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OFFICE OF THE STATE AUDITOR'S REPORT
ON THE INFORMATION TECHNOLOGY CONTROLS
AT THE LAND COURT DEPARTMENT

July 1, 2004 to September 8, 2006

**OFFICIAL AUDIT
REPORT
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INTRODUCTION

The Land Court Department (referred to as the Court), which was established under Section One of Chapter 211B, is one of seven departments that comprise the Trial Court of the Commonwealth. The Massachusetts Trial Court was created by Chapter 478 of the Acts of 1978, which reorganized the courts into seven Trial Court Departments: the Boston Municipal Court, the District Court, the Housing Court, the Juvenile Court, the Probate and Family Court, the Superior Court, and the Land Court. Although the Land Court Department has statewide jurisdiction, the justices of the Land Court normally sit in Boston. However, where the circumstances warrant and counsel request a change in location, the Land Court does hold trials in other court facilities within the state.

The mission of the Land Court is to provide citizens of Massachusetts with a forum for the resolution of their property interests. The Land Court's objective is to provide for pertinent hearings and the issuance of timely, legally competent decisions. As of April 1, 2006, the Land Court was comprised of 57 employees with an annual budget for fiscal year 2006 of \$2,386,331 and retained revenue of \$163,148.

The Court has exclusive, original jurisdiction over the registration of title to real property and over all matters and title disputes concerning registered land. The registration of a title occurs when the Land Court, after having a court-appointed examiner exhaustively search the title, and after due process is afforded to all interested parties, adjudicates and decrees the state of the title. The Court also exercises exclusive original jurisdiction over the foreclosure and redemption of real estate tax liens, and on January 1, 2003, received jurisdiction over the specific performance of contracts relating to real estate and petitions for partition of real estate. The Court shares jurisdiction over other property matters with certain other court departments. Specifically, the Land Court shares jurisdiction regarding decisions by local planning boards and zoning boards of appeal. Both the Land Court and the Superior Court have jurisdiction over the processing of mortgage foreclosure cases in determining the military status of the mortgagor. Additionally, the Court has supervisory authority over the registered land office in each registry of deeds. Furthermore, effective August 2, 2006, under Chapter 205 of the Acts of 2006, the Legislature increased the Land Court's jurisdiction by creating a "permit session" to hear certain environmental zoning appeal cases.

The Land Court Department consists of five associate justices and one Chief Justice. The Chief Justice for the Land Court Department, in addition to his/her judicial powers and duties, is subject to the superintendence authority of the Supreme Judicial Court and acts as the administrative head of the Land Court Department. The Chief Justice for the Land Court Department has the power, authority, and responsibility of a chief justice as set forth in Section Ten of Chapter 211B.

The Land Court has adopted the Administrative Office of the Trial Court's (AOTC) Information Technology mission statement to use stable, proven computer technologies in support of its operations, and to maintain a better, more effective communication system. The Land Court's primary administrative information technology (IT) services are supported by the Administrative Office Trial Court Information Systems Department. The Land Court's network consists of two file servers, a Linux server and an NT server located within the server room at the Land Court Department. These servers connect the 104 workstations and 46 printers located throughout the Land Court. The workstations are located in administrative offices, courtrooms, training room, and in the public area. The Linux network is used to connect all workstations in the administrative and legal section of the Land Court and provides connectivity to the AOTC MassCourt application. The NT server is used to connect all workstations in the Court's surveying section.

At the time of our audit, the primary application system was the MassCourts system. The Land Court's version of the MassCourts system is a modified version of the Civil segment of this software application, which was installed and became operational at the Land Court in February 2005. MassCourts is used to manage and track cases from the initial filings to the final resolution or decision stage and also includes financial components of case filings. The Land Court's legal section also uses Windows XP Professional as its operating system and the Microsoft Office 2002 software application suite. The Department's Court Administrator and Recorder monitor the progress of cases through the MassCourts System. For the fiscal year ending June 30, 2006, the Land Court recorded approximately 17,800 filings and disposed over 17,600 cases.

