

Review of the Case Activity Tracking System (CATS) Report No. OIG-AMR-28

- [Inspector General Letter](#)
- [Background](#)
- [Objectives, Scope, and Methodology](#)
- [Results of Review](#)
- [Recommendations](#)
- [Management Response](#)
- [Appendix](#)

Inspector General

National Labor Relations Board

Washington, DC 20570

September 15, 1999

I hereby submit a *Review of the Case Activity Tracking System (CATS)*, Report No. OIG-AMR-28. CATS is designed to replace the Casehandling Information Processing System (CHIPS) which consists of several unrelated systems, both manual and electronic, which are used to collect and compile performance measurement data for field offices and at Headquarters. In addition to providing an integrated system to collect casehandling data, CATS reengineers and standardizes business processes, provides tools to increase productivity, and serves as the vehicle by which the agency is implementing an enterprise-wide computing and telecommunications infrastructure to serve all 51 field offices and Headquarters.

This review of the CATS automation initiative was conducted by Burke Consortium, Inc. in April and May 1999. The review evaluated actions taken in Fiscal Year (FY) 1994 through May 1999 that affect current status and future deployment of CATS.

The NLRB has invested approximately \$7.6 million on CATS design, development, and deployment between FY 1995 and FY 1999. Funding each year, however, has been unpredictable and has ranged from a high of \$2.1 million in FY 1997 to a low of \$600,000 in FY 1998. The implementation plan for CATS is not aligned with the budget formulation process. Resources needed to provide the supporting hardware, software, and communications infrastructure have not been identified. Plans were developed and executed on a year-to-year basis to reflect the amount of funds available. The development of a credible three to four year deployment, transition, and maintenance plan which provides options for management decisions given budget, schedule, and quality constraints, is needed to bring CATS to completion.

A combination of budget instability and the contracting mechanism may have contributed to high turnover of contractor personnel assigned to the CATS project. From the inception of the CATS development effort in June 1995, the contract has had three CATS program managers and the project has experienced a 100 percent turnover of developer staff in the past four years. The complete turnover of personnel has negatively impacted productivity because the project lost personnel who had knowledge about CATS design and NLRB processes.

CATS deployment has taken place or is planned for 25 field sites during FY 1999. Installation and training in all field offices and two Headquarters offices are anticipated to be substantially completed in June 2000. The phased installation of CATS at Headquarters to replace existing case handling systems is in the planning stage. Complete analysis and redesign of Headquarters systems in other Headquarters offices and migration into the CATS database will take place after CATS has been implemented in all 51 field offices.

A significant number of errors were made during the initial entry of case data. The implementation of planned edits and increased use of the system by field personnel should reduce the error rate in the future.

Until full field office deployment of CATS, Monthly Election Reports and the Annual Report will require the merging of data from CATS and CHIPS. Personnel in the Information Technology Branch (ITB) have been assigned responsibility to develop methods and procedures necessary to combine data from CHIPS and CATS to support production of Monthly Election Reports, but that work has not been completed because of inaccuracies found in the CHIPS and CATS data being input by the field offices. The query necessary to output CATS data in a CHIPS-like format is currently under development. The capability to merge data from CHIPS and CATS to produce the Annual Report has not been developed.

Recommendations addressing these findings can be found on pages 14, 15, and 16 of this report.

An exit conference was held on August 17, 1999 with the Chief Information Officer and officials from the ITB to discuss the findings and recommendations. The CIO submitted written comments on the draft report. He did not disagree with the findings and recommendations. His comments are presented in their entirety as an appendix to this report.

Jane E. Altenhofen
Inspector General

Background

The National Labor Relations Board (NLRB) administers the principal labor relations law of the United States, the National Labor Relations Act of 1935, as amended, which is generally applied to all enterprises engaged in interstate commerce, including the United States Postal Service, but excluding other governmental entities as well as the railroads and the airline industries. The Agency performs its mission by: (1) conducting secret ballot elections to determine if a group of employees wishes to be represented, for collective bargaining purposes, by a labor organization; (2) adjudicating representation issues if the parties cannot reach agreement; (3) investigating charges of unfair labor practices filed by the public with the Agency; (4) prosecuting, if the parties cannot settle and reach an agreement, those cases of unfair labor practices which the Agency determined to have merit; and (5) adjudicating those unfair labor practice cases which the Agency litigates.

In a sense, NLRB is two entities within one Agency. The General Counsel investigates unfair labor practices and litigates before the Board side of the Agency. The Board is judicial in nature and includes Administrative Law Judges whose decisions may be appealed by any of the parties, including the General Counsel, to the five-member Board appointed by the President. Board decisions may be appealed, other than by the General Counsel, to the US Courts of Appeals and the Supreme Court. By delegation from the Board, the General Counsel represents the NLRB in those cases and in matters before Bankruptcy and District Courts. Regional Offices coordinate secret ballot elections under the supervision of the Board, investigate unfair labor practice charges, and prosecute complaints before the Board under the authority of the General Counsel. The NLRB responds to matters brought before it and does not initiate cases on its own. In Fiscal Year (FY) 1999, the Agency employed about 1,860 people at Headquarters and in regional, sub-regional, and resident offices (hereinafter referred to as field offices). The Agency's FY 1999 appropriation was \$184 million. Approximately 30,000 charges of unfair labor practices and 6,000 representation petitions are filed with the NLRB each year.

