

AN EVALUATION
OF THE
NEW HAMPSHIRE STATE PRISON
"Basic Management Information System"
(Prison Information Transaction System -- PITS")
with notes on the Offender-Based
State Corrections Information System
(OBSCIS)

GRANT NUMBER

76/77-I-E 2089 F02

PROJECT PERIOD

March 3, 1978 - September 30, 1979

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BACKGROUND

On January 3, 1978, the New Hampshire State Prison submitted to this agency an application for funding for the design and implementation of a basic management information system. After procedural staff review, the Executive Committee approved the application and on March 3 awarded grant 76/77-I-E 2089 F02 in the amount of \$4,073 from the following program areas:

<u>AWARD</u>	<u>76-I-F02</u>	<u>77-I-F02</u>	<u>Combined</u>
LEAA	\$2,440	\$1,226	\$3,666
GCCD	<u>271</u>	<u>136</u>	<u>407</u>
TOTALS	\$2,711	\$1,362	\$4,073
 <u>BUDGET</u>			
Consultant services - software	\$ 879	\$ 321	\$1,200
Computer time @ \$150 per month	1,050	750	1,800
Supplies and maintenance	600	200	800
Indirect costs	<u>182</u>	<u>91</u>	<u>273</u>
TOTALS	\$2,711	\$1,362	\$4,073

A project period beginning March 3, 1978 and ending September 30, 1979 was established. An application for supplemental funding, submitted to this agency on December 1, is currently pending as project number 2418.

PROJECT DESCRIPTION

As proposed, this project would provide the prison with a basic computerized management information system which would enable prison personnel to modernize the inmate classification system and other recordkeeping and accounting procedures. The largest expense under the grant is computer time, which had been estimated at \$150 per month at the time that the grant request was submitted. Retention of a consultant to design the system and write the appropriate software was also anticipated as a project expense. Finally, it was proposed that the grant would provide for maintenance of the system and the purchase of supplies for a computer terminal at the prison.

Briefly, the grant would allow the prison to enter into a time-sharing contract with the state Centralized Data Processing (CDP) Department and to acquire the necessary software for automation of the prison's records. Access to data processing equipment at CDP's installation would be provided by a local telephone line and acoustic coupler connected to an already in-place thermal printer terminal at the prison. This arrangement would allow personnel at the prison to input and store information, to update information as necessary, and to perform statistical and utility routines for the purpose of producing management reports and other information useful to prison administrators. Particularly, it was proposed that automation of the prison's inmate classification system would be a step toward compliance with orders handed down by the United States District Court for the District of New Hampshire in Laaman v. Helgemoe, 437 F.Supp. 269, at 318-19, 328-29 (D.C.N.H 1977). Although not ordering automation, the court in Laaman ruled, among other matters, that the prison classification system must be modified and operated to ensure that it not automatically exclude any inmate from services or programs to which he would be otherwise entitled. A consent decree signed in that action in August of this year superceded the July 1977 order but nevertheless continued in effect at Part IX, pages 23 and 24 the requirement that the prison classification system be improved and administered as described above.

It was envisioned that automating the classification system would make all personal and transactional data used in the inmate classification process for custody and treatment purposes more accessible to the appropriate officers and members of the staff. It was also envisioned that accuracy and completeness of that information would be enhanced. Finally, it was thought that placement of inmate personal data in an automated database would better ensure the security of the information, and that paperwork and recordkeeping

tasks in general would become less costly and time-consuming. The acronym "PITS" (Prison Information Transaction System) has been fashioned as the name of the prison information system.

A fact sheet submitted in support of the PITS grant application contains six discussion points which briefly explain how the proposed information system could be expected to enable prison officials to easily and accurately maintain and report information on all individuals under the custodial supervision of NHSP. Those six points are digested below:

1. The system is to be designed to require a minimum amount of training for its operation, and existing NHSP personnel will be trained and authorized to operate and maintain the system.
2. The system is to operate in such a way as to produce appropriate management reports at pre-determined intervals, at the completion of some transaction involving an inmate, or upon demand. A series of specialized programs will be made available to satisfy specific informational needs.
3. The system is to be designed to facilitate changes in the stored information as business is transacted and events take place affecting the inmates.
4. The system will be able to process data in two ways: first, to perform processing jobs submitted in advance and executed according to a schedule ("batch") or secondly, to perform jobs at the time of submission to the operator ("on-line").
5. The system is to be designed to allow the operator to isolate a small part of the data stored for specific analysis or reporting; this would eliminate unnecessary passes over the entire database to cull out desired information.
6. The design and implementation of an accurate and efficient process for the storage and retrieval of information necessary for inmate classification is expected to improve the classification system, as ordered in Laaman v. Helgemoe.

