# NASA Office of Inspector General
# Open Recommendations as of July 20, 2020

The National Aeronautics and Space Administration (NASA) Office of the Inspector General (OIG) makes recommendations to improve economy, efficiency, and effectiveness and to identify waste and mismanagement in NASA programs, projects, operations, and contractor activities.  This report contains information about 162 recommendations that remained open as of July 20, 2020.  Although NASA may have already taken steps to implement these recommendations, a recommendation is not considered closed until it has been fully implemented.  Further, the status of open recommendations is subject to change as NASA continues its efforts to implement them and we review those efforts.  Therefore, some recommendations identified as open in this report may have subsequently been closed.

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| 1 | 7/16/20 | NASA's Management of the Orion Multi-Purpose Crew Vehicle Program | IG-20-018 | 1 | Ensure total development and production contract costs currently not reported as part of the ABC baseline are included in quarterly financial status reporting to the Office of the Chief Financial Officer, OMB, and Congress. | Human Exploration and Operations |
| 2 | 7/16/20 | NASA's Management of the Orion Multi-Purpose Crew Vehicle Program | IG-20-018 | 2 | To the extent practicable, adjust the production schedules for Artemis IV and V to better align with the successful demonstration of Artemis II to reduce schedule delays associated with potential rework. | Human Exploration and Operations |
| 3 | 7/16/20 | NASA's Management of the Orion Multi-Purpose Crew Vehicle Program | IG-20-018 | 3 | Ensure procurement officials minimize the availability of award fees when contract modifications and value increases are the result of shortcomings in contractor performance, and require documentation of the rationale for any award fees granted. | Procurement |
| 4 | 6/25/20 | Review of NASA's Information Security Program under the Federal Information Security Modernization for Fiscal Year 2019 Evaluation | IG-20-017 | 1 | Ensure that the information system oversight process identifies delinquent control risk assessments and initiates timely corrective action to ensure that security controls are reviewed and tested in conformance with federal and Agency requirements. | Chief Information Officer |
| 5 | 6/25/20 | Review of NASA's Information Security Program under the Federal Information Security Modernization for Fiscal Year 2019 Evaluation | IG-20-017 | 2 | Implement a policy to enforce the Agency's requirement that RISCS be used as the main repository for all NASA SSPs and supporting documentation, including updated contingency plans, and that it accurately reflects the most current security state of NASA systems. | Chief Information Officer |
| 6 | 6/25/20 | Review of NASA's Information Security Program under the Federal Information Security Modernization for Fiscal Year 2019 Evaluation | IG-20-017 | 3 | Perform an assessment to evaluate the feasibility of modifying RISCS to ensure that required data fields, system inventory sections, and other supporting documentation required for the creation or modification of an SSP are completed before a system can be authorized to operate. | Chief Information Officer |
| 7 | 6/25/20 | Review of NASA's Information Security Program under the Federal Information Security Modernization for Fiscal Year 2019 Evaluation | IG-20-017 | 4 | Update the current training for system owners and system assessment and authorization staff that covers the requirements for maintaining system security plans and supporting plan documentation in RISCS, as well as RISCS's data protection capabilities to keep that data secure. | Chief Information Officer |

