPENDIX #8, SAMPLE POLICE EVENT REPORT).**

Information is critical to the department and its mission. A progressive plan is needed in order to upgrade and streamline all of the department's existing computerized systems. Such implementation will assist in meeting the community policing mandates, new required federal crime reporting requirements, and criminal information data which relates to Incident Based Reporting and NCIC-2000. **(REFER TO APPENDIX #9, NCIC - 2000).**

The implementation will also enhance the information sharing process with other criminal justice and county agencies. The key success factor is developing a methodology that enables staff to use technology effectively and reflects the overall strategic goals of the department. **(REFER TO APPENDIX #10, INFORMATION SHARING COMPUTER SYSTEMS).**

RECOMMENDATIONS

FY 1994

Equipment and Technology

Purchase the following:

- Fax Machines
- Laser Speed Guns
- Computerized Drawing of Composite Photo of Suspects
- Computerized Defendant Arrest Processing (i.e., mugshots and fingerprints)
- Video Cameras
- Personal Computers and Printers

Computer Systems

Combine CJIS, ARMS, and UCR into one easy to use system that will also provide all of the current and anticipated statistical and analytical needs.

Provide Image retrieval technology in each of the district stations.

Install PC's in TRU for event report automation. The data will be loaded into the mainframe and reduce the data entry workload.

Link the CAD system to the county mainframe so that data will be immediately available at all police terminals. Data from event reports would be added to these records. This reduces data entry workload.

Communications

The Technology Committee will presently suspend all involvement in this area as a result of a county Request For Proposal (RFP) for a Telecommunications Consultant Radio Communications Master Plan. Once a contract selection has been made, the committee will coordinate with the DIST review committee. The Technology Committee is prepared to work with the study team to ensure that the plan is consistent with the communications requirements for community policing.

APPENDIX SECTION

Appendix #2

MARYLAND INCIDENT-BASED REPORTING SYSTEM

MIBRS

Incident-Based Reporting: The State of Maryland has decided to proceed with the development of the Maryland Incident-Based Reporting System (MIBRS) to be part of the National Incident-Based Reporting System (NIBRS) and UCR. MIBRS has been endorsed by the Maryland Association of Chiefs of Police and a federally funded project team has been commissioned to look into the development of it. The funded project is to last for two (2) years. A state-wide advisory board was created to assist the project team in laying out the framework for implementing MIBRS.

During the twenty-four months of this project it is expected that Maryland will:

1. reach agreement on the data elements to be included in MIBRS;

2. develop state-wide reporting forms that will be available and could be used on a volunteer basis;

3. develop the appropriate data submission formats, software and hardware systems to support them that would most easily accomplish the objectives of implementing NIBRS state-wide;

4. develop a series of analytical reports that could be routinely produced to take full advantage of the development of an incident based system in Maryland;

5. have the ability to report high quality, comprehensive incident based data to the national incident based crime reporting system and local agencies.

Incident-Based Reporting (IBR) is the future of crime reporting. It will provide a more detailed, more accurate and extensive collection, and analysis of crime data. IBR is generally perceived to view a crime and all its components as an "incident". The facts that are created as a result of that incident are then recorded and preserved. In order to obtain important data, the facts of the incident are then organized into specific categories or segments. The vehicle used to collect these facts are known as "data elements". The data elements given proper data values (much like answers given to questions) will then provide vital information about crime and its involvement with victims, offenders, property, arrestees, etc.

October 1992

APPENDIX #2

Some benefits of Incident-Based Crime Reporting Systems are:

1. Better information for police managers

   * Identify high-risk victims, problem areas.
   * Forecast crime trends more accurately.
   * Make crime analysis more efficient, routine.
   * Provide basis for criminal justice tracking system.

2. Better information for the public

   * Easier for the public to understand.
   * Gives people a more accurate idea of the risks they face.
   * Helps citizens prevent crime.

3. More efficient

   * More accurate.
   * Improved access to data for managers.
   * Eliminates duplication of reporting systems.
   * Incorporates many changes sought by law enforcement.

Some capital costs associated with IBR are:

1. Computer Hardware
2. Programs
3. Personnel costs

   * Revision of incident reports.
   * Training and learning time.
   * Increased data entry and user programming time.

Some implications associated with IBR are: With careful procurement, benefits to public greatly exceed costs.

1. IBR is the best system, since it is easy to use, flexible, easy to expand and is consistent with revised UCR guidelines.

There are 52 data elements in NIBRS to collect information about the 22 crime categories. Some of these elements are:

* Alcohol/Drug influence
* Specific location of Crime

* Type of Criminal Activity Involved
* Type of Victims
* Relationship of Victim to offender
* Residency of Victims and arrestees
* Description of Property and their values

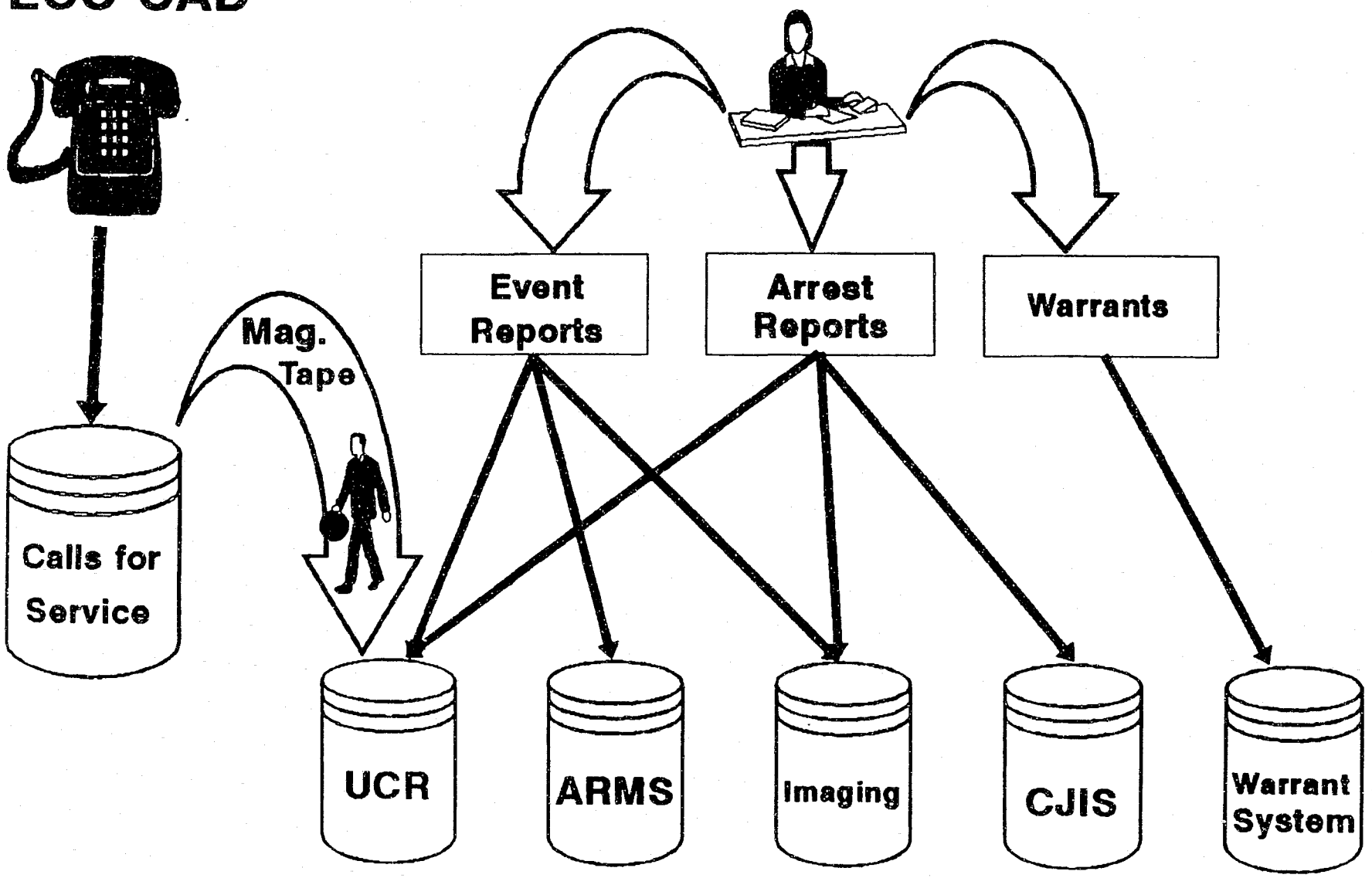
Unlike the current, or summary UCR system that collects only the eight Part I crimes, NIBRS will collect 22 crime categories:

