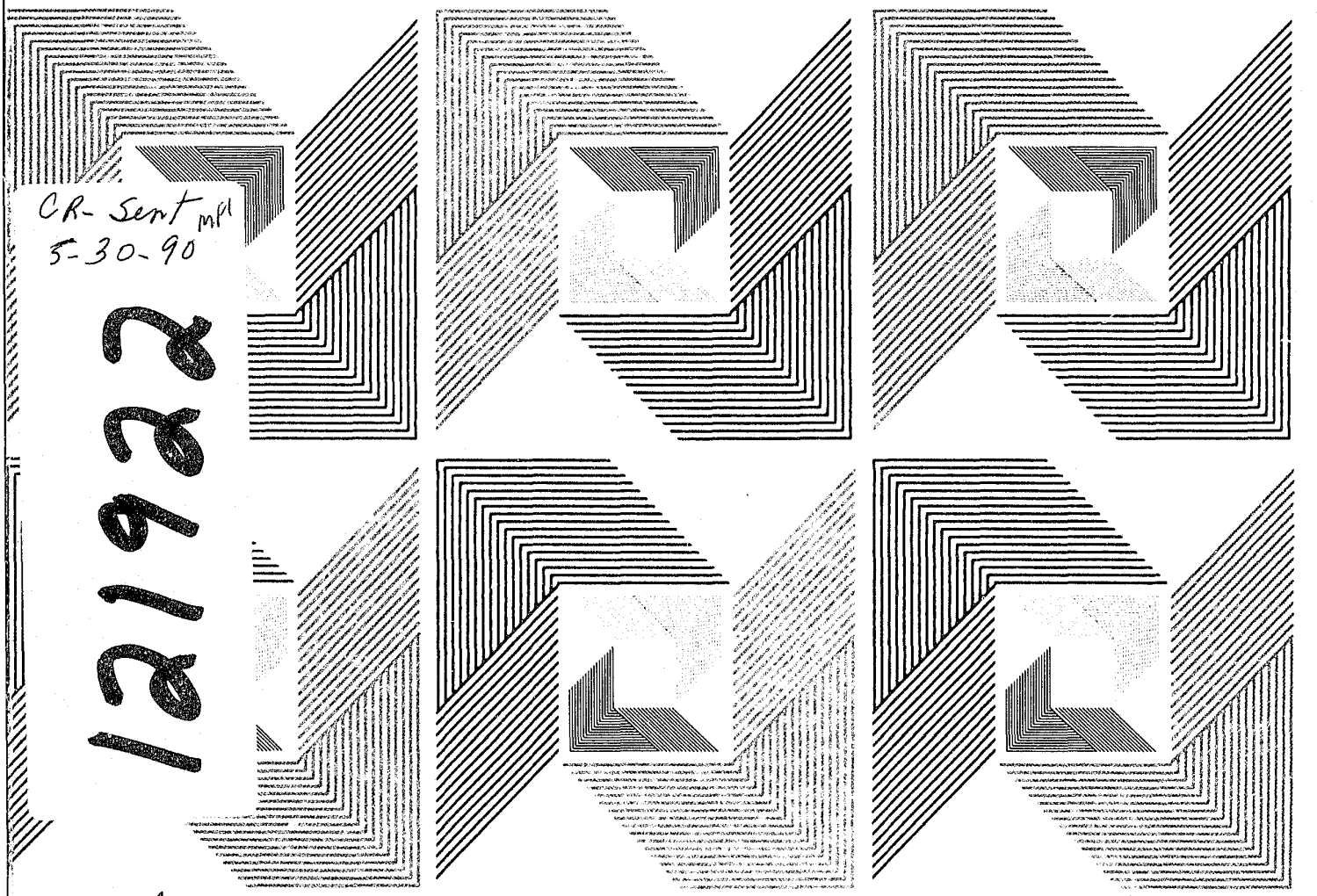
REPORT NO. 89-14
FEBRUARY 1989

MANAGEMENT STUDY OF THE STATE CRIMINAL JUSTICE INFORMATION AND IDENTIFICATION PROGRAM

A REPORT TO THE GOVERNOR AND THE LEGISLATURE OF THE STATE OF HAWAII



SUBMITTED BY THE LEGISLATIVE AUDITOR OF THE STATE OF HAWAII

THE OFFICE
OF THE LEGISLATIVE AUDITOR

The office of the legislative auditor is a public agency attached to the Hawaii State legislature. It is established by Article VII, Section 10, of the Constitution of the State of Hawaii. The expenses of the office are financed through appropriations made by the legislature.

The primary function of this office is to strengthen the legislature's capabilities in making rational decisions with respect to authorizing public programs, setting program levels, and establishing fiscal policies and in conducting an effective review and appraisal of the performance of public agencies.

The office of the legislative auditor endeavors to fulfill this responsibility by carrying on the following activities.

1. Conducting examinations and tests of state agencies' planning, programming, and budgeting processes to determine the quality of these processes and thus the pertinence of the actions requested of the legislature by these agencies.

2. Conducting examinations and tests of state agencies' implementation processes to determine whether the laws, policies, and programs of the State are being carried out in an effective, efficient, and economical manner.

3. Conducting systematic and periodic examinations of all financial statements prepared by and for all state and county agencies to attest to their substantial accuracy and reliability.

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5. Conducting special studies and investigations as may be directed by the legislature.

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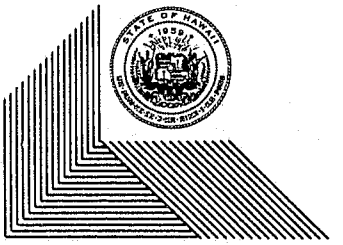

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MANAGEMENT STUDY OF THE STATE CRIMINAL JUSTICE INFORMATION AND IDENTIFICATION PROGRAM

Conducted by

Wolfe & Associates, Inc.

A Report to the Governor and the Legislature of the State of Hawaii

Submitted by the

Legislative Auditor of the State of Hawaii
Honolulu, Hawaii

Report No. 89-14
February 1989

FOREWORD

In recent years, an issue among criminal justice agencies has been whether additional resources are needed to support the State Criminal Justice Information and Identification System and what direction that system should take. As a result, Act 390, the Supplemental Appropriations Act of 1988, requested the Office of the Legislative Auditor to conduct a study of the program and to recommend a specific course of action.

In addition, Senate Concurrent Resolution Number 3, Senate Draft 1, was adopted by the 1988 Legislature. It requested that the feasibility of networking the Hawaii Automated Fingerprint Identification System with systems developed by member states of the Western Legislative Conference also be examined. This study was prepared in response to the two legislative requests.

The consultant firm of Wolfe & Associates, Inc., of Albuquerque, New Mexico, assisted us in the conduct of this study. We join Wolfe & Associates, Inc., in expressing our appreciation to the many individuals in the county governments as well as the state government for the cooperation and assistance extended to us during the course of this study.

Newton Sue
Acting Legislative Auditor
State of Hawaii

February 1989

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EXECUTIVE SUMMARY

For many years, the State of Hawaii has been committed to maintaining centralized, automated records of all criminal offenders, available to all criminal justice agencies, whether at the state or local level. This system has been administered by the Hawaii Criminal Justice Data Center ("data center"), along with other centralized support functions. More recently, the State has initiated a process to procure and implement, on a statewide basis, an automated fingerprint identification system (AFIS). Such a system has the potential to significantly increase the ability of the criminal justice system to successfully identify and prosecute criminal offenders.

The Legislature has demonstrated a high level of interest in ensuring the success of both of the above initiatives. Therefore, through a provision in Act 390 of the Supplemental Appropriations Act of 1988, the Legislature directed the Office of the Legislative Auditor to perform a study of the State Criminal Justice Information and Identification Program (ATG231), as administered by the data center. In addition, Senate Concurrent Resolution Number 3, Senate Draft 1, also adopted by the 1988 Legislature, requested that the Legislative Auditor study the feasibility of interfacing Hawaii's new AFIS with systems developed by member states of the Western Legislative Conference. This report satisfies both of the above directives.

The report focuses on the following major areas: the role of the Criminal Justice Data Interagency Board; the organization and operational effectiveness of the data center; the design and operating effectiveness of the State's centralized criminal justice information system, known as the "Offender-Based Transaction Statistics/Computerized Criminal History" (OBTS/CCH) system; the interfaces and degree of integration between OBTS/CCH and individual agencies' information systems; the communications network supporting OBTS/CCH; the current processing environment and potential alternatives, including the use of a computer dedicated completely to criminal justice systems; and the current AFIS implementation effort, including the feasibility of connectivity with other western states. A number of significant findings and recommendations were identified for each of the above areas and are described in the body of the report. In addition, a coordinated plan of action is presented that would immediately address concerns and deficiencies in the current systems, and, over the longer term, develop truly integrated systems to support all criminal justice agencies effectively. This plan of action is detailed in Chapter 3. Very specific tasks are identified for accomplishment during 1989 and 1990, and a general direction established for later years.

The State faces a crossroads decision. As its highest priority, the State faces a crossroads decision regarding the board and OBTS/CCH. The board itself is due to expire on June 30, 1989, under a current sunset clause. Because of its lack of achievements to date, many of its members question the advisability of extending its term of life. OBTS/CCH is in danger of dying a slower, but still permanent death, owing to design limitations and inefficiencies, chronic data entry backlogs resulting in major gaps in criminal records, widespread user dissatisfaction, and an ever-increasing number of systems development projects at the agency level that circumvent OBTS/CCH instead of incorporating it into their design. In the absence of a clear strategy, a plan of action, and a renewal of commitment, the demise of both the board and OBTS/CCH is a conceivable development.

Recommended plan of action. As an alternative to the above scenario, which would be highly disadvantageous to the State, this report strongly recommends a more active, planned process that strengthens the board' s role, commits resources to overcome the deficiencies of existing systems and achieve effective integration, and attains the full participation of criminal justice agencies. The action plan that is presented in this report initiates a process to establish a strategic direction for the State's criminal justice information systems, defines tasks and projects to be accomplished, assigns responsibilities, and provides a timetable for completing these efforts.

In regard to the board and OBTS/CCH, basic components of this action plan are as follows:

- The board is retained, its membership structure is clarified, and it is granted expanded authority to set policy and make binding decisions regarding criminal justice information systems throughout the State. The board would directly oversee activities of the data center and establish effective user group participation in information systems decisions. Enabling legislation is required during the upcoming session, both to extend the life of the board and increase the scope of its powers and responsibilities as outlined above.

- At the outset, effective leadership is provided through the Attorney General to initiate and oversee the effort envisioned in the action plan. As part of its expanded authority, the board is expected to eventually assume this leadership role from the Attorney General.

- OBTS/CCH is retained, with several project teams established immediately to resolve its most significant design and operating deficiencies. This includes efforts to eliminate the data entry backlogs and establish effective automated interfaces with as many agency systems as possible. These tasks will occupy much of the first year of the action plan.

- A long-range effort is initiated to overhaul OBTS/CCH and develop a more effective central criminal information system that: (1) achieves integration and compatibility with agencies' operational systems and (2) provides complete and timely centralized criminal history records and statistical reports.

Through both legislative and administrative actions, the State must commit sufficient resources to implement the action plan, including support of required state and local agency activities at all levels. Agencies will also need to commit their best efforts to accomplishing the objectives of the action plan and assisting in the development of an enhanced OBTS/CCH, submerging personality differences and animosities that may have arisen over the years.

Findings and recommendations from the other areas of review are also incorporated into this action plan. For the data center itself, one major finding is that its responsibilities have grown at a faster rate than resources have been made available to it. Consequently, its effectiveness at fulfilling both old and new responsibilities has suffered. It is recommended that, after AFIS, the data center acquire no new responsibilities and instead concentrate on consolidating its current functions, improving its level of service, and planning its longer term organizational direction. In the action plan, the data center plays a key role in facilitating many of the recommended tasks or projects, but is directly accountable to the board for all of these activities.

Dedicated computer resources. Current computer hardware and data communications support for centralized criminal justice information systems are found to be adequate in most respects. Certain recommendations for improvement are identified and incorporated into the action plan. Over the long term, it may be advantageous for the State to consider establishing a dedicated computer to support its criminal justice systems, using an established computer operations site. The action plan includes a step to study the feasibility of establishing a dedicated computer, once the more urgent problems with OBTS/CCH and the board have been resolved. Finally, the report finds that significant efforts are already underway to improve data communications connectivity between criminal justice system users and the major supporting computer facilities. These efforts are supported and included in the action plan.

AFIS. A partial review of the AFIS selection process indicates that, to date, the State's approach has generally been professional and objective. However, some concerns about this process and the selection result are noted in the report. In particular, the winning vendor selection appears to complicate efforts to achieve connectivity with other western states. This is due to the fact that no other western state uses the system that has been selected by Hawaii. Furthermore, the preliminary findings of this report appear to indicate that the cost effectiveness of achieving interstate connectivity is questionable at this time. In the action plan, it is recommended that efforts be concentrated at present on implementing the new AFIS system throughout the State and developing an effective central support function at the data center. Only at a later date should attention be focused on achieving connectivity with other states. By that time, because of efforts underway at the national level to interconnect different automated fingerprint identification systems, the State of Hawaii may be able to establish connectivity with other states much more readily, and at less cost, than is now possible.

Chapter 1

INTRODUCTION

This is a report of our study of the State Criminal Justice Information and Identification Program (ATG 231 in the State's formal budget structure), as administered by the Hawaii Criminal Justice Data Center. The study was conducted by the Office of the Legislative Auditor and the consultant firm of Wolfe & Associates, Inc.

The Legislature directed the Legislative Auditor to undertake this study by a provision in Act 390, the Supplemental Appropriations Act of 1988. In addition, Senate Concurrent Resolution Number 3, Senate Draft 1, which was adopted by the 1988 Legislature, requested that the Auditor study the feasibility of interfacing the Hawaii Automated Fingerprint Identification System (AFIS) with systems developed by member states of the Western Legislative Conference.

Objectives of the Study

The objectives of the study were:

1. To identify the nature, scope, and capabilities of existing, developing, and planned criminal justice information and identification systems of the State and counties.

2. To the extent possible, to identify and assess the nature and scope of interrelationships of the information systems with each other and the actual and planned interface of these information systems with the statewide Offender-Based Transaction Statistics/Computerized Criminal History (OBTS/CCH) system, giving particular attention to user agency operational needs as well as statewide statistical reporting needs.

3. To identify and assess the nature, scope, and effectiveness of AFIS and determine: (a) the relationship of this system to the OBTS/CCH system and the operational needs of user agencies, and (b) the feasibility of interfacing this system with similar systems developed by other member states of the Western Legislative Conference.

4. To identify problems arising out of or associated with the existing and future development of a statewide criminal justice information and identification system and possible solutions to these problems.

5. To recommend a coordinated plan of action for implementing and integrating existing and future criminal justice information systems and determine the present program's need for a dedicated computer.

Scope of the Study

The scope of this study was confined to the administrative procedures and operations at the Hawaii Criminal Justice Data Center and its user agencies. The study assessed the appropriateness of the OBTS/CCH program of the State. The information systems of other state agencies and the counties were examined only to the extent that they interact with the OBTS/CCH system. Further, other systems which bear some relation to the OBTS/CCH program, such as AFIS and the emerging Juvenile Justice Information System (JJIS), were reviewed.

Organization of the Report

This report consists of two parts. Part I contains the following three chapters:

Chapter 1 is this introduction.

Chapter 2 provides some general background and a historical treatment of Hawaii's criminal justice information and identification system.

Chapter 3 outlines our proposed action plan.

Part II is comprised of the remaining six chapters, as follows:

Chapter 4 deals with the role of the Criminal Justice Data Interagency Board.

Chapter 5 examines the current organization and operations of the Hawaii Criminal Justice Data Center.

Chapter 6 assesses the OBTS/CCH system.

Chapter 7 discusses interface, connectivity, and networking issues. This includes an examination of the systems of criminal justice user agencies and their relationship to the OBTS/CCH system.

Chapter 8 evaluates the need for dedicated computer resources.

Chapter 9 focuses on AFIS.

Chapter 2

BACKGROUND

This chapter provides background information on criminal justice information systems in general; the history of the Hawaii Criminal Justice Data Center ("data center") as an organization; and legislative history as it relates to the data center and to the State's centralized criminal information system.

Criminal Justice Information Systems in General

From an operating perspective, the criminal justice process in a state such as Hawaii tends to require a high level of sophistication in terms of information systems support. There are at least five reasons for this. First, these systems need to track independently information regarding offenders, arrests, cases, and charges. A variety of different relationships can arise within the criminal justice process. An offender may be associated with more than one active case, each of which may consist of multiple charges. Conversely, a case may involve multiple offenders. As another example, an arrest may involve one or many offenders; may result in one or multiple charges, which are subject to change; and may or may not result in a court case. This can complicate greatly the task of storing and classifying this information in such a way that it can be readily accessed and used, no matter what the particular circumstance or need. Second, from the time of arrest through final disposition, a number of different agencies with specialized functions are involved in handling a particular case. As each agency deals with the case, information is generated which is required by other agencies in order to complete their own functions appropriately. Thus, any supporting information system must be able to collect a wide variety of data from multiple sources, store it in a central location, and make it widely available to multiple users.

Third, agencies frequently need to maintain additional detailed case information, which leads them to develop their own systems. This creates the need for interfaces between such agency systems and any centralized information support system.

Fourth, the timetable of events from arrest to arraignment, trial, and final disposition makes it necessary for these centralized information support systems to make data available in a very timely manner. Because of the critical nature of decisions being made, and because these

decisions depend greatly on the background of the offender who is involved, the supporting system must make case and offender history readily available. The accuracy and completeness of this historical information can greatly affect the quality of these judicial decisions.

Finally, the sensitivity of the case and offender information maintained by the system makes confidentiality and privacy of data a key requirement. This can be especially difficult to achieve because of the large number of users in different organizations who rightfully have the need to access this information regularly.

In summary, information systems that effectively support statewide criminal justice operations must fulfill the following functions: maintain offender, arrest, case, and charge data in its various forms; capture this data through a wide variety of sources; provide a centralized means of accessing critical information; interface to particular agency systems; provide very timely and accurate information on current cases; make available accurate and complete historical information; and maintain the confidentiality and privacy of data. This is a demanding set of performance requirements for an information system to accomplish. However, the payoff in terms of an effectively functioning criminal justice process is very high.

Designers of successful statewide criminal justice information systems have generally realized that such a system must accomplish three main objectives. First, as implied above, it must play a vital support role to the daily operational needs of each criminal justice agency. Second, it must provide a permanent, complete, and accurate historical record of all criminal offenders and the cases and charges associated with them. Third, it should serve as a source of basic data from which accurate statistics can be derived regarding the performance of the State's criminal justice system. None of these objectives should be slighted at the expense of another.

A typical statewide criminal information system operates on a centralized mainframe computer using a data base, or data bases, commonly accessed and updated by a variety of agency users. The data base(s) will contain the following types of information:

- Offender Master Information--Basic demographic and identification information regarding the criminal offender. (Automated fingerprint identification detail may be maintained on a separate system and linked to the central system.)
- Offender/Case Tracking Information--Current records are maintained of all cases active in the criminal justice system. These include offender and case identification, a record of all charges, and the current status of each charge.
- Criminal Case History--A historical record of all criminal cases involving the offender from the time of arrest through ultimate case disposition.

- Statistical Information--Criminal case history records, with all identifying offender information stripped off. These are retained to provide basic data needed for purposes of statistical reporting and analysis.

Except for the statistical information, agencies tend to inquire into all of the above data to support their operational needs. Arresting officials frequently access the offender master record, particularly to obtain accurate identification of suspects. They also will check current offender/case tracking and criminal history records to help them respond appropriately to the offender and the arrest situation. Prosecutors and court or correction officials will similarly access these same types of records to assist them in making sentencing, bail, and custody recommendations or decisions.

Besides continual inquiry usage, each agency will have a role in keeping offender/case tracking information current, and arresting (police) officials may add to or update the offender master record. In general, criminal case history and statistical information records are not updated through normal agency operations. This normally is automatically performed by the system when final disposition is achieved on all charges within a case. Direct updates to history or statistical records are generally necessary only on an exception basis. This function is often handled through a central control group.

Normally, individual agencies see a need to maintain detailed information regarding cases or offenders in their own manual or automated systems. In general, this level of detail does not need to be shared commonly with other agencies. Most successful central criminal information systems are designed to interface automatically with these agency systems. Preferably, this interface is accomplished so that users enter data into their own agency system and simultaneously update the central system. The central system, on the other hand, supplies basic identification and demographic information to the agency system in order to achieve consistency of this information throughout all of the existing criminal justice systems.

Besides basic offender, case, and charge data, additional information that is of value to agencies may be maintained on the central data base. This can include detail on outstanding wants and warrants, and on "interested parties," such as suspects, witnesses, or victims. This type of information would normally be purged from the data base after a given elapsed time. The idea of including this type of information is to make the system the natural first point of reference when an arrest is made, or when any other critical event occurs which requires quick access to background information.

Centralized systems of this type are normally the source of information needed to satisfy routine history and statistical reporting requirements. These include criminal history record

checks, gathering of statistics to meet uniform crime reporting requirements, and any other information dissemination requirements that may arise. Depending on the situation, all of the major data bases in the system may be used for these purposes.

A number of states have gone much further and use the statistical reporting capabilities of their central information system to assist in planning and improved management of the criminal justice process. At a minimum, the information system can provide information to pinpoint trends in incidence and severity of crimes, and thereby assist in better allocation of police, court, or correctional resources. At a higher level of sophistication, these systems can provide sufficient statistical detail to allow operation of analytical models or simulations of the criminal justice process. These modeling techniques can help answer "what if" questions, such as, "What would happen to caseloads and backlogs if we reorganized the court structure, added judges, or shifted positions?" or, "What would be the overall impact on the number of offenders processed through the system, and on the safety of the citizenry, if community-based alternatives to incarceration were emphasized/deemphasized?" Use of such models or simulations, based on accurate statistical data, can provide useful input to policy decisions being made by criminal justice administrators and legislators.

Most centralized criminal information systems are characterized by a high level of attention to security and privacy considerations. Both procedural and system safeguards are normally in place to ensure that only authorized users can inquire into, or update, the data base. Dissemination of criminal history information to outside parties is tightly controlled, and statistical reports do not reveal the privacy of individual offenders. Finally, such systems generally provide comprehensive audit controls and reports to help ensure the integrity of the data base.

In the 1970s, the Law Enforcement Assistance Administration (LEAA) of the United States Department of Justice funded the development of numerous state criminal information systems, including Hawaii's Offender-Based Transaction Statistics/Computerized Criminal History (OBTS/CCH) system. In Hawaii, the Hawaii Criminal Justice Data Center grew out of the need to support the development of OBTS/CCH as such a system. Unfortunately, although OBTS/CCH is capable of capturing much of the data required for this purpose, few of the objectives that were originally envisioned for this system have been successfully accomplished. The remainder of this chapter explains how the data center developed as an organization and the legislative history behind the data center and OBTS/CCH.

History of the Hawaii Criminal Justice Data Center as an Organization

In the 1960s, criminal justice records were kept by the Honolulu Police Department (HPD). HPD served as the central repository of criminal justice records, primarily because it was beginning to automate, whereas the police departments of the other counties were not yet automated. These records consisted mainly of information on arrest and identification, although HPD kept some information on dispositions which was gathered by an officer physically assigned to the district court.

In 1972, Governor John A. Burns committed the State of Hawaii to develop a comprehensive automated criminal history information and data system utilizing federal funds.[1] Around that time, the LEAA was encouraging each state "to develop a comprehensive data system to coordinate the collection of comparable data to be exchanged within and among the states."[2]

In 1975, the Hawaii Criminal Justice Statistical Analysis Center (SAC) was created under a grant from the LEAA to develop a comprehensive data system for the State of Hawaii. The "semi-autonomous" SAC whose primary function was "to insure the integrity of uniform crime reporting in Hawaii" was attached to the State Judiciary for administrative purposes.[3] Accordingly, a mainland consultant from the National Center for State Courts was hired by the administrative director of the courts to design an automated criminal history tracking system. The result was OBTS/CCH. Once OBTS/CCH was designed, it took until 1979 to convert all HPD records to the new system.

The incorporation of the data center. To meet federal regulations which in effect mandated each state receiving federal funds from the LEAA to provide its data center with a firm statutory base, the 1979 Hawaii State Legislature established the Hawaii Criminal Justice Information Data Center, which then became a state agency.[4] Apparently, this action was requested with some urgency by the counties to prevent the loss of federal funding, for all state and county agencies involved with the collection and dissemination of criminal justice information were receiving LEAA funds at the time. When this action occurred, all functions which were being performed by the SAC were incorporated into the data center. The data center was "to be responsible for the collection, storage, dissemination, and analysis of all pertinent criminal history record information from all criminal justice agencies and to provide for the collection, storage, and dissemination of criminal history record information by criminal justice agencies in such a manner as to balance the right of the public and press to be informed, the right of privacy of individual citizens, and the necessity for law enforcement agencies to utilize the tools needed to prevent crimes and detect criminals in support of the right of the public to be free from crime and the fear of crime."[5]

As a result, all operating costs for the data center were assumed by the State. Pending the outcome of further study, however, the data center was temporarily attached to the Judiciary for administrative purposes, and an interim director was appointed by the Governor to direct and manage it. A committee composed of selected criminal justice agency personnel was to advise in matters related to interagency cooperation and user needs.

A study, which was conducted during the 1979 interim by the State Law Enforcement Planning Agency (SLEPA) and SAC in response to Senate Concurrent Resolution Number 123, recommended that the data center be transferred from the Judiciary to the Department of the Attorney General. Accordingly, the 1980 Legislature permanently placed the data center within the Department of the Attorney General for administrative purposes and also provided for the appointment of a permanent director by the attorney general, effective July 1, 1981. Further, the data center was to be assisted by an advisory committee whose members were to be appointed by the attorney general.

On July 1, 1980, the present administrator took over the helm of the data center, which had a staff of 13 employees. Act 128, Session Laws of Hawaii (SLH) 1981, provided for the orderly transfer of the data center's personnel from the Judiciary to the Department of the Attorney General. Also in 1981, the data center became known as the Hawaii Criminal Justice Data Center rather than Hawaii Criminal Justice Information Data Center.[6]

OBTS/CCH. In September 1979, the statewide OBTS/CCH system had become operational to the extent that terminals were supplied to participating agencies and telecommunications lines to neighbor islands were established at state expense. Networking had begun with Maui County and had expanded outward from there. At this time, neighbor island police departments began feeding into the State system rather than into HPD's system. In addition to the county police departments, the county prosecutors, the courts, and corrections entered information into the State system.

Early on, problems with the OBTS/CCH system began cropping up. By September 1980, the data center began recognizing that some criminal justice agencies were not entering information on dispositions. Soon afterward, an appeal for assistance was made to the Governor's Planning Committee on Crime, which had been acting as the advisory committee to the data center. Cognizant of the complexity of the task of effecting interagency coordination among many agencies in different jurisdictions and concerned that the State did not yet have an efficient criminal justice information system, the planning committee formed an Ad Hoc Committee on the Criminal Justice Information System.[7] Its task was to further evaluate the system and formulate an on-line computerized system design. The ad hoc committee began meeting in October 1983 and issued a comprehensive report in February 1985.

Establishment of the Criminal Justice Data Interagency Board. The ad hoc committee identified 20 objectives as part of a comprehensive plan to improve the OBTS/CCH system and give the State of Hawaii a well functioning criminal justice information system which would meet all the needs of the criminal justice system. However, the implementation of many of the 20 objectives identified by the ad hoc committee hinged on the establishment of a formal representative organization to oversee and exercise responsibility for their implementation. Accordingly, to facilitate the coordination among criminal justice agencies, the 1985 Legislature created the Hawaii Criminal Justice Data Interagency Board. This representative board, whose members were to be appointed by the Governor and were to include a resident of each of the four counties of the State, was established specifically to ensure that Hawaii has a well functioning system. Established within the Department of the Attorney General for administrative purposes, the board first met in November 1985 and continues to meet today.

Additional responsibilities of the data center. Through the years, the data center has taken on additional responsibilities. In 1983, its statutory purpose was substantially expanded when it became responsible for "the collection, storage, dissemination, and analysis of all pertinent criminal justice data" rather than merely criminal history record information.[8] Moreover, "in order to provide system-wide criminal justice information," the 1983 Legislature found the need "to expand the data center's role to include providing criminal justice information systems and the telecommunications network required to support access to information."[9] Finally, the Legislature consolidated under the data center the civil identification activities and criminal identification and statistical reporting functions of the Bureau of Crime Statistics and Civil Identification. (This bureau was then abolished.) The consolidation brought the authorized position count at the data center up to 24. At the same time, the data center was made a division of the Department of the Attorney General. No longer was it simply attached to the department for administrative purposes only.

In 1985, the statutory purpose of the data center was further amended to include fingerprinting as part of its criminal justice identification system. Subsequently, the Legislature appropriated $4.5 million for the implementation of an automated fingerprint identification system (AFIS), and the data center has been actively involved in planning for the procurement of this system.

The data center has assumed further responsibilities in recent years. These include performing criminal record checks for state employment, child care facility workers, child abuse cases, private guards and detectives, and others. Finally, the data center performs record expungements under conditions specified in state law. Its authorized position count for the fiscal year is 31.

Juvenile justice information system (JJIS). The 1988 Legislature provided $650,000 to the Judiciary for the development of a JJIS.[10] At one time, the data center was to be responsible for the development of this system in much the same way that it is responsible for its adult equivalent. However, this is not the case at present. Spearheading development of the JJIS is the Juvenile Justice Interagency Board (JJIB). At its meeting held on October 27, 1988, the JJIB approved housing the new system at the Electronic Data Processing Division of the Department of Budget and Finance.

Statutory History of the Hawaii Criminal Justice Data Center

The history of the legislation affecting the Hawaii Criminal Justice Data Center is outlined below. Specifically, the establishment of the data center under Chapter 846, Hawaii Revised Statutes (HRS), and the more substantive amendments are highlighted in chronological order.

As discussed in the previous section, the Hawaii Criminal Justice Data Center was established with the passage of Act 129, SLH 1979. Under the provisions of this act, the data center was temporarily attached to the Judiciary for administrative purposes and managed by an interim director appointed by the Governor. Moreover, an advisory committee composed of selected criminal justice agency personnel was to be established to assist in matters related to interagency coordination and user needs.

Act 269, SLH 1980, permanently transferred the data center to the Department of the Attorney General for administrative purposes and provided that the director and the members of the advisory committee be appointed by the attorney general, effective July 1, 1981. The 1980 Legislature noted that the environment of the Department of the Attorney General, the primary law enforcement agency in the State, would contribute to "the maintenance of the high level of operations and cooperation with the criminal justice agencies throughout the State, while at the same time providing sound administrative support."[11]

Act 128, which was enacted in 1981, provided for the orderly transfer of the data center's personnel from the Judiciary to the Department of the Attorney General. Although prior to 1981, the position of the director of the data center was exempt from civil service, following passage of Act 128, the Department of Personnel Services ruled that the position had to be filled through the civil service system.[12] In 1982, Act 57 was adopted in an attempt to clarify the matter. With the passage of this act, the director's position was exempted from civil service status.

Act 78, SLH 1983, was adopted to consolidate the functions of the Bureau of Crime Statistics and Civil Identification with the functions of the data center and to expand the purpose of the data center, as discussed in the previous section. More specifically, the data center became

responsible for the following: the collection, storage, dissemination, and analysis of all--intrastate, interstate, and national--criminal data rather than just criminal record history information; the selection and enforcement of criminal and civil identification systems; and the collection of all statistics relating to crime. At the same time, the counties were mandated to "provide the necessary equipment and the compensation of the persons required to install and carry out the work of such systems of identification and statistics in their respective jurisdictions[,]" except when that work involves prison matters. In recommending the consolidation of functions, the 1983 Legislature noted the similarities in the objectives and overlapping responsibilities of the bureau and the data center. In taking this action, the Legislature also permanently established the data center as an organizational division within the Department of the Attorney General.

With the passage of Act 119 in 1985, the data center was authorized to use fingerprinting as part of the criminal identification system. Further, persons to whom penal summonses had been issued for a criminal offense or who had been convicted or granted a deferred acceptance of guilty or nolo contendere plea or a conditional discharge were also included in the criminal identification system as a result of this act, whereas previously, the system did not allow for their inclusion.

Also in 1985, Act 165 replaced the advisory committee of the data center with the Criminal Justice Data Interagency Board, which was established within the Department of the Attorney General for administrative purposes. According to the provisions of this act, the 11-member board was to be comprised of members representative of criminal justice agencies, a resident member of each county, and ex-officio members as necessary. Moreover, the executive secretary to the board was to be designated by the attorney general. The board was given responsibility for "promoting interagency cooperation and coordination in the development and management of an accurate, complete, timely, and fully integrated statewide criminal justice information reporting and retrieval system[,]" and was required to meet no less than once per quarter. Additionally, the board was scheduled to sunset on June 30, 1989.

Act 65, SLH 1986, amended Chapter 846, HRS, by converting the position of the director of the data center to civil service status and by entitling the incumbent director to the full rights and privileges of civil service employees without the necessity of examination. These actions were taken because the status of the data center was viewed as being comparable to that of a division within a department and because continuity of service by the director was sought to ensure program progression and to minimize the effect of political influence in this area.[13]

Act 146, SLH 1987, authorized the data center to assess fees for services; changed the title of the head of the data center from director to administrator; clarified the composition of the

Criminal Justice Data Interagency Board; and provided for the automatic termination of board membership upon a member's termination of employment with a member agency or reassignment to nonadministrative or other functional responsibilities inconsistent with the basis for appointment. With respect to the composition of the board, the act provided for an 11-member board consisting of eight appointed and three ex-officio members. The appointed members are to consist of one representative from each of two police departments; one representative from each of two prosecuting attorneys' offices; an administrative judge of the circuit court; an administrative judge of the district court; a representative of or a government attorney who provides legal services to a state or county criminal justice agency; and a representative from the adult probation office. The ex-officio members are to be the division chief of the Electronic Data Processing Division of the Department of Budget and Finance of the State of Hawaii, the director of the Department of Data Systems of the City and County of Honolulu, and the deputy director of the state department overseeing corrections.

Act 380, SLH 1987, provided $4.5 million in fiscal year 1987-88 for the purchase of an automated fingerprint identification system (AFIS) which was to be established within the data center. In enacting this legislation, the Legislature noted that fingerprint evidence, the best tool available to law enforcement agencies for the identification, apprehension, prosecution, and conviction of criminal offenders, was seriously underutilized owing to the archaic manual methods currently being used for reading, classifying, storing, retrieving, and comparing fingerprints.

Act 182, SLH 1988, further amended provisions relating to the Criminal Justice Data Interagency Board. Specifically, this act authorizes a member to designate a substitute to attend board meetings and act in place of the member, provided that the substitute is employed by the same agency that is represented by the member. In addition, Act 182 made the director of the State Department of Corrections rather than the deputy director of that department an ex-officio member of the board.

Act 58, SLH 1988, was adopted to clarify the responsibilities for the management of AFIS and to extend the lapsing date for the unencumbered balance of the $4.5 million appropriated for the purchase of the system until June 30, 1989. Under this act, the State is to provide for the management of and equipment maintenance for AFIS.

Chapter 3

PROPOSED ACTION PLAN

This chapter summarizes the major findings and recommendations from this study and presents a plan of action for the State's criminal justice community to address current problems and upgrade the quality of its information systems. An introductory section is also included that provides a philosophical basis for the findings and recommendations of this study and explains the essential direction and purpose of the action plan.

Introduction

In January 1982, a study performed by a task force of the Chamber of Commerce of Hawaii made the following statement:

> "The current status of information processing and management in the criminal justice system is a series of individual agency systems almost completely disassociated with one another. These systems are directed solely towards the specific, unique function of the individual agency without significant attention given to the numerous, critical information exchange points which should tie the functions together."[1]

At the time of this study, the Hawaii Criminal Justice Data Center ("data center") had been in existence as the "Statistical Analysis Center" for less than three years and had only recently come under the Department of the Attorney General. The Offender-Based Transaction Statistics/Computerized Criminal History (OBTS/CCH) system was also a relatively new undertaking. In fact, the task force's assessment was that OBTS/CCH, "although used in some areas on a secondary level, has not had the funding or political support to become a first-level support system for the criminal justice system."[2]

In the seven intervening years, OBTS/CCH has gradually increased in importance. The different agency systems have, in some cases, become a little less "disassociated," and the data center has assumed a number of new roles related to provision of centralized criminal justice services. However, in many ways, the basic situation, in terms of information systems support for the criminal justice community, has remained unchanged. Chronic data entry backlogs and untimely and incomplete information have limited the usefulness of OBTS/CCH to criminal justice agencies. As a result, agency users continue to rely heavily on their own systems to find

the operational information they need, supplementing this with multiple, time-consuming inquiries to their counterparts in other agencies. Agency confidence in, and commitment to, OBTS/CCH is frequently very shaky. In some cases, agencies have begun to build ad hoc links between their own systems, bypassing OBTS/CCH completely.

The data center, which has the most direct interest in the success of OBTS/CCH, has in the past attempted to require agencies to fulfill their obligations to keep OBTS/CCH information current by developing statutes or administrative rules and by obtaining written agency commitments to this effect. In the absence of a demonstrated value of OBTS/CCH to the individual agency, however, this "arm twisting" approach to obtaining agency commitment has not been successful and in fact, has on occasion led to conflicts between the data center and agency representatives.

One factor inhibiting the data center's efforts has been its lack of direct authority or influence over the various criminal justice agencies. In 1985, a Criminal Justice Data Interagency Board was established to "promote interagency coordination and cooperation" in the development of an integrated statewide system, with the intent being to utilize OBTS/CCH as the vehicle to this end. Unfortunately, the board's accomplishments to date in meeting this objective have been disappointing. From the beginning, confusion has existed as to whether the board should play a policymaking or merely an advisory role. In practice, it has performed primarily in an advisory capacity to the data center, which has taken the policy lead in most cases. Statutory restrictions on the membership composition of this board have also created issues that have tended to undermine its effectiveness.

Another factor which inhibited the data center's efforts to promote the widespread use of OBTS/CCH was the fact that it was not viewed as an operational support tool that should be closely integrated into the daily operations and systems of the various agencies. Another finding of the Chamber of Commerce Task Force was as follows:

> "Information management must occur both within each individual agency and among agencies. Each agency, therefore, must first have a system capable of managing that information unique to it and its function. An overview system must also exist which integrates the individual functions and provides avenues of exchange for the criminal justice system as a whole. Since it is extremely difficult to integrate discrete systems after the fact, system integration and compatibility should be addressed at the outset."[3]

Probably because OBTS/CCH was viewed as a historical or statistical system with limited operational value, integration and compatibility with other agency systems were never given the degree of attention recommended above by the task force. Those interfaces that have been

developed are error prone, cumbersome, and unable to provide timely enough data to OBTS/CCH to enhance its operational effectiveness. As a consequence, agency users have assigned a secondary priority to keeping OBTS/CCH data current, as compared with their own agency systems.

Finally, issues have arisen concerning the adequacy of funding of the efforts of the data center and other agencies to develop and maintain OBTS/CCH adequately. The State's investment in these efforts has been significant. The data center reports that its expenditures on the OBTS/CCH program totalled $2,390,198 during fiscal years 1982-83 through 1987-88. This does not include expenditures during prior years when this program was included within the judicial branch. The lack of visible progress during this time in resolving OBTS/CCH-related problems makes the Department of Budget and Finance and state legislators reluctant to heed the data center's requests to increase funding for the OBTS/CCH program, and also for the other centralized support functions that the data center has assumed. At the same time, there appears to have been a failure to communicate the significant potential OBTS/CCH has for top administrators and legislators as a planning and decision making tool.

At this stage, the State faces a crossroads decision regarding the board and OBTS/CCH. The board itself is due to expire on June 30, 1989, under a current sunset clause. Some participants seriously question the advisability of extending its term of life based on its lack of achievements to date. OBTS/CCH is in danger of dying a slower, but still permanent death, faced as it is with chronic and increasing data entry backlogs, widespread user dissatisfaction, and an ever-increasing number of systems development projects that circumvent OBTS/CCH instead of incorporating it into their design. In the absence of a clear strategy and plan of action and a general renewal of commitment, the demise of both the board and OBTS/CCH is a conceivable development.

The above scenario would be highly disadvantageous to the State. It would indefinitely set back opportunities to achieve truly effective, integrated information systems support for the criminal justice community. At this time, alternative structures and systems to accomplish this objective do not exist. To develop these alternatives would, in effect, be "reinventing the wheel." New versions of the board, the data center, and OBTS/CCH would need to be developed, at great cost to the State.

A much preferable alternative is to immediately initiate a more active, planned process that strengthens the board's role, commits resources to overcome the deficiencies of existing systems and achieve effective integration, and attains the full participation and commitment of criminal justice agencies. As the first step in this process, the action plan presented in this chapter initiates

a process to establish a strategic direction for the State's criminal justice information systems, defines tasks and projects to be accomplished, assigns responsibilities for tasks, and provides a timetable for completing these efforts.

Certain basic assumptions or conditions drive this action plan. These are as follows:

- The board will be retained and it will be granted authority to set policy and make binding decisions.
- Effective leadership will be provided to initiate the effort envisioned in the action plan. (The Attorney General is identified at the outset as the most logical source of such leadership.)
- OBTS/CCH will be used as the core for development of an effective central criminal information system that will integrate effectively with agencies' operational systems, as well as provide centralized criminal history records and statistical reports.
- A primary objective of all parties will be the effective integration and compatibility between agency systems and OBTS/CCH.
- Through both legislative and administrative action, the State will commit the needed resources to implement the action plan, including support of required state and local agency activities at all levels.
- Agencies will commit their best efforts to accomplishing the objectives of the action plan and in assisting the development of an enhanced OBTS/CCH, submerging personality differences and animosities that may have arisen over the years.

If the above conditions are substantially realized, the objectives of the action plan can be fulfilled. Successful implementation of this plan will permit the State to finally realize the benefits of its past years of substantial effort and resource expenditure.

Major Findings and Recommendations

This section summarizes, in order, the most significant findings and recommendations from Chapters 4 through 9 of this study. For additional detail, please refer to the specific discussions contained in these chapters.

Hawaii Criminal Justice Data Interagency Board (Chapter 4). We *find* as follows regarding this board:

1. Considerable ambiguity exists as to whether this board should operate as a policymaking or advisory body and in terms of its relationship to the data center.

2. The board's efforts have focused on internal operational or statutory matters, as compared to substantive issues regarding the State's criminal justice systems. Board member frustration with the lack of progress is increasing.

3. A need exists for the board to continue beyond its present statutory expiration date of June 30, 1989, but its status needs to be clarified and the composition of its membership changed and strengthened.

4. Under the board's direction, user steering committees should be established for major inter-agency systems such as OBTS/CCH and the Automated Fingerprint Identification System (AFIS).

We *recommend* that:

1. The Legislature clarify the board's policymaking status by statutorily specifying that it has overall administrative responsibility for statewide adult criminal justice information systems; transferring rulemaking authority to it from the Attorney General; and defining its duties and responsibilities.

2. The life of the board be extended, but only if its role is clarified as stated above, and its membership composition changed and strengthened.

3. The board address, to a much greater degree, substantive issues related to statewide criminal justice information systems.

4. User steering committees for the OBTS/CCH and AFIS systems be established under the board's authority.

Organization and Operations of the Hawaii Criminal Justice Data Center (Chapter 5). In regard to the organization and operations of the data center, we *find* as follows:

1. Over time, the data center has accumulated new responsibilities, most of which fit logically within the concept of a central criminal justice service function. However, resources have lagged behind this growth, with a resulting impact on the service provided to traditional functions such as OBTS/CCH support, as well as to the new areas of responsibility.

2. Organizationally, OBTS/CCH support responsibilities are spread throughout several sections of the data center. Management is recommending a reorganization plan which will combine many, but not all, of these functions under a new Information Systems Section.

3. Staffing levels appear to be low relative to workloads in several areas, and skill levels are sometimes inadequate. Management is requesting additional resources in a number of functional areas.

4. The data center has developed short-term tactical plans, but no long-range plans directed at determining overall organizational direction and growth and resolving major outstanding issues regarding specific systems such as OBTS/CCH.

5. There is a relative lack of formal tools to control work and monitor progress.

6. There is no single plan for addressing the security and privacy requirements of centralized criminal justice records. Such a privacy and security plan has been developed and used successfully in other states. While the data center has drafted some administrative rules in this area, these have not been finalized and promulgated.

7. The amount of data center staff resources to address privacy and security matters and to provide audit services is currently deficient.

8. While current procedures for coordinating OBTS/CCH password and user ID assignments are thorough and well documented, certain short-time improvements could be made to current access-control methods.

9. Hardware resources provided by the Electronic Data Processing Division (EDPD) appear to be adequate to support the OBTS/CCH user community and provide generally acceptable response times.

We *recommend* that:

1. No new responsibilities (after AFIS) be assigned to the data center at this time. The data center should focus on developing plans and obtaining resources to perform its currently assigned responsibilities adequately.

2. In general, funding be provided for the reorganization and increased staffing proposed by the data center management. Some specific modifications are suggested in the detailed recommendations of this report. In particular, additional assistance, possibly on a contract basis, should be obtained to address the OBTS/CCH backlog problems.

3. Future staffing growth in the following areas be given a high priority: AFIS support, system security and privacy, and auditing.

4. Long-range planning, linked to continually updated tactical plans, be instituted at the data center. Also, adoption of more formal project control and monitoring tools should be considered.

5. A statewide privacy and security plan be developed, including enactment of supporting statutes. The plan can be developed by the data center under the direction of the Attorney General and the board.

6. Data center staff levels aimed at ensuring system security be increased, and the quality of user identification (ID) and password security to control on-line user access to OBTS/CCH data be improved in certain ways.

Analysis of OBTS/CCH (Chapter 6). We *find* as follows regarding OBTS/CCH:

1. The OBTS/CCH data entry backlog exceeds 100,000 transactions and is growing. This is the major factor undermining user confidence in the system. Neither the data center nor agencies have the resources to address this problem adequately.

2. The system design is a major contributing factor to the backlog problem. The most significant design problems are as follows:

- The requirement that case data be accepted into the system according to agency sequence;
- System inability to accept partial charge data for a case; and
- Numerous inefficiencies in the design of the data entry and validation process.

3.. Other contributing factors to the delinquency problem are the need for redundant data entry at some agencies and the complete absence of automated systems at other agencies. The district court on Oahu, which has the worst backlog problem, is one such agency.

4. The current delinquency reporting system does not provide information of sufficient value to management.

5. The requirement at the Honolulu Police Department (HPD) that a positive identification be obtained prior to OBTS/CCH input contributes to the backlog problem and undermines the value of the system to other agency users.

6. The system does not adequately address input of cases that are not initiated by an arrest.

7. Completeness and integrity of the OBTS/CCH data base are also areas of concern. Some types of cases are not regularly entered into OBTS/CCH that should be, and some information gets into the system that should not. In the case of expunged data, information that still is potentially needed by some users is deleted entirely from the system.

8. A number of design and reporting enhancements are needed to the system and are described in the body of the report.

9. Despite its current shortcomings, many agencies do attempt to rely on OBTS/CCH as part of their daily operations. Both current in-process cases and criminal history information are needed. This serves to underline the need for a centralized information system as an operational tool for the criminal justice community.

We *recommend* that:

1. At a minimum, the additional positions requested by the data center to clear up data entry backlogs be funded. As part of the action plan, additional contract labor should be hired to expedite this effort, and increased funding of agency staff needs will also need to be provided.

2. As a prerequisite to the effort to clear up the backlog, procedures be revised and the system redesigned wherever possible to allow nonsequential process of input transactions, to permit capture of partial charge data on a given case, and to address current inefficiencies in the design of the data entry screens.

3. As a joint data center and HPD effort, the front-end arrest processing flow be redesigned so that information can be recorded on OBTS/CCH on a preliminary identification basis.

4. After AFIS is installed at the data center, automated AFIS support be provided as a priority at HPD in order to reduce current delays in obtaining positive identifications.

5. The system design be altered to allow certain case records to be entered without an arrest having been made.

6. Development of automated interfaces between OBTS/CCH and agency systems be accelerated. COMPAS (Department of Corrections), PROMIS (Honolulu prosecutor's office), and PROBER (Adult Probation Division) are leading interface candidates.

7. Development of an automated and integrated district court system having an automated two-way interface with OBTS/CCH be funded.

8. All instances be identified in which felony and misdemeanor case information may fail to reside on the OBTS/CCH data base, and procedures and system interfaces be developed to correct this.

9. Consideration be given to maintaining expunged and juvenile justice case records on the data base, accompanied by strict access control provisions.

In addition, because of the need to increase the operational value of OBTS/CCH, it is recommended that the State, and specifically the board and the data center:

- Realize the operational value of OBTS/CCH to the criminal justice community as a whole.
- Communicate this value to the individual agencies.
- Enhance, in every way possible, the operational strengths of OBTS/CCH in a way that visibly impacts the effectiveness of agency operations.
- Remove obstacles or disincentives to agencies which need to enter information regularly to OBTS/CCH, in order to keep its data base complete and accurate.

OBTS/CCH System Interfaces and Network (Chapter 7). In regard to OBTS/CCH system interfaces and the communications network, we *find* as follows:

1. Automated interfaces do not exist between many agency systems and OBTS/CCH. This is a major cause of redundancy in entering data. Systems that could profitably be interfaced to OBTS/CCH include COMPAS, PROMIS, and PROBER.

2. Many agencies still rely largely or entirely on manual systems for their internal operations and therefore cannot interface automatically to OBTS/CCH. In some cases, this contributes to delays on their part in entering data into OBTS/CCH. The most significant problem of this kind is at the district court on Oahu.

3. While not unduly high, the error rate for the automated interface between HPD's system and OBTS/CCH could be reduced further by more closely integrating the HPD record structure with OBTS/CCH.

4. The automated interface between the Hawaii Judicial Information System (HAJIS) of the Judiciary and OBTS/CCH is run only every two weeks and produces extremely high error rates. A growing backlog exists of unresolved errors from these interface runs. The primary causes of error are missing or mismatched key identification numbers and other missing case information on the records feeding from HAJIS to OBTS/CCH.

5. New systems are under development in various agencies that either currently or potentially will interface with OBTS/CCH. This includes FACTS (Hilo prosecutor's office), which already has established an interface; the Family Court System; and the Juvenile Justice Information System (JJIS). There is a growing need to establish standards governing how these agency systems will interface into OBTS/CCH and to ensure that such interface considerations are taken into account as these new systems are designed and implemented.

6. The FACTS and HAJIS interfaces permit nonsequential posting of data to an OBTS/CCH file. However, this information is not made available for OBTS/CCH user inquiry until all preceding sequential information has been entered.

7. Current planning for the JJIS system appears not to have considered the potential benefits of establishing an interface with OBTS/CCH, or the costs involved in doing so for each alternative design approach.

8. Users have benefited significantly from recent increases in interconnectivity between the three major computer centers that contain criminal justice information.

9. Ease of OBTS/CCH access could be improved for many users if two concurrent sessions could be supported on the same terminal.

10. The Department of Data Services (DDS) of the City and County of Honolulu is supporting a statewide criminal justice user network because of the various systems it supports. This places an operating burden on DDS which rightfully should be borne by the State.

11. The most significant planned development is implementation by EDPD of its microwave backbone network between Oahu and the neighbor islands. Agencies using this alternative will obtain increased transmission speeds, replace redundant communications lines, and support more users at lower cost.

We *recommend* that:

1. Automated interfaces be developed between OBTS/CCH and agency systems as a high-priority effort. Besides the FACTS interface, which is already implemented, systems that should

interface to OBTS/CCH include PROMIS, COMPAS, and PROBER. Additional data center and agency staffing for this effort is well justified.

2. Resources and funding be allocated to automate agencies, such as the district courts, which continue to rely heavily on manual methods to enter information into OBTS/CCH.

3. The record structures and validation logic of the HPD system and OBTS/CCH be revised to reflect one another as closely as possible.

4. Whenever possible, two-way interfaces be designed between OBTS/CCH and agency systems. This includes both existing and new interfaces. Agency systems will feed transaction information into OBTS/CCH. OBTS/CCH, in turn, will feed standard offender demographics and basic arrest data to the individual agency system. This will reduce interface errors that now exist because of inconsistencies between the agency systems and OBTS/CCH.

5. At a minimum, the HAJIS tape interface be increased to a daily frequency. Eventually, both the HPD and HAJIS interfaces should become interactive.

6. Data that have been posted by interfacing systems to OBTS/CCH and validated be made available to all authorized users in other agencies, whether or not they have been entered sequentially.

7. Current JJIS planning efforts consider the potential benefits of an OBTS/CCH-to-JJIS interface. This may in turn affect the design approach and selection of the supporting processing environment.

8. The various data processing organizations involved in OBTS/CCH support continue their progress toward integrating their computer networks. Certain objectives of this effort are presented in the Chapter 7 recommendations.

9. The potential be evaluated for allowing users to initiate and operate concurrent sessions on their terminals.

10. Communications lines from the neighbor islands that currently link into DDS begin to be shifted to EDPD.

11. In the long run, the microwave backbone network be used to replace the existing dedicated 9600-bits-per-second (bps) lines with higher speed digital transmission capabilities. In the interim period, existing line speeds appear to support user needs adequately so that widespread upgrades are not necessary.

Dedicated Computer Resources (Chapter 8). In regard to the current shared hardware environment and potential alternatives to this environment, we find as follows:

1. EDPD's current operational support for OBTS/CCH presents concerns in the areas of system availability, utilization reporting/capacity planning, and systems support.

2. Four major hardware resource alternatives can be identified for support of OBTS/CCH processing, but each has disadvantages as well as advantages.

3. While the dedicated computer alternative offers very positive advantages, the continuity provided by the shared hardware environment appears necessary until more fundamental OBTS/CCH system problems are resolved.

4. The alternative of a dedicated center at EDPD is preferable to establishment of a new dedicated center elsewhere, because it avoids expenditure of funds on duplicate facilities and personnel resources.

5. The final alternative of a decentralized processing network greatly complicates the ability of OBTS/CCH to maintain the integrity of its data base, and does not appear to merit serious consideration at this time.

We *recommend* that:

1. The problem of system unavailability to the Intake Service Centers and police be addressed as a priority matter. A recommended approach is contained in Chapter 8.

2. EDPD begin to maintain continuous records of utilization of key system resources; establish a capacity planning function; and (in conjunction with the data center) establish and adhere to minimum service levels to the OBTS/CCH user community.

3. Over the short term, processing remain on the shared computers at EDPD. Priority should instead be given to bringing the OBTS/CCH data base up-to-date and accomplishing design improvements that will help make OBTS/CCH an effective operational tool for its users.

4. Over the long term, the alternative of a dedicated processor at EDPD be seriously considered. This would especially be true if it appeared that other major criminal justice agency applications could be combined on the same machine with OBTS/CCH.

5. The alternatives of a dedicated computer at a new facility and a decentralized processing environment to support OBTS/CCH be eliminated from consideration at this time.

Automated Fingerprint Identification System (AFIS) (Chapter 9). We *find* as follows regarding the AFIS selection and implementation effort, and related issues:

1. The State appears to have followed a thorough, logical, and objective process in selecting an AFIS vendor. However, the evaluation method that was used and the resulting vendor selection do raise certain issues or concerns that are discussed in Chapter 9.

2. The only interface requirement specified in the Request for Proposal (RFP) was the ability to produce, on an occasional basis, an interface tape from AFIS to OBTS/CCH designed to ensure that all offenders entered into AFIS also are recorded on OBTS/CCH.

3. There should be a two-way interface between AFIS and OBTS/CCH, which should run frequently, probably daily.

4. While $4.5 million has been appropriated to fund the AFIS search process and the winning vendor's quotation, no funding was set aside to initiate a centralized AFIS support function within the data center. The appropriation also does not appear to cover maintenance charges beginning in the second year of the vendor's five-year contract.

5. The data center's current funding recommendation for AFIS operational support apparently is consistent with the winning vendor's recommendations and does not appear to be excessive in comparison to the new responsibilities that are being shouldered.

6. The winning vendor selection appears to complicate efforts to achieve connectivity between Hawaii's AFIS and automated fingerprint identification systems in other western states.

7. Efforts are currently under way nationally to achieve generalized connectivity between all of the major automated systems. This may result in an alternative and easier way for Hawaii to achieve West Coast connectivity in the next few years.

8. Discussions with major potential users, and preliminary cost estimates, call into question whether an interconnection with the Western Identification Network (WIN) is cost justifiable at this time.

We *recommend* that:

1. In contract negotiations with the winning vendor, the State ensure that it is adequately protected in the event that the vendor is unable to perform on its contract.

2. A two-way data transfer be established between AFIS and OBTS/CCH. To maintain records in a current status, a daily interface should be considered. Over the long run, an automated interface may be justified.

3. The data center's request for funding to initiate a central fingerprint identification service be supported.

4. After initial installation at the data center, AFIS workstations be provided to HPD as a priority. This will reduce current delays in obtaining positive identifications and thereby expedite the recording of arrest data in the OBTS/CCH data base.

5. Attempts to achieve West Coast connectivity be deferred until AFIS implementation is complete. Meanwhile, efforts under way elsewhere to achieve generalized vendor connectivity should be monitored, and Hawaii's vendor be persuaded to join this effort.