As proposed, there are four integrated and interdependent components of PITS:

1. "PITS-DATABASE": This is a fully integrated database which contains information on each individual under the supervision of NHSP.
2. "PITS-UPDATE": This is a subsystem by means of which the operator updates and edits the PITS DATABASE by on-line computer application; it is the device for making corrections and changes in the stored information.
3. "PITS-HISTORY": This is also a subsystem. It retains historical data and provides the operator with a capability for audit tracing of changes in the PITS-DATABASE. This subsystem also provides a full back-up system, which prevents the loss of data through mistake or a malfunction or failure in the software or the machine.
4. "PITS-REPORTS": This is a series of programs and routines which provides the operator with management reports on demand or according to schedule, and which allows the operator to perform statistical and financial analysis and other recordkeeping procedures. See discussion point #4, on page three.

Development of PITS was planned to involve at least four phases; the phases are described and discussed later in this report as part of PITS PROGRAM OPERATION. The reader should not confuse the developmental phases with the four PITS components outlined immediately above.

Correspondence from Warden Perrin, dated January 27, 1978 and submitted to Yvette Gosselin of this agency in support of the PITS grant application, noted that the prison management information system was envisioned as a forerunner for the proposed state-wide Offender-Based State Corrections Information System (OBSCIS), which is described below. At the time that the PITS grant was awarded, however, it had not yet been determined whether OBSCIS funding would be forthcoming. Essentially, PITS anticipated the implementation of the state-wide OBSCIS project; it was intended to be a very basic system, using an uncomplicated computer language, which was to be developed and implemented in a gradual step-by-step manner. It was conceived that PITS would serve not only the immediate information needs of the prison, but also as a testing ground for adaptation of OBSCIS for use in

New Hampshire. In order that the reader might better understand these planning considerations, OBSCIS is described below.

OBSCIS PROJECT BACKGROUND, DESCRIPTION, AND OPERATION

Discretionary Grant 78-ED-AX-0026

The Offender-Based State Corrections Information System (OBSCIS) is a general purpose model management information system developed by SEARCH Group, Inc. Very briefly, OBSCIS is designed for the use of state correctional authorities in their decision-making for planning and operations. OBSCIS is nationally available, and it can be put to use by a participating state as that state develops its individual correctional information system. Presently, over one-half of the states are participating in OBSCIS projects. OBSCIS interfaces with other national projects, such as the National Prisoner Statistics (NPS) project and the Offender-Based Transaction Statistics/Computerized Criminal Histories (OBTS/CCH) project.

On May 11, 1978, the Law Enforcement Assistance Administration awarded this agency a discretionary grant in the amount of \$150,000 for the purpose of development and implementation of OBSCIS in New Hampshire. A state match brings the project total funding to \$166,666, and the project period is scheduled to expire on October 14, 1979. There being no state-level general correctional authority in New Hampshire, the efforts of the state and county correctional institutions to participate in the development of OBSCIS are coordinated by the Statistical Analysis Center, which has the responsibility for grant administration and overall system design.

In 1977, prior to the award of the OBSCIS grant, the Youth Development Center (YDC) began research on an automated system for management of treatment and classification information. Approximately 200

attributes (descriptors) for each YDC resident were entered in a computerized filing system under an arrangement with the Dartmouth College time-sharing facility. The YDC system has been successfully used to answer basic research questions.

Correspondence from the NHSP Warden, the state Parole Officer, and the Superintendent (as of September 8, 1977) of the Youth Development Center has been filed in support of the New Hampshire OBSCIS project, and those officials serve on the OBSCIS Steering Committee. Once New Hampshire OBSCIS is operational, the project will have created a record of institutional behavior on each adult under the state's correctional supervision. This record will include information on rehabilitative activities and disciplinary infractions, and the system will have capabilities for assisting in the assessment of rehabilitative prospects of convicted felons prior to incarceration and of probability of their success on parole. The system will also maintain current parole status reports for caseload analysis. Most significantly, the accuracy and timeliness of all information stored in the system will be enhanced, and effective controls will be built into the system to assure its security and the privacy of the data contained therein, so that the risk of unauthorized or illegal disclosure will be greatly minimized.