1. Arson
2. Assault
3. Bribery
4. Burglary
5. Counterfeiting
6. Destruction of Property
7. Drug Offenses
8. Embezzlement
9. Extortion
10. Fraud
11. Gambling
12. Homicide
13. Kidnapping
14. Larceny
15. Motor Vehicle Theft
16. Pornography
17. Prostitution
18. Robbery
19. Sex Offenses Forcible
20. Sex Offenses Nonforcible
21. Stolen Property
22. Weapons Violation

Before the Department can take the first step toward full implementation of MIBRS, some significant transitions must occur. The first and the most significant change that the Department must consider is an exhaustive modification, or the complete replacement of the Automated Records Management System (ARMS). This system has been on-line in the Department since January 1, 1981.

APPENDIX #3

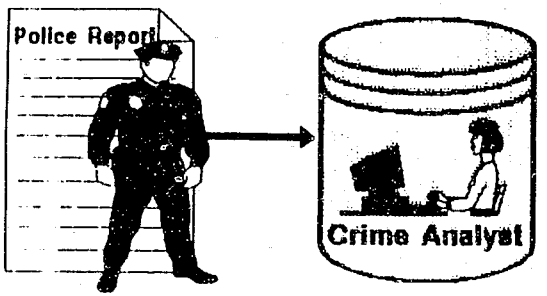
MULTIPLE SYSTEMS, CURRENT ACCESS RECORDS



APPENDIX #4

CURRENT FLOW OF POLICE REPORTS

Reports Processed at District Stations

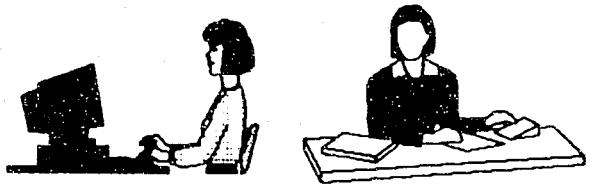


Arrest and Event Reports Written by Officer

Data from Selected Reports Entered into Stand Alone PC

Transported to Headquarters

Reports Processed at Records Div.



Checked in CAD's Alert

Sorted and Stacked

Checked in and Sorted

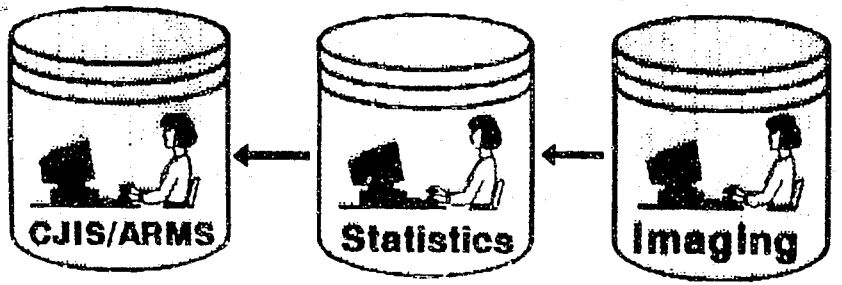
To Report Review

Report Review Section

Reviewed and Coded For Data Entry

To Data Entry

Data Entry Section



Arrest reports are keyed into CJIS; event reports keyed into ARMS. Three data entry steps for Statistics entry. Two steps (indexing & scanning) for Image entry.

APPENDIX #5

PROPOSED EXPANDED CJIS

RECORDS

Warrants

Arrest Reports

Event Reports From Field

CAD

Calls For Service

TRU

Event Reports From TRU

Warrant System

Expanded CJIS and Imaging

From Patchwork Sytems to Integrated Solutions

Peter Y. Flynn
Plymouth County Sheriff

Our nation's criminal justice system illustrates the kind of pressure non-federal government is under to solve mounting problems in society. Crime has gone up significantly in the past decade and so has the demand from taxpayers for more protection. The justice system also illustrates how cities and states are having to readjust the way they do business to handle the surging demand for services.

Once fairly autonomous agencies, the police, courts and jails now realize it's to their mutual benefit to share information. Without doing so, they face a growing glut of information to process and manage, much of it redundant.

From the first phone call reporting a crime, to the arrest and trial of the suspect, to the individual's incarceration, an enormous amount of data — mostly in the form of paper — is generated to keep track of the facts, avoid errors and conform with the legal requirements of our justice system.

Much of the data in the paper trail — from arrest to release from prison — is repetitious. Names, dates, places, arrest records, case numbers and other basic data are repeated in different forms and documents as the individual moves from the police department, to the courts, to jail and finally back into society.

Multiply the data for one crime by the total number of crimes reported, arrests made, trials held and prisoners jailed, and it becomes easy to see why the costs of criminal justice are going up, and why services are sometimes slowing down — despite the management's best efforts.

The Sheriff's Department of Plymouth County, Massachusetts has grappled with the problem and has decided to do something about it. The county, in partnership with Bull HN Information Systems, has demonstrated a computer system that would integrate its patchwork of criminal justice record-keeping files into a single, computer-driven system.

"Once fairly autonomous agencies, the police, courts and jails now realize it's to their mutual benefit to share information."

PROFILE

Location: Plymouth County, Mass.

Agency: Sheriff's Department

Problem: The growing glut of information to process and manage, much of it redundant, that is being generated by once fairly autonomous agencies – the police, courts and jails.

Solution Applied: The County, in partnership with Bull HN Information Systems, has demonstrated a computer system that would integrate it's patchwork of criminal justice record-keeping files into a single, computer-driven system.

APPENDIX # 6

Sheriff Peter Y. Flynn believes the benefits of such integration would be enormous. "The result will be a staggering reduction in redundant paper-work, a huge savings in tax-payer's money and people's time, and a dramatic reduction in the likelihood of a paper mistake. It will also allow inter-locking criminal justice agencies to retrieve and share data almost instantaneously — which in law enforcement can mean the difference between an arrest and a near miss."

In addition to automated records and document management, the proposed system would include video imaging in place of card file mug shots and laser instead of ink-to-capture fingerprints.

The Department is currently operating an inmate-tracking system, which was developed by Bull. When the proposed system is developed, the tracking system will become part of its information infrastructure. According to Michael Gray, the Department's Director of MIS, the county has been using the inmate system for over a year to track and manage all information regarding committed individuals from the time they enter jail until their release.

