The Commonwealth
of
Massachusetts

Department of Public Safety

LAW ENFORCEMENT AGENCY PROCESSING SYSTEM

DEPT.
PUBLIC SAFETY
COMMONWEALTH OF MASSACHUSETTS
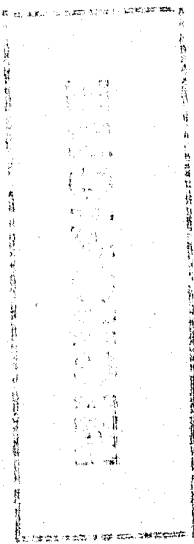
The Commonwealth of Massachusetts

Executive Office of Public Safety

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Law Enforcement Agencies Processing System

INTRODUCTION

The Massachusetts Law Enforcement Agencies Processing System (LEAPS)
represents the application of today's computer technology to today's law
enforcement problem. The LEAPS computer and its associated communications
network represent a new law enforcement tool which can be used to assist
the entire law enforcement community on a statewide and nationwide basis.

The LEAPS system will be expanded and improved to keep pace with the
problems facing the law enforcement community. Improvement will take place
by the addition of new files, new applications, and updating of existing
files and applications. Expansion will result from the addition of new
communications stations.

The LEAPS system will provide many benefits to its users. The benefits
gained by use of the system will depend a great deal upon how well law en-
forcement officers use the system.

This booklet has been prepared to guide law enforcement officers in
using the LEAPS system.

All inquiries regarding the LEAPS system should be addressed to:

        LAW ENFORCEMENT AGENCIES PROCESSING SYSTEM
                LEAPS COORDINATOR
                DEPARTMENT OF PUBLIC SAFETY
                1010 COMMONWEALTH AVENUE
                BOSTON, MASSACHUSETTS 02215

L.E.A.P.S. HISTORY

LAW ENFORCEMENT AGENCIES PROCESSING SYSTEM

COMPUTERIZED POLICE COMMUNICATIONS

The Massachusetts State Police were one of the pioneers in the use of radio and teletype back in the early thirties. These tools have been used ever since in the prevention of Crime and the apprehension of criminals. True, these have been refined to keep pace with the objectives of law enforcement through the years, but, today however, law enforcement, in behalf of the citizens of the Commonwealth, has taken its most progressive step in decades.

Massachusetts is the first of the New England States to provide its Law Enforcement Agencies with the most modern communications and information system in the continuing fight against crime in our Commonwealth.

The computer, which is the technological heart of the Communications and Information System has taken over the task which over the years was a manual and very slow process of disseminating information and providing communications for the Law Enforcement Agencies of the State.

The LEAPS Teleprocessing System has linked all police and related agencies together in a vast high speed network of police information and communications. Currently 208 Local and State Law Enforcement Agencies are participating. They are in part funded from Theomnibus Crime Control Bill available through the Governors Committee on Law Enforcement. It is our goal to install a terminal in every municipality with a population of 5,000 that will be "On-Line" to the computer.

The System provides police with virtually instantaneous response to police inquiries and unparalleled speeds of communications. Stolen cars, missing or wanted persons, lost or stolen property, lost or stolen securities, stolen guns, outstanding warrants, and other police information is stored in the computerized system, providing police with an inquiry ability of milli-seconds in response time.

In addition, all participating Law Enforcement Departments in the Commonwealth have been provided with the capability of entering information and inquiring directly into the files of the National Crime Information Center in Washington, D.C..

The computer, more than any single improvement since the two way radio, has altered the course of police activities.

In addition there are also two other New England State Police Agencies connected to the LEAPS system by teletype terminal only, for administrative type message and inquiries only, they are the State Police of Maine and Rhode Island.

A STATEWIDE INFORMATION AND COMMUNICATION SYSTEM FOR

LAW ENFORCEMENT

SERVING

.... STATE POLICE

.... LOCAL POLICE

.... METROPOLITAN DISTRICT COMMISSION

.... REGISTRY OF MOTOR VEHICLES

.... DEPARTMENT OF PROBATION

.... BUREAU OF IDENTIFICATION

.... FIREARMS BUREAU

.... N.C.I.C./FBI WASHINGTON, D.C.

.... NLETS

.... STATE POLICE (MAINE, RHODE ISLAND)

.... FEDERAL BUREAU OF INVESTIGATION (FBI BOSTON)

.... BUREAU OF NARCOTICS AND DANGEROUS DRUGS (BOSTON)

APPROXIMATELY 208 TERMINAL USERS ON-LINE 24 HOURS A DAY
7 DAYS A WEEK.

WHAT IS L.E.A.P.S.

LAW ENFORCEMENT AGENCIES PROCESSING SYSTEM

THE SITUATION

A police officer on routine patrol observes two men near a parked car. The actions of the men arouse the officer's suspicions. He notes the license plate number of the car and radios it to his dispatcher. Using the LEAPS teletype terminal the dispatcher quickly makes inquiry of the computerized Law Enforcement Agencies Processing System (LEAPS) containing up-to-date statewide records on persons, vehicles and property.

The computer checks the files, and in seconds the officer receives a reply! The car was reported stolen three weeks earlier in a city hundreds of miles away and was last known to be in the possession of an armed and dangerous fugitive. Supplied with this essential information, the officer is now ready to take appropriate action.

LEAPS - ANSWER TO A PROBLEM

The scene described above is not set some years in the future it is an authentic picture of the capabilities now available to law enforcement officials in the Commonwealth of Massachusetts through the Massachusetts Law Enforcement Agencies Processing System (LEAPS). Operational since mid-1970, LEAPS is a computer-based law enforcement and eventually a criminal justice system that gives officials a powerful weapon in the fight against crime! Information that is timely, accurate, and complete. An advanced network of computer and communications equipment makes vital statistics relating to law enforcement instantly available to enforcment officials anywhere in Massachusetts, 24 hours a day/seven days a week. This article describes the outstanding characteristics of LEAPS and the part played by computer in helping to overcome the traditional problems that have plaqued law enforcement.

SYSTEM CHARACTERISTICS

LEAPS is designed to satisfy the following requirements:

1.) Serve all levels of law enforcement giving top priority to the officer on the street.

2.) Relieve law enforcment agencies of much routine record keeping by providing a central depository for information of statewide significance.

3.) Provide accurate up-to-date information quickly enough to be useful in critical situations.

4.) Provide computer-to-computer interface capability.

LEAPS consists of over 208 teletypewriter terminals in city, county, state and federal law enforcement, connected to a central computer complex in Boston. LEAPS contains three major types of on-line information.

PERSONS

Wanted Persons - Persons with outstanding warrants, felony or misdemeanors (non-parking)

Missing Persons

VEHICLES

Stolen Vehicles

Stolen/Lost Plates

Vehicles Wanted in Connection with Crimes

Driver License Data

Stolen Boats

Stolen Snowmobiles/Mini-Bikes

PROPERTY

Stolen Articles

Stolen, Lost and Recovered Firearms

Stolen and Lost Securities

All information checks on persons or vehicles and selected checks on property are automatically routed, computer-to-computer, to the FBI's National Crime Information Center (NCIC) in Washington, D.C.. Here these checks are processed against nationwide files. This makes certain categories of Massachusetts information, such as stolen vehicle data available to law enforcement officials nationwide.

LEAPS also insures file (record) protection. By using the teletype terminal, information can be put in, changed, or deleted by the agency of (ORI) record. Other jurisdictions may inquire and use this information, but they cannot change it. Only the Agency of Record (ORI) controls its own information on "file" in the system and may look into all other files.

INQUIRY CYCLE

As described in the opening paragraphs of this article, the officer making a request for information receives a reply in an extremely short time - the entire cycle may take little more than a minute. The four basic steps are:

1.) Information request. Initiated by the field officer via radio transmission to a dispatcher.

2.) Inquiry. Formulated by dispatcher, who transmits from his teletype terminal to LEAPS via high-speed telephone lines.

3.) Response. Constructed by LEAPS after scanning its data base and automatically checking NCIC or other interfaced files, if applicable, then transmitted to dispatcher.

4.) Reply. Formulated by dispatcher and radioed to field officer.

STATION CODES

These are the Agency Identfiers. Station Codes can be used in both the originating and destination portion of the header.

AREA CODES

These are three (3) characters assigned to identify a specific area. All valid areas and their related codes are listed in the Area Directory. Area Codes are used to send broadcast type messages to specific areas. Only one of the Area Codes can only be used in the destination portion of the header, for an administrative message. When a message is to be routed to an area all stations in that area will receive the message.

ROUTING OF MESSAGES WITHIN THE SYSTEM

Routing of messages within the system is accomplished by the codes contained in the header portion of messages. All messages entered into the system must have a header. The structure of the header for both administrative and non-administrative messages is covered in detail under the heading INPUT-OUTPUT MESSAGE FORMATS.

