National Aeronautics and
Space Administration

Mary W. Jackson NASA Headquarters
Washington, DC 20546-0001

**NASA's Response to Managing Government Records Directive
Senior Agency Official (SAO) Annual Report – 2021**

I am pleased to provide NASA's SAO Annual Report for 2021.

Our Agency continues progress in managing its records digitally through improved data management governance and continued deployment of enterprise-wide systems and services. We know that proper management of our records is the key to preserving NASA's legacy of work and missions that have global impact and interest. Therefore, though impacted by COVID, we have proudly continued transfer of permanent records to the National Archives.

We appreciate your leadership of federal agencies as we all work to improve our electronic records management. NASA and I look forward to continued collaboration with you and other agencies in the coming year toward our common goals.

You may contact NASA Records Officer, Patti Stockman, with any questions concerning our submitted SAO Report. She may be reached at Patt.Stockman@nasa.gov or by telephone at 202-358-4787.

Regards,

Jeff Seaton
NASA Chief Information Officer

1. **What agencies, bureaus, components, or offices are covered by this report and your position as SAORM and which will be reporting separately?**

   Please provide a list, and also indicate any that are new or have been changed due to reorganization or other circumstances.

   The SAO is responsible for Records Management (RM) in the entire Agency.

2. **Has the COVID-19 pandemic impacted policies or practices related to records management at your agency?**

   ☐ Yes
   X No
   ☐ Do not know

   Please explain your response (include details of specific challenges, if applicable):

   COVID-19 and resultant teleworking did not create the need for any changes in records management requirements or processes.

3. **Does your agency have an established information governance framework that integrates records management, data management, and other agency information lines of business? (This includes a relationship between CIO, CDO, SAORM, DRO/ARO, RM Staff, Security, Privacy Officers, and FOIA)**

   X Yes
   ☐ No
   ☐ Do not know

   Please provide details. If 'Yes,' provide details on how your RM program is integrated into this framework. If 'No' or 'Do not know,' please explain your response.

   NASA continues the multi-year transformation of Agency functions to enhance efficiencies, service delivery, innovation, and collaboration throughout the Agency and Federal government. The process, reported last year, involves comprehensive evaluation of existing services and processes, and reorganization to best serve the needs of missions, NASA, and the nation. The Office of the Chief Information Officer (CIO), which is responsible for information and records management, initiated the transformation process at the end of FY21. This included transition of the Information Management Program (IMP) into Information, Data and Analytics Services (IDAS) that specializes in Agency information and data management, access, and retention.

   IDAS is responsible for establishing an enterprise service to include development, implementation, education, and assessment of a comprehensive information management

strategy. IDAS has the objective of providing enhanced data access, inter- and intra-Agency collaboration, policy-driven data governance, efficient information lifecycle management, while leveraging scalable, sustainable infrastructure. IDAS oversees functions of Records Management, Forms Management, Paperwork Reduction Act (PRA), the Scientific and Technical Information (STI) Program, Data Architecture, Federally Funded Research Publication Access, and Library Services. The functional areas have working groups that guide decision-making and/or escalate issues to an Information Management Program Board, the Data Governance Board (DGB), or the Enterprise Change Control Board – each of which play unique roles in NASA's overall Information Technology (IT) Governance Structure.

The NASA DGB chaired by NASA's Chief Data Officer was established and chartered in 2020 under the purview of the CIO who is the SAORM. With board members and ex-officio members consisting of top managers from every Agency mission and non-mission organization, the DGB sets and enforces NASA priorities for managing data as a strategic asset to support NASA in meeting its mission.

The DGB continued to function during 2021establishing a domain prioritization of data sharing and IT transformation efforts to address the business needs across the NASA enterprise. The board focuses on interoperability and data standards, strategic direction of data and information, data products, as well as providing leadership in standardizing analytical capabilities within NASA. The DGB facilitates making data available to decision makers, to enable informed decisions with advanced analytics, artificial intelligence, machine learning, and other emerging technologies. As part of this effort to implement a comprehensive data inventory of data sets and records, Data Stewardship is a new role in a Data Governance Organization responsible for enabling the management of data assets through data governance strategies, policies, and standards.