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| 8 | 6/25/20 | Review of NASA's Information Security Program under the Federal Information Security Modernization for Fiscal Year 2019 Evaluation | IG-20-017 | 5 | Issue clarifying policy guidance to ensure that information security controls for all active NASA information systems that are categorized as "other than satisfied" are properly supported by either a POA&M or Risk-Based Decision document and track exceptions in Agency-wide monitoring tools. | Chief Information Officer |
| 9 | 6/25/20 | Review of NASA's Information Security Program under the Federal Information Security Modernization for Fiscal Year 2019 Evaluation | IG-20-017 | 6 | Implement the necessary controls for the management of the hybrid common controls to include assessing control effectiveness and developing a POA&M or Risk-Based Decision document for every control assessed as "other than satisfied." | Chief Information Officer |
| 10 | 6/25/20 | Review of NASA's Information Security Program under the Federal Information Security Modernization for Fiscal Year 2019 Evaluation | IG-20-017 | 7 | Issue clarifying policy guidance that the Agency's system authorizing officials should ensure that all active information systems operated for the benefit of NASA, either by the Agency or other organizations, are covered by an approved contingency plan, when required. | Chief Information Officer |
| 11 | 6/25/20 | Review of NASA's Information Security Program under the Federal Information Security Modernization for Fiscal Year 2019 Evaluation | IG-20-017 | 8 | Issue clarifying policy guidance that the Agency's system authorizing officials should implement a formal review process to ensure that contingency plans for all applicable active information systems are reviewed on an annual basis to ensure they accurately reflect system requirements, procedures, organizational structure, and policies. | Chief Information Officer |
| 12 | 6/25/20 | Review of NASA's Information Security Program under the Federal Information Security Modernization for Fiscal Year 2019 Evaluation | IG-20-017 | 9 | Develop and implement an effective process to ensure that all IT security handbooks and other IT governance documents are reviewed and updated at least annually in accordance with NASA requirements. | Chief Information Officer |
| 13 | 5/15/20 | NASA's Compliance with the Improper Payments Information Act for Fiscal Year 2019 | IG-20-016 | 1 | Complete steps outlined in the OMB guidance for when an agency is not compliant with IPIA for one fiscal year. Non-compliant agencies must submit a plan to Congress and OMB describing the actions that the agency will take to become compliant. | Chief Financial Officer |

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| 14 | 5/15/20 | NASA's Compliance with the Improper Payments Information Act for Fiscal Year 2019 | IG-20-016 | 2 | In accordance with OMB guidance, obtain a statistically valid estimate of the annual amount of improper payments in the SLS program for reporting in the FY 2020 AFR, and complete the associated required reporting. | Chief Financial Officer |
| 15 | 5/15/20 | NASA's Compliance with the Improper Payments Information Act for Fiscal Year 2019 | IG-20-016 | 3 | Ensure that all risk factors are assigned risk ratings appropriately based on the supporting documentation in the risk assessment. | Chief Financial Officer |
| 16 | 5/15/20 | NASA's Compliance with the Improper Payments Information Act for Fiscal Year 2019 | IG-20-016 | 4 | Change the timing of the Improper Payments Data Call so the results are available in time to consider for the improper payment risk assessment. | Chief Financial Officer |
| 17 | 5/6/20 | Management of Low-Boom Flight Demonstrator Project | IG-20-015 | 1 | Finalize the schedule-driven contingency plan for the community response testing and account for the resources (personnel and costs) it will require to implement. | Aeronautics Research |
| 18 | 5/6/20 | Management of Low-Boom Flight Demonstrator Project | IG-20-015 | 4 | Document and provide the Joint Cost and Schedule Confidence Level (JCL) analysis approach used by LBFD to the NASA Chief Knowledge Officer to serve as a reference for future large-scale X-plane development projects. | Aeronautics Research |
| 19 | 5/6/20 | Management of Low-Boom Flight Demonstrator Project | IG-20-015 | 5 | Establish a process to be used during source evaluation boards and source selections that includes direct contact with the Center EVM Working Group Representative and cognizant Defense Contract Management Agency (DCMA) office to verify all contractor proposed information related to EVM. | Chief Financial Officer |
| 20 | 5/6/20 | Management of Low-Boom Flight Demonstrator Project | IG-20-015 | 6 | Establish NASA requirements for programs and projects to perform internal EVM reporting that follow the same timeline as contractor reporting 90 days after the prime contract start date but no later than Key Decision Point (KDP)- C. | Chief Financial Officer |
| 21 | 5/6/20 | Management of Low-Boom Flight Demonstrator Project | IG-20-015 | 7 | Evaluate whether the monetary threshold for performing internal EVM is sufficient or additional criteria would be beneficial regarding the dollar-value of tasks related to providing Government furnished equipment (GFE) and performing in- house development work (discrete work) compared to NASA personnel performing integration, review, and management functions (level-of-effort work). | Chief Financial Officer |

