

National Aeronautics and
Space Administration



Office of Inspector General
Washington, DC 20546-0001

February 28, 2008

TO: Chief Information Officer

FROM: Assistant Inspector General for Auditing

SUBJECT: Final Memorandum on Audit of Retention of NASA's Official Electronic Mail (Report No. IG-08-010; Assignment No. A-07-007-00)

The Office of Inspector General (OIG) conducted an audit of NASA's retention of official electronic mail (e-mail). Our overall objective was to determine whether NASA was effectively and efficiently managing its official e-mail records in accordance with applicable statutory and regulatory requirements. Specifically, we determined whether NASA had (1) established and implemented adequate policies and procedures to ensure that e-mail users identified, designated, stored, and retained official e-mail communication in accordance with National Archives and Records Administration (NARA) regulations and (2) developed and implemented training to ensure that all Agency e-mail users were aware of and understood the process by which to identify, designate, store, and retain official e-mail communication in accordance with NARA regulations and NASA's requirements. We also reviewed internal controls as they related to the overall objective. (See Enclosure 1 for details on the audit's scope and methodology.)

Executive Summary

We found that NASA was not effectively and efficiently managing its official e-mail records in accordance with applicable statutory and regulatory requirements. Although NASA had established records management¹ policies and procedures in accordance with NARA regulations, NASA's e-mail retention guidance does not adequately address NARA's requirements for electronic records² management. As of January 2008, NASA

¹ NARA Title 36, Code of Federal Regulations (C.F.R.), Part 1220, "Federal Records; General," Section 1220.14, "General Definitions," defines records management as the planning, controlling, directing, organizing, training, promoting, and other managerial activities involved with respect to records creation, records maintenance and use, and records disposition in order to achieve adequate and proper documentation of the policies and transactions of the Federal Government and effective and economical management of agency operations.

² NARA 36 C.F.R., Part 1234, "Electronic Records Management," Section 1234.2, "Definitions," defines electronic records as any information that is recorded in a form that only a computer can process and that satisfies the definition of a Federal record. NARA 36 C.F.R., Part 1220, Section 1220.14 defines records to include all books, papers, maps, photographs, machine readable materials, or other documentary materials, regardless of physical form or characteristics, made or received by an agency of the U.S. Government under Federal law or in connection with the transaction of public business and preserved or appropriate for preservation by that agency or its legitimate successor as evidence of the organization, functions, policies, decisions, procedures, operations, or other activities of the Government or because of the informational value of the data in them.

personnel continued to operate under Chief Information Officer (CIO) Executive Notice 12-96, "NASA Electronic Mail," which was issued in February 1996 and modified once in February 2000. Updated guidance was needed to replace the Executive Notice, which lacks details on the retention of official e-mail correspondence and cites NASA policies that no longer exist.

The responses to our survey questionnaires,³ which were designed to verify compliance with regulations and requirements, also showed that NASA was not managing its official e-mail records in accordance with applicable statutory and regulatory requirements. Of the 40 senior management officials surveyed, 37 (92.5 percent) were noncompliant with regulations and requirements to identify, designate, store, and retain official e-mail correspondence. The responses also showed that NASA was not performing reviews in accordance with NARA regulations and NASA's requirements, and none of the documented reviews specifically addressed electronic records management. Electronic records management reviews can better ensure that Agency personnel are identifying and retaining official e-mail correspondence as required by NARA regulations and NASA's requirements.

NASA's noncompliance with NARA regulations and NASA's requirements for records management increases the risk of permanent loss of (1) institutional memory, (2) records containing essential transactions that protect the legal and financial rights of the Government and persons directly affected by NASA activities, and (3) records permitting NASA to be responsive to Congress and oversight agencies.

NASA, in an effort to more efficiently and effectively manage its official e-mail correspondence, developed comprehensive electronic records management guidance and Agency-wide electronic records management training. The guidance was approved February 4, 2008, and NASA implemented the training in February 2008. Also, in November 2007, NASA began migrating existing e-mail server environments to a single Agency-wide e-mail system called NASA Operational Messaging and Directory (NOMAD) to manage its multiple e-mail server environments. NASA expects that the migration will be completed by the end of the second quarter of calendar year 2008 and that NOMAD will be fully operational by the end of fiscal year 2008.

NOMAD, once fully operational, will serve as NASA's e-mail system. NOMAD will also serve as the interface with, initially, an e-mail archiving capability and, later, with a records management application. As an interim measure until NOMAD becomes fully operational, NASA identified and began capturing all e-mail correspondence of 146 "Top Management Officials" for permanent retention. NASA defined Top Management Officials as heads of any organizational level that has been delegated the responsibility of serving as "office of record" or "Office of Primary Responsibility." The interim measure, while meeting NASA's retention schedule requirements for Top Management

³ Two different surveys were conducted. See Enclosure 3 for the questionnaire used for Senior Management Officials and Enclosure 4 for the questionnaire used for the Records Officer and Center Records Managers.

