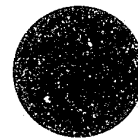


149607



**NEW YORK STATE POLICE
INFORMATION RESOURCE MANAGEMENT PLAN
FOR 1994-1997**

149607

**U.S. Department of Justice
National Institute of Justice**

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NEW YORK STATE POLICE

INFORMATION RESOURCE MANAGEMENT PLAN

FOR 1994 - 1997

EXECUTIVE SUMMARY

The New York State Police is a full service law enforcement agency empowered by Section 223 of the Executive Law. The Division is dedicated to preserving the peace, enforcing the law, protecting life and property, preventing and detecting crime, apprehending criminals, promoting highway safety and assisting other criminal justice agencies by providing them with a wide variety of field and support services. To this end, the Division, by statute, cooperates with any other department of the State and with local authorities.

The Division's *Preservation of Law and Order Program goal* is to protect life and property by preventing and detecting crime, apprehending perpetrators and presenting evidence and court testimony to obtain convictions.

NYSP's *Highway Safety Program goal* is to reduce traffic accidents and minimize fatalities and injuries by enforcing the Vehicle and Traffic Law and other regulations, compiling data on accident causation for internal analysis, as well as use by other agencies, and providing an educational program by making safe driving presentations at schools, civic organizations and other governmental groups.

In order to effectively discharge its Highway Safety and Preservation of Law and Order programs, the Division provides *Support Services* to its field personnel, as well as those from other agencies. These services generally take the form of information, technical services and training, and directly contribute to case closings, system efficiencies and officer safety.

The current role of information technology in NYSP operations centers on three major systems:

1. NYSPIN - New York Statewide Police Information Network
2. MIN - Management Information Network
3. Office Automation and Personal Computers

NYSPIN, the New York Statewide Police Information Network, represents one of the most advanced computer information resources of its kind in the nation. Now in its twenty-eighth year, NYSPIN provides law enforcement and criminal justice agencies immediate access, 24 hours a day, to essential information stored in local, state, national and international files.

NYSPIN's purpose is to support the special information needs and efforts of law enforcement and criminal justice organizations and their personnel. NYSPIN is managed and operated by the New York State Police in compliance with New York State Executive Law.

NYSP's internal computer system for State Police administrative and investigative programs is its *Management Information Network (MIN)*, which is operational 24 hours per day, 7 days a week. Since 1984, it has grown to its current size of over 400 terminals.

Although originally intended to run the Division's administrative applications, it became evident that MIN was useful as an investigative tool as well. It has been used to assist the Bureau of Criminal Investigation (BCI) in analyzing the volumes of data obtained during the course of an investigation. The MAPPER software provides an excellent mechanism to correlate leads, to analyze phone numbers and to deal with massive amounts of investigative information. The system has been instrumental in the conduct of many investigations.

The State Police currently has an installed base of approximately 350 *personal computers*. Plans for the upcoming years call for the replacement of older equipment, as well as the installation of new PCs and Local Area Networks throughout Division Headquarters and Troop Headquarters. The PCs will be connected to the LANs, and the LANs will be connected to each other and to the existing Wide Area Network. This will pave the way for electronic mail and other Office Automation software.

Within the New York State Police, PCs support a large variety of programs and operations. In addition to word processing, PCs run spreadsheet, database, graphics and communications software to meet the information handling needs of individual staff and sections.

* * * * *

In 1991 the NYSP prepared its first multi-year Information Resource Management Plan in accordance with guidelines developed by the Division of the Budget. That plan included a discussion of initiatives then underway as well as an overview of planned programs through the fiscal year ending in 1995. Copies of the 1991 plan were distributed to Division of the Budget, the Legislature, Office of General Services and Office of the State Comptroller, as well as to key Sections within the NYSP.

The IRM planning process was designed to be ongoing and accordingly the 1994-1997 plan is to be submitted simultaneously with the NYSP 1994-95 budget request, using the same IRM guidelines that were issued in 1991. Consequently, this IRM report includes the following major topics:

- I. Overview of Current Information Technology
- II. Status of Major Initiatives
- III. Overview of Future Direction
- IV. Specific Needs and Implementation Approaches
- V. Distribution of Current Resources

Of particular interest to most IRM reviewers will be items II and III, which describe where the NYSP is, and where it is going with respect to information technology. A synopsis of these, primarily in terms of specific applications, comprises the balance of the Executive Summary.

STATUS OF MAJOR INITIATIVES

NYSPIN SUPPORT/TRAINING

NYSPIN currently supports over 860 direct-connect terminals and over 2,300 terminals interfaced to NYSPIN via local/county/regional systems. The Division of State Police is required, as New York State's NCIC Control Terminal Agency (CTA), to train and support the system's users within the State. As such, to address the training needs of NYSPIN participants and to guarantee the accuracy and completeness of the records entered in the files, NYSPIN utilizes both Troop level and Division Headquarters training/support staffs.

NYSPIN system training and support is on-going. Changes to the program are dictated by the requirements of NCIC, as well as by the needs of the system users. A major change to the on-line Training and Certification file to automate a bi-annual examination for basic level NYSPIN operators is pending due to other priorities and staffing shortages in the NYSPIN Support Services Unit.

DIGITAL DATA SERVICE II UPGRADE

The NYSP's data communications circuits will be upgraded under the new FCC Tariff 1, with implementation plans developed in cooperation with the New York Telephone Company. The estimated 18 month multi-vendor implementation plan will be coordinated by the DP Network Control Unit in order to minimize outages for the terminals affected by the upgrade. The DDS II service is characterized by high flexibility, reliability and lower costs.

The Division will realize cost savings in two areas with the upgrade to DDS II service. One area is in the cost of providing modems or DSUs and the other is in the cost of the DDS II service.

Upon completion of the project the Division will have a state-of-the-art data communications facility, providing for increased capacity with improved reliability at a considerable savings over the present facilities.

NCIC 2000

The National Crime Information Center (NCIC), managed by the FBI in Washington, D.C., is a nationwide computerized information system established as a service to all criminal justice agencies Local, State and Federal.

The Division of State Police maintains the computer system (NYSPIN) through which law enforcement agencies in New York State access NCIC. As the CTA in New York, NYSPIN will be greatly affected by changes to NCIC resulting from the implementation of a modernized NCIC system, called NCIC 2000.

On March 19, 1993 the FBI awarded a multi-million dollar contract to the Harris Corporation to implement NCIC 2000. A multi-year study identified 12 major categories of initiatives for implementation comprised of over 80 individual concepts. Improvements to the NCIC system will take advantage of many of the technological advances that have been made in the past 20 years in order to make NCIC responsive to all demands and requirements beyond the year 2000.

NYSPIN is currently addressing certain areas of functionality related to the concepts identified for implementation in the NCIC 2000 study, including, PC workstation functionality, communication protocols (X.25), and positive identification capabilities. Additional concepts will be addressed as soon as technical and operational specifications for the changes are supplied by NCIC.

State support for NCIC 2000 will help further the objectives of the Division's Law and Order program and will help county and local law enforcement agencies throughout the State better fulfill their criminal justice information needs.

DERELICT VEHICLE SYSTEM

NYSPIN EDP is currently in the process of implementing an interface to the New York City Department of Sanitation which will allow for timely entry of data related to the impounding of abandoned vehicles. The system will simultaneously update the NYSPIN impounded vehicle file; place "locates" against those vehicles that were previously in NYSPIN/NCIC as stolen; and, notify the National Insurance Crime Bureau in Chicago, Ill., via NLETS, and the New York State Department of Motor Vehicles of each derelict vehicle entry.

The benefits of this interface are:

- Stolen vehicles will be returned to owners in a more consistent and timely manner.
- Insurance frauds will be more readily identified.
- The number of fraudulent vehicle theft reports made to police will be reduced.
- Satisfies the requirements of the amended V&T legislation (424-1) which mandates NYSPIN entry of all impounded vehicles.

NYSPIN WORKSTATIONS

One of the concepts to be supported by NCIC 2000 is intelligent workstations for use by local agencies. These PC based workstations will have the capability of formatting and editing input and inquiries to the state and national law enforcement databases.

In order to meet the requirements of a terminal device for full participation in NCIC 2000, on January 11, 1993 the Division released an RFP based upon the NCIC intelligent workstation specifications. Awarding of the contract is scheduled for September 1993.

Once the contract is awarded, NYSPIN EDP personnel will work with the vendor to migrate the full suite of NYSPIN edits, code tables, manuals, help-files, etc. to the workstation.

HALT ENHANCEMENT

The Homicide Assessment and Lead Tracking system (HALT) has been in place in the Division of State Police since 1987. It is a computer-assisted crime analysis program and data information system designed to collect, collate and analyze information regarding certain violent crimes occurring in and contiguous to New York State.

The application was instrumental in identifying additional victims in the recent Joel Rifkin serial murder investigation on Long Island, however it is not mandatory that law enforcement agencies submit their cases to the HALT database. It is the responsibility of the HALT staff to reach out to the agencies and invite them to participate in the program.

The HALT staff has already proposed several changes to the system to enhance it. In addition, the EDP staff has recognized several inefficiencies in the system which must be corrected. HALT is the New York State counterpart to the FBI's VICAP program, and actually incorporates the VICAP package. VICAP is in the process of redesigning their data collection form which will force additional changes in order for the Division to remain compatible.

An additional HALT enhancement is presently under development. Specifically, an Unidentified Persons File is being designed to assist field investigators in identifying unknown remains which are found in New York State by linking the new file with the State's Missing Persons File.

To implement these many changes would require the investment of six to nine man-months of programming time. It is possible that additional equipment (both processors and disk drives) would be required to support the anticipated volume.

EXPAND MIN INCIDENT REPORTING PROGRAM STATEWIDE

The Division has developed an Incident Reporting System (IRS) to satisfy the informational needs of field personnel, first line supervisors, Troop and Division administrators and executives as well as oversight agencies that have an interest in the services provided by the New York State Police; for example, the Office of the State Comptroller, the Division of the Budget and the State Legislature.

The design of the overall program includes the following five (5) components:

- Incident (or complaint) reporting
- Field investigation reporting
- Supplemental field reporting
- Special assignment time accounting
- Case management

When fully operational the IRS will eliminate the need to manually tabulate the Monthly Crimes and Investigations Report, Time and Activity Report, Case Record, and various written Investigation Reports.

The full Incident Reporting System responds to the concerns expressed at the NCO and Troopers QWL Conferences, and includes the recommendations of numerous Commissioned and Non commissioned Officers who evaluated the proposal.

The Incident (or complaint) Reporting component of the IRS has been operational in all of Troop G for over two years. Plans for next year call for extending IRS to Troops D, E, and L.

Extension of the network to the Station level will enable personnel at these locations to access the wide variety of other information available through the Management Information Network.

PERSONAL COMPUTER SUPPORT UNIT

The EDP Personal Computer Support Unit (PCSU) is responsible for the installation, training and support of all personal computers, both stand alone and networked, in use in the Division. There currently is a base of over 350 PC's. Most are connected to the Division's mainframe. Some are connected to one of the four Local Area Networks (LAN) currently installed in Division Headquarters. Plans call for the implementation of several new LANs including Counsel's Office , the Scientific Laboratory, and the Communications Section, and for the interconnection of LANs and PCs through the restructured MIN.

In order to adequately address the future PC needs of the Division, the PCSU should be expanded by two employees.

In the future, the responsibilities of the PCSU may be expanded to include many of those tasks previously assigned to the EDP MIN coordinators as the role and capabilities of the MIN are expanded, including providing training and support for the MIN user community.

NYSPIN COMPUTER INTERFACES

Traditionally, agencies wanting NYSPIN service request that a direct-connect NYSPIN terminal be installed in their agency. Today, the needs of law enforcement agencies have grown and additional capabilities are also required, e.g., mobile digital access, computer aided dispatch, LANs and 911 technology. Increasingly, law enforcement agencies are requesting computer-to-computer interfaces with NYSPIN as part of an integrated local system.

Successful implementation of a computer interface requires extensive transaction testing with the agency. One Data Communications Specialist I has been assigned to work in this area, in addition to his normal duties.

Support for mobile digital and LAN technology was a requirement of the recent NYSPIN workstation specifications. It can be anticipated that many small to mid-sized law enforcement agencies will take advantage of these features, thereby increasing the workload for the EDP staff in this area.

LOJACK

The New York City Police Department will be contracting with the LoJack Corporation to install Police Tracking Computers (PTCs) in certain police cars for the purpose of tracking stolen vehicles.

Support for LoJack will require NYSPIN to implement software to pass stolen vehicle entry/update/inquiry data to the LoJack computer system for the purpose of activating/deactivating LoJack Units.

The NYSPIN/LoJack interface will further the Division's Preservation of Law and Order goal by aiding in the timely recovery of stolen vehicles.

NEW LANs AND WANs - THE NEW MIN

Local Area Network (LAN) technology has proven to be useful, reliable, and cost effective in three NYSP installations: Finance, Planning and Research and EDP. Installation of an Academy LAN is now underway and LANs are planned for Traffic, Communications, BCI, Inspection, Fleet Management, and the Casino Gambling Detail.

LANs are under consideration as a technology to meet the expanding computing needs of the Troop Headquarters, and interconnection of these LANs creates a need to understand and acquire Wide Area Network (WAN) technology.

The mechanism planned to provide the interconnection between LANs and WANs is the NYSP Management Information Network (MIN). MIN will become the interconnection that enables sharing data between individual PCs and LANs that may eventually expand to all of the 190 NYSP installations.

OVERVIEW OF FUTURE DIRECTION

NYSPIN TERMINAL EXPANSION

NYSPIN provides service to 860 directly connected terminals throughout the state. An average of fifty (50) additional terminals join the network each year. However, increased system participation is expected due to the implementation of a new NYSPIN workstation that allows increased flexibility at the user agency, meets the requirement of NCIC 2000, and facilitates the use of local area networks (LANS) including mobile terminal networks.

The anticipated network growth will require support at the central computer complex in the form of both hardware and software to meet the increased demands for service from the State's criminal justice and law enforcement community.

NYSPIN terminal expansion during fiscal year 1994-95 will require an expenditure of approximately \$120,000 by the Division of State Police. Although no new personnel requirements at the central site are anticipated in FY 94-95 to handle tasks related to terminal expansion, additional hardware and software may be required in future years. NYSPIN training for new terminal agencies is done at the appropriate State Police Troop control point by State Police personnel. It may be necessary to reinstate the assistant communications supervisors in each Troop to handle the training requirements.

ON-LINE PERSONNEL DATA SYSTEM IN MIN

The present Personnel Data System (PDS) is batch oriented and inflexible to changing demands. A new, fully on-line PDS System was designed to decentralize the many different components that are part of a personnel system and bring the responsibility for maintaining this important information closer to the departments that directly manage the information, which will lead to better quality of information. This will have implications for those departments that will be directly responsible for maintaining parts of the overall PDS System; data entry and updating of information will affect numerous sections within Division Headquarters, each Troop Headquarters and the SP Academy.

The continuation of this project will require the commitment of substantial resources and time of both data processing staff and the various departments that the system will directly affect: Personnel, SP Academy, Quartermaster and Troop Headquarters.

Work on an on-line PDS will commence when resources are available. The cost of developing and implementing the program is mainly personnel time, estimated to be:

Administrative Analyst	1/4 person-year
Programmer Analyst	2 person-years
MIN Coordinator (training)	1/12 person-year

No additional equipment is anticipated.

STATE, LOCAL AND FEDERAL CONVICT/PROBATION/PAROLE FILES

A capability to link NCIC and the Bureau of Prison's SENTRY System will be established in the NCIC 2000 system to automatically check record entries and inquiries in the wanted and missing person databases against information on persons currently incarcerated in Federal prisons. This link will provide for separate direct inquiry to SENTRY for historical data. This cross-search will be available to any agency entering information in or retrieving information from the wanted and missing persons files.

To assist supervising agencies in fulfilling their responsibilities relative to probationers and parolees, a new information source will be established in the NCIC 2000 system. Federal, State and local criminal justice supervision agencies will store the names, descriptive data (including vehicle and boat information) and conditions of probation or release for persons charged with felonies and serious misdemeanors and assigned to them.

On the State level, an interface to the New York State Department of Correctional Services will allow NYSPIN participants to determine if a wanted person is incarcerated. This determination will be made at both the point of wanted record entry, as well as via wanted persons inquiries. Conversely, DOCS will be able to ascertain if, prior to release, there are any outstanding warrants for a parolee.

Access to these files will require varying levels of NYSPIN software support, as well as an interface to the DOCS system.

Support for the NCIC concepts is dependent upon an NCIC/SENTRY interface being realized and specifications for the Supervision Status File being supplied to the states. Costs cannot be projected at this time, as the NCIC 2000 contract was awarded only recently. Costs will be known after testing, development and acceptance have been accomplished, and specifications are issued - now expected to be in December 1995.

Realization of a NYSPIN/DOCS interface is dependent upon agreement by the two agencies to the exact functionality, communications requirements and timetables for implementation. At this time, costs to the Division of State Police cannot be projected.

MIN CRIME LAB CASE MANAGEMENT SYSTEM ENHANCEMENT

Planning will be initiated for computer services to be provided in the new Forensic Investigation Center. Steps will be taken to ensure that proper systems will be available for the Forensic Investigation Center when it opens and, likewise, for the entire Crime Laboratory System. Hardware and software will have to meet the needs of the scientist as well as national standards.

A needs-assessment process will commence in fiscal year 94-95 to determine the appropriate hardware and software required to ensure that the needs of the Forensic Investigation Center are met. Implementation of the recommendations will begin as expeditiously as possible thereafter.