6. A study be conducted to evaluate the need and economic justification for establishing connectivity between Hawaii and other western states.

Action Plan

This section presents a time-phased plan of action including identification of tasks or projects to be completed and responsibility assignments for carrying out the efforts. This plan is organized according to the major areas of review, as follows:

- The board.
- Data center organization.
- OBTS/CCH.
- AFIS.
- Hardware/communications support.

The Legislature and the Department of the Attorney General are also included in this action plan. The Legislature will need to provide funding to permit initiation of many of the projects identified in the action plan. This will include funds for the data center, for the agencies, and for external contractual assistance. The Legislature will also need to statutorily redefine the board's role and approve various plans and strategies that will be developed in the next few years.

The Department of the Attorney General is assigned a number of specific responsibilities related to active initiation of many of the action plan recommendations during the first year. This is done to ensure that leadership is obtained at the appropriate level for this critical but very complex effort.

Action plan recommendations are specific for the first year. Many of them can, and should be, initiated immediately. Recommendations for the second year are preliminary, but still indicate specific tasks or projects. In addition, a direction is suggested for later years; however, this is subject to change based on the results of planning and design efforts initiated during the first two years.

Year one (1989). Objectives of the first year are as follows:

- Statutorily extend the board's life and clarify and strengthen its role.
- Obtain active direction from the Department of the Attorney General.
- Establish active user group participation in information systems decisions.
- Fund the necessary resources to begin to address the most serious and immediate issues affecting OBTS/CCH.
- Initiate specific project teams to resolve major OBTS/CCH design and interface problems and to reduce the backlogs.
- Initiate long-range planning activities.

Additional developments are also indicated for the data center organization, AFIS implementation project, and hardware/communications support. Planned activities and accomplishments for this very critical year are summarized in Exhibit 3.1.

Legislature. In this first year, the Legislature will need to pass legislation that extends the life of the board, assigns it a policymaking role, defines its duties and responsibilities, and restructures its membership. The Legislature also will need to fund additional staff or external resources, to allow project teams to be formed to address the OBTS/CCH system in a concerted fashion. The Legislature will also need to provide additional funding for AFIS, including system implementation, ongoing maintenance, and establishment of a central support function at the data center.

Attorney General. The Department of the Attorney General will take an active role during the first year. This includes developing statutes or regulations for legislative consideration that will clarify and strengthen the board's role, extend its life, and restructure its membership so as to make it a more active and influential entity. The Attorney General will also serve as the main point of contact during the legislative session regarding the initiatives outlined in this action plan and will pursue funding of the supporting resources needed at all levels (board, data center, and individual agency).

As the first task during this year, the Department of the Attorney General will commission resources to flesh out the action plan presented here into a detailed tactical plan for the next 12 to 24 months. This tactical plan will define tasks and projects in a final form, make staffing and responsibility assignments, establish a specific timetable, and estimate costs of implementation. The Attorney General will also initiate the process to prepare a statewide master plan for development of criminal justice information systems over the next five to ten years. The scope of this master plan will include the functions and responsibilities of the board, the data center, and all criminal justice agencies in terms of their information systems activities; direction for major systems such as OBTS/CCH and AFIS, including the need for redesign as necessary; security and privacy issues; standards for developing and interfacing systems; and hardware and communications strategies. The master plan, by its nature, will generate specific projects for accomplishment during later years.

Finally, the Department of the Attorney General will sponsor formation of multi-agency user advisory or steering committees for major systems such as OBTS/CCH or AFIS. These committees will work with the data center to identify and resolve systems issues and problems, approve and prioritize enhancements or development projects related to these systems, and monitor the progress of staff performing these assigned tasks.

Exhibit 3.1

ACTION PLAN SUMMARY--1989

Review Area	Actions
Legislature	- Extend life of board - Statutorily redefine board role and membership - Appropriate funding for OBTS/CCH and AFIS efforts
Attorney general	- Assume active leadership role - Develop tactical plan - Develop statutes to clarify/strengthen board role - Pursue funding with Legislature - Monitor expenditures - Establish user steering committee - Initiate master planning process
Board	- Acquire strengthened role and membership - Assume oversight responsibilities by end of year - Oversee interface standards development
Data center	- Plan for, establish, and staff: Information Systems Section Quality Assurance Unit AFIS Support - Facilitate user groups and planning activities - Improve on-line access security - Institute internal management tools
OBTS/CCH	- Implement critical system improvements (3 teams): 1. Non-sequential input design 2. Data entry design improvement 3. Automated interface design - Complete critical improvements in six months - Establish data entry team to eliminate backlogs - Develop agency data entry resources - Establish OBTS/CCH user steering committee - Specify standard interface requirements - Document long-term system objectives - Design and implement additional system enhancements
AFIS	- Complete procurement - Obtain additional funding - Begin equipment installation - Establish centralized data center operations - Establish AFIS user steering committee - Establish two-way OBTS/CCH interface - Implement HPD site
Hardware/ Communications Support	- Resolve system availability issue - Establish management tools: Utilization monitoring/reporting Capacity planning Service-level standards - Evaluate concurrent session feasibility

Board. The board will be in a period of growth and change during this first year. As stated above, its role and membership will be clarified and strengthened. This will probably be accomplished by July 1, 1989. After this point, it is expected that the board will begin to assume responsibility from the Attorney General for coordination and monitoring of the action plan, oversight of planning activities and user steering groups, and active policy development and implementation. The Attorney General, however, will continue to play an active role, preferably as a member of the board. One major responsibility of the newly constituted board, before the end of 1989, will be to initiate and oversee an effort to establish standards for interfaces between OBTS/CCH and agency systems, whether existing or newly developed. This is discussed further under the description of first-year OBTS/CCH activities.

Data center. The role of the data center will also be evolving during the first year. Experience indicates that a lower level organization such as the data center cannot effectively obtain a concerted commitment of all the parties needed to effectuate an action plan as ambitious as this one. For this reason, the Attorney General--not the data center--is the more logical choice to initiate this statewide effort. Similarly, over the long run the board is the appropriate oversight instrument, as it will be composed of key agency representatives with the power to make decisions and set policies. The data center, of course, will continue to be an important source of information and advice to these oversight bodies. In fact, beginning immediately, this plan entails the addition of significant resources to the data center to accomplish several high-priority projects. However, the data center will not have direct authority at the highest planning and policy-setting level.

Part of the first-year plan for the data center includes obtaining funding for the reorganization and staffing increases that have already been requested by data center management. This includes formation of the Information Systems Section, the new Quality Assurance Unit, and growth in the Criminal ID Section to support a centralized fingerprint identification function and implement AFIS. In addition, data center staff will play a major role in facilitating the development of the user steering committees, development of a detailed tactical plan, and initiation of a master planning process. In some cases, additional permanent data center staff may be required to support these efforts. In other cases, temporary staff or outside contract assistance may instead be obtained. An example would be obtaining contracted data entry staff, in addition to the data center's current staffing request, in order to resolve the data entry backlog problem as expeditiously as possible. Other projects that entail system planning, design, or enhancement activities will require additional system analyst and programmer support. Some of this assistance may come in the form of new permanent data center staff, while the remainder

may be contracted for externally. Other priority data center tasks for the first year are improvements to the current group security methods for OBTS/CCH and initiation of forced regular password changes; update of the tactical plan for the data center in conjunction with the overall tactical plan; and implementation of other formal internal management tools, as needed.

OBTS/CCH. In the OBTS/CCH area, three project teams will be established immediately. The purpose of these teams will be to resolve in short order the major design problems of OBTS/CCH that are obstacles to cleaning up the backlog problem. These teams need to focus their efforts on specific problems and achieve results within six months from initiation of the action plan.

The first team will plan and implement design improvements that will allow nonsequential input and availability of data to all agency users. This will keep backlogs of input transactions from piling up at all of the agencies and help keep the current situation from getting worse.

The second team will focus on various design improvements to facilitate the data entry process. The major concern of this team will be to alter the system design to allow input of partial charge data for any given case by an agency user. This team will also take other steps to improve screen design and the input process, as long as these can be implemented quickly.

The third team will resolve problems related to existing automated interfaces. The first order of business for this team will be to design a standard interface from OBTS/CCH to HAJIS to transmit basic identification and offender demographics data to HAJIS. This should greatly reduce the incidence of error transactions when HAJIS feeds court case disposition information into OBTS/CCH. This team will also identify ways to reduce the other components of the currently high interface error rate and accomplish any other design improvements that can be completed in short order. Finally, this team will work with HPD and with the AFIS implementation project to reduce the front-end delay in getting new arrest information from HPD into the OBTS/CCH system.

After the above three teams of analysts and programmers have achieved their short-term results, a separate data entry team will be assembled to directly attack the backlog situation. This effort should begin by mid-year. While this will be centrally directed, sufficient resources need to be available by this time at the various agencies to ensure that they can stay abreast of new input transaction volumes. This will prevent a new backlog situation from developing while the central data entry team is working down the old backlog. This "catch-up" effort should be completed by the end of 1989.

The above project activities will receive review and approval from the newly formed OBTS/CCH user steering committee. This committee will decide which design changes will be made

as part of this short-term effort and which will be deferred. It will also work to ensure agency cooperation with the project team efforts and will approve the completed system changes.

Later, during the first year, the following efforts will be initiated with regard to OBTS/CCH:

- Specification of standard requirements for interfacing OBTS/CCH with agency systems.
- Documentation of long-range design objectives for OBTS/CCH as part of the overall master planning process.
- Design and implementation of additional system enhancements identified in Chapter 6 of this study.

This should proceed under the direction of the newly constructed board, with input from the user steering committee for OBTS/CCH.

AFIS. AFIS activities will proceed largely in accordance with already existing plans. This includes completing the procurement process, obtaining the additional needed funding, installing the equipment, and establishing centralized operations at the data center. In addition to these activities, the action plan calls for establishing an AFIS user steering committee to oversee the implementation effort and make relevant decisions. The establishment of a two-way daily interface with OBTS/CCH is also specified. Finally, if at all possible, implementation of automated fingerprint processing at HPD should be accomplished as early as possible in order to help the OBTS/CCH project teams to reduce the current lags at HPD between making arrests and obtaining positive identification.

Hardware/communications support. In the area of hardware and communications support, the first priority will be to resolve the current problem of early morning unavailability of the OBTS/CCH system to the Intake Service Centers and police. Other tasks to be accomplished include the establishment of formal system utilization monitoring and reporting and capacity planning; the establishment of service-level standards, and reporting on performance against these standards; and an evaluation of the feasibility of achieving the capability for users to conduct more than one terminal session concurrently when making inquiries into the system. Most of these tasks are the joint responsibility of the data center and EDPD, although there will be oversight by the Attorney General and, later, the board.

Year two (1990). A primary objective for the second year is for the board to assume oversight responsibility for all developments relating to the State's criminal justice information systems. Another major objective is to shift the focus for OBTS/CCH away from cleaning up crisis situations to establishing a longer range direction. Other areas will also see more of a focus on completing implementation of projects already started and developing additional planning in specific areas to support the overall master plan. Exhibit 3.2 provides an overview of probable

tasks and responsibilities related to the second year. This is a preliminary listing that depends, in large part, on both the accomplishments and the planning results of the first year.

Exhibit 3.2

ACTION PLAN SUMMARY--1990

Review Area	Actions
Legislature	- Appropriate funding to complete resolution of critical OBTS/CCH problems - Fund planning efforts - Fund agency interfaces - Fund growth in data center and AFIS programs - Statutorily support master plan findings
Attorney general	- Transfer oversight responsibilities to the board - Continue active participation as a board member
Board	- Coordinate action plan activity - Oversee master plan finalization - Coordinate development of additional plans for: Security/privacy Data center organization OBTS/CCH redesign - Oversee user steering committee work - Pursue funding with Legislature - Monitor expenditures
Data center	- Develop long-range organizational plan - Support board and user steering committee functions - Support plan development - Draft security/privacy plan - Increase audit and security staff
OBTS/CCH	- Complete resolution of backlog problems - Develop plan to redesign OBTS/CCH under user steering group direction - Improve delinquency reporting system - Develop automated interfaces (COMPAS, PROMIS, PROBER) - Automate district court system
AFIS	- Complete implementation at all sites - Evaluate West Coast connectivity
Hardware/ communications support	- Evaluate hardware support alternatives - Initiate microwave installation project

Legislature. In the second year, the Legislature will continue to need to fund projects initiated during the preceding year to correct immediate OBTS/CCH design problems and eliminate the backlogs. However, the need for this should cease sometime during the year. The Legislature will also need to fund a number of planning efforts to be accomplished under the direction of the board. A number of agency system interfaces to OBTS/ CCH are scheduled for development during this year, which will have an additional funding impact. Both the planning and interface design efforts may require external assistance as well as increases in state staffing. As a result of the planning efforts, areas may be defined in which the Legislature needs to take statutory action. Finally, funding for additional data center staff may be required in areas such as AFIS implementation and audit and security functions.

Attorney General and board. The role of the Attorney General should become more facilitative than directive during the second and later years. The board should, by this time, become the primary oversight body. One of its activities during the second year would be finalization of the master plan. It would also direct development of a statewide privacy and security plan, data center organizational plan growth, and a long-range plan for redesign of OBTS/CCH. The board will also oversee the user steering committees, work within the legislative process to obtain continued funding needed to support the action plan activities, and monitor expenditures actually made while carrying out the action plan.

Data center. During the second year, the data center will develop a long-range organizational plan for its own activities, will participate in all of the other planning efforts, and will facilitate activities of the user steering committees. One area in which the data center can take the lead is in developing a statewide security and privacy plan under the direction of the board. This can build on the draft administrative rules already assembled by the data center. In addition, attention should be paid during this year to strengthening the security and audit functions of the data center, including the probable addition of staff.

OBTS/CCH. At the beginning of the second year, the OBTS/CCH backlog problem should be eliminated and conditions should be in place to prevent a recurrence. If needed, project teams from the first year will remain in place until this first-priority objective is accomplished. Efforts will then be redirected to achieving longer range improvements to OBTS/CCH, and the project teams will be restructured. On a preliminary basis, three teams are envisioned to address longer term needs. The first team, working closely with the user steering committee, will be established to develop a plan for a thorough redesign of OBTS/CCH. This should include development of a more practical and informative delinquency reporting system that can address some of the needs described in Chapter 6 of this study. The second team will work on establishing automated

interfaces with major remaining agency systems such as COMPAS, PROMIS, and PROBER. These interfaces will adhere to the interface standards developed during the first year. A third major project will be to automate the district court system. This is the major, remaining, unautomated source of information for OBTS/CCH. This undertaking, of course, requires the close cooperation of the Judiciary and coordination by the OBTS/CCH user steering group.

AFIS. AFIS activity will consist primarily of completion of implementation of the new system, including extension to the neighbor islands. This is also the time to evaluate the feasibility of West Coast connectivity, as discussed in Chapter 9.

Hardware/communications support. Depending on the direction stated in the master plan, the second year may include a more thorough consideration of hardware support alternatives, with particular attention to the possibility of acquiring a dedicated processor for criminal justice systems. The probability of such a move depends to a large extent on whether the activities of the first two years builds a cooperative atmosphere between the various entities involved in criminal justice information activities. It will also depend on the master plan findings regarding the degree of integration that should be achieved between the different systems. Any actual move to a different processor would require advanced planning and would probably occur after the second year of the plan.

In the area of communications support, the microwave installation project may have begun by the second year. While this should have a significant effect on the eventual flow of criminal justice information, it is still early to determine the specific impact of this development on the action plan.

Later years (1991 and on). Over the longer run, a structure should be in place to actively plan for and oversee further developments related to statewide criminal justice information systems. This will consist of the board, supported by user steering groups with specific oversight responsibilities, and the advisory staff support of the data center. In the third and later years, it is expected that the board will continue to refine and modify the master plan and other supporting plans. A major redesign of OBTS/CCH appears likely to occur and will involve input and assistance from the full user community. This new OBTS/CCH design should enhance significantly its value as a management reporting and modeling tool. AFIS implementation should be completed and stabilized in the third through fifth years, although West Coast connectivity may become a major project. The data center's organizational structure, staffing, and responsibilities may also tend to stabilize and mature during this time. Finally, continued development is expected in the areas of hardware and communications support. This may assist significantly in achieving much closer integration of information systems than has historically been the case.

Chapter 4

HAWAII CRIMINAL JUSTICE DATA INTERAGENCY BOARD

In this chapter, we examine the role of the Criminal Justice Data Interagency Board in the development and management of the statewide criminal justice information reporting and retrieval system. The interagency board was established by Act 165, Session Laws of Hawaii (SLH) 1985.

Summary of Findings

We find as follows concerning the Hawaii Criminal Justice Data Interagency Board:

1. Considerable ambiguity exists regarding the nature, functions, authority, and responsibilities of the board, particularly with respect to:
    a. Whether it should operate as a policymaking entity or purely as an advisory body.
    b. Its interrelationships with the Hawaii Criminal Justice Data Center ("data center").
2. Most of the board's efforts to date have been focused on the internal operations of the board and on statutory amendments and other legislative matters, and relatively little concentrated attention has been given to substantive issues and problems facing Hawaii in the area of criminal justice information. As a result, the system continues not to be fully functional and effective, and board members are becoming increasingly frustrated over the lack of progress being made toward fulfilling the board's statutory mandate.
3. A need exists for the board to continue beyond its present statutory expiration date of June 30, 1989, but if it is to fulfill its mission effectively, its status needs to be clarified and the composition of its membership needs to be changed and strengthened.
4. One area of need is for the development of user steering committees for direct administrative oversight of multi-agency systems such as the Offender-Based Transaction Statistics/Computerized Criminal History (OBTS/CCH) system and the Automated Fingerprint Information System (AFIS). These steering committees would work under the authority and within the policy guidelines of the board, and would ensure that specific work being performed on these systems is effective and in accordance with the needs of the user community.

The Present Governance Structure

Pursuant to Section 846-1.5, Hawaii Revised Statutes (HRS), the Criminal Justice Data Interagency Board is "responsible for promoting interagency cooperation and coordination in the development and management of an accurate, complete, timely, and fully integrated statewide criminal justice information reporting and retrieval system." At present, 8 of the 11 voting members of the board are appointed by the Governor and confirmed by the State Senate, while 3 serve as ex-officio voting members. The appointed members include at least one resident member from each county in the State and are representative of criminal justice agencies. The ex-officio voting members are the division chief of the Electronic Data Processing Division of the State Department of Budget and Finance; the director of the Department of Data Systems of the City and County of Honolulu; and the director of the State Department of Corrections. All the members serve without compensation but are reimbursed for the expenses incurred during the performance of their duties. The interagency board is established within the Department of the Attorney General for administrative purposes. It is slated to expire on June 30, 1989.

The Attorney General designates the executive secretary of the board. Since the establishment of the board in 1985, the administrator of the Hawaii Criminal Justice Data Center has served in this capacity. Organizationally, the data center is a division of the Department of the Attorney General, as shown in Exhibit 4.1. The data center, which was statutorily established in 1979, initially was attached to the Judiciary for administrative purposes. Subsequently, it was transferred to the executive branch, effective July 1, 1981. The data center is the state agency in which the responsibility for the operation of the statewide OBTS/CCH system is vested and, as such, functions as the state repository for criminal history records. It also has other responsibilities besides OBTS/CCH which include but are not limited to the state civil identification program, the state criminal identification program, criminal record checks, and expungement orders. These responsibilities are described in more depth in Chapter 5.

Ambiguity Regarding the Board's Role

We find that considerable ambiguity exists in terms of the nature, functions, authority, and responsibilities of the interagency board. This ambiguity is particularly evident with respect to: (1) whether it should operate as a policymaking entity or purely as an advisory body, and (2) its interrelationships with the data center.

Policymaking or advisory role. The establishment of a formal board was no accident. Recognition of the pressing need for the development of a well-functioning criminal justice information system by the Governor's Planning Committee on Crime led to the creation of an

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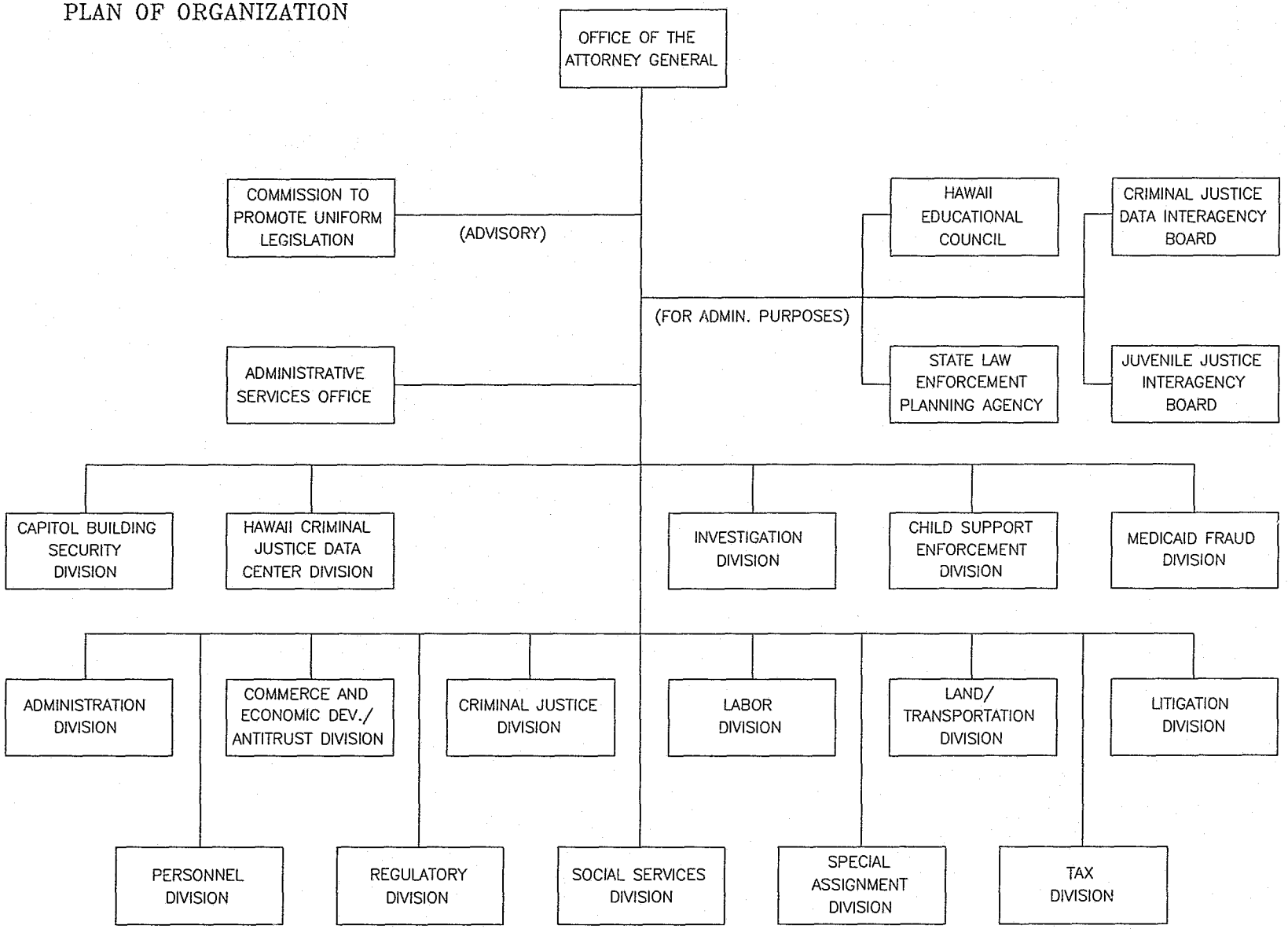


EXHIBIT 4.1

advisory ad hoc committee whose members were appointed by the Governor and whose task was to determine just what needed to be done to achieve such a system. The committee first met on October 6, 1983. After extensive effort, the Ad Hoc Committee on the Criminal Justice Information System, chaired by Associate Justice Edward Nakamura, issued a detailed report in February 1985. This report identified 20 objectives as part of a comprehensive plan to improve the statewide OBTS/CCH system administered by the Hawaii Criminal Justice Data Center. Objective 1 called for the replacement of the ad hoc committee by "a formal representative *policy* [Emphasis added.] board" which would have "overall responsibility to implement and monitor the criminal justice information system to insure an effective and dependable system for user agencies."

Accordingly, a formal board was statutorily established in 1985. The motivation behind the ad hoc committee's recommendation was to "[e]stablish a formal representative organization with authority and commitment to oversee and exercise responsibility to implement a criminal justice information system in order to insure that effective actions will be taken to facilitate implementation of accurate, complete, and timely statewide criminal justice information." However, from the outset, there was confusion as to what the board was supposed to do. A review of the minutes of board meetings indicates that at the very first meeting held on November 20, 1985, the newly appointed board members sought clarification of the board's specific duties and responsibilities. To assist the board in this regard, the executive secretary of the board drafted the board bylaws, which were formally adopted by the board at its third meeting on March 7, 1986. These bylaws serve as guidelines for the board's internal operations.

The duties and responsibilities of the board, as defined by its own bylaws, differ materially from those envisioned for the board by the ad hoc committee. Most important, the board's own document does not specify clearly and unequivocally that it will have overall administrative responsibility for implementing and monitoring the criminal justice information system. Instead, the board's document contains contradictions in that on the one hand, it is "to assist in drafting interagency agreements and compliance requirements [and] rules and regulations promulgated for user agencies, and to establish necessary operational procedures for the effective implementation of a statewide information system," while on the other hand, it is "to set priorities, establish policies and program standards, and determine resource allocation and placement." In the first passage, the board's role appears only to be advisory in nature while in the second passage, it appears that the board has overall policy authority.

The contradictions evident in the board's bylaws stem from the ambiguity surrounding its authority. An examination of the minutes of the 12 board meetings from November 1985 to

January 1988 shows that early on, at the request of the board chairman, a deputy attorney general assigned to service the board also attempted to clarify its authority. The deputy attorney general's preliminary finding, which was communicated orally to the board at its meeting on June 6, 1986, was that the board is advisory in nature. On August 8, 1986, the same deputy attorney general summarized the authority of the board in terms of the powers enumerated by the Legislature. Particularly, she noted that the board was given no rulemaking power under Chapter 846. Yet, there is general legislation governing the administrative supervision of boards and commissions assigned to departments for administrative purposes which casts a different light on this matter. As previously indicated, the Hawaii Criminal Justice Data Interagency Board is placed within the Department of the Attorney General for administrative purposes. Under Section 26-35, HRS, rules and regulations of such boards and commissions are subject to approval only by the Governor. Moreover, the head of a department to which such a board or commission has been attached is specifically precluded from having the power to supervise or control the board in the exercise of its functions, duties, and powers. If the board was intended to be only advisory, it is anomalous that it was attached to the Department of the Attorney General for administrative purposes.

The problem seems to be that when Act 165, which established the interagency board, was passed in 1985, certain powers which Chapter 26, HRS, reserves for boards of this kind were not given to the board but were left with the Attorney General. Key among these is the rulemaking authority. While Section 846-1.5, HRS, is silent on the matter, Section 846-15, HRS, provides that the Attorney General shall adopt rules and regulations which will insure compliance with the provisions of Chapter 846 by the most efficient and effective means possible. Thus, rulemaking authority which would have allowed the board to set policy was not granted to the board but was left with the Attorney General. As a result, the board has assumed an advisory capacity which we think is clearly in violation of the spirit and intent of creating a formal board. That is to say, if the board was intended to be merely advisory, there would have been no need to replace the already functioning advisory ad hoc committee with a formal board. In addition, if rulemaking as well as other authority had been given to the board, the board might have had the requisite clout that many of its members believe is so sorely needed if it is to function as intended.

Furthermore, it is imperative that rules and regulations to implement Chapter 846 be promulgated. The ad hoc committee recognized the importance of rules and regulations "to assure that the criminal justice agencies comply with the requirements of the statute to diligently enter accurate and complete data into the existing criminal justice information system (OBTS)

in a timely fashion." So much was this the case that the development of a plan to insure the promulgation became objective 2 of the 20 objectives identified by the committee. However, to this day, no rules have been adopted. The proposed rules and regulations which were drawn up by a deputy attorney general selected by the ad hoc committee and included in its 1985 study of the criminal justice information system still remain in draft form.

At this juncture, because so much time has elapsed, the proposed rules and regulations should be reexamined and reviewed by all the affected criminal justice agencies before further formal action is taken to adopt rules governing the criminal justice information system. The interagency board would provide the proper forum for this reexamination and review. However, legislative action is required to clarify the board's authority to adopt rules in this area.

Board's interrelationships with the data center. Not only is there ambiguity with respect to whether the board is a policymaking entity or an advisory body, there is also ambiguity with respect to its interrelationships with the Hawaii Criminal Justice Data Center. Both the board and the data center are statutorily established within the Department of the Attorney General. However, whereas the former is placed there for administrative purposes, the latter is an organizational division under the full control and direction of the department. To complicate matters, Chapter 846 gives the two entities potentially overlapping responsibilities. While the board is "responsible for promoting interagency cooperation and coordination in the development and management of an accurate, complete, timely, and fully integrated statewide criminal justice information reporting and retrieval system," the data center is "responsible for the collection, storage, dissemination, and analysis of all pertinent criminal justice data from all criminal justice agencies."

Under the statutory authority to designate an executive secretary for the board, the Attorney General has named the data center's administrator to be the board's executive secretary. While this designation serves to provide a formal link between the two entities, it raises other questions which remain unanswered. For example, does this action in any way bring the data center administrator and his staff under the control and direction of the board? Or, conversely, does the action make the board answerable to the data center administrator?

In the absence of any formal clarification of roles between the board and the data center, actual practice has served to place the data center administrator/executive secretary in a dominant position in terms of setting the board's direction and influencing what it has or has not done.

To illustrate, while the board is supposed to meet at least once per quarter, as of November 1, 1988, when most of the fieldwork for this study was concluded, it had not met officially since January 1988.[1] This is because the executive secretary's time has been devoted

almost completely to the planning for AFIS. Whatever importance AFIS may have, it does not appear that this project should have been allowed to prevent the board from meeting for almost a whole year--especially considering the fact that the board has not yet fulfilled its statutory mandate and is scheduled to go out of existence on June 30, 1989. Yet, this is what has happened.

Moreover, while the board is clearly supposed to deal with the criminal justice information system, an examination of the minutes of board meetings indicates that on at least two separate occasions, the board has discussed and supported legislation which deals with the civil identification program of the data center. The civil identification program, which falls under Part II of Chapter 846, HRS, is totally separate from the criminal justice information program covered under Part I of this chapter. As such, it is entirely under the control and supervision of the Attorney General and is in no way subject to the jurisdiction of the board.

Further, the board has spent considerable time keeping up with developments relating to AFIS. According to Section 846-2.5, HRS, AFIS is also the responsibility of the Attorney General. Currently, it is unclear whether AFIS will fall under the purview of the board although the current procurement process for AFIS indicates that it will interface with the OBTS/CCH system. If the board is going to be involved in AFIS, then it would seem that it should be given some formal responsibility in this area and should be encouraged to become more fully involved.

Similarly, the development of a juvenile justice information system (JJIS) has been the topic of some discussion at several board meetings. Originally, the data center was to be the lead agency for the design of the system; however, the system currently being proposed was designed by consultants quite separate from the data center. Still, at its official meeting in January 1988, the board unanimously agreed to support the appropriations bill for the JJIS. Under Chapter 846, juvenile information also comes under the authority of the data center, but the data center has decided that it cannot accept responsibility for developing the system. The JJIS is discussed in more detail in Chapter 6 of this report. The point here, however, is that the respective roles of the board and the data center relative to the JJIS have remained undefined. As a result, the board has ended up giving time and attention to this peripheral matter, time which might have been used more productively to focus on its main mission, the effective implementation of the adult criminal justice information system.

Nominally, the chairman sets the board's agenda. However, actual decisionmaking on this matter is only done in close consultation with the executive secretary and is usually based on staff work performed by the executive secretary or other personnel in the data center. Thus, it is the executive secretary who largely determines what is and is not considered by the board at its meetings. Under this arrangement, it should come as no surprise to find that the board probably serves the data center more than the data center serves the board.

To a large extent, then, the board's confusion in terms of its role simply reflects statutory ambiguity on the matter. Traditionally, administrative boards and commissions are expressly given rulemaking authority and are empowered to function very much on their own in carrying out their assigned tasks. However, unlike most such boards, this board shares much, if not all, of its authority with the Attorney General. The organizational interrelationships between and among the board, the Attorney General, and the data center, therefore, should be reviewed in order that clearer lines of authority can be identified. If the board's role is truly to be an administrative, policymaking one, then it will probably be necessary to provide it with a firmer base than it has at present.

Scant Attention to Substantive Issues

We find that largely owing to the ambiguity which exists regarding the nature, functions, authority, and responsibilities of the board, most of the board's efforts to date have been focused on internal operations of the board and on statutory amendments and other legislative matters. Relatively little concentrated attention has been given to substantive issues and problems facing Hawaii in the area of criminal justice information. To assess the actual role of the interagency board, we examined all of the minutes of the 12 board meetings from November 1985 to January 1988. To classify the board's actions in some meaningful fashion, we used the following three categories: (1) intra-board concerns and operations, (2) support for legislation, and (3) OBTS/CCH management.

An examination of the 41 decisions made by the board during 1985 to 1988 revealed that 56 percent of all the decisions were decisions in the intra-board concerns and operations category; 39 percent were decisions concerned with support for statutory amendments and other legislation; and 5 percent were OBTS/CCH management decisions. Among the decisions concerned with supporting specific legislation, 25 percent were decisions relating directly or indirectly to OBTS/CCH, while 75 percent were decisions relating to legislation in non-OBTS/CCH areas or concerning the board itself.

Intra-board concerns and operations. Fifty-six percent of all board decisions were in this category. They included the types of decisions which deal with the internal operations of the board, such as the adoption of bylaws and minutes, election of officers, and establishment of standing committees or working subcommittees.

Support for legislation. The second major category of board decisions consists of decisions concerned with supporting statutory amendments and other legislation. These comprised 39 percent of all board decisions. Twenty-five percent of all the board decisions in this category

bore some relation to OBTS/CCH. They had to do with the conversion of the data center administrator's position from appointed to civil service status; the conversion of temporary positions to permanent to assist in the areas of data entry and dissemination of criminal history record information; and the creation of a data quality assurance unit within the data center to audit, monitor, and assist user agencies with data entry. The remaining 75 percent had to do with JJIS and AFIS; civil identification; the interstate transmission of criminal justice data and information; authorization for the data center to assess fees for conducting criminal record checks; requiring criminal record checks for employees of the Department of Corrections; and board membership or composition, which is explained more fully later in this chapter.

OBTS/CCH management. The third category of board decisions has to do with management of the OBTS/CCH system. A mere 5 percent of all the decisions fell into this category. These decisions had to do with the board unanimously approving the discontinuance of the career criminal listing and special career criminal prosecution disposition, only to unanimously approve reverting the career criminal program back to is original status at a subsequent meeting.

That the board has made very few actual decisions with regard to the management of the OBTS/CCH system does not mean that the board has been wholly inattentive to substantive issues. The board has spent considerable time discussing the longstanding problems which impede the development of a fully functional criminal justice information system. It has even attempted to deal with them by establishing standing committees and working subcommittees. However, for various reasons, one of which is a relatively rapid turnover of board members, the board has been unable to deal effectively with those problems. It should be noted that as of January 1988, only six board members had been serving since the board first met in November 1985. Of these six board members, one more has terminated since that time and another will be leaving at the end of 1988. Then, too, with respect to the five other members, a representative of the Judiciary who was appointed in 1988 will also be terminating.

Result of Board's Inability to Deal With Substantive Issues

As a result of the board's inability to deal with substantive issues and problems facing Hawaii in the area of criminal justice information, the statewide system continues not to be fully functional and effective and board members are becoming increasingly frustrated over the lack of progress being made toward fulfilling the board's statutory mandate. The deficiencies of the present OBTS/CCH system are discussed in Chapter 6 of this report, but here some mention must be made of the board members' frustration with the board's lack of progress.

All 11 present members and one past member of the board were interviewed between August 11 and October 5, 1988. Because 3 of the 11 present members are so new that they have yet to attend a board meeting, and another 1 of the 11 has only attended two meetings, they could not comment about the workings of the board. However, the remaining seven present members and one former member all agreed that the board has been unsuccessful at fulfilling its objective. Also widely acknowledged was the fact that the board has not performed any oversight of the data center's budget or operations, equipment purchases, and the like. Some members alluded to experiencing a great deal of inertia at meetings while others mentioned that obtaining a quorum at meetings is a significant problem. All indicated some frustration with the board. One member said that he feels that the board is "chipping away an ice mass with a toothpick."

Need for Continuation of the Board

Although under the provisions of Section 846-1.5, HRS, the board is due to sunset on June 30, 1989, we feel there is a need for the board to continue beyond the statutory expiration date. This is mainly because a great deal of interagency coordination and cooperation is still required to make the statewide criminal justice information system as accurate, complete, timely, and fully integrated as it can and should be. However, if it is to fulfill its mission effectively, we also believe that its status must be clarified and the composition of its membership must be changed and strengthened.

The majority of the 12 past and present board members who were interviewed expressed support for the continuation of the board. More specifically, 8 of the 12 board members feel that there is a need for the board, primarily because the system is not up and running efficiently or because criminal justice agencies need a forum for ongoing dialogue until the system is fully functional. Three others strongly believe as we do, that it should be continued only if it can be reconstituted or strengthened. Only one member had no opinion, but this was because he has only recently been named to the board and has not yet had the opportunity to attend a meeting.

Clarification of the board's status. The clarification of the board's status requires legislative action. First, Section 846-1.5, HRS, should specify explicitly that the board has overall administrative responsibility to implement and monitor the criminal justice information system. Perhaps its specific duties also should be more clearly defined by statute. The board, as the representative of the agencies, should primarily have a policymaking role so that administrative responsibility for implementing and monitoring the statewide criminal justice information system rests with the criminal justice agencies themselves. This will help to ensure that the system is an effective and dependable one for the user agencies. In order for the board to have a

policymaking role, rulemaking authority needs to be transferred from the Attorney General to the board. Thus, Section 846-15, HRS, would have to be amended to reflect this change. Once this is done, it is hoped that the board will act with some urgency to promulgate rules and regulations for the successful implementation of Part I of Chapter 846. The existing draft of the proposed rules and regulations needs to be reexamined and reviewed, however, to determine whether its contents are still relevant and appropriate.

Under Chapter 91, HRS, which governs state administrative procedure, once proposed rules and regulations are completed and a copy is sent to the Governor for his preliminary approval, public hearings are conducted to allow public input. Once the rules are finalized, they are adopted by the adopting agency, subject to the approval of the Governor. The rules take effect 10 days after they are filed in the Lieutenant Governor's office. During the course of conducting this study, we learned that the Department of the Attorney General may take the proposed rules out to public hearing before the end of the year. However, even if this does happen, we feel that rulemaking authority should be transferred to the board, particularly if it is to have overall administrative responsibility for implementing and monitoring the statewide criminal justice information system, as originally envisioned.

By clarifying the board's status, its interrelationships with the data center as well as the Department of the Attorney General should become more well defined. As clearer lines of authority are identified, the board should give stronger consideration to fulfilling its statutory requirements and pay less attention to other peripheral matters.

Strengthening the membership of the board. If the board is to fulfill its mission effectively, the composition of its membership also needs to be changed and strengthened. Previous actions taken to change the board's membership seem to have weakened, rather than strengthened, the ability of the board to perform effectively.

When the board was first established in 1985, its members were to be appointed by the Governor and to be representative of criminal justice agencies. They also had to include a resident member from each county in the State and ex-officio members, as necessary. Act 146, which was enacted in 1987, provides that the board shall consist of 11 voting members, 8 of whom shall be appointed and 3 ex-officio. Further, the eight appointed members shall include one representative from each of two police departments and two prosecuting attorney's offices; an administrative judge of the district court and of the circuit court; a representative from the adult probation office; and a representative of, or a government attorney who provides legal services to, a state or county criminal justice agency. Moreover, the appointed members are to include a resident of each of the four counties of the State. The ex-officio members are the division chief

of the Electronic Data Processing Division of the State Department of Budget and Finance, the director of the Department of Data Systems of the City and County of Honolulu, and the deputy director of the state department overseeing the corrections functions.

According to testimony submitted to the House Committee on Finance by the Attorney General on March 31, 1987, the language relating to the composition of the board was recommended to provide for "the automatic termination of membership on the [b]oard upon the member's termination of employment with, or reassignment to nonadministrative or other functional responsibilities for, their respective representative agencies." Apparently, the original language was "so broad as to allow current members to remain serving on the [b]oard despite the possibility of their termination of employment in a criminal justice agency." Thus, Act 146 also provides for the automatic termination of board membership under certain conditions.

Act 182, which was enacted in 1988, requires the director of the State Department of Corrections, not the deputy director overseeing the corrections functions, to be an ex-officio member of the board. In addition, Act 182 provides for a member to designate and authorize a substitute to attend meetings and to act in place of the member. The substitute need only be employed in the same agency that is represented by the member.

These statutory amendments were intended to strengthen the board. However, the net effect of these amendments may be to weaken rather than strengthen the board in at least two ways: (1) they may disallow the selection of the best candidates for appointment to the board, and (2) they may exclude certain agencies from being represented on the board.

Diminishment of discretionary authority. In recommending the establishment of a formal policy board, the Ad Hoc Committee on the Criminal Justice Information System envisioned a body whose members would have "authority and commitment to oversee and exercise responsibility" to implement a statewide criminal justice information system. That is to say that members representing the criminal justice agencies should be able to speak authoritatively for and have influence within the respective agencies that they represent, so much so that they would be able to elicit the appropriate kind and amount of cooperation to make the statewide system fully functional and effective.

Specifying just who should be represented on the board by agency or position within an agency diminishes the discretionary authority of agency heads to recommend and the Governor to appoint the best qualified, most committed, and most appropriate candidates for board membership. This seems particularly true of the Judiciary. Rather than specify that an administrative judge of a circuit court, an administrative judge of a district court, and a representative from the adult probation office of the Judiciary sit on the board, it may be

advisable to leave it up to the Chief Justice to determine who can best represent and speak for the organization.

Exclusion of agencies. Further, the present composition of the board may exclude certain agencies or at least make them feel as if they are not represented. For a statewide system which depends on the cooperation of many agencies which span multiple jurisdictions, i.e., the executive and judicial branches of the state government and the county governments, it is imperative that all the affected agencies feel they are represented, but this is not the case now. With respect to the county prosecuting attorneys, three of whom are elected and one of whom is appointed, having two serve on the board does not mean that all four are represented or that the two on the board can speak for the two who are not on the board. The same is true of the four county police departments. However, increasing the size of the board to include all the agencies would make it unwieldy. Instead, the four prosecuting attorneys and four police departments may each want to meet to determine which two amongst them, respectively, should be recommended for appointment to the board. Then, those who are appointed should regularly communicate with their counterparts to keep them apprised of and to seek their input on what is going on with respect to the criminal justice information system and the board. In this fashion, those most interested in serving may be able to sit on the board and no agency need feel totally unrepresented.

Interestingly, from the outset, the Attorney General has not been a member of the board. We think that as the state's chief law enforcement officer as well as the head of the department in which the board is established for administrative purposes, the Attorney General should be a member of this board. In order to make the board truly representative, we propose that the board be composed of the following voting members: one representative from each of two police departments, as determined by the police departments themselves; one representative from each of two prosecuting attorneys' offices, as determined by the prosecuting attorneys themselves; two representatives from the Judiciary, as determined by the Chief Justice; two representatives from the State Department of Corrections, as determined by the director of the department; the division chief of the Electronic Data Processing Division of the State Department of Budget and Finance; the director of the Department of Data Systems of the City and County of Honolulu; and the State Attorney General. The appointed members of the board would still be appointed by the Governor who would ensure that the members of the board include a resident member from each county of the State.

As mentioned earlier, in 1988, Section 846-1.5 was amended to provide for substitutes to attend and act at meetings. This amendment was supported by the board because it wanted

to overcome the nagging problem of not having a quorum for board meetings. By providing for the best qualified, most committed, and most appropriate candidates to be appointed for board membership, it is hoped that the use of substitutes will be kept to a minimum or avoided entirely.

Need for Multi-Agency System Steering Commitees

It was stated earlier that full participation of the criminal justice agencies will be required to ensure that systems operate effectively and dependably. Restructuring the board membership will help to increase this participation at the policymaking level. In addition, for multi-agency systems such as OBTS/CCH and AFIS, the need exists for steering committees composed of key system users from all agencies to provide more direct administrative or operational oversight, and ensure that work being performed on these systems reflects users' priorities. These steering committees, for example, would approve system changes or enhancements; establish priorities for implementing changes; approve action plans and monitor progress against plans; and oversee projects initiated to carry out policy determinations made by the board that relate to their particular system. These steering committees would be organized and controlled by user agencies and operate under the authority of the board. Data center personnel would provide advisory input and carry out project activities under the direction of these steering committees. It would be expected that one or two members of each steering committee, but not all members, would also serve on the board and serve in a liaison capacity.

Recommendations

We recommend that:

1. The Legislature clarify the board's policymaking status, particularly as it relates to the board's nature, functions, authority, and responsibilities. The Legislature can do this by:

- *Specifying in statute that the board has overall administrative responsibility to implement and monitor the criminal justice information system;*
- *Transferring such powers as rulemaking authority from the Attorney General to the board; and*
- *Defining the board's duties and responsibilities in statute.*

2. The Legislature extend the life of the board beyond its present statutory expiration date, but only if it also clarifies the role of the board as recommended above and changes and strengthens the present composition of the board.

3. The board address substantive issues which will enable the criminal justice information system to be fully functional and effective and pay less attention to peripheral matters.

4. *Under the authority of the board, user steering committees be established to provide effective direction over OBTS/CCH and AFIS activities.*

Chapter 5

ORGANIZATION AND OPERATIONS OF THE HAWAII CRIMINAL JUSTICE DATA CENTER

As part of this study, documentation was assembled regarding the mission of the Hawaii Criminal Justice Data Center ("data center"); its organization, budget, policies, and procedures; and relevant statutory requirements. This provided an initial understanding of its current functions and responsibilities. Interviews were then conducted with all management and supervisory level personnel within the data center, with particular fact-finding emphasis on those areas directly supporting the functions of the Offender-Based Transaction Statistics/ Computerized Criminal History (OBTS/CCH) system.

This chapter provides findings and recommendations resulting from this fact-gathering process that deal primarily with the overall organization and operating effectiveness of the data center. Specifically, these findings and recommendations deal with the data center's roles and responsibilities, organization and personnel resources, planning and project control methods, security policies and procedures, hardware resources and level of performance, and functionality of the supporting data communications network.

Summary of Findings

Findings resulting from the review of the data center's organization and operations are presented in this section. Recommendations may be found in the final section of this chapter. Both findings and recommendations are organized according to the major areas of review.

Roles and responsibilities. With respect to roles and responsibilities of the data center, we find as follows:

1. The data center has steadily accumulated new responsibilities over time. With the exception of the civil identification (ID) program, these appear to fit logically within the concept of a centralized criminal justice service function.

2. This growth, while logical, has also created issues and problems. The data center's resources have lagged behind its increased responsibilities. It continues to have difficulties in serving adequately its traditional functions, such as OBTS/CCH, while trying to provide new services at the same time.

Organization and personnel resources. With respect to the data center's organization and personnel resources, we find as follows:

1. The data center's current organization structure allows it to address satisfactorily the majority of its assigned responsibilities. The most significant exception is OBTS/CCH support, which is currently spread across three sections and therefore may not be well coordinated centrally.

2. Data center management has proposed a reorganization to combine most OBTS/CCH-related functions under a new Information Systems Section. This includes creation of a new Quality Assurance Unit to address the delinquent disposition problem and initiate an audit role. Significant OBTS/CCH-related functions not included under the new section are systems support and the interface clerks.

3. Staffing levels appear to be low relative to workloads in several areas. In some cases, this has been exacerbated by the inexperience of some personnel and by management's inability to fill certain authorized positions. Specific areas of staffing inadequacies include the following:

- Number and skill levels of staff in the System Development Section;
- Number of interface clerks in the Operations Section;
- Temporary clerk/typist positions to clear up the OBTS/CCH backlog, which management has not filled in two years;
- Number of Systems Support Section staff; and
- Number and skill level of Criminal ID Section staff.

Planning and project control. With respect to planning and project control methods within the data center, we find as follows:

1. The data center is operating under a rather complete and logical six-month tactical plan. However, it lacks long-range plans directed at its overall organizational direction and growth, and at resolution of major outstanding issues regarding specific systems such as the OBTS/CCH.

2. On a more operational level, there is a relative deficiency of formal tasks to control work and monitor progress, particularly in the System Development and Operations Sections. While supervisory personnel nevertheless appear to have adequate knowledge of the status of current projects, this may change quickly as more complex projects are initiated and staffing needs increase.

Security. With respect to security practices within the data center, especially with regard to the OBTS/CCH system, we find as follows:

1. The current procedures for coordinating OBTS/CCH password and user ID assignments with agency personnel appear to be well documented, thorough, and consistent.

2. There is no single plan for addressing the security and privacy requirements of centralized criminal justice records. Such a privacy and security plan has been developed and used successfully in other states.

3. The data center has drafted administrative rules that would address a number of security and privacy concerns. However, these remain in draft form and have not been promulgated.

4. The amount of data center staff resources assigned to address privacy and security matters, as well as provide audit services, is currently deficient.

5. Certain improvements could be made in a short period of time to current access control methods. These include replacing group security practices with individual security, using the system to require regular password changes, and changing control of access based on terminal ID wherever this creates a significant user operating problem.

Hardware resources and performance. With respect to the adequacy of hardware support and performance for OBTS/CCH system users, we find the following:

1. The hardware resources provided by the Electronic Data Processing Division (EDPD) are adequate to meet the current needs of the OBTS/CCH user community.

2. Response times currently appear to be satisfactory, and planned performance upgrades should permit this to continue for some time. However, there is insufficient information to provide long-term assurance of this.

Additional findings regarding system availability, utilization monitoring, and capacity planning are presented in Chapter 8. See also the description of the Intake Service Center activities in Chapter 6.

Network/communications functionality. Specific findings and recommendations in this area are provided in Chapter 9 of this report.

Data Center Roles and Responsibilities

Over time, a definite trend has been established for the data center to accumulate new responsibilities, often absorbing functions that were previously performed on a more decentralized basis. While support of OBTS/CCH was the original function of the data center, others have steadily been added. The function of providing criminal history record checks for all interested parties throughout the State was taken over from the Honolulu Police Department (HPD). The civil ID card program, statistical reporting, and some criminal ID functions were assumed from the Bureau of Crime Statistics in 1983. More recently, the data center has undertaken the task of centralizing fingerprint records and identification functions, and selecting and supporting an Automated Fingerprint Identification System (AFIS). This will result in a further transfer of responsibilities from HPD to the data center.

With the exception of the civil ID program, the responsibilities assigned to the data center appear to fit logically within the concept of a centralized criminal justice service function. They involve criminal justice information that should be captured, maintained, and made available on a centralized basis to a large number of agencies and other interested parties throughout the State. The need to maintain the integrity and confidentiality of this type of information, and to provide a single source of information for accurate reporting of criminal justice statistics, argues for a centralized state organization such as the data center.

The data center's growth, while logical, has also created a number of issues and problems. In general, it appears that the resources available to the data center have lagged behind its growth in responsibilities. To some extent, this seems to result from a natural tendency to underestimate the challenges presented by the assumption of new responsibilities. At the same time, the data center has frequently lacked the staff needed to properly address and resolve the challenges still being presented by its traditional functions. For example, the data center continues to struggle to keep pace with the current operational problems of OBTS/CCH, and has not been able to plan and implement the more far-reaching design changes that are needed to build solid user community support for OBTS/CCH as an effective operational system. While not the sole reason for the data center's troubles, lack of staffing and budgetary support has definitely made it difficult for the data center to grow and still maintain its service effectiveness. This disparity between the growth of the data center's responsibilities and the resources available to it continues to this date.

Brief descriptions of the data center's responsibilities are provided in the remainder of this section. These include its new responsibility to administer, operate, and maintain a statewide automated fingerprint identification system.

OBTS/CCH. The data center's single largest commitment of resources is toward administering and maintaining the OBTS/CCH system. This system is extremely complex from both a technical and operational perspective, as it requires a significant level of cooperation from numerous agencies involving the intricate processes of law enforcement, prosecutors, courts, and corrections on Oahu, Hawaii, Maui, and Kauai.

Maintaining the OBTS/CCH system entails the technical activities involved in enhancing or otherwise modifying approximately 200 application software programs, including requirements analysis, design, coding, testing, and implementation.

By statute, the data center is responsible for the accuracy and completeness of OBTS/CCH information that is maintained in the system. Therefore, a significant amount of time is spent in identifying and researching missing information, as well as verifying existing data.

Finally, the data center is responsible for the operational aspects of OBTS that include scheduling of batch jobs, monitoring the communications network and resolving problems when necessary, ensuring maintenance of the data base, providing system security, producing various system reports, and disseminating hard-copy output to appropriate users. A number of these functions require close coordination with EDPD, which provides the supporting hardware environment.

Civil identification cards. The data center is responsible for administering the state civil identification card program. Activities related to this responsibility include processing of applications, fingerprinting, classification of fingerprints, photographing applicants, and producing the actual identification card complete with photograph. Furthermore, the data center is responsible for maintaining the information regarding each card that is issued.

The data center is currently in the process of designing and developing software and acquiring hardware to provide automated support of the civil identification process and recordkeeping responsibilities.

Criminal history record checks. As a result of Chapter 846, Hawaii Revised Statutes, the data center is assigned the task of performing criminal history record checks and disseminating this information to requesting organizations. Organizations routinely request this service when considering individuals for employment or licensing in the areas concerning child care, child protective services, security guards, private detectives, and state government agencies. The Honolulu Police Department had historically provided this service but has since discontinued this function. Consequently, all requests for this form of criminal history record research are directed toward the data center.

The demand for criminal history record checks is increasing yearly, and data center personnel are growing more concerned over the fact that statutes do not exist that govern the dissemination of such sensitive information. As part of its proposed administrative rules, the data center has drafted guidelines to govern the dissemination of criminal history information. However, these administrative rules have not obtained approval.

Expungements. The data center is responsible for processing expungements. By statute, expungements must be processed within 120 days of the request for this service, requiring that data center personnel react relatively quickly.

Processing expungements requires that data center personnel research and coordinate efforts with the police department, prosecutor, and the court. The court information is typically the first to be researched to ensure that the disposition is such that it qualifies for the expungement process. Once it is determined that a case is eligible for expungement, further processing is

resumed by coordinating with both the police department and prosecutor's office to ensure that all source documents are returned and that automated systems are fed the appropriate information. A file is maintained which provides an audit trail of information that has been expunged.

Statistical reporting. As a result of the data center absorbing the Bureau of Crime Statistics in 1983, the data center assumed the responsibility for generating statewide crime-related statistical reports, including the Uniform Crime Report (UCR). The UCRs are generated quarterly by collecting both manual and automated information that is loaded into personal computer (PC)-based spreadsheets, and generating the various statistical correlations.

The data center also responds to requests for specialized crime statistical reports by the Legislature, Attorney General, criminal justice agencies, government officials, libraries, and state archives. In addition, the data center statistical personnel collectively identify their own topics and present them to the data center administration for approval. Information is gathered from many sources; however, OBTS/CCH is typically used as a starting point in the information-gathering process.

Automated Fingerprint Identification System. The data center is currently involved in the identification and acquisition of a new statewide AFIS. The data center anticipates assuming the responsibility of housing, administering, operating, and maintaining the system once it has been acquired. It is also anticipated that the data center will serve as the central repository for all fingerprint cards on a statewide basis and will train the appropriate state personnel in the use of AFIS. These new responsibilities will affect the organization, necessary staffing levels, and budget of the data center.