Officials, does not fully comply with NARA's electronic recordkeeping regulations for electronic records retention. All Center e-mail systems will be integrated into NOMAD by the end of the second quarter of calendar year 2008, and senior management's e-mail messages will be archived beginning the third quarter of calendar year 2008.

Our January 18, 2008, draft of this memorandum recommended that the Office of the CIO finalize and issue the revision to NASA Procedural Requirements (NPR) 1441.1D, "NASA Records Retention Schedules (w/Change 3, 1/31/06)." The draft NPR revision provides specific guidance for electronic records management. Once revised, NASA should rescind CIO Executive Notice 12-96. Also, we recommended that the NASA CIO implement mandatory electronic records management training; reinforce the identification, retention, and archiving requirement of official electronic records (including e-mail); and monitor electronic records management reviews to ensure they are performed as required by NARA and NASA.

NASA management's comments on the draft of this memorandum are responsive (see Enclosure 5). We have closed two recommendations and will close the other two upon completion and verification of management's corrective action.

Background

Under the National Archives and Records Administration Act of 1984, NARA is responsible for ensuring the adequacy of documentation and records disposition, and Federal agencies are responsible for ensuring that records management programs comply with NARA regulations. Specifically, NARA 36 C.F.R., Section 1234.10, "Agency Responsibilities," requires agencies to develop and implement an agency-wide program for the management of all records created, received, maintained, used, or stored on electronic media. NARA requires agencies to establish procedures for records management, provide adequate training, and perform reviews to ensure conformance to established agency procedures, standards, and policies.

NARA 36 C.F.R., Section 1234.24, "Standards for Managing Electronic Mail Records," states that agencies must not use a recordkeeping system that includes e-mail messages unless that system (1) provides for the grouping of related records, (2) permits easy and timely retrieval of both individual records and files, (3) retains the records in a usable format for the required retention period, (4) is accessible by individuals who have a business need, (5) preserves the transmission and receipt data, and (6) permits transfer of permanent records to NARA. If the e-mail system is not designed to be a recordkeeping system, agencies must instruct staff on how to copy Federal records from the e-mail system to a recordkeeping system. NARA regulations require agencies that maintain paper files as their recordkeeping system to print their e-mail records and the related transmission and receipt data.

NASA Policy Directive (NPD) 1440.6G, "NASA Records Management," December 12, 2002, and NPR 1441.1D implement the NARA regulations. NPD 1440.6G mandates that NASA management implement adequate training, processes, and controls to properly

preserve official Agency records regardless of format or media (including e-mail correspondence) and to protect the trustworthiness of electronic records. NPR 1441.1D sets forth the guidelines and retention schedules for Federal records based on the record category⁴ and the position of the employee creating the record. Section I.7 of the NPR, “Electronic Records,” includes the following:

a. Electronic records are electronically recorded data (including e-mail), or paper records converted, that meet both of the following conditions are Federal records and must be scheduled and cared for appropriately:

- (1) They are made or received by NASA under Federal law or in connection with the transaction of public business; and,
- (2) They are preserved or appropriate for preservation as evidence of NASA’s activities or because of the value of the information they contain. The same policies and procedures that apply to other record mediums also apply to electronic records with a few exceptions. These exceptions are based on the need to have information about the system, the media being used, and the data being acquired.

Because NASA does not have an official electronic recordkeeping system, NASA requires identifying, printing, and filing of official e-mail correspondence in accordance with NARA’s recordkeeping regulations for paper files. NASA’s CIO Executive Notice 12-96, which was modified in February 2000 and was in effect as of January 2008, provides guidance specific to official e-mail correspondence, stating that e-mail should not be used for official business. The Executive Notice also states, however, that should official business be transacted using this system (e-mail), hardcopy documents of the e-mail messages must be produced, filed, maintained, and disposed of in accordance with appropriate records management guidance. In addition, the Executive Notice states that e-mail systems are not storage systems.

NASA Had Not Finalized Comprehensive Guidance for Electronic Records Management

NASA had established records management policies and procedures in accordance with NARA regulations; however, NASA’s e-mail retention guidance, Executive Notice 12-96, lacks details on the retention of official e-mail correspondence and cites NASA policies that no longer exist. For example, the Executive Notice requires hardcopy retention of e-mail messages “[s]hould official business be transacted using this system,” but does not provide any guidance on how to identify e-mail messages as official documents requiring retention. In addition, the Executive Notice cites NASA Handbook 1441.1B, which NPR 1441.1D has replaced, and refers to outdated retention schedules.