The Case Activity Tracking Subcommittee (Subcommittee) was established in February 1994 to develop requirements for improving and expanding the automation of case activity. Initial subcommittee members included: a representative from the Information Technology Branch (ITB); a contractor, Synetics, Incorporated; representatives from Regional Offices; and representatives from each Headquarters program office of the Board and the General Counsel. The Case Activity Tracking System (CATS) was planned to replace separate systems, both manual and electronic, used to collect and compile performance information for field offices, the Division of Judges, the Office of the Executive Secretary, and Headquarters components under the control of the General Counsel.

In addition to collecting and compiling performance data, CATS reengineers and standardizes the business processes for case assignment and workload monitoring in the NLRB's field offices. CATS provides tools to increase the productivity of professional and support staff employees who handle the majority of NLRB cases by: providing

templates for standard responses to both parties; associating and maintaining party names and addresses with cases and correspondence; and automating statistical reporting requirements. CATS provides casehandling management tools and collects data for each contact with the public. The CATS project also serves as the vehicle by which the agency is implementing an enterprise-wide computing and telecommunications infrastructure to serve all 51 field offices and Headquarters.

Synetics' deliverables included the following documents.

Project Management Plan 08/31/94
Functional Requirements Document 12/18/94
System Requirements Document 01/29/95
Implementation Plan 02/19/95

Contractor deliverables: (1) described needs, functions performed, and current procedures within the NLRB for case management and legal research; (2) defined the specific requirements for automating case management and legal research; (3) identified the overall, technical, and system-level requirements for an automated case tracking, management, and legal research system; (4) defined alternative solutions; and (5) identified implementation alternatives. Synetics' final product was delivered in 1995.

The NLRB contracted with EDS, Incorporated (EDS) in May 1995 to develop and implement CATS. Approximately \$7.6 million in funding has been spent on CATS from inception through April 1999. The Agency planned to deploy CATS in 25 field offices in FY 1999. As of the end of April 1999 CATS had been deployed in 11 field offices.

Objectives, SCOPE, and Methodology

This review was conducted to:

- Identify how past actions have affected the current implementation;
- Review the thoroughness and adequacy of plans for actions to complete the project;
- Determine if planning, design, implementation, migration, and deployment activities have been accomplished as planned;
- Review the architecture and assess the degree user requirements are being met; and
- Identify the overall scope of the project as it was conceived, and determine if the current scope is consistent with original plans.

This review was performed during April and May 1999, by Burke Consortium, Incorporated at NLRB Headquarters. Participants and stakeholders were interviewed, including the Chief of the ITB who serves as the Chief Information Officer (CIO). Documents pertaining to CATS were reviewed, research was conducted to gather data, and an abbreviated demonstration of CATS was provided by a Regional Director. All data was integrated, reviewed for consistency, and analyzed to form the basis of the results and recommendations provided herein.

This review assessed the design, development, implementation, and management of CATS during the period FY 1994 through May 1999. This included the deployment of CATS at the first 11 field offices: Kansas City, St. Louis, Denver, Cincinnati, Ft. Worth, Houston, Boston, Newark, Brooklyn, Manhattan, and Chicago.

Results of Review

Funding

The NLRB has invested approximately \$7.6 million on CATS design, development, and deployment from FY 1995 through FY 1999. Table 1 provides the spending history by fiscal year. The table shows that CATS funding decreased

from \$2.1 million in FY 1997 to \$600,000 in FY 1998, a decrease of 71 percent. This decrease occurred during a critical phase when increased resources should have been allocated in order to effect a smooth implementation of the system.



ITB had two budget categories for discretionary funds: (1) CATS Modernization and Year 2000 Compliance (CATS/Y2K); and (2) Information Technology Maintenance. The CATS/Y2K category includes: functional design, development, and implementation of CATS software; business process reengineering and development; and modernization and implementation of the NLRB's enterprise-wide computing and telecommunications infrastructure. Including all of these initiatives in a CATS/Y2K budget category creates the impression that more money is being spent on CATS than is actually being spent. The CIO has implemented a comprehensive expenditure tracking methodology to ensure that future CATS costs are segregated to provide separate identification of resources specifically associated with CATS functional design, development, implementation, and training.