The Office of the State Auditor's examination focused on an assessment of the Land Court's use of the MassCourts System and an examination of certain IT-related general controls.

AUDIT SCOPE, OBJECTIVES, AND METHODOLOGYAudit Scope:

From March 31, 2006 through September 8, 2006, we performed an audit at the Land Court Department covering the period of July 1, 2004 through September 8, 2006. Our audit included an examination of IT-related internal controls for organization and management, physical security, environmental protection, system access security, inventory of computer equipment, disaster recovery and business continuity planning, and on-site and off-site storage of backup copies of magnetic media. Our audit also included a general review and assessment of the operation of the new information technology system (MassCourts) installed by the Trial Court within the Land Court Department. The review of the MassCourts system consisted of an assessment of the application system for data reliability, ease of use for data entry and obtaining information, and management and staff user satisfaction.

Audit Objectives:

Our primary objective was to determine whether adequate controls were in place and in effect for selected functions in the IT processing environment. We sought to determine whether the Land Court's IT-related internal control framework, including policies, procedures, practices, and organizational structure, provided reasonable assurance that IT-related control objectives would be achieved to support business functions.

Our audit objective regarding IT organization and management was to determine whether IT-related roles and responsibilities for IT staff were clearly defined, points of accountability were established, appropriate organizational controls were in place, and whether IT-related policies and procedures adequately addressed the areas under review. We determined whether adequate physical security controls were in place and in effect to restrict access of IT resources to only authorized users to prevent unauthorized use, damage, or loss of IT-related assets. We also determined whether sufficient environmental protection controls were in place to prevent and detect damage to, or loss of, computer equipment and data residing on the systems.

Our objective regarding system access security was to determine whether adequate controls had been implemented to provide reasonable assurance that only authorized users were granted access to the Court's application systems, including the MassCourts application and the Microsoft suite application, and data files. We evaluated whether procedures were in place to prevent and detect

unauthorized user access to automated systems and IT resources, including the MassCourts application, through the local area network (LAN) file servers, and microcomputer workstations. In addition, we determined whether the MassCourts system data was sufficiently protected against unauthorized disclosure, modification, or deletion, and whether the Court was actively monitoring password administration.

Our objective with respect to the Court's computer equipment inventory was to determine whether adequate controls were in place to provide reasonable assurance that IT resources were properly accounted for in an inventory record and safeguarded against unauthorized use, theft, or damage. With regard to system availability, we sought to determine whether appropriate controls were in place to provide reasonable assurance that required IT processing and data file access could be regained within an acceptable period of time should IT systems be rendered inoperable or inaccessible. We also determined whether adequate provisions for on-site and off-site storage of backup copies of magnetic media were in effect to assist recovery efforts.

We sought to review and assess the operation of the new information technology system (MassCourts) installed by the Administrative Office of the Trial Court (AOTC) within the Land Court Department and to determine whether the MassCourts application system supports the mission of the Land Court by providing a comprehensive approach to case management information and that the data in the system is accurate, valid, complete, and readily available.

Audit Methodology:

To determine the audit scope and objectives, we performed pre-audit steps, which included obtaining and recording an understanding of the Land Court's relevant operations and information technology control environment. We reviewed documentation regarding the Land Court's mission, operations, and IT organization and management. We interviewed the Land Court's Court Administrator, Recorder, Head Account Clerk, Systems Administrator, and other Land Court staff. To accomplish a preliminary review of the adequacy of general controls over IT-related functions and resources, we evaluated the degree to which the Land Court had documented, authorized, and approved IT-related control policies and procedures. We obtained an understanding of computer operations at the Land Court Department and conducted a site visit to the file server room and other areas housing computer equipment. To assess the adequacy of general controls regarding IT-related operations, we interviewed Land Court staff, observed operations, and performed selected audit tests. We performed a high-level risk analysis and

assessed the strengths and weaknesses of selected IT internal controls. Upon completion of our pre-audit work, we determined the scope and objectives of the audit.