⁴ The NASA Records Retention Schedules are divided into 10 subject categories, such as Organizational and Administrative, Legal and Technical, and Human Resources – Personnel, and correlate to the Agency Filing Scheme.

NASA had developed comprehensive, updated guidance but as of January 2008 had not finalized that guidance. Specifically, the draft revision to NPR 1441.1D, Section I.7, provides guidance on the retention of electronic records, to include e-mail, that would help ensure that employees understand and comply with NARA regulations for electronic records management. Once the revised NPR is issued, NASA should rescind Executive Notice 12-96.

NARA 36 C.F.R., Section 1234.24 requires agencies to develop procedures for the maintenance of e-mail records in appropriate recordkeeping systems. NPR 1441.1D, Section I.7e lacks electronic records management guidance and states that “[m]ore specific policy, procedures, and guidelines for identifying and managing electronic records are under development by the Office of the NASA Chief Information Officer.” That statement has been in NPR 1441.1D since it was initially issued in February 2003. To resolve the need for specific electronic records management guidance, the Agency Records and Privacy Act Officer (NASA’s Records Officer) developed electronic records management guidance for NPR 1441.1D, Section I.7. However, as of January 2008, that guidance still needed to be submitted to the NASA CIO for review, approval, and inclusion in the NPR.

NASA Personnel Do Not Always Understand and Comply with Federal and NASA Regulations

To verify senior management’s understanding and compliance with NARA regulations and NASA’s requirements for the identification and retention of official e-mail correspondence, as set forth in Executive Notice 12-96, we surveyed NASA’s senior management officials (Administrator, Associate and Assistant Administrators, Center Directors and Deputy Directors, and Mission and Program Directors and their Deputies). After identifying the officials from NASA Headquarters (HQ), Johnson Space Center (JSC), and Ames Research Center (ARC), we non-statistically selected, by location, 25 percent of the total.⁵ A total of 40 senior management officials were chosen and provided a questionnaire for completion (see Enclosure 3). We obtained a 100 percent response for the questionnaire.

Based on questionnaire responses and subsequent interviews, we found that 18 senior management officials (45 percent of those surveyed) were not aware of their responsibilities, were uncertain whether they were required to retain their e-mail, or were uncertain of how they were to retain e-mail. Because each employee is responsible for determining whether materials, including e-mail correspondence, are an official record requiring retention, NASA needs to ensure that current and adequate guidance exists for employees to make informed e-mail records management decisions and to reduce NASA’s risk of losing institutional memory, documentation of essential transactions, or records that support NASA decisions.

⁵ NASA audit liaison representatives at the three locations identified 157 NASA personnel as senior management officials (70 from HQ, 59 from JSC, and 28 from ARC).

NASA's Retention of Official E-Mail Correspondence Needs Improvement

NASA had not ensured that senior management officials were identifying, designating, storing, and retaining official e-mail correspondence in accordance with NARA regulations and NASA's records management requirements. NARA 36 C.F.R., Section 1234.24 identifies specific criteria that must be in place for an electronic recordkeeping system to be used as an official recordkeeping system and states that agencies must not use an e-mail system to store Federal records unless the system meets the specific criteria. If e-mail systems do not meet the specified criteria, agencies can copy e-mail correspondence to a system that does or print relevant e-mail correspondence for retention with their paper files. Because NASA does not have an official electronic recordkeeping system, NASA's CIO Executive Notice 12-96 states that if e-mail correspondence is used as an official document, it must be printed, filed, maintained, and disposed of in accordance with appropriate records management guidance.

Of the 40 senior management officials surveyed, 3 (7.5 percent) were complying with NARA regulations and NASA's records management requirements by printing and retaining official e-mail correspondence. The remaining 37 (92.5 percent) did not comply. Those officials stated that e-mail was not official correspondence (5, or 12.5 percent), that they did not retain any e-mail (14, or 35 percent), or that they retained official e-mail electronically on local hard drives or network servers (18, or 45 percent).

NPR 1441.1D, Schedule 1, Item 22, states that records of high-level officials or, more specifically, records of the "Office of the Administrator, Deputy, Associate Administrator, Assistant Administrator, Center Director, or equivalent management levels . . . reflecting policy, studies, and analyses and program development, including correspondence and informal notes between NASA officials; with private sources, foreign governments, and other U.S. Government agencies" are permanent records.⁶ Item 22 also states that records of Division offices and lower can be destroyed or deleted when 2 years old and that "[r]outine materials containing NO substantive information regarding the daily activities of other than high level officials" can be destroyed or deleted when no longer needed. All five of the senior management officials who stated that their e-mail was not official correspondence are classified as either Top Management or Division-level Officials, thus requiring retention of their e-mail correspondence for at least 2 years. In fact, one of the five officials had already been identified by NASA as a Top Management Official for permanent e-mail retention, and according to NASA's Records Officer, the remaining four senior management officials would fall into the 2-year retention period, based on their role or support function.