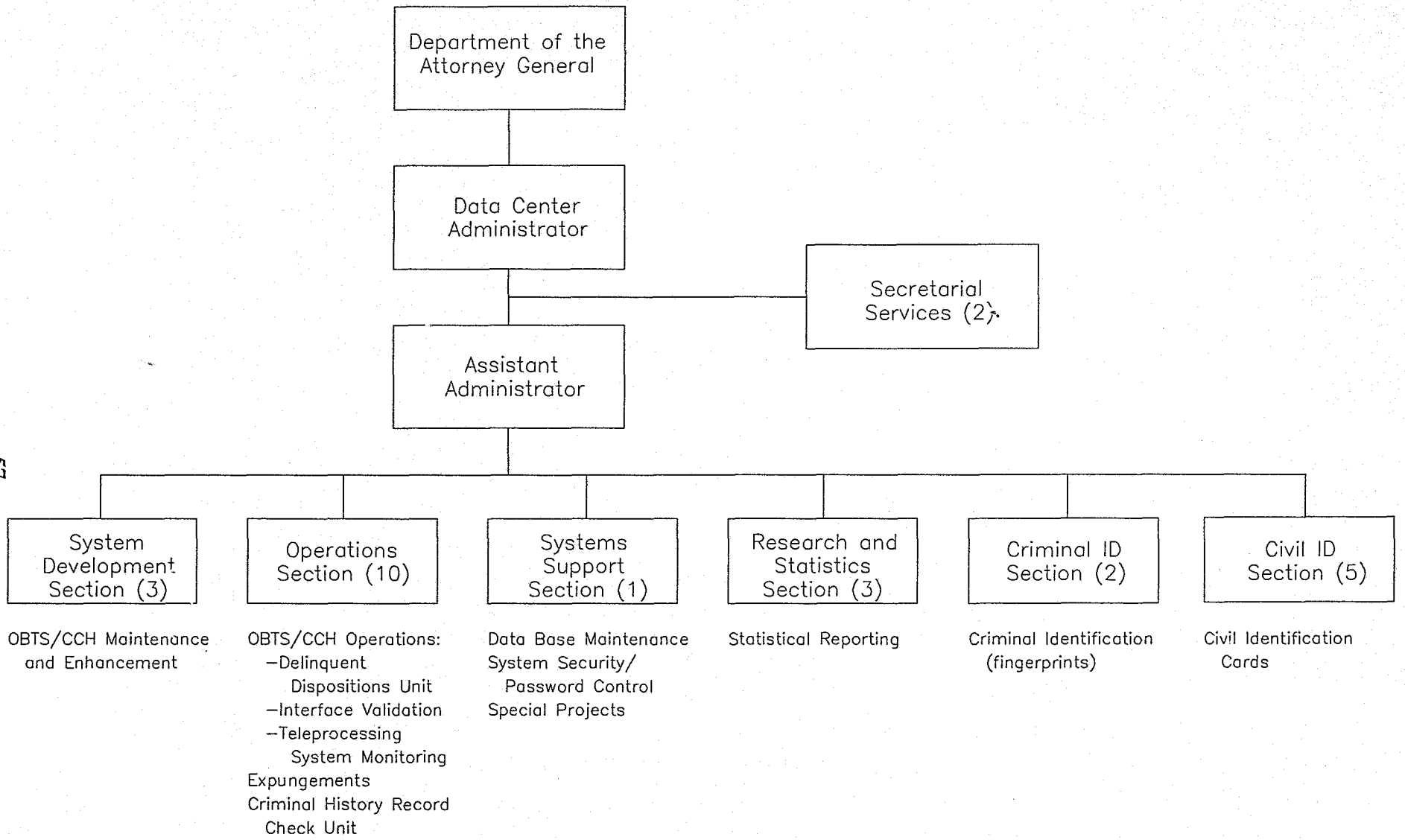
For a more extensive discussion of the AFIS selection process and associated issues, please refer to Chapter 9 of this report.

Organization and Personnel Resources

The data center is a division of the Department of the Attorney General. It currently consists of 31 authorized, permanent staff positions, as well as eight temporary positions, not all of which have been filled. It is managed by the data center administrator and an assistant administrator, and is organized into six sections. See Exhibit 5.1, which depicts these sections and the specific functions assigned to each.

The System Development Section, consisting of a systems analyst and two programmers, is fully dedicated to maintenance and enhancement of the OBTS/CCH application software. This staffing level is low relative to the overall effort required to maintain OBTS/CCH, a situation

HAWAII CRIMINAL JUSTICE DATA CENTER
CURRENT ORGANIZATION



Note: Figures in parentheses denote permanent staffing levels as of September 27, 1988. In addition, eight temporary positions had been funded and distributed among the following sections: Operations (4), Research and Statistics (2), and Civil ID (2).

EXHIBIT 5.1

which is aggravated by the fact that the current programming staff is relatively inexperienced. Not surprisingly, this section faces a backlog of maintenance work and has not been able to devote significant time to new development activity.

The Operations Section also is primarily devoted to functions related to OBTS/CCH. The Delinquent Dispositions Unit, which was established to work with the various agencies to reduce their delinquency backlogs, consists of a number of temporary positions that have not been filled. Therefore, this unit is not effective at this time. Two full-time clerks, however, are assigned to validating data entered via the automated interfaces from the Honolulu Police Department and from the Judiciary's First Circuit Court through their Hawaii Judicial Information System (HAJIS) application. At this time, these staff have difficulty keeping up with the volume of error transactions resulting from these interfaces. This is especially true with the HAJIS interface, which may have a transaction error rate exceeding 50 percent. (See Chapter 7.) Many of these errors appear to result from the fact that basic offender identification information is entered into the two systems separately, with resulting discrepancies. The Operations Section also has a staff person devoted to monitoring the OBTS/CCH network, an individual who performs the expungement function, and a unit composed of four permanent employees who perform the criminal history record check function.

The Systems Support Section consists of one individual having a variety of functions. One of these is to identify changes required to the OBTS/CCH data base, communicate these to the data base administration group at EDPD, and ensure that these are completed. A second function is to assign user IDs and passwords to OBTS/CCH system users and address any user problems related to system security. This individual also is engaged in communication with the user community, provides advice regarding personal computer use, and is engaged in special projects such as the recent request for proposals (RFP) issuance and evaluation process for hardware for a new state ID system.

The remaining data center sections perform functions that are relatively independent of OBTS/CCH. The Research and Statistics Section performs the statistical reporting functions described earlier in this chapter. The Civil ID Section fulfills the data center's responsibility to issue state civil identification cards. The Criminal ID Section consists of two staff members located at the Records Division of the Honolulu Police Department. One of these individuals is qualified to classify all fingerprint cards, but does not perform latent fingerprint work. With the implementation of AFIS, it is expected that these existing staff will be moved back to the data center and that the overall staffing of the section will increase.

The current organizational structure of the data center appears to allow it to address satisfactorily the majority of its assigned responsibilities. The exception, which is very significant, is OBTS/CCH support. Functions related to OBTS/CCH are currently spread across three sections: System Development, Operations, and System Support. The resulting lack of central coordination, except at the top administrative level, may have contributed to some of the planning and project control findings that are discussed later.

Management plans to request a reorganization of the data center along the lines indicated in Exhibit 5.2. One primary purpose of this new structure would be to group all of the activities related to OBTS/CCH together, organizationally. This combined "Information Systems" Section would continue to report separately to the assistant administrator.

Within the Information Systems Section, a new Quality Assurance Unit would be created. Management's request is for a data processing systems analyst to supervise the unit and three permanent, full-time clerk/typists.

The immediate focus of the Quality Assurance Unit would be to eliminate the delinquent dispositions backlog. The three requested clerk/typists would be used to assist user agencies in key entry of these delinquent transactions. The analyst's role would be to supervise these clerk/typists and work directly with users to identify and address any system issues that are hindering resolution of the delinquency backlog situation.

Over the longer term and as the delinquency counts decline, the Quality Assurance Unit would be expected to conduct an increasing amount of its activity at user agency locations, assisting them in improving the accuracy and efficiency of their own data entry operations, and conducting reviews or audits of the quality of criminal justice data maintained on the various systems throughout the State. This latter function is mandated by statute to be the Attorney General's responsibility; however, staffing shortages have, to date, prevented this from being accomplished.

While the above-recommended steps are very constructive, two areas for further consideration exist. One is that the two interface clerks, currently in the Operations Section, should perhaps be transferred to Quality Assurance, since their primary role is to insure the integrity of the data input into OBTS/CCH through its automated interfaces. The other consideration is that System Support, which includes responsibility for OBTS/CCH data base maintenance and password security, would continue to operate as a separate section under the current reorganization plan. This may be another function that should be included within the new Information Systems Section.

DATA CENTER REORGANIZATION PROPOSED BY MANAGEMENT

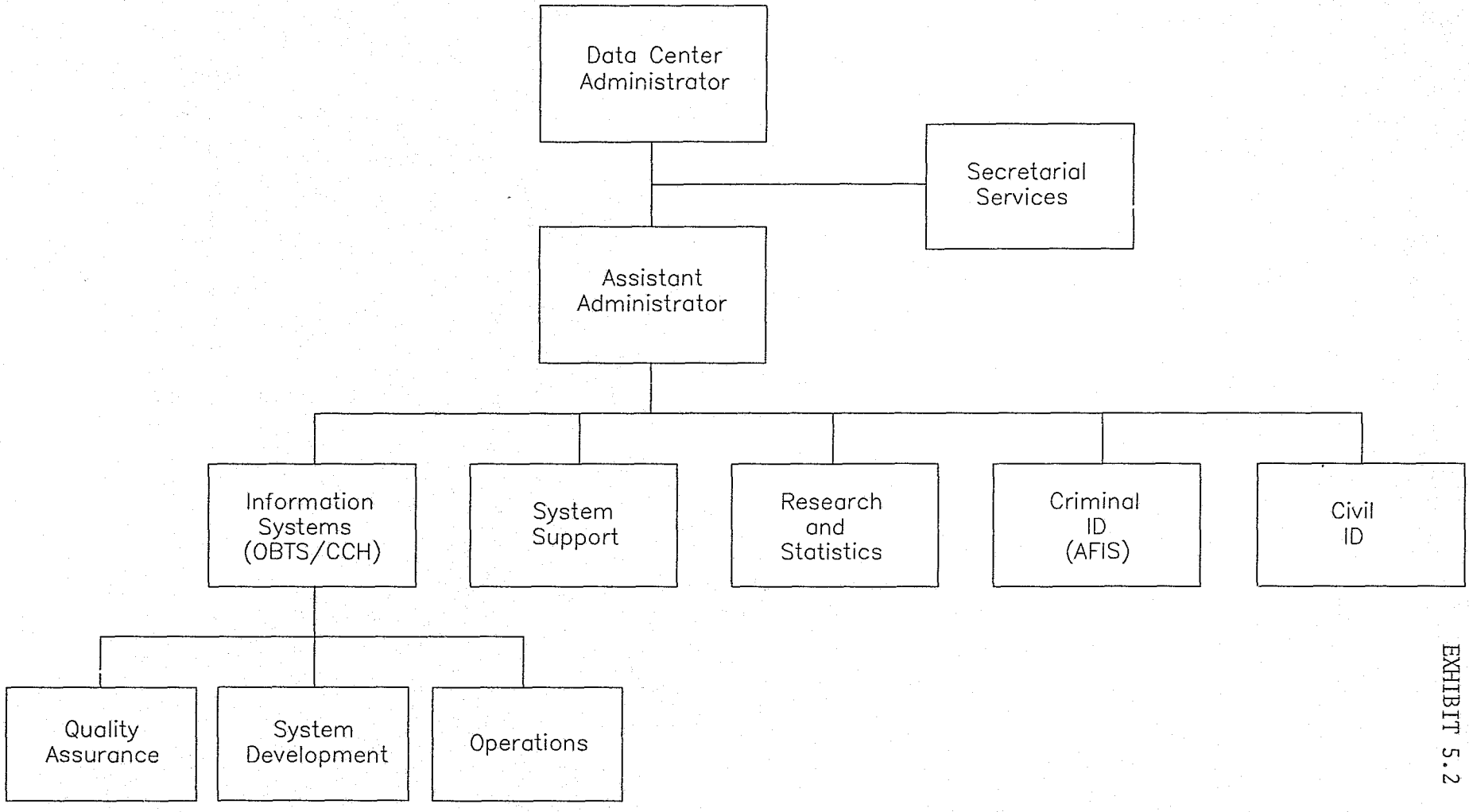


EXHIBIT 5.2

Another significant finding is that the actual levels of staffing appear to be low relative to the workloads in a number of different areas. In some cases, this has been exacerbated by the inexperience of some personnel and by management's inability to fill certain authorized positions. Specific areas of staffing inadequacies include the following:

- Both the number and skill levels of staff in the System Development Section appear inadequate to meet even the current backlog of OBTS/CCH maintenance projects. New system development activity is even more limited. The current OBTS/FACTS interface project, while important, is unfortunately the only new development effort that this staff can handle at this time.
- The two interface clerks, within the Operations Section, appear unable at this time to stay abreast of the error transactions identified by the automated HPD and HAJIS interfaces. As is discussed in Chapter 7, however, certain design improvements could be implemented to reduce this error workload.
- Three temporary clerk/typist positions, which were created to help clear up the delinquent dispositions backlog, have not been filled for approximately two years. This is especially regrettable because of the fact that the backlog problem has inhibited general user acceptance of OBTS/CCH, adversely affected the data center's credibility, and delayed efforts to implement more far-reaching design improvements that are needed.
- The single staff member in the System Support Section is obliged to assume a number of very disparate responsibilities. This creates the risk that some of these assigned functions may not be handled as thoroughly as possible. For example, OBTS/CCH system security is one of these assigned responsibilities. This is an area for which a number of recommendations for improvement are being made.
- The Criminal ID Section has always been understaffed in relation to the statewide demand for searches of centralized fingerprint records. The two current data center staff, in reality, are adjuncts to HPD, which is currently performing this centralized service. The data center's staff, in any event, lack the latent fingerprint search capabilities that will be needed in a centralized full-service unit that is now envisioned to reside at the data center once AFIS is implemented.

Management has requested additional staff in a number of areas. The most significant is a major increase in the Criminal ID Section to accommodate the expected workloads associated with the new AFIS implementation and the assumption by the data center of central responsibility for fingerprint identification services. The selected vendor's proposal recommends that the State provide six staff to support AFIS. The data center requested a supervisory position plus five staff

positions for the Criminal ID Section for next year. This would include the two staff members now located at the Honolulu Police Department who would move back to the data center.

Other personnel requests submitted by the data center include the addition of an accounting clerk to the administrative support staff, addition of an analyst in the Systems Development Section to support increased workloads related to OBTS/CCH and the civil ID automation project, and upgrade of a temporary clerk position in the Civil ID Section to a permanent position.

Planning and Project Control

While the data center has not developed any long-term plans or strategies at this time, it is operating under a six-month plan of action which is tactical in nature. This tactical plan sets both agency and section goals; identifies projects that have an agency-wide priority; and identifies, prioritizes, and schedules projects for each section. While this serves as a potentially useful tool for monitoring progress against short-term plans at a section level, it is not used to monitor progress of an individual project against schedule. In fact, interview findings indicate that most project status reporting is not regularly scheduled and is primarily verbal.

While the data center's tactical plan is a valuable management tool, many of the challenges faced by the data center require planning of a more strategic nature and many years of work to address. OBTS/CCH and AFIS are two primary examples. As described in Chapter 3 of this report, several years of effort are needed to build OBTS/CCH into a fully effective, operational system for the entire state criminal justice community. Similarly, it will take several years to build adequate staff and operational support for AFIS. The data center currently lacks long-range plans directed either at these specific projects or at its overall organizational direction and growth. This lack of formulation of long-range objectives and plans also may have contributed to what appears to be chronic difficulties in obtaining sufficient funding for staffing resources from the Legislature.

Another area requiring planning and project control methods is new systems development. At the data center, major system development projects that are currently underway appear to employ some type of development methodology. One recent example of this has been the use of SDM/70 (see Glossary) in a project to define requirements, issue an RFP, and evaluate responses for a new automated civil identification system. A detailed work plan has also been developed and followed for the recent OBTS/FACTS interface project.

On a more operational level, we observed a relative lack of formal tools to control work and monitor progress in the System Development Section. One example of this has already been stated. This is the prevalence of verbal reporting regarding the status of work being performed

on projects contained in the tactical plan. It is customary in information systems organizations to have regular written status reports on outstanding projects.

A second example relates to the handling of system maintenance and enhancement requests. User requests of a system maintenance or enhancement nature are generally phoned in to the System Development Section. Section staff complete a System and Development Request Form in order to record and describe the nature of the problem. Based on this information, the data center prioritizes this project relative to other requests that have been received. To a large extent, those projects that will deliver the greatest favorable impact for the resources expended are assigned the highest priority. This prioritization process does not appear to involve representatives of user agencies.

The Systems Development and Request Form itself does not appear to be used for any other purpose than to record the problem and permit it to be distinguished, for tracking purposes, from other projects being worked on by the System Development Section. It is a common practice elsewhere to use this type of form to support initial analysis and evaluation of the request; to estimate hours required to complete necessary tasks and to provide this estimate to the user prior to initiating work; to provide a means to estimate completion dates and monitor actual progress against budget as the work proceeds; to document work performed and test results; and to provide a written record of supervisory and user reviews and approvals prior to placing system changes into production. As far as could be determined, the Systems and Development Request Form is not used for the above-stated purposes.

A third area in which informal project control methods were noted was in Operations. This pertains to logging and controlling production problems identified either by users, EDPD, or data center personnel. At the data center, production-related problems are reported to the Operations Section. Normally, these are resolved by Operations without the use of specific problem logs or reports. However, if a problem results in the need for a software change, a Systems Development Request Form is completed and the procedure described above is followed.

A widely used practice in other information systems organizations is to maintain trouble logs and problem resolution reports that keep a continuing record of production problems, their source, current status, and ultimate resolution. These can serve as tools for identifying and resolving recurring problems, allocating staff resources, and providing activity reporting that can be used to justify staffing levels within Operations.

Despite the lack of formal project control methods, supervisory and management-level personnel at the data center appear to have an adequate understanding of the status of projects

that are underway. The relatively small size of the current organization and frequent verbal communication probably help to make this possible. However, with growth in staffing support needs for both OBTS/CCH and AFIS, and probable increased project complexity, more formal methods of project control will eventually become necessary. One significant advantage of the data center's current reorganization request is that it includes a new Information System Section management position, which could become the focus for improved project management.

Security

The data center's System Support staff members coordinate password and user ID assignments with agency personnel according to a well-documented and thorough procedure. Systems Support maintains a written form from each agency that identifies an official authorized to make all security-related requests for that agency, including designation of agency liaison and alternate liaison individuals. These agency liaisons, in turn, work with the data center to identify and screen new users, assign and change user IDs and passwords, delete terminated employees from the authorized user lists, and perform any other necessary day-to-day, security-related functions for the agency. All of these actions are documented on various request forms submitted by the agency liaisons to the data center. However, while these procedures are in place, certain other areas for concern exist and require more concentrated attention by the state's criminal justice community.

One of these areas is the lack of a single plan for addressing the security and privacy requirements of centralized criminal justice records. As with any state, this is a matter of great importance to Hawaii's criminal justice community. These needs are especially acute with OBTS/CCH because of its role as the central repository of criminal data for all offenders, and because of the wide extent of access. At this time, the State of Hawaii has not enacted statutory requirements regarding rights of access to this data and the responsibilities of EDPD, the data center, and the criminal justice agencies in safeguarding the data base. In response to this concern, other states have found it useful to develop a privacy and security plan that accomplishes the following:

- Identifies all of the relevant statutory and regulatory requirements.
- Establishes standards for completeness and accuracy of data.
- Establishes procedures for disseminating criminal record history information to qualified parties and for satisfying individuals' rights to access and challenge their own data.
- Defines responsibilities of all criminal justice agencies for maintaining integrity and timeliness of data, screening their employees who access and update this data, and maintaining procedures to prevent unauthorized attempts to access data.

- Establishes procedures for physical safeguard of data files and programs and of data processing equipment and facilities, and provides for planning to recover from disastrous events affecting the system or its supporting facilities.
- Establishes procedures and responsibilities for regular audits of the data base integrity and of all procedures designed to protect the integrity and confidentiality of this data.

One advantage of this type of plan in Hawaii would be that it would define, in one place, all of the procedures and responsibilities of the criminal justice agencies which deal with the data center and with the OBTS/CCH data base. This would, in turn, be a tool to enforce agency compliance in this area.

For its part, the data center has drafted administrative rules that would specify responsibilities of EDPD, the data center, and user agencies in the area of security; require signed security agreements between the agencies and the data center; enforce certain procedures for screening of new users of the OBTS/CCH system; and establish guidelines pertaining to the dissemination of criminal information. Unfortunately, these remain in draft form and have not been promulgated.

A second area of concern is the deficiency of data center staff time assigned to address privacy and security matters. Presently, security is a part-time responsibility of the systems support person only. Security planning and audit functions have largely been unaddressed owing to a lack of staff time. Creation and full funding of the Quality Assurance Unit may begin to permit the devotion of greater staff resources to these neglected functions.

A final area of concern, which perhaps can be addressed with current staff resources, is to strengthen current access control methods and make them more consistent with users' operating practices. At this time, heavy reliance is placed on CICS (see Glossary) resource-level security to control access to the OBTS/CCH data base. CICS user IDs and passwords are assigned by the Systems Support Section and communicated to EDPD. Each user ID is allowed only to access specified CICS transactions. In addition, the CICS Terminal Control Table is used to restrict access to CICS transactions based on the terminal ID. Three areas for improvement were identified. First, user ID and password assignments are often assigned at the group (department) level. This tends to increase the opportunities for this sensitive access information to spread to unauthorized users. It also does not allow agencies to differentiate between their employees in terms of what types of transactions or information they should be allowed to access. Second, passwords are not automatically required by the system to be changed on a regular basis. This, again, increases the risk that an unauthorized person will discover how to access the system.

Finally, control of access by terminal ID has been found by some agencies to unnecessarily restrict the activities of some of their personnel, especially at a supervisory level.

The management of the data center recently has initiated some efforts to address these types of issues. As one step, it is currently looking into the use of RACF, which is security software available at EDPD, for use in assigning individual user IDs and passwords that are required by the system to be changed periodically.

Hardware Resources and Performance

The data center utilizes computer resources of the State of Hawaii's Electronic Data Processing Division for OBTS/CCH processing. These resources consist of two IBM mainframe computer systems, a 3090-200E and a 3081-D32. The 3081-D32 computer system is used for batch processing and the 3090-200E, for on-line applications. A third IBM machine at EDPD, which is a 3090-180, is dedicated solely to a human services application named HAWI. This third machine affects the OBTS/CCH only in that it provides a communications path into the system for a number of users. Exhibit 5.3 depicts the data center's processing environment and user network. A more complete discussion of the hardware environment at EDPD is provided in Chapter 7 of this report.

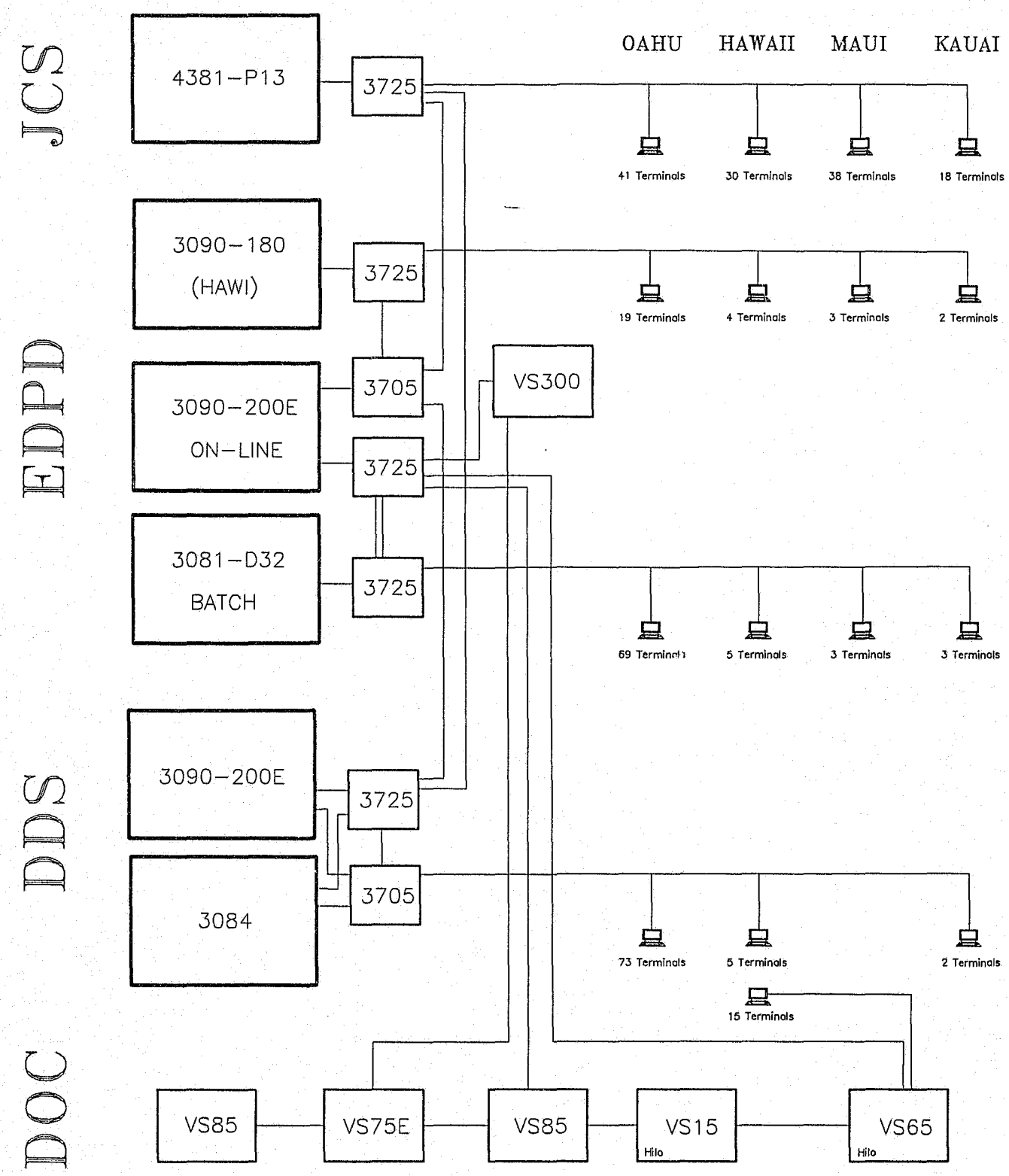
During our interviews at EDPD, systems software personnel informally estimated utilization of the machines used for batch and on-line OBTS/CCH applications at 90 percent and 75 percent, respectively. With these high levels of utilization and given the fact that these processors support several thousand on-line users, it would be expected that user complaints regarding system response times would be encountered during interviews. Generally speaking, however, this did not happen. It is therefore possible that the utilization estimates may be high, or may represent peak periods of use that do not occur regularly. In addition, the planned upgrade to MVS/XA (see Glossary) on the on-line production machine (3090-200E) should further forestall the possibility of response time or other performance problems in the near term.

Certain concerns were noted during the review regarding system availability, utilization monitoring, and capacity planning. These are addressed in the Chapter 8 findings and recommendations. See also the description of Intake Service Center activities in Chapter 6.

Network/Communications Functionality

Terminal access to OBTS/CCH is provided by inter-network communication links connecting the state's EDPD networks (including the Human Services Department's HAWI system network), the Judiciary Computer System (JCS) network, the City and County of Honolulu's

HAWAII CRIMINAL JUSTICE DATA CENTER NETWORK



Department of Data Services (DDS) network, and the Hilo prosecutor's Wang network. There are currently 330 terminals that can access OBTS/CCH from the various agencies. These terminals are spread among four islands geographically. The distribution of terminals is as follows:

	Total	Oahu	Hawaii	Maui	Kauai
JCS	127	41	30	38	18
EDPD	80	69	5	3	3
EDPD (HAWI)	28	19	4	3	2
DDS	80	73	5	0	2
Hilo prosecutor	15	0	15	0	0
	330	202	59	44	25

In general, the trend in recent years has been toward increased interconnectivity between the major systems (DDS, Judiciary, and EDPD), with resulting improved accessibility of the OBTS/CCH to its users. Many OBTS/CCH users can now access the system using the same terminal as they would use for their own agency applications. As an example, the Department of Corrections (DOC) will in the near future be utilizing its own terminals to access OBTS/CCH rather than using IBM terminals provided by EDPD. This is definitely a change from the recent past, when a user often needed to obtain a separate terminal in order to access the OBTS/CCH.

A more complete description of networking and communications issues is provided in Chapter 7 of this report.

Recommendations

Recommendations regarding the data center's organization and operations are listed below according to the major areas of review.

Roles and responsibilities. *We recommend that:*

1. For the foreseeable future, except for the current AFIS plans, no new functions or responsibilities be assigned to, or taken on, by the data center.

2. The data center instead focus its efforts on developing the appropriate plans and obtaining the necessary resources to adequately perform its assigned responsibilities.

Organization and personnel resources. *We recommend that:*

1. The reorganization and increased staffing levels recommended by data center management be adopted as an interim measure. However, as a result of implementation of the action plan described in Chapter 3, additional consulting assistance may be required, permanent staff may be added, and some additional reorganization of the data center may become necessary.

2. As part of its current reorganization, management of the data center consider transfer of the interface clerk positions to Quality Assurance and inclusion of the System Support function under the new Information Systems Section.

3. In order to carry out the action plan and resolve current staffing deficiencies, staff increases over the longer range be considered for the following functional areas: OBTS/CCH programmer and analyst support, OBTS/CCH backlog resolution, AFIS operational support, system security and privacy, and auditing.

Planning and project control. *We recommend that:*

1. Longer range planning be instituted for the entire organization, with particular emphasis on major areas of concern and potential growth, such as OBTS/CCH and AFIS. Such plans should be linked to current tactical plans and should be used to strengthen the effectiveness of annual appropriation requests.

2. The use of more formal management tools be considered, especially as the organization grows and takes on increasingly complex projects. This may include more formal project status reporting; increased reliance on the System and Development Request Form as an evaluation, scheduling, and control tool; and more formal recording of production problems and resolutions. This may first need to be implemented within the proposed new Information Systems Section.

Security. *We recommend that:*

1. Consideration be given to development of a statewide privacy and security plan for criminal justice information under the direction of the Hawaii Criminal Justice Data Interagency Board.

2. In the interim period, the administrative rules that have been drafted by the data center be finalized and promulgated.

3. Staffing be increased to support planning and monitoring of system security and to conduct regular audits.

4. Steps be taken to replace group level with individual user ID and password security.

5. Regular password changes be required by the system.

6. The use of terminal-specific access restrictions be reevaluated in cases where this interferes unduly with regular activities of user agency personnel.

7. Whenever appropriate, use of RACF, ADABAS, or application program security features be considered where these provide additional protection not available through CICS.

Hardware resources and performance. *Recommendations in this area are provided in Chapter 8 of this report.*

Network/communications functionality. *Recommendations in this area are provided in Chapter 7 of this report.*

Chapter 6

ANALYSIS OF OBTS/CCH

The original responsibility of the Hawaii Criminal Justice Data Center ("data center") was to provide centralized support and control of the State of Hawaii's "Offender-Based Transaction Statistics/Computerized Criminal History" system, or OBTS/CCH. Despite the data center's growth, this remains its most important single responsibility and entails the largest concentration of its resources. The impact of OBTS/CCH is widespread. All of the state criminal justice agencies are either required to input information regularly to OBTS/CCH, inquire into its common data base as part of their normal activities, or both.

This chapter describes the overall design and operation of OBTS/CCH, its use within the current criminal justice procedural flow, and its actual and potential value as an operational tool for the various agencies. Separate sections also address problems associated with the system's sequential processing requirements and data entry "delinquencies." A summary of findings is contained in the first section of this chapter, with recommendations in the last section.

Summary of Findings

A substantial number of specific findings were identified during this review and are documented in following sections of this chapter. While many of these are interrelated, they may be categorized for presentation purposes into seven major groupings, as follows:

- Data entry backlogs;
- Sequential processing requirements;
- Data entry inefficiencies;
- Data base integrity;
- Design and reporting enhancements;
- System availability and response; and
- Operational functionality.

The presentation of findings and recommendations follows this sequence in this chapter. In cases where findings in one area have relevance to another area, this is duly noted.

Data entry backlogs. Regarding the data entry backlog situation, we find as follows:

1. The backlog of transactions to be entered into OBTS/CCH exceeds 100,000 (see Exhibit 6.1) and continues to grow. This backlog is the largest cause of user dissatisfaction, contributes to friction between the data center and user agencies, and undermines OBTS/CCH's value as an operational system.

2. The OBTS/CCH design and the requirement that transactions for a case be entered sequentially contribute significantly to the backlog problem.

3. Agencies frequently cannot or will not allocate sufficient staff resources to keep abreast of their own OBTS/CCH data entry requirements. This is due to both lack of funding and lack of motivation.

4. Many agencies still lack an automated interface and must redundantly enter data into their own systems and OBTS/CCH. The single leading source of "delinquent" transactions is the district court in Honolulu, which has not even automated its own functions.

5. Significant changes in design and processing requirements and additional resources at both the data center and agencies are needed to bring the backlog situation under control.

6. Over the long run, a management reporting system should be developed that distinguishes data entry delinquencies, partial case delinquencies, and full case delinquencies. Each of these entails different management implications. A prerequisite to such a system is the ability to enter case information nonsequentially and to enter partial case information.

Sequential processing requirements. We find as follows regarding the sequential processing requirements associated with OBTS/CCH:

1. The insistence on sequential input, while arising from a desire to maintain data base accuracy, has instead resulted in information that is incomplete, untimely, and of diminished value to criminal justice agency users.

2. The procedure used at the City and County of Honolulu requires that a positive identification be made prior to input of arrest information to OBTS/CCH. This causes lags in availability of this information to other users, inefficiencies in data entry, and over-reliance by all agencies on a preliminary arrest form that is not generated by OBTS/CCH and that frequently becomes outdated.

3. A compromise approach used by the neighbor islands that does allow input of preliminary identification information to OBTS/CCH appears to overcome some of the difficulties created by the City and County of Honolulu procedure.

4. The system does not adequately address entry of cases that are not initiated by an arrest. This can include Grand Jury indictments, penal summonses, and contempt of court citations.

EXHIBIT 6.1

OBTS/CCH

MONTHLY DELINQUENT DISPOSITION COUNTS

BY AGENCY

AGENCY	DELINQUENT CHARGES AS OF 7-31-88	DELINQUENT CHARGES AS OF 8-31-88	ENTRIES MADE DURING AUGUST
Hawaii Police	--	--	634
Hawaii Prosecutor	244	209	42
Hawaii ISC	3,340	3,409	+
Hawaii District Court	3,450	3,434	569
Hawaii Circuit Court	1,016	1,057	60
County Total	8,050	8,109	1,305
Honolulu Police Interface	--	--	7,586
Honolulu Police	--	--	421*
Honolulu BCSI Temp. SID	427**	416**	902
Sheriff's Office	--	--	553
Honolulu Prosecutor	2,521	2,564	88
Honolulu ISC	3,911	3,946	+
Honolulu District Court-JCS	49,796	49,009	6,319
Honolulu District Court-HCJDC	8,123	8,120	71*
Honolulu Circuit Ct. Interface	3,059	3,278	696
Honolulu Circuit Court	3,846	3,848	428*
Hawaii Paroling Authority	2,072	2,100	--
County Total	73,755	73,281	17,064
Kauai Police	--	--	368
Kauai Prosecutor	327	327	22
Kauai ISC	85	112	50 and +
Kauai District Court	2,555	2,637	129
Kauai Circuit Court	533	568	18
County Total	3,500	3,644	587
Maui Police	--	--	754
Maui Prosecutor	1,556	1,612	12
Maui ISC	4,047	4,104	+
Maui District Court	9,121	9,371	147
Maui Circuit Court	1,084	1,117	--
County Total	15,808	16,204	913
Statewide Total	101,113	101,238	19,869

* Entered by Data Center staff
\+ Entered by computer
** Not a true delinquent count

5. Because agencies need to wait on each other to complete their input on a case, the sequential processing requirement contributes to the data entry backlog situation.

6. Exceptions to the sequential processing requirement have been provided in certain cases, although normally not in a manner that permits earlier access to information by all agency users. This includes the Hawaii Judicial Information System (HAJIS) interface, input by the Adult Probation Division (APD), and the Hilo prosecutor's office (FACTS) interface.

Data entry inefficiencies. Regarding the OBTS/CCH data entry design and procedures, we find as follows:

1. A number of data entry inefficiencies exist that interfere with the system's ability to obtain user acceptance.

2. Data often must be entered redundantly into an agency system and into OBTS/CCH, especially in the Honolulu prosecutor's office (PROMIS), APD (PROBER), and the Department of Corrections (COMPAS). In these cases, no automated interface exists. This is also a problem at the Honolulu Police Department (HPD), but arises because of the requirement that a positive identification must be obtained before data entry into OBTS/CCH occurs.

3. A significant inefficiency is the requirement that disposition information be entered for all charges in a case before any information is accepted at all. This prevents valid charge information from getting into the data base in a timely manner and artificially increases the number of "delinquent" transactions. Often, the one unresolved charge is a relatively minor one such as contempt of court.

4. There is no function key to allow the data entry user to proceed quickly from one screen to the next logical input screen for a given state identification (ID) or OBTS tracking number.

5. The system is unable to automatically insert the user's agency number on the input screen.

6. The system is unable to immediately inform the data entry operator that a transaction cannot be updated owing to a lack of sequentially required information. Users currently must enter complete transactions before these are rejected by the system.

Data base integrity. Regarding the accuracy and integrity of the OBTS/CCH data base, we find as follows:

1. Certain felony and misdemeanor information either fails to be recorded on the data base or is not recorded in the manner intended. This includes:

- Case information that does not involve an arrest (Grand Jury indictments, penal summonses, and contempt of court citations).
- Cases appearing in family and traffic court.
- Traffic violations charges, which are normally too minor to reside on the data base, but are entered if they accompany a felony or misdemeanor charge.

2. Expunged case data are entirely deleted from the OBTS/CCH data base. Certain agency personnel, such as at the Adult Probation Division, are authorized to refer to such data. At this time, because the data are no longer on OBTS/CCH, they must be obtained through direct inquiries to various agencies.

3. One possible system defect allows a not-guilty plea for one charge within a case to be written into the criminal history file along with guilty pleas for other charges associated with that case. The charge for the not-guilty plea should remain in the OBTS In-Process File until the trial is completed.

Design and reporting enhancements. We find as follows regarding potential design and reporting enhancements to OBTS/CCH. (Some of these were identified in the earlier findings and are restated here.)

1. Not-guilty pleas are being written into the history file along with guilty pleas for the same case (Data Base Integrity).

2. All data entry input is not accepted the first time it is entered by the user, regardless of whether all prior sequential processing steps have been completed (Sequential Processing Requirements).

3. The ability to enter information on some charges related to a case, even if other charge detail is still unavailable, is not provided (Data Entry Inefficiencies).

4. The ability to distinguish between attorney general and prosecutor cases and to report on these separately is not provided.

5. Delinquency reporting is not provided in sequence by name as well as by OBTS tracking number.

6. Inquiry into multiple systems during a session requires a number of logoff and logon transactions. (See the discussion in Chapter 7.)

7. All users should be able to use the system function that retains the same screen for a new OBTS tracking number. This did not appear to be available in the Probation Division.

8. The system does not provide a function to easily access a different screen for the same OBTS tracking or state ID number.

9. The court case number is not included on the full criminal history report to facilitate cross referencing to HAJIS files.

10. The Re-arrest Report is not available to all interested users, in particular to the APD.

System availability and response. Regarding OBTS/CCH system availability and user response, we find as follows:

1. A major system availability problem was identified that adversely affects the Intake Service Centers (ISCs) and police officers. Specific findings and recommendations on this problem are provided in Chapter 8 of this report.

2. System response in general did not appear to be a problem. The sole exception is the APD, which experiences slower response times after 8:00 a.m. on work days.

Operational functionality. Regarding the operational functionality of OBTS/CCH, we find as follows:

1. OBTS/CCH is often considered to be a statistical and historical system, but in reality can potentially fill a critical operational need for the state's criminal justice agencies.

2. Many agencies use, or attempt to use, OBTS/CCH daily to make decisions regarding individual cases and to allocate scarce resources. Either directly or indirectly, all of the agencies depend on OBTS/CCH.

3. An ad hoc system of inter-agency inquiry exists that could, at least in part, be effectively replaced by a truly operational OBTS/CCH system.

4. Past efforts to force agencies to fulfill their data entry responsibilities have failed, largely because of the perceived lack of progress in increasing the operational value of OBTS/CCH to users.

Description of OBTS/CCH

The criminal justice process involves law enforcement, prosecutorial, judicial, and correctional agencies. Responsibility for acting on behalf of the State of Hawaii and its counties is assigned to a succession of these agencies as a criminal case is processed. The generation and accumulation of information related to a criminal case are done in succession as well. Portions of previously accumulated information must be passed from agency to agency along with the responsibility for handling the case. This sequence of responsibility is fairly constant and well defined, although there are exceptions.

OBTS/CCH was intended to be a centralized, statewide repository of information related to criminal cases. The system is operated by the data center and was redesigned to accumulate offender information from all state, county, and city law enforcement; prosecutorial; judicial; and correctional agencies. At this time, family, juvenile, and most traffic court information is not included in OBTS/CCH. Each agency that is part of the system has been assigned responsibilities for providing specific information to OBTS/CCH. The agencies are allowed inquiry access to the information provided by other agencies. Agencies are not allowed to enter, update, or delete information for which another agency is responsible.

The information contained in the OBTS/CCH files is intended to serve two functions:

- Provide criminal history information as it relates to offenders, arrest reports, court cases, and specific criminal charges.
- Provide the criminal activity information required to generate a wide variety of crime statistics for the state, counties, and cities of Hawaii.

OBTS/CCH was designed to reflect the actual workflows and sequences of the criminal justice process. The typical sequence of the criminal justice process is clearly reflected in the sequence of data entry for in-process charges. For example, arrest information must be entered before any prosecution information can be entered. Conviction or a guilty plea must be entered before sentencing information is accepted by the system. This reflects the actual sequence of events in the process. The nature of information generated or accumulated at each step is also reflected in the assignment of information update responsibility and authority to each agency, i.e., police departments enter arrest information but are not allowed to enter court data.

The rest of this section documents the OBTS/CCH system and agency workflows, interactions, and interfaces. Major emphasis is placed on describing how data get into the system. Information on each agency's responsibilities and general work flow provides the context of the judicial process within which OBTS/CCH operates. Bottlenecks in processing and other problems associated with OBTS/CCH are noted. Accompanying each agency description will be a summary of findings and any resulting recommendations. The recommendations that are noted are intended to reduce the impact of the identified problems and improve the timeliness, accuracy, completeness, and usability of the data.

The OBTS/CCH system. OBTS/CCH is an ADABAS/CICS-based, on-line application. There are five general types of data accumulated by OBTS/CCH from the criminal justice agencies. Each agency is assigned responsibility for entry of one or more of these types of data:

- Offender Identification--data center Criminal ID unit, Honolulu Police Department, sheriff's office.
- Arrest Disposition--police department, sheriff's office.
- Charge Disposition--prosecutor's office, Attorney General.
- Court Disposition--district and circuit court.
- Custody Disposition--Intake Service Center/Community Correctional Center, Adult Probation Division, Hawaii Paroling Authority.

This information is stored in OBTS/CCH in the following data files:

- In-Process File--This file is the one which receives the majority of the agency data entry. A record is created for each charge. As each agency enters information on the charge,

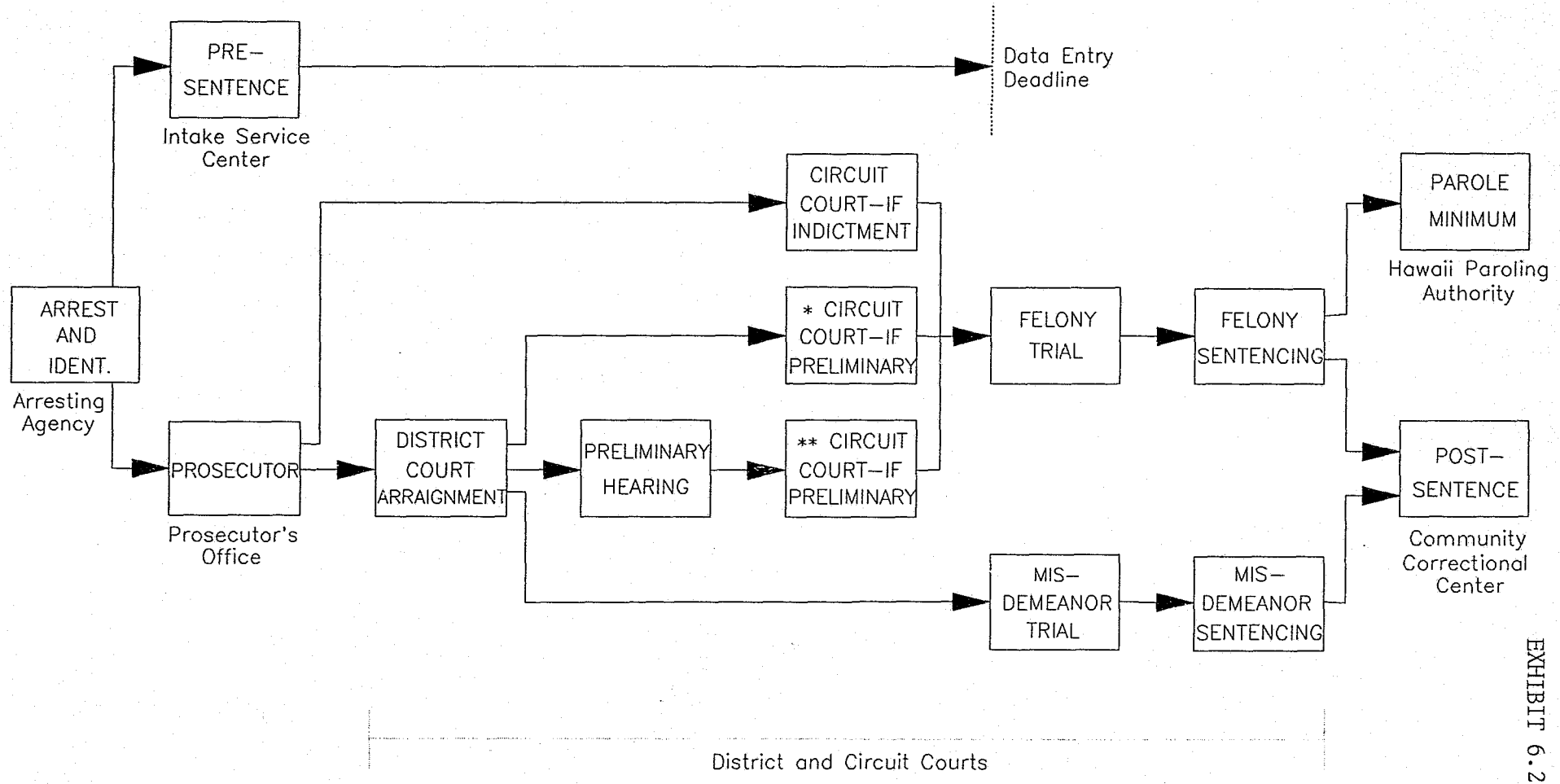
the data are written on the record. Sequential data entry is required for direct entry into this file. (See Exhibit 6.2.) The information on each charge remains in this file until the charge leaves the criminal justice system.

- Summary Criminal History File--This file contains the entered identification information. The system maintains counts of total charges, arrests, and convictions for the individual. A summary of charges is included. Limited pre-identification information can be entered into this file by the neighbor island police departments and sheriff's office.
- Full Criminal History File--The records from the In-Process File are copied to this file when the charge exits the system. No agency other than the data center can update records in this file.
- Offender-Based Transaction Statistics File--The records from the In-Process File, with no identification information other than the state identification number, are copied to this file at the same time as to the Full Criminal History File. This file is used to generate crime statistics. Again, only the data center can update these records.
- Parole/Probation File--This file contains information on post-sentence supervision outside of correctional centers. This information is currently entered and updated by the Adult Probation Division.
- Re-arrest Message File--The system writes a record to this file when an offender on probation or parole is re-arrested. The record contains limited identification, arrest, and probation/parole data. The file is used for re-arrest reporting purposes.
- Dissemination Log File--This file contains information on all records accessed for update or inquiry purposes. The information includes which state ID was involved in each transaction. Transaction volume reports can be generated from this file.
- Validation File--These are tables of offense section codes with related descriptions and severity codes. This file is used for edit purposes by the system.

OBTS/CCH accommodates both on-line and batch updating. Time frames for the entry of data by each agency have been determined for each segment of information. The interval is set from when the prior segment is entered. If the information is not entered within the time interval allowed, a "delinquency" is attributed to the agency responsible for the data entry. A significant volume of "delinquent" transactions exists. This is discussed in detail in a later section of this chapter.

On-line inquiries can be made on the information in OBTS/CCH, provided the user has been authorized to access the various files. A number of reports can be requested by users, including

OBTS/CCH
REQUIRED AGENCY INFORMATION
DATA ENTRY SEQUENCE



NOTE: The Adult Probation Division may enter SUPERVISION data at any time.

* If referred to Circuit Court or preliminary hearing waived

** For all other charges

EXHIBIT 6.2

criminal histories and statistical information. Re-arrest reports are also produced. The system also generates a number of update verification, missing information, error, and delinquency reports.

Agency interface and data flow overview. This subsection describes the overall workflow associated with processing an offender through the criminal justice system, and the OBTS/CCH implications.

Findings. In this area, we find as follows:

1. Citations without an arrest are not entered into OBTS/CCH. This usually occurs when charges are initiated or filed by the courts and include Grand Jury indictments, penal summonses, and contempt of court citations.

2. Arrests without positive identification are not entered into OBTS/CCH (City and County of Honolulu only).

3. As a result, many criminal history records do not contain all of the relevant cases.

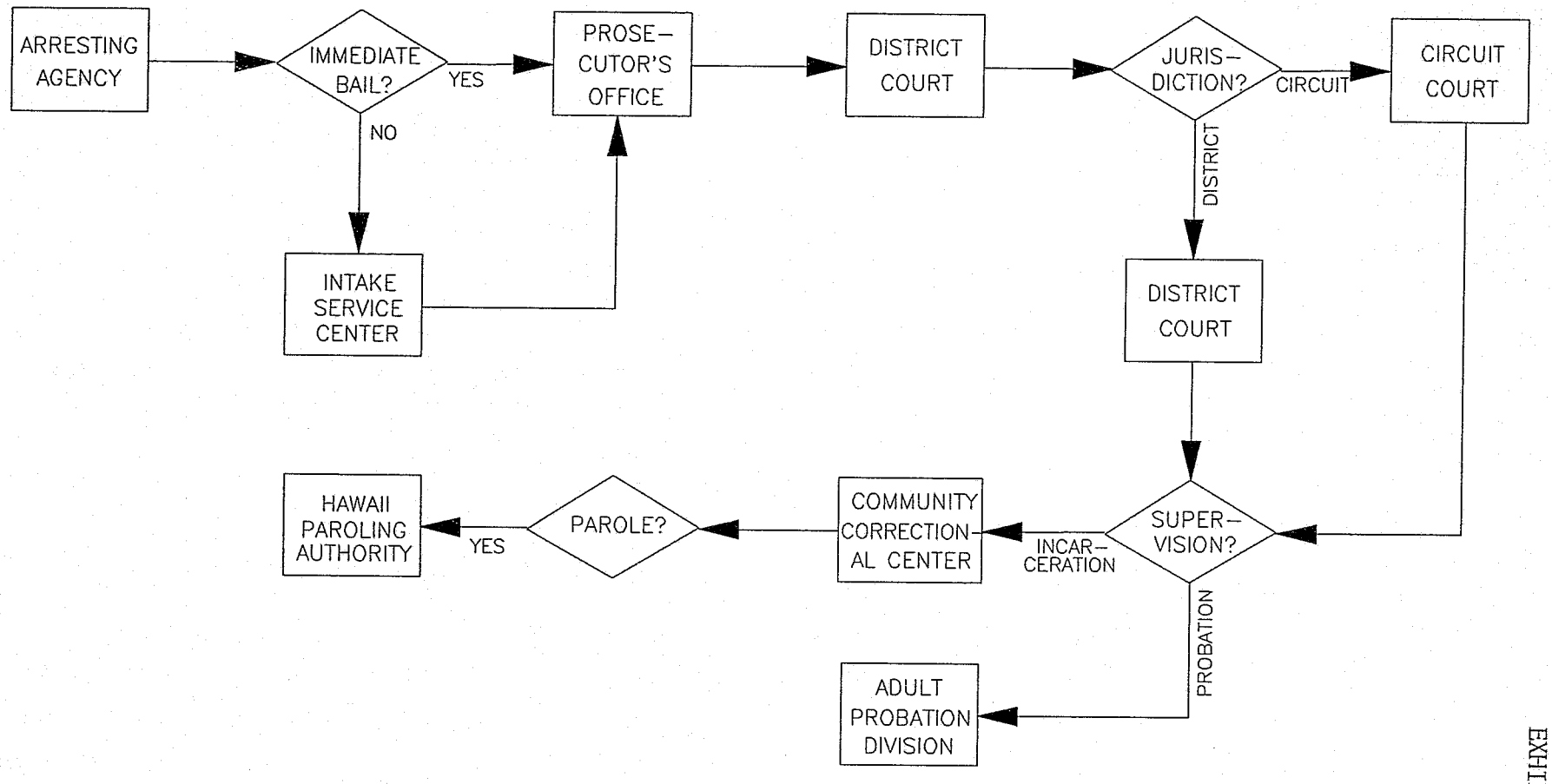
4. Approximately ten percent of all charges pass through and exit the criminal justice process within 24 hours.

Description. The criminal justice process of relevance to OBTS/CCH and thereby to this study must include the arrest of an individual and a positive identification of that person through the fingerprint process. A violation of the statutes that results in a citation being issued without any arrest made does not meet the requirements for OBTS/CCH entry, nor do arrests that are made without positive identification of the individual. If criminal charges are filed but no fingerprinting occurs, the criminal history for the individual as recorded in OBTS/CCH will be incomplete, because no record of the charge is ever created. Some charges, such as traffic violations that would not normally qualify for OBTS tracking by themselves may be entered into the system if they are filed at the same time as other charges that are eligible for OBTS/CCH.

The normal work and data flows for criminal charges begin with an arrest by a law enforcement agency. (See Exhibit 6.3.) The arresting agency accumulates identification and arrest data and produces the OBTS/CCH Arrest Report that is used throughout the process. The individual is fingerprinted for positive identification. This agency assigns or determines the following three key OBTS/CCH identifiers are assigned or determined by this agency:

- State identification number (SID).
- OBTS tracking number (OTN).
- Arrest report number (ARN).

CRIMINAL JUSTICE PROCESS
AGENCY SEQUENCE



NOTE: A charge may leave the system at any stage in the process.

EXHIBIT 6.3

The Intake Service Center (ISC) court unit reviews the arrest report and the CCH information on the individual. The individual may be interviewed. The court unit develops recommendations on custody dispositions for presentation at the individual's initial arraignment.

Prosecutors assigned to the district court handle the initial arraignment. They may change the charges filed in court from the original arrest charges, or add or drop charges, as the situation warrants. The prosecutors for either the district or circuit court prosecute the case, as appropriate to the type of charges (misdemeanor or felony) and trial (non-jury or jury). The prosecutor's office is responsible for entering charge disposition information.

The district court hears the initial arraignment. The case may be passed on to the circuit court for felonies and misdemeanor jury trials, or remains in district court for misdemeanors. The courts are responsible for accumulating information on the disposition of filed charges, pleas entered, trial information, and sentencing data.

Depending on the sentence, the case may become the responsibility of the APD or the Community Correctional Center (CCC). If the individual is incarcerated, he may be released after serving a portion of his sentence to the supervision of the Hawaii Paroling Authority (HPA). These corrections agencies are responsible for the supervision of the criminal and for the post-sentencing custody/supervision information.

Any given charge may exit from the criminal justice process at any stage. Approximately ten percent of all cases pass through and exit from the criminal justice process within 24 hours.

The process is complicated from the perspective of OBTS/CCH when a charge is initiated and filed by the courts. This may be the result of a Grand Jury indictment, a contempt of court charge, or a penal summons issued by a judge. These charges cannot be entered into OBTS/CCH until and unless there is an arrest with positive identification of the individual. There may be a significant time lag between indictment and arrest, during which indictment information is not available for criminal history inquiries. If the individual is in court when a charge--such as contempt of court--is filed, a fine may be imposed and paid without an arrest for the new case being made. This charge will not get into the individual's criminal history unless the judge orders the individual be fingerprinted and an "arrest" report is generated.

The work and data flows of each criminal justice agency are detailed in the rest of this section. Many of the agencies have their own computer systems that they use to capture the detailed information related to their operational responsibilities. These are therefore considered to be the agencies' "operational" computer systems. These systems contain more agency-specific information than is captured by OBTS/CCH and generally more than other agencies require to meet their informational needs. A few of these agency systems have automated interfaces to OBTS/CCH. These systems will be discussed as they relate to work flows and OBTS/CCH.

Arresting agency. This subsection describes in detail the workflows of the various arresting agencies throughout the State and identifies the implications for OBTS/CCH.

Findings. In this area we find the following:

1. Information regarding each arrest is manually recorded at HPD on three occasions: first, when the arresting officer fills out a photocopy of the OBTS/CCH Arrest Report; second, when it is entered into a stand-alone personal computer (PC) to generate the actual seven-part report; and third, when it is entered into HPD's system after positive identification is obtained. This redundant data entry introduces errors and wastes time.

2. No effort is made at HPD to ensure that all Offender Tracking Numbers are accounted for and to verify that all arrests actually are entered into OBTS/CCH.

3. Owing to the time lags related to the process of obtaining a positive identification and notifying agencies, the individual offender may be processed by an agency before a correct state ID is received. This can result in inappropriate handling of the case especially if the offender uses an alias.

4. The automated interface between the HPD and OBTS/CCH systems produces a 3 to 5 percent error rate, owing to mismatches on demographic data and aliases. This is partly due to inconsistent field design between the two systems.