Regarding our review of IT organization and management, we interviewed senior management, examined the Court's organizational structure with respect to IT operations, reviewed and analyzed IT policy and procedure documentation, and assessed relevant IT-related general controls and practices. To evaluate the IT organizational structure, we determined whether IT-related roles and responsibilities were clearly defined, points of accountability were established, and whether appropriate organizational controls were in place for IT staff. We also reviewed the job description for the System Administrator to determine whether it was up-to-date, adequately documented IT responsibilities, and had been reviewed and approved by Land Court management.

To evaluate physical security, we determined whether controls were in place and in effect to help prevent unauthorized persons from gaining access to the server room and areas housing IT resources, and whether authorized personnel were specifically instructed in physical security policies and procedures. We assessed the Court's physical security controls and determined the extent to which physical access was restricted for areas housing IT-related equipment through daily observations during the course of the audit, interviews, completing checklists, and by conducting a walk-through of the server room and other areas housing computer equipment, such as courtrooms, administrative offices, and the training room.

To determine whether adequate environmental controls were in place to properly safeguard automated systems from loss or damage, in the server room and various areas housing workstations, we conducted walk-throughs and checked for the presence of smoke and fire detectors, fire alarms, fire suppression systems (i.e., sprinklers and fire extinguishers), a UPS, and emergency generators and lighting. To determine whether proper temperature and humidity controls were in place, we inspected the server room for the presence of appropriate dedicated air conditioning, heating, and ventilation systems. In addition, we reviewed environmental protection controls related to general housekeeping procedures in the server room and selected areas housing workstations.

To determine whether the Land Court's control practices regarding system access security adequately prevented unauthorized access to automated systems, we initially sought to obtain

policies and procedures regarding system access and data security. Our examination of system access security included a review of access privileges by those employees authorized to access the automated systems, as well as access privileges granted to the public. To determine whether existing system-based access privileges were authorized and reflected current responsibilities, we reviewed procedures for granting and updating system access. To determine whether access security was being properly maintained through the management of user-IDs and passwords, we interviewed the System Administrator, reviewed supporting documentation, and assessed the level of access security being provided. We determined whether procedures were in place to ensure that the System Administrator was promptly and properly notified when a change in personnel status (i.e., employment termination, job transfer, or leave of absence) occurred so that the user-ID and password could be promptly deactivated system or the individual's access privileges could be appropriately modified in a timely manner. In addition, we compared and verified the list of staff authorized to access automated systems to a list of current Land Court employees. We also reviewed user profiles and the Court's policy and procedures to determine whether the access privileges granted to personnel were appropriate with respect to job functions and responsibilities.

To determine whether adequate controls were in place and in effect to properly account for the Land Court's computer equipment, we reviewed inventory control policies and procedures and requested and obtained the Land Court's inventory system of record for computer equipment. We obtained and reviewed the inventory record containing computer equipment that supports the Land Court's operations. To determine whether the Land Court's IT-related asset inventory records were current, accurate, and valid, we compared and verified 104, or 100%, of the towers (CPU's) appearing on the computer hardware inventory list to the actual computer hardware on hand.

We also judgmentally selected a floor to list sample of monitors, printers and scanners. Thirty-four of 108 monitors and 35 of 46 printers and scanners were sampled and the information taken from the items located on the floor was verified to the information on the inventory list. We also assessed the integrity of the inventory record by examining the inventory record for appropriate information, and evaluating whether the Land Court conducted an annual physical inventory and reconciliation of IT-related assets. To evaluate whether the system of record accurately and completely reflected the items of computer equipment, we verified the location, description,

inventory tags and serial numbers of the hardware items listed on the inventory record to the actual equipment on hand.

To assess the adequacy of disaster recovery and business continuity planning, we reviewed the level of planning and the procedures for resuming computer operations in the event that the automated systems become inoperable or inaccessible. We interviewed Land Court's management to determine whether the criticality of application systems had been assessed, whether a risk analysis of computer operations had been performed, and whether a documented business continuity plan was in place and, if so, whether it had been adequately tested. Further, to evaluate the adequacy of controls to protect data files through on-site and off-site storage of back-up copies of magnetic media and hardcopy files, we interviewed Land Court and AOTC staff regarding the generation and storage of backup copies of computer-related media.