Unless all of NASA's senior management officials comply with records retention requirements to identify and retain official e-mail correspondence, NASA may lose or

⁶ Permanent records may be retired to a Federal Records Center, or an approved facility, when 5 years old and then transferred to NARA when 10 years old.

may have lost records containing essential transactions that protect the legal and financial rights of the Government and persons directly affected by NASA activities.

NASA's Records Management Training Needed to Be Implemented

NASA had not implemented Agency-wide electronic records management training, or reminded all employees annually, to ensure that all e-mail users were aware of records management requirements and understood the process of identifying, designating, storing, and retaining official e-mail correspondence. NARA 36 C.F.R., Part 1222, "Creation and Maintenance of Federal Records," Section 1222.20, "Agency Responsibilities," requires that adequate training be provided to all agency personnel on policies, responsibilities, and techniques for the implementation of recordkeeping requirements and the distinction between records and nonrecord materials, regardless of media, including those materials created by individuals using computers to send or receive electronic mail. In addition, each Federal agency is required to remind all employees annually of the agency's recordkeeping policies and of the sanctions provided for unlawful removal or destruction of Federal records. Similarly, NPD 1440.6G mandates the implementation of adequate training to properly preserve official Agency records in accordance with applicable statutory and regulatory requirements and requires NASA's Records Officer to provide records management training to Agency personnel.

During our audit, NASA's Records Officer stated that NASA does not have Agency-wide electronic records management training, and our survey of the Records Officer and Center Records Manager identified that only 3 of the 13 Center Records Managers⁷ maintained documentation to support the performance of Center-based electronic records management training. In addition, of the 40 senior management officials surveyed, 37 (92.5 percent) stated that they had not received records management training. Aside from the newly implemented retention of Top Management Officials' e-mail, NASA relies on Agency personnel to identify official e-mail correspondence for retention and, therefore, electronic records management training is critical to ensure that Agency personnel can identify official e-mail correspondence and take the proper steps to avoid the risk of permanent loss of NASA's institutional memory and decision-making record.

NASA's Records Officer provided us with proposed electronic records management training modules in August 2007. NASA planned to implement the training through the System for Administration, Training, and Educational Resources for NASA (SATERN)⁸ in February 2008. The training includes electronic records management modules that will address NARA regulations for electronic records management, to include e-mail retention.

⁷ We surveyed NASA's Records Officer and 13 Records Managers at 11 Centers (including HQ, where we surveyed 2 Records Managers, as we also did at the Jet Propulsion Laboratory).

⁸ SATERN is a software application used by NASA to manage the learning activities and efforts of its personnel.

NASA's Records Management Reviews Are Not Always Performed

NASA's Records Officer and Center Records Managers did not consistently perform records management reviews to ensure compliance with NARA regulations and NASA's requirements. NARA 36 C.F.R., Section 1220.42, "Agency Internal Evaluations," requires agencies to periodically evaluate its records management programs relating to records creation and recordkeeping requirements, maintenance and use of records, and records disposition. NARA states that the evaluations should include periodic monitoring of staff determinations of the record status of documentary materials in all media and the implementation of these determinations. In addition, NARA 36 C.F.R., Section 1234.10 requires agencies to perform reviews to ensure compliance with established agency procedures, standards, and policies for electronic records management. NPD 1440.6G mandates that NASA's Records Officer perform records management reviews to determine whether needed documentation is being created and maintained. The NPD also requires that Center Records Managers perform reviews to ensure that permanent and official records throughout the Agency are selected, identified, and protected. In addition, the NPD calls for Center Records Managers to report annually to the CIO any discrepancies that indicate records were not protected, preserved, and maintained in compliance with current regulations. We found that NASA's Records Officer and Center Records Managers were not performing the reviews in accordance with NARA regulations and NASA's requirements.

While conducting our survey of NASA's Records Officer and the 13 Center Records Managers, we requested documentation supporting records management reviews and self-assessments performed between January 1, 2005, and December 31, 2006. Only 3 (21 percent) of the 14⁹ could provide documentation supporting records management reviews. However, none of those documented reviews specifically addressed electronic records management. Electronic records management reviews can better ensure that Agency personnel are identifying and retaining official e-mail correspondence as required by NARA regulations and NASA's requirements.

NASA's noncompliance with electronic records management regulations and requirements increases the risk of permanent loss of (1) institutional memory, (2) records containing essential transactions that protect the legal and financial rights of the Government and persons directly affected by NASA activities, and (3) records permitting NASA to be responsive to Congress and oversight agencies.