The implementation plan for CATS is not aligned with the budget formulation process. Plans were developed and executed on a year-to-year basis to reflect the amount of funds available. Therefore, resources needed to provide the supporting hardware, software, and communications infrastructure necessary for ultimate success have not been identified. Hardware, software, and communications infrastructure needs include: data migration; interim integration with CHIPS; replication and synchronization of data among Headquarters and the field offices; and system operations, maintenance, and support. Current resources are being focused on installation and training. CATS will eventually support 2,000 people in 51 field offices and at Headquarters. Resources are insufficient to permit successful transition and implementation of a system of such scope and magnitude. Over 300 change requests have been identified for resolution by CATS users, yet the CATS contractor development staff has been reduced by 37 percent in the past 18 months. Since availability of funds drives resolution of these issues, the timeframe for resolution can not be predicted with a reasonable degree of accuracy. Nevertheless, high priority status has been assigned to requested changes that affect significant data and the overall integrity of CATS. Lower priority defects, which range from less significant data issues to the improvement of user-friendliness are being delayed because of inadequate fiscal resources.

Contractor Employee Turnover

The ITB and the CATS project experienced extreme financial instability between FY 1994 and FY 1998. As seen in Table 1, CATS funding has ranged from a low of \$600,000 in FY 1998 to a high of \$2.1 million in FY 1997. Repeated budget instability resulted in the inability to properly develop credible strategic and programmatic plans that are essential to execution and implementation of CATS. Although ITB funding was increased to \$9 million in FY 1999, over \$4 million was allocated to modernize the computing and telecommunications infrastructure necessary to provide a foundation for CATS. Table 2 graphically depicts the repeated disruptive funding situation.



Budget instability may have contributed to high turnover of contractor personnel assigned to the CATS project. From the inception of the CATS development effort in June 1995, the contractor has assigned three CATS program managers and the project has experienced a 100 percent turnover of developer staff in the past four years. The complete turnover of personnel has negatively impacted productivity because the project lost personnel who had knowledge about CATS design and NLRB processes. Contractor turnover adversely impacted the ability of the Program Manager and the Cases Task Group to sustain momentum, communicate requirements, and provide long-term guidance. Turnover has contributed to longer times for deployment and developing solutions for aggregating field data into a central information repository.

A long-term contract is not in place for CATS development. Tasking to EDS is provided on an annual basis through a Defense Information Systems Agency indefinite-quantity/indefinite-delivery contract for defense enterprise integration services. During FY 1999, the EDS staff will be further reduced by 25 percent. Because there is no long-term contract in place and task planning is conducted on an annual basis, EDS is constrained in planning and staffing for the long-term requirements of CATS. Lack of a long-term contract is a disincentive that hampers the contractor's ability to assemble a team of people that can meet the needs of the program for the long term because the contractor doesn't have any assurance of work or commitment beyond the current fiscal year.

Strategic Planning

Funding for CATS has been extremely unpredictable which limited the Agency's ability to develop credible long-term strategic plans that integrated technical requirements and financial resources needed. Resources needed to support the strategic planning function for future CATS implementation and operation have not been determined. No contract or other resources are in place to provide assistance to the CATS Program Manager for the strategic planning necessary to support the completion of CATS deployment, transition, operation, or maintenance. Many of these critical functions are being delayed because of deliberate decisions to give higher priority and resources to other areas, primarily personnel, rather than CATS. The development of a credible three to four year deployment, transition, and maintenance plan which provides options for management decisions given budget, schedule, and quality constraints, is needed to bring CATS to completion.

Functions needed to complete the CATS project are not in place. Full implementation of CATS will require the replication of data among Headquarters and field offices. Replication and synchronization of data are key functional requirements of CATS since it is the process by which data entered at the field offices and at Headquarters is exchanged and resolved. Replication for CATS is not yet implemented. Resources allocated to this task are insufficient to develop the capability for the level of replication and synchronization needed to support the full implementation of CATS. System management of CATS will require a technical and management infrastructure and sufficient skilled and trained personnel to sustain a large inter-networked enterprise system encompassing all geographic locations. Current

resources are insufficient to perform system administration and management of 33 file servers in 51 locations.

Transition of data from CHIPS to CATS and entry of additional data that CATS requires is a labor-intensive process and is the responsibility of the field offices. The ITB provides each field office with transition guidance and recommended methods. A Deployment Guide and supporting documents are provided at least two months in advance of CATS deployment to each field office. This guidance includes recommended transition plans and worksheets to assist field offices assign responsibility for data entry. Because each field office is different, the guidance is intended to be tailored by each office to meet unique needs and operational processes. Aside from the guidance provided by the ITB, no provision has been made to provide assistance to field offices with the transition needed to effect full implementation of CATS. Advance transition planning and post-deployment assistance is needed to help field offices complete the transition in a timely manner and in a way that maintains the accuracy and integrity of case data. The ITB provides technical assistance necessary to implement CATS, but field offices need additional assistance to change business processes to accommodate CATS and help input legacy data.