To determine whether the MassCourts application system supports the mission of the Land Court by providing a comprehensive approach to case management information, we conducted a post-implementation review to determine whether the system was meeting user needs, or if changes were required. We accomplished this through personnel interviews, user surveys, directly obtaining information from the system, and reviewing data integrity by comparing system data to original source documentation for case files. To determine whether adequate internal controls were in place over data integrity and that the data in the system was complete, accurate, valid, and readily available in the MassCourts System, we selected a statistical sample (95% confidence level with an error rate of 5%) from a system generated report of open cases entered into the system from March 31, 2004 to May 30, 2006. Our sample size of 73 cases selected from a total population of approximately 25,000 cases was tested to ascertain case number, date filed, case type, plaintiff, defendant, attorneys, judge, last event, fees, and other docketed items. For each case selected, we compared data from actual hard copy source documents and docket folders to information in MassCourts electronic docket file data to evaluate the accuracy and completeness of the recorded data. During our review of the case files, we also determined the status of pending cases recorded on the MassCourts system.

Our audit was conducted in accordance with Generally Accepted Government Auditing Standards (GAGAS) issued by the Comptroller General of the United States through the U.S. Government Accountability Office and generally accepted industry practices. The audit criteria used for our control examinations were based on applicable legal requirements, control objectives, and

generally accepted IT control practices found in Control Objectives for Information and Related Technology (CobiT), and Office of the Massachusetts Comptroller's "Internal Control Guide for Departments" promulgated under Chapter 647 of the Acts of 1989.

AUDIT CONCLUSION

Our audit of the Land Court Department (Court) determined that adequate control practices were in place and in effect to provide reasonable assurance that business objectives would be met in the areas of IT organization and management, physical security, environmental protection, system access security, and the inventory control for computer equipment. Regarding the availability of automated systems, the Court, in conjunction with the Administrative Office of the Trial Court (AOTC), needs to assess, develop, document, and test a comprehensive disaster recovery strategy to provide reasonable assurance that business operations could be regained in a timely manner should automated systems be rendered inoperable or inaccessible. Our review of the MassCourts application system indicated that the system provides the Court with a comprehensive and integrated case management approach to support the Court's mission and business objectives. Although, data within the MassCourts system had appropriate data integrity based on our tests, we found that the MassCourts application system could be modified to improve operational functionality for data entry and printing of information or reports. In addition, the Land Court was able to identify by case number a significant backlog of unresolved cases as a result of the migration of old cases into the MassCourts application system.

Our review of the Land Court's organization and management over IT-related activities disclosed that the primary IT functions were supported and maintained by the Administrative Office Trial Court's Information Systems Department. Our review revealed that there was adequate segregation of duties among Land Court employees for the MassCourts functions, points of accountability had been established for IT activities, and a documented job description for the System Administrator detailing duties and areas of responsibility was available. During our review we did note one area of weakness in segregation of duties in the area of fiscal controls related to the MassCourts System. The Head Account Clerk, who performs the end-of-month verification of cash receipt postings to the MassCourts system, also reconciles these results to the bank statements. The Land Court management was addressing this weakness at the end of the audit period through cross training of staff to allow for adequate segregation of duties and back-up coverage.

Our audit revealed that physical security controls throughout the Land Court provided reasonable assurance that IT resources were adequately protected against unauthorized physical intrusion or theft. We found that security to the entrance of the Land Court was adequate, since all visitors

are required to pass through a metal detector, and a hand-held magnetometer inspection when entering the Land Court. Moreover, all packages are scanned through an X-ray machine. We observed that the Land Court uses remote cameras and intrusion alarms throughout the secured courtroom areas. Land Court management maintained a list of individuals having keycards for offices, courtrooms and areas housing IT-resources throughout the Land Court Department. Our review revealed that only authorized personnel were able to gain access to these areas.