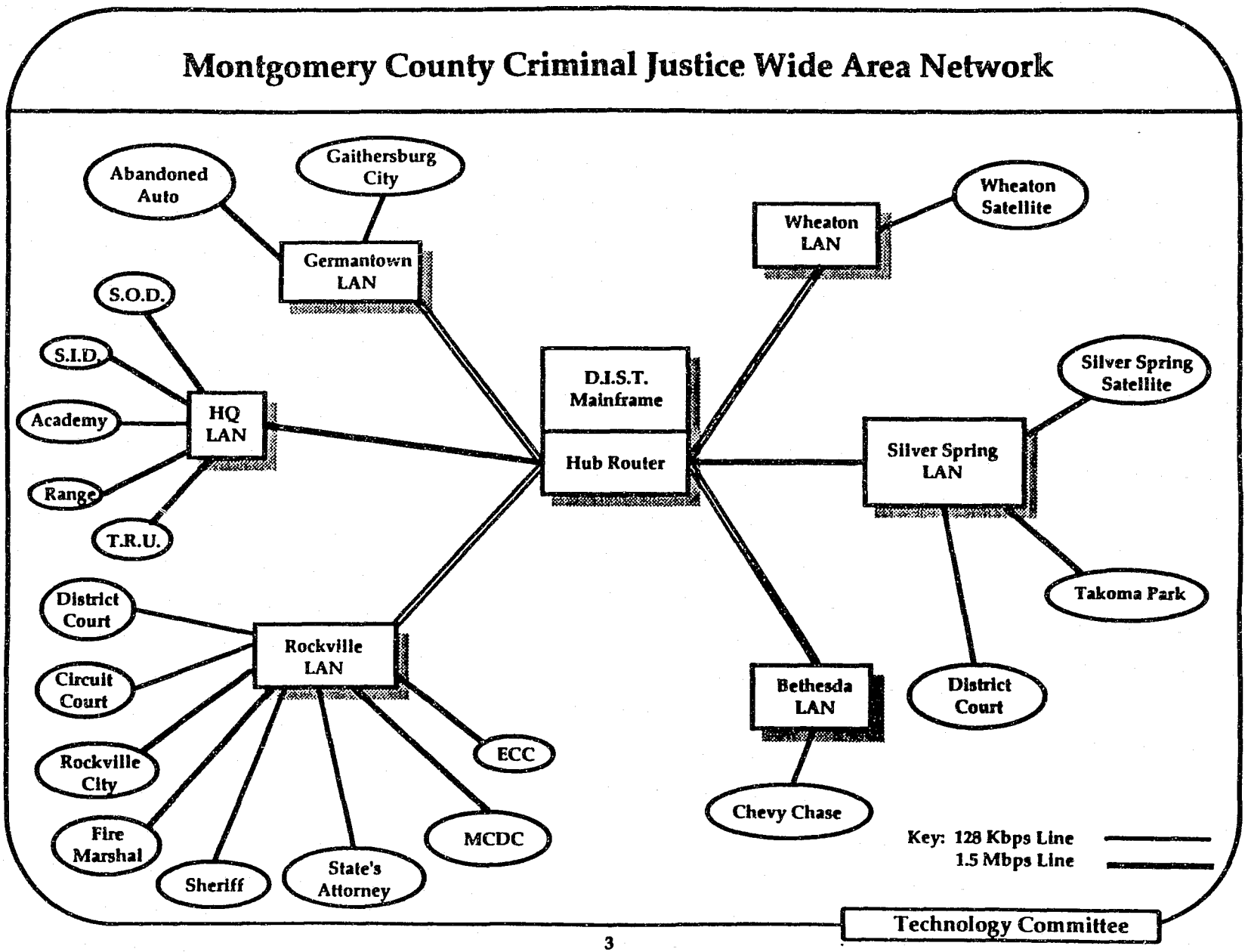
The proposed integrated system would link information from the inmate tracking system with data generated at the time of his arrest, and at his arraignment, pretrial detention, court appearance and sentencing. As a result, there would be one data record on an individual for the county's entire criminal justice system. It would contain information that would have to be entered only once, instead of two or three dozen times — as is often the case. The different agencies involved could access the record by computer and could revise and expand the record as new information became available.

"The result will be a staggering reduction in redundant paperwork, a huge savings in taxpayer's money and people's time, and a dramatic reduction in the likelihood of a paper mistake."

While integrated information systems sound wonderful on paper, different agencies tend to resist the idea of consolidating data into a single integrated system. According to Flynn, however, the key criminal justice players in Plymouth County work well together. They have been thoroughly educated on how such a system would preserve their agencies' integrity while delivering results.

Flynn realizes there is an element of risk in proposing an entirely different approach to managing the county's criminal justice records. Yet the payoff could be tremendous. "We decided to take the bull by the horns because the system could be a tremendous opportunity for Plymouth County," said Flynn, who pointed out that if the system was successful at the county level, the entire state could eventually tie into it.

APPENDIX #7


Montgomery County Criminal Justice Wide Area Network
Abandoned Auto
Gaithersburg City
Germantown LAN
Wheaton LAN
Wheaton Satellite
S.O.D.
S.I.D.
HQ LAN
Academy
Range
T.R.U.
D.I.S.T. Mainframe
Hub Router
Silver Spring Satellite
Silver Spring LAN
Takoma Park
District Court
Circuit Court
Rockville LAN
Rockville City
Fire Marshal
Sheriff
State's Attorney
MCDC
ECC
Bethesda LAN
District Court
Chevy Chase
Key: 128 Kbps Line
1.5 Mbps Line
Technology Committee

APPENDIX # 8

EVENT REPORT

Montgomery County, Maryland
Department of Police

1. VICTIM (PERSON, FIRM, AGENCY): Smith, John C.
2. DIST – CR NUMBER: 92CC0001
3. ADDRESS: 123 Your St.. Your Town. US. 20877
4. RVO CODE:
5A. CLASSIFICATION: 0615

BASIC EVENT AND VICTIM DATA

6A. VICTIM'S PLACE OF EMPLOYMENT OR SCHOOL: Washington Post
7. RACE – SEX – D.O.B.: 2 M 010146
8. PHONE RES.: (301)444-1234 BUS.: (301)555-4321
5B. CLASSIFICATION CHANGED TO:
6B. ADDRESS: Washington. D. C.
9. CRIME/INCIDENT: Theft from Auto. over $300
10. COMM CR NO ☐ MASTER ☐
11. BEAT: PRA: C/
12. NATURE OF INJURIES AND LOCATION ON BODY:
13. LOCATION OF CRIME OR INCIDENT: 7911 First ST. Rockville. Md
14. SOCIAL SECURITY NUMBER: 111-22-3333
15. VICTIM TREATED ☐ YES ☐ NO ☐ RELEASED
16. WHEN OCCURRED MO – DAY – YR: 072292 TO 072392 HOURS: 2100 - 0930
WHEN REPORTED MO – DAY – YR: 092392 HOL: 13
17. UNIT NOTIFIED ☐ NAME:
18A. COMPLAINANT'S NAME (LAST, FIRST, MIDDLE): Same
RACE – SEX – AGE: 2 M 46
RES. PHONE: 301
19. TSS NOTIFIED ☐ LATENTS ☐ PHOTOS ☐ NAME:
18B. COMPLAINANT'S ADDRESS: CITY – STATE – ZIP:
BUS. PHONE: 301

CODE: W – WITNESS; P – PARENT; G – GUARDIAN; O – OTHER RELATIVE

20. NAME	CODE	AGE	RESIDENCE ADDRESS	CITY	STATE	ZIP	PHONE

WORTHLESS DOCUMENT

21. TYPE OF DOCUMENT	DATE OF DOCUMENT	DOCUMENT NO	NAME ON DOCUMENT	ACCOUNT NUMBER

NAME OF ISSUER	ADDRESS	MADE PAYABLE TO	SIGNATURE ON FACE

REASON NOT HONORED	TYPE OF TRANSACTION	TYPE OF PROPERTY OR SERVICE OBTAINED	AMOUNT OF DOCUMENT	CASH RECEIVED

M.O.

22. DESCRIBE TYPE OF AREA OR PREMISES: Parking Lot
23. MEANS – TOOL, WEAPON USED IN CRIME: Screw driver/hands
24. METHOD – HOW CRIME WAS COMMITTED: pried open
25. POINT OF ENTRY: window/ front
26. TRADEMARKS OF SUSPECT(S) (ACTION OR CONVERSATION DISTINGUISHING THE SUSPECT): unknown

SUSPECT/DEFENDANT

27A. SUSPECT ☐ ARRESTED ☐ WARRANT/DCS ON FILE ☐ WARRANT DCS SERVED ☐ MCP I.D.# ARMED WITH

RACE	SEX	AGE	D.O.B.	HEIGHT	WEIGHT	EYES	LENGTH – COLOR OF HAIR	FACIAL HAIR

SUSPECT/DEFENDANT PHYSICAL AND CLOTHING DESCRIPTORS | ADDRESS OR POSSIBLE LOCATION

27B. SUSPECT ☐ ARRESTED ☐ WARRANT/DCS ON FILE ☐ WARRANT DCS SERVED ☐ MCP I.D.# ARMED WITH

RACE	SEX	AGE	D.O.B.	HEIGHT	WEIGHT	EYES	LENGTH – COLOR OF HAIR	FACIAL HAIR

SUSPECT/DEFENDANT PHYSICAL AND CLOTHING DESCRIPTORS | ADDRESS OR POSSIBLE LOCATION

28. VEHICLE USED IN CRIME ☐ KNOWN TO OPERATE ☐

YEAR	MAKE	MODEL	BODY STYLE	COLOR(S)	TAG NO	STATE	IDENTIFYING FEATURES

E.C.C.