Deployment

CATS deployment schedules are aggressive and ambitious. Deployment is phased to complete installation in as many field offices, as soon as possible, with scant resources. Before CATS can be deployed, the supporting infrastructure of each field office is modernized with the installation of an upgraded local area network server, personal computers, office automation software, and access to a wide area network. CATS is subsequently deployed (i.e. training is conducted and the office goes on line), usually within weeks after installation of the infrastructure. CATS deployment was accelerated because of ITB's desire to get the system out to the field offices and perceived pressure from OMB. Meeting this schedule is dependent on the extraordinary effort of a small number of key personnel. Deployment has taken place or is planned for 25 field offices (16 regional offices, 8 resident offices, and 1 sub-regional office) during FY 1999. CATS is being deployed at the rate of two to three sites per month. Installation and training in all field offices and some headquarters offices is targeted for completion by the third quarter of FY 2000.

Five Regional Offices and one Resident Office served as test installations for the initial deployment of CATS. Deployment at these initial sites was undertaken prior to controlled data testing or correction of some known deficiencies because resources were not available to perform those functions in the time frame necessary to meet the deployment schedule.

The ITB originally estimated that field offices would need between two and three months to update converted data and load additional case data into CATS. In the initial five field offices, the time required for data updating and loading has taken between five and nine months. The ITB projects that based on the experienced gained in the initial offices, future field offices will require between four and six months to update and load additional case data into CATS. The original estimate was increased because contract support was not being used and support staff and overtime resources were limited. Of the 11 field offices that have received CATS by May 1999, a few have fully updated all representation case (R Case) data, but none has completed the updating of Unfair Labor Practice cases (C Case) in CATS.

There are approximately 815 case data fields in CATS that require user data entry (596 C case and 219 R case data fields). Approximately 226 of the data fields will eventually be entered by Headquarters offices. Of the 815 data fields, approximately 300 are selected by the user from pick lists. Most C Case records use approximately 51 fields, 32 of which are selected from pick lists or are checkboxes, and 7 of which are dates. Most R Case records use approximately 63 fields, 36 of which are selected from pick lists or are checkboxes, and 8 of which are dates. The majority of C Cases are filed, investigated, found to be without merit, and are then withdrawn or dismissed and closed. All cases must be docketed, which involves, among other things, the entry (often from pick lists) of the names and addresses of the parties and participants. Docketing takes approximately 10 minutes. In addition to docketing, C Cases require approximately 18 data fields to be entered over the life of the case. Approximately 30 C and R Case data fields are transferred from CHIPS into CATS. Field offices will enter data into both CATS and CHIPS until the transition to CATS is complete at that location. This creates a temporary workload increase for field offices that are already understaffed.

The phased installation of CATS at Headquarters to replace existing case handling systems is in the planning stage. With the exception of two offices, Office of Representation Appeals and Office of Appeals, complete analysis and

redesign of Headquarters systems and migration into the CATS database will take place after CATS has been implemented in all 51 field offices. CATS will be used by Headquarters offices to gather information about cases that have been forwarded from the field and to track the status of current cases. The CATS Headquarters database is envisioned to integrate and consolidate databases from all the field offices. Although status tracking is the most prevalent activity performed at Headquarters, most sections of the agency perform different functions. Requirements definition, design, development, installation, and data conversion will need to be completed for each separate Headquarters office. Thorough integration testing will need to take place to ensure the data entry processes at the field offices interact properly with data entry processes at the Headquarters offices. The Office of Representation Appeals (ORA) will be the first Headquarters office to receive CATS. Analysis and design for CATS implementation in ORA is complete and a prototype is expected to be installed in November 1999. The Office of Appeals is the second Headquarters office to participate with the ITB to perform a requirements analysis for CATS implementation. Ten Headquarters offices have case handling information databases tailored for their unique requirements. Preliminary projections by the ITB are that it will take between 12 and 18 months per office to tailor CATS to meet their unique needs and convert data from existing databases. Funds have not been allocated specifically for this purpose pending the enactment of the FY 2000 appropriation. The CIO plans on Headquarters offices' systems being completed in FY 2001.

Data Integrity

Data integrity and accuracy will be used to judge whether the organizations' implementation of CATS is successful. This data serves as the basis for Monthly Election Reports and the Annual Report, both statutory requirements of the NLRB. A key requirement is to ensure that production of these reports is not disrupted. An Annual Report Subcommittee was established by the CATS Committee to provide the requirements for this important function and review the content of the Annual Report. The ITB recommended abbreviation or elimination of some of the elements and tables included in the Annual Report to make transition to CATS reports less complex. The Subcommittee recommended not changing the format. The Subcommittee is not currently active, having met most recently in 1997. The Subcommittee plans to reconvene once CATS is further implemented.

Employees from field offices and the ITB have reported problems and made suggestions to improve CATS operations and data accuracy. Due to a lack of resources the Agency decided to concentrate modifications on data accuracy issues. If accurate data is not put into CATS, the system will generate inaccurate reports, including the reports field offices use to manage cases. In addition to system enhancements it is believed that CATS data will be more accurate than CHIPS data because management intends to use the data to manage live cases, increasing the timeliness of data review.