MIN PISTOL PERMIT ON-LINE ACCESS

Pistol permits in New York State are issued under the authority of County government, or, in New York City the Police Commissioner. A central depository for pistol permits and handgun information is maintained by the Pistol Permit Section (PPS) of the New York State Police. While the PPS is computerized, the automated record keeping is done on a batch processing system designed in 1976.

One of the most severe limitations of the present system is its slow response to inquiries - most responses take overnight to answer, and longer on weekends. A second problem is poor quality of data on file.

A proposal has been developed to increase the accuracy of pistol permit records by establishing a renewal schedule for permit holders; to increase the speed at which information is exchanged by using computer technology; and to make the new system pay for itself by establishing a fee schedule. Project success will depend on cooperation between judicial and executive branches of government; on cooperation between private and public sectors; on computer technology and system design, and on passage of legislation.

An on-line inquiry and response system into a more accurate database is needed to meet the goals of a streamlined Pistol Permit Section. The enhanced capability will serve not only NYSP investigators, but also local and out-of-State police and prosecution agencies.

MIN QUARTERMASTER INVENTORY SYSTEM

The NYSP inventory of: (1) uniform clothing and equipment, (2) forms and stationery supplies, and (3) automobile supplies and equipment, is stored in 10 sites across the State. The main storage depot is in Sidney, with smaller storage and supply facilities at each of the other Troop Headquarters locations and the Academy. The value of this inventory is approximately \$8 million.

Information regarding quantities in stock and reorder levels is kept on paper records and calculated by hand. This record keeping system is not as accurate and timely as more modern inventory tracking systems. An automated inventory system is needed to increase accuracy and result in more efficient purchasing and use of materials in inventory.

The Quartermaster Inventory System is expected to be a MIN application, requiring the installation of 10 additional terminals. Work is expected to begin when MIN programming staff become available.

COMPUTER TRAINING FACILITY

Increasingly, the use of personal computers plays a part in both law enforcement and criminal activity. The personal computer is a powerful tool for storing, organizing, searching, sorting and presenting information, the use of PCs can be expected to enhance the capability of Crime Analysts, BCI members and the Uniform Force to retrieve and analyze information related to criminal cases.

Training is needed in topical areas such as introduction to PC use and the operating system, hard disk organization and operations, component hardware maintenance and trouble shooting, and using word processing programs.

One way to provide this training capability within the agency is to equip a PC training facility in either the Academy or EDP Section. It will be beneficial to provide training for Sergeants, Lieutenants, Captains and others who head sections where work is performed on PCs.

The training for supervisors could be scheduled as a part of in-service training and would be conducted in the computer training center.

In addition to the space and staff required, which could possibly be allocated from present resources, computer equipment and software programs would be needed to support a computer training facility. Using an estimated \$4,400 per training station for hardware and furniture, and \$1,200 for software, 10 computers to support 8 student machines, an instructor machine and a spare machine would cost \$56,000.

UCR / NIBRS DEVELOPMENT

The UCR program is being replaced by a more comprehensive National Incident Based Reporting System (NIBRS). The specifications and capabilities of the NIBRS program is driven by federal guidelines, and it will be the responsibility of the NYSP, like other police agencies to comply with the system requirements.

The Incident Reporting System (IRS) will become the fundamental data source for automated NIBRS reporting. The present Incident Reporting System (IRS) will be expanded to Troops D, E, and L. at a cost of \$141,700 for hardware, software and network. Monthly recurring circuit costs is \$5,000. One additional Computer Systems Programmer is required.

PORTABLE LAPTOP / NOTEBOOK / MDT/MDC COMPUTER USE

The portable laptop or notebook PC will help reduce paper handling costs, improve the quality of reports and reduce the time spent writing reports. With a communications capability similar to mobile digitals, access to NYSPIN and the Division's MIN files will also be possible.

From 1980 to 1988, the cost of MDTs did not drop significantly. Despite the rapid development in all other areas of the electronics industry, there had been no significant technological product improvements in MDTs. Despite the benefits of an MDT system, the costs for those systems could not be justified. To be of real value, the MDT must help reduce the paper and information management burden of modern police agencies.

A joint MDT/MDC pilot project is underway by NYSP and Thruway Authority to evaluate the Mobile Digital concept in the New York Zone of the Thruway. The system will give car-to-car and dispatcher-to-car digital communications to 58 NYSP patrol cars on the thruway. Costs of the equipment will be known after completion of the pilot test conducted jointly by NYSP and the Thruway Authority in the New York Zone of Troop T, most likely beginning in September 1993.

ENHANCED CAD IRS WITH MAPS AND EC-911

Emerging technology provides the NYSP with the opportunity to enhance the Incident Reporting System (IRS) with graphics and vehicle locating capabilities unavailable as recently as two years ago.

This technology, which may also include an inexpensive and accurate automatic police vehicle locating component, shows great potential for supporting police operations as the centerpiece of a computer aided dispatch (CAD) system.

The NYSP, with it's statewide jurisdiction that crosses county and municipal boundaries - just as road travellers do, is the logical police agency to evaluate this technology and provide the service to protect the motoring public. The Division will follow the development of this emerging technology.

A test of Global Positioning System and map displays at the dispatcher's position will be undertaken in the fall of 1993 in cooperation with NYNEX. At the conclusion of that test costs and capabilities of this new technology will be better known and understood.

NOTEBOOK AND PEN BASED COMPUTERS

Law enforcement has eagerly awaited the appearance of small hand held and truly portable computers for recording information (e.g., arrest reports) in the field, producing documents (e.g. traffic tickets) in the field, and checking remote databases (e.g. DMV driver license files). The NYSP first evaluated hand held computers in 1985 but found them unreliable and lacking suitable software. With the advent of rugged notebook size MS/DOS computers and the development of pen based input the technology may now be ready for police use.

The equipment is only recently announced and thus is expensive, but when prices fall due to competition and manufacturing efficiencies, we expect to purchase examples for evaluation as a hand-held field terminal.

TRANSFER FILE 20 SYSTEM TO MIN

The Bureau of Criminal Investigation (BCI) case management program (File 20) provides for the reports and update of cases adopted by personnel assigned to the Bureau. Daily reports are transmitted via NYSPIN to each participating State Police station summarizing all FI20 messages transmitted the previous day.

The File 20 Reporting System needs to be transferred to the Division's Management Information Network.

Until the system analysis is completed the costs of this project will not be accurately known. The programming time is expected to be substantial, and the hardware costs minimal.

INVESTIGATIVE RECORDS SEARCHES (LAWMAN)

One of the most valuable services provided to law enforcement agencies throughout New York is a NYSPIN/DMV cooperative program known as LAWMAN. This program provides investigators with motor vehicle registration information by searching millions of motor vehicle records stored off-line in the NYSPIN database. Searches can be made by partial license plate information, vehicle makes/models, registration types, registrant names, registrant addresses, etc. The program has been instrumental in identifying subjects in homicides, drug investigations, hit and run accidents and other major crimes.

The present system handles more than two thousand cases per year and is steadily increasing. In addition, NYSPIN agencies have requested an extension of the service to include over 19 million DMV drivers license records.

To meet the increasing demand for enhanced and additional LAWMAN services, a more streamlined search process must be developed along with provisions for tripling today's storage capacity. It is estimated that 408 thousand tracks of mainframe disk storage will be required at a cost of \$45,000. With the increased workload projected to increase the number of cases by one third, an additional Communications Specialist (SG-10) is requested for the NYSPIN Support Services Section.

TELEPHONE SUBSCRIBER DATA ACCESS SYSTEM (FASTTRACK)

The Division currently leases a telephone subscriber file, called "FastTrack" from NYNEX at a cost of \$6490.00 per year. Except in emergency situations, this file can only be accessed by the Headquarters Crime Analysis Unit (CAU) during normal business hours. Investigators in the Field must call the CAU and request a search. In an emergency, personnel in the Field can call the Headquarters Communications Section and request a search of the database. The limited accessibility is hindering investigations throughout the Division. It is imperative, therefore, that access to Fasttrack be improved.

The decision on how to proceed technically - either a CD-ROM drive in each Troop, or one CD-ROM drive as a mainframe peripheral available over MIN - will likely be driven by software license considerations.

PC MAINTENANCE

The Division currently owns 350 personal computers not covered by a maintenance contract. Since the warranties have expired, it will be necessary to purchase a maintenance protection plan in order to forecast expenses for PC repairs. The cost of the contracts is likely to be determined by competitive bid.

ADDITIONAL FUTURE TECHNOLOGY

In addition to the current and planned projects, there are several additional applications for computer and other types of information technology for which needs have been identified. While not ready to be proposed as a specific project in this three-year IRM plan, discussion and analysis has taken place on these topics:

- Electronic automobile diagnostic equipment
- Expand telephone bill database to include gas and electric bills

- Access radio frequency using databases
- Computer aided design and drawing capability for Radio Engineering Section
- Computerized microwave path and profile studies
- Upgrade map image system in Emergency Communications vehicles
- Division/Troop Headquarters inspection system
- Upgrade Satellite telephone data system
- MIN system to analyze computerized telephone billing records
- On-duty injuries/workers compensation tracking system
- Employee performance evaluation system
- Civilian examination production and administration
- Trooper examination scoring and analysis system
- Trooper candidate processing and eligible list management system
- Recruiter candidate tracking system
- Driver training simulator
- Interactive video/multi-media training system
- Automated firearms training system
- Automated training records system
- Metro-21 communications project (completed)
- PC recording of dialed numbers
- Optical storage for records
- Fleet cost-reporting system
- Troop Traffic Section system enhancements
- Hardware and software compatible with the NYS DMV bar coding on driver's license and vehicle registrations

- A disk expansion drawer to accommodate the redesigned accident reporting system
- A GRID PAD type of system to automate data entry of information related to MCSAP and commercial vehicle weight enforcement
- Hardware and software for accident reconstruction
- Hardware and software to provide each Troop Emergency Management Section with integrated communications and computer access to the State Emergency Management Office and the Local Emergency Planning Committee
- The Aviation Unit requires computerized access to FAA services and also to track maintenance and prepare mission reports
- Field Command Resource Reporting System
- Hazardous Materials Inventory and Incident File

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The 1991 IRM Plan described several NYSPIN, MIN and PC programs that have been fully implemented; a summary of several of the more significant applications mentioned in the 1991 Plan follows:

NYSPIN IMPOUNDED VEHICLE SYSTEM

An act to amend the Vehicle and Traffic Law (424-1), in relation to the reporting of impounded vehicles via NYSPIN, became a law on May 17, 1991 and took effect on August 17, 1991. The amended law states, "Agencies which are members of the New York Statewide Police Information Network shall report any theft, recovery or impounding of a motor vehicle, trailer or part or parts thereof, to such network. Such information shall be made available to the Commissioner of Motor Vehicles."

On November 13, 1991 NYSPIN programming was changed to fully support the law, allowing agencies to enter impounded vehicle information on the NYSPIN database. The data can then be passed to DMV, the National Insurance Crime Bureau (NICB) and is available to all law enforcement agencies in New York.

NYSPIN SUPPORT FOR DCJS WHAMS

DCJS's Spectrum Justice System "Warrant History and Management System" (SJS WHAMS) provides for automated storage, as well as quick retrieval and reporting of warrant information. The software is designed to allow police departments to better manage their warrant operations and to make optimum use of police personnel. It also helps them meet "due diligence" requirements for executing warrants by providing an easy-to-use way to actively investigate and to document efforts..

The DCJS mainframe programming and Integrated Systems Development staffs have implemented a major project with NYSPIN EDP which links the local warrant data in WHAMS to the NYSPIN/DCJS State wanted files and the National NCIC wanted file.

As of August, 1993 four local police departments were using the NYSPIN/DCJS WHAMS interface, Schenectady PD, Watervliet PD, Elmsford PD and the Town of Poughkeepsie PD. Additional agencies will follow.

NYSPIN ENHANCEMENTS

NYSPIN enhancements address two general goals:

- Improve and enhance the capabilities of NYSPIN to meet the growing needs of the law enforcement/criminal justice community.
- Maintain, expand and enhance the Data Communications facilities that service the State's law enforcement/criminal justice Communications networks.

The following initiatives, which were included in the 1992-1995 IRM, have been implemented:

- Radius routing of NYSPIN messages which helps guarantee the timely distribution of critical police information messages to all terminal agencies geographically near the originating terminal.
- Modification of over 30 application programs to revise error messages related to invalid NYSPIN transactions.

MIN Leave Program

Under the MIN-based Leave Accrual System, leave accrual and use calculations are done by computer rather than by hand. In addition, employees can check their own leave balances from MIN terminals. The system was finally tested in Division

Headquarters and Troop K and proved to increase accuracy and reduce errors and disagreements. In 1992 the system was expanded Division-wide and is now operational at all locations served by MIN.

MIN ASSET SEIZURE TRACKING PROGRAM

Conversion of cash, vehicles, personal and real property and other assets seized in the course of a drug arrest from criminal purposes to law enforcement or other government purposes is an attractive idea, both to taxpayers and elected officials responsible for funding expanded government services in times of dwindling resources.

A seized assets computer program is now operational in Division Headquarters. Minor programming changes remain for it's reporting capabilities to be extended to Troop Headquarters. Since the automated system was put in place \$38,000,000 has been seized, tracked, forfeited, and collected.

COMPUTER EVIDENCE EXAMINATION LABORATORY

Personal computers are increasingly used to support criminal activity. To support the investigation of crimes in which PCs were used, a Computer Crime Unit was established in 1991 to assist in the examination of computer equipment seized in evidence. The Unit is staffed with a Senior Investigator and an Investigator.

The core computer examination lab is located at Division Headquarters in Albany, and is able to provide Statewide service, not only to NYSP investigators, but to local police, sheriff's departments and prosecutors. No additional staff and little in additional equipment is expected to be expended in the near future.

P&R WP SYSTEM REPLACEMENT

In 1992, Planning and Research's seven year old mini-computer based Wang® OIS System was replaced with a Novell Local Area Network (LAN) consisting of a Digital Equipment Corporation (DEC) PC file server and 16 PC workstations. It was funded primarily by redirection of maintenance contract monies. Now word processing, spreadsheet, graphics, database and communications programs are available to all levels of P&R staff, including Keyboard Specialists, Sergeants, Analysts, sworn and civilian section managers and the P&R Commander.

ACADEMY WP SYSTEM REPLACEMENT

In early 1993 the NYSP Academy's aging Wang® mini-computer word processing system was replaced with a LAN to support six keyboarding staff who produce reports, memos and training documents to support the Academy's training mission. It was funded primarily by redirection of maintenance contract monies. In late 1993 the system will be expanded to make available word processing, spreadsheet, graphics, database and communications programs to several other Sections in the Academy.

New York State Police

AGENCY OBJECTIVES

The New York State Police is a full service law enforcement agency empowered by Section 223 of the Executive Law. The Division is dedicated to preserving the peace, enforcing the law, protecting life and property, preventing and detecting crime, apprehending criminals, promoting Highway Safety and assisting other criminal justice agencies by providing them with a wide variety of field and Support Services. To this end, the Division, by statute, cooperates with any other department of the State and with local authorities. To effectively carry out its crime control, Highway Safety and support responsibilities, the New York State Police relies extensively on automated systems.

PRESERVATION OF LAW AND ORDER

The Division's Law and Order Program goal is to protect life and property by preventing and detecting crime, apprehending perpetrators and presenting evidence and court testimony to obtain convictions. Of particular concern is the arrest of narcotics traffickers, confiscation of their drugs and seizure of their assets. Several computerized programs support the Division's Law and Order goal, including the Wanted Persons File, Homicide Assessment and Lead Tracking and Telephone Trace.

HIGHWAY SAFETY

NYSP's Highway Safety Program goal is to reduce traffic accidents and minimize fatalities and injuries by enforcing the Vehicle and Traffic Law and other regulations, compiling data on accident causation for internal analysis, as well as use by other agencies, and providing an educational program by making safe driving presentations at schools, civic organizations and other governmental groups. Special attention is directed at interstate and other controlled access highways where the Division has a primary presence and dedicated patrols throughout the State. Numerous automated systems enable the Division to achieve its Highway Safety goal, the most significant being the interface with the Department of Motor Vehicles for driver license and vehicle registration information.

SUPPORT SERVICES

In order to effectively discharge its Highway Safety and Preservation of Law and Order Programs, the Division provides Support Services to its field personnel, as well as those from other agencies. These services generally take the form of information, technical services and training, and directly contribute to case closings, system efficiencies and officer safety. For many years, the State Police has relied upon automation to effectively deliver its Support Services; some examples include the Personnel Data System, the Police Resource Information System and the Document Control System.

I. **O**VERVIEW OF **C**URRENT **S**TATUS

I.A. ROLE OF TECHNOLOGY IN CURRENT AGENCY OPERATIONS

The current role of information technology in NYSP operations centers on three major systems:

1. NYSPIN - New York Statewide Police Information Network
2. MIN - Management Information Network
3. Office Automation and Personal Computers

In Section I, these systems are discussed in relation to the mission, programs and operations of the State Police. It will become evident from this report that these information systems directly support the mission and program goals of the NYSP and the many agencies with which it regularly interacts.

NYSPIN - NEW YORK STATEWIDE POLICE INFORMATION NETWORK

NYSPIN, the New York Statewide Police Information Network, represents one of the most advanced computer information resources of its kind in the nation. Now in its twenty-eighth year, NYSPIN provides law enforcement and criminal justice agencies immediate access, 24 hours a day, to essential information stored in local, state, national and international files.

NYSPIN's purpose is to support the special information needs and efforts of law enforcement and criminal justice organizations and their personnel. NYSPIN is managed and operated by the New York State Police in compliance with New York State Executive Law.

The user network is comprised of more than 860 micro computers directly linked to NYSPIN, with another 2,300 terminals indirectly linked through interfaced computer systems within the State. On the National level, NYSPIN is networked to over 70,000 agencies across the country.