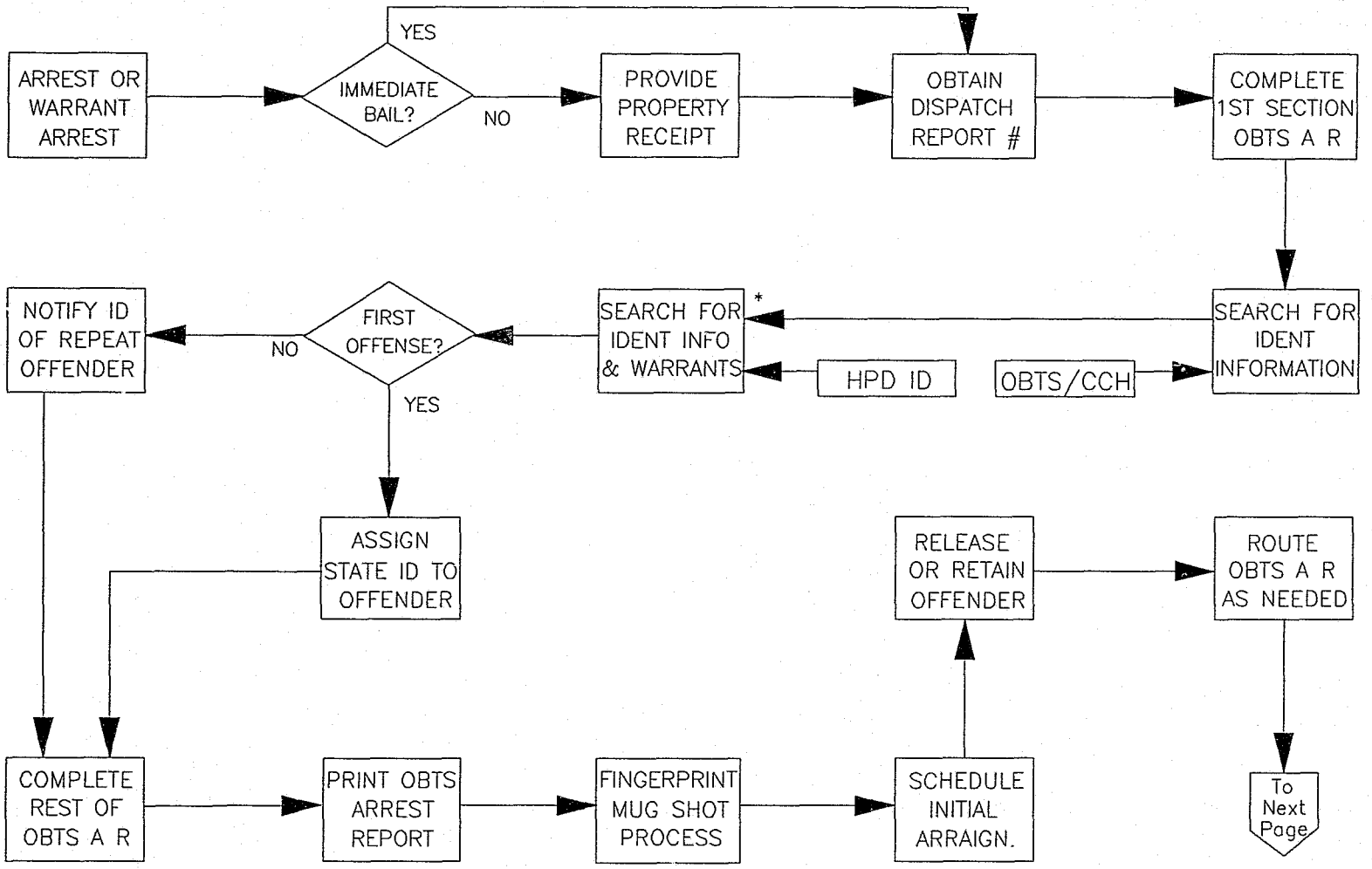
5. The automated interface from OBTS/CCH to the HPD system for the printing of charge disposition labels produces a 10 percent error rate.

6. In contrast to HPD, neighbor island police agencies enter arrest information on a preliminary identification basis into OBTS/CCH using the OBTS tracking number as a temporary state ID number. This is subsequently updated when positive identification is obtained. This helps prevent the "identification lag" from inhibiting availability of arrest information to various agency users.

7. Minor delays occur in getting neighbor island arrest information with positive identification into OBTS/CCH. This is due primarily to mail lags and does not normally exceed two weeks.

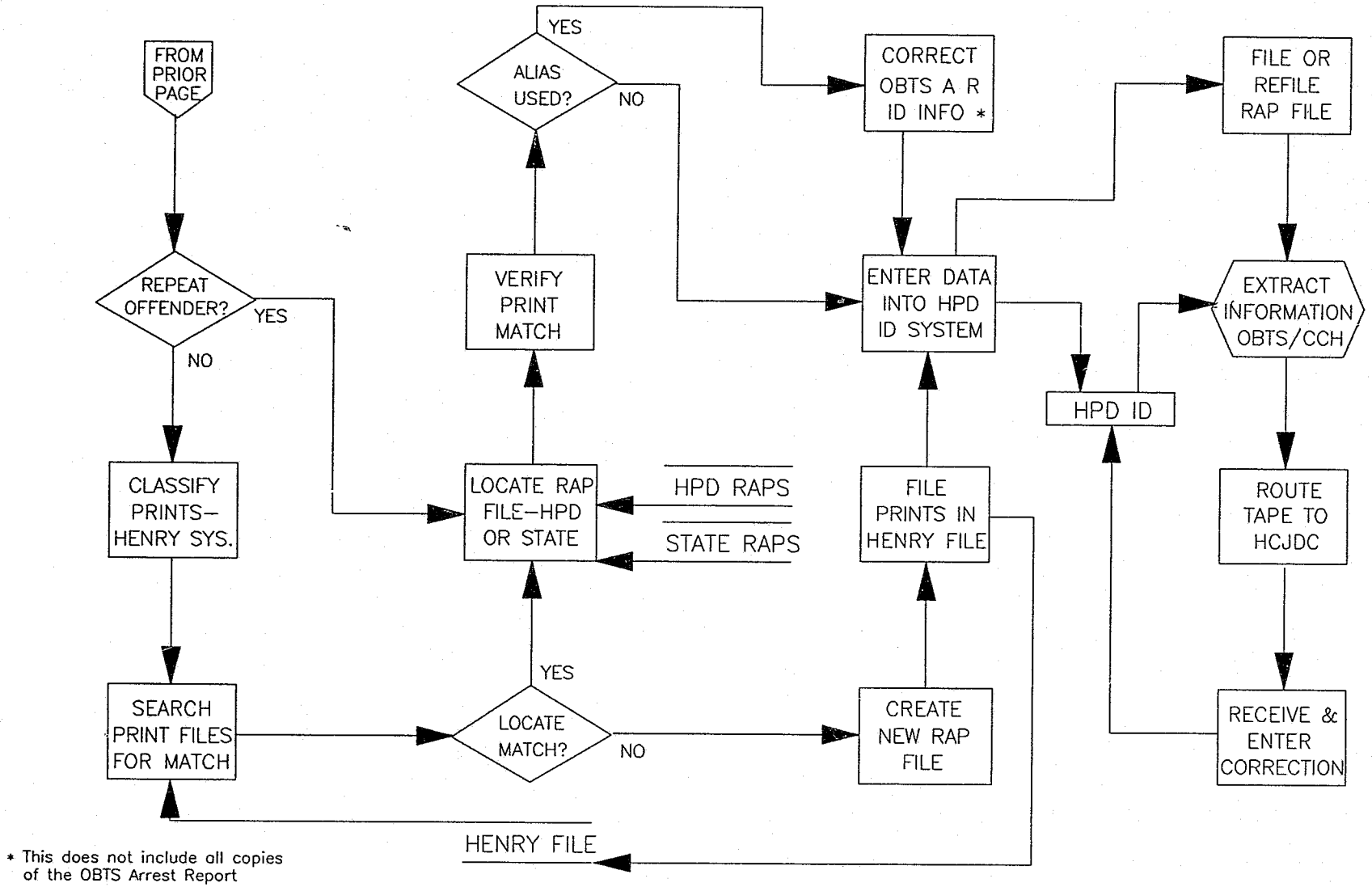
Description. The arresting agency could be any of the four counties' police departments or the sheriff's office on Oahu. Personnel at the Honolulu Police Department and one of the data center's Criminal ID employees who verify offender identification for the neighbor islands were interviewed. The process followed by the HPD is the most comprehensive, and will be described in the greatest detail. (See Exhibit 6.4.)

HONOLULU POLICE DEPARTMENT
WORKFLOW--ARREST SEQUENCE



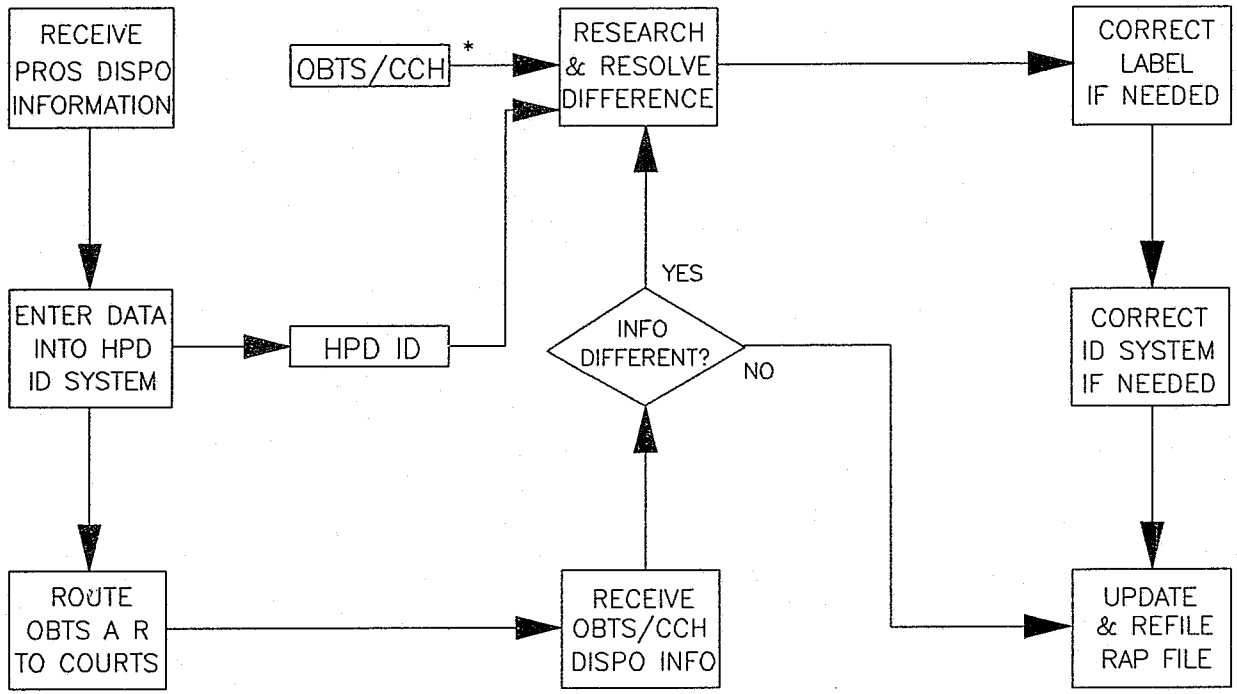
* The two identification searches are performed before arrest, if the arrest is based on a warrant.

HONOLULU POLICE DEPARTMENT
WORKFLOW--IDENTIFICATION



* This does not include all copies of the OBTS Arrest Report

HONOLULU POLICE DEPARTMENT
WORKFLOW--DISPOSITION INFORMATION



* Other agencies are also consulted.

There are two major types of OBTS/CCH data for which the police departments or the sheriff's office are responsible: arrest and identification. (See Exhibit A.1 of Appendix A.) These are described separately in the following paragraphs.

The arrest process. The individual may be arrested based on a warrant issued for his arrest, complaints received by the agency, or offenses observed by a police officer, or he may turn himself in. If the arrest is based on a warrant, the warrant officer will check identity information in the HPD computer system and in OBTS/CCH prior to arrest. Outstanding warrants from other law enforcement agencies are checked as well.

The individual is arrested and transported to the booking facility at HPD. If the charge(s) is a misdemeanor, the individual can be released on bail following booking. If he will be bailing out at that time, his property is not checked into the property room. If he will remain in custody at least until arraignment, his property is taken and he signs and is given a copy of a property receipt. The individual is searched and put in a holding cell. The transporting officer--who may or may not be the arresting officer--obtains the report number from the HPD dispatch office. The officer completes the first section of the OBTS/CCH Arrest Report on a photocopy of the OBTS/CCH Arrest Report form. (See Exhibit B.1 of Appendix B.) This section consists of demographic information.

The arresting officer arrives to continue the booking process. If the arrest is not based on a warrant, the HPD and OBTS/CCH systems are checked for identification and any outstanding warrants. Each offender must have a unique state identification number in order to be tracked in OBTS/CCH. If the individual is found in either system, his state ID is noted on the form. If the individual is a first-time offender, a unique state ID will be obtained from the HPD's ID section. The data center provides HPD with a block of unique numbers to be assigned as needed. If the individual is a repeat offender, the ID section is notified so the information can be put on its Repeat Offender Log. The arresting officer completes the OBTS/CCH Arrest Report with information on charges filed, witnesses and/or victim identification, property disposition, telephone calls made, and so on.

A member of the booking facility staff enters the information from the OBTS/CCH Arrest Report copy into a PC. The PC's printer is used to print the actual seven-copy OBTS/CCH Arrest Report original. (See Exhibits B.1 through B.7 of Appendix B.) This form is pre-printed with the unique OBTS tracking number. The original, duplicate, and disposition copies are identical. The Intake Service Center/Community Corrections Center (ISC/ CCC), prosecutor, and court copies have sections where different, additional information is recorded. The ident copy has some of the original information plus sections for distinguishing feature descriptions and fingerprints.

If there are more than five charges being filed, multiple forms are used and numbered "1 of X," and so on. The form is reviewed and accepted by the booking facility's supervising officer. No effort is made to ensure that all OTNs are utilized or accounted for. There is also no systematic verification process to ensure that all arrests are entered into OBTS/CCH.

The individual is then removed from the holding cell for fingerprinting and mug shots. Fingerprints are made on the ident copy of the OBTS tracking form, a HPD fingerprint card, and one or two FBI fingerprint cards. Fingerprints are taken on only one OBTS/CCH Arrest Report when multiple forms have been used.

If the individual has outstanding warrants, he is not released on bail. If there are no outstanding warrants, and the new charge(s) is a misdemeanor, he may be released on bail if he is able to post the bail amount. He is put in the holding cell again until bail is posted. If he will not be released on bail at this point, he is transferred to the cell block until arraignment.

Arraignment is conducted within 24 hours unless the court is not in session. The ISC's court unit may interview the individual at HPD before arraignment. That process will be discussed in a later section of this chapter. The police staff develops a court calendar, scheduling the arrested individual for initial arraignment at traffic or district court. If the individual is known to have a "rap" file, a copy of the Abstract of Criminal Record or rap sheet is photocopied for the prosecutor's office for the arraignment.

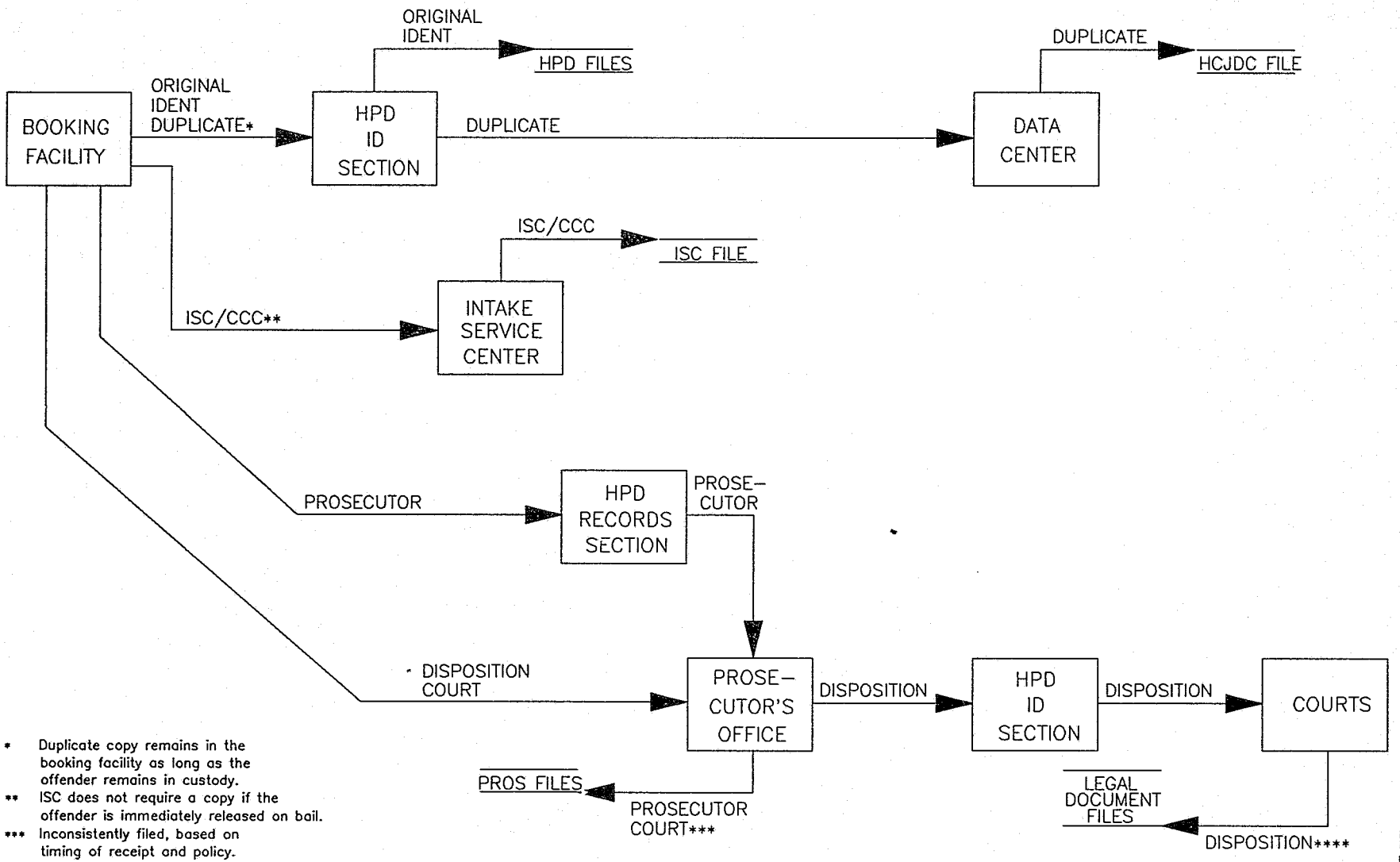
The booking facility staff routes the copies of the OBTS/CCH form to other agencies, depending on whether or not the individual is in custody. (See Exhibit 6.5.) If the individual has bailed out prior to arraignment, the following distribution occurs:

- Original, duplicate, and ident copies, and fingerprint cards go to the HPD ID section.
- Court and disposition copies go with the court calendar and rap sheets to the district court section of the prosecutor's office.
- The prosecutor's copy is routed to the prosecutor's office via the HPD records section.
- ISC does not require its copy.

If the individual remains in custody, the following distribution occurs:

- Original and ident copies and fingerprint cards are sent to the HPD ID section.
- The duplicate copy is kept in the booking facility. A custody log is created from these forms by the graveyard shift.
- The ISC gets its copy when and if the court unit interviews the individual. Otherwise the copy goes to the ISC when the individual is transferred there for detainment pending trial.
- The court and disposition copies go with the court calendar and rap sheets to the prosecutors.
- The prosecutor's copy is sent via the HPD records section.

OBTS/CCH ARREST REPORT DISTRIBUTION



* Duplicate copy remains in the booking facility as long as the offender remains in custody.

** ISC does not require a copy if the offender is immediately released on bail.

*** Inconsistently filed, based on timing of receipt and policy.

**** Court copy may be included, based on what is filed by Prosecutor's Office.

EXHIBIT 6.5

In both cases, the FBI fingerprint cards are routed to that agency following positive identification to request additional information on identity, outstanding warrants, and criminal history. The duplicate copy of the OBTS/CCH Arrest Report is routed to the data center where it is used to verify arrest information.

The identification process. Each offender tracked in OBTS/CCH should have a single, unique state ID. Because an alias may be given to police, an individual may be issued more than one state ID. The identification process is intended to catch individuals using aliases through an examination of fingerprints. If an individual is found to have multiple IDs, his records are combined under a single number so that the criminal history is complete.

The original and ident copies of the OBTS/CCH Arrest Report, the fingerprint cards, and the duplicate OBTS/CCH Arrest Report, if the individual is out on bail, are routed to the HPD ID section for the identification process. The following occurs if the individual is a first-time offender:

- The fingerprints are classified according to the Henry System.
- The fingerprint files, which are the most comprehensive of any Hawaiian law enforcement agency, are searched for a match on the classification cards.
- If no match is found in the Henry System files, a new rap file is created. The fingerprint card is filed in the Henry System files. The ident copy is put in the rap file.
- If a match is found in the Henry System files, the existing rap file is pulled, and the prints are compared for verification. If they match, the correct state ID is recorded on the two or three copies of the OBTS/CCH Arrest Report that were sent to the ID section. The incorrect state ID is recorded as having been issued as a duplicate to that individual. It is never reissued. The rap file is updated. Other agencies are notified of the correct identification. Owing to the time lags for the identification process and notification, the other agencies may have completed their processing of the individual before receiving the correct state ID.

If the individual is a repeat offender, his rap file is pulled and fingerprints are compared. If they match, the rap file is updated. If not, the Henry System file is searched as described above.

Following positive identification, the original OBTS/CCH Arrest Report is used for data entry into the HPD identification system. This involves rekeying the information on a computer terminal. The original data entry performed on the PC in the booking facility is not used to update the HPD system. This redundant data entry introduces errors and is a poor use of time; yet, these shortcomings are tolerated because HPD is reluctant to put information into its system before a positive identification has been made.

OBTS/CCH processing. The HPD system information is used to create a daily upload tape of arrest and identification information for OBTS/CCH. These are the first data accepted for in-process charges in OBTS. They must be entered before any subsequent criminal justice agency can enter data related to the charge. This upload process produces an error rate of three to five percent in mismatched demographic data and in acceptable aliases. Single names, acceptable in HPD's system, are not accepted by OBTS/CCH. OBTS/CCH requires a comma followed by at least one letter. For example, a name entered as "Al" in HPD's system would be charged to "Al,A" for OBTS/CCH. OBTS/CCH will only accept nine aliases, while HPD's system can accommodate 99. This lack of consistency between the two systems adversely impacts the operation of OBTS/CCH. The data center employees verify the uploaded information by using the duplicate copy of the OBTS/CCH Arrest Report. They research errors, determine the correct information, and request that HPD verify the information and make corrections to its ID system that are then picked up by a subsequent upload process.

The prosecutor's office reports disposition information to HPD. Included in the paper work is the disposition copy of the OBTS/CCH Arrest Report and possibly the court copy as well. These are routed to the appropriate court. The disposition information is entered into the HPD ID system.

HPD gets charge-disposition labels from OBTS/CCH. These labels are produced weekly. They include information related to the original arrest and case disposition. The individual's rap file is pulled and the arrest information is compared. Disposition information is verified with that reported to HPD by the prosecutor's office. There is approximately a 10 percent error rate in the disposition labels.

Sixty-six labels with errors were examined. A total of 75 errors had been identified on the labels. (See Exhibit 6.6.) Fifty-nine percent had errors in the disposition date. Some date discrepancies appeared to be related to a verdict or plea date versus the notice of entry of the judgment date. In other cases, plea and sentencing dates were confused. Fifteen percent of the labels had erroneous final dispositions. Fourteen percent had incorrect arrest report numbers. The majority of errors appear to be keying errors.

Sources of information for resolution of discrepancies include the original arrest report, rap files, the HPD ID system, the prosecutor's office, the courts, and OBTS/CCH. The label is corrected, if necessary, and then placed in the rap file. Corrections are made in HPD's system as required. Other agencies are notified of the corrections. The disposition information is entered into their system. Once a month, a tape of parole and probation information is created from OBTS/CCH. The tape is routed to HPD where it is used to update the parole and probation data on the HPD ID system.

OBTS/CCH - HPD
DISPOSITION LABEL ERRORS

Total Number of Labels: 66
Total Number of Errors: 75

Data Element in Error	Number of Labels	Percent of Labels	Percent of Errors
State ID Number	0	0	0
OBTS Tracking Number	0	0	0
Arrest Date	0	0	0
Arrest Charge	0	0	0
Arrest Report Number	9	13.64	12
Disposition Date	39	59.09	52
Final Charge	2	3.03	2.07
Final Disposition	10	15.15	13.33
Fine Amount	1	1.52	1.33
Fine Suspended	0	0	0
Community Service	1	1.52	1.33
Confinement	4	6.06	5.33
Confinement Suspended	0	0	0
Drivers License Suspended	1	1.52	1.33
Probation	1	1.52	1.33
Restitution	5	7.58	6.67
Suspended Restitution	2	3.03	2.67

Neighbor island processing. The neighbor islands have arrest and booking processes similar to those at HPD. There are no automated interfaces to OBTS/CCH from any police department other than Honolulu. Other police departments have OBTS/CCH terminals and can directly enter pre-identification and arrest information into OBTS/CCH.

Because the largest repository of fingerprint cards is at HPD, the neighbor island police departments send fingerprints to HPD, where two data center employees handle positive identification tasks as part of the neighbor island criminal ID processing responsibility. (See Exhibit 6.7.) This process is the same as the one described previously for HPD. There is also one contract employee processing identifications for the sheriff's office. The sheriff's office personnel do the direct OBTS/ CCH arrest and pre-identification data entry.

When pre-identification OBTS/CCH data entry has been completed, the OBTS tracking number is used as a temporary state ID number. Following positive identification, the correct or new state ID number is entered along with positive identification data elements. The charge records are then included in the individual's criminal history. If data entry of the OBTS/CCH Arrest Report information needs to be completed or information on distinguishing marks needs to be updated, the data are entered directly into OBTS/CCH by the data center employees for the neighbor islands.

The individual's rap file is updated in the same manner followed by HPD. The individual's rap file can be in the state file cabinets or on HPD file shelves, depending on where the person's first offense was committed. The rap file stays in that file regardless of the island on which subsequent offenses are committed. For example, if the first offense occurred on Oahu, the rap file will be in HPD's files. Offenses later committed on Maui will result in a rap file update by the state employees, but the rap file will be refiled in HPD's section. The reverse also holds true. Both sets of files are in the same office at HPD, but are separately filed and controlled.

There can be a lack of timeliness in getting the information into OBTS/CCH with the correct state ID owing to the intervals at which the neighbor island law enforcement agencies mail OBTS/ CCH Arrest Report forms to the Criminal ID clerks. There can be as much as a two-week lag before the forms are mailed. During this lag, the charges are not linked to the correct individual. This results in incomplete criminal history information on the individual. There are also occasional data entry lags when the clerks cannot keep up with the volume of work. These backlogs are generally short-lived.

If the arresting agency enters the arrest information under the temporary state ID tracking number and the OBTS/CCH Arrest Report is not received within 30 days by the data center

NEIGHBOR ISLAND CRIMINAL IDENTIFICATION WORKFLOW

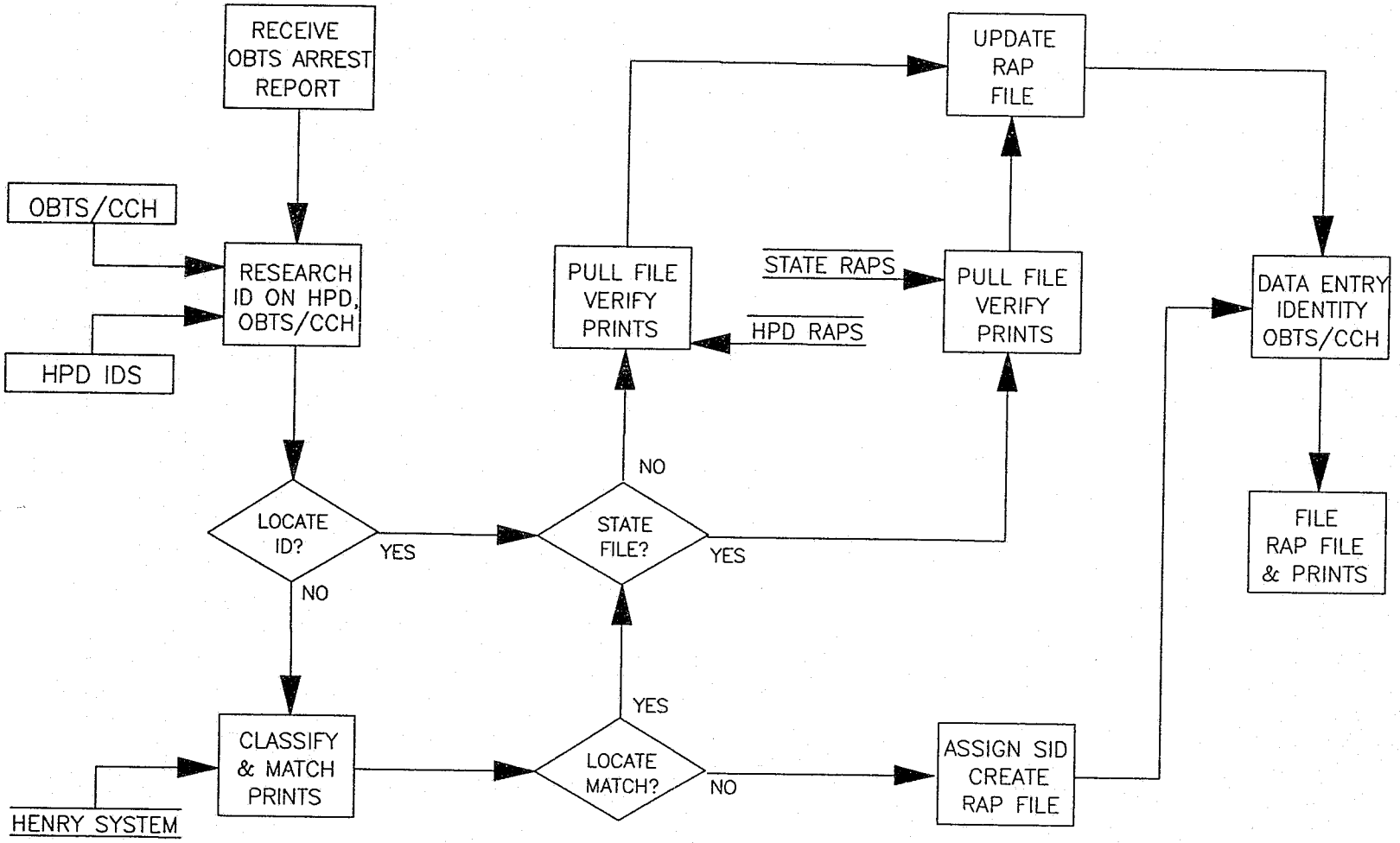


EXHIBIT 6.7

employees, a positive identification is not made in a timely manner. The correct state ID is then not entered within the OBTS/CCH data entry time frame, so the charges are counted as "delinquent."

Summary. In summary, the arresting agency uses OBTS/CCH for inquiries on identification and outstanding warrants. It uses the CCH information to determine whether the individual should be handled as a career criminal or a first-time offender. This can affect bail decisions and bail amounts. Decisions to request that the prosecutors drop or lessen the severity of charges in exchange for information are affected by the individual's criminal history. Inquiries are also made during the process of verifying information later in the criminal justice process.

The arrest information that is entered by the arresting agency is the required first step of the OBTS/CCH process. The tracking number, arrest report number, and state ID are the keys used for verifying that all subsequent charge information is entered into the proper OBTS/CCH records. Delays in this initial data entry can cause delays in data entry by subsequent criminal justice agencies.

Intake Service Centers. This subsection describes, in detail, the activities and workflows of the Intake Service Centers and the implications for OBTS/CCH.

Findings. In this area, we find as follows:

1. The ISCs rely heavily on criminal history information to make custody disposition recommendations. Unavailability of this history during certain early morning periods is a significant problem for this unit, as well as for HPD.

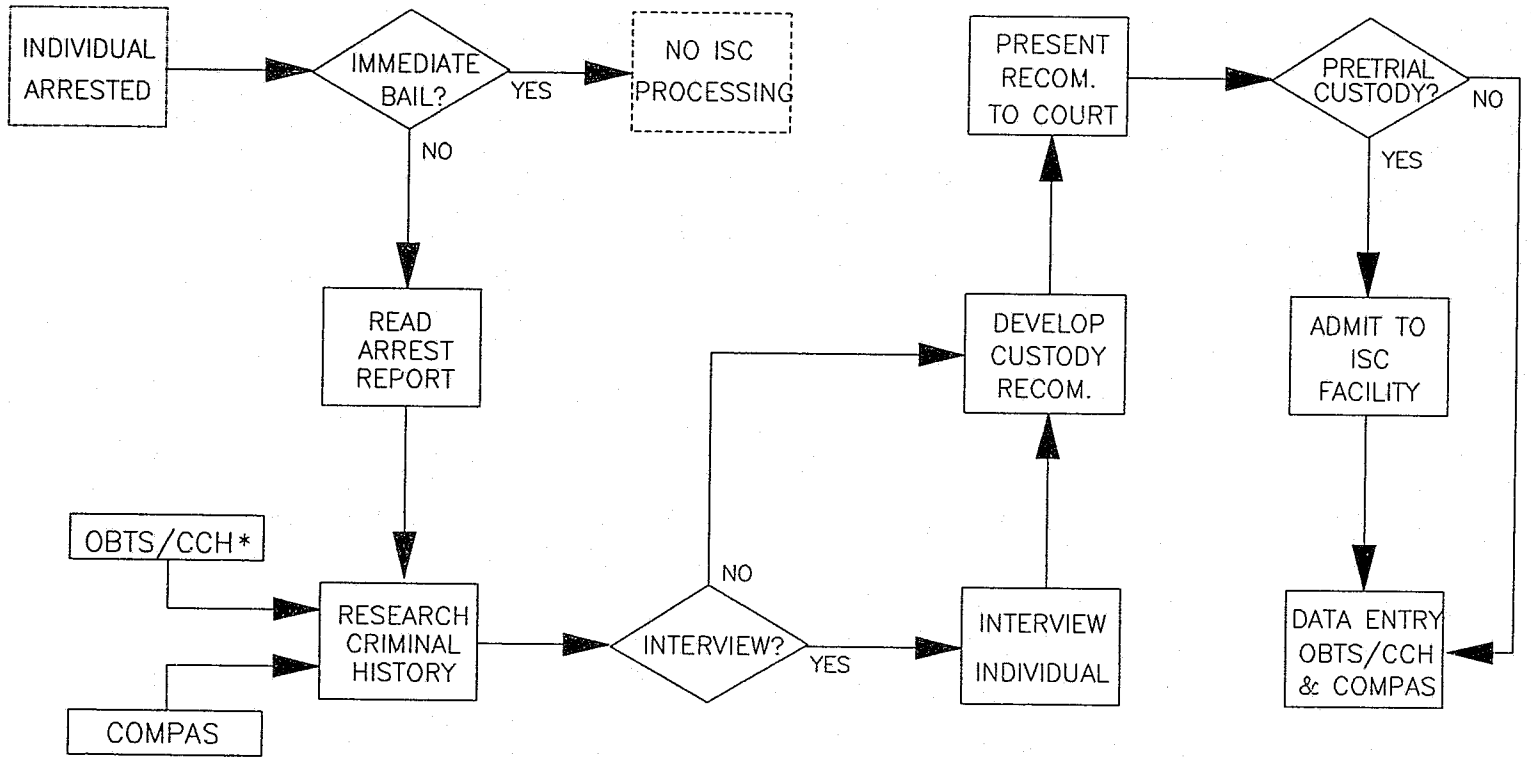
2. ISC evaluations are complicated because they are generally performed before a positive identification of the offender is obtained, and also because OBTS/CCH in-process charge information is frequently incomplete and untimely.

3. Because of the above problems, the State is exposed to a potential liability resulting from inappropriate custody decisions based on incomplete or inaccurate criminal history information.

4. Sequential data entry requirements impede the ISCs' ability to perform pre-sentence data entry into OBTS/CCH in a timely manner and as part of their normal workflow. Frustration with the system is at a high level among ISC personnel.

Description. The Intake Service Centers are responsible for the second step of the criminal justice process. (See Exhibit 6.8.) The ISC court unit makes recommendations on custody dispositions to the district court judge at the individual's initial arraignment. The initial arraignments are held beginning at 8:00 a.m. every day except Sundays and holidays. The person that has been arrested must be arraigned within 24 hours, provided that the court is in session.

INTAKE SERVICE CENTER
WORKFLOW



----- Action taken by arresting agency

* If OBTS/CCH is available

EXHIBIT 6.8

The Oahu court unit begins review of the HPD arrest reports and criminal histories at 3:00 a.m. for arraignments scheduled for 8:00 a.m. If the court unit interviews the individual, the ISC/CCC copy of the OBTS/CCH Arrest Report is taken at that time. Otherwise, its copy is routed to the ISC office when the individual is transferred to the ISC facility to be held pending trial. If the individual was already released on bail, the court unit does not require its copy of the OBTS/CCH Arrest Report.

The determination of appropriate custody disposition recommendations relies heavily on ISC's ability to evaluate criminal history information for the individual. Past failures to appear in court, the seriousness of previous offenses, and outstanding warrants are among the information considered when making custody evaluations. Sixty percent of the individuals on whom the court unit must make custody recommendations are repeat offenders, so some criminal history information should be available in OBTS/CCH. Unfortunately, the nightly ADABAS (see Glossary) backups are performed between 3:00 a.m. and 6:00 a.m. The backup process used by the Electronic Data Processing Division (EDPD) prevents all OBTS/CCH inquiries for one to one and one-half hours during this period. This is a major problem for the court unit and a lesser one for HPD, whose officers are unable to check identification information in OBTS/CCH during this same period. Another complicating factor for the court unit is that these evaluations are performed before positive identification of the individual is made. The correct criminal history may not be reviewed if an alias has been given to the police. Even if the correct history information is reviewed, data entry lags for recent in-process charges may result in an incomplete criminal history. The lack of family court data in OBTS/CCH also contributes to incomplete evaluations. The court unit may use the information it has in its system, COMPAS, to evaluate repeat offenders. If the offender is not in COMPAS, OBTS/CCH is checked before or after the backup process for any information it might have. The difficulty in obtaining current, complete background information for the custody disposition evaluation in a timely manner is the major shortcoming that ISC perceives for OBTS/CCH. The State does need to be sensitive to potential liability arising from inappropriate custody dispositions that are based on incomplete criminal history information. Every effort should be made to provide the best possible information and to have it accessible when needed.

The ISC is also responsible for entry of OBTS/CCH information regarding pre-sentence custody and custody disposition, i.e., released on bail, released on own recognizance, held for psychiatric evaluation, held without bail, and so on. (See Exhibit A.2 of Appendix A.) This information is entered into OBTS/CCH unless the individual is sentenced at the initial arraignment following a guilty plea, the individual is a misdemeanant released on bail immediately after booking, or the charge is dismissed at arraignment.

The pre-sentence detention information is also entered into the Department of Corrections (DOC) COMPAS system. The DOC has recently modified COMPAS to run on a Wang computer. This version is scheduled to replace the IBM mainframe version of COMPAS that had been used since 1983. The Wang version does not currently have an interface to OBTS/CCH, although one is planned for the future.

The ability of the ISCs to do the pre-sentence data entry for OBTS/CCH is adversely impacted by the problems inherent in the sequential data entry required by that system. The time required for the police department's identification process, data entry into HPD's system or directly into OBTS/CCH, automated transfer of information from HPD's system to OBTS/CCH, and resolution of the errors from that update process forces data entry lags for the ISC. The ISC may have completed all of its work related to the charges before the arrest information is even in HPD's system, much less in OBTS/CCH. Ideally, OBTS/CCH data entry should be accomplished as part of the normal case processing workflow. The ISC must, however, frequently postpone completion of the case workflow until the system is able to accept its data. Once that is accomplished, the ISC's case information can finally be entered.

The DOC was able to provide results of test efforts to enter ISC data into OBTS. One test was conducted on April 4, 1987. Sixteen cases were tested, involving 32 charges. Three of the cases were in the pre-sentence stage. Two were misdemeanants who were released on bail on Saturday, April 4th; arrest records were not found for either on Tuesday, April 7th, at 3:00 p.m. The third individual was a pre-trial felon. Acquittal and release information from April 6th could not be entered. Similar results were obtained in a prior test.

The current data entry lag for ISC pre-sentence information is approximately two weeks. Efforts to enter data in a more timely manner are so often unsuccessful that it is perceived as futile, frustrating, and an ineffective use of personnel time. Allowing nonsequential data entry would alleviate this operational problem for the ISC. As a result, ISC staff perception of OBTS/CCH would almost certainly improve.

Prosecutor's office and courts. This subsection describes the activities and workflows of the prosecutor's office, district and circuit courts, and the implications for OBTS/CCH.

Findings. In this area, we find as follows:

1. The prosecutor's office may fail to prosecute a case appropriately if an arrested individual provides an alias, and a positive identification is not immediately obtained and communicated to the prosecutor. Currently, several days may be required to obtain a positive identification.

2. Because of the lack of an automated interface, the Honolulu prosecutor's office must enter data redundantly into its PROMIS system and to OBTS/CCH. This is inefficient and increases the risk of data entry errors.

3. The prosecutor's office is subject to OBTS/CCH's sequential data entry restrictions and the resulting delays in obtaining arrest information. This, as well as a lack of clerical resources, has caused a buildup of data entry backlogs.

4. The prosecutor's office in Honolulu is subject to many requests from other agencies regarding disposition information. In fact, the volume of requests from the Honolulu Adult Probation Division is so high that a preprinted form has been developed for this purpose.

5. The prosecutor's office is unable to resolve delinquent charges that are on OBTS/CCH from 1978. A method to remove these charges has not been developed.

6. OBTS/CCH cannot distinguish the Attorney General's delinquencies from those of the prosecutor's office.

7. The prosecutor's office is affected by its inability to enter information into OBTS/CCH before an arrest is made.

8. The district court is adversely affected by OBTS/CCH's sequential data entry requirements and by partial case restrictions. However, the circuit court is not affected because the HAJIS interface allows nonsequential posting of data and allows partial posting of charges related to an individual case.

9. The courts are affected by the OBTS/CCH system design problem that results in charges with an outstanding not-guilty plea being written to the history file, if there are companion charges for that case that have guilty pleas with a final disposition.

10. The Oahu District Court has nearly 50,000 delinquent charges; 15,000 are contempt-of-court charges which have not been formally resolved. Contributing factors to this problem are the lack of an automated district court system, OBTS/CCH design and procedural problems, and lack of resolution of issues by judges.

11. Because the HAJIS-to-OBTS/CCH interface is run every two weeks, the circuit court information in OBTS/CCH is not timely.

12. The interface error between HAJIS and OBTS/CCH appears to be very high. Thirty percent of the transactions do not match on the basic identifying keys (state ID number, OBTS tracking number, and arrest report number). Approximately half also lack other needed information.

13. While lower than for the district court, the circuit court delinquency backlog is significant and growing.

Description. The prosecutor's office is responsible for presenting the county's case against the accused individual to the courts. Based on the arrest report, the individual's criminal history, the weight of evidence in the case, and any plea bargaining, the prosecutor decides to prosecute

a charge or declines to do so (nolle prosequi). The prosecutor may dismiss a charge at any point in the process until a guilty plea is entered or the trial begins. The courts are responsible for weighing the case as presented by both prosecution and defense and then passing judgment on all charges. The judge may dismiss a charge at any point in the process. The judicial process is first discussed below in general terms; then the specific work flows for the prosecutor's office and the courts are described and documented.

Overall judicial process. The early stages of the judicial process vary, depending on whether the charge is a misdemeanor or a felony. (See Exhibit 6.9.) For misdemeanor charges, the individual is arraigned in district court within 24 hours, provided court is in session. The individual is formally charged with the offense(s). Pleas are entered for each charge. If the plea is "guilty," the individual is sentenced. If the plea is "not guilty," a date for trial is set. Pre-trial custody disposition recommendations may be made by the ISC court unit and/or the prosecutor. The judge then decides on pre-trial custody for the individual. Misdemeanor trials are held in district court without a jury, unless the defense requests a jury trial. Misdemeanor jury trials are heard in circuit court. It is after this arraignment that the judge may request that a pre-trial investigation of the individual be conducted by the APD. (This is described later in this section.)

The felony process begins with an initial arraignment in district court, at which time the individual is charged. The preliminary hearing date is set. The amount of bail to be posted is determined.

The preliminary hearing also occurs in district court. The judge determines if there is probable cause to assert that the individual committed the crime as charged. If probable cause is not found, the individual is released. If it is found, the case is sent to the Grand Jury for formal indictment.

The Grand Jury returns a finding of "true bill" or "no bill." True bill confirms the probable-cause finding of the preliminary hearing and passes the case to arraignment. No bill results in the charges being dismissed. The case may also be referred back to district court to be prosecuted as a misdemeanor.

The Grand Jury may indict an individual even if the district court judge did not find probable cause. A victim may request further investigation, or the investigation may be initiated by the arresting agency. The investigation may result in sufficient evidence for an indictment. In these cases, a Grand Jury bench warrant is issued for the re-arrest of the individual.

Once the Grand Jury indicts the individual and a re-arrest has occurred, if necessary, the arraignment is held. The charges are formally read, and a plea for each charge is entered. If a guilty plea is entered, sentencing occurs. If the plea is not guilty, a trial date is set. If a subsequent

JUDICIAL PROCESS
OVERVIEW FOR
DISTRICT AND CIRCUIT COURTS

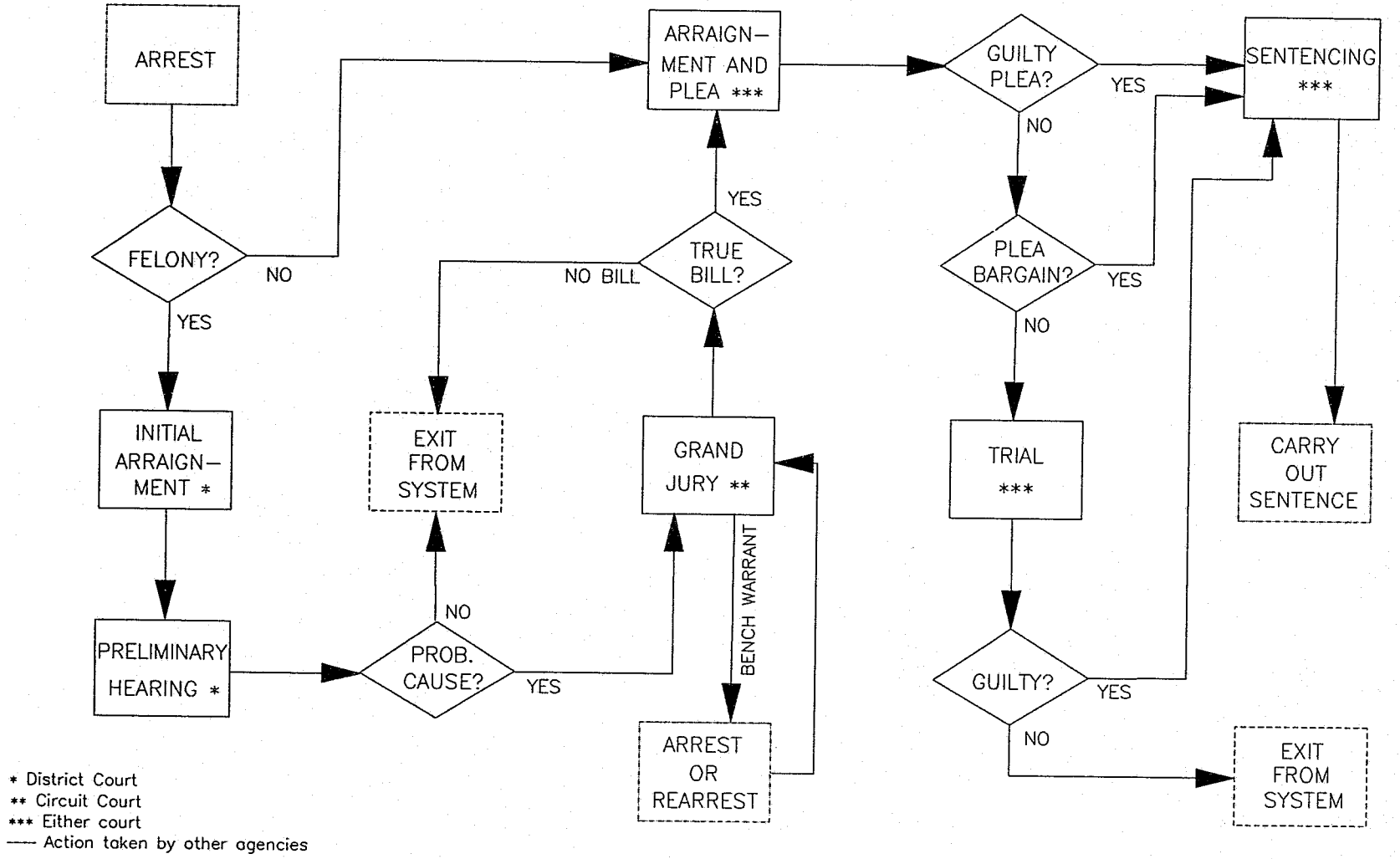


EXHIBIT 6.9

plea bargain is made before the trial begins, the individual returns to court for sentencing. As with misdemeanors, the judge may request a pre-trial investigation.

The trial process is the same for both felonies and misdemeanors. Once the trial begins, whether or not by jury, the prosecutor cannot dismiss the charges, although the judge can. Dismissal or a verdict of not guilty results in the charge leaving the criminal justice system. A verdict of guilty will result in sentencing.

The judge may request that the Adult Probation Division conduct a pre-sentence investigation. The results of the investigation would assist the judge in determining an appropriate sentence for the offender. The following sentencing options are available:

- Incarceration;
- Fine;
- Alternative community service;
- Probation; or
- Suspended sentence.

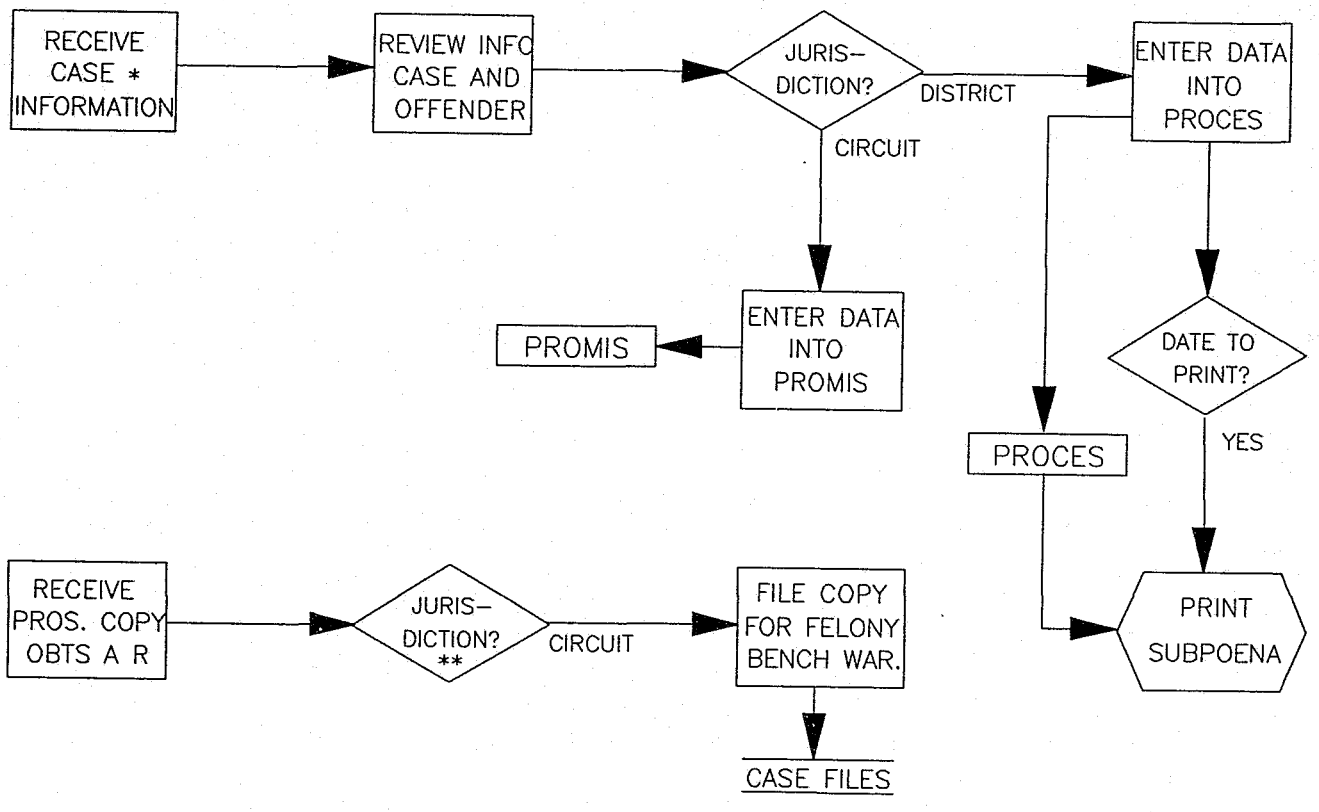
The sentence may consist of one or a combination of the alternatives. The defense may file an appeal after sentencing.

Prosecutor's office. The prosecutor's office enters the criminal justice process when it receives a court calendar, the disposition and court copies of the OBTS/CCH Arrest Report for each individual on the calendar, and the certified Abstract of Criminal Record, if available, for the cases to be taken to initial arraignment. (See Exhibit 6.10.) The paperwork is delivered from HPD to the prosecutor's office on a daily basis, when court is in session, approximately one hour before the 8:00 a.m. arraignments. If the Abstract of Criminal Record is not included with the other paperwork and the individual is a repeat offender, a non-certified abstract may be printed as a result of an inquiry into the HPD system. The prosecutor's office tracks cases using the arrest report number until a court case number is assigned.

Following review of the available charge, arrest, and evidence information, and the individual's criminal history, the prosecutor assigned to the case may decide to prosecute the charge as filed at arrest, amend the charge to another section code, add a charge, or not prosecute the charge. The individual may be able to plea bargain with the prosecutor's office for lesser charges or dismissal of some or all of the charges. This may be in exchange for guilty pleas on some of the charges or for providing assistance to the police or prosecutor.

This review process is compromised when the arrested individual has provided an alias to the police. The correct criminal history is not reviewed, and the individual may be inappropriately treated as a first offender. The correct identification may not be communicated to the

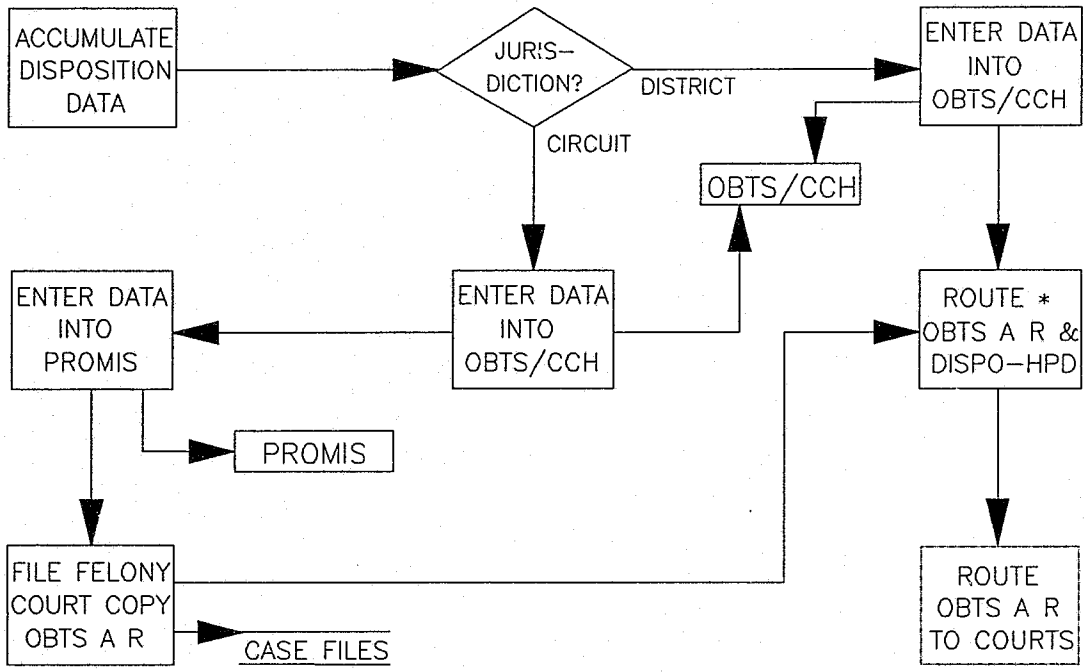
PROSECUTOR'S OFFICE
WORKFLOW--INITIAL PROCESSING



* OBTS Arrest Report (Court and Disposition copies) and Certified Abstract of Criminal Record

** Traffic Court files their copies
District Court disposes of their copies

PROSECUTOR'S OFFICE
WORKFLOW--DISPOSITION



—— Action taken by HPD
* Misdemeanors-- All case information
Felonies--Disposition copy

prosecutor's office until four or five days after the initial arraignment. By that time, the individual and the charge may have already exited the system. The prosecutor's office must correct its records and adjust its case strategy if necessary.