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| 22 | 5/6/20 | Management of Low-Boom Flight Demonstrator Project | IG20015 | 8 | Provide information and training to contracting officers and source evaluation board members on the availability, use, and responsibilities of DCMA during source evaluation boards and source selections. Specifically, the NASA Federal Acquisition Regulation (FAR) Supplement and NASA-DCMA Memorandum of Understanding for Earned Value Management. | Procurement |
| 23 | 3/19/20 | Management of Ground and Flight Application Software Development | IG-20-014 | 2 | Document and implement lessons learned regarding the process of identifying, negotiating, and implementing information technology security mitigation steps to obtain remote access and functionality with contractor laboratories. | Human Exploration and Operations |
| 24 | 3/17/20 | NASA's Management of the Mobile Launcher | IG-20-013 | 1 | Identify immature vehicle load and interface requirements for the ML-2 project and coordinate with appropriate offices to mitigate cost and schedule risks. | Human Exploration and Operations |
| 25 | 3/17/20 | NASA's Management of the Mobile Launcher | IG-20-013 | 2 | Develop a process to ensure contractor performance ratings and related award fees for the ML-2 contract are consistent with established criteria and project outcomes. | Human Exploration and Operations |
| 26 | 3/17/20 | NASA's Management of the Mobile Launcher | IG-20-013 | 3 | Ensure life-cycle and milestone reviews incorporate programmatic and technical risks and are conducted with the Associate Administrator for Human Exploration and Operations Mission Directorate and other senior Agency officials. | Human Exploration and Operations |
| 27 | 3/17/20 | NASA's Management of the Mobile Launcher | IG-20-013 | 4 | Require the ML-2 project to develop an ABC separate from the EGS Program. | Human Exploration and Operations |
| 28 | 3/10/20 | NASA's Cost Management of the Space Launch System | IG-20-012 | 1 | Notify Congress that the SLS Program has exceeded its ABC by at least 30 percent. | Human Exploration and Operations |
| 29 | 3/10/20 | NASA's Cost Management of the Space Launch System | IG-20-012 | 2 | Review HEOMD and NASA program management policies, procedures, and ABC reporting processes to provide greater visibility into current, future, and overall cost and schedule estimates for the SLS Program and other human space flight programs. | Human Exploration and Operations |
| 30 | 3/10/20 | NASA's Cost Management of the Space Launch System | IG-20-012 | 2a | Rebaselining Artemis I costs to appropriately and transparently track costs that include SLS development costs and activities tied to the first SLS launch | Human Exploration and Operations |
| 31 | 3/10/20 | NASA's Cost Management of the Space Launch System | IG-20-012 | 2b | Establishing methodologies and processes to track and set cost commitments for Artemis II; | Human Exploration and Operations |

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| 32 | 3/10/20 | NASA's Cost Management of the Space Launch System | IG-20-012 | 2c | Determining reporting and tracking procedures for setting cost and schedule commitments, and monitoring progress throughout the entire life cycle of the SLS Program (through at least 2030) | Human Exploration and Operations |
| 33 | 3/10/20 | NASA's Cost Management of the Space Launch System | IG-20-012 | 3 | For new acquisitions of SLS deliverables, develop a cost accounting model that separates each deliverable into its own CLIN for tracking costs, performance, and award fees. | Human Exploration and Operations |
| 34 | 3/10/20 | NASA's Cost Management of the Space Launch System | IG-20-012 | 4 | For large award fee contracts where NASA has on-site personnel, ensure they are appointed in writing and clearly assigned the task of monitoring and reporting on the performance of the contractor. | Human Exploration and Operations |
| 35 | 3/10/20 | NASA's Cost Management of the Space Launch System | IG-20-012 | 5 | Conduct a thorough review of each major SLS contract's scope of work and technical requirements needed to complete the period of performance to assist in eliminating incremental contract value increases to the contract and lessen contract management burden, as in the case of the Boosters contract. | Human Exploration and Operations |
| 36 | 3/3/20 | NASA's Distributed Active Archive Centers | IG-20-011 | 1 | In conjunction with ESDIS, once NISAR and SWOT are operational and providing sufficient data, complete an independent analysis to determine the long-term financial sustainability of supporting the cloud migration and operation while also maintaining the current DAAC footprint. | Science |
| 37 | 3/3/20 | NASA's Distributed Active Archive Centers | IG-20-011 | 3 | In coordination with the OCIO, and during the next security plan review cycle, ensure all applicable information types are considered during system categorization, that appropriate premises are used when determining impact levels, and that the appropriate categorization procedures are standardized across ESDIS systems. | Science |
| 38 | 11/15/19 | Audit of NASA's Fiscal Year 2019 Financial Statements | IG-20-006 | 1 | Improve the patch and vulnerability management program. | Chief Information Officer |
| 39 | 11/15/19 | Audit of NASA's Fiscal Year 2019 Financial Statements | IG-20-006 | 2 | Eliminate configuration weaknesses. | Chief Information Officer |
| 40 | 11/15/19 | Audit of NASA's Fiscal Year 2019 Financial Statements | IG-20-006 | 3 | Improve technical controls, including controls that monitor and control communications at the boundary of information systems. | Chief Information Officer |
| 41 | 11/15/19 | Audit of NASA's Fiscal Year 2019 Financial Statements | IG-20-006 | 4 | Improve the scope and extent of segregation of duties monitoring controls. | Chief Information Officer |