29. RADIO LOOKOUT ☐ LOOKOUT CANCELLED ☐ WANT INDEX ☐ WANT INDEX CANCELLED ☐ E.C.C. OP.# ☐ E.C.C. OP.#
30. TOTAL VALUE STOLEN: $200
31. TOTAL VALUE RECOVERED: $0
32. DRUG RELATED ☐ ALCOHOL RELATED ☐
33. HATE VIOLENCE RACIAL ☐ ETHNIC ☐ RELIGIOUS ☐

NARRATIVE

ITEM NO.	Ref Property	PROPERTY VALUE	STL	REC.	UCR CLASS
	Am Fm Cassette Player	$200	X		
	Ref VEh.				
	1984 Toyota Corolla Pa. Reg# MGT115				
	Unknown suspects broke the driverside rear window to				
	gain entry and then stole the above stereo.				

STATUS ☐ OPEN CLOSED BY ☐ ARREST ☐ EXCEPTION ☐ UNFOUNDED Page of

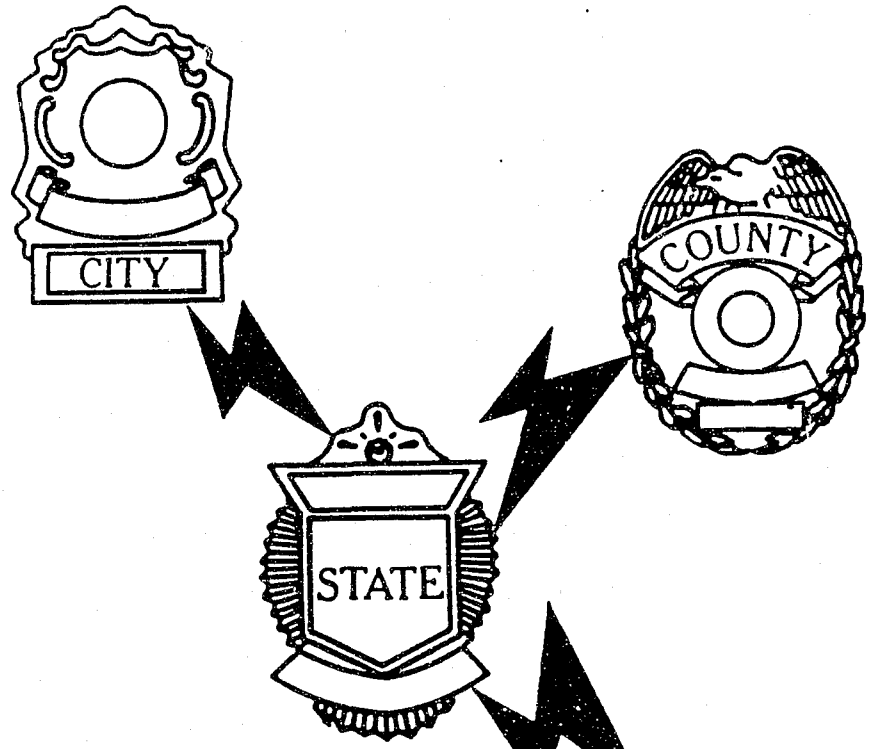
DISTRIBUTION: GA – SA – YD; CAP – CP – FM; SID; OTHER

INVESTIGATING OFFICER (PRINT)	I.D.#	CAR#	DATE MO – DAY – YR	APPROVED BY (PRINT)	I.D.#

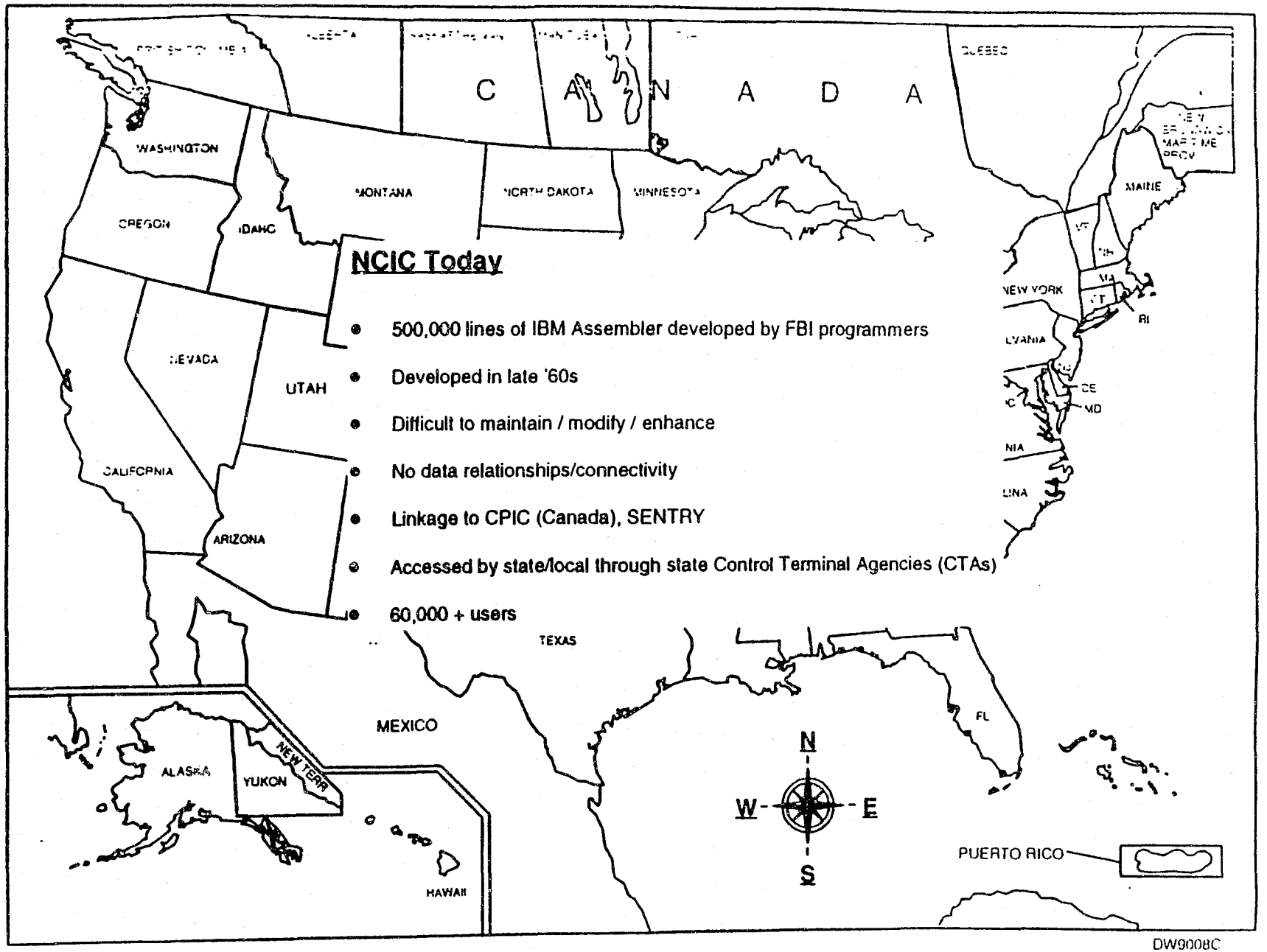
INVESTIGATING OFFICER (PRINT)	I.D.#	CAR#	DATA SYSTEMS	CASE "A"LLY	ADULT ☐ JUVENILE ☐