Service providers linked to NYSPIN through computer interfaces include the Department of Motor Vehicles, the Division of Criminal Justice Services, the Department of Taxation and Finance, the National Crime Information Center, the National Law Enforcement Telecommunications System and the National Weather Service.

Typical of the information exchanged within NYSPIN are:

- Stolen vehicles and vehicle parts
- Stolen license plates
- Stolen boats

- Stolen firearms
- Stolen articles of property
- Wanted/Missing/Unidentified Persons
- Vehicles used in the commission of crimes
- Vehicle and Boat registrations
- Driver's License data
- Truck mileage tax permits
- All points bulletins

In addition to the law enforcement network, NYSPIN also provides network services to the State Emergency Management Offices (SEMO). Using the network of over 100 NYSPIN terminals throughout the State, SEMO coordinates the activities of agencies administering to disasters and major emergencies. SEMO is part of the Federal Emergency Management Administration.

On average during 1992, the NYSPIN system processed more than 632,000 messages per day. Based on projected network growth, transmissions for 1993 will exceed 235,000,000 messages of a nature vital to officer and public safety in New York State and across the Nation. (See Appendix B for more detailed information.)

MIN - MANAGEMENT INFORMATION NETWORK

NYSP's internal computer system for State Police administrative and investigative programs is its Management Information Network (MIN), which is operational 24 hours per day, 7 days a week. Since 1984, it has grown to its current size of over 400 terminals.

Each Troop Headquarters is equipped with at least five (5) terminals. The network extends to the Zone level, as well as to many special units such as the Special Investigations Unit, the Crime Analysis Unit and the Narcotics Unit. In Troop G, the network extends to the Station level to support the Uniform Force's Incident Reporting Program. The number of applications has quickly grown to over 50, encompassing virtually every section within the Division.

Although originally intended to run the Division's administrative applications, it became evident that MIN could assist the Bureau of Criminal Investigation (BCI) in analyzing the volumes of data obtained during the course of an investigation. The MAPPER software provides an excellent mechanism to correlate leads, to analyze phone numbers and to deal with massive amounts of investigative information. The system has been instrumental in the conduct of many investigations.

Examples of MIN programs, in addition to those already cited, that support the Preservation of Law and Order Program goal are:

- Interagency access to DMV registration files for investigations (LAWMAN program)

- BCI Cases and Arrests
- BCI Operational Applications
- Computer Assisted Investigations
- Statewide Narcotics Apprehension Reporting Effort (SNARE)
- Statewide Narcotics Indexing Program (SNIP)
- Homicide Assessment & Lead Tracking System (HALT)

Examples of MIN programs that support the Highway Safety Program goal are:

- Innovative Traffic Ticket System
- Line Post File
- Hazardous Materials

Examples of MIN programs that assist Support Services are:

- Payroll Data System
- Administrative Message System
- Fleet Cost Reporting
- Personnel Data System
- Quartermaster Inventory
- Leave Accrual System
- Asset Seizure Statistical & Tracking System
- Document Control System

OFFICE AUTOMATION AND PERSONAL COMPUTERS

The State Police currently has an installed base of approximately 350 personal computers, of which 150 are the older 286 technology. The remaining 200 are newer 386 and 486 machines, utilizing Windows and WordPerfect for Windows as the Division standard word processor. Plans for the upcoming years call for the replacement of the old equipment, as well as the installation of new PCs and Local Area Networks throughout Division Headquarters and Troop Headquarters. The PCs will be connected to the LANs, and the LANs will be connected to each other and to the existing Wide Area Network. This will pave the way for electronic mail and other Office Automation software.

Among the manifold uses of the personal computers within the Division are word processing, database, spreadsheet, graphics and communications. However, PCs support a variety of programs and operations within the State Police. Examples are:

- Accusatory instruments in patrol Stations
- Incident Reporting Program at the State Fair Detail
- Credit card tracking in Budget and Finance
- Supplier contract indexing for Quartermaster
- Traffic accident reconstruction
- Desktop publishing of reports

The PC is an exceptionally versatile piece of equipment, and in addition to stand-alone use, PCs also serve as PC/NYSPIN terminals, PC/MIN terminals and also exchange data via PC to PC connections, including word processing and E-mail.

The few examples listed above demonstrate how personal computers support each of the NYSP goals of Preservation of Law and Order, Highway Safety and Support Services.

SUMMARY

Computer support plays a substantial role in the Preservation of Law and Order Program, particularly in the form of providing services to investigative personnel. In addition, NYSPIN provides essential "real time" stolen property, wanted persons, and vehicle and drivers license data, thereby enhancing the safety of troopers, county and municipal patrolmen.

NYSPIN, MIN and personal computers have contributed significantly to the Division's Highway Safety Program, and use of computer technology can be expected to increase in this area. The most widespread use of computer technology at the present time can be seen in the Support Services Program, which relies heavily on MIN, substantially on Office Automation and Personal Computers and to a lesser extent on NYSPIN.

Clearly, the NYSP is a major user of computer resources, with most of the users being people outside of the EDP Section, specifically:

1. NYSPIN is used by Troopers, Sergeants and Communication Specialists in every NYSP Station, as well as personnel in local police agencies, correctional facilities, prosecutor's offices and other criminal justice organizations.
2. MIN is available at Division Headquarters, Troop Headquarters, Zone Headquarters, several Stations and the Academy and is used by Troopers, Sergeants, Section Supervisors, secretaries, Payroll Clerks, Personnel Clerks, Administrative Analysts, Finance Analysts, as well as Programmer Analysts in EDP.
3. Personal computers are used by both member and civilian staff in numerous sections, including the Academy, Finance, Traffic, BCI, Administration, Planning and Research, the Crime Laboratory, Troop Headquarters Sections and Stations, as well as in EDP.

In the following section, additional information is presented with respect to the organizational aspects and technical architecture of the New York State Police's information resource base.

I.B. OVERVIEW OF THE CURRENT TECHNOLOGICAL ENVIRONMENTS

The information technology environment at NYSP features two distinct wide-area networks driven by UNISYS 2200 model 622 mainframes. The two terminal networks are functionally independent from one another, while sharing the same physical communications facilities associated with CRIMNET through T-1 facilities.

The NYSPIN network, which services law enforcement and criminal justice agencies in New York State, operates in a transaction based environment to ensure rapid delivery of information vital to law enforcement, and officer and public safety. The NYSPIN network is used predominantly in dispatch centers which, by their nature, require rapid access to the NYSPIN database and the law enforcement information systems of linked computers on the state, national and international levels. Information accessed includes wanted/missing persons data, stolen property data and driver license and registration information.

The MIN network, which supports the internal administration and management of the Division of State Police, operates as a decision maker's support system. Rapid response times are not as critical as they are with NYSPIN. Certain MIN applications also provide investigative services to law enforcement agencies in New York, including: LAWMAN, an off line DMV registration file searching program, Statewide Narcotics Indexing Program (SNIP), which indexes names of suspected drug traffickers, Homicide Assessment and Lead Tracking System (HALT), which captures data on solved and unsolved murders and violent sexual assaults for the purpose of cross-referencing and searching and Consumer Product Tampering, which cross-references new product tampering case information with previously entered data.

In summary, the Management Information Network (MIN) consists primarily of generic fourth generation language software custom-tailored for the administrative and investigative needs of the Division. NYSPIN, on the other hand, consists of custom written software designed to meet the rapid response requirements of law enforcement officers.

NYSPIN supports some 860 direct-connect terminals, while MIN supplies decision support to over 400 terminals.

In addition to NYSPIN and MIN, the Division of State Police maintains various microcomputer Windows and DOS applications, including spreadsheet, word processing, electronic mail, scheduling and speed memos. Over 250 PCs are used in microcomputing applications.

DMS 1100 is used for on-line NYSPIN database management. DMS 1100 encompasses database design access and maintenance functions. The Communications management software is UNISYS CMS 1100. Unisys TELCON software controls the two front end processors which are UNISYS DCP 50's.

The State Police mainframe computer is driven by the UNISYS 1100 Operating System. Memory size is 64 million bytes, and the disk storage capacity is 32 billion bytes. Magnetic tape applications utilize eight cartridge tape drives and two standard round reel drives. The main printer is a Xerox laser, with a Unisys impact printer employed as a backup unit.

The UNISYS 2200/622 mainframe is a member of the 2200 family which allows for substantial growth in mainframe computing, communications and database management. Currently, the 2200 mainframe system possesses approximately ½ of the potential processing power within the UNISYS 2200 family. This implies that substantial expansion of the central processing system, including the CPU and input-output processor, is possible to meet future requirements. Mainframe memory can also be expanded to twice its current capacity.

In addition, communication processing has virtually limitless expansion capabilities via the addition of DCP expansion cabinets. Communication processing may also be enhanced through the use of multiplexers, nodal processors (PADS) and related equipment.

Application programming languages are COBOL (40%), MAPPER (50%) and Assembler (10%).

See Appendix E "SELECTED NYSP ORGANIZATIONAL CHARTS" for information on the NYSP Data Processing technical staff.

II. STATUS OF MAJOR INITIATIVES

This section of the State Police Information Resource Management Plan contains a summary description of several major technological initiatives already underway within the Division.

II.A. NYSPIN IMPOUNDED VEHICLE SYSTEM

An act to amend the Vehicle and Traffic Law (424-1), in relation to the reporting of impounded vehicles via NYSPIN, became a law on May 17, 1991 and took effect on August 17, 1991. The amended law states, "Agencies which are members of the New York Statewide Police Information Network shall report any theft, recovery or impounding of a motor vehicle, trailer or part or parts thereof, to such network. Such information shall be made available to the Commissioner of Motor Vehicles."

The purpose of the legislation is to coordinate and streamline current procedures used by police agencies when vehicles are impounded. The Bill provides for a central data bank containing all vehicles impounded anywhere within the State.

Before passage of the legislation, NYSPIN supported impounded vehicle entries, but their entry was not a legal requirement, nor did NYSPIN collect all of the data that is required by V&T 424-1. On November 13, 1991 NYSPIN programming was changed to fully support the law.

In conjunction with the changes made by NYSPIN to support the law, additional changes were made to send the entered data to the National Insurance Crime Bureau (NICB) in Chicago, Illinois, via NLETS. This information is used by NICB for investigative purposes relating to attempted insurance fraud schemes. The Dept. of Motor Vehicles, to date, has not implemented programming to receive impound data from NYSPIN. It is anticipated that this will be done once the NYSPIN/NYC Sanitation Dept. interface is operational (see Sec II.J).

NYSPIN's support for the new legislation has furthered the Division's Preservation of Law and Order goal by:

Returning stolen vehicles to owners in a more consistent and timely manner.

Identifying insurance frauds more readily.

Reducing the number of unnecessary stolen vehicles alarms in NYSPIN.

Reducing the number of fraudulent vehicle theft reports made to police. (It is currently estimated that 25% to 40% of all vehicle theft reports are actually insurance frauds.)

II.B. NYSPIN SUPPORT FOR DCJS WHAMS

A good example of law enforcement software is the Spectrum Justice System's personal computer based Warrant History and Management System (SJS WHAMS). SJS WHAMS was developed and made available free of charge to local law enforcement agencies through the Systems Improvements for Enhanced Community Safety (SIF ECS) Program in the State Division of Criminal Justice Services.

SJS WHAMS provides for automated storage, as well as quick retrieval and reporting of warrant information. The software is designed to allow police departments to better manage their warrant operations and to make optimum use of police personnel. It also helps them meet "due diligence" requirements for executing warrants by providing an easy-to-use way to actively investigate and to document efforts.

The DCJS mainframe programming and Integrated Systems Development staffs have implemented a major project with NYSPIN EDP which links the local warrant data in WHAMS to the NYSPIN/DCJS State wanted files and the National NCIC wanted file.

The WHAMS/NYSPIN interface project initially underwent delays in its implementation as the result of a major redesign in the NYSPIN/DCJS section of the interface. The redesign resulted from the implementation of ISD data standards midway through development of the WHAMS/NYSPIN interface, which would have rendered the data non-compliant with New York State standards. The interface is now fully operational.

As of August, 1993 four local police departments were using the NYSPIN/DCJS WHAMS interface, Schenectady PD, Watervliet PD, Elmsford PD and the Town of Poughkeepsie PD.

II.C. NYSPIN SUPPORT/TRAINING

NYSPIN currently supports over 860 direct-connect terminals and over 2,300 terminals interfaced to NYSPIN via county/regional systems. The Division of State Police is required, as New York State's NCIC Control Terminal Agency (CTA), to train and support the system's users within the State. As such, to address the training needs of NYSPIN participants and to guarantee the accuracy and completeness of the records entered in the files, NYSPIN utilizes both Troop level and Division Headquarters training/support staffs. Training related responsibilities include:

Curriculum preparation, writing and distribution of the NYSPIN Basic Course Manual.

Each of the 10 Troop control points are responsible for basic training, as well as agency instructor training within their Troop regions. In 1992, NYSPIN Troop personnel spent 1,860 hours training 291 operators from 91 law enforcement agencies.

Maintenance of the on-line Training and Certification Program currently supporting 17,384 NYSPIN terminal operators and system practitioners.

The NYSPIN support staff and the 10 Troop control points are also responsible for NYSPIN system support, including:

- Bi-annual auditing of NYSPIN agencies (NCIC requirement).

- Review of NYSPIN records for accuracy and completeness.

- Record compatibility checks among the different interfaced service agencies (i.e., NYSPIN, NCIC, DCJS).

- Validation of records (monthly).

- Maintenance of the Agency Identifier (ORI) files.

- Preparation and revision of the NYSPIN Operating Manual.

- Maintenance of the On-line NYSPIN Menu System and Help files.

- Servicing trouble calls received on the 800 "trouble" number.

- New application research.

- Administration of terminal network.

- Support for the off-line search programs, including the NYSPIN/DMV "Lawman" registration file searches.

- Security breach investigations.

NYSPIN system training and support is on-going. Changes to the program are dictated by the requirements of NCIC, as well as by the needs of the system users. A major change to the on-line Training and Certification file to automate a bi-annual examination for basic level NYSPIN operators is pending due to other priorities and staffing shortages in the NYSPIN Support Services Unit. The automation of this exam will address the NCIC mandate that basic operators have their skills "reaffirmed" every two years. The Communications Specialist previously assigned to the Training Program transferred in 1992.

II.D. NYSPIN ENHANCEMENTS

The NYSPIN programming staff is engaged in implementing enhancements to system functionality as recommended by participants during the study phase of the SIFECs sponsored NYSPIN Improvement Project. The Division has established an incremental plan for implementing major improvements and capabilities to NYSPIN. These changes are in line with the findings of the project and are consistent with the directions for criminal justice information systems set forth by the NCIC 2000 Project.

NYSPIN enhancements address two general goals:

Improve and enhance the capabilities of NYSPIN to meet the growing needs of the law enforcement/criminal justice community.

Maintain, expand and enhance the Data Communications facilities that service the State's law enforcement/criminal justice Communications networks.

The following initiatives, which were included in the 1992-1995 IRM, have been implemented:

Radius routing of NYSPIN messages which helps guarantee the timely distribution of critical police information messages to all terminal agencies geographically near the originating terminal.

Modification of over 30 application programs to revise error messages related to invalid NYSPIN transactions.

The following initiative, which was included in the 1992-1995 IRM, will be implemented as functionality supported by the new NYSPIN workstations (see Section II.K).

Store and forward message capabilities to allow terminals to queue incoming NYSPIN traffic for time periods when an agency terminal is unmanned.

The following initiative, which was included in the 1992-1995 IRM, will be implemented in conjunction with installation of the new NYSPIN workstations (see Section II.K).

Transitioning the NYSPIN and MIN data communication circuits to digital technology. Upgrading to the latest digital service (DDS II) will result in improved circuit reliability, additional capabilities and a reduction in the cost of service.

The following initiative is covered in Section III.A.6.

Interfacing with the New York State Corrections and Parole Departments for the purpose of making data on parolees and incarcerated persons available to the NYSPIN law enforcement community on a county wide basis.

II.E. MIN LEAVE PROGRAM

Under the MIN-based Leave Accrual System, leave accrual and use calculations are done by computer rather than by hand. In addition, employees can check their own leave balances from MIN terminals. The system was tested in Division Headquarters and Troop K and has proven to increase accuracy and reduce errors and disagreements. In 1992 the system was expanded Division-wide and is now operational at all locations served by MIN.

II.F. MIN ASSET SEIZURE TRACKING PROGRAM

Conversion of cash, vehicles, personal and real property and other assets seized in the course of a drug arrest from criminal purposes to law enforcement or other government purposes is an attractive idea, both to taxpayers and elected officials responsible for funding expanded government services in times of dwindling resources.

In 1990, a seized assets computer program was designed to:

1. INCREASE EFFICIENCY of the seizure and forfeiture process and assure that all assets available to NYSP are processed expeditiously.
2. MONITOR FORFEITURES through the State and Federal decision-making process in order to improve reimbursement rates.
3. REPORT PROGRESS of cases to provide feedback to arresting and investigating officers, asset seizure administrators and property administrators.
4. REPORT DATA and statistics to assist in improving the effectiveness of the seized asset conversion effort and for budget planning.

Since the last IRM Plan was written, the system design and programming have been completed, data has been loaded and the system is fully operational in Division Headquarters. Minor programming changes remain for it's reporting capabilities to be extended to Troop Headquarters. Since the automated system was put in place \$38,000,000 has been seized, tracked, forfeited, and collected.

II.G. NEED FOR OSC COOPERATION ON PAYROLL SYSTEM

The Division of State Police Automated payroll system, operational since 1988, saves much manual work in NYSP, particularly in calculating the information needed on 2,000-2,500 OSC "Payroll and Personnel Transaction Forms PR-75." It also saves much manual keyboarding work in OSC, loading data from the forms into the OSC statewide payroll system.