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| 42 | 11/15/19 | Audit of NASA's Fiscal Year 2019 Financial Statements | IG-20-006 | 5 | Improve user administration controls, specifically around temporary elevated access and user access recertification. | Chief Information Officer |
| 43 | 11/15/19 | Audit of NASA's Fiscal Year 2019 Financial Statements | IG-20-006 | 6 | Utilize available layers of application security controls to enhance the existing defense in depth approach. | Chief Information Officer |
| 44 | 11/15/19 | Audit of NASA's Fiscal Year 2019 Financial Statements | IG-20-006 | 7 | Improve the scope and extent of financial system audit logging and review controls. | Chief Information Officer |
| 45 | 11/14/19 | NASA's Management of Crew Transportation to the International Space Station | IG-20-005 | 5 | Continue to ensure the purchase of future commercial space services complies with government contracting regulations. | Human Exploration and Operations |
| 46 | 11/7/19 | Audit of NASA's Compliance with the Digital Accountability and Transparency Act for FY 2019 | IG-20-004 | 2 | Incorporate a procedure into the existing Verification and Validation process to verify that procurement data is entered into FPDS-NG within three business days after contract award. | Procurement |
| 47 | 11/7/19 | Audit of NASA's Compliance with the Digital Accountability and Transparency Act for FY 2019 | IG-20-004 | 5 | Incorporate the results of this audit as detailed in this report and specifically identified according to data elements in Appendixes B and C when executing the Agency's Data Quality Plan and determining high risk control areas in FY 2020. | Procurement |
| 48 | 10/21/19 | NASA's Security Management | IG-20-001 | 1 | Establish and implement an enterprise-level governance structure to identify, assess, and prioritize protective services risks and deficiencies, and fund applicable countermeasure(s) to mitigate or formally accept risk. | Office of Protective Services |
| 49 | 10/21/19 | NASA's Security Management | IG-20-001 | 2 | Standardize and streamline the facility security assessment process across the Agency to increase efficiency and inform decision making. | Office of Protective Services |
| 50 | 10/21/19 | NASA's Security Management | IG-20-001 | 3 | Research federal arrest authority (as directed in the Protective Services BSA Decision Memorandum) in conjunction with the Office of the General Counsel, formulate a unified response, and implement a consistent policy across the Agency. | Office of Protective Services |
| 51 | 10/21/19 | NASA's Security Management | IG-20-001 | 4 | Evaluate Agency-wide jurisdictions to determine if it is feasible for all Centers to be under the same jurisdiction or at least to determine if individual Centers should have all of their property under the same type of jurisdiction. | Office of Protective Services |