The ability of personnel in the field offices to input proper and accurate data is vital. For some functions, CATS provides data entry assistance to users by automatically opening related windows which require further data entry based on initial input. Warning messages are also provided to notify users of missing data. This assistance is not comprehensive, but incorporation of additional business rules is planned to be included in future releases of CATS. The ITB is currently developing a Missing Action Report to help field offices and Headquarters identify data fields that should be filled based on other data entered into CATS. This report, similar to the Error Report produced by CHIPS, can be generated and reviewed by the field office responsible for the accuracy of the data and will assist in identifying data input deficiencies. Case status, which is a criterion in the generation of many CATS statistical and standard reports, is derived via data entry. Case status is displayed in CATS on the case card. Incorrect data entry will often result in an incorrect case status, which is anticipated to be scrutinized by key case management personnel and the Board Agent assigned to the case. Field personnel responsible for case data may perform periodic reviews of the data using the case card, the query wizard tool and standard or custom reports. Field offices anticipate that the Division of Operations-Management will periodically review case data as an added data integrity check. However, no plans, directives, instructions, uniform processes or procedures are in place to focus on data accuracy. Resources have not been specifically allocated to Headquarters or to field offices specifically to audit the accuracy of data.

Only a small amount of data is being converted directly from CHIPS to CATS. The decision not to load CATS with data already contained in CHIPS was made for several reasons: (1) a significant amount of data contained in CHIPS is believed to be inaccurate; (2) data elements that influence certain functional operations of CATS are derived from data not available in CHIPS; (3) the effort required to validate CHIPS data is believed to be just as labor intensive and time consuming as re-entering data into CATS; (4) resources are insufficient to fund the development of data conversion and

filtering software; and (5) conversion of most or all CHIPS data would not have eliminated the need to review all converted case data, since a significant amount of CATS data does not exist in CHIPS and needs to be entered manually. For these reasons only essential data for which there is a degree of confidence is being migrated directly into CATS from CHIPS.

Reporting Capabilities

CATS automatically generates statistical and other casehandling reports that are used regularly in all field offices to manage cases. The ITB anticipates developing reports to be used regularly by Headquarters offices. These reports will supplement monthly statistical reports and standard reports, such as case lists, that are already available. Additional reports are currently being developed to meet the needs of field offices. After CATS is fully implemented, field office personnel will no longer need to spend hours gathering information and tabulating numbers for monthly statistical reports and other statistical purposes.

Monthly Election Reports and Annual Report

The data needed to produce Monthly Election Reports is contained in CATS, but the reports have not yet been developed or implemented. Due to the summary nature of the reports, they can not be entirely generated by CATS until it is installed in all field offices and all necessary data is entered. In the interim, data from CATS and CHIPS must be merged to produce Monthly Election Reports. Personnel in the ITB have been assigned responsibility to develop methods and procedures necessary to combine data from CHIPS and CATS to support production of these reports, but that work has not been completed because of inaccuracies found in the CATS data being input by the field offices. The query necessary to output CATS data in a CHIPS-like format is currently under development.

The FY 1998 Annual Report is being produced based solely on data contained in CHIPS. The FY 1999 Annual Report will require the merger of CHIPS data from some regions and CATS data from others. This capability has not yet been developed. Roles and responsibilities for producing the Annual Report are disbursed throughout the NLRB. The Statistical Services Unit in the ITB produces data tables contained in the report. The Division of Information, produces four chapters: Chapter II, Board Procedure; Chapter III, NLRB Jurisdiction; Chapter IV, Representation Proceedings; and Chapter V, Unfair Labor Practices. Other offices handle chapters related to their discrete responsibilities. For example, the Injunction Litigation Branch writes the Injunction Litigation chapter, the Supreme Court Branch writes the Supreme Court Litigation chapter, and so on. The Administrative Services Branch oversees the coordination and production of all chapters and serves as the liaison with the Government Printing Office to coordinate printing. However, there is no single person charged with oversight of the Annual Report at the Agency Level.

Management and Oversight

A committee of representatives from each functional area of the NLRB was established to provide input into the functional requirements for CATS. This committee, known as the CATS Committee, was chaired by a representative of the Division of Operations-Management. The committee was established to gather requirements from program officials who understand the agency mission, processes, and business practices. The committee decided to focus CATS on meeting the needs of the field offices first, then focus on meeting the needs of Headquarters. The Cases Task Group, a subset of the CATS Committee, was formed to guide development of CATS and represent the interests of the entire CATS Committee. The Cases Task Group consists of: the CATS Project Manager from the ITB; a Regional Director; a Regional Office Manager, who was recently promoted to a position in the Division of Operations-Management; and a Senior Manager from the Division of Operations-Management. The Cases Task Group identified the CATS data requirements for field offices and Headquarters. The CATS Committee was not chartered and has not met collectively in over a year. The Cases Task Group has continued periodic consultation on an as-needed basis with individual CATS Committee members during the CATS development and deployment phases, although there is no evidence of regular communication with all CATS Committee members collectively.