Beginning in 1989, the Office of State Comptroller (OSC) has accepted the NYSP payroll on magnetic tape. OSC also asked for paper copies of the PR-75 forms. Since the carbon copy set PR-75 forms were no longer typed by hand, replicas of the 2,000-2,500 PR-75 forms are produced each pay period after the bi-weekly payroll is finished.

This extra production of paper forms is inefficient and wasteful. We believe it is within the purview of the DOB IRM Program to streamline payroll submissions by encouraging OSC to drop the paper forms requirement.

II.H. DIGITAL DATA SERVICE II UPGRADE

Recently, the Federal Communications Commission (FCC) approved a revision to FCC Tariff No. 41 that lowered the cost associated with Digital Data Service II (DDS II). The tariff revision is titled FCC No. 1 and offers the Division the opportunity to utilize digital facilities to improve service while lowering operating costs. The digital service will offer several advantages over the current analog service in addition to cost savings. The digital technology will offer flexibility in terms of band width, which will permit a reduction of circuits in some areas. While offering increased band width, it also offers improved circuit performance with a wider range of operating speeds. The DDS II service is characterized by high flexibility, reliability and lower costs.

The Division will realize cost savings in two areas with the upgrade to DDS II service. One area is in the cost of providing modems or DSUs and the other is in the cost of the DDS II service.

In order for the Division to take advantage of DDS II availability, the modems that service the present analog data circuits must be replaced with digital service units (DSUs), and the data communications circuits must be upgraded. The Division has developed plans for the conversion to digital service that coincide with the installation of new NYSPIN workstations. The new workstation will include the required DSUs to support digital service. However, in order to minimize outages during the conversion, the new workstation will have the capability to operate in either analog or digital mode. Upon conversion to digital services the analog equipment will be removed on a circuit by circuit basis. It is estimated that the conversion will require up to eighteen months to complete.

The data communications circuits will be upgraded under the new FCC Tariff 1, with implementation plans developed in cooperation with the New York Telephone Company. The estimated 18 month multi-vendor implementation plan will be

coordinated by the Network Control Section in order to minimize outages for the 1,200 terminals affected by the upgrade.

Upon completion of the project the Division will have a state-of-the-art data communications facility, providing for increased capacity with improved reliability at a considerable savings over the present facilities.

II.1. NCIC 2000

The National Crime Information Center (NCIC), managed by the FBI in Washington, D.C., is a nationwide computerized information system established as a service to all criminal justice agencies local, State and Federal. The NCIC serves criminal justice agencies in the 50 States, the District of Columbia, the Commonwealth of Puerto Rico, the U.S. Virgin Islands and Canada. By networking with State information systems, the NCIC is available for use by all criminal justice agencies. The goal of NCIC is to help the criminal justice community perform its duties by providing and maintaining a computerized system of accurate and up to date criminal justice information readily available to as many criminal justice agencies as possible.

NCIC is interfaced to each state through a state computer system called the State "Control Terminal Agency" (CTA). The Division of State Police maintains the computer system (NYSPIN) through which law enforcement agencies in New York State access NCIC. As the CTA in New York, NYSPIN will be greatly affected by changes to NCIC resulting from the implementation of a modernized NCIC system, called NCIC 2000.

On March 19, 1993 the FBI awarded a multi-million dollar contract to the Harris Corporation to implement NCIC 2000. A multi-year study identified 12 major categories of initiatives for implementation comprised of over 80 individual concepts. Improvements to the NCIC system will take advantage of many of the technological advances that have been made in the past 20 years in order to make NCIC responsive to all demands and requirements beyond the year 2000.

NYSPIN is currently addressing certain areas of functionality related to the concepts identified for implementation in the NCIC 2000 study, including:

PC workstation functionality (on-line editing, code table storage, etc.)

Communication protocols (X.25)

Positive identification capabilities (including wanted person photograph, fingerprint and stolen property image transmission)

Additional concepts will be addressed as soon as technical and operational specifications for the changes are supplied by NCIC. Included among these changes are:

Data quality (including indication of dual interest in records, record validation enhancements and record searching enhancements)

Linking database information to include all related information in the response to an inquiry

Linking to external databases (e.g., Federal convict information, Canadian motor vehicle and stolen property data)

On-line and off-line ad hoc search capabilities

State support for NCIC 2000 will help further the objectives of the Division's Law and Order Program and will help county and local law enforcement agencies throughout the State better fulfill their criminal justice information needs.

II.J. DERELICT VEHICLE SYSTEM

The New York City Department of Sanitation, Derelict Vehicle Office, removes more than 140,000 vehicles from City streets each year. Best estimates indicate that from 20% to 40% of these vehicles were entered as stolen in NYSPIN and/or NCIC. Many of the vehicles reported stolen were intentionally abandoned as part of insurance fraud, perhaps as many as 55%. Those that were not reported as stolen can be assumed to have been abandoned by the owners. Removal of these vehicles represents a major expenditure of funds by the Sanitation Department, whose law enforcement division attempts to curtail the abandonment of vehicles through the enforcement of existing laws.

NYSPIN EDP is currently in the process of implementing an interface to the Dept. of Sanitation which will allow for timely entry of data related to the impounding of derelict vehicles. The system will simultaneously update the NYSPIN impounded vehicle file; place "locates" against those vehicles that were previously in NYSPIN/NCIC as stolen; and, notify the National Insurance Crime Bureau in Chicago, Ill., via NLETS, and the New York State Department of Motor Vehicles of each derelict vehicle entry.

The benefits of this interface are:

Stolen vehicles will be returned to owners in a more consistent and timely manner.

Insurance frauds will be more readily identified.

The number of fraudulent vehicle theft reports made to police will be reduced.

Satisfies the requirements of the amended V&T legislation (424-1) which mandates NYSPIN entry of impounded vehicles.

Additionally, the following benefits will also be realized:

Manual processing of paperwork relating to derelict vehicles through the New York City Police Department, including notifications to NYSPIN, DMV and NICB, would be greatly reduced or eliminated.

Storage costs and vehicle damage due to exposure will be reduced.

Overcrowding at impound facilities will be reduced.

Testing of the NYSPIN/Sanitation interface began in August, 1993. Full implementation is scheduled for late 1993.

II.K. NYSPIN WORKSTATIONS

The criminal justice community requires readily available, accurate and documented criminal justice information to perform its legally authorized and required functions. To help fulfill this requirement, the National Crime Information Center (NCIC) was established in 1967 at the Department of Justice Federal Bureau of Investigation Headquarters in the District of Columbia. The FBI maintains NCIC as an on-line information service for law enforcement and other criminal justice agencies across the United States and in Puerto Rico, the U.S. Virgin Islands, Mexico and Canada.

Since its inception in 1967, NCIC has been expanding in number of users and in amount of use, as well as in types and volume of information it manages. The current system is unable to keep pace with the ever-increasing demands for enhancement and new applications, and concern is growing over NCIC's ability to meet future user requirements in a timely manner. In view of these problems, the FBI will implement a new generation NCIC with a life cycle through the year 2000 that will provide significantly advanced and expanded functionality.

One of the primary proposals within "NCIC 2000" is support for intelligent workstations for use by local agencies. These PC based workstations would have the capability of formatting and editing input and inquiries. The standard workstation would be based on the 80386 processor and a specifically defined configuration with standard software provided for use by State and local agencies.

In order to meet the requirements of a terminal device for full participation in NCIC 2000, on January 11, 1993 the Division released an RFP based upon the NCIC intelligent workstation specifications. Awarding of the contract is scheduled for September 1993. Functional highlights of the new workstations will include:

- Transaction creation
- Transaction submission to NYSPIN/NCIC
- Message response reception
- Hard copy production
- Hierarchical menus to access formats
- Electronic access to manuals and code tables
- Image processing (fingerprints, mug shots, identifying photographs)
- Edit checks
- Computer-based training
- Security

Once the contract is awarded, NYSPIN EDP personnel will work with the vendor to migrate the full suite of NYSPIN edits, code tables, manuals, help-files, etc. to the workstation.

II.K HALT Enhancement

The Homicide Assessment and Lead Tracking system (HALT) has been in place in the Division of State Police since 1987. It is a computer-assisted crime analysis program and data information system designed to collect, collate and analyze information regarding certain violent crimes occurring in and contiguous to New York State.

There are hundreds of cases currently entered in the HALT database. The application analyzes over 200 data elements relating to a homicide, attempted homicide, or sexual assault and reports trends in order to link agencies together that may be dealing with similar cases. The application was instrumental in identifying additional victims in the recent Joel Rifkin serial murder investigation on Long Island. However, it is not mandatory that law enforcement agencies submit their cases to the HALT database. It is the responsibility of the HALT staff to reach out to the agencies and invite them to participate in the program.

The HALT staff has already proposed several changes to the system to enhance it. In addition, the EDP staff has recognized several inefficiencies in the system which must be corrected. HALT is the New York State counterpart to the FBI's VICAP Program, and actually incorporates the VICAP package. VICAP is in the process of redesigning their data collection form which will force additional changes in order for the Division to remain compatible.

Legislation has been proposed that would mandate that all agencies in the State participate in HALT. Such a large influx of cases would necessitate that the pending enhancements be reanalyzed and completed in a timely manner.

Should the proposed legislation mandate that New York City cases be submitted, a complete impact analysis of our current hardware/software configuration would have to be conducted.

A proposal to mandate participation in a sexual assault component would necessitate a complete system analysis and design once the data element and form design phases were completed. The relationship of the HALT database to the sexual abuse component would also have to be defined.

To implement these changes would require the investment of six to nine man-months of programming time. It is possible that additional equipment (both processors and disk drives) would be required to support the anticipated volume.

An additional HALT enhancement is presently under development. Specifically, an Unidentified Persons File is being designed to assist field Investigators in identifying unknown remains which are found in New York State by linking the new file with the State's Missing Persons File.

The complexity of the HALT application, as well as the rapid advances in the computer industry, have increased the demands placed on the programming staff. It is therefore requested that the programming staff be increased by 1 SG-23 Computer Systems Programmer I. The job-rate for an SG-23 is currently approximately \$49,069 plus fringe benefits of \$14,966. The total for the position is \$64,035.

II.L. EXPAND MIN INCIDENT REPORTING PROGRAM STATEWIDE

The Division has developed an Incident Reporting System (IRS) to satisfy the informational needs of field personnel, first line supervisors, Troop and Division administrators and executives as well as oversight agencies that have an interest in the services provided by the New York State Police; for example, the Office of the State Comptroller, the Division of the Budget and the State Legislature.

The design of the overall program includes the following five (5) components:

- Incident (or complaint) reporting
- Field investigation reporting
- Supplemental field reporting
- Special assignment time accounting
- Case management

The Incident (or complaint) Reporting component of the IRS encompasses the recording of data on incidents or complaints as they are initially brought to the Division's attention, whether it be by telephone, walk-in, on patrol, etc. As a result of recording the incident data in a timely manner it then becomes immediately accessible to all designated terminals on the Management Information Network (MIN) for investigative and supervisory purposes as well as management analysis.

The Field Investigation Reporting component of IRS, which will follow the Incident Reporting component, provides a means to record in the computer the results of the responding Member's investigation. This will be electronically matched with the incident record initially established by the dispatcher.

The Supplemental Field Reporting component provides a means for state police to record subsequent investigative acts on pending incidents and thus provides a convenient method to account for activities which cannot be statistically tabulated under the manual procedures currently in effect.

The Special Assignment Time Accounting component will provide a simple method for state police to account for time spent on special assignment whether it be at court, State Police Academy, Special Details, etc.

When fully operational the IRS will eliminate the need to manually tabulate the Monthly Crimes and Investigations Report, Time and Activity Report, Case Record, and various written Investigation Reports.

The full Incident Reporting System responds to the concerns expressed at the NCO and Troopers QWL Conferences, and includes the recommendations of numerous Commissioned and Non commissioned Officers who evaluated the proposal. The IRS likewise contains several features of automated systems currently operational in a number of medium and large sized police departments, as well as those State Police and Highway Patrols with a mission comparable to the Division's. The program is tailored to the Division's needs, organization and structure, especially in terms of decentralization and the fact that it employs both Communication Specialists and likewise assigns Members to desk, phone and radio duties.

The Incident (or complaint) Reporting component of the IRS has been operational in all of Troop G for over two years. Plans for next year call for extending IRS to Troops D, E, and L. Currently, there is one terminal installed at each Zone Headquarters in Troops D, E, and L. The expansion of IRS mandates that additional terminals be installed at Zone Headquarters and the network be extended to the Station level. This will be accomplished by adding MIN capability to the new NYSPIN Workstation as well as installing new workstations in locations that have neither NYSPIN or MIN currently.

Extension of the network to the Station level will enable personnel at these locations to access the wide variety of other information available through the Management Information Network in addition to IRS. Expansion of the IRS will require new, dedicated programming support to design and sustain the Incident System.

Hardware, software and circuit costs:

Monthly Recurring Circuit Cost	\$ 5,000
Initial Hardware, Software and Network Cost	\$141,700
1 Computer System Programmer I (SG-23)	\$ 64,035

II. M. PERSONAL COMPUTER SUPPORT UNIT

The EDP Personal Computer Support Unit (PCSU) is responsible for the installation, training and support of all personal computers, both stand alone and networked, in use in the Division. There currently is a base of over 350 PC's. Most are connected to the Division's mainframe. Some are connected to one of the 4 Local Area Networks (LAN) currently installed in Division Headquarters. Plans call for the implementation of several new LANs including Counsel, Lab, and Communications and for the interconnection of LANs and PCs through the restructured MIN.

In the future the responsibilities of the PCSU may be expanded to include many of those tasks previously assigned to the EDP MIN coordinators, which were to provide training and support for the MIN user community. In addition to training, the MIN staff answered trouble calls, approximately 150 calls per month in 1990. Now that MIN has been redefined to include MAPPER based applications, personal computers, local and Wide Area Networks, etc., it is logical that the duties of the MIN coordinators be carried out by the PCSU. In order to adequately address the future PC and network needs of the Division, the PCSU should be expanded by two employees.

II.N. NYSPIN COMPUTER INTERFACES

Traditionally, agencies wanting NYSPIN service request that a direct-connect NYSPIN terminal be installed in their agency. Today, the needs of law enforcement agencies have grown and additional capabilities, unrelated to NYSPIN, are also required, e.g., mobile digital access, computer aided dispatch, LANs and 911 technology. Increasingly, law enforcement agencies are requesting computer-to-computer interfaces with NYSPIN as part of an integrated local system.

Computer interfaces to Bethlehem P.D., Glens Falls P.D., Putnam County S.D. the Long Island Railroad Police, Onondaga County 911 Center, and others, have been implemented since the 1992-1995 IRM was issued. Currently, 911 interfaces are being planned with Rensselaer, Ulster and Chautauqua counties.

Successful implementation of a computer interface requires extensive transaction testing with the agency. One Data Communications Specialist I has been assigned to work in this area, in addition to his normal duties.

Support for mobile digital and LAN technology was a requirement of the recent NYSPIN workstation specifications. It can be anticipated that many small to mid-sized law enforcement agencies will take advantage of these features, thereby increasing the workload of the Data Communications Specialist I working in this area.

II.O. LOJACK

The New York City Police Department is in the process of contracting with the LoJack Corporation to install Police Tracking Computers (PTCs) in certain police cars for the purpose of tracking stolen vehicles.

LoJack Units are small microprocessor-controlled radio transceivers, installed in customer vehicles by LoJack. When a customer reports to police that his vehicle has been stolen, the police enter the stolen vehicle on the NYSPIN/NCIC data base. This information will then be passed, via new NYSPIN software, to a LoJack computer. The LoJack system will determine if the vehicle has a LoJack Unit installed, and if so, send out certain radio broadcasts to activate the LoJack unit. The activated unit can then be picked up by a police tracking computer (PTC) installed in a police car.

Support for LoJack will require NYSPIN to implement software to pass stolen vehicle entry/update/inquiry data to the LoJack computer system for the purpose of activating/deactivating LoJack Units.

The NYSPIN/LoJack interface will further the Division's Preservation of Law and Order goal by aiding in the timely recovery of stolen vehicles.

Analysis and design work is currently underway. Programming to support this interface will begin once a final contract is signed by New York City P.D., the LoJack Corp. and the Division of State Police, probably by November, 1993.

II.P. NEW LANs AND WANs - THE NEW MIN

Local Area Network (LAN) technology has proven to be useful, reliable, and cost effective in three NYSP installations: Finance, Planning and Research and EDP. Installation of an Academy LAN is now underway and LANs are planned for Traffic, Communications, BCI, Inspection, Fleet Management, and the Casino Gambling Detail.

LANs are under consideration as a technology to meet the expanding computing needs of the Troop Headquarters, and interconnection of these LANs creates a need to understand and acquire Wide Area Network (WAN) technology.

The mechanism planned to provide the interconnection between LANs and WANs is the NYSP Management Information Network (MIN). While MIN has provided many solutions to data processing conundrums throughout the 1980s and into the 1990s, MIN will take on an expanded role for the latter half of the 90s and into the next century. In addition to the manifold MIN applications running now and planned for the future, MIN will become the interconnection that enables sharing data between individual PCs and LANs that may eventually expand to all of the 190 NYSP installations.

III. OVERVIEW OF FUTURE DIRECTION

This section contains a two-part summary of the State Police's new program initiatives and substantial changes to agency operations which affect information resource management.

A. PROGRAM OVERVIEW

This sub-section identifies and explains individual new program initiatives.