The New Hampshire OBSCIS project commenced on September 15, 1978, when the first of the OBSCIS project staff members began work under the grant. To date, OBSCIS personnel have completed the following preliminary tasks according to schedule.

1. Establishment of management goals.
2. Establishment of project controls and management review.
3. Investigation of OBSCIS design factors.
4. Assessment of current corrections information systems.
5. Management review.

At the present time, data elements are being selected, as are computer applications and implementation levels. Also at this time, OBSCIS and PITS personnel are working together on those functions common to PITS and OBSCIS.

This is being done in an effort to save money allocated to both projects by eliminating duplication of effort, and to conduct those data processing operations which PITS is unable to perform.

PITS PROGRAM OPERATION

PITS received the approval of the Governor and Council on April 9, 1978, and preliminary work on the design of the system and the collection of information for the database was begun shortly thereafter.

On May 15, 1978, the prison entered into a contract with Sigma Systems, a Hanover-based consulting company which was to provide PITS with system analysis and programming services. This contract was approved by the Governor and Council on June 9.

A. The Phases of PITS Development

PHASE I

Also in May, 1978, Mr. Arcaro, the NHSP Classification Officer and PITS Project Director, began entering inmate data in CDP's computer using the small terminal at the prison. As of June 30, twenty-two data elements on inmates had been entered into the computer. A progress report submitted to this agency on July 12 indicated that seventy-three data elements for each inmate were planned for entry in the computer, into a master file for each inmate and to several supplementary files. The proposed supplementary files are as follows:

- Alias File -- Lists inmate's aliases
- Sentence File -- Sentence status report
- Parole File -- Parole status report
- Infraction File -- Disciplinary matters
- Detainer/Warrants File -- Status report
- Literal File -- Comments and miscellaneous information
- Earnings File -- Inmate pay and fund accounting; see NH
RSA 522:7-a, 29-32

There are "pointers" built into the master file for each inmate to alert the operator to the existence of information in these supplementary files. The data elements selected for the PITS database are substantially similar

to those selected by SEARCH Group, Inc. for its Basic OBSCIS (BOB) package, and were selected for PITS-OBSCIS compatibility. Three "on-line" programs were created as part of this stage of the PITS development for maintenance of the PITS database. They are:

"ROSTER" -- This program prints a complete inmate roster in alphabetical sequence and lists inmate identification numbers and cell assignments. It was created on May 5.

"EMPLIST" - This program prints a complete roster of inmate work assignments, by employment area and alphabetically by individual in the particular jobs. It was created on May 16.

"CSLLIST" - This program prints out a list of inmates and identifies the counselors to whom they are assigned. It was created on May 16.

A fourth program, called "EDULIST", was created on July 6. It is a companion program to "ROSTER" and it lists each inmate's name along with his attained educational level.

PHASE II

The documentation as of November 18 states this phase to be "90%" operational. It is a series of programs which converts the data compiled for Phase I into the "PITS-DATABASE" described previously as the first of the four system components. On July 22, a program known as "UPDATE" was put on the computer. This program is reported to have successfully passed the test stage, and its function is to assist the operator in making changes and corrections in the data stored in the computer. Another feature of the UPDATE program is that it creates a record of each change made in the stored data, in preparation for the "trace audit" features of Phase III. Also during this phase, a data dictionary was composed and stored in the computer, and some system documentation appears to have been completed.

PHASE III

This phase is reported by the documentation to be "50%" operational and is described as that phase during which the standardized reporting pro-

cess would be developed. This feature is described as comprising the fourth system component known as "PITS-REPORTS". Other steps in this phase were to be the creation of calculation procedures for inmate "good time" and "exemplary time" credits and an accounting procedure for inmate earnings and other financial matters. The audit and backup mechanisms were also to be created.

PHASE IV

There has been no activity in this phase of the PITS development, although it was planned that this and succeeding phases would see the further development of standardized reports and the supplemental filing system.