NON-ADMINISTRATIVE MESSAGES

Non-Administrative Messages are those messages which use the information files in the system. These messages must be of proper format and content. The purpose of an inquiry message is to enter, modify, cancel, query, etc., into the system information files.

SYSTEM RESPONSES

Each administrative and inquiry message from a station will receive a response from the system. This response will be either an error message or an acknowledgement of receipt of a message by the system (LEAP-ACK).
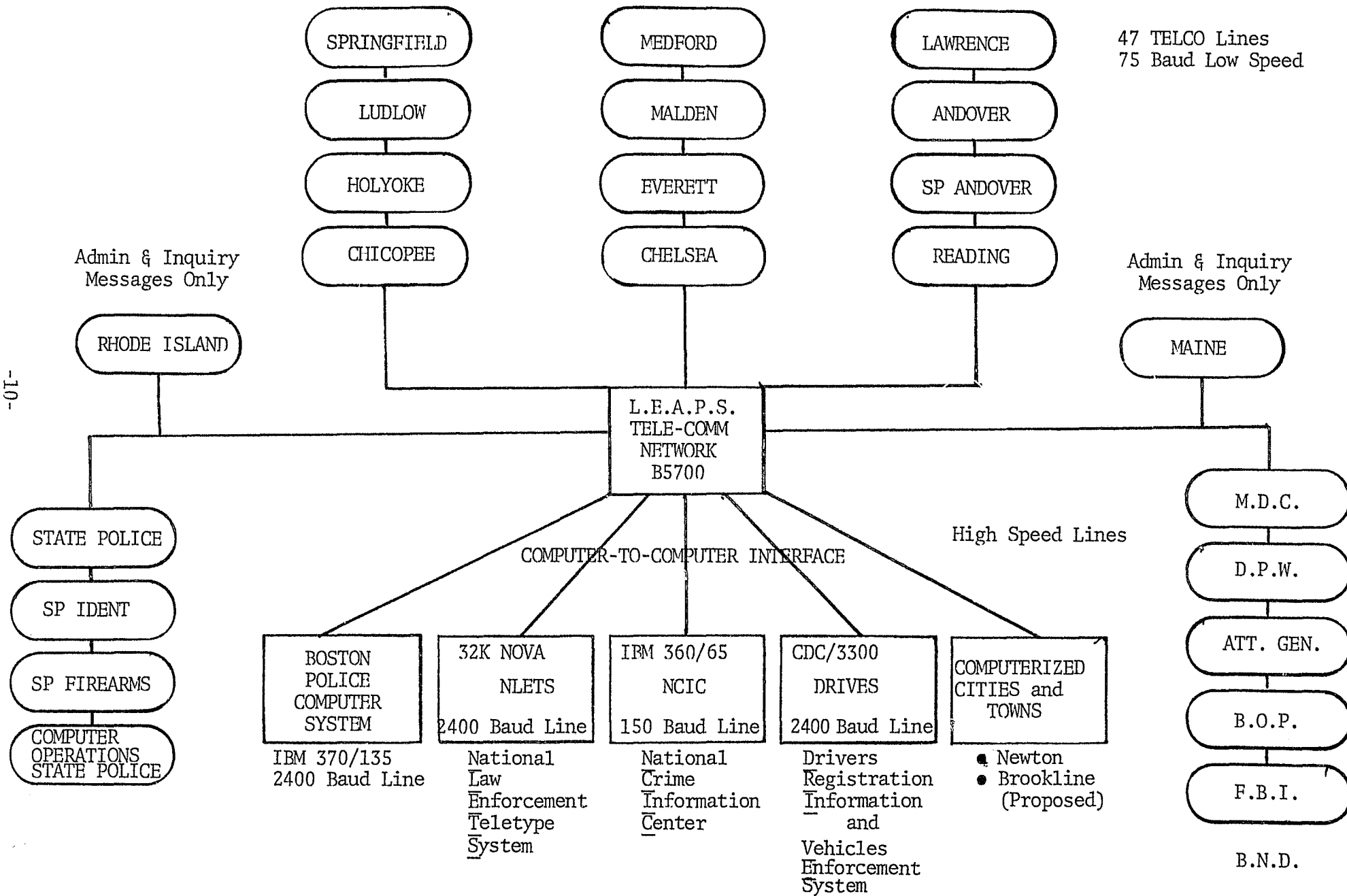
SYSTEM CONFIGURATION

The central computer complex of LEAPS consists of three (3) basic components: Communications Network, the computer and back-up computer.

1.) Communication Network: The LEAPS communications network is controlled by the Burroughs B5700 computer and consisting of communication lines, using Bell System 110 Baud lines provided by the New England Tel & Tel using Model 28 ASR teletypewriters.

2.) Computers: The computers are Burroughs B5700 dual processors (2), each with 32 thousand words of main memory (total 65 thousand). Their function is two fold! Accept inputs from the many Massachusetts and National Agencies and route them to the storage medium of the computer and transmit response messages to the appropriate destination. The two (2) computers act as back-up for each other in order to minimize system downtime.

3.) Back-Up Computer (Duplex):

   a.) Fail-Safe Operation

   b.) B5700 Dual Processor

LEAPS SYSTEM CONFIGURATOR

208 User Agencies

47 TELCO Lines
75 Baud Low Speed

SPRINGFIELD	MEDFORD	LAWRENCE
LUDLOW	MALDEN	ANDOVER
HOLYOKE	EVERETT	SP ANDOVER
CHICOPEE	CHELSEA	READING

Admin & Inquiry Messages Only

RHODE ISLAND

Admin & Inquiry Messages Only

MAINE

L.E.A.P.S.
TELE-COMM
NETWORK
B5700

STATE POLICE

SP IDENT

SP FIREARMS

COMPUTER OPERATIONS STATE POLICE

COMPUTER-TO-COMPUTER INTERFACE

High Speed Lines

M.D.C.

D.P.W.

ATT. GEN.

B.O.P.

F.B.I.

BOSTON POLICE COMPUTER SYSTEM	32K NOVA NLETS 2400 Baud Line	IBM 360/65 NCIC 150 Baud Line	CDC/3300 DRIVES 2400 Baud Line	COMPUTERIZED CITIES and TOWNS
IBM 370/135 2400 Baud Line	National Law Enforcement Teletype System	National Crime Information Center	Drivers Registration Information and Vehicles Enforcement System	● Newton ● Brookline (Proposed)

B.N.D.

SYSTEM SOFTWARE:

1. Automatic computer - formatted messages headers:

   - Station ID
   - Message No.
   - Time, Date, Destination

2. Automatic computer-built DMV, Boston, NLETS etc. inquiry formats.

   - Computer recognizes terminals, line, type of transaction and automatically prepares the proper inquiry format.

3. Message Logging and Recall.

   - All transactions are logged and designated by transactions number and terminal.

   - Special statistical reports are provided to the system users giving the number and type of transactions for each day.

   - A station may request a repeat of any message - 48 hour elapsed time.

4. Monitoring

   - The LEAPS Operations Center has the ability to monitor any communication line.

   - State Police Headquarters can selectively monitor any of their field officers.

   - Communications Bureau has traffic intercept capability to selectively hold and or release messages under store and forward condition.

   - Software to print log tapes by date, station, time of day etc.

5. Special statistical reports are provided to the system users monthly. This special report provides daily statistics by date and type of transaction and total acitivity.

6. System reliability. In case of system malfunctions causing the system to stop, standard software modules automatically save all received messages and message queues, thus allowing the transmittal of computer-received messages when the system is re-started. This ability to prevent lost messages is a salient feature in the system and its operation. The system also indicates to the station operator when it has received a message.

7. Computer Center: Security

A.) The LEAPS computer site has adequate physical security to protect against any unauthorized personnel gaining access to the computer equipment or to any of the stored data.

B.) Since personnel at the LEAPS Computer Center can access data stored in the system they must be screened thoroughly under the authority and supervision of the Massachusetts State Police in the Department of Public Safety. This screening also applies to maintenance and technical personnel.

C.) All visitors to the LEAPS Computer Center must be accompanied by LEAPS staff personnel at all times.

D.) LEAPS computer has access to the NCIC/FBI computer and must have the proper computer instructions written and other built-in controls to prevent system file data from being accessible to any terminal other than authorized terminals.

E.) LEAPS computer maintains a record of all transactions against the system files in the same manner LEAPS computer logs all transactions. The LEAPS computer identifies each specific agency entering or receiving information and maintains a record of those transactions.

F.) The LEAPS network has built its data system around the LEAPS computer, through which each inquiry must pass for screening and verification. The configuration and operation of the center provides for the integrity of the data base.

8. Communications: Security

   A.) Lines/Channels being used to transmit data
       are dedicated solely to Law Enforcement use,
       i.e., there must be no terminals belonging
       to agencies outside the Criminal Justice
       system sharing these lines/channels.