The Cases Task Group members perform group functions as a collateral duty in addition to their normal responsibilities. Much of the success of CATS can be directly attributed to the teamwork and dedication of the Cases Task Group. The group's span of responsibility, however, is not commensurate with its size or resources. The Cases Task Group develops functional requirements, oversees CATS development, participates in deployment, performs independent

verification and validation testing, analyzes problems and suggestions provided by the field offices, and recommends prioritization for the resolution of defects and development of enhancements. Two members of the Cases Task Group serve on the CATS Change Control Board which reviews technical requirements and changes along with proposed defect resolutions and enhancements. The Change Control Board assigns final priorities for all defect resolution and enhancement-related work and approves tasks to be completed for future CATS releases. The Cases Task Group has no funding authority. Decisions regarding funding are made by the ITB.

Change Requests

Over 300 change requests have been identified to date by CATS users, testers, and the Cases Task Group. Change requests fall into two categories: (1) Defects, which are problems that cause CATS to operate improperly and affect the accuracy or integrity of CATS data; and (2) Suggestions, which are intended to improve the user friendliness and utility of CATS. Several major defects were identified in systems installed at the test sites. These defects were fixed in Release 1.1 of CATS prior to deployment to field offices beyond the six initial test sites. Requirements for Release 2.0, expected release in November 1999, are being developed based on the priorities decided by Change Control Board. The Case Task Group is currently working to prioritize defects and suggestions for inclusion in future releases. All new releases will need to be backfit in the field offices before deployment to additional field offices can occur.

Some segments of the enterprise-wide telecommunications infrastructure are currently insufficient to support data entry. The current infrastructure was established as a baseline to provide initial capability. Many segments can not provide the reliability, availability, and transmission speed to support data replication and synchronization between Headquarters and field offices. Replication and synchronization of data from the field offices to Headquarters will be a slow and risky process unless: 56kb data communication lines that are part of the wide area network (WAN) are upgraded to provide better reliability, availability, and a higher transmission speed; and appropriate technical and administrative procedures and processes are implemented.

Replication, transmission, and synchronization of data from 51 geographic locations to a single location present a risk that can not be quantified at the current time. The ITB has experienced WAN line outages and intermittent drops that disrupt data transmission. These outages can cause fatal errors and corrupt the data being transmitted, which results in the need for increased system administration and data validation for which resources are not available. The time frame for resolution of these issues, given the resource considerations, is unknown. However, resolution is needed to enable full implementation of CATS.

Feedback

Feedback from field offices where CATS has been installed has been encouraging and positive. Field office personnel are beginning to realize the productivity benefits that CATS provides, and are willing to overlook minor system errors and problems. Because the features of CATS are tailored to the functions that field offices perform, CATS is far more useful and relevant than CHIPS from the field office perspective.

The implementation of CATS has not been without challenges. There are insufficient personnel in field offices to populate CATS with the data the system needs to fully function in the desired time frame. Errors are being made during the initial entry of case data. The actual error rate is unknown, but preliminary testing performed by the ITB indicates that the error rate is significant. The differentiator in the data error rate appears to be the thoroughness of advanced planning and the degree of discipline imposed by field offices during the transition phase.

No transition assistance or resources are being provided beyond initial guidance to field offices. As a result, field offices are using a variety of approaches with varying degrees of success in effecting the transition. The CATS Project Manager plans to develop improved guidance to facilitate more effective data entry and updating of case data for future deployments. In addition, a set of tips and best practices is planned for development and posting on the CATS bulletin board in order to promulgate lessons learned. Users currently submit questions, comments, or concerns to a CATS mail box. These messages are reviewed and answered, usually within four hours. Where deemed appropriate, defects and suggestions are forwarded to the Cases Task Group for consideration in future releases. Technical defects are submitted as System Change Requests to the Change Control Board. The Cases Task Group plans to debrief field offices

regarding their experiences in order to incorporate improvements and suggestions into plans and guidance for future deployments. The transition to CATS is a major cultural, business process, and technical change for the field offices. Additional planning and post-implementation assistance is needed to support field offices as they transition from CHIPS to CATS.

Recommendations

We recommend that the Chief Information Officer:

1. Develop and implement an integrated management plan to bring CATS to completion.

A thorough and comprehensive strategy is needed to identify, integrate, and schedule all actions necessary to bring CATS to completion and sustain it as an operational mission-critical system. Given a fixed amount of resources and an expected level of data integrity, this plan should identify the sequence, priority, schedule, roles, responsibilities, accountability, resources, and authority for all actions throughout the NLRB that must take place in order to successfully deploy, transition, administer, and sustain CATS as a mission-critical information system. As part of the planning process, optional approaches for CATS implementation should be identified and reviewed with senior NLRB leaders so that commitments can be made regarding the selected approach. Options for consideration could include the implications of both deploying CATS as planned and delaying further CATS deployment temporarily until supporting processes needed to sustain it can be put in place. Funding, contracting, and deployment strategies need to be developed for inclusion as part of a CATS strategic plan.

In developing the strategic plan the CIO should seek input from senior-level cross-functional employees including the CATS Case Tracking Group, field offices, offices of the Board and General Counsel, and outside groups as necessary.