B. Other Matters

In June and September, 1978, Sigma Systems rendered statements for its services for a total amount of \$879. An internal memorandum among the grant financial records at the prison addressed from the business office accountant to Mr. Arcaro notes that as of July 24, \$658.80 for repairs to the terminal, purchases of paper for the terminal, and photocopying had been charged against the grant funds allocated for maintenance and supplies. PITS's charges at CDP for time sharing, disc storage, and computer usage for the months of May through October are listed below:

May	\$232.01
June	227.05
July	442.60
August	373.78
September	443.89
October	<u>86.15</u>
TOTAL	\$1,805.48

The grant application estimated computer time at \$150 per month. The progress report submitted to this agency on October 2 for the period July 1 through September 30 states categorically that:

"When this grant was written no one knew what it would cost to compile and enter the data into the computer."

On December 18, the writer compared the invoices and memoranda inserted into the financial records of the project and remarked to Mr. Arcaro that \$729.92 of the grant funds still appeared available. Mr. Arcaro replied that there were, as of that date, outstanding bills and that not all invoices had been yet included in the files. Mr. Arcaro reports that at any rate, PITS has reached a standstill and that he can no longer operate the system. He speculates that it is possible with computer storage bills and other outstanding items that PITS may have gone over its funding limit.

COMMENT

The writer sought the advice of Mr. Roger Hall of the Statistical Analysis Center and of Messrs. William Golding and Paul Snow of the state OBSCIS project in analyzing the technical matters properly among the subjects of this evaluation. Much of their advice serves as the basis for the technical comments made below.

Much of the PITS project has been developed from scratch by the prison and Sigma Systems. In many respects PITS resembles a system known as "BOB" (Basic OBSCIS, mentioned above), which is available free of charge from SEARCH Group, Inc., its developer. More precisely, PITS is an expansion of BOB to meet the particular needs of NHSP. Development of PITS has shown itself to be a costly undertaking, as would be development of any automated information system from scratch. A manual system must also exist as a backup, even when the automated backup features of the prison's management information system are in place and operational.

LEAA Guideline M 6640.1A Ch.3 Para.37(b) sets specifications for documentation of all projects calling for the use of automated data processing equipment. Elemental system documentation has been submitted to this agency as an attachment to the grant application for renewal funding. Mr. Arcaro assured the writer personally on December 18 and by telephone on December 19 that the documentation submitted is complete and reliably represents an accurate picture of the

progress of the project. The documentation submitted to this agency falls far short of that required. There are no operating instructions, user instructions, program maintenance instructions, input forms, or flow charts for either the system or the specific programs.

Sigma Systems was registered by Mr. Mitch Coll, an employee of the Department of Safety, on February 13, 1978 with the Secretary of State for the purpose of conducting business in the state as a consulting company. The writer intimates no opinion upon the nature of the contractual relationship between Sigma Systems and the prison except the following:

Within the LEAA Guidelines for Financial Management for Planning and Action Grants there appears to be difficulty. Although Guideline M 7100.1A Ch.3 Para.31(b) allows a state employee to be employed by a subgrantee in addition to this regular employment under certain circumstances, M 7100.1A Ch.3 Para.24(a)(1)(b) clearly states that all contractual arrangements with individual (Sigma Systems is not a corporation) for professional and consultant services shall ensure that the individual providing services is not an employee of the executive branch of state government.

Under the circumstances, care should be taken to ensure without question that the contract concluded between Mr. Coll d/b/a Sigma Systems and the prison in May for consulting and programming services was procured according to the regulations of LEAA and the laws of the state, and that complete and accurate records documenting the hours spent by Sigma Systems for the contract services are kept and made available in order to eliminate every possibility of adult exception.