Agency Migrating to an Electronic Recordkeeping System

Although an electronic recordkeeping system is not required for maintaining records, NASA, in an effort to improve e-mail recordkeeping efficiency and effectiveness, began migrating existing e-mail server environments to a single Agency-wide e-mail system called NOMAD in November 2007. Because NOMAD, by itself, will not meet NARA

⁹ NASA's Records Officer and 13 Center Records Managers.

regulations for an electronic recordkeeping system, NOMAD will interface with software, not yet procured, that meets the Department of Defense (DoD) 5015.02-STD, “Electronic Records Management Software Applications Design Criteria Standard,” April 25, 2007, which NARA endorses as the standard for an electronic recordkeeping system. NASA expects that NOMAD and the interfacing software will be fully operational by the end of fiscal year 2008. Once fully implemented, it will archive electronic messages of all senior managers who generate permanently valued messages, permitting easy search and retrieval for discovery purposes, as well as enabling easy capture for their transfer to NARA.

In the interim, NASA identified and began capturing all e-mail correspondence of 146 Top Management Officials. Although this approach does not comply with NARA regulations for electronic recordkeeping, it does provide for the permanent retention of NASA senior management officials’ e-mail correspondence until NOMAD becomes fully operational. Although NASA’s actions (NOMAD and the permanent retention of Top Management Officials’ e-mail correspondence) will substantially reduce the risk of inadvertent loss of official e-mail correspondence, NASA must take additional corrective actions to ensure that Agency personnel comply with NARA regulations and NASA’s requirements.

Recommendations, Management’s Response, and Evaluation of Management’s Response

Recommendation 1. The NASA Chief Information Officer should finalize and issue revised guidance—specifically, revisions to NPR 1441.1D, Section I.7—for identifying and managing electronic records regardless of the retention environment and format (hardcopy or electronic) and rescind CIO Executive Notice 12-96.

Management’s Response. The NASA CIO concurred, stating that updated procedural requirements for electronic records management have been incorporated, by Change 4, into NPR 1441.1D, Section I.7. Included in Change 4 is the revision to the NASA Records Retention Schedules, Item 22, which includes e-mail records, and was approved by the Archivist of the United States on November 8, 2007.

The finalized, updated NPR was submitted to the NASA Directives Officer on February 4, 2008, for uploading into the NASA Online Directives Information System (NODIS). Once uploaded, the NASA CIO will issue a memorandum to Center Directors and Headquarters Officials-in-Charge canceling CIO Executive Notice 12-06.

Evaluation of Management’s Response. Management’s planned actions are responsive. The recommendation is resolved and will be closed upon completion and verification of management’s corrective action.

Recommendation 2. The NASA Chief Information Officer should implement mandatory electronic records management training.

Management's Response. The NASA CIO concurred, stating that the Office of the CIO had developed and implemented training. As of February 4, 2008, the SATERN training module, "NASA Records Management for Everyone," is required for all NASA civil service employees and highly recommended for contractors who perform or support NASA functions. The mandatory module provides an overview of records identification and management requirements, including e-mail records, and provides references to more in-depth instruction. Five additional modules are available in SATERN, and four more are expected to be made available over the next several months.

Evaluation of Management's Response. Management's planned actions are responsive. The recommendation is resolved and closed.

Recommendation 3. The NASA Chief Information Officer should reinforce the identification, retention, and archiving of official electronic records (e-mail) regardless of the retention environment and format (hardcopy or electronic) in accordance with NARA regulations and NASA's requirements.

Management's Response. The NASA CIO concurred. To reinforce employees' understanding of the requirements for identifying, retaining, and archiving official records, regardless of format, the NASA CIO sent an e-mail message to all NASA employees on January 24, 2008, reminding them of their general records management responsibility, specifically with regard to e-mail records. Further, beginning January 2009, the Office of the CIO will provide annual reminders to Agency personnel of their responsibilities to comply with Federal regulations and NASA policy and requirements.

Evaluation of Management's Response. Management's planned actions are responsive. The recommendation is resolved and closed.

Recommendation 4. The NASA Chief Information Officer should monitor electronic records management reviews to ensure they are performed as required.

Management's Response. The NASA CIO concurred, stating that the Office of the CIO will develop a records management review plan by June 30, 2008, that sets forth a multi-pronged strategy for conducting periodic Center and Agency-wide reviews of records management compliance.

Evaluation of Management's Response. Management's comments are responsive. The recommendation is resolved and will be closed upon completion of the records management review plan and our verification of management's corrective action.