   B.) Physical security of the lines/channels is
       protected to guard against clandestine de-
       vices being utilized to intercept or inject
       system traffic.

9. Terminal Devices Having Access to LEAPS:

   A.) All LEAPS agencies having terminals on the
       system are required to physically place these
       terminals in secure locations within the
       authorized agency.

   B.) All LEAPS agencies having terminals must have
       terminal operators screened and restrict
       access to the terminal to a minimum number
       of authorized employees.

   C.) Copies of LEAPS file data obtained from ter-
       minal devices must be afforded security to
       prevent any unauthorized access to or use
       of that data.

L.E.A.P.S. SYSTEM DEVELOPMENT

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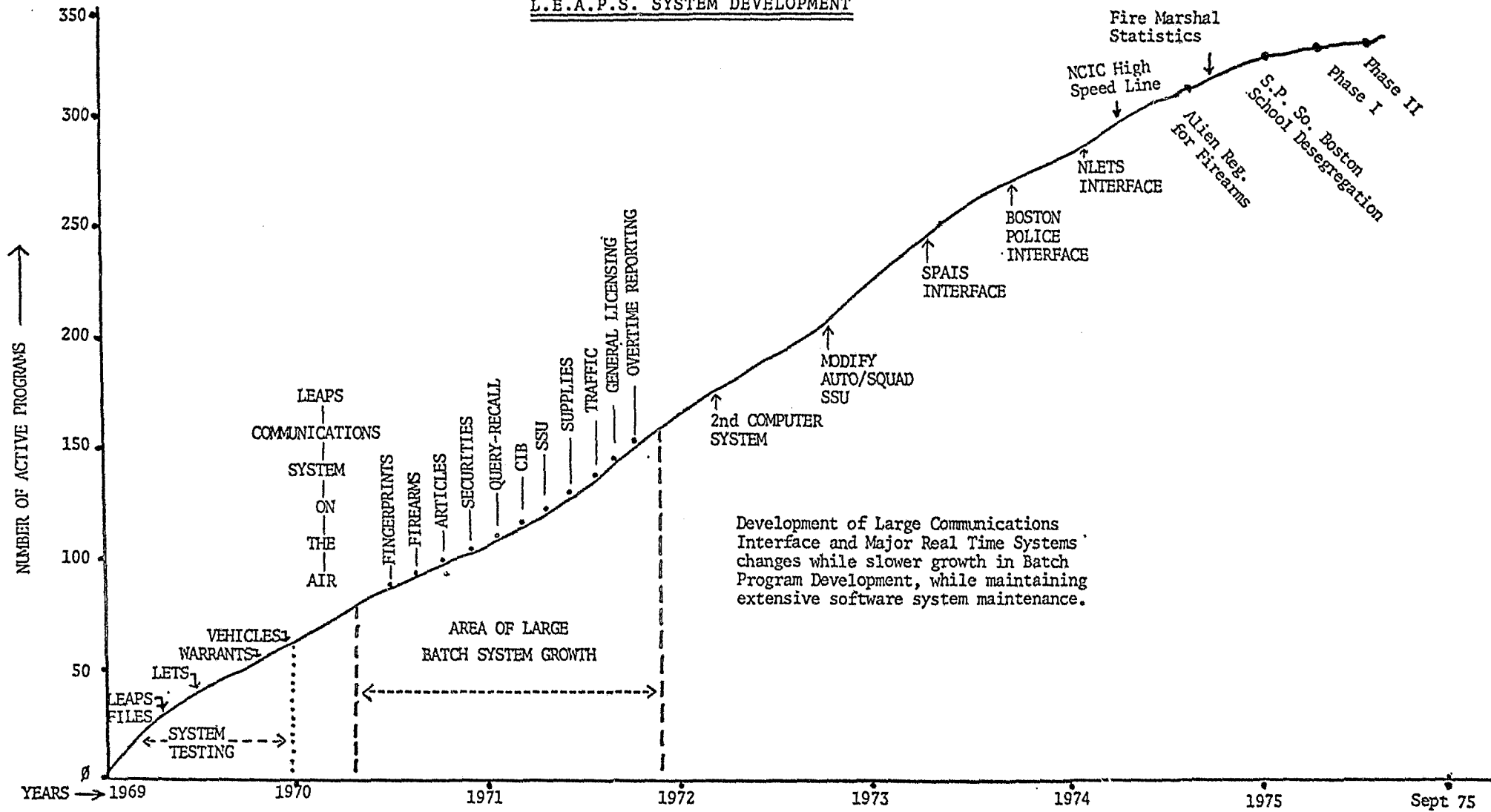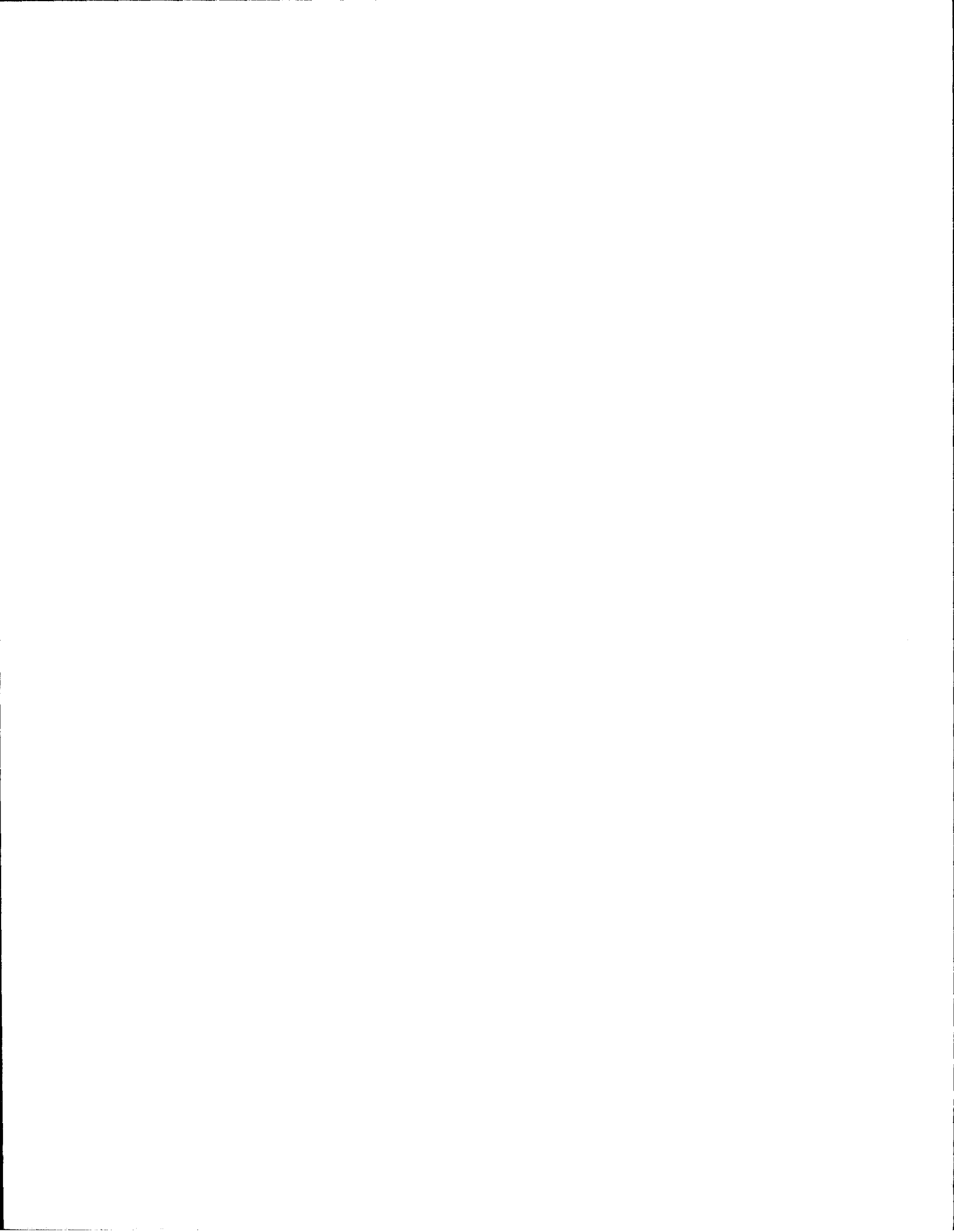
SYSTEM FILES

The computer has no means of creating information, any and all information in the system must be provided by users of LEAPS. Therefore, without the participation of all law enforcement agencies in the system, LEAPS cannot accomplish the job it was designed to perform and its overall effectiveness will be reduced.

STORAGE MEDIUM

All data entered into the system is contained in the storage medium which can be thought of as a large group of filing cabinets which the computer can access. The major files contained in the storage medium are: Warrants, Missing Persons, Stolen Vehicles, Stolen Snowmobiles, Stolen Plates, Firearms, Articles, Securities and a Master Name Index.