The Honolulu prosecutor's office has two agency computer systems, PROCES and PROMIS. PROCES is used for misdemeanor cases. The system uses information for each case to generate subpoenas for trial appearances. Felony subpoenas are typed owing to the shorter time frame within which witnesses are required to appear.

PROMIS contains information on felony cases, family court cases, and misdemeanor jury trials. The prosecutor's office does not have enough clerical resources to enter all misdemeanor cases into PROMIS. PROMIS contains court case information, including disposition information, continuations, motions, and so on. The district court prosecutor's office begins the data entry process by entering the information from initial arraignments and preliminary hearings. The circuit court prosecutor's office enters arraignment, trial, and sentencing information for circuit court cases. This entry is done after receipt of the court calendar, resulting in approximately a one-week lag time.

The prosecutor's office is responsible for entry of charge disposition and Grand Jury result information into OBTS/CCH. (See Exhibit A.3 of Appendix A.) Amended charges are entered. Neither of the prosecutor's office systems has any interface capability at this time; therefore, the data entry into PROMIS and OBTS/CCH is redundant, introducing an increased chance for data entry errors. OBTS/CCH data entry is performed using the OBTS/CCH Arrest Report and the court disposition slip received from the courts. If the disposition slip is not received, the court calendar is used when it is received. During the data entry process for misdemeanors, the court date on the initial court calendar received from HPD is compared to the one on the disposition slip. Any discrepancies must be researched and resolved. The paperwork received from HPD is returned to that agency, along with disposition information. The OBTS/CCH Arrest Report disposition and court copies are then forwarded by HPD to district court to be filed as legal documents.

For felony cases, the court copy of the OBTS/CCH Arrest Report is put in the case file. The disposition copy is routed to HPD, providing it with disposition information. The form is then sent to the circuit court clerks for entry into HAJIS and for filing as a legal document for the case. If the receipt of the two OBTS/CCH Arrest Report copies by the prosecutor's office is delayed, the court copy is not put in the case file; instead, both the disposition and court copies are forwarded to HPD and then to the circuit court clerks.

The prosecutor's copy is routed to the prosecutor's office from the HPD records section. The prosecutor's staff assigned to the circuit court pull the copies related to circuit court bench warrants. The prosecutor's staff for the district court do not retain their copies, although the traffic court section does.

The prosecutor's office is also subject to the sequential data entry restrictions for OBTS/CCH. The charge disposition may be known before the arrest information is even entered into HPD's system. Data entry is also subject to processing backlogs at the prosecutor's office, owing to a scarcity of clerical resources. The lack of timeliness of OBTS/CCH data entry, coupled with the denial of inquiry access into PROMIS for all other criminal justice agencies, results in many requests from other agencies for charge disposition information. This problem is so prevalent that the Honolulu Adult Probation Division has pre-printed disposition information request forms. (See Exhibit 6.11.)

Other requests for case-related information are also received by the Honolulu prosecutor's office. The ISC may request the prosecutor's reasons for asking the judge to set a high bail amount or deny bail to an individual. The Attorney General's office may inquire about any objections to parole release for an offender. HPD may contact the Honolulu prosecutor's office to resolve disposition discrepancies between the information received on the OBTS/CCH disposition labels and that received from the prosecutor's office.

The prosecutor's office on Oahu also queries other agencies' systems for information. HPD's system is accessed for information on identification and for non-certified abstracts of criminal history. HAJIS is accessed for court calendar information, information on documents filed for a case, preceding dispositions, and bail information. The prosecutor's office does receive a bail form, but HAJIS provides the information in a more timely manner.

The prosecutor's office receives delinquent charge lists. The clerical personnel shortage prevents consistent efforts to resolve the delinquencies. When time allows, the information is researched in PROMIS, the old card file that predates PROMIS, and microfilmed records, as appropriate. OBTS/CCH is unable to distinguish the delinquencies that should be attributed to the attorney general's office from those of the prosecutor's office. In December 1987, the prosecutor's office notified the data center that it was unable to resolve a number of delinquencies from 1978. A methodology for removing these charges from the delinquency list has not been developed. Therefore, these charges continue to appear on the agency's delinquency list. The present inability to resolve this issue is a source of frustration for the prosecutor's office.

EXHIBIT 6.11

Adult Probation Division
First Circuit Court
The Judiciary • State of Hawaii

NATHANIEL KIM, Acting
[redacted]
Probation Administrator

Kaahumanu Hale 777 Punchbowl Street Honolulu, Hawaii 96813
Post Office Box 2629 Honolulu, Hawaii 96803

PLEASE EXPEDITE, NEEDED FOR COURT SENTENCING BY: _____

DATE OF REQUEST: _____

Department of the Prosecuting Attorney
District Court Section
1164 Bishop Street, 11th Floor
Honolulu, HI 96813

Atten: Suzanna L. Pang

RE: _____

The above-named defendant appeared in Circuit Court and was referred to this office for a presentence/predisposition investigation and report. We request your assistance in providing us with the last known disposition(s) of the following arrest(s) with the accompanying date(s)/police report number(s) as noted below:

DATE	OFFENSE	POLICE REPORT #	DATE OF DISPOS.	DISPOSITION

CLERK'S NAME _____

TELEPHONE NUMBER _____

As the defendant is scheduled to return to court soon for sentencing/disposition, your response by the date indicated above is requested.

Should you have any questions regarding this matter, please contact the undersigned.

Thank you for your cooperation.

Very truly yours,

Telephone Number 548-_____

Judiciary
03/01/88

An additional OBTS/CCH processing problem is encountered by the prosecutor's office. The sequential data entry requirement prevents the prosecutor's office from entering Grand Jury indictment information until an individual has been arrested. There may be a time lag of as many as two years between indictment and arrest. The result is an incomplete criminal history for the individual during this period, as the indictment is not reflected by OBTS/CCH. The information is entered into PROMIS upon indictment, but that system is not accessible by other agencies.

Similar data entry lags are found for all penal summonses. When an individual fails to appear in court, the information is sent to HPD with a warrant for arrest. If the police are unable to apprehend the person, the file is returned to the prosecutor's office for additional research. If the prosecutor's office is able to serve the warrant, the information must be communicated to HPD so that the arraignment can be included on the court calendar. Prosecutors request the judge to send the individual to HPD for fingerprinting and an "arrest" report, but the judge may not agree, or the individual may never actually appear. The fingerprinting and "arrest" must be conducted in order to get the charge into OBTS/CCH. This aspect of the sequential OBTS/CCH data entry restrictions is a further source of frustration, inhibits efficient processing of information by the prosecutor's office, and results in incomplete criminal history information.

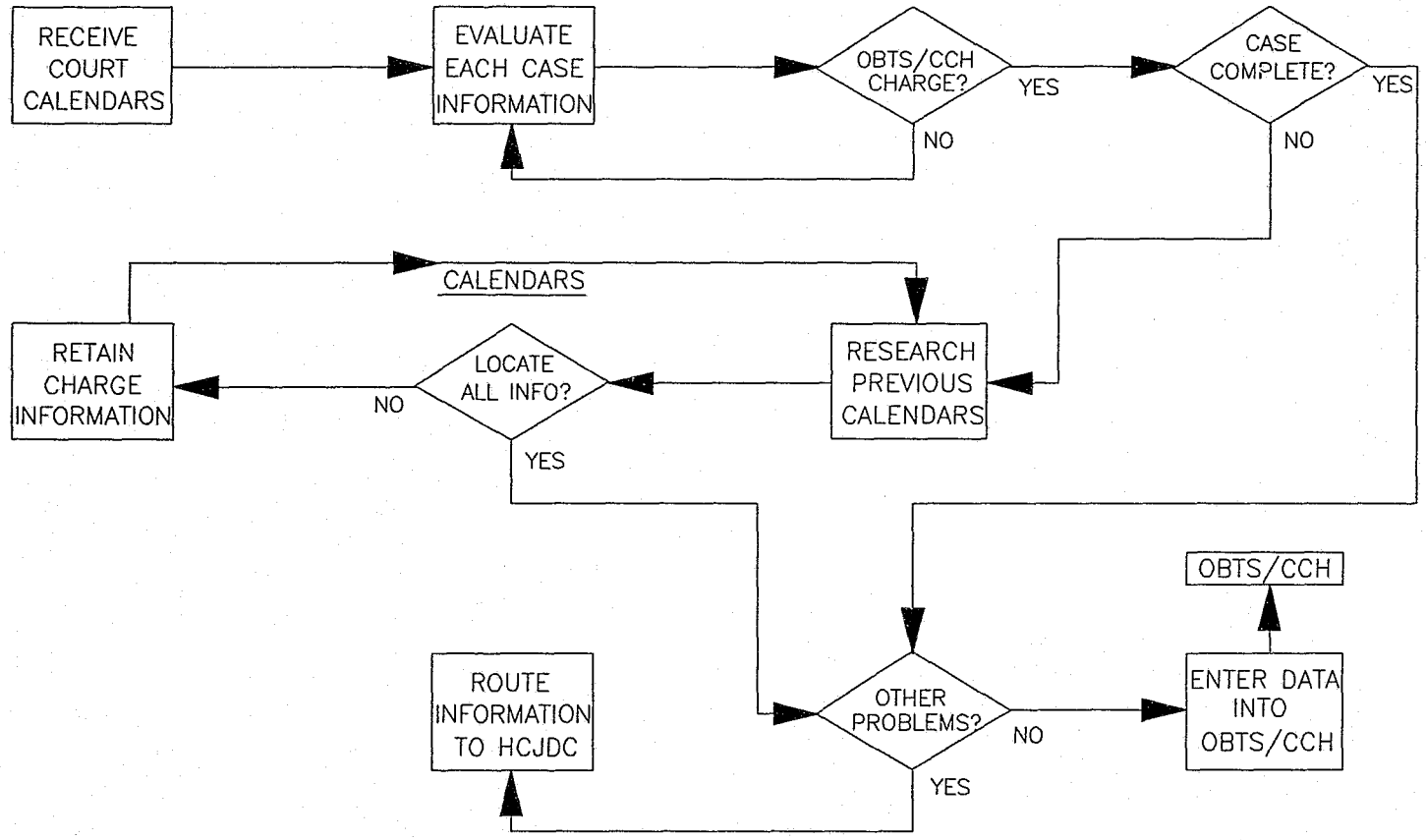
District court. The district court is actually composed of two sections: the Traffic Violations Bureau, or traffic court, and the Criminal Section. Because this study is only concerned with the criminal case section, the term "district court" will be used in this report to designate only the Criminal Section.

The district court is responsible for hearing all misdemeanor cases; for initial arraignment and preliminary hearings for felony cases; and for some traffic cases, particularly those which involve driving under the influence (DUI). The district court clerks produce daily court calendars for each judge, recording the proceedings of each case. (See Exhibit 6.12.) Unlike traffic court, which uses TRAVIS, the district court has no significant agency computer system. All case records, other than limited indexing and docketing information, are kept manually and OBTS/CCH data entry is performed on line. Some information relevant to district court, involving traffic charges, is entered by traffic court clerks into TRAVIS.

The district court has been assigned responsibility for entering the following information into OBTS/CCH. (See Exhibit A.4 of Appendix A.)

- Initial arraignment and preliminary hearings for felony cases.
- Arraignment, trial, and sentencing for misdemeanor and traffic cases heard in district court.
- Arraignment for misdemeanor cases transferred to circuit court for jury trials.

DISTRICT COURT
WORKFLOW



NOTE: A similar process is followed for delinquent charges.

Data entry for the district court, along with OBTS/CCH data entry for the rural courts on Oahu, is performed by the Judiciary Computer Services (JCS). Because data entry is performed on line, no error listing is produced.

The district court OBTS/CCH data are entered using the daily court calendars from district and traffic courts as source documents rather than from OBTS/CCH Arrest Report copies. Data are entered for as many stages of the court process as are recorded on the day's court calendar. The rural courts tend to accumulate information on more stages of the process before sending the information to the JCS. This contributes to delinquencies for the rural courts. The data entry process is dependent on having the correct OBTS tracking number. This number is generally listed on the court calendar. If it is not listed, the police arrest report number is usually available. An OBTS/CCH inquiry is done on the arrest report number to obtain the correct OTN.

The district court data can only be entered after arrest and prosecution information has been entered. This sequential requirement adversely impacts the district court data entry process. After two months, if the tracking number is still not found in OBTS/CCH, the information is given to the data center. The data center researches the problem. When the arrest information has been entered, or the correct OTN is determined, the JCS is notified that its information can be entered.

On-line OBTS/CCH entry requires that information for all charges in a case must be entered at each step of the process. If information on one charge is unavailable, none of the information can be entered. This is a serious drawback to the system design, one that impacts the completeness of criminal history information. This problem is most apparent for cases that include a contempt-of-court charge. The contempt charge is frequently used to get the individual back into court for action on the original charges. Once this is accomplished, the contempt charge is often ignored. The JCS clerk is then unable to enter the data on the original charges. Similar problems are encountered when charges filed under a single OTN are heard in two different courts. The timing of action by the two courts may be very different, with one court lagging months behind the other. Once action is completed for all charges, information from both courts must be gathered so the data entry can be performed. If any of the information cannot be located, all charges remain unresolved on the system. This system design forces more charges to be delinquent than would be if partial case entry were allowed.

The JCS data entry clerk is able to file amended charges for in-process charges. If the charge has gotten into the criminal history file, amended charge or sentence information and correction of any errors must be entered by the data center. The JCS requests the change and provides the necessary information. Conditional release information must always be entered by the data center, as are charges turned over to another agency.

There is currently an OBTS/CCH system problem that results in charges for which not-guilty pleas are entered, but they are being written into the history file with companion charges that have pleas of guilty. The not-guilty charges should remain in the in-process file pending trial information. The data center must enter the trial information for these charges into the history file until this problem can be corrected.

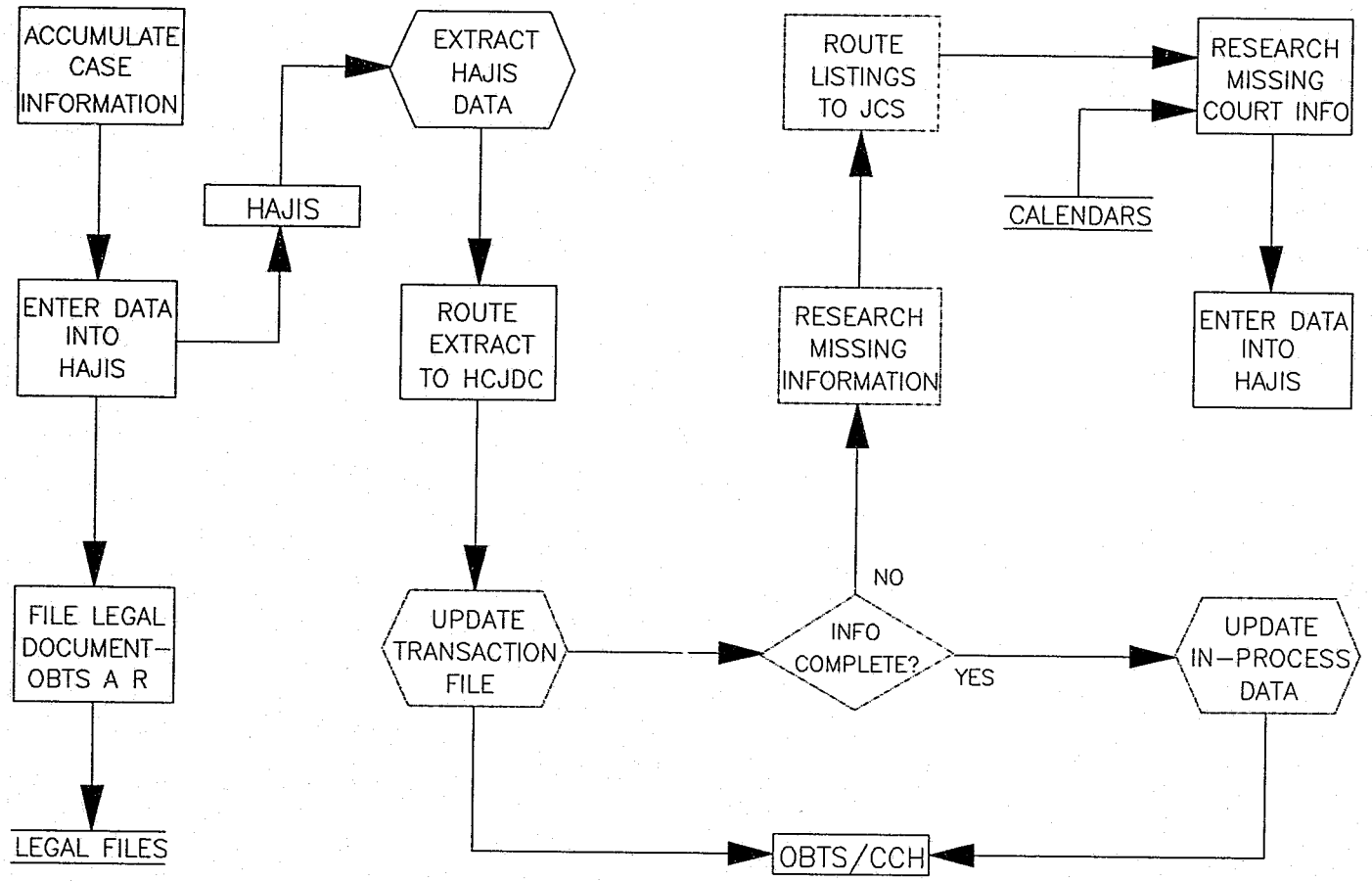
The Oahu District Court has nearly 50,000 delinquent charges. This includes approximately 15,000 contempt-of-court charges for all courts, including Oahu Circuit, Family, and Traffic Courts. A monthly delinquency report is produced. These delinquencies are researched as time allows. The delinquencies are caused by a number of problems. The manual processing in district court is a contributing factor. The current OBTS/CCH entry by JCS is often backlogged. The restrictions on partial case entry force the delinquencies to be higher than necessary. The lack of resolution by judges on contempt-of-court charges and bench warrants is another contributing factor. Any charge that is in OBTS/CCH but that does not get recorded on the court calendar becomes a delinquency. The rural courts may not send all the required information to the JCS in a timely manner. These charges may then end up as delinquencies.

The resolution of delinquencies may require research into the circumstances of the case. Information on criminal misdemeanors is located on another floor of the district court building. Information on rural court charges must be obtained from those courts. Traffic charge information is researched on TRAVIS. TRAVIS inquiries are accessed by arrest report number, so the correct number must be known. During summer months, the JCS hires a temporary employee to perform current data entry. The regular clerk is able to work on both the current and delinquent transactions. In mid-October of this year, the current data entry efforts had a one-month backlog, and delinquencies were not being addressed at all.

The district court OBTS/CCH data entry efforts would benefit from nonsequential and partial case entry. The clerical staff would be able to process the entire daily court calendar without having to put portions of it aside until information on an outstanding charge is available or preceding agency information has been entered. This would facilitate a smoother and more timely data entry process. The information in OBTS/CCH would be both more complete and timely. The delinquency backlog would not be forced higher as it currently is by the OBTS/CCH system restrictions.

Circuit court. The circuit court is responsible for all arraignments, trials, and sentencing for felony cases and for misdemeanor and DUI cases that have jury trials. (See Exhibit 6.13.) The circuit court in Oahu does have an agency computer system, HAJIS. The data entry into HAJIS is performed by circuit court clerks within 48 hours of court action. The source documents for

CIRCUIT COURT
WORKFLOW



—— Tasks performed by HCJDC

EXHIBIT 6.13

HAJIS data entry are the court calendars and the OBTS/CCH Arrest Report. The disposition copy of the OBTS/CCH Arrest Report is routed to the circuit court from the prosecutor's office via HPD. Following data entry, the disposition copy is filed as a legal document for the case.

The circuit court has been assigned the task of entering arraignment, trial, and sentencing information for circuit court cases into OBTS/CCH. (See Exhibit A.5 of Appendix A.) This data entry is accomplished by a batch extract from HAJIS and tape upload to OBTS/CCH. The automated upload is conducted every two weeks. This frequency makes circuit court information in OBTS/CCH less timely than would be possible with more frequent uploads.

The circuit court is not troubled by the OBTS/CCH sequential data entry or partial case restrictions because the upload process accepts all HAJIS transactions into a transaction file. If all the preceding agency information is already on the system and complete information on all charges in the case is available, the records are transferred to the OBTS/CCH in-process file immediately. Otherwise, as the preceding agency information is or data on companion charges are completed, the transactions are written into the OBTS/CCH in-process file. The information in the transaction file is not available for any user agency inquiry; only the data center has access to that information file.

The upload process results in four reports:

- Match List--The state ID number, OTN, and arrest report number for records on this list are matched correctly to arrest information already on OBTS/CCH. Approximately 70 percent of all records are matches. If all the information for all companion charges is complete, the charges are added to the In-Process File. Some information for these records may be missing.
- No Match List--One or more of the three key numbers is absent or incorrect when compared to OBTS/CCH information. About 30 percent of all records do not include the correct OTN. The OTN is the key number most likely to be missing. These records are not added to the In-Process File. The list provides possible matching key numbers to facilitate resolution of the no-match situation. There may also be missing information in these transactions.
- Missing Information List--Records that are missing information that should have been obtained from agencies other than the court are printed on this list. Approximately half of the uploaded records are missing information. This includes the 30 percent missing the correct OTN. The data center employees research and record the information directly on the listing. The list is then sent to the circuit court legal documents clerks for entry into HAJIS. The completed information is then picked up by the next upload. Records on this list may be on either the Match or No Match List.

- Circuit Court Missing Information List--This list details the information missing from each record that must be researched and supplied by the circuit court. About five percent of all records are in this category. JCS staff check HAJIS to see if the information has been entered since the last update. If not, the court calendar is checked to verify whether or not the information is available. When the information is available, it is entered into HAJIS. The next OBTS/CCH upload picks up the information.

JCS staff are able to work the Circuit Court Missing Information List before the next upload. The data center staff are, however, unable to research and resolve the No Match and Missing Information listings before the next upload process is run. Estimates of the upload error rates were obtained from the data center clerical staff. The estimates are only approximate guesses, as record counts for the process are not produced by the system.

The inability to correct all errors is a serious problem for the data center, with severe implications for OBTS/CCH. The number of circuit court delinquencies and the volume of incomplete information are increasing and will continue to do so. The volume of missing and incorrect information indicates the magnitude of data integrity problems in the criminal justice data systems. Downloading case arrest and identification information from OBTS/CCH to HAJIS could significantly reduce, if not eliminate, the "No Match" records and much of the missing information related to other agencies while reducing the data entry burden for court personnel. It is this need to rekey into HAJIS information that has already been entered by the arresting agency into OBTS/CCH that introduces many of these errors. Staff time currently used for the redundant data entry could be advantageously used for other tasks. The effectiveness of this download process would be dependent on the timeliness of getting information from preceding agencies into OBTS/CCH.

The circuit court does have delinquencies for OBTS/CCH entry. Its volume of delinquencies is increasing owing to a lack of staff resources for research and resolution of the delinquencies. The Oahu Circuit Court has a significantly smaller number of delinquencies than the Oahu District Court, owing to its use of HAJIS and the HAJIS-OBTS/CCH interface. The circuit court delinquency counts do not include charges that remain in the transaction file, inaccessible to other users. Yet, owing to the inability of user agencies to access the information in the transaction file, more circuit court charges appear to be delinquent than actually are. It should be noted that the adverse effects on the completeness of criminal history information are the same, whether the delinquency is actually due to a lack of data entry, to case delays, or to the record being in the transaction file.

Community Correctional Center. This subsection describes the activities and workflows of the Community Correctional Center (CCC) and the implications for OBTS/CCH.

Findings. In this area, we find as follows:

1. DOC's COMPAS system does not interface with OBTS/CCH, causing the need for redundant data entry.

2. The CCC, as is the case with other agencies, is adversely impacted by OBTS/CCH sequential data entry restrictions.

3. CCC was adversely impacted when the sort order for all delinquency reports was changed from offender name to OBTS tracking number.

Description. The Community Correctional Center of the Department of Corrections is responsible for the post-sentence incarceration of offenders. (See Exhibit 6.14.) The offender may serve his entire sentence at a correctional facility or may be released on parole after serving a portion of the original sentence. The parole process is discussed in a later section of this chapter. CCC personnel must determine the appropriate classification of the offender, i.e., violent, career criminal, first-time offender, and so on, in order to place the individual in the appropriate facility with the appropriate level of security. The criminal history information on OBTS/CCH and COMPAS is used for these evaluations. The process is adversely affected by incomplete, untimely information.

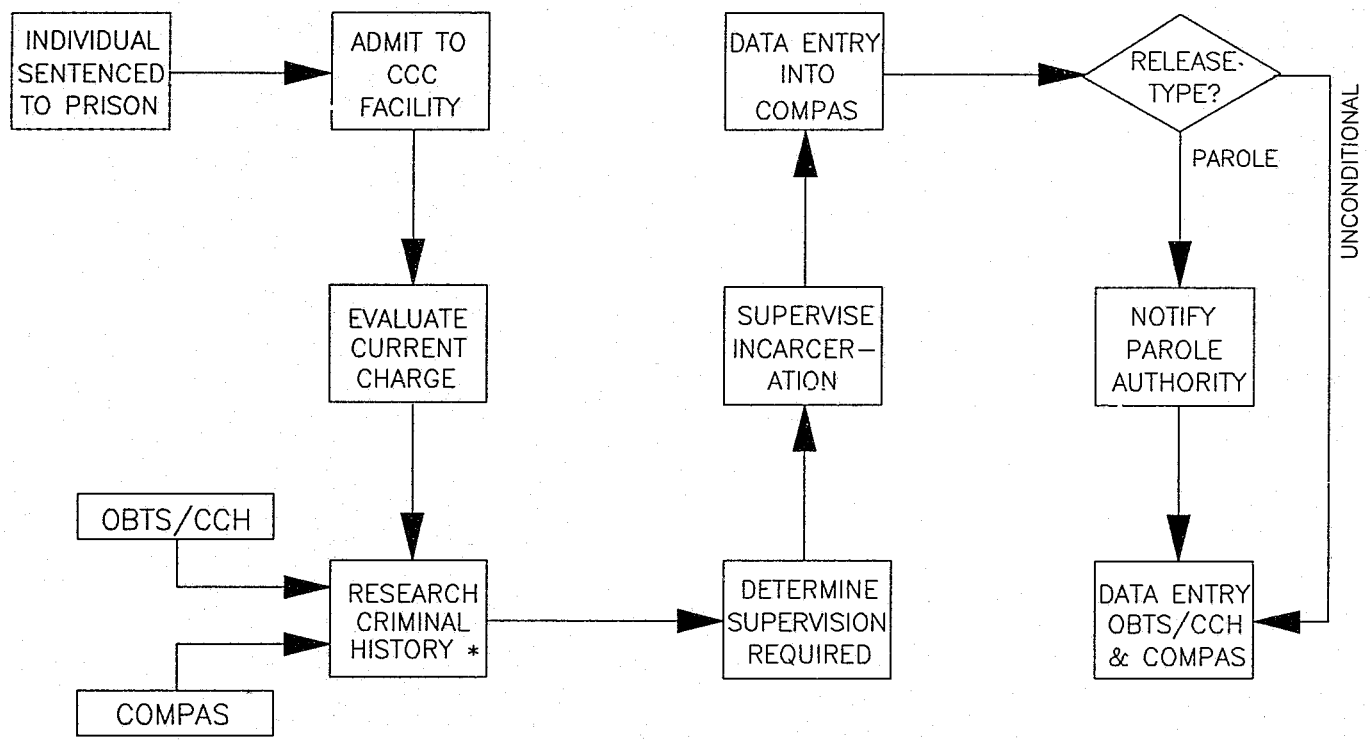
It is the responsibility of the CCC to enter post-sentence custody information into OBTS/CCH. (See Exhibit A.6 of Appendix A.) Information on the correctional facility, the offender's case number, time served, and custody status and the date are entered into OBTS/CCH. The data entry is performed upon release of the offender.

As discussed in the section above on the Intake Service Center, the DOC uses the COMPAS system to track its detailed corrections information. The new version of COMPAS on the department's Wang will not be interfaced to OBTS/CCH in the near future, although an interface is eventually to be implemented.

An interface from COMPAS to the new Hilo prosecutor's FACTS system will provide FACTS with release information so victims can be notified of the offender's pending release. This interface is scheduled for completion in early 1989.

The ISC/CCC copy of the OBTS/CCH Arrest Report is used during postsentence processing as a source of information on pre-sentencing confinement. For example, if an individual is sentenced to two days confinement and was held for one day before pleading guilty, he may receive credit of one day for time served and is then confined for only one more day. This information is used to calculate credit for time served. The pretrial confinement information

COMMUNITY CORRECTIONAL CENTER
WORKFLOW



* Other agencies may also be consulted.
—— Action taken by courts.

may not be on OBTS/CCH in a timely enough manner for the on-line information to be used. In addition, sentences for DUI are handed down in terms of hours rather than longer time increments. This information must be calculated from the OBTS/CCH Arrest Report, as only arrest and release dates, not times, are available on OBTS/CCH.

The CCC is also adversely impacted by the sequential data entry restrictions of OBTS. The agency's information may be accumulated and completed before arrest information is even available on OBTS/CCH. In addition, entry must also be completed by the prosecutor's office and court(s) before the CCC can enter its portion.

The results of data entry tests for post-sentence custody information were similar to the pre-sentence results discussed earlier in the ISC section. In the April 7, 1987 test, information on 13 of 13 post-sentence custody cases could not be entered. Neither the 30-day sentence of one offender nor another sentence of five weekends had been entered. Records for one offender sentenced in Ewa District Court were not even in OBTS/CCH. Similar results were observed in prior tests conducted by the agency.

CCC personnel were adversely impacted when the sort order for all delinquency reports was changed from name to OBTS tracking number. While a delinquency report sorted by name does have inherent problems in the case of aliases, it would still facilitate the CCC's efforts to research and resolve their delinquent backlog of charges, owing to the use of offender names in accessing information in COMPAS. Personnel at CCC are frustrated by the inefficient use of staff time and the incomplete and untimely information that results from sequential OBTS/CCH data entry restrictions. The entry of post-sentence custody information into the OBTS/ CCH system should be a step in the normal release process. Additional clerical effort is required to pull the offender's file at a later date to enter the necessary OBTS/CCH data. This inefficient use of staff time could be eliminated by nonsequential data entry.

Adult Probation Division. This subsection describes the activities and workflows of the Adult Probation Division and the implications for OBTS/CCH.

Findings. In this area, we find as follows:

1. The Adult Probation Division (APD) on Oahu inquires frequently into OBTS/CCH. The incomplete and untimely data in the system hinder the division's investigative activities and necessitate supplemental inquiries of various kinds to numerous other agencies.

2. While APD has the authority to view expunged charge information, it must obtain this manually from various agencies because expunged cases are entirely deleted from OBTS/CCH.

3. APD personnel noted that OBTS/CCH's inquiry functions are cumbersome in certain aspects. They also have difficulty in easily searching several different systems for information relating to a particular case or individual.

4. APD personnel would benefit from inclusion of the court case number on the full criminal history report.

5. Because of the lack of an automated interface between APD's PROBER system and OBTS/CCH, APD personnel must redundantly enter the same data into both systems.

6. APD personnel noted problems in system response time after 8:00 a.m. on work days. However, they are not affected by sequential data entry requirements.

7. An opportunity exists for using birth certificate information entered into PROBER to simultaneously update OBTS/CCH's offender name information if an alias previously was on file.

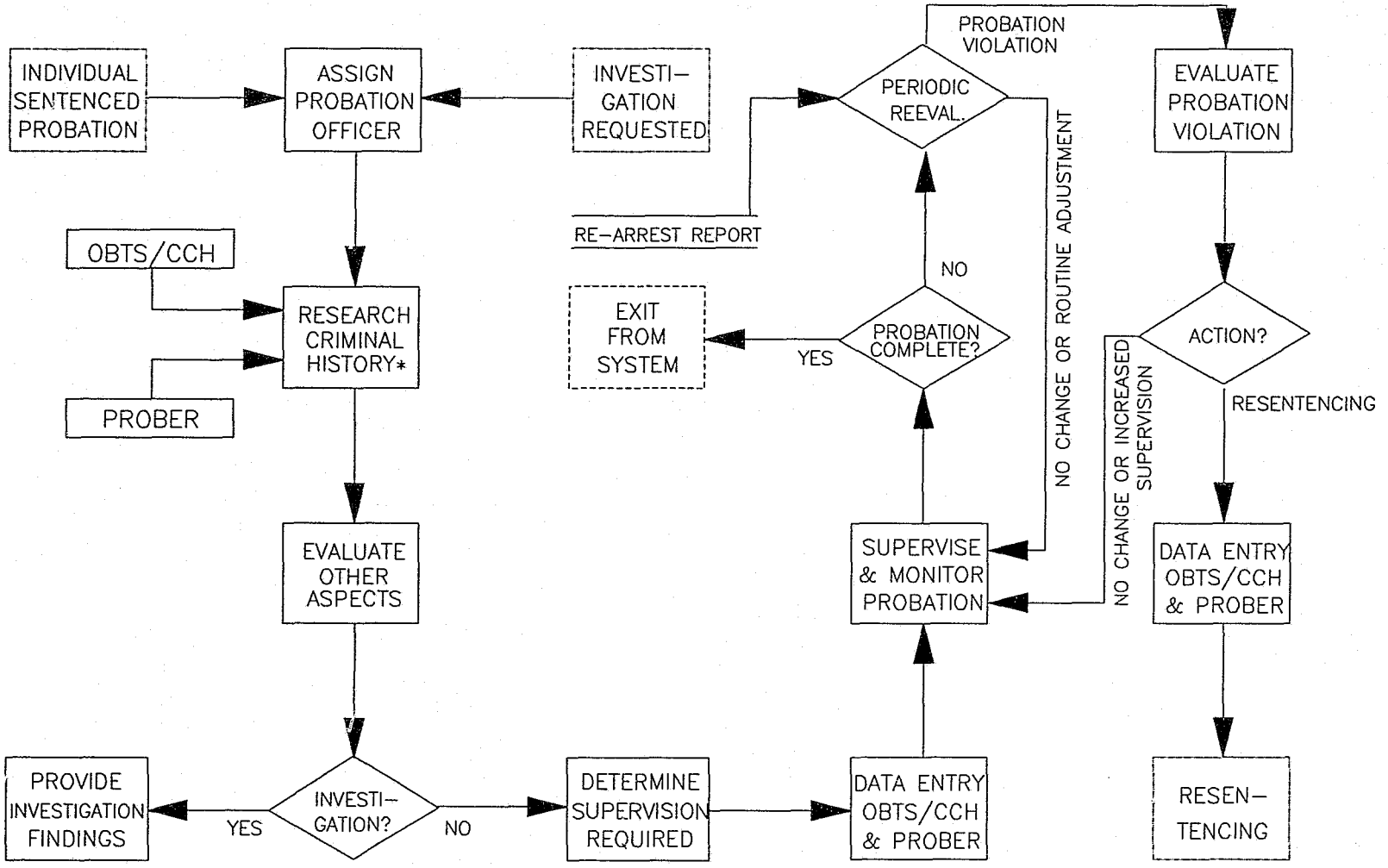
Description. The Adult Probation Division of the circuit court handles the responsibilities related to the supervision of adult offenders that have been sentenced to probation, have deferred acceptance of pleas, or have other special sentencing conditions. (See Exhibit 6.15.) In addition, pre-sentence and pre-disposition investigations of any offender are performed by division personnel upon request by circuit court judges.

Criminal history information is used to assess the risk an offender would present to society and to himself if he were to be released under supervision rather than incarcerated. Based on this assessment, APD determines the appropriate level of supervision for offenders sentenced to probation and then provides the required supervision. Probationary periods are generally from one to five years.

The Probation Division on Oahu makes extensive use of the inquiry capabilities of OBTS/CCH, researching as many as 20 cases per day. The incomplete and untimely data in OBTS/CCH hinder the division's investigative activities. Information must be sought from other systems and agencies. HPD's system, HAJIS, and the National Crime Information Center (NCIC) are all queried. Information in the division's PROBER system is used if the offender has been on probation before. The Honolulu prosecutor's office is contacted for disposition information on such a frequent basis that a preprinted request form has been developed. (See Exhibit 6.11.) Court calendars are another source of information. Additional sources of information provide data on family and employment backgrounds and current situations. Information from all the available sources is drawn together for the pre-sentence investigative reports and for supervision evaluations.

APD has authority, within certain guidelines, to view information on expunged charges. Records on expunged charges are removed from the on-line OBTS/CCH data files and stored on tape. Thus, APD must attempt to obtain the information from other agencies. APD would benefit if expunged information was retained on line in OBTS/CCH, with appropriate security for access.

ADULT PROBATION DIVISION
WORKFLOW



* Other agencies may also be consulted
—— Action taken by other agency

EXHIBIT 6.15

The process of researching information in the various criminal justice data systems is time-consuming and awkward. The division's personnel must have inquiry access to the systems, must remember logins and passwords for each system, and must learn and remember how to use each of the systems. Training in the use of the various agency systems is often minimal or nonexistent. In many instances, owing to a lack of understanding of and training in system use, these systems are not utilized to their full potential.

Some of the division's staff stated that they consider OBTS/CCH's inquiry function to be unnecessarily cumbersome to use. The user must clear the current information from the screen and then type the desired screen code and state ID or tracking number that the user wants to view next. This must be done even if the same tracking number or state ID is to be used. For example, if information on the plea, trial, and sentencing for a single case is needed, the four-character screen code and the tracking number must be typed to access each of the three screens. The screen must be cleared between each inquiry. This is awkward, time-consuming, and frustrating. There are recursive inquiry functions for obtaining the same screen, such as the sentencing screen, for another tracking number. However, this function does not work properly on at least one of the division's terminals. This is a function that was observed to function properly in update mode at the JCS. Enhancement of OBTS/CCH to simplify obtaining another screen for a particular tracking or state ID would make the system more "user friendly."

The full criminal history report is considered by APD personnel to be very useful information, to the extent that the data are complete. However, inclusion of the court case number for each set of charges on the report would be helpful when more detailed information is required from HAJIS, which must be accessed by case number. Without the case number on the report, an OBTS/CCH inquiry must be performed to obtain the correct case number before HAJIS can be used for the necessary inquiries.

Access to more complete and timely information in OBTS/CCH would reduce the need to consult other sources of information, improving the efficiency and effectiveness of APD. The elimination of sequential data entry and complete case input requirements would address these problems. Complete, accurate information is crucial for making appropriate probationary decisions and for providing the information judges need to make disposition and sentencing decisions.

The Probation Division is responsible for entering supervision information into OBTS/CCH. (See Exhibit A.7 of Appendix A.) This information is entered into the Probation/Parole File. The data include the supervision level, probation officer assigned, probationary period dates, and the assessed risk of placing the offender on probation. Initial data entry and subsequent

updating of data elements are performed by APD personnel. The offender is periodically reevaluated, and appropriate changes are made to the file records. This information, with additional supervisory detail and supporting demographic information, is also entered into the division's PROBER system.

PROBER is a PC-based system. There are no interfaces to or from PROBER. Therefore, the data entry is highly redundant and subject to the errors introduced by rekeying information. The division would benefit by downloading demographic information from OBTS/CCH to PROBER, and by uploading the supervisory information required for OBTS/CCH.

Because the supervision information is entered into a separate file from the In-Process Charge File, there are no sequential data entry restrictions. Therefore, the division is able to perform OBTS/CCH data entry as a step in its normal operational flow. The nonsequential nature of its data entry prevents any "delinquencies" for the division. The lack of automated interfaces between PROBER and OBTS/CCH results in no error listings, as all OBTS/CCH entry is subject to on-line editing. However, personnel at APD were the most vocal of any agency on Oahu regarding complaints about slow OBTS/CCH response time and system down-time during regular business hours. If its OBTS/CCH data entry cannot be completed between 7:00 a.m. and 8:00 a.m., the staff postpones entry until the next day.

There is a single point of linkage possible between the Probation File and the Summary Criminal History File. If the offender has a state ID, the individual's status is designated as "probation," and the appropriate county's probation division is listed as the supervising agency. This link is not mandatory. If the offender does not have a state ID, the data center provides a unique "Z-number," as opposed to the state ID "A-number." There is then no link to the Summary Criminal History File. Z-numbers are assigned to persons arrested and sentenced without fingerprinting and to offenders from other states, now located in Hawaii, for whom the Probation Division provides "courtesy supervision." Information on probationary status and supervisory dates is provided to HPD via the OBTS/CCH-HPD monthly download process. The Probation Division receives daily Re-arrest Reports from OBTS/CCH for any offender currently on probation who is charged with a new offense. This information is used to update PROBER and to reevaluate the individual's supervision level.

The Probation Division frequently obtains copies of offenders' birth certificates during the course of their investigations. The name on the certificate is used on PROBER. By providing a copy of the birth certificate to the data center, the offender's complete, correct name can be recorded in OBTS/CCH, if it is different than the one currently entered. The current name then becomes an alias.

The Probation Division is one of the heaviest users of the inquiry capabilities of OBTS/CCH, along with the Intake Service Center and the Hawaii Paroling Authority. APD desires and supports improvements in OBTS/ CCH that will make it a more functional tool for its normal operations. It is willing to enter its assigned data, but would be very receptive to a two-way interface between OBTS/CCH and PROBER to eliminate redundant data entry.

Hawaii Paroling Authority. This subsection describes the activities and workflows of the Hawaii Paroling Authority and the implications for OBTS/CCH.

Findings. In this area, we find as follows:

1. The Hawaii Paroling Authority (HPA) depends on criminal history data in OBTS/CCH to evaluate individuals on parole and determine appropriate supervision levels. Incomplete and untimely data inhibit these efforts and cause a need for ad hoc inquiries of other agencies for the needed information.

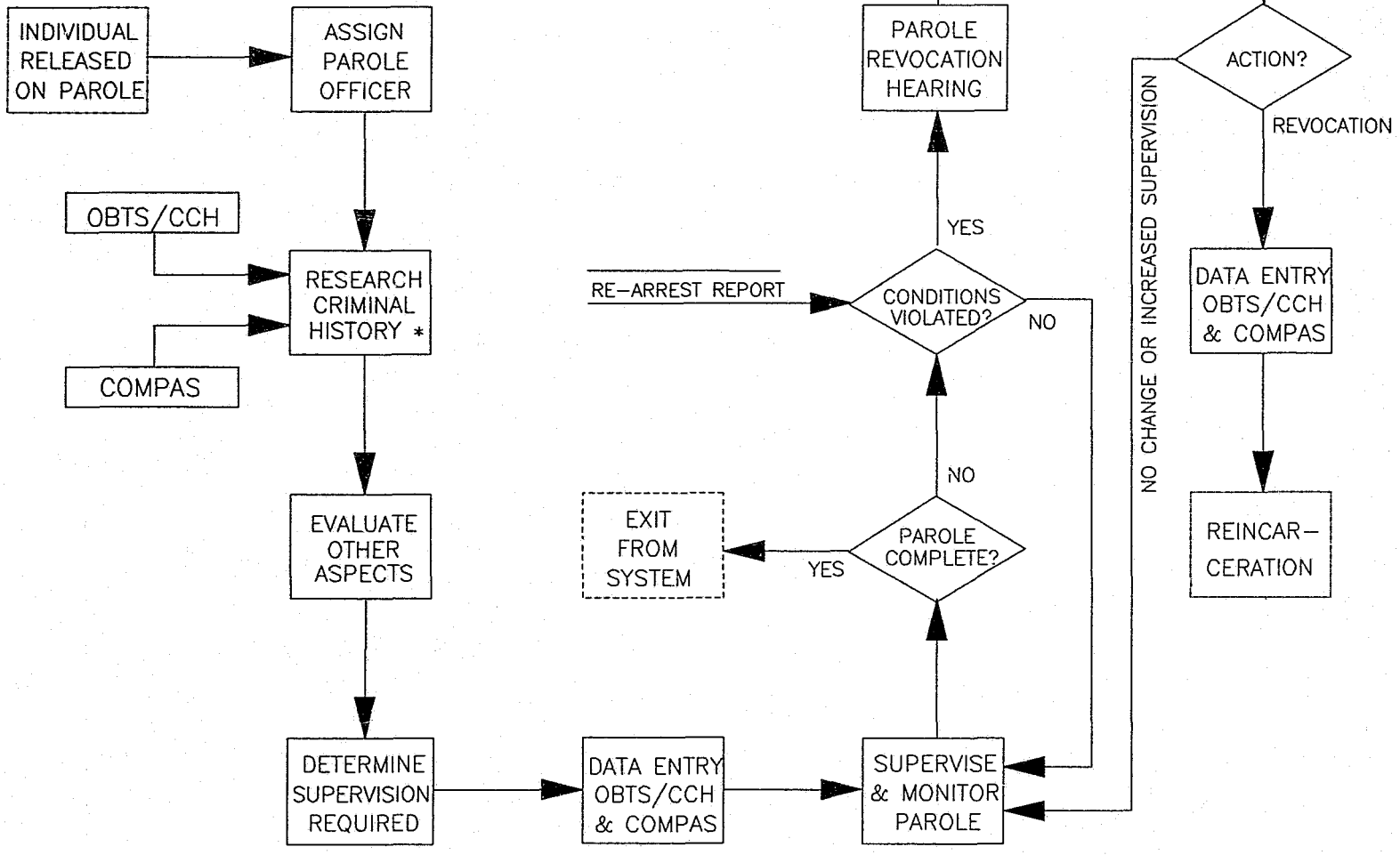
2. HPA is adversely affected by OBTS/CCH's sequential data entry requirement. HPA personnel are not entering much of the HPA's assigned data into OBTS/CCH because of frustration with the system.

3. HPA's Adult Parole Division is no longer receiving the OBTS/CCH Re-arrest Report. This report is of significant potential value to the division.

Description. The final step in the criminal justice process might be the responsibility of the Adult Parole Division of the HPA. After serving a portion of his sentence, the convicted felon may be released on parole from the corrections facility. The Adult Parole Division is responsible for the supervision of the adult parolee. (See Exhibit 6.16.) This supervision consists of periodic meetings with an assigned parole officer and periodic checks on the parolee's employment and residence. Violation of parole conditions may result in reincarceration for the balance of the original sentence.

HPA personnel must determine the level of supervision appropriate for the individual. The criminal history information in OBTS/CCH and COMPAS is used during this evaluation. The review process is extensive, resulting in an assessment of the risk the parolee presents to himself and to society. Based on the degree of assessed risk, the frequency of meetings with the parole officer may be set at weekly, monthly, or quarterly intervals. This is subject to periodic reevaluation, based on the progress, or lack thereof, that the parolee makes in reentering society. The incomplete and untimely criminal history and in-process charge information available in OBTS/CCH forces the Parole Division to look to other agencies as sources of the necessary criminal background information. This agency would realize operational benefits if OBTS/CCH provided all the required information on the individual. The necessity of checking multiple

HAWAII PAROLING AUTHORITY
WORKFLOW



* Other agencies may also be consulted
—— Action taken by other agencies

EXHIBIT 6.16

sources does result in less effective personnel resource utilization. This is essentially the same problem faced by the Adult Probation Division.

HPA is responsible for entering the minimum time the offender must serve on parole into OBTS/CCH. (See Exhibit A.8 of Appendix A.) The sequential processing requirement for the In-Process File has an adverse impact on parole information data entry. When HPA attempts to enter its data, the charge information from earlier criminal justice steps is frequently incomplete, preventing the successful entry of the parole minimum. The Hawaii Paroling Authority personnel in Honolulu are, for the most part, not currently entering their data owing to their continued frustration with this situation.

Despite these frustrations, the Hawaii Paroling Authority remains supportive of the OBTS/CCH concept. It wants and needs complete and timely information on criminal history. OBTS/CCH could and would be effectively used as an operational tool by the HPA if the information was complete and current. The HPA staff would like to see an agency's information input within 48 hours of action being taken by the agency. It is willing to input parole information in a timely manner provided the system will accept it. Nonsequential processing would alleviate the agency's data entry problems and, in the long run, many of its inquiry problems.

OBTS/CCH tracking of and reporting on parolees that are re-arrested are a high priority for HPA. The Adult Parole Division reported that it is no longer receiving the Re-arrest Report. The timeliness of this information is critical for the agency's effective operation. A parole revocation hearing must be scheduled so the parole board can take proper action when a new offense has been committed by a parolee. Accurate and complete information on the new charge is required to determine whether the parolee should be reincarcerated, his supervision level increased, or no change made.

OBTS/CCH Operational Functionality

The OBTS/CCH system has traditionally been considered a statistical reporting system and a repository of historical data. It has not been viewed as a system to support daily operations. There are three reasons for this. First, the original concept, as introduced by the Law Enforcement Assistance Administration (LEAA) over a decade ago, was that it was a historical/statistical system. Second, the information maintained on the system is derived from other agency systems that are operational in purpose. Third, the system was originally designed at a time when batch processing methods were more prevalent than they are now.

While it is true that one of the primary objectives of OBTS/CCH is to provide for crime-related statistical reporting, it is equally true that criminal justice agencies are using, or

are attempting to use, the OBTS/CCH system as part of their daily activities. Several examples of this are discussed in the following section:

- Arresting officers check OBTS/CCH, as well as their own systems, for identification information.
- The OBTS/CCH Arrest Report is used by agencies throughout the criminal justice process. (While this is a manually generated form at this time, it has the potential to be generated and disseminated as part of standard OBTS/CCH processing.)
- Neighbor islands use OBTS/CCH to store essential information regarding an arrest, and use the OBTS tracking number to identify a case even before positive identification may be made.
- Arresting agencies and the Intake Service Centers rely heavily on the criminal case history component of OBTS/CCH. Arresting agencies need to know whether they are dealing with a first-time or repeat offender and be aware of other outstanding charges against the offender. ISCs need background information to help them make custody disposition recommendations at the time of arraignment, and make bail decisions. These agencies need this type of information to be available immediately, or at least within a very few hours after the arrest occurs.
- In order to make a rational decision regarding prosecution of a given charge, the prosecutor's office requires specific information on the offender's background and the details of the case. Much of this information must be obtained from the arresting agencies and ISC, which in turn are depending on OBTS/CCH in order to carry out their functions. Court officials similarly rely heavily on the ability of arresting agencies and ISC to make well-informed recommendations to the court.
- DOC's Community Correctional Centers are attempting to use criminal history information in OBTS/CCH to make effective post-sentencing custody decisions, despite the lapses in information that currently exist.
- The Adult Probation Division reviews OBTS/CCH criminal history information frequently in order to advise the circuit court prior to sentencing or other case disposition. The same information is used to determine the appropriate supervision level of an offender sentenced to probation. This division is also a major user of OBTS/CCH reports, including the Re-arrest Report which helps it identify offenders on probation who have reentered the system.
- The Hawaii Paroling Authority researches OBTS/CCH criminal history information in order to make decisions regarding the level of supervision and allocation of personnel resources to a given offender. They also make use of the Re-arrest Report.

The above examples illustrate very clearly that the information contained in OBTS/CCH is needed daily by the criminal justice agencies so that they can decide how best to deal with the offender, handle a given case at all stages, arrive at critical sentencing and custody decisions, and allocate their own personnel resources.

Viewed from another perspective, the type of information OBTS/CCH provides can help prevent the criminal justice system from making costly mistakes by releasing dangerous or repeat offenders, by failing to catch offenders wanted on other charges, or by otherwise disposing of cases in an inappropriate manner. These errors can result in a direct cost to the community, seriously undermine the credibility of the criminal justice system, and represent a potential liability for the State.

Agencies continually try to rely on OBTS/CCH for their operational needs despite the fact that information in this system often is not current or complete. Far from arguing against the use of OBTS/CCH as an operational system, this only reinforces the argument that a strong central criminal justice information system is needed for this information, and that agencies feel at risk when it is not available. In the absence of any acceptable alternatives, they rely on OBTS/CCH, as imperfect as it is.

Agencies have, in addition, gone beyond the current inadequacies of inquiry into OBTS/CCH and their own internal systems for the information they need for daily decisionmaking purposes. As the discussion in the previous section of this chapter indicates, an informal but elaborate process of inter-agency inquiry has developed. The frequency and number of inquiries have increased to such a point that, on at least one occasion, a form has been developed by one agency, the Adult Probation Division, to facilitate inquiries made routinely of another agency, the Honolulu prosecutor's office. While such an informal information-gathering network would have its value in any case, it appears highly likely that an up-to-date and complete OBTS/CCH data base could potentially make many of the current inquiries unnecessary, thereby increasing the overall efficiency of the criminal justice system.

One characteristic does set OBTS/CCH apart from most other operational systems. This is the fact that most of the information that makes its way to OBTS/CCH originally is recorded in a specific agency system, whether this is automated or manual. From the agency's perspective, its own system, not OBTS/CCH, has value as an operational tool. OBTS/CCH's role, however, is to record this information, although perhaps in less detail, and make it available commonly to all agencies who may have an operating need for it. Unfortunately, the agency of original entry has no specific motivation to enter this information into OBTS/CCH because it already has what

it needs. In fact, in many cases, there is a disincentive because of the difficulty or extra time required, under the current design, to enter this information again into OBTS/CCH.

Past efforts to ensure that agencies enter their OBTS/CCH information have had an enforcement or penalty orientation. This has had an adverse impact on the perception of OBTS/CCH and the data center and has not effectively motivated the participation of some user agencies.

This project team recommends an alternative approach that motivates agencies to commit to OBTS/CCH because it really is a system that assists them in their daily work. To make OBTS/CCH a success, the challenges that the State faces are as follows: (1) realize the operational value of OBTS/CCH to the criminal justice community as a whole, (2) communicate this value to the individual agencies, (3) enhance, in every way possible, the operational strengths of OBTS/CCH in a way that visibly impacts the effectiveness of agency operations, and (4) remove obstacles or disincentives to agencies which need to enter information into OBTS/CCH on a regular basis in order to keep its data base current, complete, and accurate. This approach appears to offer much more positive results than alternatives that would circumvent OBTS/CCH or otherwise deny the pressing need for it to become a truly effective operational system.

Sequential Processing Requirements

In general, the current OBTS/CCH processing flow requires that information regarding a given case be entered in a specific sequence by the agencies that are involved, beginning with the arrest and continuing through the judicial process to ultimate case disposition. Information must be entered at each step and fully validated before the next agency in line can enter its data. This sequential requirement indicates the intense concern by the designers and current operators of the system to ensure the accuracy of information entered into the OBTS/CCH data base by allowing edit and logic checking of each segment against preceding segments.

This primary concern with accuracy is understandable when OBTS/CCH is viewed as a central and permanent repository of vital and sensitive information regarding criminal offenders. The State is potentially liable if inaccurate information is allowed to remain on these files. However, this concern has been allowed to override the equally important need for the data base to maintain information that is complete and timely. As a result, the effectiveness of this information to many criminal justice agencies in the State of Hawaii has been diminished.

One primary example is the procedure used to enter arrest information into OBTS/CCH at the City and County of Honolulu. This process is described earlier in this chapter. What is especially noteworthy is that the process precludes any entry of arrest information into HPD's

automated system, and therefore into OBTS/CCH, until a positive identification is obtained. This causes anomalies and inefficiencies in the criminal justice system, as follows:

- Reliance is placed on an OBTS/CCH Arrest Report, which is generated on a stand-alone personal computer, to provide information to the various agencies involved. This form can become outdated as essential information changes once a positive identification is made. However, agencies continue to make decisions based on its information and even use it as the document of legal record.
- Because identification lags can be significant, cases may proceed through the legal system and be disposed of well before any arrest record is entered into OBTS/CCH.
- The information initially entered on the OBTS/CCH Arrest Report must be reentered into the HPD system once an identification is made. This redundant data entry step is an inefficient use of staff time and increases the risk of errors.

In summary, the insistence on obtaining a positive identification prior to entering information into OBTS/CCH complicates the functions of several agencies and creates its own risks of inaccurate recording of data on the system.

The neighbor islands have instituted a compromise approach that appears to overcome some of the above difficulties. This involves direct entry of arrest information into OBTS/CCH on a preliminary basis, pending positive identification by the data center's Criminal ID Section. This immediately places arrest information into the system for use by the other agency representatives who will need to begin to work with that case. The fact that the information is preliminary seems to be well understood and accepted by the users.

The system sequence requires that case processing begin with input of an arrest. This greatly complicates the input of certain cases that do not meet the criterion. Examples include the following:

- Grand jury indictments that do not result in actual arrests for significant periods of time.
- Penal summonses that do not result in immediate arrest, booking, and fingerprinting.
- Contempt-of-court citations that do not result in a new arrest.