III.A.1. NYSPIN TERMINAL EXPANSION

NYSPIN provides service to 860 directly connected terminals through out the state. An average of fifty (50) additional terminals join the network each year. However, increased system participation is expected due to the implementation of a new NYSPIN workstation that allows increased flexibility at the user agency, meets the requirement of NCIC 2000 and facilitates the use of Local Area Networks (LANS) including mobile terminal networks.

Agencies that apply for participation in NYSPIN are responsible for the installation cost associated with the terminal as well as the monthly lease and maintenance charges. The Division under executive mandate is responsible for the cost associated with the data communications facilities required to operate NYSPIN.

The anticipated network growth will require support at the central computer complex in the form of both hardware and software to meet the increased demands for service from the State's criminal justice and law enforcement community.

III.A.2. ON-LINE PERSONNEL DATA SYSTEM IN MIN

The Division of State Police's most important asset is its employees. Accurate and timely personnel information is necessary for successful training, administration, resource allocation, payroll functions, etc.

The present Personnel Data System (PDS) is batch oriented and inflexible to changing demands. A new, fully on-line PDS System was designed to decentralize the many different components that are part of a personnel system and bring the responsibility for maintaining this important information closer to the departments that directly manage the information, which will lead to better quality of information. This will have implications for those departments that will be directly responsible for maintaining parts of the overall PDS System; data entry and updating of information will affect numerous sections within Division Headquarters, each Troop Headquarters and the SP Academy.

The complexities and far reaching use of this information poses challenges for the Data Processing Section, which is responsible for coordinating, programming and implementing this system. The initial system design has undergone substantial

change due to further analysis by EDP staff. Any continuation of this project will require the commitment of substantial resources and time of both data processing staff and the various departments that the system will directly affect: Personnel, SP Academy, Quartermaster and Troop Headquarters.

III.A.3. COMPUTER EVIDENCE EXAMINATION LABORATORY

Personal computers are increasingly used to support criminal activity. In recent years, NYSP investigators have examined computers seized in evidence and developed cases regarding:

- Computer trespass, computer tampering, computer "virus"
- Diversion of pharmaceutical drugs
- Falsifying business records
- Gambling
- Scheme to defraud
- Homicide
- Theft of services
- Unlawful duplication of computer related material

To support these investigations, a Computer Crime Unit was established in 1991 to assist in the examination of computer equipment seized in evidence. Staffed with a Senior Investigator and an Investigator, the CCU provides services in these areas:

1. Examine computers seized in the course of investigations which are suspected of holding records relating to a criminal enterprise.
2. Examine computers which have been used as instruments to commit crimes, as in the cases of computer tampering or credit card fraud investigations.
3. Provide expert court testimony.
4. Using computers equipped with modems, sign onto computer Bulletin Board Systems (BBS), to detect and document illegal activity such as credit card, telephone billing fraud or pedophile activity.
5. To detect and apprehend criminals who attempt to defraud cellular telephone companies.

The core computer examination lab is located at Division Headquarters in Albany, and is able to provide Statewide service, not only to NYSP investigators, but to local police, sheriff's departments and prosecutors, just as the NYSP Crime Lab system directly supports criminal justice agencies in units of local and county government. No additional staff and little in additional equipment is expected to be expended in the near future.

III.A.4. PLANNING AND RESEARCH WORD PROCESSING SYSTEM REPLACEMENT

The NYSP Planning and Research Section supports almost all other NYSP units and sections in activities such as:

- Policy development and analysis
- Special reports on important issues
- Computer system design (mainframe and PC)
- Organizational planning
- Mail and telephone survey research
- Statistical research
- Speech writing and grant writing
- Briefing book, newsletter, and report production
- Police and civilian manual update and production

In 1992, Planning and Research's seven year old mini-computer based Wang® OIS System was replaced with a Novell Local Area Network (LAN) consisting of a Digital Equipment Corporation (DEC) PC file server and 16 PC workstations. Now word processing, spreadsheet, graphics, database and communications programs are available to all levels of P&R staff, including Keyboard Specialists, Sergeants, Analysts, sworn and civilian section managers and the P&R Commander.

III.A.5. ACADEMY WP SYSTEM REPLACEMENT

In early 1993 the NYSP Academy's aging Wang® mini-computer word processing system was replaced with a LAN to support six keyboarding staff who produce reports, memos and training documents to support the Academy's training mission. In late 1993 the system will be expanded to make available word processing, spreadsheet, graphics, database and communications programs to several other Sections in the Academy.

III.A.6. STATE, LOCAL AND FEDERAL CONVICT FILES

NYSPIN/NCIC/SENTRY FEDERAL CORRECTIONS SYSTEM INTERFACE

A capability to link NCIC and the Bureau of Prison's SENTRY System will be established in the NCIC 2000 system to automatically check record entries and inquiries in the wanted and missing person databases against information on persons currently incarcerated in Federal prisons. This link will provide for separate direct inquiry to SENTRY for historical data. This cross-search will be available to any agency entering information in or retrieving information from the wanted and missing persons files.

NYSPIN ACCESS TO NCIC SUPERVISION STATUS FILE

To assist supervising agencies in fulfilling their responsibilities relative to probationers and parolees, a new information source will be established in the NCIC 2000 system. Federal, State and local criminal justice supervision agencies will store the names, descriptive data (including vehicle and boat information) and conditions of probation or release for persons charged with felonies and serious misdemeanors and assigned to them. The NCIC system will be programmed to search identifiers in any person or vehicle/boat entry or inquiry against the data in supervision status records. Hits on this data will be provided to the agency making the entry. When an inquiry matches the record and the inquiring agency is other than the supervising agency, both agencies will be notified. The ensuing coordination between the two agencies will facilitate the supervising agency's keeping informed concerning the conduct of the probationer or parolee and his/her compliance with conditions of supervision and making determinations of violations of probation or supervised release.

NYSPIN/DOCS INTERFACE

On the State level, an interface to the New York State Department of Correctional Services will allow NYSPIN participants to determine if a wanted person is incarcerated. This determination will be made at both the point of wanted record entry, as well as via wanted persons inquiries. Conversely, DOCS will be able to ascertain if, prior to release, there are any outstanding warrants for a parolee.

Access to State and Federal Corrections, Probation and Parole data will require varying levels of NYSPIN software support, as well as an interface to the DOCS system. NYSPIN will need to be programmed to receive the transmission of data on Federally incarcerated persons. NCIC specifications for message formats will need to be supported to enter data into the NCIC Supervision Status File via NYSPIN. Message format specifications will also have to be developed, programmed and supported to realize a NYSPIN/DOCS system interface.

The NYSP has implemented a program to store in MIN a file of all subjects currently on parole, or about to be released to Parole, in New York State. The source file is received from the Division of Parole on a monthly basis. Before it is stored in MIN, the tape file is forwarded to DCJS where an indicator is added to the record of any parolee who was ever arrested by the State Police. State Police personnel can then be aware of all especially dangerous parolees released into their area of jurisdiction. The MIN Parolee file can be searched by a variety of data fields and effectively replaces the need for State Police Investigators to receive listings of persons on Parole from the Division of Parole.

III.A. 7. MIN CRIME LAB CASE MANAGEMENT SYSTEM ENHANCEMENT

Planning will be initiated for computer services to be provided in the new Forensic Investigation Center. Steps will be taken to ensure that proper systems will be available for the Forensic Investigation Center when it opens and, likewise, for the entire Crime Laboratory System. Hardware and software will have to meet the needs of the scientist as well as national standards in the following areas:

- security, health and safety;
- generation, storage and retrieval of case reports;
- workstation support and linkage at all workstations throughout the system;
- production, maintenance and access to laboratory manuals;
- quality assurance/control programs monitoring and administration;
- direct collection and storage of instrumental analysis data;
- inventory control;
- integration of computer services for areas within the Forensic Investigation Center;
- bar coding for evidence and sample tracking, both in and outside the System;
- imaging capabilities
- management data bases; and
- facilities management.

A needs-assessment process will commence in fiscal year 94-95 to determine the appropriate hardware and software required to ensure that the needs of the Forensic Investigation Center are met. Implementation of the recommendations will begin as expeditiously as possible thereafter.

III.A.8. MIN Pistol Permit On-Line Access

Pistol permits in New York State are issued under the authority of County government, or in New York City the Police Commissioner. A central depository for pistol permits and handgun information is maintained by the Pistol Permit Section (PPS) of the New York State Police. While the PPS is computerized, the automated recordkeeping is done on a batch processing system designed in 1976.

One of the most severe limitations of the present system is its slow response to inquiries - most responses take overnight to answer, and longer on weekends. A second problem is poor quality of data on file. Due to several sources of error in data recording, data transmission and data entry, results of searches are of questionable accuracy and must routinely be checked against paper records before release to the requesting agency.

Public safety is compromised when a handgun found at a crime scene cannot be identified quickly, because the search for the perpetrator is delayed. Police officer safety is compromised when making an arrest of a person for whom handgun ownership information is incorrect or incomplete.

Law enforcement information systems in some states automatically make a pistol permit file inquiry whenever a driver license file inquiry is made. In New York we not only cannot respond adequately to the police officer on the scene, but we cannot even say with certainty how many pistol permit holders there are in the State.

A proposal has been developed to increase the accuracy of pistol permit records by establishing a renewal schedule for permit holders; to increase the speed at which information is exchanged by using computer technology; and to make the new system pay for itself by establishing a fee schedule. Project success will depend on cooperation between judicial and executive branches of government; on cooperation between private and public sectors; on computer technology and system design, and on passage of legislation.

An on-line inquiry and response system into a more accurate database is needed to meet the goal of a streamlined Pistol Permit Section. The enhanced capability will serve not only NYSP investigators, but also local and out-of-State police and prosecution agencies. A proposal has been submitted to the Center for Technology in Government of the State University of New York at Albany for technical assistance in designing the application.

III.A.9. MIN QUARtermaster INVENTORY SYSTEM

The NYSP inventory of: (1) uniform clothing and equipment, (2) forms and stationery supplies, and (3) automobile supplies and equipment, is stored in 10 sites across the State. The main storage depot is in Sidney, with smaller storage and supply facilities at each of the other Troop Headquarters locations and the Academy. The value of this inventory is approximately \$8 million.

Information regarding quantities in stock and reorder levels is kept on paper records and calculated by hand. Reports are entered by hand into a standardized report and transmitted to Division Headquarters via the MIN system. This recordkeeping system is not as accurate and timely as more modern inventory tracking systems. Increased accuracy can be expected to result in more efficient purchasing and more efficient use of materials in inventory.

The Quartermaster Inventory System is expected to be a MIN application, requiring the installation of 10 additional terminals. Work is expected to begin when MIN programming staff become available.

III.A.9. COMPUTER TRAINING FACILITY

As use of computers expands, the knowledge needed to keep pace with developments, and to make use of available technology, also increases. Law enforcement agencies have put personal computers (both desktop and laptop) to

dozens of uses to increase analytical capability, to streamline paperwork, to increase the flexibility of reporting systems, and to assist in conducting criminal investigations.

Increasingly, the use of personal computers plays a part in both law enforcement and criminal activity. The personal computer is a powerful tool for storing, organizing, searching, sorting and presenting information. The use of PCs can be expected to enhance the capability of Crime Analysts, BCI members and the Uniform Force to retrieve and analyze information related to criminal cases.

Training is needed in topical areas such as:

- Introduction to PC use and the operating system
- Hard disk organization and operations
- Component hardware maintenance and trouble shooting
- Using database programs
- Using spreadsheet programs
- Using graphics programs
- Using telecommunications programs
- Using word processing programs.

One way to provide this training capability within the agency is to equip a PC training facility in either the Academy or EDP Section. It will be beneficial to provide training for Sergeants, Lieutenants, Captains and others who head sections where work is performed on PCs.

Training is needed in topical areas such as:

- Similarities and differences between PCs and mainframe computers like NYSPIN and MIN
- PC hardware and the operating system
- Potential problems and troubleshooting
- Major categories of PC programs.

The training for supervisors could be scheduled as a part of in-service training and would be conducted in the computer training center.

III.A.10. UCR / NIBRS DEVELOPMENT

For many years the U.S. Department of Justice (DOJ), has gathered crime information from each police agency across the Nation for inclusion in the Uniform Crime Reports (UCR). Police agencies report information monthly. Currently, this information is submitted by most agencies on hand-written tabulation sheets.

The UCR Program is being replaced by a more comprehensive National Incident Based Reporting System (NIBRS). The specifications and capabilities of the NIBRS Program is driven by federal guidelines, and it will be the responsibility of the NYSP, like other police agencies to comply with the system requirements.

The Incident Reporting System (IRS) mentioned previously in this report will become the fundamental data source for automated NIBRS reporting. The increasing use of portable computers for report writing and data transmission will play an increasing part in incident reporting, as well as the IRS, as it is expanded to all stations.

III.A.19. PORTABLE LAPTOP / NOTEBOOK / MDT COMPUTER USE

The portable laptop or notebook PC will help reduce paper handling costs, improve the quality of reports and reduce the time spent writing reports. With a communications capability similar to the mobile digital terminal, access to NYSPIN and the Division's MIN files will also be possible. The portable PC will serve these basic functions:

- A communications device (e.g., links to NYSPIN),
- A report writing and data collection tool,
- Information storage system, and
- Data collection and analysis in major criminal investigations.

As a communication device, the portable computer fitted to a patrol car (often called a Mobile Digital Terminal or MDT) allows for simultaneous access via digital transmission, and also, communications are more secure than voice transmission. Direct access to databases reduces the need for direct dispatcher interaction with patrol units. A joint MDT pilot project is underway involving the NYSP and Thruway Authority to evaluate the Mobile Digital Terminal (MDT) concept in the New York Zone of the Thruway. The system will give car-to-car and dispatcher-to-car digital communications to 58 NYSP patrol cars on the thruway. A contract is expected to be awarded in the fall of 1993 for the MDTs and ALECS II police management software, developed by Coastal Computer Services in Long Beach, New York.

III.A.11. ENHANCED CAD IRS WITH MAPS AND EC-911

Emerging technology provides the NYSP with the opportunity to enhance the Incident Reporting System (IRS) with graphics and vehicle locating capabilities unavailable as recently as two years ago. For example:

- NYNEX has demonstrated a new cellular telephone service that displays the car phone caller's location on a computer screen map when they call either an emergency number (911) or a traveler's information center. NYSP expect to enter into a no-cost pilot program to test the system in the lower Hudson valley late in 1993.
- Telephone companies are also preparing to provide enhanced cellular 911 (EC-911) telephone service. Information from the phone company's database, including subscriber name and address, plus other information

(such as blood type) that may be desired and provided by the subscriber can be transmitted to the public safety answering point when the emergency call is received.

This technology, which may also include an inexpensive and accurate automatic police vehicle locating component, shows great potential for supporting police operations as the centerpiece of a computer aided dispatch (CAD) system.

The NYSP, with it's statewide jurisdiction that crosses county and municipal boundaries - just as road travellers do, is the logical police agency to evaluate this technology and provide the service to protect the motoring public, and NYSP will follow the development of this emerging technology.

III.A. 12. NOTEBOOK AND PEN BASED COMPUTERS

Law enforcement has eagerly awaited the appearance of small hand held and truly portable computers for recording information (like arrest reports) in the field, producing documents (like traffic tickets) in the field, and checking remote databases (like DMV driver license files). The NYSP first evaluated hand held computers in 1985 but found them unreliable and lacking suitable software. With the advent of rugged notebook size MS/DOS computers and the development of pen based input the technology may now be ready for police use. NYSP will evaluate the possible uses for this technology, especially as it applies to increasingly automated input to the IRS.

III.A. 13. TRANSFER FILE 20 SYSTEM TO MIN

The Bureau of Criminal Investigation (BCI) case management program (File 20) provides for the reporting and update of cases adopted by personnel assigned to the Bureau. Daily reports are transmitted via NYSPIN to each participating State Police station summarizing all F120 messages transmitted the previous day.

The File 20 Reporting System needs to be transferred to the Division's Management Information Network for the following reasons:

The File 20 Program must be on a computer system that will support analyses of the information that Members enter into the System from the Field every day;

Transfer of the File 20 System to the MIN would enable Members in the Field to access critical information in the System such as stolen property records, "pedigrees" of people who have been arrested, report control numbers, drug arrest information and other information that would be valuable in developing suspects in investigations of similar crimes;

The Crime Analysis Unit could respond to routine requests for such information as the number of commercial arsons in a particular area, information that cannot be readily supplied with the File 20 system maintained on NYSPIN; and

Transfer of the File 20 to min is in line with the objective of removing all administrative functions from NYSPIN.

III.A.14. INVESTIGATIVE RECORDS SEARCHES (LAWMAN)

One of the most valuable services provided to law enforcement agencies throughout New York is a NYSPIN/DMV cooperative program known as LAWMAN. This program provides Investigators with motor vehicle registration information by searching millions of motor vehicle records stored off-line in the NYSPIN database. Searches can be made by partial license plate information, vehicle makes/models, registration types, registrant names, registrant addresses, etc. The program has been instrumental in identifying subjects in homicides, drug investigations, hit and run accidents and other major crimes.

The present system handles more than two thousand cases per year and is steadily increasing. In addition, NYSPIN agencies have requested an extension of the service to include over 19 million DMV drivers license records.

III.A.15. TELEPHONE SUBSCRIBER DATA ACCESS SYSTEM (FASTTRACK)

The Division currently leases a telephone subscriber file, called "FastTrack" from NYNEX at a cost of \$6490.00 per year. Except in emergency situations, this file can only be accessed by the Headquarters Crime Analysis Unit (CAU) during normal business hours. Investigators in the Field must call the CAU and request a search. In an emergency, personnel in the Field can call the Headquarters Communications Section and request a search of the database. The limited accessibility is hindering investigations throughout the Division. It is imperative, therefore, that we improve access to FastTrack.