Our review revealed that there were adequate environmental protection controls in place and operating within the Land Court's offices, courtrooms, and the file server room with respect to general housekeeping, heating, ventilation, air conditioning, emergency lighting, and smoke and heat detectors. The fire alarm system was connected to the local fire department. Hand-held fire extinguishers (inspected annually) were located in strategic areas throughout the Land Court offices. An uninterruptible power supply (UPS) was installed and regular battery status assessments were made to provide backup electrical power for a limited time should a power failure occur. Based upon interviews of Land Court management and our review of the Building Manager's emergency evacuation plan and related tests of the plan, we found the plan to be adequate for the Court.

Our review of system access security controls revealed that adequate control practices were in place to provide reasonable assurance that only authorized users were granted access privileges to the MassCourts application system and the Microsoft Office Suite products residing on the Land Court's file servers. Our audit revealed that the Land Court's System Administrator had removed access privileges for individuals no longer employed by the Land Court in a timely manner. We also found that for the MassCourts application access privileges to the AOTC network were removed by the AOTC help desk in a timely manner, as evidenced by information provided by the Land Court's System Administrator. Land Court management has also established procedures to ensure that the levels of access to the MassCourts application systems are appropriate for individual job classifications and responsibilities. However, we found that Land Court personnel were not required to change their passwords on the AOTC network, and there was no indication that password administration was being monitored. There were limited written policies and procedures contained in the AOTC's "Internal Control Guidelines Section 2.3.1" that outline parameters for password administration. AOTC issued Information Technology Policy #1 on August 13, 2003, which formalized certain policies regarding IT-related security policies and procedures for all Court employees. Due to the possible confidential nature

of the information residing on the AOTC's application systems, policies and procedures for password administration should be strengthened and communicated to appropriate Court personnel. We recommend that the Land Court, in conjunction with AOTC, establish specific password administration policies, standards, and procedures and then implement a process to monitor the compliance of the established guidelines.

Regarding inventory control, we found that the Court's control policies and procedures would provide reasonable assurance that computer equipment at the Land Court would be properly safeguarded, accounted for in the inventory record, and reported on when appropriate to the Administrative Office of the Trial Court. Specifically, the Land Court maintained an up-to-date inventory record with proper fields of information, and performed an annual physical inventory and reconciliation.

Regarding system availability, our review indicated that controls pertaining to disaster recovery and business continuity planning need to be strengthened. We found that the Court, in conjunction with AOTC, did not have comprehensive documented plans to address disaster recovery and business continuity for automated operations that would provide reasonable assurance that the criticality of systems are evaluated, business continuity requirements are assessed on a regular basis, and appropriate user area plans are developed for the applications residing on the computer systems. The Land Court, in conjunction with AOTC, did have procedures in place for the generation of back-up copies of magnetic media for on-site and off-site storage to assist in recovery efforts. Although certain procedures were in place, the Court had never formally documented procedures in a comprehensive user area plan to help ensure the resumption of IT processing activities in the event of a disaster or emergency. Our audit indicated that AOTC needed to provide clear instructions or plans to the Land Court to ensure continuity of IT and business operations should the Land Court's systems become inoperable or inaccessible.

Our review and assessment of the operations of this version of the MassCourts application system installed by the AOTC within the Land Court Department indicated that the MassCourts application supports the mission of the Land Court by providing a comprehensive approach to case management information and that the system data tested was complete, accurate, valid, and readily available. However, we determined that the data entry and screen maneuverability, and printing of docket information or reports functions of the MassCourt application were viewed as

less than adequate based on our interviews and user satisfaction surveys. The Land Court, in conjunction with AOTC, needs to enhance the screen navigation through the MassCourts application and evaluate the print queuing function to enhance the operational needs of the Land Court Department.

We noted that a significant backlog of 66,289 cases existed, many of which may be inactive or cases that should be closed or reclassified. The Court Administrator needs to address the matter to ensure timely processing of these cases. We also noted that the average number of cases filed for fiscal years 2004 and 2005 was about 13,000 cases and that the number of cases filed for the fiscal year ending 2006 was approximately 17,800. As a result of the increase of current case filings, the Land Court may not have the ability or resources to properly manage, classify, or close these backlog cases.