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| 52 | 10/21/19 | NASA's Security Management | IG-20-001 | 5 | Coordinate with the Office of the General Counsel to standardize the carrying of firearms by NASA civil servants in an Agency-wide policy while also addressing the appropriate situations when NASA contractors may carry their government-issued weapons off NASA property. | Office of Protective Services |
| 53 | 10/21/19 | NASA's Security Management | IG-20-001 | 6 | In collaboration with the Office of Safety and Mission Assurance, evaluate fire services policies and functions Agency-wide, reconcile duties and responsibilities, and determine under which office, protective services or safety and mission, these responsibilities should reside. | Office of Protective Services |
| 54 | 10/21/19 | NASA's Security Management | IG-20-001 | 7 | Establish an Agency-wide policy on calculating protective services costs associated with tenant reimbursable expenses. | Office of Protective Services |
| 55 | 10/21/19 | NASA's Security Management | IG-20-001 | 8 | Develop procedures that require Center protective services officials to be a stakeholder in the planning process to meet protective services requirements for existing and new tenants. | Office of Protective Services |
| 56 | 6/18/19 | JPL Network Security | IG-19-022 | 2 | Segregate shared environments connected to the network gateway for all partners accessing the JPL network and monitor partner activity when accessing the network. | NASA Management Office |
| 57 | 6/18/19 | JPL Network Security | IG-19-022 | 3 | Review and update ISAs for all partners connected to the network gateway to ensure they are up-to-date and made available to the NASA OCIO. | NASA Management Office |
| 58 | 6/18/19 | JPL Network Security | IG-19-022 | 6 | Clarify the division of responsibility between the JPL OCIO and system administrators for conducting routine log reviews and monitor their compliance with this requirement on a more frequent basis. | NASA Management Office |
| 59 | 6/18/19 | JPL Network Security | IG-19-022 | 8 | Establish a formal, documented threat-hunting process that includes roles and responsibilities, standard processes for conducting a hunt, and metrics to track success. | NASA Management Office |
| 60 | 6/3/19 | NASA's Compliance with the Improper Payments Information Act for Fiscal Year 2018 | IG-19-020 | 1 | Revise existing policies and procedures for reporting overpayments identified and recaptured from sources outside of the payment recapture audit by documenting the processes developed to gather, track, and report improper payments recaptured through credits on future billings and sustained questioned direct costs from post-award audits. | Chief Financial Officer |

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| 61 | 6/3/19 | NASA's Compliance with the Improper Payments Information Act for Fiscal Year 2018 | IG-19-020 | 2 | Provide training to those organizations or individuals responsible for reporting overpayments from future billing credits and sustained questioned direct costs from post-award audits to ensure they are aware of NASA's reporting requirements and their responsibility for tracking the information and communicating it to OCFO, including specific details of the information to be reported and the format it should be reported. | Chief Financial Officer |
| 62 | 5/29/19 | Management of NASA's Europa Mission | IG-19-019 | 7 | Consider requesting the NRC (now the National Academies of Sciences, Engineering, and Medicine) reexamine the Lander's priority under authority in the NASA Authorization Act of 2008. | Science |
| 63 | 5/29/19 | Management of NASA's Europa Mission | IG-19-019 | 9 | Reassess the process of isolating key project personnel from instrument selection to balance their additional insight in integration and cost estimation while maintaining fairness in the announcement and mitigating conflicts of interest risks. | Science |
| 64 | 5/7/19 | NASA's Heliophysics Portfolio | IG-19-018 | 2 | Complete implementation of 2015 NSWAP tasks in accordance with SWORM subcommittee deadlines; | Science |
| 65 | 5/7/19 | NASA's Heliophysics Portfolio | IG-19-018 | 3 | Reassess HPD's capabilities and resources and update the 2014 Roadmap for implementing 2013 Decadal recommendations with expected completion dates based on the Division's updated budget and priorities over the next 5 years; | Science |
| 66 | 5/7/19 | NASA's Heliophysics Portfolio | IG-19-018 | 4 | Establish a formal mechanism to increase collaboration with DOD and the commercial space industry regarding heliophysics research and space weather modeling and forecasting efforts. | Science |
| 67 | 3/26/19 | Service Contracts | IG-19-014 | 1 | Develop an Agency-wide standardized set of metrics for contracts that can be collected, tracked, and analyzed over time to identify efficiencies resulting from a change in contract structure. | Procurement |
| 68 | 3/26/19 | Service Contracts | IG-19-014 | 2 | Require Center Procurement Offices to formally collect, track, and report data to the Headquarters Office of Procurement on these metrics at least annually. | Procurement |
| 69 | 3/26/19 | Service Contracts | IG-19-014 | 3 | Develop a community of practice to analyze what contract structure changes lead to the greatest efficiencies and to share these lessons learned with the Agency's procurement community. | Procurement |