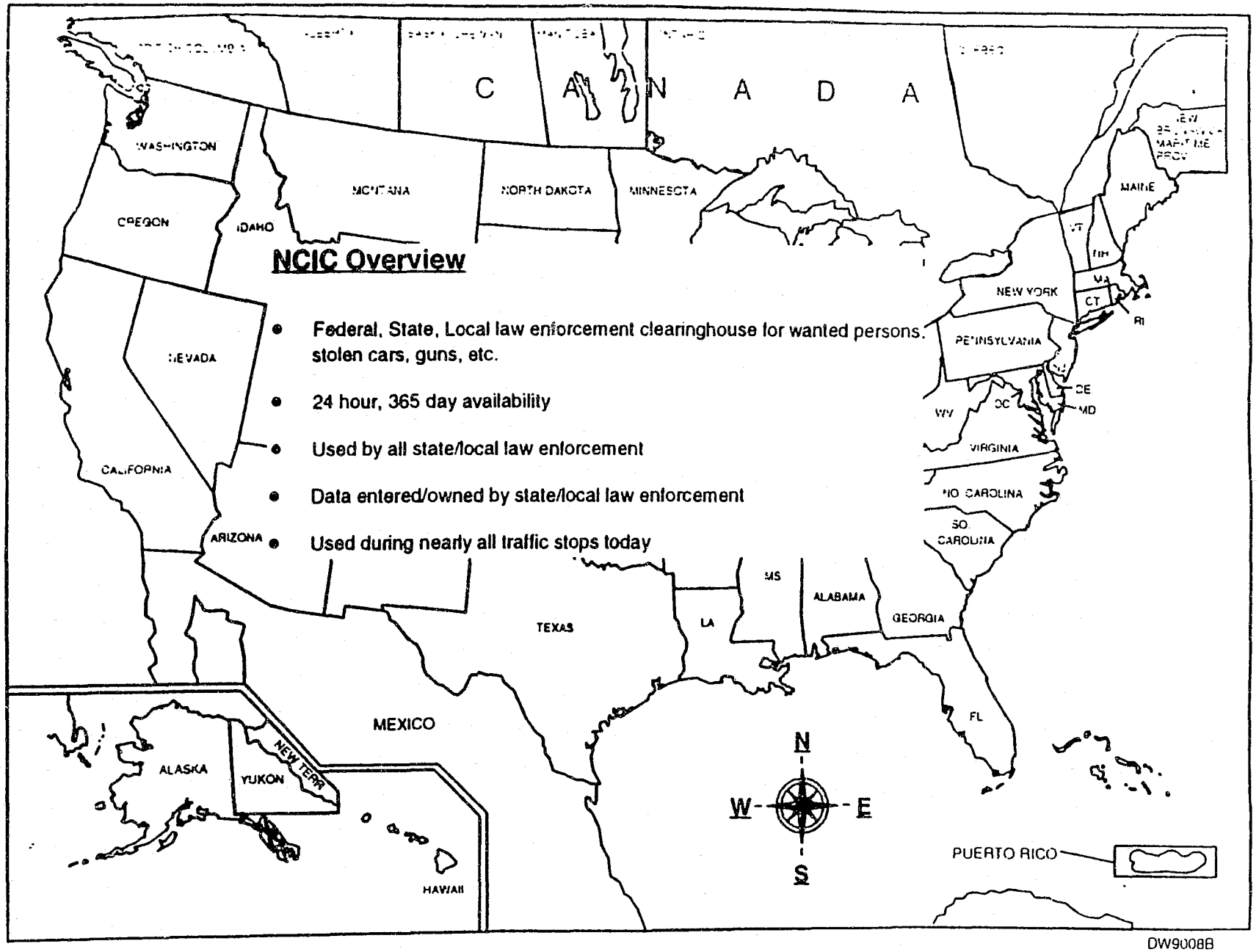
MCP 4 (Rev. 1/90)

APPENDIX 9



NCIC — 2000


NCIC Today
500,000 lines of IBM Assembler developed by FBI programmers
Developed in late '60s
Difficult to maintain / modify / enhance
No data relationships/connectivity
Linkage to CPIC (Canada), SENTRY
Accessed by state/local through state Control Terminal Agencies (CTAs)
60,000 + users
WASHINGTON
OREGON
IDAHO
MONTANA
NORTH DAKOTA
MINNESOTA
NEVADA
UTAH
CALIFORNIA
ARIZONA
TEXAS
MEXICO
ALASKA
YUKON
NEW TERR
HAWAII
MAINE
NEW YORK
RI
MD
FL
N
W
E
S
PUERTO RICO
DW9008C


NCIC Overview
Federal, State, Local law enforcement clearinghouse for wanted persons, stolen cars, guns, etc.
24 hour, 365 day availability
Used by all state/local law enforcement
Data entered/owned by state/local law enforcement
Used during nearly all traffic stops today
CANADA
WASHINGTON
OREGON
IDAHO
MONTANA
NORTH DAKOTA
MINNESOTA
MAINE
NEW YORK
PENNSYLVANIA
NEVADA
CALIFORNIA
ARIZONA
TEXAS
MEXICO
LA
MS
ALABAMA
GEORGIA
FL
WV
VIRGINIA
NO. CAROLINA
SO. CAROLINA
ALASKA
YUKON
HAWAII
PUERTO RICO
N
W
E
S

DW90088

NCIC Information Bases/Workload

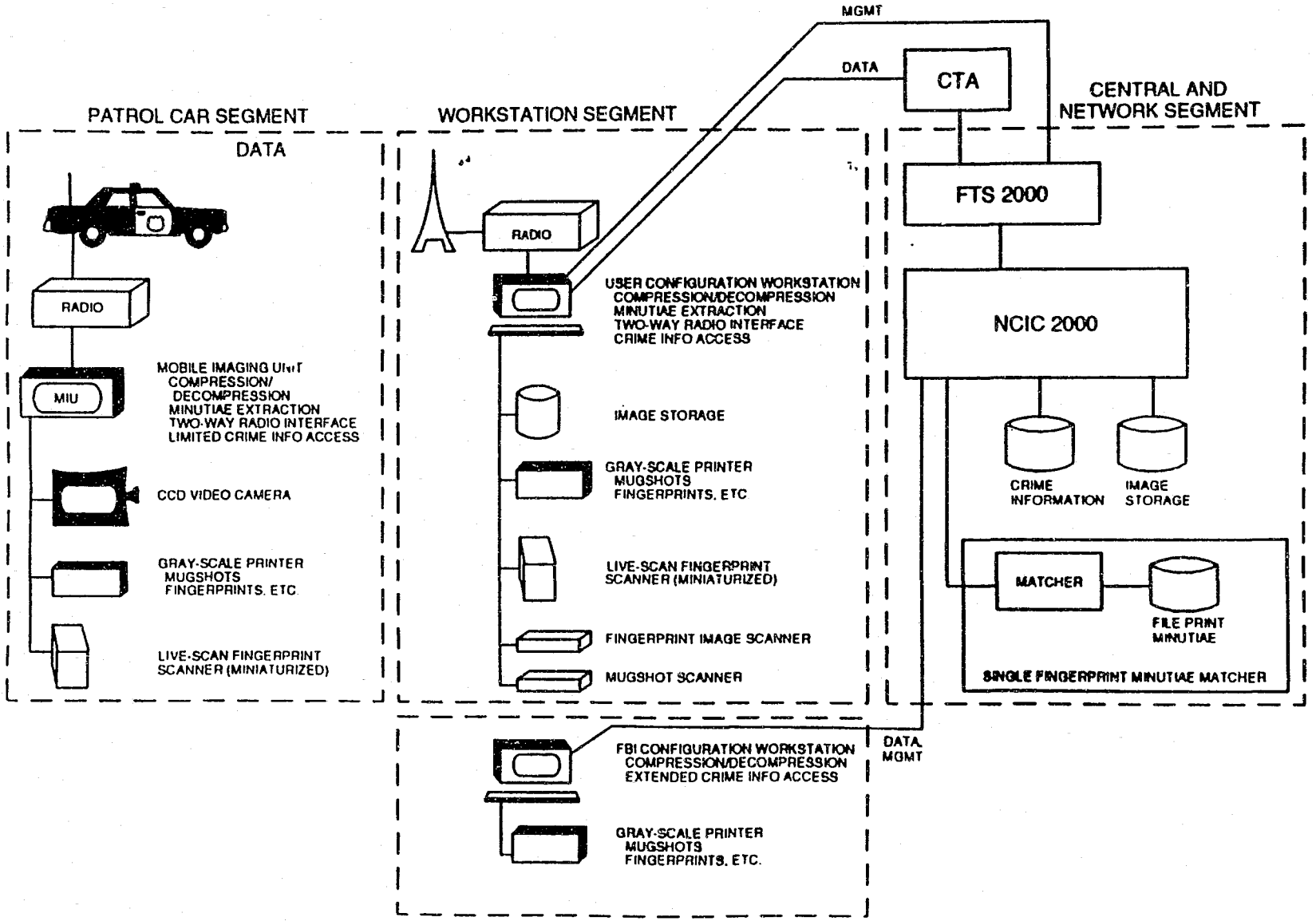
8,245,212 Records on File on December 1, 1990	RECORDS		DAILY AVG. TRANSACTIONS	
Data Base	**Number**	**%**	**Number**	**%**
Stolen/Recovered Guns	2,157,470	26.17%	14,359	1.52%
Stolen Securities	1,903,176	23.08%	572	0.06%
Stolen Articles	1,770,368	21.47%	18,433	1.95%
Stolen Vehicles	1,131,959	13.73%	478,814	50.73%
Stolen License Plates	834,370	10.12%	2,397	0.25%
Wanted Persons	341,087	4.14%	424,140	44.93%
Missing Persons	73,188	0.89%	4,075	0.43%
Stolen Boats	30,916	0.37%	985	0.10%
Unidentified Persons	2,025	0.02%	141	0.01%
Foreign Fugitives	623	0.01%	N/A	N/A
U.S. Secret Service	30	0.00%	N/A	N/A