The storage medium will be empty unless information is supplied by LEAPS users.

SYSTEM SECURITY

Information stored in the LEAPS system is police information and entry of and access to this information must be restricted to authorized law enforcement agencies. Each station in the LEAPS system is responsible for allowing only authorized personnel to operate the station teletypewriter and for enforcing system security.

THE LEAPS SYSTEM HAS BUILT IN SECURITY MEASURES, BUT THE FINAL RESPONSIBILITY FOR SYSTEM SECURITY RESTS WITH THE INDIVIDUAL STATION.

SYSTEM DISCIPLINE

To insure the proper operation of the system, the policies, procedures, formats, and codes set forth in the LEAPS manual must be followed. Accuracy is of the utmost importance.

THE CODE OF THE ENTERING STATION IS MADE A PART OF ANY INFORMATION ENTERED IN THE SYSTEM AND THAT STATION ALONE IS RESPONSIBLE FOR THE ACCURACY AND STATUS (MODIFIES AND CANCELS) OF THE RECORD.

CONVENTIONS USED IN THE MANUAL

Throughout this manual, the digit zero will be represented by the following notation; Ø. The notation 0 will represent the alphabetic character "0". The terms station and terminal both refer to a teletypewriter and Cathode Ray Tube.

DATA STORED IN THE SYSTEM

SYSTEM FILES

VEHICLE FILE - The vehicle file contains records concerning:

A.) Stolen Vehicles

B.) Stolen License Plates

C.) Wanted Vehicles (vehicles wanted in connection with crimes)

D.) Stolen Snowmobiles-Mini-Bikes

Vehicles entered without VIN will be automatically cancelled after ninety (90) days. Responsibility of entering department to obtain VIN.

Recovered records in the above file will remain in the file for a period of fifteen (15) days after cancellation and then automatically removed.

WANTED PERSON FILE - The wanted persons file contains records concerning:

A.) Misdemeanor Warrants (not including parking violations)

B.) Felony Warrants

C.) Felony-No-Warrants, this is a temporary "Wanted" entry that may be entered when a law enforcement agency has need to take prompt action without an actual warrant being issued. This type of warrant must be removed from the file within 72 hours. The department which entered the temporary

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"Wanted" entry should obtain a proper warrant and enter it into the system within the 72 hour period and <u>also</u> cancel the temporary "Wanted" entry.

Records not cancelled will remain in the file indefinitely. Periodic reports will be sent to each department in the system listing outstanding warrants over one (1) year old for review.

Records will be removed from the file immediately upon receipt of a cancel message from the entering department.

MISSING PERSON FILE

The missing persons file contains records concerning missing persons. This file is subject to the same rules as the wanted persons file.

STOLEN ARTICLE FILE - The stolen article file contains records concerning:

A.)   Stolen articles valued at one hundred dollars or more.

B.)   Stolen office equipment.

C.)   Stolen televisions.

Unrecovered records in this file will remain in the file for two (2) years and then be removed from the file with notification being sent to the station which entered the record.

STOLEN FIREARMS FILE

The stolen firearms file contains records concerning serially numbered weapons stolen or lost. Unrecovered records in this file will remain in the file indefinitely. Records will be removed from the file immediately upon receipt of a cancel message from the originating department.

LICENSE PLATE FILE

The stolen license plate files contains records concerning Stolen License Plates which is part of the Vehicle Files. Also see Registry Listing (Scan Line 22:).

Unrecovered Stolen/Missing License Plates will be entered on the same basis as Stolen Vehicles. Unrecovered Stolen License Plates not associated with a vehicle will remain in file until the originating station cancels.

BOAT FILE

The Stolen Boat Files contain records concerning stolen boats and/or stolen outboard and inboard motors. Presently stolen boats are entered as Stolen Vehicles (See Scan Line 46:) Vehicle Category.

Stolen outboard motors are entered as articles (See Scan Line 56: Article Type) and (Article Section).
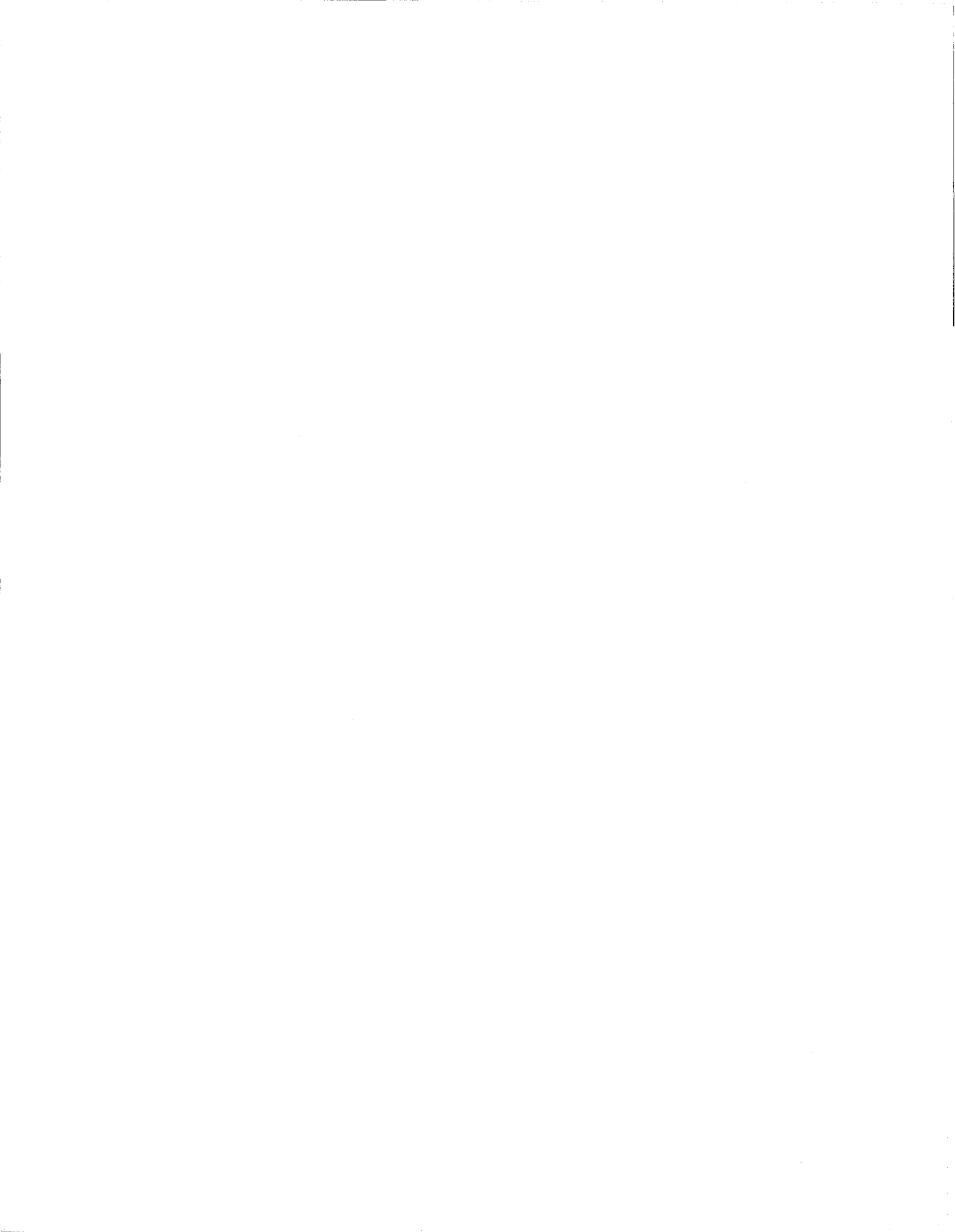
SNOWMOBILES AND MINI-BIKE FILE

See Vehicles.