In the above cases, information should be recorded on OBTS/CCH even though the arrest step has not occurred.

Throughout the entire process, the sequential input requirement causes difficulties. Agencies that could otherwise enter their transactions as part of their normal activities are forced to wait on previous agencies which have data backlogs. Agencies such as ISC or APD, which rely on accurate criminal histories and up-to-date information on cases in progress, are frustrated by major gaps in the OBTS/CCH data base. In general, users tend to give up on entering their own

data as their efforts to do so repeatedly fail, as source documents become increasingly difficult to locate, and as the data itself becomes outdated in terms of operational usefulness.

Because of these tendencies, some exceptions are being made to the sequential processing requirement. The HAJIS input interface apparently is allowed to update a version of the OBTS/CCH data base directly, regardless of whether previous sequential data entry steps have been completed. Unfortunately, this information is not made available to the user community at large until the interim data entry steps are completed. The Adult Probation Division is also able to enter its data nonsequentially into a separate file.

Perhaps the most interesting new development, however, is the interface between the Hilo prosecutor's office system (FACTS) and OBTS/CCH. FACTS periodically transmits update transactions to OBTS/CCH. If a transaction can be posted to the data base because all prior sequential data entry steps are completed for that case, the posting is performed. If it cannot be posted, the transaction is placed in a holding file that is then accessed weekly by OBTS/CCH until it is possible for the posting to be completed. From the FACTS user's perspective, data entry and transmission are only performed once. The only drawback to this approach is that data are still not available to agency users until the previous sequential input steps are completed.

Data Entry Backlogs

OBTS/CCH has more than 100,000 charges that are considered "delinquent" owing to incomplete information. (This is detailed in Exhibit 6.1.) This "delinquency" problem has existed since the inception of the system, and continues to grow. In addition, many transactions have not been entered in a timely way but are not counted as delinquent. These constitute an additional backlog of an undetermined scale. The backlog problem is the largest cause for dissatisfaction with the system and contributes to friction between the data center and the user agencies. Attempts made to date to clear up this situation have failed. This section discusses the current situation and the potential for the elimination of current backlogs, and suggests a revised delinquency reporting approach.

Current Situation. The OBTS/CCH system designers intended that each step of the criminal justice process should have actions taken and recorded in OBTS/CCH within a certain period of time after data for the preceding step are entered. If information is not entered within the time interval allowed, OBTS/CCH attributes a "delinquency" to the agency responsible for the data entry. These time intervals are as follows:

- 30 days for arrest, pre-sentencing, prosecutor, and post-sentencing entry.
- 40 days for district court arraignment, preliminary hearing, and circuit court arraignment.

- 60 days for sentencing for misdemeanors.
- 75 days for sentencing for felonies.
- 120 days for misdemeanor trials.
- 200 days for felony trials.
- 210 days for entering the minimum time to be served on parole.

Delinquent charges attributed to the various agencies vary from under 100 for the Kauai ISC to nearly 50,000 for the Honolulu District Court. (See Exhibit 6.1). Arresting agencies, since they initiate the process, have no delinquencies attributed to their agencies because OBTS/CCH is not aware of an arrest until or unless the arrest information is entered. There are however, some arrests that are not entered, although they should be. In addition, most agencies have not entered numerous transactions because they are waiting on another agency to complete its input first. These transactions are not recorded as "delinquencies," but do form part of the backlog problem.

There are several interrelated reasons for these backlogs. One reason is that an agency may not have an adequate information system of its own, or may lack staff to keep up with its transaction entry requirements. The district court in Honolulu is a primary example of this. Another reason is that the design and processing requirements of OBTS/CCH contribute significantly to the backlog problem. Examples include the requirement that case information be input in a specific agency sequence; the inability of the system to accept disposition information for individual charges within a case if other charges remain open; high error rates in interfaces between other operational systems and OBTS/CCH; and general inefficiencies in the design of data entry screens that hinder rapid date entry. Finally, one cause of the backlogs is motivational. Some agencies do not assign a high priority to keeping abreast of their OBTS/ CCH data entry requirements, and assign limited staff to this task. This is especially true if funding is not available to the agency for this purpose. It is also more likely to occur if agency personnel enter data into their own system, and then must take the time to enter the same data into OBTS/ CCH, particularly if this must be done at a later date owing to the sequential processing requirements.

The backlog situation is substantial enough to undermine the value of OBTS/CCH as a statistical, historical, or operational system. Statistical reports from OBTS/CCH are obviously misleading when so many offender and case records are missing from the data base. History regarding individual offenders is incomplete, whether needed for use by criminal justice agencies or to satisfy outside parties desiring a criminal records history check. Any such information on the data base must be supplemented by a time-consuming manual inquiry of all of the agencies

that may have had more current experiences with the offender. Finally, as is discussed later, the lack of adequate information in the system regarding current arrests and charges seriously hampers the functions of the police departments, Intake Service Centers, and the Adult Probation Division. This in turn adversely affects the functioning of the criminal justice system.

Eliminating the backlogs. The effort required to eliminate these backlogs will be significant. Many of the user agencies are already hard pressed to handle the volume of current case processing that must be accomplished with available clerical personnel. These agencies logically assign a lower priority to resolving delinquencies than to working their current cases and recent backlog. State assistance will be required to enable and motivate them to eliminate their delinquent charges.

In a letter dated April 11, 1985, from the chairman of the Hawaii Paroling Authority to the Chief Justice of the Supreme Court, it was estimated that a data entry clerk could clear approximately 3,000 delinquent disposition entries per month.[1] If this estimate is accurate, approximately three employee years would be required to clear up the current backlog of over 100,000 transactions. The data center has requested the addition of three data entry staff dedicated to clearing up this backlog. Based on the above estimate, it would require approximately one year to accomplish this effort.

This probably is a "best case" estimate for several reasons. First, new data entry staff would be relatively untrained in the criminal justice system. Especially with district and circuit court input, information is obtained from various places and interpretation by trained staff is often required to determine the appropriate information to be input into OBTS/CCH. Second, backlogs of varying sizes exist at agencies all around the State, increasing the need to coordinate work of the new staff with a number of different users. Third, clearing off the immediate delinquencies in one agency may then cause new delinquency overloads in agencies located further down the sequential input path. Data entry staff would easily find themselves needing to enter much more than 100,000 transactions. Finally, the backlog itself is growing steadily. Unless agencies can assign sufficient resources immediately to keep abreast of the backlog problem, the new data entry staff will find that new "delinquencies" are being added that need to be addressed as the old ones are cleared off.

A number of OBTS/CCH improvements should be made prior to initiating the effort to clear delinquent charges. Some of these are listed below.

- Allow nonsequential and partial case entry. This will eliminate the necessity to work down the backlog in sequence by agency. Information on all segments of the process that are available can be captured. Resolution of all possible charges can be accomplished even if information on a companion charge cannot be found or never occurred. Each agency can work on its backlog in the most convenient manner without needing to time its effort to those of other agencies.
- Improve system functions so that data entry is more efficient.
  - Have systems enter or retain agency identification based on user ID or entry at the beginning of the session.
  - Simplify access to other screens for the same OBTS tracking number or state ID number. Ensure that the function to access the same screen for another OBTS tracking number works properly.
- Explore the feasibility of uploading information from agency systems if there are a limited number of data elements to be transferred. If substantial edit checking would be required, the time necessary to develop and test the upload program may exceed the benefit realized by resolving charges in a more timely manner through manual entry. Any efforts of this nature should benefit permanent interface development.

Delinquency reportings system. Over the longer run, a reporting system can be developed that will allow better management of delinquencies that do occur. There are three prerequisites to this: first, the current severe backlog situation must be eliminated; second, the system must be designed to accommodate nonsequential entry of transactions; and third, the system must allow partial entry of charges for a multiple-charge case.

Such a delinquency reporting system should distinguish between, and report on, the three following general types of delinquencies:

1. Data entry delinquencies;
2. Partial case delinquencies; and
3. Full case delinquencies.

Each of these delinquency types is caused by different factors and requires different managerial tactics for control. The current system design does not allow delinquency reports to be produced that distinguish between these three types. Each type of delinquency is discussed in the following paragraphs, along with the reporting implications.

Data entry delinquencies. These delinquencies result when delays in entering information into the system are due to data entry lags. In a nonsequential environment, OBTS/CCH would

identify such a delinquency for a given agency once charge information had been entered by an agency further down the line in the judicial process. For the same case, different agencies could be up to date, while others were shown as delinquent.

The possible reasons for such delays would include inadequate availability of clerical resources, or inefficient or infrequent interfaces from an agency system to OBTS/CCH. They would not be due to delays of the judicial system in the actual processing of the case. Therefore, to resolve these types of delinquencies, management would not need to have the specific background of individual cases researched. The critical information instead would be the volume of the data entry backlog, the number of charges backlogged for various periods of time, and the trends displayed by the backlog volumes. The solutions would lie in increased clerical help, improved automation of the agency's system, and more frequent and efficient interfacing between the agency's system and OBTS/CCH.

Partial case delinquencies. These delinquencies result when information on some charges within a case is available and can be entered, while information on other charges is not available. This is currently a problem particularly related to contempt-of-court charges and arrests that result in different charges in a case being tried in different courts. In an environment that accepts partial case input, OBTS/CCH would indicate that some charge information for the case had been entered by all or most agencies, while other charges were entered by very few agencies.

To resolve these partial case delinquencies, the information of interest for managerial purposes would be the types and volumes of charges not being resolved and the judges or courts corresponding to these charges. These could indicate a need for more attention by these judges or courts to obtain a final disposition on all of the charges. With these types of delinquencies, charge specifics would be needed so that a disposition as well as data entry support could be obtained, once this information became available.

Full case delinquencies. These delinquencies result when a full case is indeed being delayed within the judicial process, or case information has failed entirely to get into the system. OBTS/CCH would identify this type of delinquency when there was no subsequent data entry for the case after a point in the process, no partial case information had been entered, and the normal process time interval had been exceeded.

This type of delay must be evaluated in terms of case specifics. While there are valid reasons for any step in the process to take longer than the norm, a justification should be obtained. Management would want to identify all such cases where the delays were unjustified and the case had, in effect, "fallen through the cracks."

The above delinquency reporting system would possess a number of management advantages. The capability of OBTS/CCH to filter out delinquencies that do not need individual evaluation would be of benefit to the user agencies. The separation of delinquency types would assist the agencies in controlling and monitoring their processing backlogs. Appropriate measures to reduce each type of delinquency could be developed and implemented. Meaningful trends in delinquencies could be tracked. In summary, a change to nonsequential processing and partial case data entry would make it possible to transform the OBTS/CCH delinquency reports into truly effective operational tools.

Recommendations

Recommendations regarding the OBTS/CCH system are listed below and are organized according to the major groupings identified in the presentation of findings at the beginning of this chapter.

Data entry backlogs. *We recommend that:*

1. Funding be provided for additional data entry positions to clear up existing data entry backlogs. Serious consideration should also be given to hiring additional contract data entry services until the delinquencies are eliminated. Ideally, these backlogs should be eliminated within 12 months, so as to allow attention to be focused on more significant, longer term improvements to OBTS/CCH.

2. As a prerequisite to the effort to clean up this backlog, as many improvements be implemented as possible to facilitate the data entry process. Some potential improvements of this type are identified in later recommendations. Others may be identifiable by data center staff working together with users.

3. Ways be identified to enable agencies to devote sufficient staff resources to keep abreast of their input requirements on an ongoing basis so that backlogs do not continue to develop. In some cases, agencies may be able to reallocate existing resources to this effort. In other cases, funding for additional staff may need to be requested. This effort could be coordinated by the Hawaii Criminal Justice Data Interagency Board or by an OBTS/CCH user steering committee.

4. As soon as practical, recommendations listed below be implemented to enable users to enter their data nonsequentially, maximize the use of automated interfaces into OBTS/CCH, and minimize the need for redundant data entry on the part of users. Over the long run, these steps will provide the best way to avoid future buildups of transaction backlogs of the scale that exists today.

5. Over the longer run, an enhanced delinquency reporting system be implemented that distinguishes between the different types of delinquencies that require different management responses.

Sequential processing requirements. *We recommend that:*

1. The data center and HPD work together to redesign the front-end arrest processing flow so as to allow arrest information to be recorded on OBTS/CCH on a preliminary identification basis. If at all possible, this arrest information should be available on OBTS/CCH for ISC and prosecutor inquiry in time for preparation for arraignment proceedings. This design should also entail simultaneous generation of the OBTS/CCH Arrest Report form and input to the HPD and OBTS/CCH system, so that redundant data entry is eliminated. Arrest records on OBTS/CCH that are still in a preliminary identification status should be available to all users making inquiries, but flagged so that they are aware of the potential for inaccurate information.

2. After initial installation at the data center, the Automated Fingerprint Identification System (AFIS) workstation support be provided early at HPD so that the gap between the time of arrest and positive identification can be significantly reduced. This will in turn reduce the number of records placed on OBTS/CCH that do not represent a positive identification.

3. A design modification be added allowing certain records to be input into OBTS/CCH without an actual arrest having been made. This should be allowed only for specifically identified exceptions (Grand Jury indictments, penal summonses, contempt of court citations), and input authority for this type of transaction should be closely controlled. Procedures should also be instituted to ensure that arrest and identification steps are taken as soon as possible in these exceptional situations.

4. Once an arrest has been entered, the system design be revised so that all subsequent user agency input for that case is accepted at the time of entry, regardless of whether sequential processing conditions have been met. One alternative is to adopt the approach used in the new FACTS and the HAJIS interface design, which places nonsequential input into a holding file until prior sequential input steps have been completed. A second and preferred alternative, which would permit all users to view the data, is to post all data directly into the OBTS/CCH In-Process File, regardless of whether prior sequential input was completed. Such transactions would, of course, be flagged when displayed to inquiring users.

Data entry inefficiencies. *We recommend that:*

1. Redundant data entry be reduced by accelerating the development of automated interfaces between user agency systems and OBTS/CCH. This includes PROMIS, PROBER, and COMPAS. It should also include the Family Court System and any systems ultimately developed for the district courts. See the recommendations regarding system interfaces in Chapter 7 for further discussion.

2. The system design be changed to accept data entry related to particular charges within a case, even though other charges remain unaddressed.

3. A function key be provided that allows the user who is entering data to proceed quickly from one screen to the next logical screen when working on the same state ID or OBTS tracking number.

4. The system be redesigned to eliminate the current need for the person performing data input to continually respecify his/her agency number. This could be picked up by the system from the user's ID or entered directly by the user at the beginning of the session.

5. The system be redesigned to eliminate instances in which the person performing data input enters a full transaction before being informed by the system that it is rejected. (If prior recommendations are implemented that relate to establishment of nonsequential processing methods, the significance of this problem will diminish.)

Data base integrity. *We recommend that:*

1. All instances be identified in which felony and misdemeanor case information may fail to be input into the OBTS/CCH data base, and that procedures and system interfaces be developed to correct this. Primary areas for concern appear to be family and traffic court cases and cases that do not initially involve an arrest.

2. Consideration be given to eliminating the recording on OBTS/CCH of minor charges such as traffic violations, even if they are companion charges to criminal charges. This can be accomplished through more intensive routines to assure that only valid felony/misdemeanor charges are entered.

3. Consideration be given to allowing expunged case data to reside on the OBTS/CCH data base with a higher level degree of security so that only specifically authorized users, such as APD, may access the information.

4. Consideration be given to changing the system design and programming logic to prevent the recording to the history file of an unresolved charge with a "not-guilty" plea. This should be independent of the disposition of all other charges pertaining to that same case.

Design and reporting enhancements. *We recommend that:*

1. The capability be provided to distinguish between Attorney General and prosecutor cases, and report on these separately.

2. As an option, delinquency reporting be provided to agencies in sequence by name as well as by OBTS tracking number.

3. Inquiry into multiple systems be facilitated during a session by reducing the required number of logoff and logon transactions. (See Chapter 7.)

4. All users have the ability to use the system function that retains the same screen for a new OBTS tracking number.

5. A function be provided that allows easy access to other OBTS/CCH screens for the same OBTS tracking or state ID number.

6. The court case number be included on the full criminal history report in order to facilitate cross referencing to HAJIS files.

7. The Re-arrest Report be made available to all interested users, in particular to the Adult Parole Division.

System availability and response. *Please see the Chapter 8 recommendations regarding this topic.*

Operational functionality. *We recommend that the State, and specifically the interagency board and data center:*

1. Realize the operational value of OBTS/CCH to the criminal justice community as a whole.

2. Communicate this value to the individual agencies.

3. Enhance, in every way possible, the operational strengths of OBTS/CCH in a way that visibly impacts the effectiveness of agency operations.

4. Remove obstacles or disincentives to agencies which need to enter information regularly into OBTS/CCH, in order to keep its data base complete and accurate.

Chapter 7

OBTS/CCH SYSTEM INTERFACES AND NETWORK

Two tasks included within the scope of this project were to review the various agency systems that have either automated or are manually interfaced with the Offender-Based Transaction Statistics/Computerized Criminal History (OBTS/CCH) system and to assess the adequacy of actual and planned connectivity capability provided to the OBTS/CCH user network. This chapter provides findings and recommendations regarding OBTS/CCH system interfaces and communications network. For a discussion of interfaces and connectivity issues related to the Automated Fingerprint Identification System (AFIS), please refer to Chapter 9.

Summary of Findings

Findings regarding the OBTS/CCH system interfaces and communications network are presented in this section. Related recommendations may be found at the end of this chapter.

System interfaces. With respect to interfaces between OBTS/CCH and the agency systems, we find as follows:

1. Automated interfaces do not exist between many agency systems and OBTS/CCH. This is a major cause of redundancy in entering data. Systems that could profitably be interfaced to OBTS/CCH include COMPAS (Department of Corrections), PROMIS (Honolulu prosecutor's office), and PROBER (Adult Probation Division).

2. Many agencies still rely largely or entirely on manual systems for their internal operations, and therefore cannot interface automatically with OBTS/CCH. In come cases, this contributes to delays on their part in entering data into OBTS/CCH. The most significant problem of this kind is the district court in Honolulu, which represents the largest single component of the OBTS/CCH "delinquency" problem.

3. The automated interface between the Honolulu Police Department (HPD) system and OBTS/CCH functions relatively smoothly and frequently. While not unduly high, the error rate could be reduced further by more closely integrating the HPD record system with OBTS/CCH.

4. The automated interface between the Hawaii Judicial Information System (HAJIS) of the Judiciary and OBTS/CCH is run only every two weeks and produces extremely high error rates. A growing backlog exists of unresolved errors from these interface runs. The primary

causes of error are missing or mismatched key identification numbers and other missing case information on the records feeding from HAJIS to OBTS/CCH.

5. New systems are under development in various agencies that either currently or potentially will interface with OBTS/CCH. This includes FACTS (Hilo prosecutor's office), which already has established an interface; the Family Court System; and the Juvenile Justice Information System (JJIS). There is a growing need to establish standards governing how these agency systems will interface with OBTS/CCH and to ensure that such interface considerations are taken into account as these new systems are designed and implemented.

6. The FACTS and HAJIS interfaces permit nonsequential posting of data into an OBTS/CCH file. However, this information is not made available for OBTS/CCH user inquiry until all preceding sequential information has been entered.

7. Current planning for the JJIS system appears not to have considered the potential benefits of establishing an interface with OBTS/CCH, or the costs involved in doing so for each alternative design approach.

Assessment of networking trends. With respect to the current network, we find as follows:

1. Users have benefited significantly from recent increases in interconnectivity between the three major computer centers that contain criminal justice information. One major change is that many users can now access both OBTS/CCH and their own agency system through a single terminal, whereas different terminals previously had been necessary. In addition, the frequency of duplication of communication lines to various remote locations is beginning to decrease.

2. Ease of OBTS/CCH access could be improved for many users if two concurrent sessions could be supported on the same terminal.

3. The Department of Data Services (DDS) of the City and County of Honolulu is supporting a statewide criminal justice user network because of the various systems it supports. This places an operating burden on DDS which rightfully should be borne by the State.

4. The most significant planned development is implementation by the Electronic Data Processing Division (EDPD) of its microwave backbone network between Oahu and the neighbor islands. Agencies using this alternative will obtain increased transmission speeds, replace redundant communications lines, and support more users at lower cost.

Criminal Justice Agency Systems and OBTS/CCH Interfaces

While OBTS/CCH serves as a centralized repository of criminal history and case information, it contains only summary information for each step of the criminal justice process. Each agency

requires detailed information pertinent to its portion of the criminal justice process to meet its operational needs. Generally, an agency would only require summary information on the other stages of the process.

A number of approaches could have been taken in meeting these needs. One alternative would have been to design OBTS/CCH to include all required information for all agencies. Each agency could have had an operational subsystem within OBTS/CCH for their detailed information. Summary information would have been available for inquiry purposes by other agencies, while sensitive information was secured from access. Another approach would have been for each agency to keep detailed information on its own separate system. Access by other agencies could have been allowed as deemed appropriate. Summary information would be provided to OBTS/CCH by the agency. Summary information from all agencies would be available through the inquiry capabilities of OBTS/CCH.

The second alternative was chosen when OBTS/CCH was initially conceptualized. Some agencies had, or were developing, their own automated systems at that time. OBTS/CCH was seen as a separate, non-operational system. As discussed in other sections of this report, the perceptions of OBTS/CCH and its relationship to agency systems have evolved. This evolution has been reflected in the increasingly operations-oriented use of OBTS/CCH information and in automated interfacing between OBTS/CCH and some agency systems.

Many of the agency systems and their interfaces were briefly discussed in Chapter 6 in relation to agency workflows and OBTS/CCH. This section elaborates on those systems already discussed, provides information on the remaining agency systems, and considers future interface requirements among criminal justice information systems.

Police systems. The degree of automation among the four county police departments is highly variable. HPD is the most highly automated, with two major systems. The Kauai County Police Department (Kauai PD) has very limited applications on a few personal computers (PCs). All have the ability to inquire into OBTS/CCH via network terminals. Only HPD has an automated interface to OBTS/CCH. All the other departments must perform direct data entry of pre-identification and arrest information. Actual identification of individuals for the neighbor islands is provided by the data center's Criminal ID Section.

Honolulu Police Department. HPD has the most extensive automation of any of the four county police departments. There are two completely separate systems: a criminal identification system and a records management system. Both systems, which reside on the DDS IBM mainframe, are IMS-based (see Glossary) applications. The identification system contains files

on offender identification and aliases, arrest information, charge dispositions, and probation/ parole information. The records system provides management of evidence, testimony, and other case-related records.

A PC-based application is used to print the OBTS/CCH Arrest Report. This information is not transferred directly to the identification system; rather, it is keyed into the identification system following positive identification. Efficiency could be improved by eliminating the unnecessary duplication of effort by networking the PC to the mainframe. The information could be stored in a transaction file until positive identification is made. The information could then be put into the master file. Another alternative is to place the information directly into the master file but flag the record as having an unverified identification.

HPD is the only police department that does not perform on-line data entry of identification and arrest information into OBTS/CCH. There is a daily tape-upload process from HPD's system to OBTS/CCH which transfers new arrest records and any changes made to prior information. A monthly tape-download process transfers parole and probation information from OBTS/CCH to HPD's system. HPD personnel also inquire into the criminal identification and criminal history information contained in OBTS/CCH.

Approximately three to five percent of the transactions fed from HPD contain errors that need to be corrected and reentered by data center staff. These errors appear to result primarily from differences between the two systems in terms of what they will allow as acceptable demographic and identification data. Data center staff appear able to keep up with the reconciliation work that is required.

HPD is in the initial stages of evaluating an extensive rewrite of its identification system. Additional data elements would likely be incorporated. If the system is rewritten, closer integration between the HPD record system and OBTS/CCH should be included in the design process.

Maui Police Department. The Maui County Police Department (Maui PD) serves not only Maui, but also the islands of Molokai and Lanai. Only small detachments are located on the smaller islands. The automated police applications used by the Maui PD reside on a Burroughs 1955. The system is currently accessed by 21 terminals. It includes a dispatch application with case record management, warrants, limited property information, and an offender name file. The system also provides geographically based crime analysis.

The department also has small PC-based applications for intelligence files and vice data. The PCs that are used for these applications are also connected to the Burroughs 1955 and used to

access the main system. The department has decided to purchase additional PCs rather than terminals. 9600-band communication lines provide system access to Molokai, Lanai, Lahaina, and Hana.

Inquiry access into OBTS/CCH, the National Crime Information Center (NCIC), and HPD is accomplished using a dedicated terminal. Maui PD personnel enter pre-identification and arrest information into OBTS/CCH on line.

Hawaii County Police Department (Hawaii PD). The Hawaii PD has a limited degree of automation. Three districts in the county--Hilo, Kona, and Puna--have access to a police application running on the county's Wang minicomputer. The system accommodates information on traffic violations and accidents and warrants. It also indexes offender identification and case reports. The Hawaii PD and the Hawaii Fire Department are evaluating acquisition of a Wang computer as a dedicated machine for their applications. Telecommunication access would be implemented in all districts on the island.

The police system is not currently interfaced with FACTS, which is used by the Hilo prosecutor's office. Implementation of an interface is planned.

Dedicated OBTS/CCH terminals are used by the police department staff for entry of pre-identification and arrest information into that system.

Kauai Police Department. The Kauai PD operates with very limited automation. A single IBM PC is used to record warrant information. Two IBM PCs are used for recording complaint information in the Dispatch Office. These PCs print the OBTS Arrest Report form. Another PC is used by the Traffic Unit to record traffic violation, citation, and accident information. Two dedicated terminals provided by the State are used for inquiry and entry of pre-identification and arrest information into OBTS/CCH. NCIC is also accessed through these terminals.

Kauai County is currently defining requirements for automation for a number of agencies, including the police department. The requirements must include careful definition of interfacing capabilities to and from OBTS/CCH and between the criminal justice agencies within the county.

Prosecutor's offices. The prosecutor's offices in the four counties exhibit a pattern of automation similar to that of the police departments. The Honolulu prosecutor's office has two separate systems, the Hawaii and Maui prosecutors are developing and will use the same system, and Kauai is largely unautomated. As discussed in relation to the Kauai PD, Kauai County is developing an automation plan for various agencies.

Honolulu prosecutor's office. The Honolulu prosecutor's office uses two separate systems. The systems reside on the city and county IBM mainframe at DDS. PROCES is used to generate subpoenas for misdemeanor cases. Limited case information is entered. The scheduled court date triggers printing of the subpoenas.

The other system, PROMIS, is used to record case information for circuit and family courts. Misdemeanor case information is not entered owing to staff limitations. PROMIS accommodates information on the offender, arrest, charges, court events, and witnesses and victims. The system tracks case information very successfully, allowing inquiry on state identification number, arrest report number, or court case number. However, the prosecutor's office has been unable to utilize the statistical analysis capabilities the system was purported to provide.

OBTS/CCH data entry is performed on line. OBTS/CCH, HAJIS, and HPD identification system inquiry capabilities are utilized by the prosecutor's staff. The prosecutor's office administration has not only disallowed any interfacing into PROMIS or PROCES, but has denied inquiry access requests by other criminal justice agencies. All other agencies requiring information from the prosecutor's office must request the information from a staff member. There may be a time lag before the requesting agency receives the data. Serious consideration by the prosecutor's office should be given to implementing an interface with OBTS/CCH and to allowing inquiry access by other agencies.

Hawaii and Maui prosecutor's offices. The prosecutor's office on Hawaii has recently implemented FACTS as its agency system. The Maui prosecutor's office will also be utilizing FACTS, which runs on a Wang minicomputer. The system provides case tracking, records case information, accommodates victim and witness information, and produces various management reports. The information required by OBTS/CCH is included in FACTS.

The Hawaii prosecutor's office and the data center implemented a FACTS-OBTS/CCH interface in late October of 1988. This interface will eliminate the duplicate effort previously required to enter OBTS/CCH information. It will also permit nonsequential data entry into OBTS/CCH so that the user will only have to enter data once. However, this information will still not be available to the entire OBTS/CCH user community until prior sequential data entry steps have been completed by other agencies.

FACTS will be interfaced to the Department of Corrections (DOC) COMPAS system early in 1989. It is the intention of the Hawaii prosecutor's office that other Hawaii county criminal justice agencies will also implement interfaces to FACTS. The goal for the Hawaii agencies is user-transparent data entry from their operational systems to OBTS/CCH and other agency systems, and user-transparent OBTS/CCH inquiry capability within their systems.

Court systems. The Hawaii Judiciary provides for its own data processing support through an IBM 4381 mainframe and a series of Wang minicomputers and microcomputers at various locations. The level of automation varies among the different circuits. In certain cases, applications that have been developed for use in the First Circuit have not yet been implemented on the neighbor islands.

Two major Judiciary applications that currently operate on the IBM mainframe provide information required by OBTS/CCH. These are the Hawaii Judicial Information System (HAJIS) and the Traffic Violations Information System (TRAVIS). In addition, a Family Court System is being developed acquired that will maintain information relevant to OBTS/CCH. Each of these three applications is discussed in the following paragraphs. In addition, several smaller systems are described that have an OBTS/CCH impact.

HAJIS. HAJIS is a comprehensive information system serving the circuit courts. It resides on the Judiciary's IBM 4381 computer and is written using ADABAS and CICS (see Glossary). HAJIS contains both civil and criminal components. On the criminal side, the focus of HAJIS is on felony cases and on misdemeanor cases that have been referred to the circuit court for jury trial. HAJIS contains information on court cases, parties and attorneys associated with cases, notifications, case folder location and inventory, bail status, and scheduling information. HAJIS has on-line data entry, update, and inquiry capability; and on-line printing for dockets, calendars, court minutes, and other output. There are about 175 terminals accessing HAJIS, with over 20,000 transactions performed daily.

HAJIS functionality varies between its civil and criminal components. A major enhancement project to civil case management capabilities was completed in 1986. A project is planned to bring the criminal side up to this level of functionality in the near future. On the other hand, statistical and case tracking reports are of better quality for the criminal cases. A second project is therefore planned to improve this type of reporting for the civil case management system.

HAJIS is still primarily a system for the First Circuit Court. The neighbor islands have only the automated docketing function in operation. However, a plan has been developed to extend all of HAJIS' functions to the neighbor islands. In later phases, other Judiciary applications, both those that are currently functional and those under development, would also be migrated to the neighbor islands.

The criminal portion of HAJIS contains a substantial quantity of information that needs to be reflected in OBTS/CCH records. An automated interface has been developed from HAJIS to OBTS/CCH. This transfers data for criminal cases within the First Circuit Court only. HAJIS data update OBTS/CCH files regardless of whether prior sequential data entry steps have been completed. The interface is run every two weeks, and requires assignment of a full-time clerk at the data center for ensuring that the data entered are accurate and complete and that all errors are corrected.

While HAJIS provides very important information, especially regarding felony case dispositions, this interface is restricted in two ways. The first is that nonsequential updates to

OBTS/CCH are not made available to the user network as a whole despite their potential operational value. The second is that the biweekly interface cycle fails even to get clearly edited data into OBTS/CCH on a current basis. A significant error rate occurs in the interface. An estimated 55 percent of the interface transactions are missing some information; 30 percent are missing a key identification number, so the record cannot be matched to OBTS/CCH information. As a result, the data center's interface clerks are constantly behind in their efforts to resolve error transactions. This contrasts with the HPD interface which provides positively identified arrest information on a daily basis and with a much lower error rate.

Because district court information, including all misdemeanor charges not tried by jury, is not entered into HAJIS, it is not transferred by this automated means to OBTS/CCH. The district court information is manually entered into OBTS/CCH by the Judiciary's clerical staff. The lack of a feeder system to accumulate the relevant case data and transmit them readily to OBTS/CCH means that a variety of ad hoc and time-consuming manual methods are instead needed to compile and enter this information. Especially on Oahu, this area constitutes the single largest component of the OBTS/CCH "delinquency" problem and is a major processing bottleneck.

TRAVIS. TRAVIS is an information system serving the Traffic Violations Bureau of the First Circuit District Court. As with HAJIS, TRAVIS runs on the Judiciary's IBM 4381 mainframe computer, is written in ADABAS, and uses CICS (see Glossary). Major modules of this system are the Citation, Calendar, and Abstract Systems. Traffic tickets are key entered into TRAVIS. Payments on tickets are first accepted through a cash register not connected to TRAVIS with payment information then being entered into TRAVIS on line. TRAVIS generates calendars, and prepaid tickets are cleared from calendars automatically. TRAVIS also contains a traffic abstracts system (statewide driver's records). Lists of cases with a Failure to Appear or Failure to Pay are generated by the TRAVIS system. Appearance and case disposition information is entered into TRAVIS.

TRAVIS implementation on the neighbor islands is limited, with only the traffic abstract function available. Because of the general acknowledgement that TRAVIS is an outdated system, its other functions are not likely to be extended to the neighbor islands. In fact, it is probable that TRAVIS eventually will be rewritten extensively or replaced.

Because a number of traffic-related cases involve misdemeanor or felony charges, a certain amount of information maintained on TRAVIS needs to be supplied to OBTS/CCH. At this time, there is no automated interface between TRAVIS and OBTS/CCH; rather, this input is directly entered into OBTS/CCH along with the other district court case information.

Family Court System. The Judiciary is in the midst of a project to automate the First Circuit Family Court. Up until this time, all case records in this court have been maintained manually. There also has been no data entry link between family court personnel and the OBTS/CCH system. Because many misdemeanor and felony cases are handled in family court, this means that certain necessary criminal case information has failed to get into OBTS/CCH. As discussed in Chapter 6 of this report, this results in incomplete criminal history information that adversely impacts the operation of various criminal justice agencies.

Many aspects of the Family Court System design have been completed. At this point, a search is underway to identify commercially available software or products that are transferrable from other public agencies. It is expected that, whatever software is acquired, it will run either on the IBM mainframe at the Judiciary or on another specifically dedicated minicomputer. An automated interface for the transfer of criminal charge information from the Family Court System to OBTS/CCH should be implemented once the system is in place. All interface requirements must be given appropriate consideration during the system design phase.

Other Judiciary applications. Several additional Judiciary applications have been developed that deal with criminal case information relevant to OBTS/CCH. All of these operate either on a Wang VS 100 computer or on personal computers, and do not interface automatically with OBTS/CCH. These applications are described in the following paragraphs.

The Supreme Court Calendaring System contains appellate case information and produces calendars for the Supreme Court and Intermediate Court of Appeals. This "calendaring function" includes maintenance of a significant amount of additional data in the form of case records and appearance history. This is a COBOL system that runs on a Wang VS 100 and is operated by the Budget and Fiscal Office. OBTS/CCH does not accommodate appeal information. The data center and Supreme Court personnel are currently reviewing a system enhancement to add this information and are considering data-transfer alternatives.

A District Court Calendaring System, operating on a Wang computer, is used by the Criminal Section of the First Circuit District Court to perform indexing and docketing for misdemeanor cases. This does not include traffic cases that are handled by TRAVIS. This system is accessed only by Criminal Section staff. Input into OBTS/CCH is not performed directly out of this system, but from manual court calendar notations. Data entry tasks are handled by Judicial Computer Services (JCS) clerical staff. As previously mentioned, these cases form a significant portion of the OBTS/CCH backlog problem.

The current District Court Calendaring System does not support the rural First Circuit district courts. A project is well underway to implement, as a totally new design, a criminal case calendaring system for these rural courts. This system will operate on the Judiciary's IBM 4381.

One final application that has a potential interface with OBTS/CCH is PROBER. PROBER is a PC-based, single-user software package that was acquired by the Adult Probation Division of the Judiciary to maintain case and demographic data on persons on probation, assist probation officers in analyzing and classifying the risks inherent in case situations, and provide overall statistical reporting. PROBER is used on all islands. Certain basic probation data maintained on this system also need to be supplied to OBTS/CCH. The Honolulu Adult Probation Division is installing a PC network on which it intends to run PROBER. The staff in the Honolulu branch express interest in, and willingness to establish interfaces between, OBTS/CCH and PROBER to allow two-way data transfer. The interface would eliminate much, if not all, of the redundant data entry.

Department of Corrections Systems. For its processing needs, DOC relies on an integrated system named "Comprehensive Offender Management and Program Assessment System" (COMPAS). COMPAS originally ran on the IBM mainframe environment at EDPD. Recently, however, DOC has completed a project to develop a new version of COMPAS to operate on Wang VS computers located on each of the islands.

Among the functions that COMPAS supports are the Intake Service Centers (ISCs), the Hawaii Paroling Authority, and Facility Intake of the Community Corrections Centers. All of these functions record information in COMPAS that needs to be transferred to OBTS/CCH. This includes, for example, presentence custody, bail posting and release, post-sentence custody, and minimum parole-time information. COMPAS includes substantial volumes of data that duplicate information on OBTS/CCH. Offender demographics, arrest and charge information, and sentencing data are recorded on both systems. These data represent significant duplication of effort as the two systems are not currently interfaced. However, the ISC is able to use the COMPAS criminal history information for custody disposition evaluations when OBTS/CCH is unavailable owing to the system backup process. COMPAS also currently provides substantial information on inmates within the facilities, which is not generally relevant to OBTS/CCH purposes. This detailed operational information includes location of an offender within a facility, inmate employment and "banking," visitor information, and guard schedules. Offender risk-assessment data used in custody disposition recommendations, incarceration security levels, and parole supervision levels are recorded in COMPAS. Some of this information parallels data that might be contained in PROBER.

At this time, there is no automated interface between COMPAS and OBTS/CCH. Any data that are required by OBTS from DOC are manually entered by DOC personnel, duplicating the original data entry process into COMPAS. Data that are contained in OBTS/CCH could be

downloaded to COMPAS, further reducing redundant data entry efforts. An interface between the two systems has been discussed in the past. Interfacing has yet to be achieved, owing at least in part to the changes COMPAS has undergone. As the new version of COMPAS stabilizes, an interface should be implemented. An interface to the FACTS prosecutor's system in Hilo is scheduled for implementation in early 1989.

Juvenile Justice Information System (JJIS). The purpose of JJIS is to provide, within a single integrated system, all of the basic information needs pertaining to the handling of juvenile justice cases throughout the State of Hawaii. This system is intended for common use by law enforcement agencies, prosecutors, the courts, and correction and social service agencies. While providing certain common information, however, it is also expected that the individual agencies would continue to maintain separately their own additional detail regarding these cases. Thus, while certain essential information would be available to all, each agency could also retain the confidentiality of its own records.

The development of JJIS is the responsibility of the Juvenile Justice Interagency Board (JJIB). Participants in the project are at the stage of defining system requirements and developing an overall conceptual design. There is no designated "lead agency" for the project at this time. The data center was so designated at one point, but later withdrew from this role.

Various aspects of the JJIS design have been explored in some detail. These relate particularly to the supporting hardware and data communications environment and to the design of the common data base. One consulting study, released early in 1988, recommended a distributed approach to processing and data storage involving the mainframe IBM computers at EDPD, the Judiciary, and the City and County of Honolulu. This approach would attempt to maintain a current and synchronized version of the common data base on each of the three systems. A user on any system could access and update his own version of the JJIS data base. A master program, resident on each computer, combined with a common communications network, would then be responsible for real-time update of the data bases on the other two systems in order to keep them in synchronization. While this concept has been discussed in some depth, no final decision has been made to adopt it as the design basis for this project. The severe technical difficulties inherent in this design should be seriously reconsidered before a final decision is made. Other alternatives that have been explored involve either a new dedicated JJIS computer or use of one of the three existing mainframe sites mentioned above to host a central JJIS system. While no final alternative has been selected, the JJIB recently decided to let EDPD take the lead in terms of assessing the feasibility of various approaches.

JJIS is intended to provide the same functionality that was conceptualized for OBTS/CCH. The system design for JJIS would benefit from careful consideration of the strengths and weaknesses of OBTS/CCH.

There are users of OBTS/CCH that have legitimate reasons for accessing juvenile criminal history information, particularly the staff at the Adult Probation Division. In addition, there will be users of JJIS that will need access to adult offender information. For example, when an adult and a juvenile are charged for a single crime, the progress of the adult offender's case might be monitored by the prosecutor assigned to the family court. Placing the JJIS on the same computer as OBTS/CCH would facilitate access by users of both systems. The ability to transfer information between the two systems would be enhanced. An example where this might be required is for a case involving a juvenile who is to be tried as an adult. Appropriate security measures will need to be implemented to prevent access to juvenile criminal information by unauthorized agencies and/or individuals. The benefits of establishing an OBTS/CCH-JJIS interface, and the costs involved in doing so for each alternative design approach, do not appear to have received adequate consideration in documents produced thus far for JJIS.

Description of Current Computer Systems and Networks

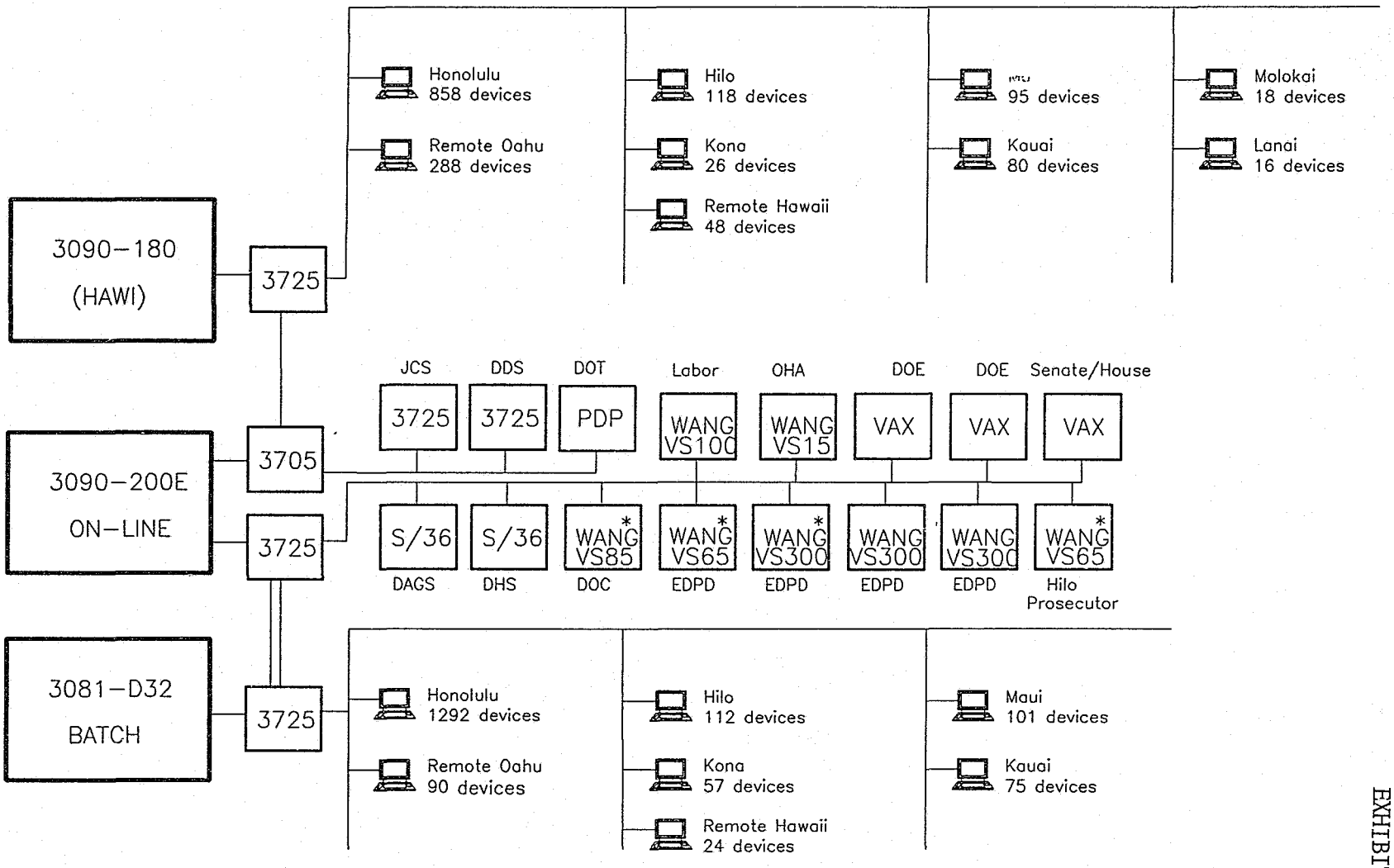
This section describes each of the computer systems involved in the data center, the nature of their networks, and their interconnections. Please refer to Exhibits 7.1 through 7.3 for diagrammatic descriptions of the three major systems, which are EDPD, JCS, and DDS. The Hilo prosecutor's office and Department of Corrections are also discussed.

Many of the terms in this section are technical in nature. These are defined in the glossary which is included as Appendix C to this report.

EDPD. The Electronic Data Processing Division of the State of Hawaii has three IBM computers, each of which is described below and depicted in Exhibit 7.1. Other systems that link into EDPD as part of the SNA network are also identified.

3081-D32. Currently this machine has on it TSO, the CICS test region, the test ADABAS system, and the production batch processing. CICS test includes both Natural and non-Natural development. Batch processing for OBTS/CCH is performed on this machine. Other major application systems running on the 3081 are Payroll, Human Services, Computer-Based Training (CBT), FAMIS (Finance), CNITS (Tax), Department of Education (DOE), and Department of Transportation (DOT). This processor is estimated to be currently running at 90 percent of capacity. The operating system and teleprocessing systems software on this central processing

State of Hawaii
Electronic Data Processing Division



*Minicomputer networks directly linked to OBTS/CCH.
For indirect minicomputer links, see Exhibit V–3.

EXHIBIT 7.1

unit (CPU) have recently been upgraded from MVS/SP to MVS/XA, from CICS V1.6.1 to V1.7, and VTAM from V2 to V3. This transition could have been made sooner, but some of the old applications are using ISAM files which are not supported under CICS V1.7.

This processor has one 3725 communications controller with approximately five hundred 3270-type devices attached. There are two 9600-bits-per-second (bps) full duplex lines between this 3725 and the 3725 attached to the 3090-200E. These lines use modem eliminators, as the computers are co-located. The 3725 runs NCP V2 and will be upgrading to V4.2.

3090-200E. This machine contains the production on-line system running as an MVS/SP virtual machine under VM/XA. It also contains an MVS/XA virtual machine which is a test system for the planned December 3rd conversion. The production on-line system is CICS V1.6.1 with both Natural and non-Natural applications. Major application systems on this computer are OBTS/CCH; Legislative Reference Bureau (LRB), also known as Hoike; Human Resources; AIS (Personnel); FAMIS (Accounting); and Department of Education. This CPU will upgrade to MVS/XA in December. This processor has one 3725 communications controller and one 3705 communications controller. There are approximately fifteen hundred 3270-type devices supported by the 3725. There are lines to the offices of DLIR, DOC, and DOT on the neighbor islands, and to DOTAX on Kauai. In addition, this controller supports the lines for the various minicomputers detailed below, and has the two 9600-bps full duplex lines to the 3081. The 3705 controller has remote job entry (RJE) lines to minicomputers acting as remote-entry workstations; and a pair of 9600-bps half duplex lines, one to the city's DDS computer center and one to the JCS computer center. There is also a 9600 bps half duplex line to the 3090-180E. This CPU is currently estimated to be running at 75 percent of capacity.

3090-180E. This processor was bought with federal funds and is dedicated to the Hawaii Automated Welfare Information System (HAWI). It has one 3725 communications controller with approximately three hundred 3270-type devices. Some of these devices can be switched to the 3090-200E in order to access OBTS/CCH. There are lines to the Department of Human Services offices on the neighbor islands.

Other networked computers. In addition to these mainframe computers, the following minicomputers are attached to the state SNA network. (Unless otherwise stated, the computer systems identified below do not access OBTS/CCH.)

. Wang

-EDPD has three VS300s and one VS65 at a remote site. One VS300 handles data communications from the networked DOC Wang minicomputers to OBTS/CCH. The others do not have any OBTS/CCH functions.

-Department of Corrections has a VS75E which is used, in part, for OBTS/CCH access.

-Hilo prosecutor has a VS65 which can access OBTS/CCH.

-Labor has a VS100.

-Office of Hawaiian Affairs has a VS15.

. DEC

-Department of Education has two VAXs.

-The Legislature has a small VAX.

-Department of Transportation has a PDP 11/40 with RJE connection to the 3705.

. IBM System/36

-Department of Human Services has an IBM System/36.

-Department of Accounting and General Services has an IBM System/36.

All of these computers (except the PDP) are used in terminal passthrough to the IBM systems.

In addition to the minicomputers listed above, there are several other minicomputers which are not yet part of the overall network. The state government has over 40 Wangs. There is also a Prime used for the Geographical Information System. A link between the Prime and the SNA network is planned at a future date.

Judiciary computer services. Judiciary Computer Services resides on an IBM 4381-P13 running the MVS/SP operating system. (See Exhibit 7.2.) Terminal communications are processed by several local (3274) controllers and one remote (3725) controller. At present, there is a mix of bisynchronous and SDLC protocols. The bisynchronous lines are being phased out. There are currently 310 terminal devices, including printers and personal computers, on the network. Of these, 239 are in Oahu, 12 are in Kauai, 37 are in Maui, and 22 are in Hawaii. These terminals service the Hawaii circuit courts; district courts; family courts (a division of the circuit courts); and some judiciary administrative facilities, including the JCS. In addition to the lines servicing terminals, there are two inter-network communications lines, one to the 3705 controller at the state EDPD computer center, the other to the 3725 controller at Honolulu DDS.

A memory upgrade and a conversion to the MVS/XA operating system are planned for next year.

Department of Data Services. The DDS of the City and County of Honolulu has two IBM mainframe computers: one 3090-200E and one 3084. (See Exhibit 7.3.) Both CPUs run the MVS/XA V2.1.7 operating system, CICS V1.7, VTAM V2.1.0, and NCP V2.1.0. On-line and batch applications are distributed between the two CPUs. Terminal communications are

Judiciary Computer Services

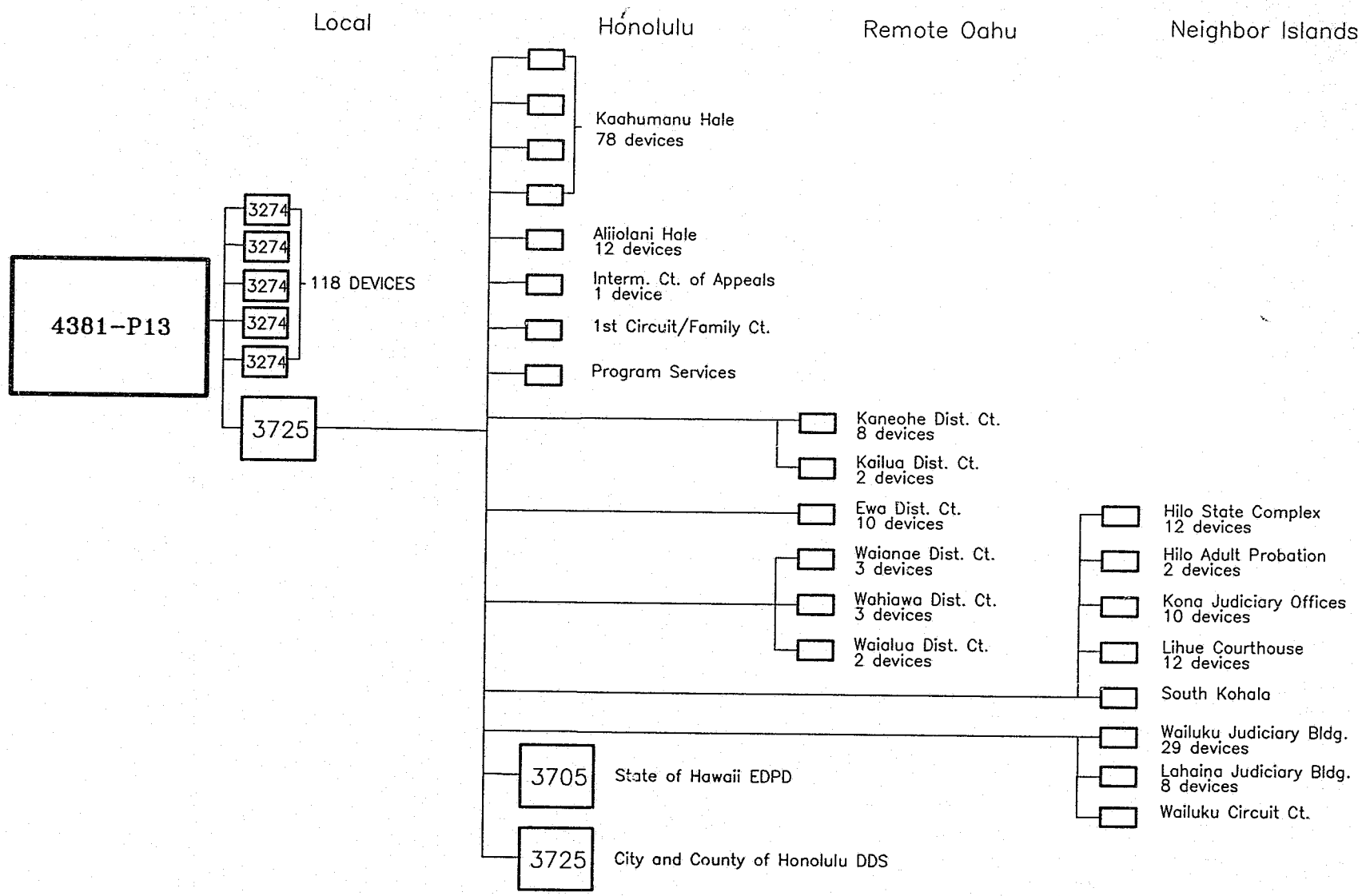


EXHIBIT 7.2

City and County of Honolulu
Department of Data Services

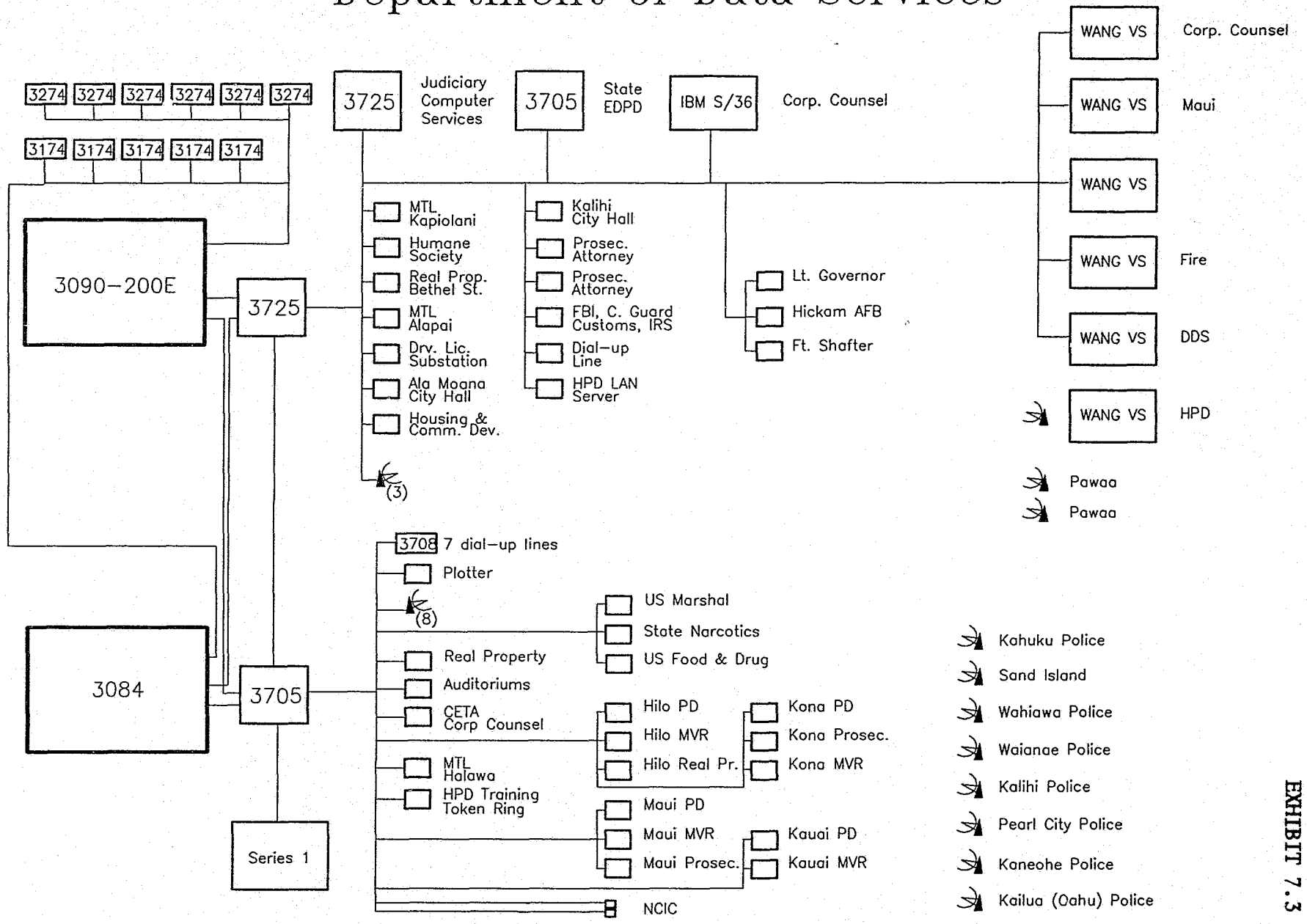


EXHIBIT 7.3

controlled through a combination of local (3174) controllers and two remote controllers, a 3705 and a 3725.