4. **Will your agency meet the goal to manage and preserve all permanent records in an electronic format with appropriate metadata by December 31, 2022? (M-19-21, 1.2)**

☐ Yes
X No
☐ Do not know

Please explain your response (include specific goals, example metrics, and/or challenges):

No known entity within NASA any longer generates analog records. However, the Agency still has roughly 6,000 cubic feet of potentially permanent analog records in on-site records storage facilities. In August 2019, records management personnel had established quarterly goals to appraise and disposition them, transferring verified permanent ones to the National Archives. However, progress to the goals have largely been disrupted due to COVID impacts.

Despite COVID, in 2021 NASA submitted 26 transfer requests for direct transfer of nearly 1,100 cubic feet of permanent analog records from NASA Centers to the National Archives. Over the past five years, we transferred over 7,100 cubic feet from NASA to the Archives.

A few significant initiatives evidencing NASA's due diligence toward the goal of all digital records management are:

- NASA has continued digitizing permanent analog imagery at NASA Centers that have access to their collections or have funding for systems or outsourcing. Most Centers have made still imagery digitization progress. Two Centers procured and collaborated on new high end scanning systems to continue scanning still imagery. Johnson Space Center procured a tape migration system, to help ingest imagery from over 100,000 obsolete tapes. Previous motion film digitization efforts have enabled three NASA Centers to completely digitized collections and most other Centers have also made progress fighting the spread of destructive Vinegar Syndrome.
  Challenges include failing and obsolete digitization equipment that is increasingly impossible to repair or replace and funding restrictions threatening retention of the unique labor skillset required to scan or digitize imagery or digitization outsourcing.
- To ensure continued accessibility and retrievability of permanently valued Capstone official email, NASA proactively migrated into the Enterprise-wide Office 365 system the email of approximately 380 senior NASA managers which had been archived from 2009 to 2019. The move of the 8.4 TB of email into O365 "archived user accounts" will ensure ongoing preservation in current software. Prior to deploying O365 in 2019, NASA captured these messages of selected senior officials over 10 years with two different email archiving solutions into two different repositories. O365 retention policies are set to NARA-approved Capstone retention schedules. The archive accounts are accessible to only two system administrators, retrievable for FOIA or litigation requests.
- A sub-element of NASA's Web modernization effort is a Web archiving initiative that has developed criteria utilized to complete appraisal of nearly all of NASA's 2,500 public-facing Websites, identifying those with enduring scientific, intrinsic, or cultural retention value. The Agency is in the initial phase of evaluating capabilities and costs of solutions to crawl and capture Web ARChive (WARC) files for preservation and presentation overtime as the original Websites appeared – like Internet Archives accomplishes with its Way Back Machine. NASA expects this capability to be functional in the next 2-3 years. The initiative will enable NASA to schedule permanently valued public-facing Web content, and eventual transfer to the National Archives copies of its captured WARC files, similar to the Web harvests of agencies Websites that NARA accomplished well over a decade ago.

5. **Will your agency meet the goal to manage and preserve all <u>temporary</u> records in an electronic format by December 31, 2022? (M-19-21, 1.3)**

☐ Yes
X No
☐ Do not know

Please explain your response (include specific goals, example metrics, and/or challenges):

As with its permanent analog records, NASA Centers had established quarterly goals for proper appraisal and destruction of temporary analog records stored in onsite facilities. Those plans were greatly disrupted and stalled by COVID, the Agency was still able to process and destroy 1,852 cubic feet of analog records in 2021. That was 1,228 cubic feet less than the 3,080 cu ft Centers had planned, leaving over 17,000 cubic feet still to process. Each of the Agency on-site storage spaces are less than 25,000 cubic feet capacity and thus do not qualify as a CFR-defined records center. Clearly, NASA will not divest itself of all legacy temporary analog records by December 31, 2022.