Improved access can be provided by equipping the computer that runs the program in the CAU with a CD-ROM drive capable of handling three CD-ROM disks at once (the FastTrack Program is contained on three CD-ROM disks) as well as with a modem and communications package to allow the Troops to access it via modem equipped computers in any station. Once the necessary hardware and software is installed, not only FastTrack, but also other information that is currently available only through the CAU could likewise be made accessible to the Troops.

III.A.16. PC MAINTENANCE

The Division currently owns 350 personal computers not covered by a maintenance contract. Since the warranties have expired, it will be necessary to purchase a maintenance protection plan in order to be able to forecast PC repair expenses. The cost will likely be determined by competitive bid.

III.A.17 ADDITIONAL FUTURE TECHNOLOGY

In addition to the current and planned projects, there are several additional applications for computer and other types of information technology for which needs have been identified. While not ready to be proposed as a specific project in this three-year IRM plan, discussion and analysis has taken place on these topics:

- Electronic automobile diagnostic equipment
- Expand telephone bill database to include gas and electric bills
- Access radio frequency using databases
- Computer aided design and drawing capability for Radio Engineering Section
- Computerized microwave path and profile studies
- Upgrade map image system in Emergency Communications vehicles
- Division/Troop Headquarters inspection system
- Upgrade Satellite telephone data system
- MIN system to analyze computerized telephone billing records
- On-duty injuries/workers compensation tracking system
- Employee performance evaluation system
- Civilian examination production and administration
- Trooper examination scoring and analysis system
- Trooper candidate processing and eligible list management system
- Recruiter candidate tracking system
- Driver training simulator
- Interactive video/multi-media training system
- Automated firearms training system
- Automated training records system
- PC recording of dialed numbers
- Optical storage for records
- Fleet cost-reporting system
- Troop Traffic Section system enhancements
- Hardware and software compatible with the NYS DMV bar coding on driver's license and vehicle registrations
- A disk expansion drawer to accommodate the redesigned accident reporting system
- A GRID PAD type of system to automate data entry of information related to MCSAP and commercial vehicle weight enforcement
- Hardware and software for accident reconstruction
- Hardware and software to provide each Troop Emergency Management

Section with integrated communications and computer access to the State Emergency Management Office and the Local Emergency Planning Committee

The Aviation Unit requires computerized access to FAA services and ~~also~~ to track maintenance and prepare mission reports

Field Command Resource Reporting System

Hazardous Materials Inventory and Incident File

III.B. INFORMATION TECHNOLOGY OVERVIEW

In this section, the interplay of programs in each technological area (NYSPIN, MIN and the PC environment) will be described relative to resources needed to achieve objectives.

1. NYSPIN - Initiatives included:

NYSPIN network growth

- terminal expansion
- computer interfaces
- NYSPIN workstations

NCIC 2000

LAWMAN

NYSPIN experiences a growth rate of approximately 50 terminals per year. Network growth is expected to accelerate due to the proliferation of local law enforcement computer interfaces to NYSPIN, the imminent replacement of the current NYSPIN terminal with a fully compliant NCIC 2000 workstation and the availability of the SJS Warrant History and Management System (WHAMS), which uses NYSPIN terminal facilities. Additional SJS software for law enforcement will also be available in the future (e.g., software to receive criminal history data for local production of RAP sheets).

It can be anticipated that the expected growth will require support at the Division's central computer complex in the form of hardware and software to meet the increased demands for service from the State's criminal justice and law enforcement community. In addition, personnel must be assigned to handle the vendor contract, programming work and extensive testing required by an increasing number of local law enforcement agencies desiring computer interfaces to NYSPIN.

The replacement of the NYSPIN terminals with intelligent workstations will require assignment of personnel to work with the vendor to develop local edits, help files, on-line manuals, etc. Support for the installation of Local Area Networks and mobile digital terminal networks, via the new workstation, will also be required. In conjunction with the terminal replacement, NYSPIN will change from analog to digital service. This, in all likelihood, will require services of NYSPIN network personnel to aid in the transition process. An additional change, which will also require central site

support, will occur sometime during the life of the new workstation contract when NYSPIN's protocol is changed from the current UTS-60 to X.25, the new NCIC 2000 standard.

Agencies that apply for NYSPIN service are responsible for the installation cost associated with the terminal, as well as the monthly lease and maintenance charges. The Division, under executive mandate, is responsible for the cost associated with the data communication facilities which based on an average annual cost is \$2,400 per terminal.

The budget projection for terminal expansion for fiscal 1994-95 is \$120,000.

The NCIC 2000 project will have a major impact on the Division of State Police. Of the 86 concepts targeted for implementation, the first to occur will include image storage and transmission and database linking.

Although the exact resource needs cannot be fully determined at this time, certain hardware and software strategies need to be considered now to support NCIC 2000.

Imaging is being addressed within the new NYSPIN workstation procurement. Transmission and storage of images is a requirement of the new workstation. Transmission of images via NYSPIN to DCJS and NCIC, although future considerations, are currently being addressed in the development of an X.25 interface with the New York City Dept. of Sanitation's Derelict Vehicle Office.

In order to fulfill commitments to NCIC 2000 and as an adjunct to MAPPER, the software package for the State Police Management Information Network (MIN), it will be necessary to implement a relational data base package. The relational data base (RDMS) defines relational tables and the relationship between tables. It will be used to support the NCIC 2000 initiative which mandates linking data base information to include all related information in response to an inquiry. It will also be used for State Police MIN applications to store and link data for applications such as the Homicide Assessment and Lead Tracking System.

Support for NCIC 2000 will likely require additional staffing for programming, operations and training. The exact requirements in each of these areas will be stated in future IRM plans.

Expansion of the NYSPIN/DMV Lawman Program to include over 19,000,000 drivers license records will require additional disk space and staff dedicated to analyzing and initiating searches of the files for investigators.

2. MIN - Initiatives included:

The new Management Information Network (MIN)- LANS and WANS
Expand MIN Statewide - Incident Reporting System (IRS)
Homicide and Leads Tracking (HALT) system enhancements

The short term plans for the Management Information Network call for it to expand beyond its current scope which is limited to accessing files on the Division's mainframe computer. The PCs on the Local Area Networks (LANs) will be connected to the existing Wide Area Network (WAN) and will access the mainframe through a Microsoft Windows terminal emulator. This will enhance local processing by allowing the use of industry standard Windows-based PC packages (eg. spreadsheets, word processors, and databases) as well as custom designed software applications. Local databases will be developed on the PC and will be seamlessly integrated as needed with the mainframe computer which will function as the information hub for the Division. In addition, the new NYSPIN workstation will have the capability to access the Management Information Network, eliminating the need to have two separate workstations, modems and communication lines to each Division facility.

The application of relational database technology capabilities to systems such as the Homicide Assessment and Lead Tracking System, major crimes, as well as other investigative programs, makes the availability of MIN to all State Police investigators a virtual necessity.

Software costs associated with purchasing a relational data base software package are \$137,446. In addition, one Computer Systems Programmer is also required for dedication to HALT Program enhancements.

The Incident (or complaint) Reporting component of the IRS has been operational in all of Troop G for over four years. Plans for next year call for extending IRS to Troops D, E, and L. Currently, there is one terminal installed at each Zone Headquarters in Troops D, E, and L. The expansion of IRS mandates that additional terminals be installed at Zone Headquarters and the network be extended to the Station level. This will be accomplished by adding MIN capability to the new NYSPIN Workstation as well as installing new workstations in locations that currently have neither NYSPIN or MIN.

Extension of the network to the Station level will enable personnel at these locations to access the wide variety of other information available through the Management Information Network in addition to IRS. Expansion of the IRS will require new, dedicated programming support to design and sustain the Incident System. Costs associated with expanding IRS are:

Monthly Recurring Circuit Cost	\$ 5,000
Initial Hardware, Software and Network Cost	\$141,700
Personnel Cost: 1 Computer System Programmer I	\$ 64,035

It can be anticipated that the availability of the "new" MIN to all State Police Headquarters, Zones and Stations will result in the following benefits:

All State Police personnel will have access to MIN administrative and investigative applications (this is especially beneficial because it eliminates the current necessity for investigators to relocate to the Zone or Troop Headquarters when setting up command posts for major crimes investigations).

More efficient administration of internal State Police programs as the result of on-line MIN applications (e.g., Personnel, Pistol Permit, Quartermaster).

More efficient incident and crime statistics reporting as the result of support for MIN Statewide and to the Station level.

Reduce administrative messages and applications now supported via the NYSPIN system.

3. PC Environment - Initiatives included

LANs in BCI, Traffic, Communications, Counsel, Inspection, Casino Gambling Detail
Computer training facility
Portable PC, laptop PC, and MDT computer use
PC maintenance contract

Increasing demands are being placed on many Sections and operations for higher quality written documents, better tracking of projects and services, and increased use of spreadsheets and presentation graphics. While PC's have generally met this requirement admirably, in many cases there is a need to share information between PC users. The emerging answer seems to be local networks.

LAN technology has proven to be useful, reliable, and cost effective in three NYSP installations: Finance, Planning and Research and EDP. Installation of an Academy LAN is now underway and LANs are planned for Traffic, communications BCI, Inspection, Fleet Management, and the Casino Gambling Detail. LAN are under consideration as a technology to meet the expanding computing needs of the Troop Headquarters. LANs cost about \$6,000 for file server hardware and software plus about \$3000 for each PC connected to the LAN.

As the capabilities of computers increase to support analytical capabilities, streamline paperwork, improve reporting systems and as an investigative tool, training of law enforcement personnel in PC use becomes a necessity. The use of PCs by the criminal element to store data related to illegal activities also requires a response from law enforcement in the form of a better understanding of the capabilities and

intricacies of the PC. As such, the NYSP has established a computer evidence examination laboratory and proposed a computer training facility.

A computer training facility to instruct State Police crime analysts, BCI and supervisory personnel in the use of PC software would require, in addition to space and staff, computer equipment and software programs. Using an estimated \$4,400 per training station for hardware and furniture and \$1,200 for software, 10 computers to support 8 student machines, an instructor machine and a spare machine would cost \$56,000 at current prices.

A better understanding of the uses of the PC will allow for the use of portable laptop computers by State Police investigators and other personnel. With a radio/cellular phone communications capability, access to the Division's MIN system and access to NYSPIN would also be possible at the scene of a crime. This initiative would be undertaken on a pilot basis, initially with a limited number of laptops. The exact scope and cost for such a pilot program are not known at this time, although a laptop capability in Fremont, California cost the police department there approximately \$10,000 per terminal.

Currently, none of the several hundred PCs in use in NYSP are covered by a maintenance contract. When something breaks, we have it repaired on a time-and-materials basis. We expect that maintenance contracts will allow us to forecast and control PC maintenance costs, and it may be that maintenance contracts will be less expensive than our existing mechanism. The cost of this coverage will most likely be determined by competitive bid.

IV. SPECIFIC NEEDS AND IMPLEMENTATION APPROACHES

This section gives additional detail on each of the technological initiatives presented in Section III (Overview of Future Direction). It is organized by project, and each project discussion contains two parts:

Part 1: Information Resource Need

Part 2: Implementation Approach

IV.1. NYSPIN TERMINAL EXPANSION

NYSPIN terminal expansion during fiscal year 1994-95 will require an expenditure of approximately \$120,000 by the Division of State Police. This amount covers monthly charges incurred for the communications facilities (data lines and modems). The agency receiving the terminal pays for installation fees, the monthly lease/maintenance fee of \$228 per terminal and costs for expendables such as printer paper and ribbons. The preferred financing method is COPS.

Although no new personnel requirements at the central site are anticipated in FY 94-95 to handle tasks related to terminal expansion, additional hardware and software may be required in future years. NYSPIN training for new terminal agencies is done at the appropriate State Police Troop control point by State Police personnel. It may be necessary to reinstate the assistant communications supervisors in each Troop to handle the training requirements.

IV.2. MIN ON-LINE PERSONNEL DATA SYSTEM

The current Personnel Data System (PDS) was one of the earliest MIN applications and is built on a batch processing strategy where the main files are updated once every week. This means that information in the PDS is always from 1 to 6 days old. Since heavy reliance is placed on this system for both statistical tabulation and responses to inquiries about individuals, more timely information will be useful, and the MIN-based PDS is the most efficient mechanism for storing, distributing and analyzing this data. Note that dozens of MIN applications use the PDS. The MIN applications are in real time, the PDS is batch processed.

Hardware and software alternatives were not seriously considered, given the satisfactory performance of the MAPPER software and the MIN system. Work on an on-line PDS will commence when resources are available. The cost of developing and implementing the program is mainly personnel time, estimated to be:

Administrative Analyst	1/4 person-year
Programmer Analyst	2 person-years
MIN Coordinator (training)	1/12 person-year

No additional equipment is anticipated.

IV.3. COMPUTER EVIDENCE EXAMINATION LAB

To support these investigations the Computer Crime Unit was established in 1991 to assist in the examination of computer equipment seized in evidence. The Unit is staffed with a Senior Investigator and an Investigator. Basic equipment has been purchased, and much future equipment will be seized from criminal investigations.

IV.4. PLANNING AND RESEARCH WP SYSTEM REPLACEMENT

The aging P&R Wang WP system was replaced in 1992 by a LAN running WordPerfect and other PC software. It was funded primarily by redirection of maintenance contract monies.

IV.5. ACADEMY WORD PROCESSING REPLACEMENT

The aging Academy Wang WP system was replaced in 1993 by a LAN running WordPerfect and other PC software. It was funded primarily by redirection of maintenance contract monies.

IV.6. STATE, LOCAL AND FEDERAL CONVICT FILES

These NCIC 2000 concepts and the interface to DOCS will enhance law enforcement's ability to effectively monitor probationers and parolees, as well as determine the whereabouts of persons currently incarcerated. As such, NYSPIN intends to fully support the implementation of these concepts.

Support for the two NCIC concepts is dependent upon an NCIC/SENTRY interface being realized and specifications for the Supervision Status File being supplied to the states. Costs cannot be projected at this time, as the NCIC 2000 contract was awarded only recently. Costs will be known after testing, development and acceptance have been accomplished, and specifications are issued - now expected to be in December 1995.

Realization of a NYSPIN/DOCS interface is dependent upon agreement by the two agencies to the exact functionality, communications requirements and timetables for implementation. At this time, costs to the Division of State Police cannot be projected.

IV.7. MIN CRIME LABORATORY CASE MANAGEMENT SYSTEM ENHANCEMENT

It is too early in the planning process to analyze alternatives, give a timetable for implementation or project costs.

IV.8. MIN PISTOL PERMIT ON-LINE ACCESS

It is too early in the planning process to analyze alternatives, give a timetable for implementation or project costs.

IV.9. QUARTERMASTER INVENTORY SYSTEM

It is too early in the planning process to analyze alternatives, give a timetable for implementation or project costs.

IV.10. COMPUTER TRAINING FACILITY

In addition to the space and staff required, which could possibly be allocated from present resources, computer equipment and software programs would be needed to support a computer training facility. Using an estimated \$4,400 per training station for hardware and furniture, and \$1,200 for software, 10 computers to support 8 student machines, an instructor machine and a spare machine would cost \$56,000.

IV.11. UCR/NIBRS DEVELOPMENT

The present Incident Reporting System (IRS) will be expanded to Troops D, E, and L. at a cost of \$141,700 for hardware, software and network. Monthly recurring circuit costs is \$5,000. One additional Computer Systems Programmer is required.

IV.12. PORTABLE LAPTOP COMPUTERS/MDTs

From 1980 to 1988, the cost of MDTs did not drop significantly. Despite the rapid development in all other areas of the electronics industry, there had been no significant technological product improvements in MDTs. Despite the benefits of an MDT system, the costs for those systems could not be justified. To be of real value, the MDT must help reduce the paper and information management burden of modern police agencies.

Costs of the equipment will be known after completion of the pilot test conducted jointly by NYSP and the Thruway Authority in the New York Zone of Troop T, most likely beginning in September 1993.

IV.13. ENHANCED CAD

A test of Global Positioning System and map displays at the dispatcher's position will be undertaken in the fall of 1993 in cooperation with NYNEX. At the

conclusion of that test costs and capabilities of this new technology will be better known and understood.

IV.14. NOTEBOOK AND PEN BASED COMPUTERS

The emerging technology of small pen based computers from Grid and Apple show much promise in providing automated support to police officers in the field. The equipment is only recently announced and thus is expensive, but when prices fall due to competition and manufacturing efficiencies, we expect to purchase examples for evaluation as a hand-held field terminal.

IV.15. TRANSFER FILE 20 SYSTEM TO MIN

Until the system analysis is completed the costs of this project will not be accurately known. The programming time is expected to be substantial, and the hardware costs minimal.

IV.16. INVESTIGATIVE RECORDS SEARCHES (LAWMAN)

To meet the increasing demand for enhanced and additional LAWMAN services, a more streamlined search process must be developed along with provisions for tripling today's storage capacity. It is estimated that 408 thousand tracks of mainframe disk storage will be required at a cost of \$45,000. With the increased workload projected to increase the number of cases by one third, an additional Communications Specialist (SG-10) is requested for the NYSPIN Support Services Section. The preferred alternative for implementing the driver's license enhancement is to employ the same storage and search techniques used in the current registration search.

IV.17. TELEPHONE SUBSCRIBER DATA ACCESS SYSTEM (FASTTRACK)

While the efficiency and usefulness of automated telephone number lookup is well proven, the accessibility to this service is severely limited. We have only one FastTrack equipped computer and need one for each Troop. The decision on how to proceed technically - either a CD-ROM drive in each Troop, or one CD-ROM drive as a mainframe peripheral available over MIN - will likely be driven by software license considerations.