DW60380

NCIC 2000 Overview

- Replace current function with 4GLs/Commercial Off-the-shelf products
- Image support (mugshots, stolen property)
- Fingerprint support (wanted person identification)
- Establish data relationships (VIN, License plate, Driver, etc)
- Support existing CTAs
- Conversion/Parallel operation of large databases
- Procurement vehicle for state/local workstation purchases
- High Availability - 99.99995%
- No single point of failure allowed
- Extremely high fingerprint matching accuracy required
- Unauthorized usage detection/prevention

NCIC 2000 CONCEPT



DW9008F

Major Components

- Central Segment
- Transmission Network
- User Workstation
- Mobile Imaging Unit

Central Segment

- Large transaction processor
- Large Databases
- High transaction throughput
- Redundant storage devices
- Central fingerprint matching subsystem
- GOSIP compliant communications support
- FTS 2000 communications lines to be provided by FBI

User Workstation

- Options provided to utilize existing state/local processor(s)
- 386 minimum supported configuration
- Improved User Interface
- Image Storage Capability
- Grey-scale printer
- Live-scan fingerprint scanner
- Fingerprint image scanner
- Mugshot/Image scanner
- Controls/Supports Mobile Imaging Units
- Supported Functions:
  - Fingerprint capture/transmission
  - Minutiae extraction
  - Image compression/decompression
  - Image capture/transmission
  - Visual fingerprint comparison
  - Embedded User Training

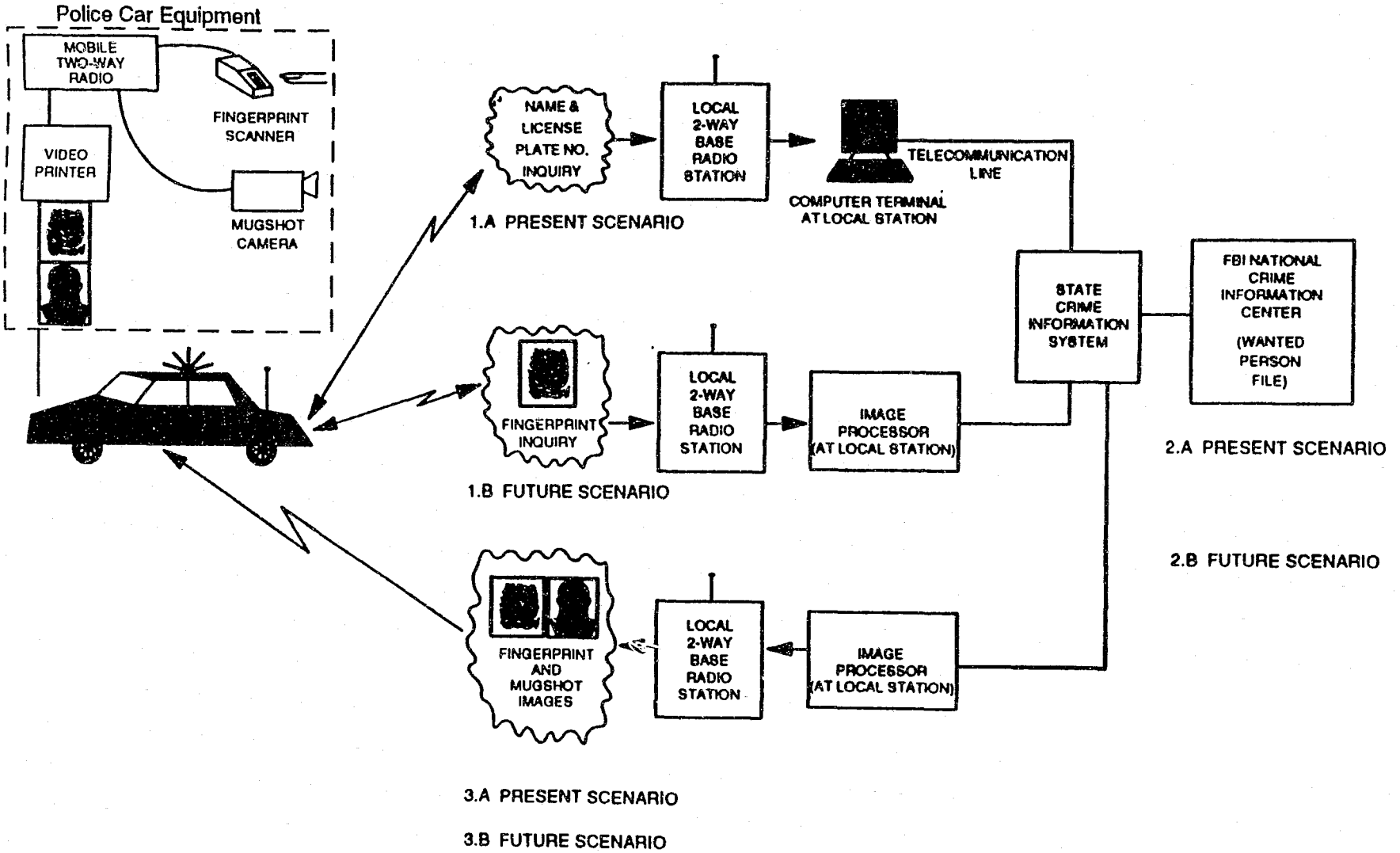
DW90081

Mobile Imaging Unit

- Connects to existing patrol car radio
- 386/486 processor in car
- Rugged livescan/CCD Video camera on tether
- Grey-scale printer
- Display - Minimum size 4"x 4"
- Functions:
  - Linked Inquiry
  - Fingerprint capture/transmission
  - Minutiae extraction
  - Image compression/decompression
  - Image capture/transmission
  - Visual fingerprint comparison
  - Mugshot/Fingerprint print
- No near term delivery required

DW9008J

NCIC PILOT IMAGE CAPTURE AND RETRIEVAL SYSTEM



State/Local System Impacts

- FBI to support existing message formats/protocols for 5 years
- Additional message formats needed to support fingerprints, mugshots
- Transition from BISYNC to X.25 protocols
- Replace existing message formats
- State/Local CTAs will need to be upgraded/modified

State/Local Operational Impacts

- Upgrade of existing RF networks to support image transmissions
- Deployment of User Workstations/Mobile Imaging Terminals
  - FBI foresees initial rollout to small cities, State Police "PR" cars
  - Threat of liability to drive usage by state/local police
- Need access to fingerprint/mugshot to load into NCIC 2000 with descriptive data
- Misuse/Abuse detection processing
- Mobile Imaging Unit replacement/repair cost

APPENDIX # 9

National Crime Information Center

Law Enforcement System is Getting a Major Face-lift

There will be a far-reaching effect on law enforcement officers at every level when the antiquated National Crime Information Center is modernized.