We appreciate the courtesies extended to our staff during the audit. If you have any questions, or need additional information, please contact Ms. Wen Song, Information Technology Director, Office of Audits, at 202-358-2588.

signed

Evelyn R. Klemstine

5 Enclosures

cc:

Agency Records and Privacy Act Officer
Director, Ames Research Center
Director, Dryden Flight Research Center
Director, John H. Glenn Research Center at Lewis Field
Director, Goddard Space Flight Center
Director, Jet Propulsion Laboratory
Director, Lyndon B. Johnson Space Center
Director, John F. Kennedy Space Center
Director, Langley Research Center
Director, George C. Marshall Space Flight Center
Director, John C. Stennis Space Center
CIO, Ames Research Center
CIO, Dryden Flight Research Center
CIO, John H. Glenn Research Center at Lewis Field
CIO, Goddard Space Flight Center
CIO, Headquarters
CIO, Jet Propulsion Laboratory
CIO, Lyndon B. Johnson Space Center
CIO, John F. Kennedy Space Center
CIO, Langley Research Center
CIO, George C. Marshall Space Flight Center
Deputy CIO, George C. Marshall Space Flight Center
CIO, John C. Stennis Space Center

Scope and Methodology

We performed this audit from July 2007 through January 2008 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

We completed the following steps in conducting our audit of NASA's retention of official e-mail:

- Identified and reviewed the NARA regulations and NASA's requirements (see Enclosure 2).
- Developed a questionnaire to survey selected senior management officials (see Enclosure 3) to determine their
 - awareness of NASA requirements for electronic records management specifically the identification and retention of official e-mail;
 - compliance with electronic records requirements;
 - rationale for noncompliance in the event they were not complying with regulations; and
 - training received on electronic records management and specifically official e-mail records.
- Obtained Center-provided listings of senior management officials at HQ, JSC, and ARC to ensure accurate distribution of survey questionnaire.
- Verified the senior management officials' listings for accuracy and completeness.
- Non-statistically selected, by location, 25 percent of the total using E-Z Quant's random number generator to identify the distribution for our senior management questionnaire.
- Distributed the survey questionnaire to senior management officials: 18 at HQ, 15 at JSC, and 7 at ARC. We obtained a 100 percent response.
- Analyzed the senior management questionnaire responses and conducted interviews with selected senior management officials to validate responses and determine compliance with NARA regulations and NASA's requirements.
- Developed a survey questionnaire for Center Records Managers (see Enclosure 4) to evaluate their
 - requirements for storage/retention of official e-mail;

- verification of compliance with policy;
 - compliance in performing records management reviews;
 - definition of an electronic recordkeeping system(s) for retention of official e-mail;
 - training received on NARA regulations and NASA's requirements for electronic records management;
 - requirements for and provision of training to Agency personnel on electronic records management; and
 - requirements for transferring electronic records to NARA.
- Distributed the survey questionnaire to 14 Records Managers: 1 to NASA's Records Officer at HQ and the remaining 13 to Records Managers at NASA's 11 Centers. We obtained a 100 percent response.
 - Analyzed the Center Records Manager questionnaire responses, verifying compliance with NARA regulations and NASA's requirements.
 - Requested from all NASA Centers documentation to support records management reviews and/or self-assessments performed between January 1, 2005, and December 31, 2006.

Computer-Processed Data. We relied on computer-processed data for this audit. We obtained from the audit liaison representatives at HQ, JSC, and ARC listings of persons identified as senior management officials at each location. We performed limited testing to validate the reliability and integrity of the listings by comparing the listings provided against recent phone listings, organizational charts, and e-mail groups identified as senior staff. Based on this limited testing, we placed reliance on the listings of senior management officials to be complete.

Review of Internal Controls. We reviewed internal controls for NASA's activities relating to official e-mail retention policy, training, and reviews. We identified weaknesses in NASA requirements, training, and records management reviews as discussed in this memorandum.

Prior Coverage. No prior coverage of the retention and storage of e-mail was identified.

Federal and NASA Regulations

We used the following Federal and NASA regulations to conduct our audit.

NARA 36 C.F.R., “Records Management” (July 1, 2006, Edition)

- Part 1220, “Federal Records; General”
- Part 1222, “Creation and Maintenance of Federal Records”
- Part 1228, “Disposition of Federal Records”
- Part 1234, “Electronic Records Management”

DoD 5015.02-STD, “Electronic Records Management Software Applications Design Criteria Standard,” April 25, 2007

NPD 1440.6G, “NASA Records Management,” December 12, 2002

NPR 1441.1D, “NASA Records Retention Schedules (w/Change 3, 1/31/06)”

CIO Executive Notice 12-9, “NASA Electronic Mail,” February 20, 1996

We also reviewed the draft revision to NPR 1441.1D, Section I.7, and the training developed by the NASA Records Officer.