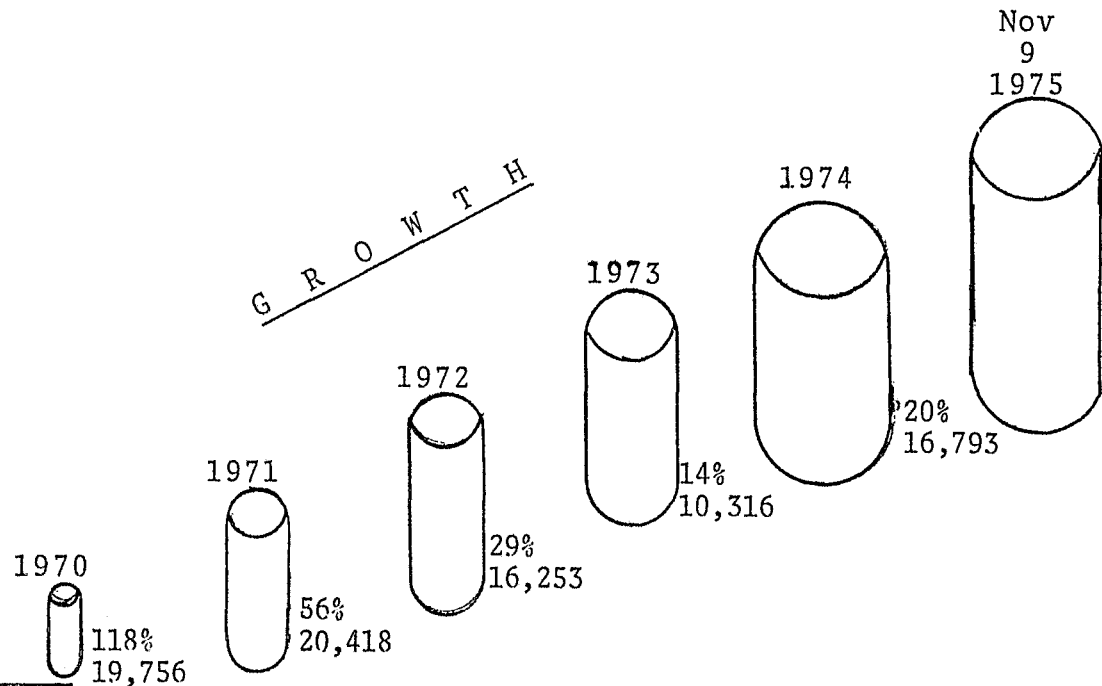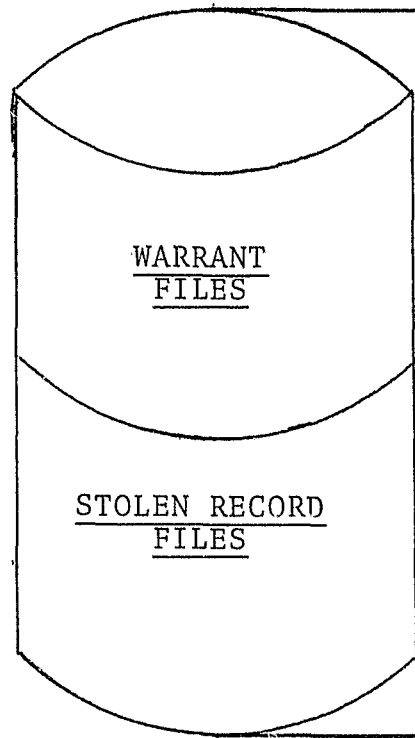## STOLEN SECURITIES FILE - The Stolen Securities File contains records concerning:

A.) Stolen serially numbered identifiable currency and traveler's checks.

B.) Stolen serially numbered identifiable bonds, debentures, and notes.

C.) Stolen serially numbered identifiable common stock and preferred stock.

Unrecovered, stolen, embezzled, or counterfeited securities in this file will remain in the file for the balance of the year entered plus four (4) years. Upon expiration of this time period, the records will be removed from the file with notification being sent to the station which entered the record.

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L.E.A.P.S. SYSTEM FILES DEVELOPMENT

WARRANT
FILES

STOLEN RECORD
FILES

G R O W T H

1970
118%
19,756

1971
56%
20,418

1972
29%
16,253

1973
14%
10,316

1974
20%
16,793

Nov
9
1975

STOLEN RECORD FILES

	1970	1971	1972	1973	1974	Nov 9 1975
Stolen Articles	Ø	1,277	3,478	6,185	8,185	13,231
Stolen Firearms	Ø	556	1,258	2,293	2,951	4,308
Stolen Plates	2,916	8,237	13,097	17,433	18,166	12,615
Stolen Securities	Ø	9	193	313	468	1,880
Stolen Vehicles	7,648	17,273	26,114	28,160	32,807	47,598
Out of State Steals	Ø	Ø	Ø	180	150	2
Boats-Skimobiles	Ø	21	48	74	94	187
Others	Ø	Ø	2	58	54	7
Wanted Vehicles	13	21	34	44	35	48
WARRANT FILES						
Misdemeanor Warrants	3,523	5,314	7,029	10,339	11,329	15,136
Felony Warrants	892	1,473	2,708	5,137	5,693	7,174
Felony No-Warrants	13	15	13	21	33	46
Missing Persons	1,690	2,255	2,895	2,885	3,473	4,105
TOTAL ACTIVE FILE	16,695	36,451	56,869	73,122	83,438	106,337

EXISTING SYSTEMS SWITCHING CAPABILITIES

TERMINAL NETWORK

The terminal network consist of 47 communication lines, using Bell System 83B3 Polled Network. The total number of terminals on the 47 lines is presently 197.

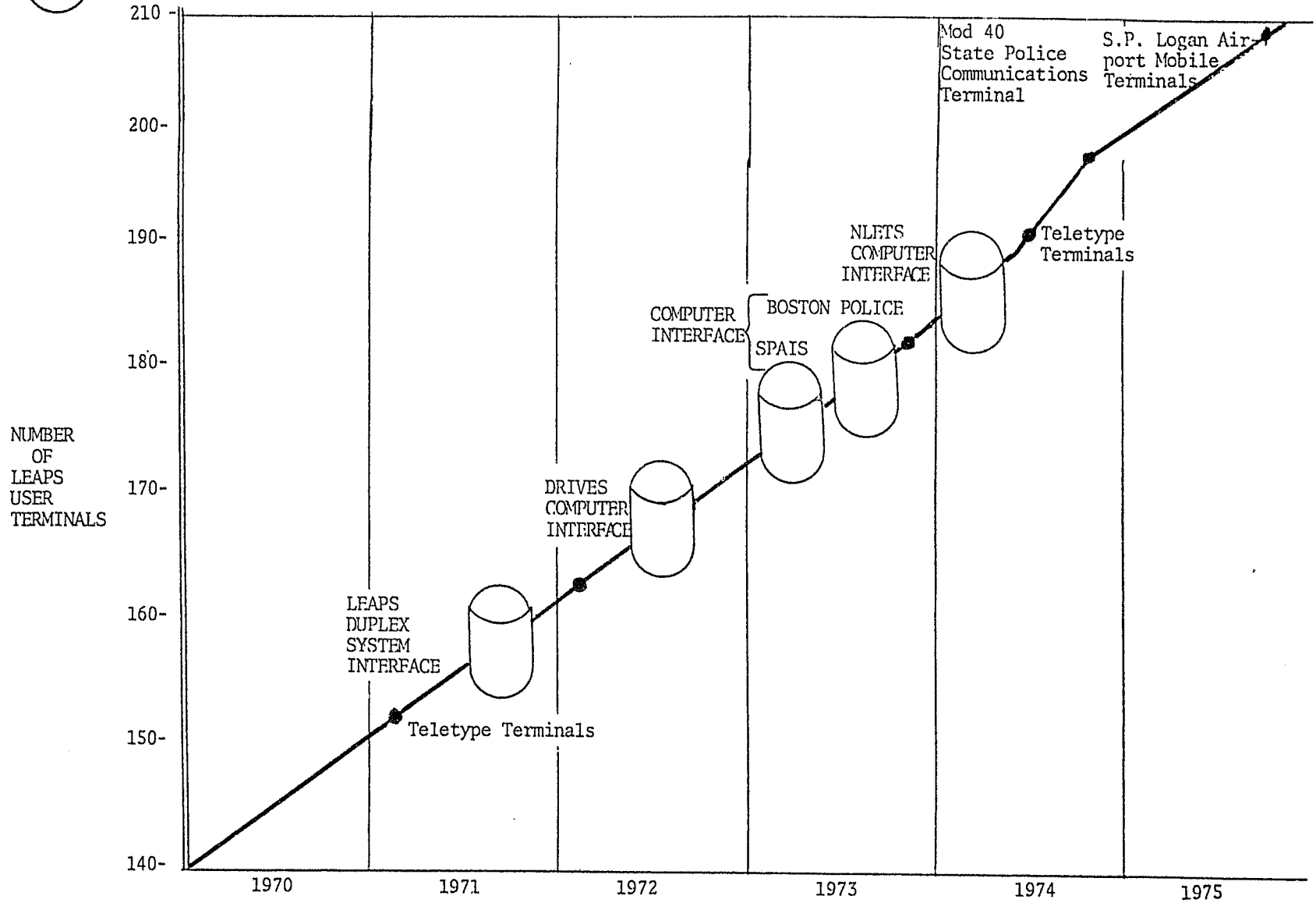## COMPUTER-TO-COMPUTER INTERFACES

The LEAPS computer system interfaces to five other computer systems for automated permanent file information and message transmittal consisting of:

1. To an IBM 360/65 at NCIC in Washington, D.C. through two 150 Baud Lines.

2. To a CDC-3300 at Registry of Motor Vehicles in Boston, Mass. through two 2400 Baud Lines.

3. To an IBM 370/135 at Boston Police Department in Boston, Mass., through one 2400 Baud Line.

5. To an ACTION-DATA GENERAL at NLETS Center in Pheonix, Arizona through one 24 Baud Line.

L.E.A.P.S. COMMUNICATIONS DEVELOPMENT

28ASR TERMINALS AND COMPUTER INTERFACES

LEAPS
BASIC
SYSTEM

NUMBER
OF
LEAPS
USER
TERMINALS

210 –

200–

190–

180–

170–

160–

150–

140–

1970   1971   1972   1973   1974   1975

Mod 40
State Police
Communications
Terminal

S.P. Logan Air-
port Mobile
Terminals

NLETS
COMPUTER
INTERFACE

Teletype
Terminals

COMPUTER
INTERFACE

BOSTON POLICE

SPAIS

DRIVES
COMPUTER
INTERFACE

LEAPS
DUPLEX
SYSTEM
INTERFACE

Teletype Terminals

SYSTEM TRAFFIC:

1. Switched Administrative

   a.) Point to Point
   b.) Point to Miltiple Point
   c.) Point to Area
   d.) Point to Multiple Area
   e.) Poirc to All Points
   f.) Message Recall (48 hours)

2. Switching:

   Department of Motor Vehicles -

   * Automated vehicle registration inquiry by license
     or vehicle identification number.
   * Automated driver license inquiry by name and date
     of birth.
   * Automated driver license inquiry by driver license
     number.
   * Point to Point messages of other types.

3. National Crime Information Center (NCIC) all types of
   messages entry, update and remove from NCIC Police files
   (NON CCH interface).

4. National Law Enforcement Teletype System (NLETS) High
   Speed.

   * Point to Point
   * Area Broadcast
   * Intercept

5. Police Departments

   * Boston Police Department   - High Speed
   * Newton Police Department   - High Speed
   * Brookline Police Department - High Speed

HARDWARE

1.) <u>COMMUNICATION NETWORK</u>

..... 75 Baud Lines

..... Model 28 ASR/TTY

..... Video Scopes

2.) <u>COMPUTERS</u>

..... B/5700 Dual Processor (2)

..... 32,000 Words Main Memory (per system)

..... 100 Million Character Disk Storage

..... Tape & Printer

3.) <u>BACK-UP COMPUTER (DUPLEX)</u>

..... Fail-Safe Operation

B/5700 Dual Processor

SUMMARY

- Provides statewide network for auto re-
  gistration data and criminal information.

- Initially connects over 206 terminals with
  expected volume of over 65,000 messages/
  day.

- 24-Hour-A-Day, 7-Day-A-Week Operation.

- Interfaces with multiple systems processors.

- Connects to National Crime Information Center.

- Police file independed of CCH files.

CONCLUSION

The Massachusetts Law Enforcement Agencies Processing System (LEAPS) is tailored to the unique real-time requirements of the law enforcement community. It meets the two major criteria of a data communication system - reliability and speed.

Expandability was also an important consideration in the design of the Massachusetts system. The charge of protecting the rights of all citizens, assisting other boards, departments and commissions requires not only automation itself, but rapid through put with capability of realistic system growth as well. The modular concept of LEAPS permits tailoring the system to the growing needs of the Commonwealth of Massachusetts.

The LEAPS Computer Center maintains an On-Line (24 hrs/day) telecommunication network connecting approximately 208 Local, State and Federal Law Enforcement Agencies to a State and Nationwide Data Bank containing current information on the following:

> People: Wanted and Missing Persons
>
> Things: Stolen Vehicles, Plates, Articles, Securities, Driver Lic.

The computer in Real-Time responds daily to over 65,000 messages in a response time noted in seconds and provides message switching to all User Agencies on a a.) Point-to-Point, b.) Point-to-Multiple Points, c.) Area Broadcast and d.) General Broadcast of Vital Messages.

The Computer Center maintains a Duplex computer configuration and has at all times one system on-line while the second computer performs background work for the Department and the Criminal Justice Information System. With the advent on the second system in September, 1972 the system reliability

has increased to better than 95% making available to all law enforcement officers both State and Federal virtual access to all vital information records.

The system maintains at all times extensive security on its information files and restricts access to members of the Criminal Justice Community. All files and records are safeguarded and limited access is granted to authorized personnel only. In addition the center acts as a clearing house for Criminal Information Records, Identification Records, State Police Uniform Branch Reporting, Supply, Fingerprint general licensing and maintains over one hundred computer programs dealing with complex aspects of Public Safety.

The Department of Public Safety LEAPS System shall continue to serve as a high-speed computer-communication system providing Law Enforcement with easy, rapid access to large volumes of information pertaining to crime prevention and the protection of the Public Safety.

GENERAL DESCRIPTION OF NLETS

NLETS is supported by a duplexed computer system located in Phoenix, Arizona with the capability to receive, store, and forward message traffic from and to its user agencies. Message traffic includes free form administrative data from one point to one or more points. In addition, it includes inquiries into state data bases supporting both vehicle registration and driver license records. Planned expansion will include other data bases.

NLETS users are criminal justice agencies located nationwide. Initially, a single communications line is provided for each of the continental states, the District of Columbia and the NCIC. (Through the link to NCIC, the message switching capability will eventually be extended to Alaska and Hawaii.) These lines will terminate with an ASR 37 TTY or directly into a state computer system (L.E.A.P.S.).

In each state, an agency is defined as the control terminal agency (State Police Boston). This agency is responsible for maintaining operational surveillance over the state end of the line and for providing dissemination services in and out of the NLETS network. In the event of a computer-to-computer link, the state control agency may delegate its responsibility for forwarding the reception of NLETS traffic to an automated interface.

For manual terminal states, inquiries and administrative message will be directed to the control terminal for further action. In automated states, traffic will be directed automatically to the appropriate terminal on the state network. In all cases, the state control agency is responsible for the proper flow of data into and out of the state.

All messages are routed using the standard NCIC Agency Identification (ORI) code. NLETS checks the state code (first two characters of the ORI) of all incoming traffic and sends messages directly to the proper state control agency. Any detected errors are returned to the sending terminal via L.E.A.P.S..

All formats for message headers, control characters, inquiry inputs and responses, control/status messages, and error messages are fixed format. In the case that these formats differ from state formats, each state must reformat input and output to interface properly with NLETS. Also, standard error and status messages are used. This means that these messages, when generated by states, must conform to L.E.A.P.S. and NLETS standard.

As is defined in this Operator's Guide covering message formats, all messages will be forwarded by NLETS as though they were intended for a 37 ASR terminal. This means that carriage return, line feed and other control characters are included where appropriate. If these characters interfere with the format scheme within a state network, it is the responsibility of that state to move and/or insert these characters accordingly.

As noted above, NLETS receives, stores, and forwards messages. In the event that an intended receiving terminal is prepared to receive, messages are sent immediately. If the receiving terminal or system is inoperable, the sending terminal is notified and the message is held to be transmitted later when the terminal or system is again operable. Messages held for later retransmission are removed from the system each day at 5:00 AM Phoenix time. If a message has not been forwarded by this time, it is removed from the system.

PLANS FOR LONG RANGE

A. **STATE CRIMINAL HISTORY SYSTEM:**

.... IDENTIFICATION FUNCTION

.... RECORDS TO BE KEPT ON ALL OFFENDERS

.... UPDATE / INQUIRY

.... LEVEL OF INFORMATION NEED

.... NATIONAL HOOKUP (F.B.I.)

B. **TO BE ACCOMPLISHED OVER:**

.... HIGH SPEED LINES/MICROWAVE

.... VIDEO & HIGH SPEED OUTPUT TERMINALS

.... HIGH LEVEL OF SECURITY ACCESS

.... PROJECT SPAN 5 YEARS

PHASE I and II

TERMINAL NETWORK AND ADDITIONAL FUTURE REQUIREMENTS

The planned message switching system to provide the
capabilities now in existance (as outlined in Existing
Systems Capabilities) with capability for improvements
in communications and message switching, as well as,
flexibility to introduce additional computer-to-com-
puter interfaces with other vendor data systems and
terminals. Other future plans for system configuration
would intail inquiry capabilities to various data base
systems as backup to host processors for Law Enforce-
ment Records.

TELECOMMUNICATIONS SWITCHING

CENTER

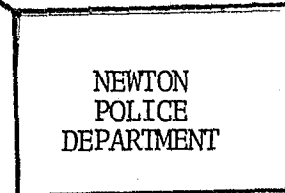## PHASE I
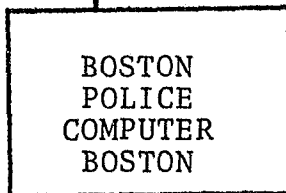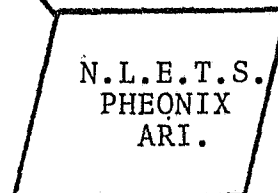
TERMINALS

HIGH SPEED
INTERFACES

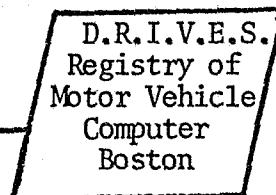47 stations — STATE POLICE

145 stations — LOCAL POLICE

2 stations — FBI BND

DUPLEX
STATE
POLICE
MESSAGE
SWITCHING
TELECOMMUNICATIONS
CENTER

N.C.I.C.
FBI
COMPUTER
WASHINGTON DC

D.R.I.V.E.S.
Registry of
Motor Vehicle
Computer
Boston

N.L.E.T.S.
PHEONIX
ARI.