2. Identify additional transition assistance needed by field offices to ensure data accuracy and integrity.

Additional assistance is needed to help field offices prepare for CATS implementation and to transition fully from CHIPS to CATS. ITB and the Division of Operations Management could consider assigning an ombudsman to work closely with each field office to plan more thoroughly in advance for CATS deployment. Advance planning issues should include reviewing and planning for management, business process, workload, data entry, and schedule issues that impact normal operation of the field offices during CATS deployment. They could also consider appointing ombudsmen from field offices that have already deployed CATS to serve as advisors and mentors to other field offices as CATS is being deployed and implemented.

The CIO should form a focused and integrated team to review data as it is being entered by field offices for accuracy and integrity during CATS implementation and transition. This review is currently conducted on a random and informal basis by concerned ITB personnel. This effort needs to be formalized with feedback and assistance provided to the field offices for corrective action. The team should sample data for errors and work one-on-one with each field office to promptly correct errors, revise procedures and processes, prevent reoccurrence, and share lessons learned with others who face similar issues.

3. Develop and implement methods to produce Monthly Election Reports and the Annual Report.

The NLRB will not be able to produce the Annual Report for Fiscal Year 1999 unless methods are implemented to merge CHIPS and CATS data. In collaboration with Agency officials, the CIO should develop a plan of action which includes milestones; and assign responsibility, accountability, and authority to a focused and integrated team to design, develop, test, and implement the capability and processes necessary to produce data tables required for Monthly Election Reports and the Annual Report.

Management Response

Management did not disagree with the facts of the findings. They agreed to implement the three recommendations made in this report, though they have not provided us with a timeframe for their actions. Their response provided additional information that was added as appropriate for clarification.

Appendix

UNITED STATES GOVERNMENT *National Labor Relations Board*

Memorandum

To: Jane E. Altenhofen, Inspector General

From: Louis B. Adams, Chief Information Officer

Date: September 15, 2000

Subject: Comments on Draft IG Report "Review of Case Activity Tracking"

OIG-AMR-28

Thank you for the opportunity to provide comments on the report before it is issued in final.

Our comments are attached. We are available to meet at your convenience should you wish any further discussion or clarification.

cc: The Board

General Counsel

Director of Administration.

ITB Comments

Draft IG Report "Review of Case Activity Tracking System"

OIG-AMR-28

We do not disagree with the facts or recommendations, but because of the review timing, and other conditions and situations, the draft review resulted in some statements and findings that need comment or clarification. When the CATS review was started, ITB indicated that the timing was not consistent with the application system life cycle process. The review was too late to be a Design Review and since deployment had just started, it was premature for a Post Implementation Review. We were in the middle of the FY1999 budget year and the FY2000 budget had already been submitted, so the timing for a budget review was not appropriate either. Our specific comments are given below under the same headings as used in the draft report.

Funding.

Report statement. The implementation plan for CATS is not aligned with the budget formulation process. Resources needed to provide the supporting hardware, software, and communications infrastructure necessary for ultimate success have not been identified.

Comment. The CATS resources were identified in all recent budgets: FY1998, FY1999, and FY2000. They may have appeared to have been unidentified because only \$100,000 of the \$600,000 was for non-contract support in FY1998; only \$50,000 of the \$1.6 million was for non-contract support in FY1999; and only \$225,000 of \$2.8 million is for non-

contract support in FY2000. The process was further confused because until recent years, CATS resources were intermingled with modernization efforts and Y2K initiatives. The budget formulation is now aligned with the CATS life cycle process; however, budget adjustments are being made after the agency receives its budget allowance. This prevents a stable alignment between CATS implementation and the budget process.

Contractor Employee Turnover.

Report Statement. Budget instability may have contributed to high turnover of contractor personnel assigned to the CATS project. ... Turnover has contributed to delays in deployment and slips in the planned schedule to develop solutions for aggregating field data into a central information repository.

Comment. Although the CATS team has attempted to develop plans and schedules, no plan or schedule can be considered definitive until the resources are committed to support it. The IT budget was cut from \$11 million to \$5 million in FY1998 and from \$10 million to \$9 million in FY1999. This obviously impacted the CATS resources available and the amount of work that could be done. The review referenced "delays" and "slips" but until resources are committed to the project, no dates can actually be established. The dates did not "slip"; they could never be established due to budget constraints.

Strategic Planning.

Report Statement. Funding for CATS has been extremely unpredictable which limited the Agency's ability to develop credible long-term strategic plans that integrated technical requirements and financial resources needed. Plans were developed and executed on a year-to-year basis to reflect the amount of funds available. ... Functions needed to complete the CATS project are not in place. ... Replication for CATS is not yet implemented. Resources allocated to this task are insufficient to develop the capability for the level of replication and synchronization needed to support the full implementation of CATS.