AUDIT RESULTS

1. Business Continuity Planning

Our audit revealed that the Land Court, in conjunction with the AOTC, had not developed a formal business continuity plan that would provide reasonable assurance that mission-critical data processing operations could be regained effectively and in a timely manner. Furthermore, the Court had not comprehensively assessed the relative criticality of the automated systems supporting Court operations to determine the extent of potential risks and exposures to business operations. According to AOTC, the Land Court's file servers and desktops are backed up on a daily basis by AOTC through the network. Although the AOTC could provide backup copies of magnetic media for the business functions processed through its file servers, our audit revealed that the Land Court, in conjunction with AOTC, had not developed formal user area contingency plans to address a potential loss of automated processing. Without adequate disaster recovery and contingency planning, including required user area plans, the Court is at risk of not being able to regain access to network applications and IT processing. A loss of processing capabilities could adversely affect the Land Court's ability to perform its primary business functions and could result in significant delays in processing caseloads.

Based on interviews with Court management and IT staff, we were informed that under a disaster scenario in which the Court could not conduct business for a short-term basis, the Court would be able to use any court location within the Trial Court system throughout the State for the hearing, depending on the case location, as an alternate processing site until another local facility is selected or the original site is restored. On a long-term basis, the AOTC's centralized information technology department could reconfigure a server at a facility or site to be determined based on the circumstances of a long-term or permanent move. However, since the plan has not been formally documented, approved, and adopted and the work around plans have not been drafted or tested, the Land Court may be at risk of not regaining mission-critical and essential systems in a timely manner.

Without a comprehensive, formal, and tested recovery and contingency plan, including required user area plans, the Land Court would be hindered from performing essential business functions, including title registration to real property and over all matters and title disputes concerning registered land. The absence of a comprehensive recovery strategy could seriously affect the

Land Court's ability to regain critical and important data processing operations should significant disruptions impact the Land Court's automated systems.

An effective disaster recovery plan should provide specific instructions for various courses of action to address different types of disaster scenarios. The plan should identify the ways in which essential services would be provided without full use of the data processing facility and, accordingly, the manner and order in which processing resources would be restored or replaced. The plan should identify the policies and procedures to be followed, detailing the logical order for restoring critical data processing functions, either at the original site or at an alternate-processing site. In addition, the plan should describe the tasks and responsibilities necessary to transfer and safeguard backup copies of data files, program software, and system documentation from off-site storage to the site being used for restoration efforts.

The viability of the business continuity planning process requires management commitment. Senior management and system users should be closely involved in business continuity planning to help ensure that there is a clear understanding of the entity's information system environment, that determinations of system criticality and the risks and exposures associated with the systems are correct, that appropriate IT and user area plans are developed based on the relative criticality and importance of systems, and that adequate resources are available. The Court, in conjunction with the AOTC, should perform a risk analysis of the systems to gain a better understanding of associated risks and the impact of lost or reduced processing capabilities. The risk analysis should identify the relevant threats that could render the IT infrastructure inoperative, the cost of recovering the systems, and the likelihood of threats and disaster scenarios and the potential frequency of occurrence.

Generally accepted practices and industry standards for computer operations support the need for each entity to have an ongoing business continuity planning process that assesses the relative criticality of information systems and develops appropriate contingency and recovery plans, if required. Therefore, the entity should assess the extent to which it is dependent upon the continued availability of information systems for all required processing or operational needs and should develop its recovery plans based on the critical aspects of its information systems.