There are approximately eight hundred and fifty 3270-type terminals attached to the network. There are terminals connected to this network at the police departments in the neighbor islands to allow them access to the motor vehicle and driver's license records. There are lines to EDPD, JCS, and to NCIC. In addition, there is a protocol converter which allows asynchronous terminals or personal computers access to the system through dial-up modems.

Hilo prosecutor's office. The office of the prosecuting attorney in Hilo has a Wang VS65 system with approximately 40 terminals attached. This system is linked via an SNA line to the state EDPD network and to the Department of Corrections via a Wang Network Services (WNS) line.

Department of Corrections. The Department of Corrections has a network of four interconnected Wang computers. The networking protocol suite in use is WNS. One of these Wang computers is located on the island of Hawaii and is connected via a WNS link to the Hilo prosecutor's Wang computer. There are two connections into the EDPD network. There is an SNA link between a Wang VS85 belonging to DOC and the 3725 controller attached to EDPD's 3090-200E. This connection, while physically in place, is not yet operational. The other connection is a WNS link to a Wang VS300 belonging to EDPD, which is then connected to the SNA network. There are approximately 120 terminals connected to the Wang systems in the DOC network.

Assessment of Networking Trends

During the past few years, substantial increases have occurred in interconnectivity among the three major computer centers that contain criminal justice information. These are EDPD, JCS, and DDS of the City and County of Honolulu. This has proven to be very advantageous for the OBTS/CCH user community. Many users are now able to access OBTS/CCH through their own agency's computer, with the communications network automatically transferring them to the OBTS/CCH data base resident at EDPD. Formerly, these users needed a separate IBM terminal at their desk in order to access OBTS/CCH, a condition which still exists for several neighbor island users.

One part of this trend involves linkage of agency minicomputers directly into the OBTS/CCH network. Recent examples that are in process are the DOC Wang minicomputers that are currently being linked together and the integrated FACTS system on the island of Hawaii, which will communicate with EDPD through the Hilo prosecutor's Wang minicomputer. As a result,

many users on these minicomputer networks will be able to use their Wang terminals or PCs to access OBTS/CCH, instead of a separate IBM 3270-type terminal. In addition, the duplication of communication lines for various remote locations is beginning to decline.

One further possibility for improving the ease of OBTS/CCH access arose during our user interviews. Many users frequently inquire into multiple agency systems (including OBTS/CCH) in rapid succession in order to obtain all data pertinent to a given arrest or case. While this can now usually be accomplished on a single terminal, the user is required to terminate one session and log on to the new system if a different computer is involved. Another cycle of logging off and logging on would then be required to reenter the original system. Greater user efficiency would result, in such an instance, if the first session could be suspended temporarily while the second session was initiated. At the completion of the second search, the first session could be reinitiated merely by use of a function key.

Computer networks having this capability have been designed elsewhere . In addition, SNA should be able to support multiple sessions. However, much will depend on the equipment being used by the user to access the network. Depending on whether access is obtained via a PC or intelligent terminal, a 3270-type terminal, or a minicomputer network, this connectivity may be easy or difficult to establish. However, the potential payoff to users is very significant.

One finding of interest to the project team is that DDS, while officially a unit of a city and county government, is in reality supporting a statewide network of police departments. This is due to the availability on its system of driver's license, the NCIC, and vehicle registration information, as well as an important source of certain criminal and arrest record detail. These are records that are valuable to all police authorities throughout the State. Nevertheless, their reliance on DDS for this information instead of the State is, in part, due to problems with the quality and timeliness of OBTS/CCH data. This situation, whereby the City and County of Honolulu supports a statewide user network, places an operating burden on DDS which rightly should be borne by the State.

Over the next few years, the most significant developments regarding the network will probably occur as EDPD begins to implement its microwave backbone network between Oahu and the neighbor islands. This network, which has a 1992 completion date, should provide the band width necessary for high-speed integrated voice/data connectivity. A number of agencies will be able to obtain increased transmission speeds and support more users at lower costs by using this alternative. This may result in the replacement of a number of single dedicated lines, mostly 9600 bps in speed, that currently connect remote users with the main island. All three major mainframe computer centers have a number of lines running between Honolulu and various remote locations. Therefore, a given remote location often is connected to more than one line.

As a second significant development, EDPD is in the process of installing a broadband Wangnet local area network (LAN) in the civic center area of Honolulu. This network will connect 12 state agencies including the Department of the Attorney General and the data center. There will be sufficient band width available on this LAN to provide additional types of services, such as video, in the future. At the time of our review, information was not available to permit an assessment of this project's effect on the data center's operations.

Recommendations

Recommendations regarding OBTS/CCH system interfaces and networking trends are listed below according to the two major areas of review.

System interfaces. *We recommend that:*

1. Automated interfaces be developed between OBTS/CCH and agency systems as a high priority effort. Besides the FACTS interface, which is already implemented, systems that should interface to OBTS/CCH include PROMIS, COMPAS, and PROBER. Automated interfaces eliminate instances of redundant data entry and greatly improve the timeliness of data on the OBTS/CCH data base. Additional data center and agency staffing for this effort is well justified.

2. Resources and funding be allocated to automate agencies, such as the district courts, which continue to rely heavily on manual methods to enter information into OBTS/CCH.

3. The record structures and validation logic of the HPD system and OBTS/CCH be revised to reflect one another as closely as possible. This would help reduce further the interface error rates currently existing between the two systems.

4. Whenever possible, two-way interfaces be designed between OBTS/CCH and agency systems. This includes both existing and new interfaces. Agency systems will feed transaction information into OBTS/CCH. OBTS/CCH, in turn, will feed standard offender demographics and basic arrest data to the individual agency system. This will help to reduce interface errors that now exist because the agency system has recorded basic offender and case information in a manner inconsistent with OBTS/CCH.

5. At a minimum, the HAJIS tape interface be increased to a daily frequency. Preferably both the HPD and HAJIS interfaces should eventually become interactive, providing real-time, on-line update to OBTS/CCH.

6. Data that has been posted by interfacing systems to OBTS/CCH and that has been validated be made available to all authorized users in other agencies. This should be true whether or not the posted data has been entered sequentially.

7. Current JJIS planning efforts take into account the valid need for certain OBTS/CCH users, under specific circumstances, to access juvenile as well as adult information for a given offender. The potential benefits of an OBTS/CCH-to-JJIS interface should be considered, which may in turn affect the design approach and selection of the supporting processing environment.

Networking trends. *We recommend that:*

1. The various data processing organizations involved in OBTS/CCH support continue their progress toward integrating their computer networks. A primary objective of this effort should be to allow criminal justice users to access all of the information they need on all systems through the equipment they employ during the normal course of business. Long-run objectives should entail reducing or eliminating redundancy in the networks involved and creating a large inter-network system which provides wide connectivity while maintaining local control.

2. The potential be evaluated for allowing users to initiate and operate concurrent sessions on their terminals. This would assist them in making inquiries into multiple systems and data bases in a fast, efficient manner.

3. Communications lines from the neighbor islands that currently link into DDS begin to be shifted to EDPD. Connectivity between EDPD and DDS will continue to ensure that the police agencies on the neighbor islands will retain access to the City and County system. At the same time, responsibilities for supporting this network will shift to EDPD, where it rightfully belongs.

4. In the long run, the microwave backbone network be used to replace the existing dedicated 9600-bps lines with higher speed digital transmission capabilities. In the interim period, existing line speeds appear to support user needs adequately so that widespread upgrades are not necessary. (This recommendation applies primarily to the EDPD and Judiciary networks, which will continue to support communications among all of the islands. DDS, on the other hand, should eventually be able to phase out communications support outside of the island of Oahu.

Chapter 8

DEDICATED COMPUTER RESOURCES

All Offender-Based Transaction Statistics/Computerized Criminal History (OBTS/CCH) system processing is currently performed on two IBM mainframe computers located at the State's Electronic Data Processing Division (EDPD). These machines are shared with a large number of other state users who are not part of the criminal justice community. One often-discussed alternative is to transfer OBTS/CCH, and possibly other criminal justice agency applications, to a dedicated computer system. This computer could be located either at EDPD or at another site.

This chapter examines the current problems of using shared hardware resources at EDPD, and discusses the advantages and disadvantages of the current approach versus the dedicated computer concept. Another concept, that of a decentralized processing environment, is also discussed.

Summary of Findings

We find as follows regarding the current shared hardware environment and potential alternatives to this environment:

1. EDPD's current operational support for OBTS/CCH presents concerns in the areas of system availability, utilization reporting/capacity planning, and systems support.

2. Four major hardware resource alternatives can be identified for support of OBTS/CCH processing, but each has disadvantages as well as advantages.

3. While the dedicated computer alternative offers very positive advantages, the continuity provided by the shared hardware environment appears necessary until more fundamental OBTS/CCH system problems are resolved.

4. The alternative of a dedicated center at EDPD is preferable to the establishment of a new dedicated center elsewhere, because it avoids the expenditure of funds on duplicate facilities and personnel resources.

5. The final alternative of a decentralized processing network greatly complicates the ability of OBTS/CCH to maintain the integrity of its data base, and does not appear to merit serious consideration at this time.

Shared Hardware Operational Problems

Because OBTS/CCH operates in the shared hardware environment provided by EDPD, system users are required to rely on the support services provided by EDPD's operations and system software support units. Three major areas of concern may be identified regarding the level of hardware operational support for OBTS/CCH. These are system availability, utilization monitoring/capacity planning, and systems support.

System Availability. The primary system availability concern results from the fact that all ADABAS and CICS (see Glossary) users are restricted from the system nightly for a period of one to one and one-half hours, which generally occurs sometime between 3:00 a.m. and 6:00 a.m. This means that user access to OBTS/CCH, whether for inquiry or update purposes, is not available at this time. This downtime has a major adverse impact on the operations of the Department of Corrections (DOC) Intake Service Centers (ISCs). During these hours, ISC personnel frequently need to access criminal history records in order to make custody disposition recommendations for court arraignment hearings that will begin at 8:00 a.m. Despite numerous interagency communications regarding this problem, it remains unresolved. Police officers are also impacted by the scheduled system downtime, as they are unable to perform identification checks for individuals they may be booking during the restricted period.

Utilization monitoring/capacity planning. The second area of concern results from the lack of information maintained at EDPD regarding system utilization. Systems software staff estimated utilization of the two machines that support OBTS/CCH at 75 percent and 90 percent, respectively, but could not base these estimates on any formal reporting of utilization patterns. The lack of negative user feedback regarding response times suggests that these utilization estimates are high. Although response times are still satisfactory, EDPD does not appear to provide a function that systematically monitors utilization and provides formal capacity planning to address probable future increases in system usage. OBTS/CCH system use should increase, especially as delinquency backlogs are being eliminated. Other applications sharing these machines may also grow over time. With its current lack of reliance on utilization statistics, there is no assurance that EDPD will detect these trends before system performance for the OBTS/CCH community begins to deteriorate significantly.

Systems support. The third area of concern simply is the overall adequacy of system support. The chronic system availability problem noted above and the lack of formal utilization monitoring and planning indicate areas in which general systems support to the OBTS/CCH user environment currently could be improved. At this time, EDPD is not required to meet minimum service level standards, at least for the OBTS/CCH user community. In a shared data processing

operation such as EDPD, users should expect that such minimum levels of service be established and that EDPD monitor and report on actual performance against these standards.

Hardware Resource Alternatives

Four major hardware resource alternatives can be identified for support of OBTS/CCH processing. These are as follows:

1. Continued reliance on EDPD as the centralized data processing center, using hardware resources shared with other state applications.
2. Transfer of OBTS/CCH and other criminal justice applications to a dedicated processor located at EDPD.
3. Transfer of OBTS/CCH and other criminal justice applications to a dedicated processor located outside EDPD, such as at the Hawaii Criminal Justice Data Center ("data center").
4. Reliance on decentralized processing using a network of different criminal agency computers at different locations. These alternatives each have disadvantages as well as advantages.

Shared hardware resource (EDPD). One major advantage of this alternative is that of continuity. Despite the problems mentioned earlier, support for OBTS/CCH in this environment is reasonably consistent, procedures are in place, and a communications network is established. Moreover, EDPD enjoys significant economies of scale in providing a centralized facility, equipment, and support services. Duplicating this environment and the required staffing elsewhere would be expensive, and the State would be competing with itself in recruiting scarce personnel resources. Moving OBTS/CCH anywhere else would disrupt the ability of users of the Judiciary and Honolulu Police Department (HPD) systems to access OBTS/CCH through established intersystem communications links.

A major disadvantage of this alternative is the need to rely on a third party to provide the necessary level of support to the OBTS/CCH user community. The system availability problem faced by the ISC is an example of a decision made by EDPD that is compatible with most of its user environment, but that has a significant adverse effect on one given OBTS/CCH user. In a shared, third-party-operated environment such as EDPD, the criminal justice user community cannot depend on obtaining priority treatment on all occasions. In general, a high level of flexibility and responsiveness to individual user needs can be difficult to achieve.

Another potential concern is system performance. As usage of all the different applications supported at EDPD grows, the OBTS/CCH community could see response times deteriorate on its system. In the absence of effective capacity planning by EDPD, this can quickly become a significant problem.

Finally, this alternative offers advantages and disadvantages from the perspective of system security. A centralized environment, such as EDPD, already has procedures in place to ensure that physical access is well controlled, that data files and programs are backed up and secured against disaster, and that tools are available to guard against unauthorized on-line attempts to access data files. On the other hand, there can always be a system security concern because of the number of non-criminal justice users of EDPD's facilities. Despite security precautions that may be in place, there is always the possibility that a non-authorized user who is on the same machine may learn how to access the OBTS/CCH data base.

Dedicated processor (EDPD). One often-discussed alternative is to transfer OBTS/CCH, and possibly other criminal justice agency applications, to a dedicated computer system. This computer could be located either at EDPD or at another site. Transferring OBTS/CCH and other criminal justice applications to a dedicated processor at EDPD has significant advantages in terms of ensuring satisfactory system availability and performance for the criminal justice user community. It helps address concerns regarding possible unauthorized access by non-criminal justice users, since these persons would no longer be using the same machine. If located at EDPD, this approach could continue to make use of the facilities, support staff, and communications network available at EDPD. This could all be obtained and maintained at a lower cost than a dedicated processor at a different location. In many ways, adopting this approach would be transparent to most users.

A potential drawback is that the cost of supporting this processor could be higher than sharing an existing EDPD processor. There could be some question as to how responsibility for these costs would be distributed among the different criminal justice agency users. In addition, support of a new processor at EDPD would raise space planning and network design issues, and could result in a need to increase support personnel. However, the costs associated with these issues should still be significantly lower than the establishment of a dedicated processor at a new site.

Dedicated processor (non-EDPD). Transferring OBTS/CCH, and possibly other criminal justice agency applications, to a dedicated computer system at a site other than at EDPD is another possibility. The principal advantage of this alternative would be that system control would fall under the responsibility of an agency--such as the data center--that should be more directly interested in the performance of the OBTS/CCH system and service to its users. System performance should also be improved over the current hardware support environment.

The leading disadvantage of this approach is that it would require the construction of a separate facility, the hiring of a number of technically trained support staff, the establishment of necessary security precautions, and complete rerouting of the user network. This duplication

of resources already available at a facility such as EDPD could be seen as an inappropriate use of the State's funds. In addition, the availability of backup resources in case of failure of this processor would become a potential concern.

Decentralized environment. In this approach, information processing power would reside on smaller computers located in various agencies around the criminal justice community. In such an arrangement, extensive networking would be required among the agency computers to ensure widespread and timely availability of needed information. Theoretically, there could be an advantage to this approach because it could permit users to store, retrieve, and manipulate data according to their own needs without the need to coordinate with a centralizing authority. In reality, because of the need for OBTS/CCH to maintain an extensive, accurate, and complete data base accessible to a great number of users, a decentralized processing approach is simply not feasible for this type of application. Another problem is that control over update and inquiry access to data would be more complex. The data center is responsible for the quality of the OBTS/CCH data. This is already a difficult task in the current environment, given the number of agencies that input data. It would be even more difficult to ensure data integrity in a decentralized processing environment.

The Need to Continue the Current Shared Hardware Environment

The dedicated computer alternative offers various advantages and disadvantages compared to the current shared hardware support environment. The primary advantages include the potential for improved system availability, performance, and security. The dedicated approach could, in addition, serve as a means to unify additional criminal justice applications with OBTS/CCH. The alternative of a dedicated center at EDPD is preferable to the establishment of a new dedicated center elsewhere, primarily because it avoids the expenditure of funds on duplicate facilities and personnel resources. On the other hand, the continuity provided by the shared hardware environment may be necessary until more fundamental OBTS/CCH system problems are resolved. The alternative of a distributed processing network would complicate greatly the ability of OBTS/CCH to maintain the integrity of its data base and does not appear to merit serious consideration at this time.

Recommendations

We recommend that:

1. The problem of system unavailability to ISC and the police be addressed by the following two-prong approach: (1) utilize the ADABAS option that allows continued user inquiry into data

files while system backup is proceeding, and (2) dedicate a separate CICS region to the OBTS/CCH data base. The timing of CICS backup can then be scheduled based on the needs of the criminal justice user community.

2. EDPD begin to maintain continuous records of utilization of key system resources, differentiating between shifts and between peak and non-peak periods. Statistics should be kept regarding system utilization by major applications such as OBTS/CCH. Such information should be shared with the data center and other criminal justice users, as requested.

3. EDPD establish a capacity planning function that monitors trends in utilization and growth in user applications, and develops plans for upgrading equipment and system software to meet anticipated growth in user requirements.

4. EDPD and the data center (as the representative of the criminal justice community) establish minimum service levels regarding system availability (by day of the week and time of day), and ability to provide minimum acceptable response times for a targeted percentage of the working day. This service level agreement should also specify the frequency and timing of scheduled downtime, and set objectives for minimizing unscheduled downtime. Records should be maintained by EDPD of its performance against these standards and reports issued regularly to the data center and the criminal justice user community.

5. Over the short term, processing remain on the shared computers at EDPD. Priority should instead be given to bringing the OBTS/CCH data base up to date and accomplishing design improvements that will help make OBTS/CCH an effective operational tool for its users. Chapter 3 provides a more extensive description of these short-term activities, which should take precedence over any major changes in the processing environment.

6. Over the long term, the alternative of a dedicated processor at EDPD be seriously considered. This would especially be true if it appeared that other major criminal justice agency applications could be combined on the same machine with OBTS/CCH.

7. The alternatives of a dedicated computer at a new facility and a decentralized processing environment to support OBTS/CCH be eliminated from consideration at this time.

Chapter 9

AUTOMATED FINGERPRINT IDENTIFICATION SYSTEM (AFIS)

This chapter provides an evaluation of the ongoing selection process of AFIS, including the implications of the preliminary vendor selection that have resulted from this process. Also included is an analysis of the Offender-Based Transaction Statistics/Computerized Criminal History (OBTS/ CCH) interface issues, probable operational costs, and concerns related to establishing connectivity with automated fingerprint identification systems in other western states.

Summary of Findings

Findings regarding AFIS implementation and related issues are presented in this section. Related recommendations may be found at the end of this chapter.

Vendor selection process. We find as follows regarding the AFIS vendor selection process:

1. The State appears to have followed a thorough, logical, and objective process in selecting an AFIS vendor. This is to the credit of the Department of the Attorney General, the multi-agency procurement committee, and their designated consultant. However, the evaluation method that was used and the resulting vendor selection do raise certain issues or concerns.

2. The evaluation scoring system was based strongly on pricing, probably more so than for most evaluation schemes. Scores were adjusted for a few features rated as "desirable" and for accuracy test scores. However, most factors were rated as "mandatory" and did not figure in the pricing process. In this particular situation, an evaluation process that applied a weighted point scoring approach to all proposal factors--including both functional requirements and pricing--may well have selected a different winner.

3. The winning vendor was the low-cost bidder. Two main concerns about this vendor are the fact that it scored lower than the runner up on both "desirable" features and the accuracy test and that it has very limited previous installation experience in the United States.

4. Despite the above findings, discussions with certain parties involved in the effort indicate that many of these areas of concern were foreseen and that attempts were made to factor them into the process.

OBTS/CCH interface. We find as follows regarding the planned interfaces between AFIS and OBTS/CCH:

1. The only interface requirement specified in the Request for Proposal (RFP) was the ability to produce, on an occasional basis, an interface tape from AFIS to OBTS/CCH designed to ensure that all offenders entered into AFIS also are recorded on OBTS/CCH.

2. To keep the AFIS and OBTS/CCH data bases fully in synchronization, an interface from O 3/CCH to AFIS also is required.

· To help permit OBTS/CCH to develop into a system that provides true operational support to the various criminal justice units, frequent (probably daily) update cycles between AFIS and OBTS/CCH will be required.

Operational staffing and costs. We find as follows regarding the operational staff needs and costs associated with AFIS implementation:

1. While $4.5 million has been appropriated to fund the AFIS search process and the winning vendor's quotation, no funding was set aside to initiate a centralized AFIS support function within the data center. The appropriation also does not cover maintenance charges beginning in the second year of the vendor's five-year contract.

2. The data center's current funding recommendation for AFIS operational support apparently is consistent with the winning vendor's recommendations and does not appear to be excessive in comparison to the new responsibilities that are being shouldered.

West Coast connectivity. We find as follows regarding the possibility of establishing connectivity with automated fingerprint identification systems in other western states:

1. The choice of North American Morpho Systems (Morpho) as the winning vendor appears to complicate the connectivity issue because of the fact that most western states and the Western Identification Network (WIN) use NEC Information Systems (NEC) as their vendor.

2. Morpho's $105,000 quote to make its system compatible with the National Bureau of Standards (NBS) data structure does not address the need for NBS-to-NEC connectivity.

3. National efforts are currently under way to achieve NBS connectivity between all of the major automated systems. This may result in an alternative and easier way for Hawaii to achieve West Coast connectivity in the next few years.

4. Discussions with major potential users, and preliminary cost estimates, call into question whether an interconnection with WIN is cost justifiable at this time.

Vendor Selection Process

The review of the AFIS vendor selection process for the purpose of this study was limited in certain ways. There was not, of course, participation in any way in the preparation of

documents or in the evaluation itself. Copies of all significant documents that were issued, up to and including the RFP, were obtained. Because of the need to protect the confidentiality of certain vendor information, review of vendors' functional specifications as presented in their proposals was not allowed. However, various aspects of the proposals of the two leading vendor candidates were discussed with both the head of the procurement committee and a representative of SEARCH Group, Inc., who were retained as consultants to the selection process. Some summary information regarding the winning vendor's price quotation was also obtained.

The following paragraphs provide an overview of the selection process from its inception to the time that this report was developed. This is followed by a discussion of issues and concerns resulting from review of this process.

The AFIS selection process was initiated by the Department of the Attorney General in order to implement Act 380, passed in 1987 to establish a computerized fingerprint identification system. The initial step taken was to establish an executive committee, chaired by the Attorney General, to provide oversight and policy guidance; and a procurement committee, headed by the data center's administrator, to define requirements of this system and select the appropriate software and hardware. The procurement committee contracted with the SEARCH Group, Inc., to provide consulting assistance throughout this process.

In August 1987, a preliminary document entitled *Functional Requirements and File Size* was issued. At about this same time, the committee made initial contacts with vendors and visited sample sites which already operate automated fingerprint identification systems. A Request for Information was issued to prospective vendors in December 1987. This document outlined the State's perception of its system requirements, but invited input from the prospective vendors prior to issuing a formal request for proposal. The RFP itself was issued in May 1988.

The RFP specified a dedicated computer system that would be located at the data center, with communications links to workstations at the Honolulu Police Department (HPD) and to police departments on the neighbor islands. The data center was specified as the agency responsible for maintaining centralized fingerprint records and housing the central AFIS equipment, while all of the police departments were to be responsible for entering their own information and making their own verification checks. As an alternative, however, vendors were informed that they should also be able to support a situation in which the data center entered fingerprint information and performed verification work for the neighbor islands.

The evaluation procedure consisted of a technical evaluation component and a price evaluation component. Vendors were required to submit their price proposal in a separate envelope; price bids were not opened until the technical evaluation was complete. The technical

evaluation, in turn, was divided into three components: (1) compliance, (2) demonstration of mandatory requirements, and (3) proposal review. At any of these three stages, the vendor could be disqualified from completing the evaluation process.

The objective of the compliance review stage was to determine whether the vendor's proposal complied with the RFP instructions, was responsive, and was submitted on time. The technical proposal itself was required to address a number of mandatory functional requirements, both general and by location. The technical proposal also had to address mandatory requirements in the areas of system reliability and maintenance. As part of the compliance review, each vendor's response was required to state that each mandatory requirement would be met. Well over 100 such mandatory requirements were stated. Finally, the vendor was required to meet certain minimum criteria in regard to its relevant experience and financial stability.

The demonstration of mandatory requirements consisted of an examination of an operational version of the vendor's system to ensure that all mandatory functional requirements could be provided as stated in the proposal, and a series of benchmark tests using a subset of the fingerprint records actually maintained by the Honolulu Police Department. This included ten-print accuracy and rejection tests, and latent accuracy tests. An accuracy rate below a certain minimum percentage, or the lack of some other stated mandatory requirement, could disqualify the vendor.

The proposal review phase consisted of reference checks to verify the vendor's experience and reputation and meetings with the proposed vendor teams to assess their qualifications. This also included identification and follow-up on any potential weaknesses or design flaws noted in the vendor's proposal.

Price proposals were opened only if a vendor passed all of the above technical screening tests. Vendors were required to provide pricing, by location and overall, for the following elements: site preparation, equipment and software procurement and installation, training, supplies, maintenance (for five years), and miscellaneous. Vendors were scored based on the quoted total price, adjusted for the following:

- ability to provide 12 desirable features stated in the RFP; and
- accuracy obtained on the benchmark test above the minimum standards.

These "adjustment points" were subtracted from the vendor's price quote. The maximum potential price adjustments were as follows:

- $479,000 for providing all of the desirable features;
- $500,000 for ten-print accuracy test results;
- $265,000 for ten-print rejection test results; and
- $3,500,000 for latent accuracy test results.

In reality, because 100-percent accuracy in the above test areas is virtually unobtainable, no vendor could have been expected to achieve price adjustments very near the stated maximums. After these adjustments were subtracted, the lowest adjusted price determined the winning vendor.

Responses to the RFP were due on July 6, 1988. Three vendors presented proposals. These were NEC, Morpho, and DE LA RUE Printrak (Printrak). Printrak was eliminated during the second phase of the technical evaluation owing to its inability to meet the minimum latent accuracy test standard (30 percent) established by the RFP. Price proposals were opened for NEC and Morpho, which did pass the technical evaluation. NEC's price quote was almost exactly $1,000,000 higher than Morpho's. Morpho's price was then adjusted downward, for evaluation purposes, by approximately $300,000 for its ability to provide certain desirable features and exceed minimum test standards. NEC's price was adjusted downward by approximately $950,000. The large adjustment for NEC primarily reflected better scores received on the latent accuracy tests; however, it also provided somewhat more of the desirable features than did Morpho. In the end, Morpho's adjusted price was approximately $350,000, or slightly over five percent, lower than NEC's adjusted price. Therefore, Morpho was awarded the bid.

As of the time that this report was being prepared, contract negotiations were under way between the State and Morpho, but had not been finalized. One area of discussion concerns scaling back or deferring certain expenditures quoted by Morpho. Even excluding the maintenance component which extends over five years, Morpho's price quote exceeds the amount available out of current appropriations by over $900,000.

While the scope of our review necessarily limits some of the findings that can be made, it does appear that the State has followed a thorough, logical, and objective process in regard to AFIS vendor selection. In particular, the Department of the Attorney General, the multi-agency procurement committee, and the consultant deserve credit for the professional quality of their work. Certain aspects of the selection process and the decision in regard to the winning vendor raise concerns on our part (as an uninvolved third party), there is a good probability that the parties involved in the selection decision foresaw these areas of concern and adequately factored them into the process.

One potential concern is that the evaluation scoring system was based strongly on pricing, probably more so than most vendor evaluation schemes. Prices were adjusted for certain desirable features and for results of three accuracy tests against benchmark data. Theoretically, these adjustments could be very significant, especially for the accuracy tests. In reality, major differences in test results between vendors would have been required to override the overall

emphasis on price as the selection criterion. In addition, because so many mandatory requirements were established that did not affect the final scoring, certain real distinctions between vendors may have been submerged in the process. For example, a vendor with an outstanding reputation or very large installation base could obtain no advantage over another vendor that only met minimum requirements in these areas. Similarly, there would be no way to recognize a system that meets one of the mandatory functional requirements in an especially creative or efficient way.

The actual selection result tends to illustrate this concern. The winning vendor, Morpho, has a much smaller installation base in the United States than NEC. Morpho's current operational installations are Oklahoma City and Pierce County, Washington. In comparison, NEC is installed at numerous state governments, particularly in the west and at WIN. Moreover, NEC scored better on the desirable features and in the accuracy tests, but not enough to overcome the difference between the two bid prices. The final difference between the two vendors' adjusted prices only amounted to about five percent. It is very possible than an evaluation process that applied a weighting approach to all proposal factors--including both functional requirements and pricing--would have selected a different winner.

Discussions with a representative of SEARCH Group, Inc., produced some information that may partially alleviate the above concerns. The price-based scoring approach was adopted in order to make the process as objective and defensible as possible. This was based on the State's past experience in needing to defend procurement designs that had allowed more subjectivity into the final decision. In addition, much effort was expended by the committee in assigning points to the desirable features and the accuracy test results. An attempt was made to balance these point adjustments against the pricing in a way that reflected the State's priorities.

In regard to the winning vendor, Morpho, the selection group felt that its product was very competitive with NEC. While it is true that Morpho has not completed any state government installations at this point, it does have an installation under way at this time for the state government of New York, and has recently been selected in New Jersey and Missouri. Moreover, while relatively small and unproven in North America, Morpho is a subsidiary of a French organization that automated the fingerprint records of the French National Police. Finally, IBM, which is the hardware supplier to Morpho, apparently made some backup guarantees in the event of failure by Morpho to deliver on part or all of their contractual obligations.

OBTS/CCH Interface

The AFIS design indicated in the RFP, and proposed by the winning vendor, will establish a dedicated system with a central processing site at the data center linked to workstations at each

of four police department sites. The central processing site will consist of a series of IBM RT computers operating in parallel on a distributed data base. The purpose of this parallel processing design is to expedite the speed of searches, especially with latent fingerprints. As additional speed is required, or the overall data base expands, processors are added.

The remote workstations will consist of one or two IBM RT's per site, with printers. The workstations have special functional requirements and a high degree of graphics resolution and printing capability. They must support entry of detail fingerprint minutiae and image data and printing of images at their site as needed. This means that normal user terminals, such as would be connected to OBTS/CCH, cannot be used as AFIS workstations.

The AFIS RFP did not require a great deal of connectivity between AFIS and OBTS/CCH. The very different design and processing environment of AFIS is one reason for this. Moreover, it was felt that there was only a limited need to transfer information between the two systems. The AFIS selection team believed that the major need in this area was to ensure that all individuals entered into AFIS would also have a record on OBTS/CCH, and vice versa. It was not necessary, however, for detailed fingerprint data to be communicated to OBTS/CCH or criminal history detail communicated from OBTS/CCH to AFIS. Consequently, the only RFP requirement was for AFIS to be able to generate, on a regular basis, an interface tape in state identification sequence listing all new offenders entered into the AFIS system. This tape would be matched against the OBTS/CCH data base to identify new offenders who had been fingerprinted but not yet recorded in OBTS/CCH. The general feeling was that this tape would need to be generated only monthly, or perhaps even quarterly.

Our project team concurs that the major interface concern is to ensure that the two data bases remain in synchronization and retain data on the same offender group. In order to do this, however, a two-way interface is needed because some offenders will be entering to OBTS/CCH prior to AFIS. An OBTS/CCH-to-AFIS interface was not specified in the RFP.

As stated above, the selection team's feeling appears to be that the interface is needed only on a monthly, or even quarterly, basis. This probably reflects the feeling that OBTS/CCH is a historical system that does not need frequent updates. However, as explained elsewhere in this report, our team strongly believes that OBTS/CCH should be developed into a system that provides operational support to the various criminal justice units, where information is needed that crosses agency lines. This would entail having timely, accurate, and complete data. Therefore, one recommendation is to consider more frequent update cycles, in both directions, between AFIS and OBTS/CCH.

Operational Staffing and Costs

Four and one-half million dollars was appropriated to fund the AFIS search process and the winning vendor's quotation. This is insufficient to cover all components of the winning vendor's bid. One component of this bid can be funded over a five-year period. This is ongoing system support and maintenance to be provided by the vendor. In addition, no funding has been set aside explicitly to initiate a centralized AFIS support function within the data center. These operational staffing and cost issues are described in this section.

The RFP required the winning vendor to commit to extensive system support and maintenance for a five-year period. The first year would be a warranty period in which these services would be provided without charge to the State. The charges quoted by the winning vendor, broken down by year and site, are provided as Exhibit 9.1. While these charges will total more than $1.5 million over the five-year time frame, there will be no need for the data center to develop its own staff to maintain technical support of the system. The data center's staffing responsibilities will instead focus on operating the centralized fingerprinting function.

In addition, the RFP required the winning vendor to take full responsibility for building the new AFIS data base from the fingerprint records now on file at HPD. This obviates the need for the data center to hire data entry clerks, probably on a temporary basis, to build this data base.

On the other hand, the data center will still incur significant incremental costs in order to support initiation and development of a centralized AFIS unit. These costs include the following:

- increased staffing of persons with specialized fingerprint research skills;
- costs of supporting 56,000-bits-per-second (bps) communications lines from the data center to the four police departments;
- data processing supplies (this is included, for the first year, in the vendor's quote, but is being incorporated into the data center's biennial budget request);
- office furnishings;
- costs of acquiring file storage and moving fingerprint records from the HPD location; and
- phone charges and modem maintenance.

Exhibit 9.2 depicts the data center's preliminary appropriation request for the AFIS unit for the next two fiscal years. This request incorporates the vendor's quotes for maintenance and supplies for the two years. (The RFP requires that maintenance be provided free of charge for the first year.) It also includes funds for an AFIS systems manager position and three staff specialists in addition to the two existing positions.

AFIS Maintenance Costs
(based on pricing submitted in Morpho proposal)

	Data Center Workstation Room	Data Center CPU Room	HPD	MAUI	KAUAI	HAWAII	TOTAL
YEAR 1	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
YEAR 2	36,828	260,349	26,707	11,717	11,717	11,717	359,035
YEAR 3	38,581	272,746	27,979	12,275	12,275	12,275	376,131
YEAR 4	40,335	285,144	29,250	12,833	12,833	12,833	393,228
YEAR 5	42,089	297,541	30,522	13,391	13,391	13,391	410,325
	$157,833	$1,115,780	$114,458	$50,216	$50,216	$50,216	$1,538,719

EXHIBIT 9.1

Data Center Appropriations Request for AFIS Support
(preliminary data)

Item	FY 1989-90	FY 1990-91
Staff: Currently Funded	$ 37,140	$ 37,140
Expansion Request	79,908	79,908
Maintenance	0*	359,035*
Supplies	33,100*	7,500
Communications Lines	25,000	25,000
Office Furnishings	6,000	1,500
File Acquisition/Moving Costs	4,000	0
Telephone	1,000	1,000
Modem Maintenace	1,000	1,000
Total Request	$187,148	$512,083
Increase from Current Level	$150,008	$474,943

*Based on Morpho proposal

Management's recommendation apparently is consistent with the staffing level suggested by Morpho for a central state support function. While it was outside the scope of this review to conduct a formal evaluation of the workloads that would be sustained by the new AFIS unit, the recommendation does not appear to be excessive in comparison to the new responsibilities that are being shouldered.

OBTS/CCH connectivity with AFIS will represent a negligible increase in cost to the State. This is because a magnetic tape file transfer is the only interface mechanism envisioned at this time.

The four police departments will be expected to supply personnel to meet many of their own fingerprint inquiry needs. In most cases, existing personnel resources will be partially reallocated to this insert effort, so that these departments may not see an increase in their personnel costs that could be attributed directly to AFIS. HPD, in fact, could realize personnel savings owing to the transfer of responsibility for centralized fingerprint record maintenance to the data center.

West Coast Connectivity

The selection of Morpho as the winning vendor complicates any potential efforts to connect Hawaii's AFIS with similar automated fingerprint systems in the western United States. Most of the western states that have automated their own fingerprint records have chosen NEC. This is also true of WIN.

In order to achieve connectivity with these NEC systems, it is necessary for an interface to be written between Morpho's data structures and the format adopted by the NBS for interchange of information between different fingerprinting systems. In addition, an interface must exist between NBS and the NEC-based system used by the other western states or by WIN.

As part of the RFP, vendors were required to state the price they would charge the State of Hawaii for interfacing their AFIS to the NBS standard. This would satisfy the first of the two above requirements for interfacing Hawaii's AFIS to that of another state. Morpho quoted a price of $105,000 to interface its system to NBS. This, of course, would still leave the NBS-to-NEC interface to be accomplished.

Discussions with SEARCH Group, Inc., indicate that efforts are under way on another front to achieve interconnectivity, using the NBS standard, between all of the major vendors, including NEC and Morpho. Funds may soon be available from the Bureau of Judicial Assistance (BJA) of the United States Department of Justice to fund joint vendor/customer projects to achieve connectivity between their particular systems and NBS. A temporary task force, coordinated by SEARCH, met recently to discuss this subject. A discussion paper on this topic will soon be

drafted by SEARCH. It is possible that these interconnectivity projects will begin within the next year. NEC has endorsed these interconnectivity initiatives, including a connection with WIN. Morpho's position is less clear at this time. However, if vendors generally concur with this approach and these projects are completed with BJA funding, Hawaii may be able to achieve general interconnectivity with other systems with relatively limited effort and at an acceptable cost.

Inquiries were made into the costs that would be incurred by Hawaii in joining the WIN system. Preliminary estimates are that this cost would be $2,700 per month, including a charge for a dedicated line. Based on discussions with potential police department users, it appears possible that the probable volume of inquiry into such a network would be low enough to call into question the economic feasibility of joining the WIN system at this time.

Recommendations

Recommendations regarding the AFIS selection process and related issues are listed below according to the major areas of review.

Selection process and status. *We recommend that:*

1. If time still permits, the procurement committee review the stated concerns regarding the evaluation and scoring approach to ensure that they were adequately considered during the selection process. At this late stage, however, it may not be practical to accomplish this.

2. In contract negotiations with Morpho, ensure that the State is adequately protected in the event that Morpho is unable to perform on its contract.

OBTS/CCH interface. *We recommend that:*

1. The tape transfer interface planned from AFIS to OBTS/CCH providing a list of state identifications of all new offenders entered into the AFIS data base be conducted on a frequent basis, possibly daily. This will become more and more necessary as the value of OBTS/CCH as an operational tool is enhanced over time.

2. An interface of the same type and frequency be developed from OBTS/CCH to AFIS. The resulting two-way interface, with supporting procedures to reconcile differences as they are found, will ensure that all offenders recorded on one system are recorded in a consistent manner on the other system.

3. Over the long run, an automated interface may be considered. From a technical perspective, linking the IBM RT computers used for AFIS processing into the SNA (see Glossary) network supported by the Electronic Data Processing Division (EDPD) should be a relatively straightforward task to accomplish.

Operational staffing costs. *We recommend that:*

1. The data center's request for appropriations over a two-year period to support development of a centralized AFIS function be considered seriously for approval.

West Coast connectivity. *We recommend that:*

1. The State seriously consider deferring West Coast connectivity until AFIS implementation is complete. This would mean taking no immediate action on Morpho's $105,000 quote to connect Hawaii's AFIS to the NBS standard.

2. The State monitor and support efforts underway elsewhere to achieve general connectivity between the various vendors' products and the NBS standard. This may well result in the most cost-efficient approach to achieving connectivity with the western states.

3. A separate study be conducted to evaluate the need for an automated interconnection with the other western states, based on a realistic assessment of the number of interstate requests that Hawaiian police authorities would actually make. This should be compared with the cost of joining WIN to see if membership by the State of Hawaii is economically justified at this time.

NOTES

Chapter 2

1. "Problems Confronting the Statistical Analysis Center (SAC) in the Implementation of the Computerized Criminal History (CCH) and Offender-Based Transaction Statistics (OBTS) System," memorandum from Chairman, Governor's Planning Committee, to The Honorable George R. Ariyoshi, Governor of Hawaii, April 21, 1981.

2. Hawaii Criminal Justice Data Center, *Status of Criminal Justice Information Systems in the State of Hawaii*, Honolulu, June 1, 1983, p.8.

3. Special Task Force of the Hawaii Chamber of Commerce Committee on Crime, (Untitled), Honolulu, 1982, p. 7.

4. House Conference Committee Report 71 on House Bill 282, Tenth Legislature, 1979, State of Hawaii.

5. 1979 Haw. Sess. Laws, Act 129.

6. 1981 Haw. Sess. Laws, Act 57.

7. Hawaii, The Ad Hoc Committee on the Criminal Justice Information System for the Governor's Planning Committee on Crime, Criminal Justice Information System Study, Honolulu, February 1985, p. 1.

8. House Standing Committee Report 701 on Senate Bill 1092, Twelfth State Legislature, 1983, State of Hawaii.

9. *Ibid.*

10. 1988 Haw. Sess. Laws, Act 243.

11. House Conference Committee Report 49 on House Bill 2357, Tenth Legislature, 1980, State of Hawaii.

12. Senate Standing Committee Report 133 on Senate Bill 2190, Eleventh Legislature, 1982, State of Hawaii.

13. House Standing Committee Report 795 on Senate Bill 1652, Thirteenth Legislature, 1986, State of Hawaii.

Chapter 3

1. Special Task Force of the Hawaii Chamber of Commerce Committee on Crime, (Untitled), Honolulu, 1982, p. 11.

2. *Ibid.*, p. 7.

3. *Ibid.*, p. 11.

Chapter 4

1. A meeting was held in March 1988, but because there was no quorum, minutes of that meeting are unavailable.

Chapter 6

1. "Entry of Criminal Case Court Dispositions into the Hawaii Criminal Justice Data Center's OBTS/CCH System", letter from Marc V. Oley, Chairman, Hawaii Paroling Authority, to the Honorable Herman Lum, Chief Justice, Hawaii Supreme Court; April 11, 1985; p. 5.

RESPONSES OF THE AFFECTED AGENCIES

AGENCY RESPONSES

Copies of the preliminary draft of this study report were transmitted on January 17, 1989, to the Department of the Attorney General, the Department of Budget and Finance, and the Hawaii Criminal Justice Data Interagency Board. A copy of the transmittal letter to the Attorney General is included as Attachment 1. Similar letters were sent to the Director of Finance and the members and executive secretary of the board. The responses from the Attorney General, the Director of Finance, and the board are included as Attachments 2, 3, and 4.

The Department of the Attorney General responds that it agrees in most part with our basic findings and recommendations. It notes however that for purposes of implementation, the recommendations require further definition. It also recognizes that a number of policy decisions which will require the input of various criminal justice agencies have yet to be made.

The Department of Budget and Finance responds that it generally concurs with most of our findings and recommendations. It has expressed a willingness to support those recommendations which have some bearing on the computer services provided to criminal justice agencies by its Electronic Data Processing Division.

Finally, the response of the Hawaii Criminal Justice Data Interagency Board indicates that it also concurs with the overall findings and recommendations of the study. The board unanimously agrees that legislation is needed to clarify its role and responsibilities and that a stronger board is needed.

ATTACHMENT 1

THE OFFICE OF THE AUDITOR
STATE OF HAWAII
465 S. KING STREET, RM. 500
HONOLULU, HAWAII 96813

January 17, 1989

C O P Y

Mr. Warren Price, III
Attorney General
State of Hawaii
State Capitol Building
Honolulu, Hawaii 96813

Dear Mr. Price:

Enclosed is copy number 4 of the preliminary report on the *Management Study of the State Criminal Justice Information and Identification Program* prepared under our direction by Wolfe & Associates, Inc.

In view of the study's impact on your department, we invite your comments on the report. If you decide to submit comments, we ask that you (1) notify us by telephone of this intention by January 19, 1989, and (2) submit your written comments by January 27, 1989, so that they can be included in the final report.

Since the report is not in final form and there could be changes to the report, access to it should be restricted to those persons whom you might wish to call upon to assist you in reviewing the report. The only other parties who have been provided copies of this preliminary report are the Governor, the presiding officers of the Legislature, the members and executive secretary of the Hawaii Criminal Justice Data Interagency Board, and the Director of Finance. Public release of the report will be made solely by our office and only after the report is published in final form and submitted to the Legislature.

We appreciate the assistance and cooperation extended to us during the course of this study.

Sincerely,

Newton Sue
Acting Legislative Auditor

Enclosure

ATTACHMENT 2

JOHN WAIHEE
GOVERNOR

WARREN PRICE, III
ATTORNEY GENERAL

CORINNE K. A. WATANABE
FIRST DEPUTY ATTORNEY GENERAL

STATE OF HAWAII
DEPARTMENT OF THE ATTORNEY GENERAL
STATE CAPITOL
HONOLULU, HAWAII 96813
(808) 548-4740

January 27, 1989

Mr. Newton Sue
Acting Legislative Auditor
465 South King Street, Suite 500
Honolulu, Hawaii 96813

Dear Mr. Sue:

Thank you for providing me with an advance copy of your report entitled, "Management Study of the State Criminal Justice Information and Identification Program."

We have reviewed the report and agree in most part with the basic findings and recommendations. We do note, however, that the successful implementation of the proposed "Action Plan" will require the assistance of the Legislature, as well as the cooperation and coordination of the various criminal justice agencies. In order to implement a logical, sequential and adequately funded action plan, it will be necessary that the recommendations be further defined.

In addition, there are a number of policy decisions yet to be made, which will require the input of the various criminal justice agencies.

We have reviewed the report and the responses noted herein are presented in the order contained in your document. They are intended to clarify any ambiguities or to correct errors.

We thank you for the opportunity to provide you with our written responses. We would be happy to discuss any issue or concern raised in the final report or to provide your office or the Legislature with additional information.

Very truly yours,

Warren Price, III

WP/SEV/akk

Attachment

CHAPTER 1

No response.

CHAPTER 2

1. Pg. 8: Auditor's Statement

The report states that the OBTS/CCH system was operational initially only to the extent that terminals and lines were installed and that the neighbor islands began performing data entry.

Response

The report fails to mention that the entire arrest records system of the Honolulu Police Department was converted to form the data base for the OBTS/CCH system.

2. Pg. 9: Auditor's Statement

The report states that in 1985, the statutory purpose of the Data Center was amended to include fingerprinting as part of its identification system.

Response

By statute, the Attorney General is responsible for selecting and enforcing systems of identification, including fingerprinting. (Previously included in Chapter 28, Hawaii Revised Statutes.) In 1983, when the former Bureau of Crime Statistics and Identification (BCSI) within the Department of the Attorney General was abolished, all of its functions, including systems of identification, were consolidated into the emerging Hawaii Criminal Justice Data Center (HCJDC). In practice, however, the actual fingerprinting of offenders is performed by the police departments.

It appears that the Auditor has interpreted Act 119, Session Laws of Hawaii 1985, as placing the fingerprinting responsibility with the HCJDC. Act 119 provided for the identification of individuals who were convicted of a criminal offense, but who had bypassed the normal arrest/booking/ fingerprinting procedures by having entered the system via penal summons. In effect, upon

conviction, sentenced offenders were directed to immediately report to the police for identification processing, whereupon entries could then be made into the OBTS/CCH system.

3. Pg. 10: Auditor's Statement

The report states that an advisory committee composed of selected criminal justice agency personnel was to be established to assist in matters directly related to interagency coordination and user needs.

Response

It appears, from the Auditor's statement above, that he was not aware that such a committee was, in fact, established and operational, albeit it for advisory purposes. This committee assisted in the original development of the OBTS/CCH, which was designed by consultants. A three-member "Policy Committee" (informal) was established by the Administrative Director of the Courts and consisted of the following members: Mr. Herbert Cornuelle; Retired Circuit Court Judge Masato Doi; and Mr. Edward Nakamura (private attorney).

Both committees were later abolished and replaced by a statutorily established Criminal Justice Data Interagency Board.

4. Pg. 11: Auditor's Statement

The report indicates that Act 78, SLH 1983, in addition to consolidating the functions of the BCSI with the HCJDC, mandated the counties to "provide the necessary equipment and the compensation of the persons required to install and carry out the work of such systems . . . "

Response

The language in quotes was taken directly from Chapter 28, HRS, under which the former BCSI was established. Act 78, SLH 1983, simply transferred existing statutory language from Chapter 28 to Chapter 846, under which the HCJDC was established. No new mandates were imposed upon the counties.

CHAPTER 3

1. Pg. 14: Auditor's Statement

The report states that the HCJDC, because it has the most direct interest in the success of OBTS/CCH, has attempted to . . . exert an "arm twisting" approach.

Response

Unfortunately, the Auditor, as many agencies, visualizes the OBTS/CCH program to exist only for the benefit of the HCJDC. This program exists, in fact, for the use of the criminal justice agencies themselves. The HCJDC's attempts to solicit the cooperation of the users were intended to result in a more effective tool for the user agencies.

The Auditor correctly states and recognizes the fact that the HCJDC lacks any direct authority or influence over the various criminal justice agencies.

2. Pg. 14: Auditor's Statement

The report repeatedly refers to the need for OBTS/CCH to be an operational tool that should be integrated into the daily operations of the user agencies.

Response

The objective of the OBTS/CCH program requires clarification. It was developed as a "statistical and historical system," which has since evolved and is now partially perceived as an operational system. OBTS/CCH was intended to actively support operational agency developments so that data elements identified for sharing could be readily transferred. Criminal justice data is only useful if it is entered completely, accurately, and timely - by the agency that generates and uses the information.

3. Pg. 15: Auditor's Statement

The report references interfaces which are "error prone, cumbersome, and unable to provide timely enough data . . . "

Response

It should be pointed out that the interfaces developed between OBTS/CCH and the Honolulu Police Department, as well as the Judiciary's HAJIS, were designed based on technology at that time. Admittedly, they are not as sophisticated as the interface most recently established between OBTS/CCH and the Hawaii County Prosecutor's FACTS system.

4. Pg. 15: Auditor's Statement

The report states that the OBTS/CCH program is in danger of dying a slower, but permanent death due to existing problems.

Response

The HCJDC has gone on record expressing the need for assistance. After years of exhausting many approaches, and at the request of the HCJDC, the audit of this program was conducted.

The Attorney General agrees with the Auditor's general strategy to clarify the DIB's role, to commit additional resources to overcome system deficiencies, and to obtain the full participation and commitment of criminal justice agencies.

However, it bears noting again that in spite of all good intentions, there is still lacking direct authority over other criminal justice agencies at different levels and branches of government.

5. Pg. 17: Auditor's Statement

The report recommends that the Legislature clarify the Board's policymaking status by statutorily specifying that it has overall administrative responsibility for statewide criminal justice information systems; transferring rulemaking authority to it from the Attorney General.

Response

Such a recommendation appears on the surface to be well-intended. There are real problems associated with "administrative responsibilities," which may make it impossible for the DIB members themselves to be able to devote the time necessary to carry out its responsibilities.

Further, there exists some ambiguity in the recommendation in the relationship between the DIB, the HCJDC and the Attorney General himself, who is the head of the department. There is a need for some legal research in this area.

6. Pg. 19: Auditor's Statement

The report indicates that the HPD practice of establishing positive identification prior to data entry contributes to the data entry backlog.

Response

By statute, positive identification by fingerprints is required.

7. Pg. 20: Auditor's Statement

The report recommends that after AFIS is installed at the HCJDC, an automated AFIS support be provided a priority at HPD.

Response

The installation of the AFIS will be statewide, with all remote facilities developed simultaneously.

8. Pg. 20: Auditor's Statement

The report recommends automated interfaces between COMPAS, PROMIS and PROBER.

Response

The HCJDC has completed all the interfaces that it can, based on user readiness. The COMPAS status is unclear. The correctional information system has shifted its system development efforts from the State IBM mainframe, to its WANG computer, to a PRIME computer, then back to its WANG. It is the HCJDC's intent to interface with COMPAS after it has stabilized.

The interface with PROMIS is waiting the administrative approval of the Prosecutor's Office, while PROBER is still attempting to network itself and has plans to get to the IBM mainframe.

9. Pg. 20: Auditor's Statement

The report recommends the development of an automated and integrated district court system with an OBTS/CCH interface.

Response

The HCJDC supports the development of automation at the District Court level and for the eventual interface with the OBTS/CCH program.

However, the development of this project should remain within the Judiciary and would require a reprioritization of other projects within the Judiciary. The HCJDC does not recommend that it be given the responsibility for implementing this project.

10. Pg. 20: Auditor's Statement

The report recommends that the composition of the DIB be changed.

Response

The existing composition of the DIB does not differ substantively from that proposed by the Auditor, with the exception of recommending that the Attorney General also be a member. The HCJDC concurs.

CHAPTER 4

The Attorney General concurs in principle with the recommendations relating to the DIB. However, as discussed in the previous section, there remains some question as to the exact nature of the Board's administrative responsibility. Having "administrative oversight responsibilities" can lead to conflicting situations. There remains a question on the wisdom of having the Attorney General, as the department head, relinquish his authority to a part-time board.

Some research needs to be conducted to ensure that the duties spelled out for the DIB are not in conflict with existing state law or counterproductive.

CHAPTER 5

1. Pg. 53: Auditor's Statement

The report states that there is no single plan for addressing the security and privacy requirements of centralized criminal justice records and it recommends that such a plan be developed under the direction of the DIB.

Response

During the first quarter of 1989, the Department of Corrections will serve as the pilot department for the HCJDC to implement its administrative security rules and to assign individual passwords.

The HCJDC has been working with a Deputy Attorney General and EDPD to implement a security package for the individual passwords.

With the implementation of the security for the CICS sign-ons, the user will be assigned an individual password which will require regular password changes. As far as HCJDC is aware, we are the only agency requiring that security be implemented for the CICS sign-ons. During this pilot period, the HCJDC will monitor the amount of resources/support that are required of the HCJDC personnel as well as the EDPD personnel.

2. Pg. 57: Auditor's Statement

The report states that the staffing level of the Systems Development Section is low relative to the effort required, and further that the current programming staff is relatively inexperienced.

Response

The report fails to point out the fact that there are only two (2) programmers in this section, one of which is rated at a Computer Programmer III. Both programmers are skilled for their level of rating in the State. If the Auditor's consultant is saying that the HCJDC should have higher skill levels for the programming staff, we concur.

3. Pg. 58: Auditor's Statement

The report states that the System Support staff member is engaged in communication with the user community, provides advice regarding personal computer use, and is engaged in special projects.

Response

A portion of the above statement is incorrectly stated. This individual is responsible for coordinating the authorization of computer devices to access the OBTS/CCH program with the users and with EDPD personnel and is engaged in special projects.

4. Pg. 53: Auditor's Statement

The report indicates that new responsibilities have been accumulated by the HCJDC, including the responsibility for providing criminal history record checks.

Response

All the responsibilities given to the HCJDC have been the result of legislative action particularly in the areas of criminal records clearances and criminal identification (AFIS). No new projects have been taken on without authority or unless mandated by the Legislature.

5. Pg. 54: Auditor's Statement

The report states that the HCJDC's growth has created a number of issues and problems, and that the resources available have lagged behind its growth in responsibilities, and further, that this seems to be a result from a "natural tendency" (emphasis added) to underestimate the challenges.

Response

The consultant appears not to understand the administrative review process involved in budget approval. The amount initially requested by the HCJDC, as well as any other state agency, is closely scrutinized and reduced to available funds, or a level substantially equal to that of previous years levels. As an example: page 59 notes the HCJDC's request for a DPSA to supervise 3 clerks, yet no clerks have been approved in the biennium budget request.

6. Pg. 56: Auditor's Statement

The report states that as the result of the consolidation of the BCSI functions, the HCJDC assumed the responsibility for generating statewide crime related statistical report (UCR).

Response

This is a totally incorrect statement. The statistical reporting requirements for the state, including UCR, was given to the HCJDC in 1975 while within the State Judiciary, as part of its program. When first established, the HCJDC (previously known as SAC) had two major responsibilities: OBTS/CCH and the Uniform Crime Reporting program. The statistical report responsibilities seemingly assigned to the BCSI were never performed. Prior to the establishment of the HCJDC each police department independently collected its own information, forwarding the same to the FBI.

7. Pg. 65: Auditor's Statement

The report states that ". . . heavy reliance is placed on CICS resource-level security to control access to the OBTS/CCH data base."

Response

It should be pointed out that in addition to the CICS resource-level security, the Systems Support individual maintains internal security tables based on the CICS operator identification, the CICS terminal identification, the various agency codes, and the CICS transaction identification.

8. Pg. 69: Auditor's Statement

The report recommends the adoption of the HCJDC's request for reorganization and additional staffing, and that additional consulting services be provided.