NASA has deployed Office 365 across the entire agency, and we anticipate a large percentage of the agency's temporary electronic records will ultimately be created and preserved in Office 365 repositories. Therefore, NASA is conducting a multi-year engagement to design and implement NARA-compliant records management functionality in Microsoft Teams, SharePoint Online, OneDrive, and Exchange. This implementation will include both in-place and records repository-based information lifecycle management methodologies and will support the agency's new metadata standard, as well as typical Federal records management requirements, such as eDiscovery, FOIA, and Privacy Act processing.

6. **Does your agency have plans to submit to NARA a request for an exception to the M-19-21 requirements before December 31, 2022?**

☐ Yes
☐ No
X Do not know

Please explain your response. If 'Yes,' please include an estimate of when you plan to submit an exception and any relevant details. If 'No' or 'Do not know,' please explain your response.

At this point, assuming no extension of the December 2022 milestone, it is probable that NASA will submit a request for some exceptions to M-19-21, in accordance with guidance provided in NARA Bulletin 2020-01. However, we rather anticipate an extension, given the years we've lost on premise due to COVID. Therefore, we are not prepared to say when we would submit a request for exception.

7. **Is your agency utilizing the General Services Administration's Special Item Number for Electronic Records Management (518210 ERM) 6 to procure solutions to assist in transitioning to an Electronic Environment?**

☐ Yes
X No
☐ Do not know

Please explain your response. If 'Yes,' please include specific examples and how this will support records management processes. If 'No' or 'Do not know,' please explain.

NASA will investigate potential application of GSA-approved vendor offerings. Meanwhile, the Agency is investing in thorough effort to design and implement NARA-compliant records management functionality in Microsoft environments (see response to Question 5).

8. **Has your agency developed plans to meet the requirements of M-19-21, 1.3 to store temporary records in commercial storage facilities by December 31, 2022?***

☐ Yes
X No
☐ Do not know

*M-19-21, 1.3 includes closing of agency-operated storage facilities and no new transfers of paper records to the Federal Records Centers.

Please explain your response. If 'Yes,' provide details about the use of commercial storage and other changes related to storage. If 'No' or 'Do not know,' please explain.

NASA is not planning to employ commercial storage facilities.

9. **Do you, as the SAORM, see challenges within your agency in meeting the goal of fully-electronic recordkeeping?**

X Yes
☐ No
☐ Do not know

Please explain your response (include details of specific challenges, if applicable):

NASA now currently creates and manages all records electronically.

Our largest challenge is that of eliminating all legacy analog records by the end of this year. The greatest stumbling block is the inability to get to our analog records to disposition them.

However, while NASA has been a prolific records originator, financial priorities of the Agency are in meeting Agency space and science missions. Thus, even without the pandemic, NASA would likely not have had the necessary resources to either fully digitize all legacy analog records, or to finance their movement to FRCs or commercial records centers. Due to the pandemic induced telework status, as well as lack of resources to complete appraisal verification and or to store analog records elsewhere, NASA will have a significant volume of largely temporary, but also permanent, analog records in onsite storage facilities by the M-19-21 milestone. We anticipate the Agency continuing to hold them until we can complete verification of proper schedule assignment and dispose of them, or until they meet their required retentions. We expect to develop a case for maintaining some records on premises, and well as cost analysis

that demonstrates it is to American taxpayers' benefit for NASA to continue to hold records until they meet their retention requirement.

10. **NARA is always working on ways we can make your role as the SAORM easier, improve how we interact with you and how you interact with each other. Do you have any suggestions?**

☐ Yes
X No
☐ Do not know

Please explain your response (include any comments on previous NARA SAORM engagements, topics for future engagements, or other suggestions):