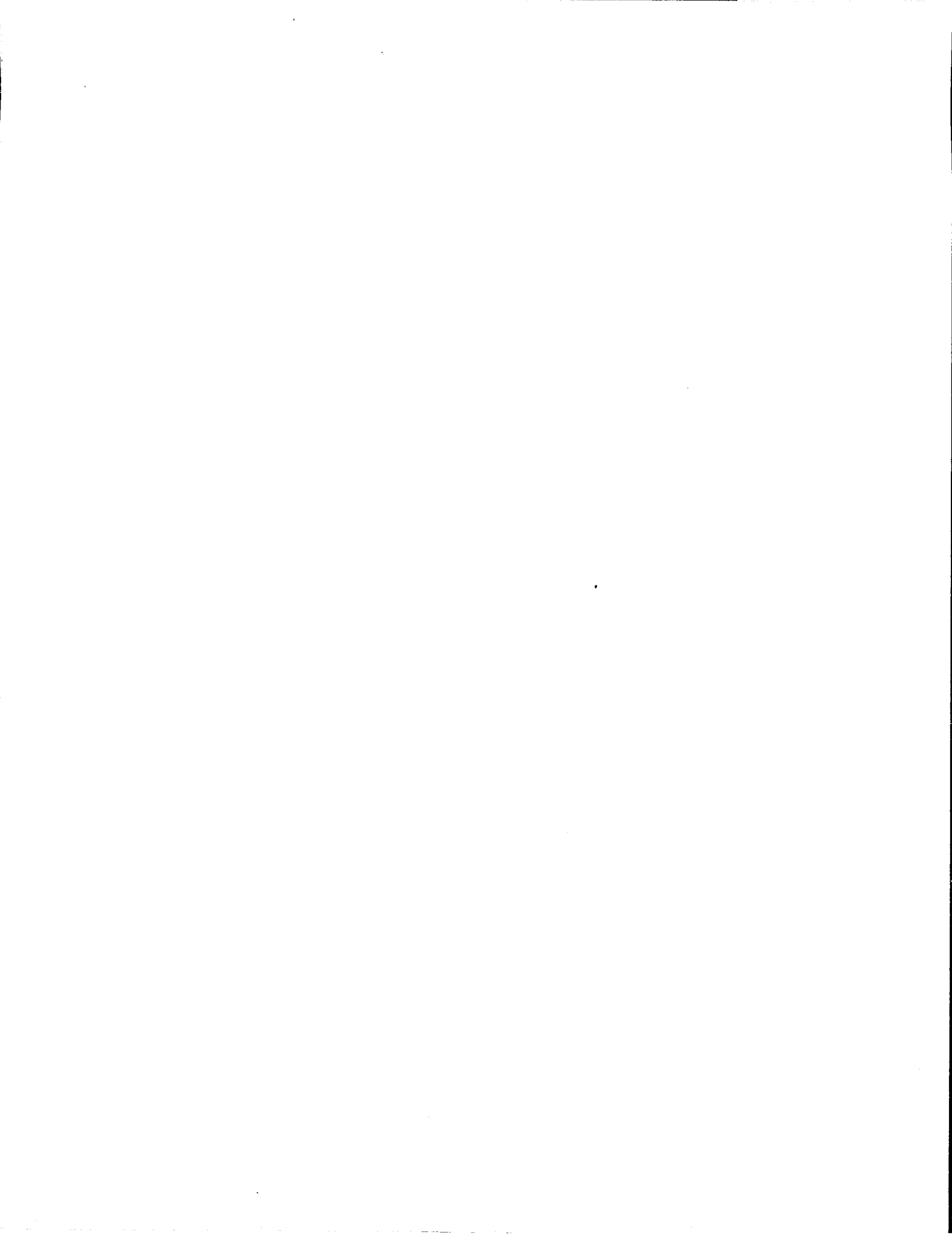
CONCLUSIONS AND RECOMMENDATIONS

It is clear that the prison has a present and legitimate need for the type of system described in the grant application; however, New Hampshire OBSCIS shall eventually be able to provide similar services more closely in compliance with LEAA guidelines and probably at a lower cost.

The Phase I features of PITS are operational, and data has been collected and stored for the prison roster. Much of this information is time-critical and subject to change as inmates enter and leave NHSP. It would be unreasonable and wasteful to lose this preliminary database before it can be put to use by OBSCIS. At any rate, it would surely be less costly to convert this database for use in OBSCIS than it would be to construct it from scratch at the proper time. The writer recommends that sufficient funding be made available to maintain the currency of the PITS preliminary database and to allow the prison to conduct data processing operations for its immediate and particular needs.

However, no funds should be awarded for further independent development in areas that duplicate the efforts of OBSCIS.

Finally, the writer recommends that the system documentation be improved and made more comprehensive and useable, in accordance with LEAA Guideline M 6640.1A Ch.3 Para.37(b), and that Sigma Systems be encouraged to maintain detailed work records and accountings of the services produced under its contract with the prison, in order to avoid audit exception.



END