Based on our interviews, it appears that AOTC management has not sufficiently emphasized to the Land Court the importance of developing an individual business continuity plan to address

situations should automated systems become unavailable for an extended period of time. AOTC and Land Court management should clearly identify responsibilities associated with and the importance of developing user area plans to address the loss of automated systems for an extended period of time. Although the Court articulated what procedures needed to be performed under various disaster scenarios to regain business functions, none of these strategies has been formally documented or tested. For example, the Court Administrator should be responsible for identifying and formally documenting key personnel and alternate staff and emergency contact information; describing and documenting roles and responsibilities for a disaster recovery team at the Land Court; formally assessing the impact to the Land Court of various disaster or emergency scenarios; formally identifying and documenting files and records, including hardcopy documents vital to the Land Court's daily case processing activities, including docketing and scheduling information; and detailing a strategy or process for potential recovery of these records and files. The Court, in conjunction with AOTC, needs to identify the nature and extent of court or business activities that could be conducted in the absence of AOTC-supported systems and/or damage to the Court's facilities.

Recommendation:

We recommend that AOTC, in conjunction with the Land Court, assess the relative criticality of their automated processing, and develop and test appropriate user area plans to address business continuity. We also recommend that the Land Court formalize its strategy of conducting business at other court locations. We recommend that an assessment of criticality and business impact be performed at least annually, or upon major changes to Court operations or the IT environment.

The business continuity plan, or user area plan, should document the Land Court's recovery and contingency strategies with respect to various disaster scenarios and outline any necessary contingencies. The recovery plan should contain all pertinent information, including clear delineation of key personnel and their roles and responsibilities, needed to effectively and efficiently recover mission-critical and essential operations within the needed time frames. We recommend that business continuity and user area plans be tested and periodically reviewed and updated, as needed, to ensure their viability. The completed plans should be distributed to all appropriate staff members who must be trained in the execution of the plan under emergency conditions.

Auditee's Response:

AOTC, in conjunction with all the departments and major components of the Trial Court, has formed a committee and conducted several meetings on disaster recovery plans, also known as Continuity of Operations Planning ("COOP"). The Court Administrator represents the Court on this committee. As a part of the overall COOP plan, there will be specific assessments and recommendations dealing with emergency preparedness, response and recovery made for the court. Discussions to date, while still preliminary, have touched on the topics of automated case processing, alternate locations, critical functions, key personnel, communications, and training for and testing of the plan.

Auditor's Reply:

The preliminary communications and actions taken should serve as a foundation for a comprehensive business continuity strategy for the Land Court. One key element that needs to be addressed and formally documented is a risk assessment regarding accessibility to the Land Court's network under various disaster scenarios. The approach being used, coupled with the risk assessment evaluation, would enhance the scope and viability of the business continuity plan being developed.

2. MassCourts Application

In the course of our review of IT operations, we performed a limited evaluation of how well the newly-implemented MassCourts application system, which was implemented as a comprehensive case management system, met the needs of user staff at the Land Court. We also reviewed the data integrity and efficiency of the case management integrated functions and data for the system. Although we found the data integrity with respect to completeness, validity, accuracy and availability to be adequate, the Land Court, in conjunction with AOTC, needs to collaborate to identify system modifications to improve operational efficiency of the MassCourt's system. Specifically, our interviews of eight Land Court employees, including three managerial personnel, and our observations and demonstrations of case filings through the system during the audit period, indicated that certain functions of the MassCourt application were in need of improvement in meeting the operational needs of the Land Court Department. As a result, we found that the process of inputting and updating case files was too time consuming, since it was necessary to navigate through a large number of online screens to locate the screen needed to complete the data entry process. Overall, the system slows down the case entry process, causing some frustration from the clerical staff.

A second weakness was noted in the printing of docket forms. The MassCourt system does not batch print, which would allow a number of dockets to be printed out sequentially. Currently, as the printing function works in MassCourts, it is necessary to wait for the data requested on one case file to be printed out before another case may be entered for printing. This weakness, which has been experienced by all staff interviewed, appears to delay or slow down work production by the clerical staff. At the end of our audit period, Land Court management was working with the AOTC MassCourts project team to create some shortcuts in navigating through the screens for each case to help speed up the entry of data into the system.