Senior Management Official Questionnaire

The NASA Office of Inspector General (OIG) is performing an audit of the retention of NASA's official electronic mail (e-mail) by NASA employees. As part of this audit, we sampled NASA senior staff with active NASA e-mail accounts to complete our questionnaire regarding their retention of official e-mail. You were selected as part of the survey sample and are requested to respond to the questions and return your responses to your Center's Audit Liaison Representative (ALR) within a week of receipt of the questionnaire. At a later date we will schedule a meeting with you to validate your responses to the questionnaire. Any questions or concerns you have regarding the survey or the questions should be directed to NASA OIG Project Manager, Mr. Mario Carbone at mario.m.carbone@nasa.gov, or 281-483-9572, or Project Lead, Mr. Bret Skalsky at bret.skalsky@nasa.gov, or 281-244-1156.

Please respond to the following:

Name:

Organization:

E-mail address:

Phone number:

1. Are you aware of NASA's or your Center's official policy on the retention of official e-mail? (circle one) Yes No
 1. a. If no, explain why not.
 1. b. If yes, identify the policy.
 1. c. If yes, identify the process for identifying and storing/retaining official e-mail.
2. In your opinion, what constitutes an official e-mail?
3. Have you had any training related to what constitutes an official e-mail and what your responsibilities are regarding official e-mail? (circle one) Yes No
 3. a. If yes, from whom?
 3. b. If yes, when did the training occur?
 3. c. If yes, what training was provided?
 3. d. If yes, identify your responsibilities regarding official e-mail.
4. Do you retain all official e-mail? (circle one) Yes No
 4. a. If no, explain why not.
 4. b. If yes, explain your process for identifying, retaining/storing, and retrieving your official e-mail.

Center Records Manager Questionnaire

The NASA Office of Inspector General (OIG) is performing an audit of the retention of NASA's official electronic mail (e-mail) by NASA employees. As part of this audit, we are sending you this questionnaire to inquire about your role in the retention of official e-mail at your Center. At a later date we will schedule a meeting with you to validate your responses to the questionnaire. Any questions or concerns you have regarding the questionnaire should be directed to NASA OIG Project Manager, Mr. Mario Carbone at mario.m.carbone@nasa.gov, or 281-483-9572, or Project Lead, Mr. Bret Skalsky at bret.skalsky@nasa.gov, or 281-244-1156.

Please respond to the following:

Name: _____ Organization: _____

E-mail address: _____ Phone number: _____

1. Please describe the Center's policy regarding the storage/retention of official e-mail.
2. Is the Center's e-mail storage/retention policy identical to that of the Agency's?
(circle one) Yes No
 2. a. If no, explain the differences between the policies and the reason for the difference.
3. What role do you, as the Center Records Manager, play with respect to the Center's policy for storing/retaining official e-mail?
4. How do you ensure that employees are complying with the e-mail retention policy?
5. Does the Center have written procedures and guidance for employees for identifying official e-mail? (circle one) Yes No
 5. a. If yes, identify the procedure(s) and provide a copy.
 5. b. If no, explain why not.
6. Does the Center have written procedures and guidance for employees for storing/retaining official e-mail? (circle one) Yes No
 6. a. If yes, identify the procedure(s) and provide a copy.
 6. b. If no, explain why not.
7. What constitutes an official e-mail and, hence, requiring storage/retention?
8. What constitutes an appropriate recordkeeping system suitable for retaining official e-mail?

9. Can the recordkeeping system be either electronic (e.g., stored on a computer server) or manual (e.g., stored as hardcopies in a file cabinet)? (circle one) Yes No
9. a. If no, explain why not.
9. b. If yes, please identify the name of the server(s) and the name, phone number of who to contact regarding the server.
10. Does the Center require that all employees' official e-mail be electronically backed up? (circle one) Yes No
10. a. If yes, how is the backup performed?
11. What training did you, as the Center Records Manager, receive relative to policy and procedures on e-mail retention? (Please specify the training course(s) attended.)
12. What training is available to Center employees pertaining to e-mail retention? Please be specific as to the course title, training provider, frequency of course offerings, etc.
13. Does NASA have a policy for the transfer of official records to NARA? (circle one) Yes No
13. a. If no, explain why not.
13. b. If yes, identify the policy and provide a copy.

Management's Comments

National Aeronautics and Space Administration
Headquarters
Washington, DC 20546-0001



FEB 21 2008

Reply to Attn of: Office of Chief Information Officer

TO: Assistant Inspector General for Audits
FROM: NASA Chief Information Officer
SUBJECT: Response to Draft Memorandum - Assignment No. A-07-007-00

The NASA Chief Information Officer (OCIO) is pleased to provide the following management comments in response to the subject draft memorandum for Assignment No. A-07-007-00, "Audit of Retention of NASA's Official Electronic Mail," the purpose of which was to determine whether NASA is effectively and efficiently managing its official electronic mail (e-mail) records in accordance with applicable statutory and regulatory requirements.