BOSTON
POLICE
COMPUTER
BOSTON

NEWTON
POLICE
DEPARTMENT

TELECOMMUNICATIONS SWITCHING

CENTER

PHASE II

```
            PROBATION

  COURTS                      OTHERS
             TOP SECURITY
             NETWORK
```

TERMINALS   HIGH SPEED
                             INTERFACES

```
47        STATE
:ations   POLICE                        N.C.I.C.
                                        FBI
                      DUPLEX            COMPUTER
145       LOCAL                         WASHINGTON DC
:ations   POLICE      STATE
                                        D.R.I.V.E.S.
                      POLICE            Registry of
                                        Motor Vehicle
2         FBI         MESSAGE           Computer
:ations   BND                          Boston
                      SWITCHING
                      TELECOMMUNICATIONS
47        RMV                           N.L.E.T.S.
:ations   OFFICES     CENTER            ' PHEONIX
                                        ARI.
```
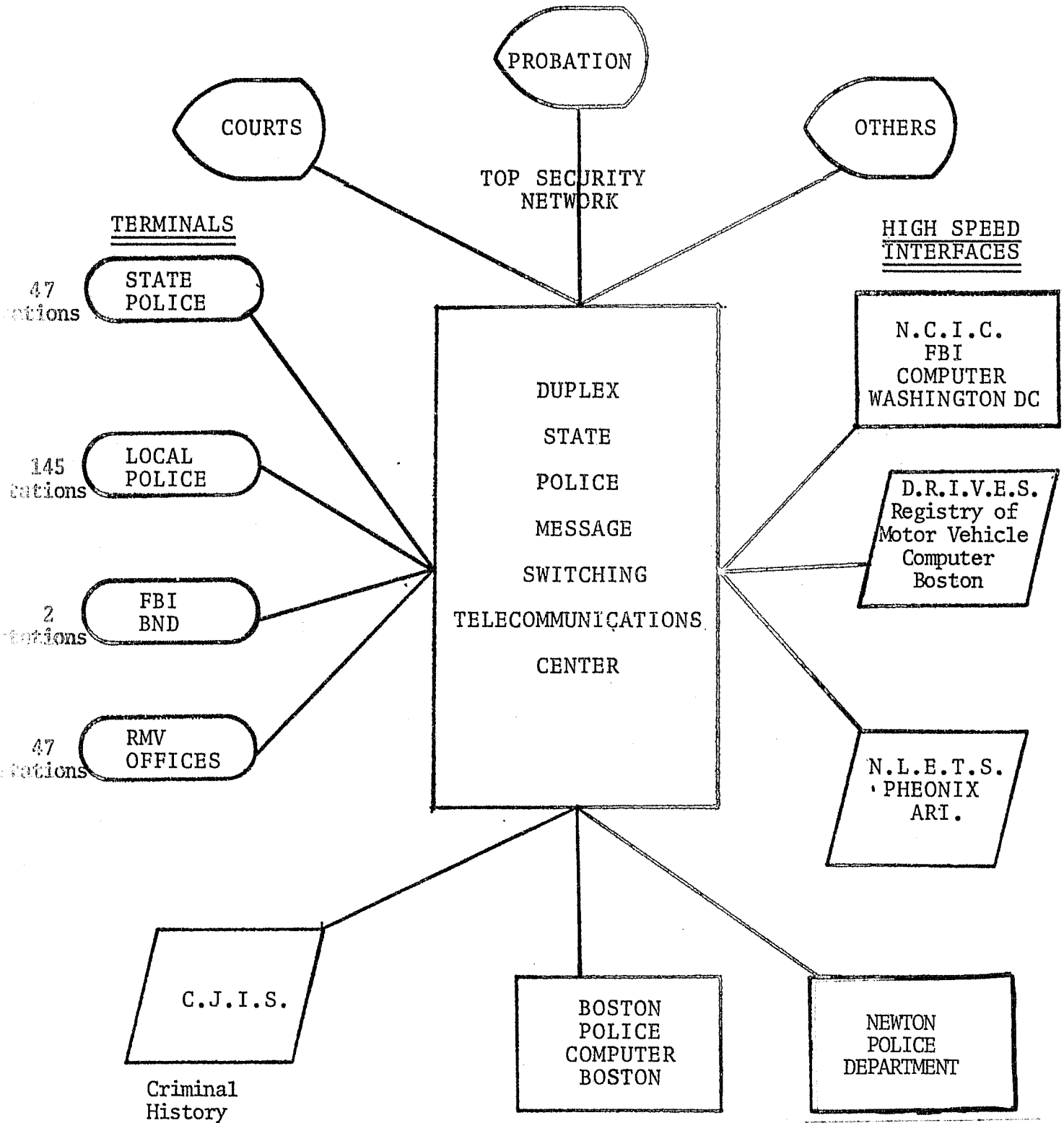
```
   C.J.I.S.         BOSTON          NEWTON
                    POLICE          POLICE
                    COMPUTER        DEPARTMENT
  Criminal          BOSTON
  History
```

EXPANDED PHASE II

SECURITY MONITOR TERMINAL

STATE POLICE

DUPLEX MESSAGE SWITCHING

LOG

Transactions
48 Hours

PUBLIC SAFETY

HOST COMPUTER CENTER

ON-LINE POLICE FILES

Front End Processor

C.J.I.S. HOST

Criminal Justice

D.P.S.

Finger-print Firearms Files

R.M.V.