Donald A. Woodmancy

Don Woodmancy is an information systems consultant to government and a nationally published writer for the information technology industry.

The National Crime Information Center, universally known as NCIC, has been the mainstay of law enforcement for more than two decades. It was the first computer-based technological innovation to be widely used in police work.

But NCIC is growing old and tired. Both the hardware and the programming are old technology and the system is difficult to maintain or modify. As a result, its users - every police agency in the country - are unable to exploit new technology using the system.

The resolution for these problems is on the horizon. For the past several years, the FBI and a wide spectrum of systems users have been defining NCIC's replacement - NCIC-2000. When completed, NCIC-2000 will have a far reaching effect on law enforcement at all levels of government.

The current NCIC system is a collection of computer hardware, software and communications networks. It is a repository for public record information relating to missing, unidentified and wanted persons, stolen license plates and vehicles, stolen firearms, securities and other stolen property with serial numbers.

Routine Use of NCIC

When a peace officer has cause to suspect a person, vehicle or serial numbered article, the officer can make a check through NCIC to determine if that person or article is wanted by police anywhere in the country. If there is a matching record in the system, NCIC returns a "hit" message. It is then the responsibility of the agency making the inquiry to verify the "hit" with the agency that originated the wanted status.

Peace officers at every level of government routinely use NCIC. The system contains more than 19 million records and averages more than 900,000 inquiries per day. Peak activity is well over one million inquiries per day.

NCIC is operated by the FBI. The NCIC network connects with state and regional law enforcement telecommunications networks through which inquiries are routed. These networks service the needs of almost every state and local peace officer in the country as well as those of many federal officers.

"Computer systems should be rebuilt or replaced about every eight years to take advantage of new technology," said FBI Special Agent David Nemecek, NCIC chief. "NCIC came on line in 1967 and we are still using the original software."

Nemecek said that the original NCIC system works well, but is difficult to modify for emerging technology. The software is written in a first generation assembly language. The new system will be done in fourth and fifth generation higher level programming languages.

Most of NCIC-2000 is evolutionary. It will replicate and extend the existing capabilities. It will also provide the ability to more easily add functionality as technology changes.

"we had significant input from users and other stakeholders in the definition of NCIC-2000," Nemecek said. "Extensive surveys and interviews were conducted with users, civil libertarians, legislators and others."

From that input, concept proposals - more than 200 of them - were defined. After being reviewed in depth by the NCIC Advisory Policy Board, FBI management and others, the list was reduced to about 80 conceptual proposals. At the conclusion of the process, FBI Director William Sessions approved the remaining items, which form the basis for NCIC-2000 development.

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APPENDIX #9

Civil Rights Controversy

One area of controversy that surfaced during the definition phase concerned the extension of NCIC to provide intelligence and tracking of people suspected of involvement in drug dealing, terrorism, arson and murder. Although there was strong support from many of the law enforcement personnel involved in the planning effort, intelligence and tracking features did not make it into the final definition.

"Any national police telecommunications system is an inherent threat to the rights of Americans," said U.S Rep. Don Edwards, San Jose, Calif. Edwards, chairman of the Subcommittee on Civil and Constitutional Rights of the House Judiciary Committee, has been actively involved in reviewing NCIC-2000.

"I am a strong supporter of NCIC, which is an important tool for law enforcement," he continued. His concern was that NCIC remain a fact-based record system and not be used for intelligence or tracking purposes.

Edwards and other civil liberties activists are especially pleased with some of the changes planned for NCIC. Since the current system matches descriptive record information with information supplied in the inquiry such as name, date of birth and serial numbers, it is possible to have mis-identifications.

It does not happen often, but when it does it can subject innocent people to inconvenience, arrest or even injury and death. Changes which reduce the probability of such errors are welcomed, according to Edwards.

The proposed changes fall into several categories. They include data quality, added data fields, enhanced functionality for existing applications, positive identification on inquiries and linkage to external databases. All of these changes have increased officer safety, greater police efficiency and effective use of computer and communications resources as their goal.

Intelligent Workstations

One of the primary data quality proposals is the creation of intelligent workstations for use by local agencies. These PC-based workstations would have the capability of formatting and editing input and inquiries. Some agencies already have this capability, but many now operate on teletype compatible terminals.

The standard workstation would be based on the 80386 processor and have a specifically defined configuration. Two versions of the workstation would be available - the second supporting graphics capability. In either case, standard software would be made available for use by state and local agencies.

These terminals will not only improve data accuracy and line utilization, but make training easier for data entry and inquiry operators. Currently, many data entry terminals require strictly formatted messages. The new screen formats will be menu driven and conversational so operators should become capable more quickly.

Other data quality proposals are to provide more descriptive error messages and a process for systematic periodic revalidation of records stored on the system.

Another set of proposals relate to adding data fields to existing files. Proposals include increasing the size of the field available for miscellaneous information, adding fields to for the warrant number in the wanted person file, adding a "caution flag" in the wanted and missing persons files and a field to enter the original offense code in the wanted person file.

Hit Confirmation

Another group of concepts are designed to enhance internal capabilities of the system. One would be to use NCIC to confirm "hits" with the originating agency (ORI). Currently when a "hit" is received, the agency with the suspect or items must telephone or teletype the ORI to confirm the wanted status. With this proposal, NCIC would generate a confirmation request when the hit is received.

Time and date stamps would be added to data records when entered to enhance internal control. There would also be the capability to add lost weapons to the file that now contains only stolen firearms.

A proposal would provide the telephone number of the ORI on each hit message. Another would provide the capability to store inquiries for some period of time after they were made. Then, as new data were entered in the system, these stored inquiries would be checked and if "hits"

APPENDIX #9

were encountered, both the inquiring agency and the ORI would be notified.

Stolen vehicles can be used to illustrate this function. Frequently, police agencies contact - and in some cases - impound stolen vehicles before they have been reported as stolen and may hold them for days without discovering they are stolen. In cases where a vehicle was stopped and then released, police can be notified and possibly recontact the thief. This new proposal would enhance the system's ability to detect and report such situations.

The changes previously described are primarily evolutions of the existing system. There are another set of proposals that are more revolutionary and take advantage of emerging technology.

Image Technology

The most revolutionary of the changes involve image transmission technology. NCIC depends on matches for data supplied with the original entry and with the inquiry. Because suspects sometimes supply false names or identifications and because many names are common to hundred or thousands of people, mis-identifications and missed identifications are possible.

When they happen, persons, vehicles or articles that should be seized or not, or worse, innocent people are detained, arrested or injured. Image technology has the potential to minimize such situations. Photographs, fingerprints, drawings and other images can be transmitted between national, regional, local and even mobile locations to aid positive identifications.

This capability has been successfully tested in Aurora Colo., and Santa Barbara, Calif., using one-of-a-kind equipment. According to Nemecek, no single vendor currently supports such capability. However, the FBI was able to locate various off-the-shelf products from a variety of sources to integrate it successfully.

Nemecek said that Aurora and Santa Barbara were selected for the test to demonstrate these capabilities in active jurisdictions and across long distances.

The test in Aurora was a 100 percent success, according to W. Gray Buckley, chief of Colorado's Crime Information Center in the Colorado Bureau of Investigation. "The technology is here now and it works," he said.