IV.18. PC MAINTENANCE CONTRACT

The Division currently owns 350 personal computers not covered by a maintenance contract. Since the warranties have expired, it will be necessary to purchase a maintenance protection plan in order to forecast expenses for PC repairs. The cost of the contracts is likely to be determined by competitive bid.

IV.19. OVERHEAD CATEGORY

The specific future initiatives described in the preceding section of the plan outline a wide range of enhancements to the Division's NYSPIN and MIN systems. Additional hardware, software and program development staffing will be required before all of the initiatives are realized.

As each program is implemented, an increase in the central support staffing may also be needed. Other overhead expenses, such as furniture, office space, power, etc. also have to be considered.

Expansion of the MIN to the Station level will require additional MIN coordinator positions to handle training and trouble calls, as well as help in the maintenance of new and/or expanded applications. Additional MIN terminals may also require the enhancement of the NYSP Network and 24 hour computer operations staffs. Terminal tables, chairs and printing of MIN Manuals will also be needed.

Implementation of NCIC 2000 initiatives may require additional personnel in the NYSPIN Support Services staff to assume expanded quality control, record validation and training requirements.

V. DISTRIBUTION OF CURRENT RESOURCES

V.A. AGENCY RESOURCE SUMMARY

The estimated cost of data processing and data communications hardware, software, contractual services and personnel for development, maintenance and support of automated information systems is shown below, using FY 1993-94 figures.

Central Site (purchased and contracted) hardware, software, maintenance	\$2,040,000
Data Communications (mainly contracted) terminals, lines, modems	3,319,000
Personnel (salaries)	<u>2,600,000</u>
Total	\$7,959,000

Not included in this total are administrative analysts who perform some system analysis and design work, radio engineers and technicians, telephone system analysts and crime lab scientists and technicians who do their own programming.

A distribution of these resources across NYSP major programs is difficult because both NYSPIN and MIN run on the same hardware platform, and many of the computer operations staff and communications network staff serve both the NYSPIN (law enforcement) system and the MIN (administrative support) system.

Based on the number of terminals in each network, however, we estimate that 63% of computer resources are directed at supporting the Division's (1) Preservation of Law and Order, and (2) Highway Safety goals, while 37% of computer resources are directed at the (3) Support Services goal.

Demands on both NYSPIN and MIN systems show variations in demand by time of day, by day of week and by season of the year. Changes in resource allocation are generally made, however, because both systems are designed to handle peak activity loads.

V.B. IRM ORGANIZATION AND ARCHITECTURE

V.B.1. IRM ORGANIZATION

Responsibilities related to information resource management within the NYSP are carried out by two sections: the Electronic Data Processing Section and the Planning and Research Section.

Refer to Appendix F, Selected NYSP Organizational Charts, for additional detail.

V.B.2. IRM ARCHITECTURE

Refer to Appendix D, NYS Forum for IRM - Resource Directory Excerpt, for an overview of NYSP IRM Architecture.

V.B.3. DISASTER RECOVERY

The NYSP computer center is located in the Public Security Building #22 on the W. Averell Harriman Office Building Campus in Albany. All system hardware is completely redundant so that in the event of any component failure, backup units are immediately available. Likewise, the NYSPIN database is duplicated to insure against the failure of any single leg. Tape copies of the database and program files are created daily and stored off-site in the building's bomb shelter sub-level. As such, State Police computer services could be reestablished after a disaster, but would require complete replacement of dysfunctional hardware.

Measures currently in place to preclude an interruption of service (building security, fire prevention, access passwords, etc.) are contained in sections of, "A Study of the Disaster Preparedness Status at Certain Criminal Justice Agencies of the State of New York," a copy of which is included with the IRM. The study was conducted by the SIFECs task force and the Data Systems Division of the Grumman Corporation in 1987. Briefly, it recommends the establishment of a backup "cold site" to service NYSPIN in the event of a disaster at the central site.

An uninterruptable power supply for the mainframe computer is a high priority and a mandatory requirement within NYSP EDP. Currently, there are generators for backup power which are tested regularly. A UPS would prevent short term outages that are experienced due to severe weather conditions, human error, etc.

The Grumman Report findings will be reexamined in order to ultimately establish a backup central site for the State Police computer system.

V.B.4. SPECIFIC APPLICATIONS

The NYSP's current approach to administrative systems is to design, program and deliver applications as rapidly as staff and hardware resources are available. The success of programs like the Personnel Data System, the Leave Accrual System and the Payroll System have had an encouraging influence on the design of administrative systems. Our current approach is to support the development of administrative systems as resources allow; for example, Leave Accrual System, the Seized Asset Tracking Program and PC expansion are on-going at the present time. We expect that the growth of administrative systems will continue, and examples of administrative initiatives discussed elsewhere in this plan are the online Personnel Data System and the Quartermaster inventory system.

The NYSP approach to office automation is based on the continued growth and increased use of PCs for general purpose office automation tasks, especially those that require exchange of documents between sections and units, as well as calendaring and E-mail. For those sections with special advanced office automation needs, specialized PCs will be used in addition to LANs.

The current approach to Geographic Information Systems is currently most prominent in the computerized map storage and retrieval system contained in the emergency communications vehicles. The Division will explore geography-based systems for crime analysis and workload analysis as the appropriate technology becomes affordable, and as funds become available.

V.B.5. IRM - SPECIFIC SERVICES

TELECOMMUNICATIONS

Central site computer equipment, terminal equipment, software and maintenance for the Division's telecommunications networks are obtained under State contract with the following vendors:

Unisys Corporation for the central site computer equipment under contract C168807 which expires on March 30, 1997. Maintenance for the equipment is included in the contract.

Racal-Milgo Data Communications Corp. for data communications equipment under contract P22942. However, the Division is under obligation for data communications equipment that was leased/purchased under the previous contract for this equipment.

Annese & Associates for terminal equipment and associated software under contract CM00101. Maintenance for the equipment is included under the contract.

Data communications lines are leased from AT&T, NYNEX or independent telephone companies that service the associated area. The Division utilizes CRIMNET to provide inter-LATA service.

CONSULTING SERVICES

Software design services of an outside vendor are being employed for the Thruway mobile digital terminal (MDT) pilot test, and will be considered as an alternative to system design and programming by in-house personnel.

HARDWARE MAINTENANCE

Maintenance services for data communications equipment is included in the contracts under which the equipment is obtained.

PC MAINTENANCE

Until now, NYSP personnel have maintained all PCs located at the Albany area, and outside the Capital District maintenance has been obtained under State contract. It is likely that PC Maintenance contracts will be employed in the future, as the number of PCs and their average age increases.

AV.B.6. AGENCY RESOURCE SUMMARY - EXPANSION

In order to fulfill commitments to NCIC 2000 and as an adjunct to MAPPER, the software package for the State Police Management Information Network (MIN), it is necessary to purchase a relational database package.

The relational database (RDMS) defines relational tables and the relationship between tables. It will be used to support the NCIC 2000 initiative which mandates linking database information to include all related information in response to an inquiry. It can also be used for State Police administrative applications to store and link data for applications such as the Homicide Assessment and Lead Tracking System, the new Personnel Data System and a variety of other applications.

Two software packages must be purchased to accomplish the goals. They are the relational data management system and the MAPPER relational interface. The MAPPER relational interface allows the relational database software to communicate with MAPPER.

The estimated cost of each of these packages from our current vendor are:

Relational Data Management System

\$104,467 for 60 month Extended Term Purchase, or

\$ 9,718 initial + \$2,430 per month

MAPPER Relational Interface

\$32,979 for 60 month Extended Term Purchase, or

\$ 3,473 initial + \$868 per month

Unisys System Base 4 (SB4) software provides the foundation for new Unisys products, features and improved performance. SB4 supports high-productivity application environments, advanced database software, automated enhanced operations, continuous processing and high-level security. The advancements of SB4, as well as those of subsequent releases, will require more memory. The Division of State Police will need to increase mainframe memory by a factor of 50%. This increase will not be necessary until the 1994-95 fiscal year.

In order to troubleshoot and monitor the LANs, a Network Management System will be required. This will allow the PCSU staff to isolate network problems and resolve them expeditiously. It is estimated that an entry level Network Management System can be purchased for approximately \$50,000.

The current laser printer in the Division computer center was purchased and installed in 1987. The installed unit, a Xerox model 4050 is rated at 50 pages a minute and is capable of duplex printing. The laser is used for both mainframe printing as well as off-line production jobs. The acquisition of the laser printer permitted EDP to assume applications which were previously completed in the Division print shop or by outside agencies or vendors. Additional cost savings were realized by using standard paper with increased savings in duplex mode printing.

In 1992, the laser printer produced nearly five million pages for an average of ten pages per minute, 24 hours/7 days per week. Due to the age of the present printer and the increasing volume of printing the unit needs to be replaced with a Xerox model 4090. The new unit is rated at 90 pages per minute and can be fitted with optional equipment to meet the ever increasing needs of the Division. The development of Local Area Networks (LANs) with connectivity to the mainframe printer may substantially increase the printing demands of the computer center.

The Xerox Corporation offers a 36 month lease at 0% (zero per-cent) interest for the 4090 model. The monthly lease would be \$4,434.00 under this plan. The total system purchase price less trade-in is \$183,000. Monthly maintenance is \$1,980 plus \$.0037 per page.

V.B.7. Surplus Equipment

The mainframe UNISYS 2200 CPUs and associated equipment were installed in 1990 and have an expected life expectancy of over five years. Most of the PC equipment acquired by the Division is in heavy enough demand that it is far from being surplus. We cannot, at this time, forecast what surplus equipment we may need.

V.B.8. SPECIFIC TECHNOLOGIES

One of the first concepts to be addressed by NCIC, as part of NCIC 2000, is image storage and transmission. The enhancement to transmit and store photographs, composite drawings or artist's conceptions and fingerprint images of wanted, missing and unidentified person subjects would require hardware and software changes to NYSPIN. As NYSPIN plans to support this concept and implement a State counterpart system, specifications for software and hardware and implementation schedules will be based on NCIC's implementation plan.

The Division of State Police has also been evaluating a cost effective method for storing and transmitting mug shots, fingerprint images, etc. between State Police facilities. To date, a product achieving an acceptable image resolution has not been found. Evaluations will continue.

As a participant in NCIC 2000, NYSPIN will adhere to the GOSIP specifications for message format, transmission and receipt. NYSPIN's in-State interfaces (e.g., Erie County Central Police Services) will also be given the GOSIP specifications. As a member of CRIMNET, NYSPIN will support X.25 protocol. X.25 is currently being tested on-site and will become the standard OSI protocol within the NYSPIN network.

In conjunction with ISD, NCIC and NLETS, the Division will be studying the feasibility of using many of the following technologies:

- Imaging
- Artificial Intelligence
- Open System Standards
- UNIX operating system
- Plug compatible equipment

APPENDIX A

GLOSSARY OF ACRONYMS

APPENDIX A

Glossary of Acronyms and Terms Used in this Report

BBS - Bulletin Board System

BCI - Bureau of Criminal Investigation

Bisync - Bisynchronous

CMS - Communications architecture - Unisys

COBOL - Common Business Oriented Language

CPU - Central Processing Unit

CRIMNET - Criminal Justice Agency Network

CTA - Control Terminal Agency

DCP - Distributed Communications Processor - Unisys

DDS II - Digital Data Service II

DMS - Data Management System software - Unisys

DOCS - NYS Department of Correctional Services

DSP - Division of State Police

DSU - Digital Service Unit

FCC - Federal Communications Commission

GOSIP - Government Open Systems Interconnection Profile

HALT - Homicide Assessment and Lead Tracking system

IRS - Incident Reporting System

LAN - Local Area Network

LOTUS 1-2-3 - Spreadsheet software - Lotus Development Corp.

**MAPPER - Maintaining Preparing and Processing Executive Reports
(Unisys database software)**

MDT - Mobile Digital Terminal

MIN - Management Information Network

NIBRS - National Incident Based Reporting System

NICB - National Insurance Crime Bureau

NCIC - National Crime Information Center

NCIC 2000 - Enhanced NCIC system

NLETS - National Law Enforcement Telecommunications System

NYSP - New York State Police

NYSPIN - New York Statewide Police Information Network

ORI - Originating Agency Identifier

OSC - Office of State Comptroller

PAD - Packet Assembler Disassembler

PADS - Payroll Automated Data System

PDS - Personnel Data System

PC - Personal Computer

PR-75 - OSC "Payroll and Personnel Transaction Form"

RDMS - Relational Data Management System

SB4 - System Base software level 4 - Unisys

SENTRY - Federal Corrections information system

SIFECs - Systems Improvements for Enhanced Community Safety

SJS - Spectrum Justice System

SNIP - Statewide Narcotics Indexing Program

TELCON - DCP software - Unisys

T-1 - Communication circuit providing capacity of 1.5 megabits of data

UCR - Uniform Crime Reporting

USDOJ - U.S. Department of Justice

UPS - Uninterruptable Power Supply

WAN - Wide Area Network

WHAMS - Warrant History and Management System

WP - Word Processing

APPENDIX B

NYSPIN PERFORMANCE STATISTICS 1988 - 1992

NEW YORK STATEWIDE POLICE INFORMATION NETWORK
Performance Statistics 1988 - 1992

Type of Computer Traffic	1988	1989	1990	1991	1992
Stolen Vehicles					
Entries	178,289	198,109	217,675	214,725	197,602
Inquiries	3,976,043	4,203,286	4,500,246	4,754,959	5,247,603
Lost/Stolen License Plates					
Entries	42,974	41,329	41,464	40,095	36,159
Inquiries	8,500,482	8,719,048	9,386,349	9,954,395	10,358,288
Stolen Articles					
Entries	40,930	38,592	39,837	41,193	38,855
Inquiries	* 179,194	172,142	** 150,380	67,912	59,130
* in 1988 LETS began inq by OAN, ** in Nov '90 we stopped genr'd OAN inq					
Stolen Firearms					
Entries	16,020	14,695	14,344	17,696	15,604
Inquiries	124,441	134,193	137,701	137,500	140,874
Missing Persons					
Entries	42,121	41,913	40,784	41,301	44,166
Wanted Persons					
Entries	295,469	295,533	281,079	280,691	277,210
Missing and Wanted Persons					
Inquiries	7,248,371	7,687,940	8,478,955	8,893,289	9,464,130
NYS Department of Motor Vehicles					
Transactions	20,431,967	22,628,833	23,455,144	23,545,108	23,489,157
NYS Division of Criminal Justice Services					
Transactions	8,301,128	9,071,012	9,991,338	10,478,031	11,128,032
National Crime Information Center					
Transactions	12,883,632	13,875,258	15,110,561	15,805,273	16,813,079
National Law Enforcement Telecommunications System					
Transactions	1,468,632	* 3,398,982	3,628,428	3,948,957	4,305,117
* in 1989 all LETS traffic was counted - prior to '89 only dlrvy to UTS cntd					
NYSPIN Message Volume					
YTD Total	200,291,793	212,379,000	218,069,879	223,706,819	230,801,575
Daily Average	547,245	581,860	597,452	612,895	632,333

APPENDIX C

A STUDY OF DISASTER PREPAREDNESS STATUS

A STUDY OF DISASTER PREPAREDNESS
STATUS AT CERTAIN CRIMINAL JUSTICE
AGENCIES OF THE STATE OF NEW YORK

Conducted by Grumman Data Systems
for the
SIFECs Program

September 10, 1987

Jonathan S. Ayers
Program Director

RECOMMENDATIONS

1. Establish a standard for facility and data security within the Criminal Justice Agencies.

2. Make the necessary modifications to bring each facility up to the standard.

3. Establish within the SIFECs Task Force positions for two persons whose function shall encompass education, training, and oversight responsibility in the areas of security and disaster planning.

4. Investigate the advisability of procuring Business Continuation Insurance for the Criminal Justice Agencies.

5. Establish and operate a Criminal Justice Switching & Data Center in Rensselaer Technology Park to house one of the CRIMNET switches, one of the NYSPIN processors, the OCA "second site", and provide adequate conditioned space, office space, and storage space to act as:

a) a temporary facility for any Criminal Justice Agency that might require it in the event of a disaster, and:

b) as expansion space to meet the growing needs of all agencies.

6). Make the preparation of a Disaster Backup & Recovery Plan a formal requirement, to be completed by each Agency before the approval of its next budget.

DIVISION OF STATE POLICE

On July 14, 1987, representatives from Grumman Data Systems were given a tour of the State Police Data Center located in Building #22, State Campus, Albany, NY. Messrs. Jay Campbell, Wm Derkowski, and J. Goetz were most hospitable and generous with their time.

Building #22 is of obvious sound construction set on high ground. The parking area for employees and visitors is maintained at a safe distance from the building. Entrance to the building is through a set of dual doors; the left hand door is controlled by a card access system, and is reserved for employees. All others must use the right hand door, which leads directly to an armed guard/receptionist. Visitor badges are required, and visitors are escorted at all times while on the premises. Attache cases and packages are not required to be presented for inspection when entering or leaving the building. The building has a loading dock at one end, with locked doors which can only be opened from the inside. There is a closed circuit television system providing an exterior view of the area around the loading dock. This, together with the number of armed police generally in and about the building provides a sense of high security.

The Data Center is located on the first floor of the building, with access controlled by a card key system. There are exterior walls in the data center, exposing it to outside threats. Although crowded and tight for space, the room is well laid out. There is no automatic Halon or water sprinkler system for fire suppression; however, there are a number of hand held fire extinguishers located throughout the room.

The facility does not have an UPS system, but there are generators for backup power, and these are tested regularly.

Waste paper baskets and barrels are of the standard type, and have no fire suppression capability. In general, the room is clean and orderly, and gives the appearance of good discipline and appears well supervised. Emergency procedures for evacuation and other such activities are in place.