This response specifically addresses each of the four Office of Inspector General (OIG) recommendations on improving NASA's Records Management (RM) program with regard to e-mail records.

OIG Recommendations for Corrective Action:

Recommendation 1: *The NASA Chief Information Officer should finalize and issue revised guidance—specifically, revisions to NPR 1441.1D, Section I.7—for identifying and managing electronic records regardless of the retention environment and format (hardcopy or electronic) and rescind CIO Executive Notice 12-06.*

OCIO Response:

Concur. Updated electronic records management procedural requirements have been incorporated into section I.7 of Revision D, Change 4 to the NPR 1441.1 NASA Records Retention Schedules. The updated NPR was submitted to the NASA Directives Officer on February 4, 2008, for upload into NODIS. Also included in Change 4 was the revision to the Management Records schedule item NRRS 1/22 that includes e-mail records and was approved by the Archivist of the United States on November 8, 2007.

A memorandum from Jonathan Pettus to Center Directors and Headquarters Officials-in-Charge that cancels CIO Executive Notice 12-06 will be signed on approximately February 19, 2008, and will be distributed thereafter.

Recommendation 2: *The NASA Chief Information Officer should implement mandatory electronic records management training.*

OCIO Response:

Concur. The OCIO has gone a step further than the recommendation in order to comply with 36 CFR 1222.20 that the Agency “ensure that adequate training is provided to all agency personnel on policies, responsibilities, and techniques for the implementation of recordkeeping requirements and the distinction between records and nonrecord materials, regardless of media, including those materials created by individuals using computers to send or receive electronic mail.”

A training module required of all NASA civil servants, and highly recommended for contractors who perform or support NASA functions, has been developed and implemented within NASA’s on-line training system SATERN as of February 4, 2008. This mandatory module is entitled “Records Management for Everyone” and provides an overview of records identification and management requirements for all records, including email records. It includes specific attention to the subject of e-mail records with quiz questions and answers for sample e-mail messages. The aforementioned mandatory module must be completed by all NASA civil servant employees at the Centers by the end of the fiscal year.

In addition, the required training module refers learners to a training module with more in-depth instruction on managing e-records, as well as other more detailed records management modules, a number of which are already implemented in SATERN. The additional modules that are either already deployed in SATERN or planned for migration to the production environment during the next several months include:

- NASA Records 101 (deployed)
- NASA Filing Tips (deployed)
- NASA Records Schedules (deployed)
- NASA Electronic Records (deployed)
- NASA Records Retirement
- NASA Records Retrieval
- NASA Project Startup
- NASA Project Shutdown
- NASA Records Help (deployed)

Recommendation 3: *The NASA Chief Information Officer should reinforce the identification, retention, and archiving of official electronic records (e-mail) regardless of the retention environment and format (hardcopy or electronic) in accordance with NARA regulations and NASA’s requirements.*

OCIO Response:

Concur. The OCIO agrees that it should seek ways to reinforce employees' understanding of the requirements for identifying, retaining, and archiving official records, regardless of format. First, the mandatory training discussed above was designed to reinforce employees' understanding of managing electronic records. This reinforcement of their knowledge of how to identify records in any format versus non-records, as well as issues of where and how to retain records, is accomplished through pop quiz questions and explanatory answers throughout the training course.

In addition, all employees were reminded of their general records management responsibility, and specifically with regard to e-mail records, by the issuance of an e-mail message from the NASA CIO on January 24, 2008.

Finally, in accordance with 36 CFR 1222.20, beginning January 2009, the OCIO will provide annual reminders to Agency personnel of their responsibilities to comply with Federal regulations and NASA policy and requirements. These reminders will take a variety of forms from year-to-year and may range from reminder e-mail messages or memoranda to poster or other "advertising" literature campaigns.

Recommendation 4: *The NASA Chief Information Officer should monitor electronic records management reviews to ensure they are performed as required.*

OCIO Response:

Concur. The OCIO will be more involved than merely monitoring such reviews. By June 30, 2008, this office will develop a records management review plan that sets forth a multi-pronged strategy for conducting periodic Center and Agency wide reviews of RM compliance. This plan will include provision for the annual submittal by Centers of annual discrepancy reports identifying deficiencies in RM practices, as required by NPD 1440.6H, "NASA Records Management," which will soon be signed by the Administrator.

If you have any questions concerning this memorandum, please direct them to Patti Stockman at (202) 358-4787.


Jonathan Q. Petrus