Response

Such a request, although reduced somewhat, is included in the HCJDC's biennium budget request.

CHAPTER 6

1. Pg. 74: Auditor's Statement

(#4) The report states that there is no function key to allow the data entry user to proceed quickly from one screen to the next logical input screen for a given state identification number or tracking number.

Response

OBTS/CCH data entry transaction do allow for recursive data entry by using the "NEXT TRACKING NO." field. Update transactions do not permit this.

Since not all OBTS/CCH transactions allow recursive data entry, the report may be making a statement that is pertinent to only a small portion of the transactions.

2. Pg. 74: Auditor's Statement

(#6) The report states that the system is unable to immediately inform the data entry operator that a transaction cannot be updated owing to a lack of sequentially required information. Users currently must enter complete transactions before these are rejected by the system.

Response

This statement is incorrect. In such situations, the OBTS/CCH transactions return a message informing the user that "DATA CANNOT BE ENTERED NOW", and the transaction terminates before data is keyed into the screen.

3. Pg. 75: Auditor's Statement

(#9) The report states that the court case number is not included on the full criminal history report to facilitate cross referencing to HAJIS files.

Response

The reason for this statement is unclear, as that data is available on the FCCH file, especially for HAJIS cases.

4. Pg. 75: Auditor's Statement

(#10) The re-arrest report is not available to all interested users, in particular to the APD. (In addition, throughout this section, reference is made to the Paroling Authority not having the re-arrest reports.)

Response

This statement is erroneous as the re-arrest file was created with the supervision users foremost in

mind. Re-arrest data is now on-line and accessible to APD and other supervision agencies as soon as the arrest has been entered into OBTS/CCH.

Re-arrest reports are available and distributed to all interested users.

5. Pg. 83: Auditor's Statement

(#5) The report states that the automated interface from OBTS/CCH to the HPD system for the printing of charge disposition labels produce a 10 percent error rate.

Response

This process is not an automatic interface. The labels are printed when charge dispositions are entered on OBTS/CCH and then forwarded to HPD.

6. Pg. 95: Auditor's Statement

The report states that the arresting agency uses OBTS/CCH for inquiries on identification and outstanding warrants.

Response

At the present time there is no capability for OBTS/CCH to maintain outstanding warrants information. The only warrants file available is what is on the HPD's system which is not statewide, but limited to Honolulu only.

7. Pg. 114: Auditor's Statement

The report states that the HAJIS interface missing information list is completed by the JCS staff before the next interface run, but the Data Center staff, however, is unable to resolve the missing information list.

Response

This list is forwarded to the Judiciary Computer System so that it can update HAJIS. It is the interface report itself that cannot be completed in the two week period.

8. Pg. 115: Auditor's Statement

(#3) The report states that CCC was adversely impacted when the sort order for all delinquency reports was changed from offender name to OBTS tracking number.

Response

The delinquent disposition report sequence was changed to list the most delinquent cases first. This was done so that the user would address them in the order presented. The HCJDC found that the user would start at the top of the report and cases listed at the bottom alphabetically would never be addressed.

9. Pg. 117: Auditor's Statement

The report states that in the April 7, 1987, test, information on 13 of 13 post-sentence custody cases could not be entered.

Response

The consultant fails to mention that the HCJDC readily admitted that it has not implemented this segment.

CHAPTER 7

1. Pg. 139: Auditor's Statement

The report states that automated interfaces do not exist between many agency systems and OBTS/CCH, and further, that this is a major cause of redundancy in entering data.

Response

The consultant fails to recognize the fact that in 1979, when OBTS/CCH became operational, the only other on-line information system operating was at the Honolulu Police Department. As other agencies planned for, developed and brought their own in-house systems up, there was little, if any, consideration on their part to eventually interface that particular system with OBTS/CCH. Because the HCJDC did not have any operational control or influence over these agencies and their systems, each developed independently.

The redundancy in data entry was created by the agencies themselves which brought up their own systems without simultaneously planning and developing interfaces with OBTS/CCH. As a result, or by default, the HCJDC assumed the responsibility to develop such interfaces.

As each system was developed, there were no standards from which to operate as there exists no authority for any agency, including the HCJDC to impose standards.

Because there are no standards or controls over developing agency information systems, each agency is free to design a system and purchase equipment which best serves its own operations. This type of systems development does not lend itself readily to interfacing one system with another. Therefore, when considering future interfaces with OBTS/CCH, the design as well as equipment compatibility must be considered.

2. Pg. 140: Auditor's Statement

(#7) Current planning for the JJIS system appears not to have considered the potential benefits of establishing an interface with OBTS/CCH, or the costs establishing an interface with OBTS/CCH, or the costs involved in doing so for each alternative design approach.

Response

Generally speaking, interfaces are established to update each others' systems. The HCJDC has serious concerns on what "interfacing" OBTS with JJIS entails. Juvenile information cannot be co-mingled with adult criminal records. One system is not used to update the other. The HCJDC does recommend, however, that "access" be granted to agencies to both systems, but that each should be maintained completely separately.

In addition, there are several references to the HCJDC's involvement in the development of the JJIS. The consultant fails to mention the serious concerns and obstacles in the proposed course of action in maintaining a "Multi-Systems Manager" type of juvenile information system. The auditor himself, during interviews, admitted that such a proposal was doomed to failure, although this is not reflected in his report, except as noted on page 149 that "the severe technical difficulties inherent in this design should be seriously reconsidered."

3. Pg. 141: Auditor's Statement

The report notes two alternatives for meeting criminal justice agency information needs. The first was to design an OBTS/CCH program to include all required information for all agencies, and that each agency would have an operational subsystem within OBTS/CCH.

The second alternative was for each agency to develop its own information system with summary (historical) information available through OBTS/CCH.

Response

Recognizing the fact that the second approach was taken, it can be readily understood why OBTS/CCH is not an operational system providing all conceivable types of information to all agencies.

4. Pg. 157: Auditor's Statement

The report states that ". . . reliance on DDS for this information (motor vehicle registration, driver's license, NCIC) instead of the State is, in part, due to problems with the quality and timeliness of OBTS/CCH data."

Response

This is an incorrect statement. The city has had management control over these systems from the 1960's, well before the state (and even the OBTS/CCH program) became automated.

The city would be opposed for the state to now take over the total responsibility for operating these systems, although many requests for state funds have been made by the city to pay for the maintenance costs.

5. Pg. 151: Auditor's Exhibit 7.1

Figure 7.1 displays minicomputer networks directly linked to OBTS/CCH.

Currently, the only minicomputer that accesses OBTS/CCH is the Hilo Prosecutor's WANG VS65. There are plans to authorize the Department of Correction's minicomputers to access OBTS/CCH, but this is not yet an accomplished fact.

CHAPTER 8

The Attorney General generally concurs with the findings and recommendations presented in this chapter. However, we strongly support the concept of a dedicated processor at EDPD for criminal justice information systems.

CHAPTER 9

1. Pg. 167: Auditor's Statement

The report states that the "evaluation methcd that was used and the resulting vendor selection do raise certain issues or concerns, and further, that the evaluation scoring system was based strongly on pricing . . ."

The report goes on to state that a vendor with an outstanding reputation or a very large installation base or who met mandatory requirements in an especially creative or efficient way did not receive more credit than one with an acceptable reputation or an adequate installation base or who met the same mandatory requirements in an acceptable way.

Response

What the consultant describes above is exactly what is required by the state's procurement statutes, case law and policies. Briefly stated, the Attorney General figured out what was really needed and that he was not willing to pay for unnecessary "gold plating."

Although the vendor selected may, at this time, be considered to be relatively small, it should be noted that IBM, which is the hardware supplier to the vendor, has made a backup guarantee in the event of failure by the vendor to deliver on part or all of its contractual obligations.

2. Pg. 171: Auditor's Statement

The report states that the difference in the adjusted price of the two bids was $350,000 or slightly over five percent.

Response

It is important to note that the actual price bids differed by nearly a million dollars or almost twenty percent. That reflects a savings of almost a million dollars by selecting a fully adequate system as offered by one vendor over a more-than-needed system as offered by the losing vendor.

For the record, the winning vendors price proposal was $6,705,915, while the losing vendors price proposal was $7,707,736.

3. Pg. 173: Auditor's Statement

The report state that a two-way interface between OBTS/CCH and AFIS is required, and that more frequent update cycles between the two systems are needed than those envisioned in the procurement.

Response

The Attorney General agrees that a two-way comparison of file contents is required between AFIS and OBTS/CCH. In fact, the comparison software will provide this two-way capability. The interface is one way only in the sense that AFIS can initiate the two-way comparison, but since both data bases are under the same management control, this is a distinction without a difference.

4. Pg. 35: Auditor's Statement (out of order)

The report recommends the use of a steering committee for direct administrative oversight of the AFIS.

Response

At the inception of the AFIS project, an Executive Committee (chaired by the Attorney General, with the four county police chiefs serving as members) was established to set the direction for plan development. The Executive Committee was given the assignment of providing overall guidance and direction to a Procurement Subcommittee, chaired by the HCJDC Administrator. This subcommittee was given the responsibility for fleshing out the detail of AFIS development.

It would appear that the recommendation to create a steering committee for "direct administrative oversight" would be unnecessary as the project seems to be well in-hand.

ATTACHMENT 3

JOHN WAIHEE
GOVERNOR

YUKIO TAKEMOTO
DIRECTOR

ROBERT P. TAKUSHI
DEPUTY DIRECTOR

THOMAS I. YAMASHIRO
DEPUTY DIRECTOR

DIVISIONS:
BUDGET, PLANNING AND MANAGEMENT
ELECTRONIC DATA PROCESSING
FINANCE
TELECOMMUNICATIONS

EMPLOYEES' RETIREMENT SYSTEM
HAWAII PUBLIC EMPLOYEES HEALTH FUND
OFFICE OF THE PUBLIC DEFENDER
PUBLIC UTILITIES COMMISSION

STATE OF HAWAII
DEPARTMENT OF BUDGET AND FINANCE
STATE CAPITOL
P.O. BOX 150
HONOLULU, HAWAII 96810-0150

Ref: 8753e

January 31, 1989

Mr. Newton Sue, Acting Legislative Auditor
465 S. King Street
Kekuanaoa Building
Suite 500
Honolulu, Hawaii 96813

Dear Mr. Sue:

Thank you for allowing us the opportunity to review and respond to the preliminary draft of the "Management Study of the State Criminal Justice Information and Identification Program."

One of the objectives of the audit report is to assess the operation and effectiveness of the Statewide Offender-Based Transaction Statistics/ Computerized Criminal History (OBTS/CCH) system. Since the OBTS/CCH system is processed on the State's central host computer located at the Electronic Data Processing Division (EDPD), the study contains findings and recommendations related to the computer services provided by Department of Budget and Finance (DB&F) through its Electronic Data Processing Division (EDPD). Our comments relate to the draft findings and recommendations of the study.

Adequate Shared Computer Support

We were pleased that the study finds that adequate computer services and support are being provided to the OBTS/CCH system by EDPD. Although there were several recommendations for improvements, we found no substantive issues or problems relating to data security, data integrity, on-line response time and computer system availability.

Since computer services appear to be sufficient to support the OBTS/ CCH system, we support the recommendation to eliminate from consideration, at this time, a dedicated computer at a new facility and decentralized processing environment for OBTS/CCH.

Concurrence with Findings and Recommendations

In general, DB&F concurs with the findings and recommendations in the following areas:

1. OBTS/CCH System Interfaces and Network (Chapter 7, p.22). The EDP Division is presently evaluating products that will allow users to initiate and operate concurrent sessions on their terminals.

2. Security, pg. 70. We concur with the recommendation and suggest that the Hawaii Criminal Justice Data Center consider the use of RACF, ADABAS, or application program security features to provide additional protection not available through the current application programs.

3. Assessment of networking trends (p. 140). We agree that the use of the microwave backbone network that is being installed by EDPD between Oahu and the neighbor islands will allow agencies to obtain increased transmission speeds, replace redundant communications lines, and support more users at lower costs. We will coordinate the migration to the use of the microwave facilities as recommended.

4. Networking trends (p.159). The study suggests that the communications links from users on the neighbor islands be be shifted to EDPD and use the cross-domain link to access the City and County as appropriate. The EDPD is willing to assist HCJDC in evaluating the feasibility and impact of this recommendation.

5. Dedicated Computer Resources (p. 165). The problem of system unavailability to ISC and the police be addressed by utilizing the ADABAS option that allows continued user inquiry into data files while system backup is proceeding. Version 5 of ADABAS includes the capability for continued query and update to the database during backup as a standard feature. This feature will be made available to the OBTS/CCH system upon installation of Version 5 planned for late 1989/early 1990.

6. Dedicated Computer Resources (p. 166). We will support the execution of a service level agreement between EDPD and the HCJDC to establish minimum service levels regarding system availability and minimum acceptable response times. We note, however, that the study did not find problems with level of support for the HCJDC and its OBTC/CCH system, except for a feature in the ADABAS software that has not yet been implemented in the State of Hawaii.

7. Separate and Dedicated CICS Region (p. 165). The study suggests that DB&F consider dedicating a CICS region to the OBTS/CCH system as the system becomes fully used and

operational. We are willing to consider a separate and dedicated CICS region for criminal justice information systems if it is required to ensure appropriate levels of response time and capability. However, there are many other problems and issues that will need to be resolved before dedicated resources will be required. For the present, we believe that the implementation of the ADABAS Version 5 capability will eliminate much of the need for such a separate CICS region for the OBTS/CCH system.

Inaccurate Findings

While we generally concur with most of the findings and recommendations in the study, there are two findings which are not accurate. The two findings are:

1. EDPD lacks resource utilization information.

2. EDPD lacks a resource utilization, performance monitoring, and capacity planning function.

Resource Utilization Information

Beginning in 1972 when the KOMANDS Job Accounting Software was first acquired, EDPD has maintained historical utilization data of key system resources by shift and peak and non-peak hours on a monthly basis to satisfy the requirements of Federal audits conducted on a periodical basis. Historical data, which includes job accounting and system utilization records, is kept on magnetic tape for 18 months.

The monthly reports for machine usage by project codes are also kept on hard copy printouts for five years. Another set of monthly reports by department and project codes which includes all machine usage, personnel time, and peripheral cost are kept on microfiche. The personnel time sheets are also archived for at least five years.

Information on resource utilization is made available to user agencies upon request. At the present time, several departments receive a machine utilization report for their respective departments on a daily, monthly, or fiscal year basis. Another department receives monthly machine usage statistics extracted to tape for processing on their computer.

Performance Monitoring and Capacity Planning

The study suggests that EDPD does not have a formal performance and capacity planning program. While the functions that are being performed can and need to be improved, it is incorrect to imply that the functions are not being performed.

Presently, the resource utilization, performance monitoring, and capacity planning functions are being performed by the Computer System

Services Branch using the information obtained through several software tools (Monitor, PAII, Debug/Apas, OMEGAMON, SMF/RMF, KOMANDS) that monitor and report on system utilization and performance.

For capacity planning purposes, the resource utilization information is supplemented with projection information that are obtained from State agencies and applications development staff. Unfortunately, much of the analysis requires manual calculation and extrapolation. Further, data provided by the department is not always accurate since agency personnel and consultants are often not trained to do resource estimation. However, the data collected is substantive and EDPD is required to assess capacity requirements during the yearly budget reviews. The analysis is substantive and often results in a long report. Graphs and other trend utilization tools are also included in the analysis for the budget process. As part of the capacity planning study prepared for the Hawaii Automated Welfare Information (HAWI) system, the State was commended for its capacity planning analysis and invited to give presentations on its techniques for other states in Washington DC.

At the same time, we recognize that there is a need to automate this process and provide tools to agencies and consultants to improve their capacity planning in the development process. The funding for the software is included in the Administration's budget request for FY 1989-90.

Once again, we appreciate the opportunity to review and respond to the draft study. If we can be of further assistance, please do not hesitate in contacting us.

Sincerely,

YUKIO TAKEMOTO
Director

JOHN WAIHEE
GOVERNOR

ATTACHMENT 4

Norman H. Okamura
CHAIRMAN

STATE OF HAWAII
DEPARTMENT OF THE ATTORNEY GENERAL
CRIMINAL JUSTICE DATA INTERAGENCY BOARD
KEKUANAO'A BUILDING, ROOM 101
465 SOUTH KING STREET
HONOLULU, HAWAII 96813

January 30, 1989

RECEIVED
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OFFICE OF THE AUDITOR
STATE OF HAWAII

Mr. Newton Sue
Acting Legislative Auditor
Office of the Legislative Auditor
465 S. King Street
Kekuanaoa Building
Suite 500
Honolulu, HI 96813

Dear Mr. Sue:

Thank you for allowing the Criminal Justice Data Interagency (CJDI) Board to review and respond to the draft of the "Management Study of the State Criminal Justice Information and Identification Program."

On January 20, 1989, the CJDI Board met to review the draft and respectfully offer the following comments:

General Comments

1. The Board finds that the study is generally correct in its assessment of the problems and issues associated with the OBTS/CCH system.

2. The Board also concurs with the overall findings and recommendations of the study.

3. The Board recognizes that there is a need to focus its attention on the substantive problems and issues of the OBTS/CCH.

4. The Board agrees that the problems and issues of the OBTS/CCH system will not be resolved without policy guidance and resources provided by the Hawaii State Legislature.

Specific Comments Related to the Board

1. The Board agrees with the overall analysis, findings, and recommendations made in the study specifically related to the Criminal Justice Data Interagency Board.

2. Summary and Findings (p.35)

   a. The Board agrees that ambiguities exist with respect to its nature, functions, authority, and responsibilities. The Board believes that it can and should play a more substantive role in providing leadership in the area but needs legislative clarification on its role as a policymaking or advisory body. The Board also needs clarification of its relationship with the Criminal Justice Data Center.

   b. The Board agrees that insufficient attention has been given to the substantive issues regarding the domain of criminal justice information and the OBTS/CCH system. The Board plans to conduct more meetings and focus on the substantive problems and issues and plans to coordinate with other related bodies such as the Juvenile Justice Information Board.

   c. The Board agrees that there is a need to extend its life.

   d. The Board notes that its composition is representative of the criminal justice organizations, although the role and responsibility of its representatives to their counterparts may need to be clarified.

   e. The Board agrees that there is a need for user steering committees to provide input into the priorities and design/operation of the OBTS/CCH system. However, legislative guidance and authority will be needed to establish the committees.

3. Recommendations (p.48)

   The Board concurs with the recommendations of the study with one caveat: rulemaking. The Board is unsure whether rulemaking should be transferred from the Department of Attorney General without specific clarification on the purpose and boundaries of the rulemaking authority. Should the Legislature clarify the role and responsiblity of the Board as requiring rulemaking, then, the Board will support the concept.

Other Comments

1. The Board strongly agrees that funding will be required to implement the recommendations contained in the study and notes that funds will be needed by agencies that have not been generally funded by the Legislature such as the county prosecutors and district court of the Judiciary.

2. There were erroneous statements regarding the placement of the National Computer Information Center system access. The Board believes that State funds should be made available for the system even though it is operated by the City and County of Honolulu.

3. In consideration of the magnitude of the study, this response could not address all of the concerns and interests of the Board. The Board would welcome the opportunity to discuss these at a later date.

In summary, the Board believes that "Management Study of the State Criminal Justice Information and Identification Program" is generally correct with respect to its assessment of problems and issues and its recommendations for action. The Board unanimously agrees that legislation is needed to clarify its role and responsibilities and believes that a stronger Board is needed.

Once again, we thank you for the allowing the Criminal Justice Data Interagency (CJDI) Board to review and respond to the draft study. If we can be of any further assistance, please do not hesitate in contacting us.

Respectfully submitted,

NORMAN OKAMURA
Chair of the Board

cc: Honorable John Waihee, Governor
Honorable Warren Price, Attorney General
Mr. Steven Vidinha, Director, HCJDC

APPENDICES

APPENDIX A

OBTS/CCH DATA ELEMENT DICTIONARY

Exhibit	Agency
1	Arresting Agency
2	Intake Service Center
3	Prosecutor's Office
4	District Court
5	Circuit Court
6	Community Correctional Center
7	Adult Probation
8	Hawaii Paroling Authority

ARRESTING AGENCY

OBTS/CCH DATA ELEMENT DICTIONARY

Agency Resp.	Data Element	Data Element Description	Function
POLICE DEPTS. & SHERIFF	NAME	Offender's name	ID Entry
"	SEX	Sex of the offender	" "
"	RACE	Ethnic origin of the offender	" "
"	DATE OF BIRTH	Birth date of the offender	" "
"	HEIGHT	Height of offender (feet & inches)	" "
"	WEIGHT	Weight of offender (pounds)	" "
HCJDC, HPD, & SHERIFFS	PLACE OF BIRTH	State/Country-offender birthplace	" "
"	SCARS/MARKS/ TATTOOS	Identifying scars, marks, tattoos	" "
"	SOC. SEC. NUM.	Offender's social security number	" "
"	FBI NUMBER	Number assigned to offender by the FBI	" "
"	FINGERPRINT CLASS	Henry classification - offender prints	" "
"	SID	State identification number	" "
"	ALIAS	Other names offender is known as	" "
"	MISC. NO.	Any other number offender has used	" "

ARRESTING AGENCY
OBTS/CCH DATA ELEMENT DICTIONARY

Agency Resp.	Data Element	Data Element Description	Function
POLICE & SHERIFFS	ARREST DATE	Date of arrest	Arrest Entry
"	WARRANT NUMBER	Warrant number if arrest based on a warrant	" "
"	ARREST CHARGE	Charge code	" "
"	CHARGE SEVERITY	Severity of the arrest charge	" "
"	CHARGE MODIFIER	Modifier to the arrest charge	" "
"	REPORT NUM.	Report number assigned by arresting agency	" "
"	ARREST DISP.	How offender is disposed of by arresting agency	" "
"	ARREST DISP. DATE	Date of the arrest disposition	" "
"	BAIL AMOUNT	If released on bail - amount of bail/bond	" "
"	TRACKING NO.	OBTS transmittal number	" "

INTAKE SERVICE CENTER
OBTS/CCH DATA ELEMENT DICTIONARY

Agency Resp.	Data Element	Data Element Description	Function
ISC	DETEN. FAC.	Detention facility for offender	Pre-Sentence Custody Entry
"	ISC CASE NO.	Case number assigned by ISC	" "
"	CUST. DISP	Disposition of offender from ISC	" "
"	DISP. DATE	Date of Custody disposition	" "
"	BAIL AMT	Bail/Bond amount posted	" "
"	OTN	Offender Tracking Number	" "

PROSECUTOR'S OFFICE
OBTS/CCH DATA ELEMENT DICTIONARY

Agency Resp.	Data Element	Data Element Description	Function
PROSECUTOR	PROS. CASE NUM	Case no. assigned by Prosecutor's Office	Prosecution/G. J. Office Entries
"	CHARGE FILED	Filing charge by Prosecutor	" "
"	CHARGE SEVERITY	Severity of the charge filed	" "
"	CHARGE MODIFIER	Modifier to the charge filed	" "
"	FILING DISP.	Filing type (indictment, complaint)	" "
"	FILING DISP. DATE	Date of filing	" "
"	G. J. HEARING DATE	If indicted, date of G. J. hearing	" "
"	G. J. RESULTS	Results of G. J. hearing	" "
"	OTN	Offender Tracking Number	" "

DISTRICT COURT

OBTS/CCH DATA ELEMENT DICTIONARY

Agency Resp.	Data Element	Data Element Description	Function
DISTRICT COURT	D.C. ARR. DATE	District court arraignment date	Court Entries
"	TYPE OF COUNSEL	Type of attorney representing offender	" "
"	COURT CASE NO.	Case number assigned by the Court	" "
"	CHARGE FILED	Charge filed in Court by Prosecutor	" "
"	CHARGE SEVERITY	Severity of charge filed	" "
"	CHARGE MODIFIER	Modifier to charge filed	" "
"	PLEA	Plea entered by offender of arr.	" "
"	D.C. ARR DISP	Disposition of case at arraignment	" "
"	DISP CHARGE	Charge if diff. from charge filed	" "
"	DISP CHARGE SEVERIT	Severity of the charge	" "
"	DISP. CHARGE MODIFIER	Modifier of the charge	" "
"	PRELIM DATE	Date preliminary hearing started	" "
"	PRELIM DISP	Disposition of case at prelim.	" "
"	PRELIM DISP DATE	Date disposition occurred	" "

DISTRICT COURT

OBTS/CCH DATA ELEMENT DICTIONARY

Agency Resp.	Data Element	Data Element Description	Function
DISTRICT COURT	TYPE OF TRIAL	Type of trial (Jury/Non-Jury)	Court Entries
"	TRIAL START DATE	Date trial started	" "
"	TRIAL END DATE	Date trial ended	" "
"	TRIAL DISP	Disposition of charges at trial	" "
"	PLEA CHANGE	Change of plea made by offender (after initial arraignment plea)	" "
"	SENT. DATE	Date offender was sentenced	" "
"	DAG RET. DATE	DAG return date for compliance	" "
"	FINE	Fine amount imposed at sentence	" "
"	FINE AMT. SUSP.	Amount of fine suspended	" "
"	PROBATION	Amount of probation time	" "
"	CONFINEMENT	Amount of time to be incarcerated	" "
"	METH OF CONF	Method of serving multi-charges	" "

DISTRICT COURT

OBTS/CCH DATA ELEMENT DICTIONARY

Agency Resp.	Data Element	Data Element Description	Function	
DISTRICT COURT	SUSP SENT	Time for which sentence is suspended	"	"
"	CR TIME SERV	Time credited for time already served	"	"
"	RESTITUTION	Restitution amount imposed at sentence	"	"
"	COMMUNITY SERVICE	Time the offender was sentenced to perform community service	"	"
"	DRIVER'S LICENSE SUSPENDED	Time the offender's driver's license was suspended	"	"
"	OTN	Offender Tracking Number	"	"

CIRCUIT COURT
OBTS/CCH DATA ELEMENT DICTIONARY

Agency Resp.	Data Element	Data Element Description	Function
CIRCUIT COURT	C.C. ARR DATE	Date offender arr. at Circuit Court	Court Entries
"	PLEA	Plea entered by offender at Circuit Court Arr.	" "
"	C.C. ARR DISP	Disposition at Circuit Court Arr.	" "
"	DISP CHARGE	Charge if diff. from charge filed	" "
"	DISP CHAR SEV	Severity of the charge	" "
"	DISP CHAR MOD	Modifier of the charge	" "
"	TYPE OF TRIAL	Type of trial (Jury/Non-Jury)	" "
"	TRIAL START DATE	Date trial started	" "
"	TRIAL END DATE	Date trial ended	" "
"	TRIAL DISP	Disposition of charges at trial	" "
"	PLEA CHANGE	Change of plea made by offender (after initial arraignment plea)	" "
"	SENT DATE	Date offender was sentenced	" "
"	DAG RET. DATE	DAG return date for compliance	" "

CIRCUIT COURT
OBTS/CCH DATA ELEMENT DICTIONARY

Agency Resp.	Data Element	Data Element Description	Function
CIRCUIT COURT	FINE	Fine amount imposed at sentencing	Court Entries
"	FINE AMT SUSP	Amount of fine suspended	" "
"	PROBATION	Amount of probation time	" "
"	CONFINEMENT	Amount of time to be incarcerated	" "
"	METH. OF CONF	Method of serving multi-charges	" "
"	SUSP. SENT	Time for which sent. is suspended	" "
"	CR TIME SERV	Time credited for time already served	" "
"	RESTITUTION	Restitution amount imposed at sentence	" "
"	TYPE OF COUNSEL	Type of Attorney representing offender	" "
"	COURT CASE NO	Case number assigned by the courts	" "
"	COMMUNITY SERVICE	Time the offender was sentenced to perform community service	" "
"	DRIVER'S LICENSE SUSPENDED	Time the offender's driver's license was suspended	" "
"	OTN	Offender Tracking Number	" "

COMMUNITY CORRECTIONS CENTER
OBTS/CCH DATA ELEMENT DICTIONARY

Agency Resp.	Data Element	Data Element Description	Function
CCC	POST-SENT CUST. STATUS	Status after sentence	Post-Sentence Custody Entry
"	POST-SENT CUST. DATE	Date of status entry	" "
"	CASE NO	Number assigned by post-sentence custody facility	" "
"	ACT. TIME SERV	Actual amount of time served	" "
"	DETEN FAC	Detention facility for offender - post-sentence	" "
"	OTN	Offender Tracking Number	" "

ADULT PROBATION DIVISION
OBTS/CCH DATA ELEMENT DICTIONARY

Agency Resp.	Data Element	Data Element Description	Function
ADULT PROBATION	SID	State Identification Number	Supervision Entries
"	SUPERVISION OFFICER	Name of the supervision officer	"
"	CLASSIFICATION CODE	The risk assessment that the officer assigns to the offender	"
"	STATUS CODE	Type of supervision the offender is on	"
"	SUPERVISION START DATE	Date the offender was placed on supervision	"
"	SUPERVISION END DATE	Date the offender's supervision should terminate	"
"	SUPERVISION TERMINATION STATUS	Reason the offender is no longer under supervision	"

HAWAII PAROLING AUTHORITY
OBTS/CCH DATA ELEMENT DICTIONARY

Agency Resp.	Data Element	Data Element Description	Function
HAWAII PAROLING AUTHORITY	PAROLE MINIMUM	Minimum time to be served	Parole Minimum Entry
"	OTN	Offender Tracking Number	"

APPENDIX B

OBTS/CCH ARREST REPORT

Exhibit	Agency
1	Original
2	Duplicate
3	Arrest and Disposition Copy
4	Prosecutor
5	Court Copy
6	ISC/CCC (Corrections) Copy
7	Ident Copy

STATE OF HAWAII
OBTS/CCH ARREST REPORT

☐ P.S. BOOKING ☐ OTHER BOOKING

S:
A:
B:

REPORT NO 1

STATE I.D. NO. 2	POLICE DEPT. 3	BOOKING NUMBER(S) 4	OBTS TRACKING NO. 5	DISTRICT NO. 6
			506611 3	

DEFENDANT'S NAME (LAST, FIRST, MIDDLE) 7	SEX 8	RACE 9	HISPANIC 10 YES ☐ NO ☐	AGE 11	DOB 12	HT. 13	WT. 14	HAIR 15	EYES 16

AKA (ALIAS) 17	SOC. SEC. NO. 18	OCCUPATION 19	EMPLOYER/LAST EMPLOYED 20

ADDRESS 21	BEAT 22	RES. PHONE 23	BIRTHPLACE 24	CITIZEN 25 YES ☐ NO ☐	YRS. IN STATE 26

MARITAL STATUS 27	SPOUSE'S NAME 28	NO. OF DEPENDENTS 29	GRADE COMPLETED 30	NAME OF SCHOOL ATTENDING 31
1 ☐ SINGLE 3 ☐ DIVORCED 5 ☐ WIDOW 2 ☐ MARRIED 4 ☐ SEPARATED				

PLACE OF OFFENSE 32	DATE/TIME/DAY 33	PREVIOUS ARREST (WHERE) 34	SOBRIETY OF DEFENDANT 35
			1 ☐ SOBER 3 ☐ DRUNK 2 ☐ HBD 4 ☐ NARCOTICS

PLACE OF ARREST/BOOKING 36	DATE/TIME/DAY 37	DISTRICT 38	CENSUS 39	BEAT 40	WATCH 41 1 ☐ 2 ☐ 3 ☐

CHG NO	ARRESTED FOR	FINAL CHARGE	MOD	CLASS	REPORT NO.	BAIL SET	RELEASED	BAIL/BOND POSTED	BY WHOM
	42	43	44	45	46	47	48	49	50
1						$		$	
2						$		$	
3						$		$	
4						$		$	
5						$		$	

NAME SEX AGE 51	C-COMPL. V-VICTIM W-WITNESS 52	ADDRESS 53	R-RESIDENT V-VISITOR 54	RES. PHONE 55	BUS. PHONE 56

HOW ARRESTED: ON VIEW 1 ☐ WARRANT 2 ☐ (WARRANT NO.) TURNED SELF IN 3 ☐ OTHERS 4 ☐ 57	APPARENT INJURIES (DESCRIBE) 58	TREATED ☐ REFUSED ☐ 59

ARRESTING OFFICER/ID NO. 60	ASSISTING OFFICER 61	TRANSPORTING OFFICER 62	HOLD FOR INVESTIGATION (LAST NAME IN SPACE) 63 DET. VICE OTHER(S)

VEH. USED	YEAR	MAKE	MODEL	COLOR	LIC. NO	STATE 64	DISPOSITION OF VEHICLE 65	DISPOSITION OF KEYS 66

REGISTERED OWNER 67	DRIVER LICENSE NO. STATE 68	☐ BLD ☐ BRTH ☐ PET	BAC 69	CLOTHING WORN 70

RECEIVED BY 71	DATE/TIME 72	BOOKING OFFICER 73	NO. ARRESTED 74

CHARGED/DISCHARGED BY 75	DATE/TIME 76	RELEASED BY 77	DATE/TIME 78	BAIL RECEIPT NOS 79

80 WARRANT CHECK 81 CUSTODIAL SEARCH 82

COURT/DATE/TIME:

PROPERTY 82a MEDICATION 82b

SYNOPSIS: 83

TELEPHONE CALLS 82c

#: _____ D/T: _____ OFCR _____

#: _____ D/T: _____ OFCR: _____

#: _____ D/T: _____ OFCR: _____

I DO NOT WISH TO MAKE A TELEPHONE CALL NOW.

SIGNATURE _____ DATE/TIME _____

DISPOSITION (RECORDS DIV.) 84 52 ☐ ARREST AND PROSECUTED 53 ☐ ARREST AND NOT PROSECUTED 54 ☐ ARREST, OUTSIDE DEPT.

REPORT WRITTEN BY:	BADGE/ID NO. 85	DATE/TIME 86	SUPERVISOR APPROVING	BADGE/ID NO. 87

HC/DC-100 APR 87

ARREST REPORT-ORIGINAL

STATE OF HAWAII
OBTS/CCH ARREST REPORT

F.P. CLASS

S:
A:
B:

☐ P.S. BOOKING ☐ OTHER BOOKING

REPORT NO. 1

STATE I.D. NO. 2	POLICE DEPT. 3	BOOKING NUMBER(S) 4	OBTS TRACKING NO. 5	DISTRICT NO. 6
			506611 3	

DEFENDANT'S NAME (LAST, FIRST, MIDDLE) 7	SEX 8	RACE 9	HISPANIC 10 YES ☐ NO ☐	AGE 11	DOB 12	HT. 13	WT. 14	HAIR 15	EYES 16

AKA (ALIAS) 17	SOC SEC NO. 18	OCCUPATION 19	EMPLOYER/LAST EMPLOYED 20

ADDRESS 21	BEAT 22	RES PHONE 23	BIRTHPLACE 24	CITIZEN 25 YES ☐ NO ☐	YRS IN STATE 26

MARITAL STATUS 27 1 ☐ SINGLE 2 ☐ MARRIED 3 ☐ DIVORCED 4 ☐ SEPARATED 5 ☐ WIDOW	SPOUSE'S NAME 28	NO OF DEPENDENTS 29	GRADE COMPLETED 30	NAME OF SCHOOL ATTENDING 31

PLACE OF OFFENSE 32	DATE/TIME/DAY 33	PREVIOUS ARREST (WHERE) 34	SOBRIETY OF DEFENDANT 35 1 ☐ SOBER 2 ☐ HBD 3 ☐ DRUNK 4 ☐ NARCOTICS

PLACE OF ARREST/BOOKING 36	DATE/TIME/DAY 37	DISTRICT 38	CENSUS 39	BEAT 40	WATCH 41 1 ☐ 2 ☐ 3 ☐

CHG NO	ARRESTED FOR 42	FINAL CHARGE 43	MOD 44	CLASS 45	REPORT NO. 46	BAIL SET 47	RELEASED 48	BAIL/BOND POSTED 49	BY WHOM 50
1						$		$	
2						$		$	
3						$		$	
4						$		$	
5						$		$	

NAME	SEX	AGE 51	C-COMPL V-VICTIM W-WITNESS 52	ADDRESS 53	R-RESIDENT V-VISITOR 54	RES PHONE 55	BUS. PHONE 56

HOW ARRESTED. ON VIEW 1 ☐ WARRANT 2 ☐ (WARRANT NO.) TURNED SELF IN 3 ☐ OTHERS 4 ☐ 57	APPARENT INJURIES (DESCRIBE) 58	TREATED ☐ REFUSED ☐ 59

ARRESTING OFFICER/ID NO 60	ASSISTING OFFICER 61	TRANSPORTING OFFICER 62	HOLD FOR INVESTIGATION (LAST NAME IN SPACE) 63 DET. VICE OTHER(S)

VEH. USED	YEAR	MAKE	MODEL	COLOR	LIC. NO.	STATE 64	DISPOSITION OF VEHICLE 65	DISPOSITION OF KEYS 66

REGISTERED OWNER 67	DRIVER LICENSE NO. STATE 68	☐ BLD ☐ BRTH ☐ RET BAC 69	CLOTHING WORN 70

RECEIVED BY 71	DATE/TIME 72	BOOKING OFFICER 73	NO ARRESTED 74

CHARGED/DISCHARGED BY 75	DATE/TIME 76	RELEASED BY 77	DATE/TIME 78	BAIL RECEIPT NOS. 79

80 | WARRANT CHECK 81 | CUSTODIAL SEARCH 82

COURT/DATE/TIME:

PROPERTY 82a | MEDICATION 82b

SYNOPSIS: 83

TELEPHONE CALLS 82c

#: _____ D/T: _____ OFCR: _____

#: _____ D/T: _____ OFCR _____

#: _____ D/T: _____ OFCR _____

I DO NOT WISH TO MAKE A TELEPHONE CALL NOW.

SIGNATURE _____ DATE/TIME _____

DISPOSITION (RECORDS DIV.) 84 | 52 ☐ ARREST AND PROSECUTED | 53 ☐ ARREST AND NOT PROSECUTED | 54 ☐ ARREST, OUTSIDE DEPT.

REPORT WRITTEN BY:	BADGE/ID NO. 85	DATE/TIME 86	SUPERVISOR APPROVING	BADGE/ID NO. 87

HCJDC-100 APR 87

ARREST REPORT-DUPLICATE

STATE OF HAWAII
OBTS/CCH ARREST REPORT

S:
A:
B:

☐ P.S. BOOKING ☐ OTHER BOOKING

REPORT NO.

STATE I.D. NO. 2	POLICE DEPT. 3	BOOKING NUMBER(S) 4	OBTS TRACKING NO. 5	DISTRICT NO.
			506611 3	

DEFENDANT'S NAME (LAST, FIRST, MIDDLE) 7	SEX 8	RACE 9	HISPANIC 10 YES ☐ NO ☐	AGE 11	DOB 12	HT. 13	WT. 14	HAIR 15	EYES 16

AKA (ALIAS) 17	SOC. SEC. NO. 18	OCCUPATION 19	EMPLOYER/LAST EMPLOYED 20

ADDRESS 21	BEAT 22	RES. PHONE 23	BIRTHPLACE 24	CITIZEN 25 YES ☐ NO ☐	YRS IN STATE 26

MARITAL STATUS 27	SPOUSE'S NAME 28	NO. OF DEPENDENTS 29	GRADE COMPLETED 30	NAME OF SCHOOL ATTENDING 31
1 ☐ SINGLE 3 ☐ DIVORCED 5 ☐ WIDOW 2 ☐ MARRIED 4 ☐ SEPARATED				

PLACE OF OFFENSE 32	DATE/TIME/DAY 33	PREVIOUS ARREST (WHERE) 34	SOBRIETY OF DEFENDANT 35
			1 ☐ SOBER 3 ☐ DRUNK 2 ☐ HBD 4 ☐ NARCOTICS

PLACE OF ARREST/BOOKING 36	DATE/TIME/DAY 37	DISTRICT 38	CENSUS 39	BEAT 40	WATCH 41 1 2 3
					☐☐☐

CHG. NO.	ARRESTED FOR 42	FINAL CHARGE 43	MOD 44	CLASS 45	REPORT NO. 46	BAIL SET 47	RELEASED 48	BAIL/BOND POSTED 49	BY WHOM 50
1						$		$	
2						$		$	
3						$		$	
4						$		$	
5						$		$	

NAME	SEX	AGE 51	C-COMPL. V-VICTIM W-WITNESS 52	ADDRESS 53	R-RESIDENT V-VISITOR 54	RES. PHONE 55	BUS. PHONE 56

HOW ARRESTED: ON VIEW 1 ☐ WARRANT 2 ☐ (WARRANT NO.) TURNED SELF IN 3 ☐ OTHERS 4 ☐ 57	APPARENT INJURIES (DESCRIBE) 58	TREATED ☐	REFUSED ☐ 59

ARRESTING OFFICER/ID NO. 60	ASSISTING OFFICER 61	TRANSPORTING OFFICER 62	HOLD FOR INVESTIGATION: (LAST NAME IN SPACE) DET. VICE OTHER(S) 63

VEH. USED	YEAR	MAKE	MODEL	COLOR	LIC. NO.	STATE 64	DISPOSITION OF VEHICLE 65	DISPOSITION OF KEYS 66

REGISTERED OWNER 67	DRIVER LICENSE NO.	STATE 68	☐ BLD ☐ BRTH ☐ REF	BAC 69	CLOTHING WORN 70

RECEIVED BY 71	DATE/TIME 72	BOOKING OFFICER 73	NO. ARRESTED 74

CHARGED/DISCHARGED BY 75	DATE/TIME 76	RELEASED BY 77	DATE/TIME 78	BAIL RECEIPT NOS. 79

80 WARRANT CHECK	81 CUSTODIAL SEARCH 82

COURT/DATE/TIME:

PROPERTY 82a	MEDICATION 82b

SYNOPSIS: 83

TELEPHONE CALLS 82c

#: _____ D/T: _____ OFCR: _____

#: _____ D/T: _____ OFCR: _____

#: _____ D/T: _____ OFCR: _____

I DO NOT WISH TO MAKE A TELEPHONE CALL NOW.

SIGNATURE _____ DATE/TIME _____

DISPOSITION (RECORDS DIV.) 84 — 52 ☐ ARREST AND PROSECUTED — 53 ☐ ARREST AND NOT PROSECUTED — 54 ☐ ARREST, OUTSIDE DEPT.

REPORT WRITTEN BY:	BADGE/ID NO. 85	DATE/TIME 86	SUPERVISOR APPROVING	BADGE/ID NO. 87

HCJDC-100 APR 87

ARREST AND DISPOSITION COPY

STATE OF HAWAII
OBTS/CCH ARREST REPORT

☐ P.S. BOOKING ☐ OTHER BOOKING

S:
A:
B:

REPORT NO

STATE I.D. NO	POLICE DEPT.	BOOKING NUMBER(S)	OBTS TRACKING NO. 506611 3	DISTRICT NO.

DEFENDANT'S NAME (LAST, FIRST, MIDDLE)	SEX	RACE	HISPANIC YES ☐ NO ☐	AGE	DOB	HT.	WT	HAIR	EYES

AKA (ALIAS)	SOC SEC. NO	OCCUPATION	EMPLOYER/LAST EMPLOYED

ADDRESS	BEAT	RES. PHONE	BIRTHPLACE	CITIZEN YES ☐ NO ☐	YRS IN STATE

MARITAL STATUS 1 ☐ SINGLE 2 ☐ MARRIED 3 ☐ DIVORCED 4 ☐ SEPARATED 5 ☐ WIDOW	SPOUSE'S NAME	NO. OF DEPENDENTS	GRADE COMPLETED	NAME OF SCHOOL ATTENDING

PLACE OF OFFENSE	DATE/TIME/DAY	PREVIOUS ARREST (WHERE)	SOBRIETY OF DEFENDANT 1 ☐ SOBER 2 ☐ HBD 3 ☐ DRUNK 4 ☐ NARCOTICS

PLACE OF ARREST/BOOKING	DATE/TIME/DAY	DISTRICT	CENSUS	BEAT	WATCH 1 ☐ 2 ☐ 3 ☐

CHG. NO	ARRESTED FOR	FINAL CHARGE	MOD	CLASS	REPORT NO.	BAIL SET	RELEASED	BAIL/BOND POSTED	BY WHOM
1						$		$	
2						$		$	
3						$		$	
4						$		$	
5						$		$	

NAME	SEX	AGE	C-COMPL. V-VICTIM W-WITNESS	ADDRESS	R-RESIDENT V-VISITOR	RES. PHONE	BUS. PHONE

HOW ARRESTED: ON VIEW 1 ☐ WARRANT 2 ☐ (WARRANT NO.) TURNED SELF IN 3 ☐ OTHERS 4 ☐	APPARENT INJURIES (DESCRIBE)	TREATED ☐	REFUSED ☐

ARRESTING OFFICER/ID NO.	ASSISTING OFFICER	TRANSPORTING OFFICER	HOLD FOR INVESTIGATION (LAST NAME IN SPACE) DET. VICE OTHER(S)

VEH. USED	YEAR	MAKE	MODEL	COLOR	LIC. NO.	STATE	DISPOSITION OF VEHICLE	DISPOSITION OF KEYS

REGISTERED OWNER	DRIVER LICENSE NO.	STATE	☐ BLD ☐ BRTH ☐ REF	BAC	CLOTHING WORN

RECEIVED BY	DATE/TIME	BOOKING OFFICER	NO. ARRESTED

CHARGED/DISCHARGED BY	DATE/TIME	RELEASED BY	DATE/TIME	BAIL RECEIPT NOS.

WARRANT CHECK | CUSTODIAL SEARCH

COURT/DATE/TIME:

CHG. NO.	PROSECUTOR CHARGE (IF DIFFERENT)	CHARGE CODE	MOD	CLASS	DISP. FILING	DISP. FILING DATE
1						
2						
3						
4						
5						

PROSECUTOR CASE NO.	GRAND JURY HEARING DATE	GRAND JURY RESULTS ☐ DECLINED ☐ WAIVED ☐ NO BILL ☐ TRUE BILL	ENTERED IN COMPUTER PROS YES ☐ NO ☐ GRAND JURY YES ☐ NO ☐

HCJDC-160 APR 87

PROSECUTOR COPY

STATE OF HAWAII
OBTS/CCH ARREST REPORT

☐ P.S. BOOKING ☐ OTHER BOOKING

S:
A:
B:

REPORT NO

STATE I.D. NO.	POLICE DEPT.	BOOKING NUMBER(S)	OBTS TRACKING NO.	DISTRICT NO.
			506611 3	

DEFENDANT'S NAME (LAST, FIRST, MIDDLE)	SEX	RACE	HISPANIC YES ☐ NO ☐	AGE	DOB	HT.	WT.	HAIR	EYES

AKA (ALIAS)	SOC SEC. NO	OCCUPATION	EMPLOYER/LAST EMPLOYED

ADDRESS	BEAT	RES. PHONE	BIRTHPLACE	CITIZEN YES ☐ NO ☐	YRS IN STATE

MARITAL STATUS 1 ☐ SINGLE 2 ☐ MARRIED 3 ☐ DIVORCED 4 ☐ SEPARATED 5 ☐ WIDOW	SPOUSE'S NAME	NO. OF DEPENDENTS	GRADE COMPLETED	NAME OF SCHOOL ATTENDING

PLACE OF OFFENSE	DATE/TIME/DAY	PREVIOUS ARREST (WHERE)	SOBRIETY OF DEFENDANT 1 ☐ SOBER 2 ☐ H&O 3 ☐ DRUNK 4 ☐ NARCOTICS

PLACE OF ARREST/BOOKING	DATE/TIME/DAY	DISTRICT	CENSUS	BEAT	WATCH 1 2 3 ☐☐☐

CHG NO	ARRESTED FOR	FINAL CHARGE	MOD	CLASS	REPORT NO	PLEA	PLEA CHG	D.C. ARR. DISP.	P.H. DISP.	C.C. ARR. DISP.	TRIAL DISP.
1											
2											
3											
4											
5											

NAME	SEX	AGE	C-COMP. V-VICTIM W-WITNESS	ADDRESS	R-RESIDENT V-VISITOR	RES. PHONE	BUS. PHONE

HOW ARRESTED: ON VIEW 1 ☐ WARRANT 2 ☐ (WARRANT NO.) TURNED SELF IN 3 ☐ OTHERS 4 ☐

APPARENT INJURIES (DESCRIBE)

TREATED ☐ REFUSED ☐

ARRESTING OFFICER/ID NO.	ASSISTING OFFICER	TRANSPORTING OFFICER	HOLD FOR INVESTIGATION (LAST NAME IN SPACE) DET. VICE OTHER(S)

VEH. USED	YEAR	MAKE	MODEL	COLOR	LIC. NO.	STATE	DISPOSITION OF VEHICLE	DISPOSITION OF KEYS

REGISTERED OWNER	DRIVER LICENSE NO.	STATE	☐ BLD ☐ BRTH ☐ RET BAC	CLOTHING WORN

CASE NO.(S)	D.C. ARRN. DATE	P.H. DATE

C.C. ARRN. DATE	TRIAL START DATE	TRIAL END DATE	SENTENCE DATE	TYPE COUNSEL	BAIL RECEIPT NOS.

DAG RETURN ☐ YES ☐ NO

TYPE TRIAL ☐ JURY ☐ NON-JURY

COURT/DATE/TIME:

CHG NO	FINAL CHARGE/CLASS (IF DIFFERENT)	FINE AMOUNT	FINE AMOUNT SUSPENDED	PROBATION PERIOD	PROB METHOD	CONFINEMENT PERIOD	CONFIN. METHOD	CONFINEMENT PERIOD SUSPENDED	SENTENCING SUSPENDED FOR	REST.	COMM SVC	D.L. SUSP	IF DAG, RTN DATE	IF DAG, DSM DATE
1														
2														
3														
4														
5														
6														
7														

KCJDC-139 APR 87

COURT COPY

STATE OF HAWAII
OBTS/CCH ARREST REPORT

☐ P.S. BOOKING ☐ OTHER BOOKING

S:
A:
B:

REPORT NO.

STATE I.D. NO	POLICE DEPT.	BOOKING NUMBER(S)	OBTS TRACKING NO. 506611 3	DISTRICT NO.

DEFENDANT'S NAME (LAST, FIRST, MIDDLE)	SEX	RACE	HISPANIC YES ☐ NO ☐	AGE	DOB	HT.	WT.	HAIR	EYES

AKA (ALIAS)	SOC. SEC. NO.	OCCUPATION	EMPLOYER/LAST EMPLOYED

ADDRESS	BEAT	RES. PHONE	BIRTHPLACE	CITIZEN YES ☐ NO ☐	YRS. IN STATE

MARITAL STATUS 1 ☐ SINGLE 2 ☐ MARRIED 3 ☐ DIVORCED 4 ☐ SEPARATED 5 ☐ WIDOW	SPOUSE'S NAME	NO. OF DEPENDENTS	GRADE COMPLETED	NAME OF SCHOOL ATTENDING

PLACE OF OFFENSE	DATE/TIME/DAY	PREVIOUS ARREST (WHERE)	SOBRIETY OF DEFENDANT 1 ☐ SOBER 2 ☐ H&D 3 ☐ DRUNK 4 ☐ NARCOTICS

PLACE OF ARREST/BOOKING	DATE/TIME/DAY	DISTRICT	CENSUS	BEAT	WATCH 1 ☐ 2 ☐ 3 ☐

CHG. NO.	ARRESTED FOR	FINAL CHARGE	MOD	CLASS	REPORT NO.	BAIL SET	DISP.	BAIL/BOND POSTED	DISP. DATE
1						$		$	
2						$		$	
3						$		$	
4						$		$	
5						$		$	

NAME	SEX	AGE	C-COMPL. V-VICTIM W-WITNESS	ADDRESS	A-RESIDENT V-VISITOR	RES. PHONE	BUS. PHONE

HOW ARRESTED: ON VIEW 1 ☐ WARRANT 2 ☐ (WARRANT NO.) TURNED SELF IN 3 ☐ OTHERS 4 ☐

APPARENT INJURIES (DESCRIBE) — TREATED ☐ REFUSED ☐

ARRESTING OFFICER/ID NO.	ASSISTING OFFICER	TRANSPORTING OFFICER	HOLD FOR INVESTIGATION (LAST NAME IN SPACE) DET. VICE OTHER(S)

VEH. USED	YEAR	MAKE	MODEL	COLOR	LIC. NO.	STATE	DISPOSITION OF VEHICLE	DISPOSITION OF KEYS

REGISTERED OWNER	DRIVER LICENSE NO.	STATE	☐ BLD ☐ BRTH ☐ RET BAC	CLOTHING WORN

RECEIVED BY	DATE/TIME	BOOKING OFFICER	NO. ARRESTED

CHARGED/DISCHARGED BY	DATE/TIME	RELEASED BY	DATE/TIME	BAIL RECEIPT NOS.

WARRANT CHECK | CUSTODIAL SEARCH

COURT/DATE/TIME:

PROPERTY | MEDICATION

SYNOPSIS:

TELEPHONE CALLS

#: _____ D/T: _____ OFCR: _____

#: _____ D/T: _____ OFCR: _____

#: _____ D/T: _____ OFCR: _____

I DO NOT WISH TO MAKE A TELEPHONE CALL NOW

SIGNATURE _____ DATE/TIME _____

FACILITY	DATE ADMITTED	INTERNAL REFERRAL TO:	DATE REFERRED	RECEIVED BY	DATE RECEIVED
ISC/CCC CASE NO.		REASON FOR REFERRAL		COMMENTS	

NCJIDC-105 APR 87

ISC / CCC (CORRECTIONS) COPY

STATE OF HAWAII
OBTS/CCH ARREST REPORT

F.P. CLASS

S:
A:
B:

☐ P.S. BOOKING ☐ OTHER BOOKING

REPORT NO

STATE I.D. NO	POLICE DEPT.	BOOKING NUMBER(S)	OBTS TRACKING NO. 506611 3	DISTRICT NO.

DEFENDANT'S NAME (LAST, FIRST, MIDDLE)	SEX	RACE	HISPANIC YES ☐ NO ☐	AGE	DOB	HT	WT	HAIR	EYES

AKA (ALIAS)	SOC SEC NO	OCCUPATION	EMPLOYER/LAST EMPLOYED

ADDRESS	BEAT	RES PHONE	BIRTHPLACE	CITIZEN YES ☐ NO ☐	YRS IN STATE

MARITAL STATUS 1 ☐ SINGLE 2 ☐ MARRIED 3 ☐ DIVORCED 4 ☐ SEPARATED 5 ☐ WIDOW	SPOUSE'S NAME	NO OF DEPENDENTS	GRADE COMPLETED	NAME OF SCHOOL ATTENDING

PLACE OF OFFENSE	DATE/TIME/DAY	PREVIOUS ARREST (WHERE)	SOBRIETY OF DEFENDANT 1 ☐ SOBER 2 ☐ HBD 3 ☐ DRUNK 4 ☐ NARCOTICS

PLACE OF ARREST/BOOKING	DATE/TIME/DAY	DISTRICT	CENSUS	BEAT	WATCH 1 ☐ 2 ☐ 3 ☐

CHG NO	ARRESTED FOR	FINAL CHARGE	MOD	CLASS	REPORT NO.	BAIL SET	RELEASED	BAIL/BOND POSTED	BY WHOM
1						$		$	
2						$		$	
3						$		$	
4						$		$	
5						$		$	

SCARS, MARKS, TATTOOS, ETC. (DESCRIBE)

CLOTHING WORN

PHOTO BY	BADGE/ID NO.	FINGERPRINTED BY	BADGE/ID NO.

WARRANT CHECK | CUSTODIAL SEARCH

COURT/DATE/TIME:

LEFT FOUR FINGERS	LEFT THUMB	RIGHT THUMB	RIGHT FOUR FINGERS

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IDENT COPY

APPENDIX C

GLOSSARY OF TECHNICAL TERMS

ADABAS--A relational data base management system.

Bisynchronous--A communications protocol used by IBM computers, not included in the System Network of Architecture suite of protocols.

Broadband--A particular type of network topology utilizing cable tv-type coaxial cable and modulation.

CICS--Customer Information Control System, a control program which provides communication services between the host computer and attached terminals in an IBM mainframe environment.

Full Duplex/Half Duplex--Describes a physical characteristic of a communications line that is, whether signals can travel in both directions simultaneously or first in one direction, then the other.

IMS--Information Management System, a hierarchical data base management system.

ISAM--Indexed Sequential Access Method, a file organization type, no longer frequently used.

Modem--Modulator/de-modulator, a device used to convert digital communications signals to analog signals for transmission over telephone lines.

MVS/SP, MVS/XA, VM/XA--Operating systems which run on IBM mainframe computers.

Natural--A fourth-generation programming language which utilizes the ADABAS data base system.

SDLC--System Data Link Control, a communications protocol used by IBM computers, included in the Systems Network Architecture.

SDM/70--Commercially available reference material outlining the steps in the development methodology of computer software systems.

SNA--Systems Network Architecture, a suite of communications protocols developed by IBM. SNA is the major networking architecture used by IBM.

TSO--Time Sharing Option, a programming environment, or set of programmer productivity tools, used on IBM mainframe computers.

VTAM--Virtual Terminal Access Method, a control program, part of the Systems Network Architecture.

3270-Type device--Any terminal or printer which conforms to the terminal transmission protocol used by IBM 3270 terminals.