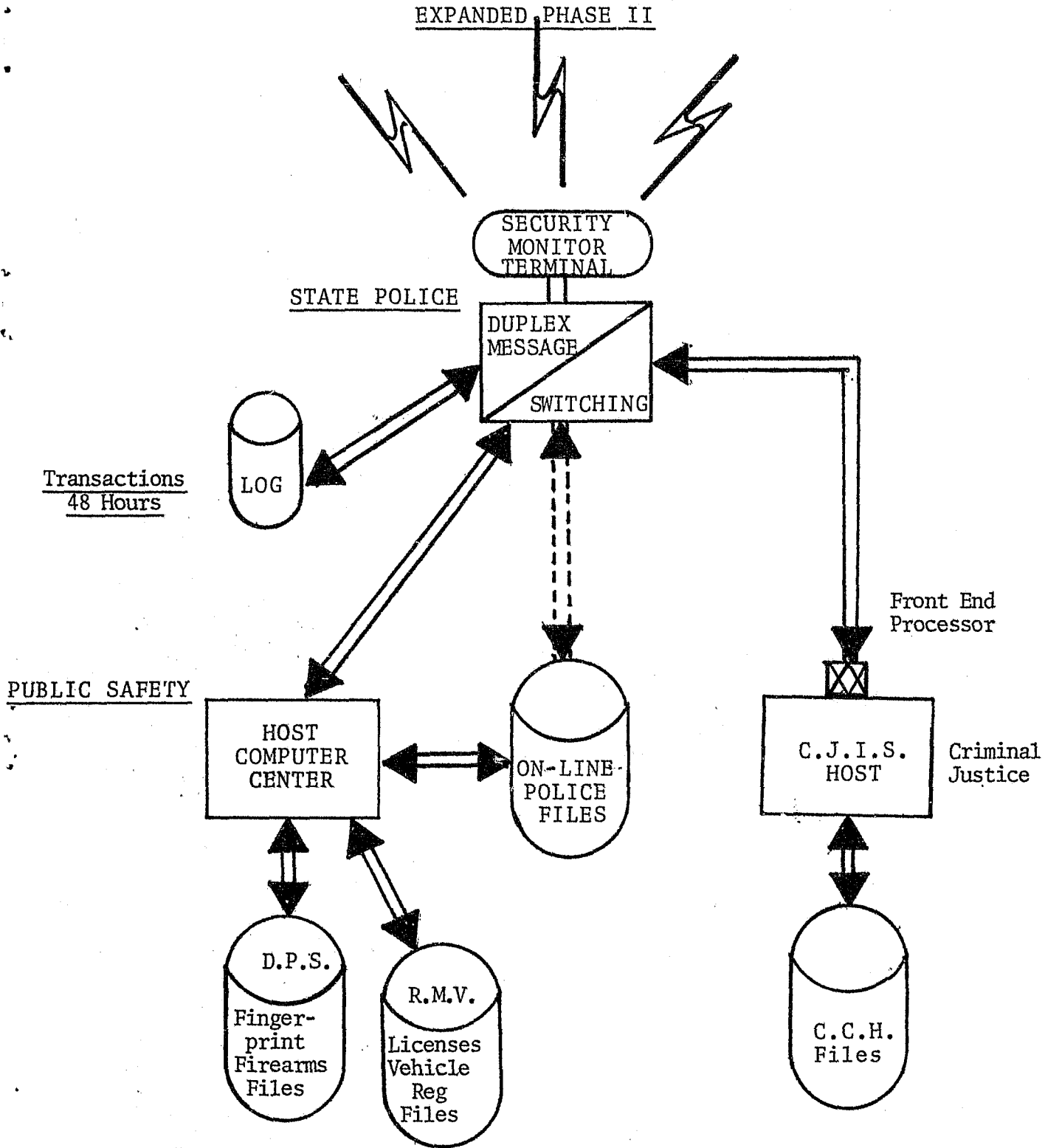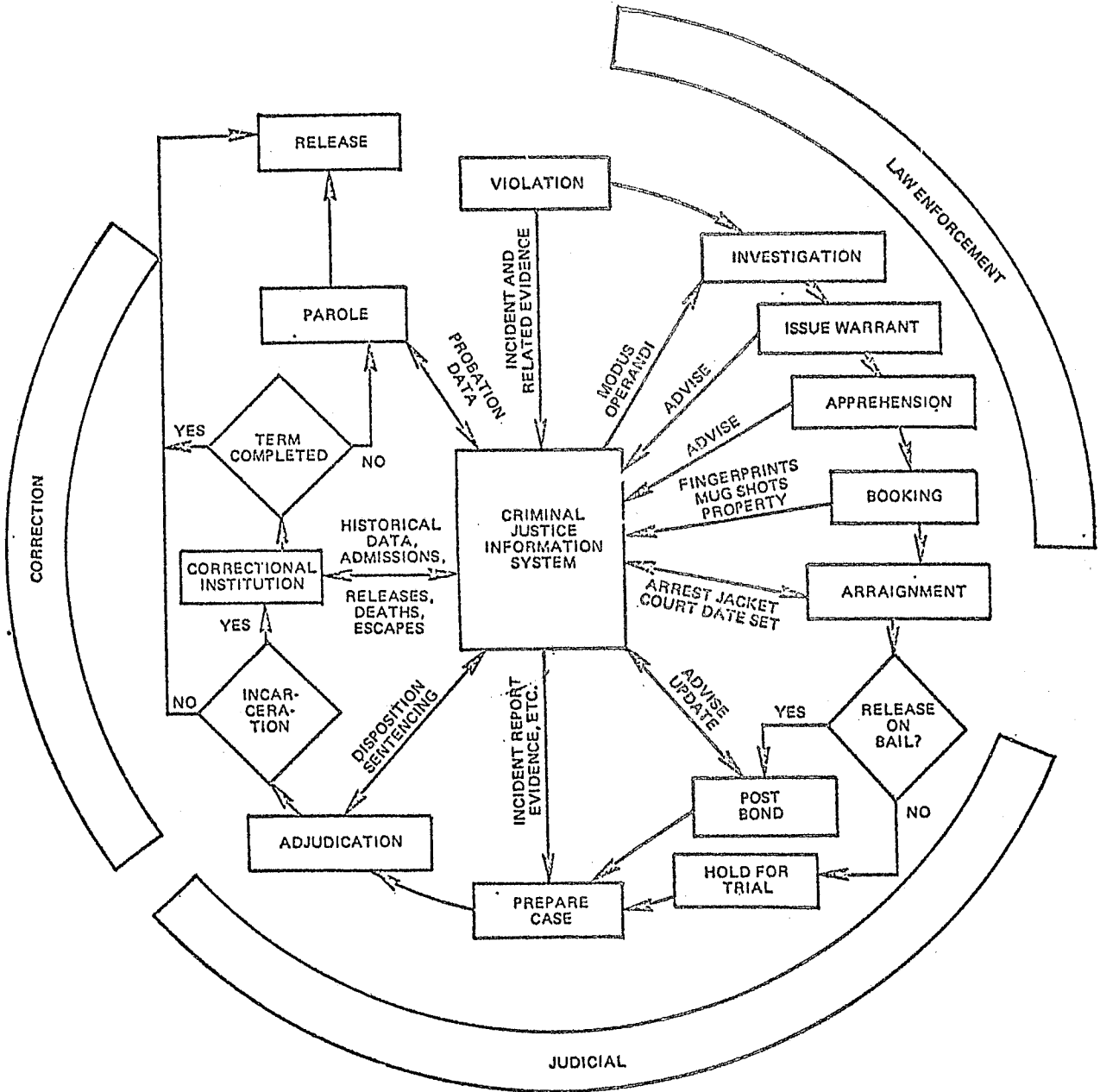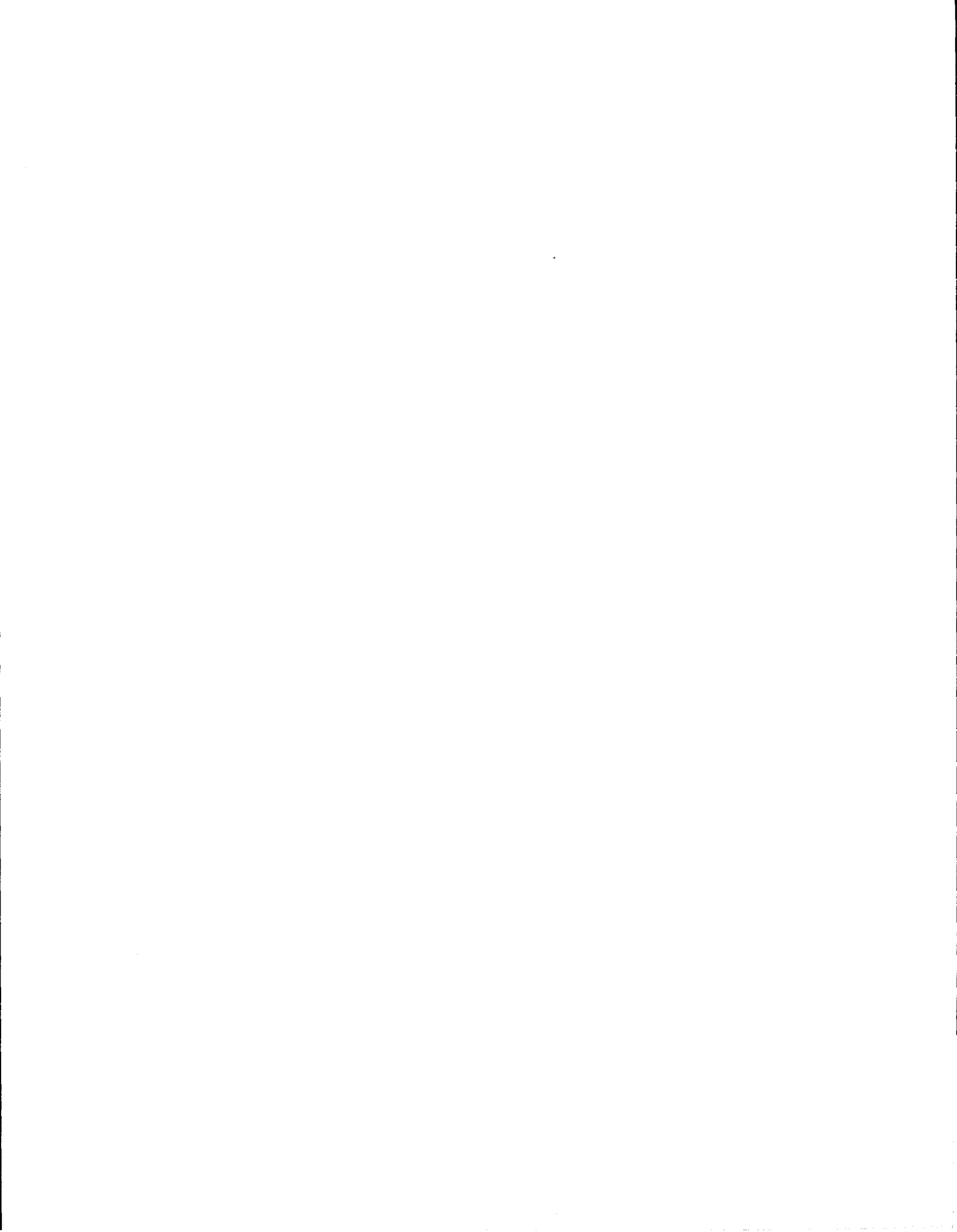Licenses Vehicle Reg Files

C.C.H. Files

EXHIBIT II

Commonwealth of Massachusetts

THE CRIMINAL JUSTICE PROCESS

END