Comment. About 90% of the Agency's budget is used to pay employee salaries and the space to accommodate them. The Agency has never had a RIF; it has always used other alternatives, including reduction in information technology (IT) as a source of funds to prevent a RIF (as in FY1998) or to obtain funds for additional hiring (as in FY1999). The Agency's priorities and actions require IT resources and plans to be very flexible. The review statements are correct, but it is also correct that the lack of replication and other functions to complete CATS are deliberate and reflect the priorities of the Agency and not a failure to plan for, or implement, CATS.

Deployment.

Review Statement. The ITB originally estimated that field offices would need between two and three months to update converted data and load additional case data into CATS. ... The ITB projects that with the advantage of the experience gained in the initial offices, future field offices will require between four and six months to update and load additional case data into CATS.

Comment. The initial estimate was based on what the CATS team thought it would take if the regions efficiently organized the data conversion and were at proper staffing levels. Alternatives included using contract support or overtime for the data loading. Contractors are not being used because of the learning curve and cost. The availability of the support staffs and limited overtime resources have not been adequate. For these reasons, the data load time has been expanded.

Review Statement. Ten Headquarters offices have case handling information databases tailored for their unique requirements. ... Funds have not been allocated specifically for this purpose.

Comment. CATS is to be, to the extent possible, the only database in the Agency for case handling. During FY2000, a significant part of the \$2.8 million requested for CATS is to create the Headquarters systems that not only will be the corporate component of CATS, but will also replace these stand-alone databases. Should there still be a need for any databases other than CATS after the Headquarters systems are created, they will be created from the FY2001 applications systems budget. They are deliberately not being planned at this point because the requirements, if any, are

not yet known and because the Agency deferred these systems in order to use \$1 million from the proposed IT budget for other purposes.

Data Integrity.

Review Statement. Data integrity and accuracy will be used to judge the successful implementation of CATS.

Comment. Data will be entered into CATS by those who use the system and own the data. CATS is designed to accept data, process data, and generate reports based on the data. Neither CATS nor ITB can be responsible for the integrity and accuracy of the data (beyond some programmed data edit criteria). Any findings or corrective action about data integrity should be addressed to the organizations responsible for the data.

Monthly Election Reports and Annual Report.

Review Statement. Personnel in the ITB have been assigned responsibility to develop methods and procedures necessary to combine data from CHIPS and CATS to support production of these reports, but that work has not been completed because of inaccuracies found in the CATS data being input by the field offices. ...there is no single person charged with oversight of the Annual Report at the Agency Level.

Comment. Reporting within the Agency is a problem, but it makes no difference if it is CATS, CHIPS, some other system, or a manual process. Data is not entered or submitted accurate enough, complete enough, or soon enough to be as useful as it should be; however, this is not a CATS issue. It is a data responsibility issue that needs to be addressed outside CATS and ITB. This applies to all reporting, including monthly reports, election reports, and the Annual Report. Reporting responsibility and the data entry requirements for it have been issues long before CATS, and are independent of CATS and any other system. This data/reporting issue as well as responsibility for compiling and publishing the Annual Report should be addressed outside the CATS review.

Change Requests.

Review Statement. Replication and synchronization of data from the field offices to Headquarters will be a slow and risky process unless: 56kb data communication lines that are part of the wide area network (WAN) are upgraded to provide better reliability, availability, and a higher transmission speed. ...The ITB has experienced WAN line outages and intermittent drops that disrupt data transmission. ...The time frame for resolution of these issues, given the resource constraints, is well into the distant future.

Comment. This is an example of inappropriate timing of the review. Reviewing the WAN back in April and May is like looking at a house under construction and saying it will leak if a roof is not put on it. A decision to put a WAN in the Agency was made only last year. Prior to that, the Management and Information Systems Branch (predecessor organization to the current ITB) planned to use telephone lines even though the CATS team and two contractors recommended a WAN. While the 56kbps lines probably are insufficient for most locations, they are vastly superior to phone lines, and will be incrementally replaced as each region comes on line with CATS and as data traffic statistics become more available. A 56kbps line is about \$300 - \$500 per month and a T1 line is about \$2,000 per month. A 56kbps line can be upgraded in about 30 - 90 days. ITB made a conscious decision to initially deploy 56kbps lines and upgrade as necessary based on simple economic logic. ITB estimates upgrading lines "just in time" will save over \$500,000. Obviously, this is more time consuming and complex than installing larger lines initially, but with such a tight budget, ITB considers this the appropriate choice. Also, the new FTS2001 contract provides for T1 line costs to approach \$500 per month within a few years. Judicious line upgrading (waiting as long as possible) has significant budget benefits.

The initial WAN installation was completed nationally on July 28, 1999. Six major telecommunication hub sites have already been upgraded from 56kbps to 384kbps (Los Angeles, Ft. Worth, Chicago, Atlanta, Manhattan, and Washington DC). These six sites also support 30 other locations. The FY2000 and FY2001 plans and budget requests reflect the anticipated growth and potential of the WAN. This, along with the immediate progress since the April - May review make ITB confident about the future of the WAN.