During our review of case files, we noted an extremely high volume of pending case files consisting of a backlog of 66,289 pending cases as of June 30, 2006 within the MassCourts application. Many of these cases, although designated as open status and therefore considered as pending, are inactive or closed cases that should be reclassified within the system as inactive. Prior to MassCourts, the Land Court was only able to manually track and estimate the number of pending cases. The MassCourts system requires that all cases be recorded on the case management system with a designated status for every case. Prior to the migration of the case filing information to the MassCourts system, the Land Court staff was able to identify certain cases for which docket codes had been used and were able to dispose of those cases as closed when converted to MassCourts. However, all other cases were converted to the new system as open. Therefore, cases may have a status of open, but that may not be their actual legal status. Our audit has indicated that during the post-implementation process for MassCourts, the status and closure of these cases has not been satisfactorily addressed.

The Land Court is using the MassCourts system to classify and identify all open cases and then make a determination as to the cases' actual status. The Land Court has been developing different strategies for accomplishing this goal. Although over time these completed but "open" cases will be "closed" and the Court will have an accurate pending caseload, the Court Administrator needs to address the matter to ensure timely processing of these cases. For example, we noted that the average number of cases filed for fiscal years 2004 and 2005 was about 13,000 cases and that the number of cases filed for the fiscal year ending 2006 was approximately 17,800. The increase in the volume of cases appears to be the result of a downturn in the real estate market and the filing of additional foreclosures could add to the current pending case backlog. As a result of the increase of current case filings, the Court may not have the ability or resources to address the backlog cases. Because the Land Court's

productivity level can only address current case filings based on the statistics for fiscal year 2006, the Land Court may have to reallocate resources or add staff to properly manage, classify, or close these backlog cases.

Processing capabilities need to be enhanced regarding the accessibility and use of certain functions within the MassCourts application to ensure the case management system is meeting the needs of the user community at the Land Court. The Land Court, in conjunction with AOTC, must also formulate a strategy to clear the backlog of outstanding cases in a timely manner.

Recommendation:

We recommend that the Land Court, in conjunction with AOTC, continue to work on defining and developing changes to the MassCourts application that will provide a more timely method of navigating through the entry screens of the application system. We also recommend that the AOTC explore possible alternatives to allow for the queuing of docket material for printing to alleviate delays in obtaining information from the case files.

We further recommend that the Land Court, in conjunction with AOTC, analyze and review the case management problems that may result from the increase in case filings, as well as formulate a strategy for clearing up the current backlog of pending cases. The Land Court should continue and expand its efforts to determine the actual case status and classify all backlog cases, develop an age analysis for these cases, and assess their current workforce's level of productivity to process increased current case filings and address the back log cases. The Land Court may have to address this problem by either reassigning staff cases or obtaining adequate staffing to work on closing pending cases that would help alleviate any potential problems with regard to timeliness created by the large, current backlog of pending cases.

Auditee's Response:

The Court, in conjunction with AOTC, is working on changes to certain screens in MassCourts that will improve the users' ability to navigate through the application. We anticipate that these changes will be in production in the near future. The topic of batch printing remains under discussion.

Both prior to and since the conclusion of the audit, and in conjunction with AOTC, the Court has substantially reduced its backlog of pending cases. During the past year, the court has undertaken several approaches to assess the true status of cases and process cases in an expeditious manner. The

implementation of MassCourts has been crucial to this effort. For example, through MassCourts, the court has been able to identify those cases which have been, or should have been, concluded, but have remained pending on our docket. We have begun a systematic closing of such cases.

On the last day of fiscal year 2006, there were 66,289 cases pending. Since that date over 10,000 new cases have been filed. As a result of our several initiatives, we have closed approximately 38,800 cases since the last day of fiscal year 2006. Of those 27,000 were closed by electronic processing made possible through MassCourts.

Certainly, adequate staffing plays an important role in enabling the court to address the issues of timely and expeditious case processing. In recognition of the large increase in the court's caseload, at the court's request, the Chief Justice for Administration and Management has authorized the court to hire additional personnel.

Auditor's Reply:

We commend the actions the Land Court has taken to address our audit recommendations regarding maneuverability of screen information in the MassCourts application and clearing of backlog cases. To the degree that printing of docket information is necessary, the Land Court should continue to communicate with AOTC to arrive at a mutually acceptable approach.