The NYSPIN network operates through dual Univac processors both located in the existing data center. Should the facility become unusable for any reason, the entire NYSPIN operation would be crippled. The State Police should either separate these processors or locate an additional processor capable of backing up the existing ones in a remote location at the earliest possible opportunity.

RECOMMENDATIONS:

1. Install automatic fire suppression systems in the computer room.
2. Install an uninterruptible power supply (UPS) system to prevent catastrophic failure and loss of service.
3. Provide an alternate site for emergency operation of the NYSPIN network.
4. Replace existing waste containers with low fire hazard types.
5. Store combustible materials in an area separate from the data center.
6. Equip fire exits with exit alarms.
7. Provide an area for the consumption of food and beverages adjacent to the computer room and prohibit these activities.
8. Back up all critical documentation and files and provide secure off-site storage.
9. Change passwords every ninety days or less.
10. Provide access controls to lock out terminals after three unsuccessful logon attempts. Broadcast a message after each successful logon notifying the user of the date and time of the last logoff. Provide a timeout feature that automatically shuts terminals off after a set period of inactivity.
11. Obtain signed receipts for the release of sensitive reports and all tapes.
12. Replace glass windows with shatterproof glass and install wire mesh inside.

APPENDIX D

**NYSP SECTION FROM THE 1992-93 NYS FORUM FOR
INFORMATION RESOURCE MANAGEMENT
INFORMATION RESOURCE DIRECTORY**

STATE POLICE

PERSONNEL

Total agency staff: 4800

Total EDP staff: 51-100

Senior Data Processing Officer:	John Campbell	(518) 457-2393
NYSFIRM Institutional Representative:	John Campbell	(518) 475-2393
Systems Development:	John Goetz	(518) 457-6501
Computer Operations:	William Derkowski	(518) 457-6501
Database Administration:	David Salvino	(518) 457-6501
Telecommunications:	James DeConno	(518) 485-8307
Information Center:	Marybeth Salmon	(518) 457-6501
NYSPIN Software Support:	Joseph Giuliani	(518) 457-6501
NYSPIN Operations:	William Dergosits	(518) 485-8335

GENERAL PURPOSE COMPUTING

Hardware

CPU Make/Model:	Unisys 2200/622 (1)		
Mo/Yr last upgrade:	09/01/90		
Type:	mainframe		
Operating System:	OS-1100 (1)		
Memory Size:	16 mw (1)		
Disk (Capacity):	Unisys 9720/9494 (32 gb)		
Tape Drive:	Unisys U36 (3)	Unisys U40 (8)	
Impact Printer:	Unisys 9246 (1)		
Laser Printer:	Xerox 4050 (1)		
Terminals:	IBM XT (850)	CHI-MP UTS (260)	Unisys 300 (111)
Plotters:	HP (1)		

Programming Languages - General Purpose (Unisys 2200/622)

Cobol: 40%
4GL-MAPPER: 50%
Assembler: 10%

Software Packages - General Purpose (Unisys 2200/622)

Word Processing:	OFIS Link- Unisys
Database:	DMS1100- Unisys
Elect. Publishing:	Intgtd Comp & Pub-Xerox
Comm. Architecture:	CMS1100-Unisys
Telecomm. Monitor:	TELCON
Graphic:	MAPPER-Unisys

MICROCOMPUTING

Unisys PC 300	111
Hertz 486	50
Hertz 386	10

Peripherals - Microcomputing

Laser Printer:	Unisys 37	13
Dot Matrix Printer:	Okidata 390	86
Impact Printer:	Unisys-31	12
Plotter:	HP	1
Modem:	Racal/Milgo-Omni 96	121
Scanner:	various	3

Software Packages - Microcomputing

Spreadsheet:	Lotus 1-2-3	PFS First Choice	Quattro Pro
Word Processing:	Unisys-DSSP/PC	Word Perfect for Windows	Word for Windows
Database:	PFS: First Choice	dBase	
Desktop Publishing:	Ventura		
Communications:	Unisys-STEP	ICC-Info Connect	ProComm
Integrated:	PFS: First Choice		
Graphic:	Unisys-STEP	Harvard Graphics	
Scanning:	Scanning Gallery		
Utilities:	Norton Utilities 6.0		
Anti-Virus:	Norton Anti Virus		

LOCAL AREA NETWORKS

Operating Systems

No. of file servers	Novell Netware	3
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Protocols

No. of nodes	EtherNet	35
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OFFICE AUTOMATION

Vendor: UNISYS

Functions:	Operational	Planned	Package Name
Word Processing:	X		Ofislink, Word PerfectWin
Electronic Mail:	X		Ofislink, Windows Wrkgrou
Scheduling:	X		Ofislink, Windows Wrkgrou
Speed Memos:	X		Ofislink, Windows Wrkg
Directory Services:	X		Ofislink, Windows Wrkg

INFORMATION CENTER

Service	Availability	Priority
Training	as resources permit	low
Data Manipulation & Reports	on demand	high
Troubleshooting	on demand	high
Equipment Purchase & Maintenance	as resources permit	low
Software & Hardware Installation	as resources permit	low
Applications Development/Systems Analysis	as resources permit	high
Consultation/Help Desk	on demand	high

EXTERNAL INFORMATION SERVICES WITHIN STATE GOVERNMENT

Criminal Justice Information Network (CRIMNET) - NYS Div. of Criminal Justice Se

Driver and Vehicle Records - NYS Dept. of Motor Vehicles

NYS Police Information Network (NYSPIN) - NYS Division of State Police

Legislative Retrieval System - NYS Legislative Bill Drafting Commission

EXTERNAL INFORMATION SERVICES OUTSIDE STATE GOVERNMENT

National Crime Information Center (NCIC) - Federal Bureau of Investigation

National Law Enforcement Telecommunications System (NLETS)

National Weather Service

Westlaw

LEXIS/NEXIS

EXTERNAL INFORMATION SERVICES OFFERED

State, National and International message switching to system subscriber. State and National Data Base Access for system subscribers.

MAJOR APPLICATIONS SYSTEMS

New York State Police Information Network (NYSPIN)

NYSPIN provides law enforcement and criminal justice agencies with immediate access, 24 hours a day, to local, state, national and international agencies for information essential to progressive public safety efforts. The user network is comprised of 900 microcomputers directly linked to NYSPIN with another 2000 terminals indirectly linked through interfaced computer systems within the state. On the national level, NYSPIN is networked to 64,000 agencies across the country. Service providers linked to NYSPIN through computer interfaces include the Department of Motor Vehicles (DMV), the Division of Criminal Justice Services (DCJS), the Department of Taxation and Finance (TAX), the National Weather Service (NWS), the National Crime Information Center (NCIC), and the National Law Enforcement Telecommunications Systems (NLETS).

System type: Administrative Support
Primary purpose: Multi-purpose
Federal/local use: Local Federal
State agency users: Multiple agencies
Direct public access? No

Statewide Narcotics Indexing Program

The Statewide Narcotics Indexing Program (SNIP) provides a service to all law enforcement agencies that are registered to participate in the program. It allows the computerized indexing of names of persons suspected of dealing in narcotics. As each name is entered, the database is automatically searched for sound-alike names and produces a ranked list of possible matches using the name, race, sex and date of birth of the individuals. These hits enable agencies to be put in touch with each other to share information when it appears that they may be investigating the same person. The program is administered by the Division Headquarters Crime Analysis Unit.

System type: Program support
Primary purpose: Reference
Federal/local use: Local
State agency users: Multiple agencies
Direct public access? No

Homicide Assessment and Lead Tracking

The HALT system is designed to capture data on solved or unsolved murders, missing persons, unidentified dead bodies and violent sexual assaults utilizing the FBI's VICAP form as the primary data collection instrument along with an addendum developed by the HALT staff. The system allows computerized recording of more than 200 data elements as well as an automatic search as each case is entered comparing the new case against the entire file and ranking similar cases. The system also has the capability to perform an ad hoc search utilizing any combination of data elements.

System type: Program support
Primary purpose: Reference
Federal/local use: Local
State agency users: Multiple agencies
Direct public access? No

Consumer Product Tampering

State law mandates that the New York State Police maintain a database, which has been implemented in the Management Information Network (MIN) allowing files to be searched to determine if another similar product tampering report has been received prior to the new report. Data elements such as the product, county of incident, and victim's name may be searched. The system automatically generates a letter to the controlling agency requesting follow up information. It also automatically generates a letter to an agency when a case remains pending for more than six months.

System type: Program support
Primary purpose: Reference
Federal/local use: Local
State agency users: Multiple agencies
Direct public access? No

Computer Assisted Investigations

The Computer Assisted Investigations System is comprised of two components. The first component, Telephone Call Analysis Program, is designed to aid BCI personnel in analyzing information relating to telephone calls. Data may be obtained from a variety of sources including wire taps and subpoenaed telephone toll bills. The user enters the number called as well as the time, date and duration of calls made from the trace number. The system automatically provides the day of the week and the state that was called. A menu lists a number of reports that can be produced upon request. This list includes reports by state, area code, exchange, time of day, day of the week, and most frequently called number. It also allows the user to compare the numbers entered with other phone numbers in the system. Subscriber information may also be entered into the database (giving the name and address associated with the numbers called). A subscriber record is automatically created upon entry of a number and is updated at a later time with the name and address information.

System type: Program support
Primary purpose: Monitoring/regulation
Federal/local use: Local
State agency users: Single agency
Direct public access? No

Leave Accrual System

The Leave Accrual System (LAS) automates the recording and maintaining of leave balances. This system will calculate and update employee leave balances for Sick, Personal, Annual, Military, Holiday, 'Earned Days Off', Overtime Compensatory and Voluntary Reduction.

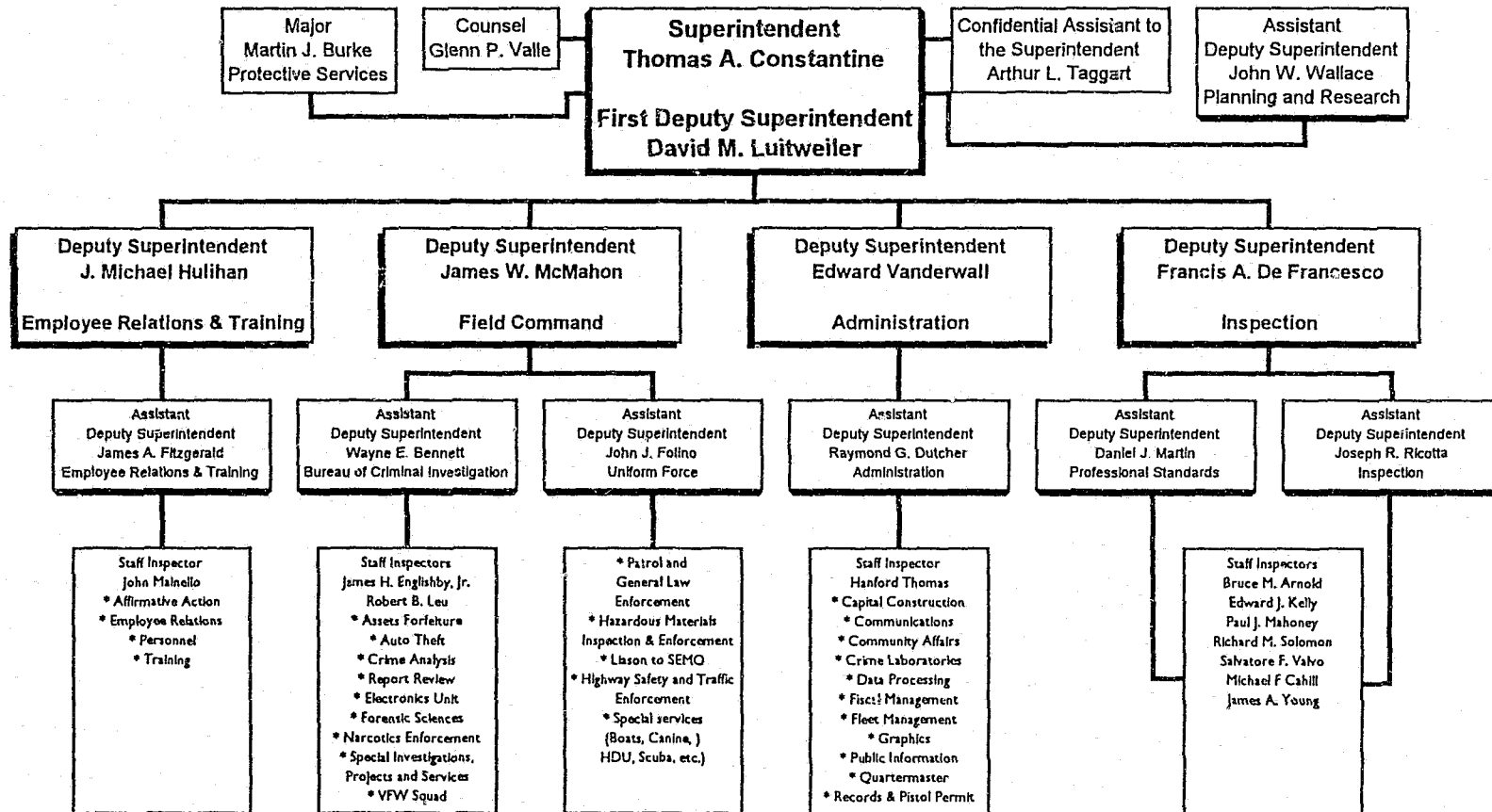
System type: Administrative Support
Primary purpose: Human resource management
State agency users: Single agency
Direct public access? No

APPENDIX E

SELECTED NYSP ORGANIZATIONAL CHARTS

**TABLE OF ORGANIZATION
DIVISION HEADQUARTERS
NEW YORK STATE POLICE**

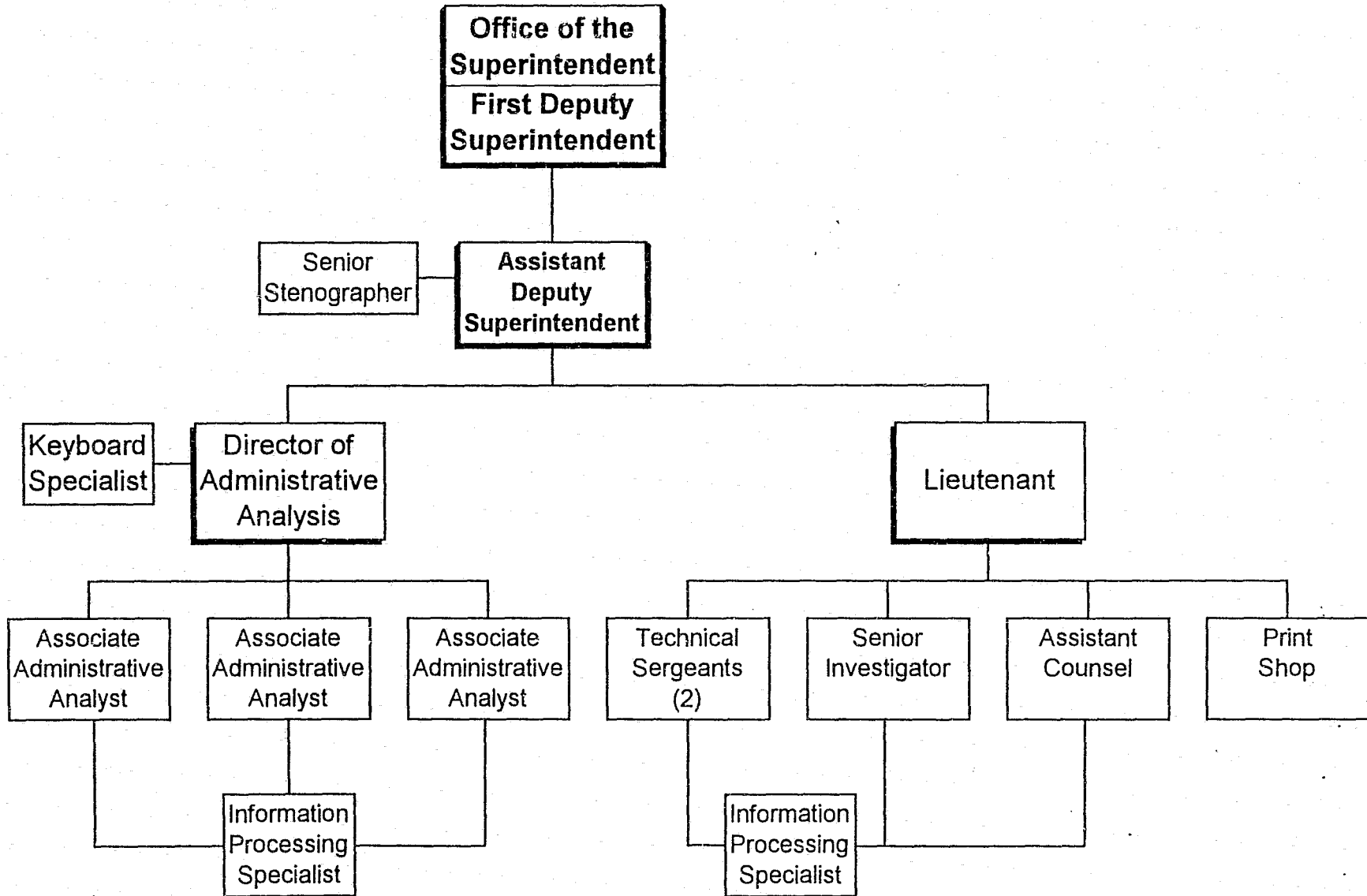
Rev. August 93



New York State Police

Planning and Research

Rev. 10-92



New York State Police Data Processing Section

Rev. 9/93