Buckley said that although it is feasible to use this technology in police cars now, he does not expect every police car to be equipped for many years, if ever. He does believe that some cars and many local stations will be equipped to receive and, in some cases, send images as the capability is made available in the NCIC system.

The test in Santa Barbara was also a success. Fred Wynbrandt, assistant director for the Division of Law Enforcement in the California Department of Justice, is enthusiastic about its potential.

"We had two objectives in the test," Wynbrandt said. "We wanted to test the feasibility of the concept and we wanted input from local law enforcement. The quality of the images transmitted was good and the police really liked it."

The capability to transmit photographs was especially useful. Officers were able to confirm a person's identity. It was even possible to send photos of tattoos when needed.

While it is possible to send images of fingerprints from or to the field, it is not yet feasible to identify them except when the subject's identity is suspected.

One of the problems with such identification is the time required. The courts have exerted stringent limitations on the amount of time citizens may be detained for investigation. The FBI does not currently have the technology to scan and identify unknown prints within allowable time frames.

A test system is expected soon that may improve this situation, according to Nemecek. If it works as expected, it should be possible to scan the wanted and missing persons file of some 400,000 records. However, he does not believe the technology currently exists to scan the millions of criminal fingerprint records on file in the few minutes available.

Another concept proposed for more positive identification is to cross-reference suspects who have used stolen or false identification. With this feature, officers will have a better probability of identifying wanted persons and avoiding the arrest of innocent people whose identity has been

APPENDIX #9

assumed by someone else.

Criminal Information Link

Another set of proposals relate to linkage of NCIC with other criminal information systems. Included would be a periodic comparison of the wanted and missing person file to the U. S. Bureau of Prisons file of incarcerated people. It is thought that many subjects in the wanted file are probably in prison for other crimes. This proposal will detect such situations, at least for federal prisoners.

A second linkage would be to the Canadian Police Information Center (CPIC). The United States and Canada share the longest unguarded border in the world. However, facilities do not exist for police in one country to make routine inquiries to the other country on persons, vehicles or property. This proposal provides a telecommunications link between the two systems for such inquiries.

The third linkage would be to the FBI's Criminal Records System, which would make authorized access to such records easier and promote more accurate data in the records system.

There are a variety of other technical proposals and concepts in the plan to enhance internal control and audits and to improve security for these sensitive databases. Some of these include the improvement of internal statistics, enhanced file search techniques and the use of artificial intelligence to improve data matching and reduce mis-identifications.

Planners are working to cushion the impact of these changes on state and local government, but there will be an effect. According to Nemecek, users will be able to use the new system without changing their systems for some period of time. However, to make use of the new features and functions, they will need to make software and, in many cases, hardware changes.

That burden will fall most heavily on the states since the direct connection to NCIC is from the state criminal justice computer systems. However, there will also be costs to regional and local governments. In many cases, programming and hardware changes will be necessary interfaces to the state systems.

There will certainly be expenses to local and regional agencies to equip their stations and vehicles with either intelligent terminals, image equipment or both. Substantial costs will also be incurred to train police personnel to use this equipment. Planners believe that these costs will be offset by improvements in officer safety and effectiveness and in reduced civil liability for the results of mis-identification.

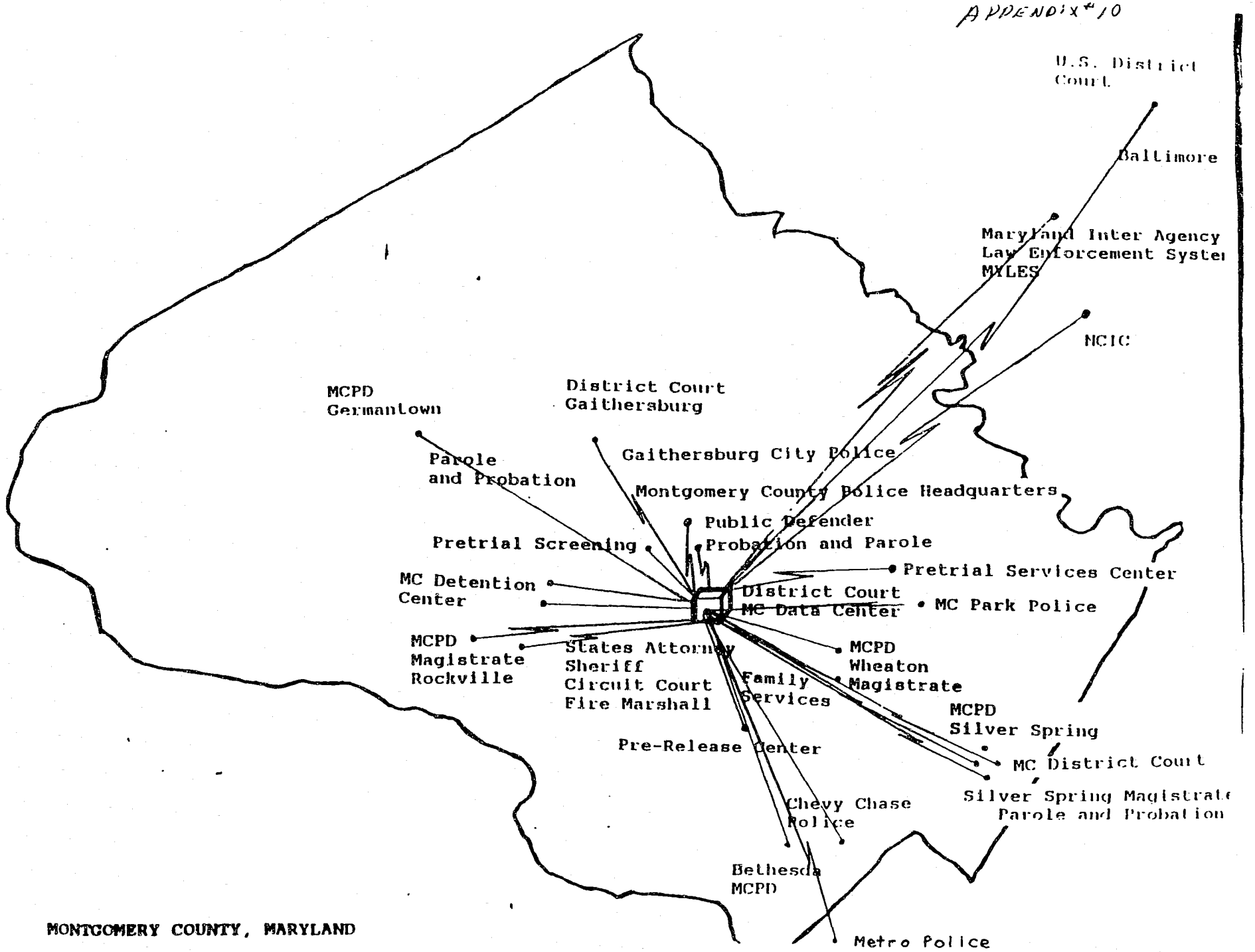
There will also be a significant effect on law enforcement techniques and operations. It is not unreasonable to believe that image transfer technology will exert a change on police procedure as great as the widespread use of mobile radio in the 1930's and 40's or the introduction of NCIC in the 60's.

With widespread consensus on what NCIC-2000 should be, funding is now the central issue. Nemecek estimates the enhanced system will cost the FBI about $75 million over a five- or six-year period. With the deficit reduction efforts, it has been difficult to obtain program approval for the new system.

Buckley, who is current chairman of the NCIC Advisory Policy Board, and Wynbrandt, who is its former chairman, feel the political outlook for funding is good. Rep. Edwards, whose subcommittee provides congressional oversight of the FBI, is a strong supporter of the program. He stated flatly that he is going to make sure it is funded.

While widespread availability of NCIC-2000 features is some years in the future, its potential users are enthusiastic and anxious. "NCIC-2000 is a magnificent step into the future and a blueprint for making tremendous advances," Wynbrandt said.

APPENDIX #10



MONTGOMERY COUNTY, MARYLAND