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| 70 | 3/19/19 | NASA's Progress with Environmental Remediation Activities of the Santa Susana Field Laboratory | IG-19-013 | 1 | Pursue all available options, administrative, legal, or political, to ensure NASA's SSFL soil cleanup is performed in an environmentally and financially responsible manner based on the intended future use of the property. | Marshall Space Flight Center |
| 71 | 10/22/18 | NASA's Management of Historic Property | IG-19-002 | 1 | Develop a process to more effectively identify, validate ownership of, and coordinate within NASA and/or with other agencies on recovery of historic property. | General Counsel |
| 72 | 10/22/18 | NASA's Management of Historic Property | IG-19-002 | 2 | Develop comprehensive procedures for identifying and managing heritage assets, including defining roles and responsibilities for the different NASA entities responsible for evaluating what historic items would most effectively be maintained by the Agency and considered as heritage assets | Strategic Infrastructure |
| 73 | 10/22/18 | NASA's Management of Historic Property | IG-19-002 | 3 | Evaluate and justify the existing list of NASA and contractor held heritage assets to determine whether NASA is the most effective owner and what property the Agency will retain because of its historical value. | Strategic Infrastructure |
| 74 | 10/22/18 | NASA's Management of Historic Property | IG-19-002 | 5 | Ensure NASA policy and procedures for using the proceeds from facilities leased under NHPA authority appropriately aligns with Agency goals to minimize excess facilities. | Strategic Infrastructure |
| 75 | 7/30/18 | NASA's Efforts to Complete ISS Research to Enable Long-Duration Human Space Fight and Plans for the Station's Future Disposition | IG-18-021 | 3 | Ensure there is a contingency plan for each exploration-enabling technology demonstration not scheduled to be fully tested by 2024, such as: a. Identification of alternate testing platforms, b. Impact to technical risk of exploration systems, and c. Impact to the technology demonstration schedule. | Human Exploration and Operations |
| 76 | 7/30/18 | NASA's Efforts to Complete ISS Research to Enable Long-Duration Human Space Fight and Plans for the Station's Future Disposition | IG-18-021 | 4 | Complete all end-of-mission critical systems and open work related to nominal and contingency deorbit operations. | Human Exploration and Operations |
| 77 | 7/30/18 | NASA's Efforts to Complete ISS Research to Enable Long-Duration Human Space Fight and Plans for the Station's Future Disposition | IG-18-021 | 5 | Develop options for obtaining supplemental emergency deorbit propellant support from U.S. commercial vehicles. | Human Exploration and Operations |
| 78 | 5/24/18 | Audit of NASA's Information Technology Supply Chain Risk Management Efforts | IG-18-019 | 2 | Ensure NASA's assessed and cleared listing (ACL) is updated weekly and that it contains a selection of cleared IT and communications products and services sufficient to meet Agency needs. | Chief Information Officer |

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| 79 | 5/24/18 | Audit of NASA's Information Technology Supply Chain Risk Management Efforts | IG-18-019 | 7 | Direct all NASA Centers, Mission Directorates, and Program/Project Offices to review and strengthen their current supply chain risk management efforts to ensure only assessed and cleared IT and communications products and services enter the Agency's supply chain. | Chief Information Officer |
| 80 | 5/23/18 | Audit of NASA's Security Operations Center | IG-18-020 | 1 | Develop a charter and set of authorities signed by the NASA constituent executives (including the NASA Administrator) that addresses the SOC's organizational placement, purpose, authority, and responsibilities. | Chief Information Officer |
| 81 | 5/23/18 | Audit of NASA's Security Operations Center | IG-18-020 | 2 | Establish Operational Level Agreements with NASA Centers, Mission Directorates, the Communications Services Office, the End User Services Office, the Agency Applications Office, and Web Services Office to clearly define incident response roles and responsibilities, ensure data storage and sharing needs are addressed, and opportunities to leverage economies of scale are identified and acted upon in support of Agency cybersecurity goals. | Chief Information Officer |
| 82 | 5/23/18 | Audit of NASA's Security Operations Center | IG-18-020 | 6 | Identify and reduce unnecessary duplication of the incident monitoring, detection, and response capabilities, including toolsets and competencies available Agency-wide to enhance the capabilities and resources of the SOC and realize efficiencies in the management of these capabilities. | Chief Information Officer |
| 83 | 5/14/18 | NASA's Compliance with the Improper Payments Information Act for Fiscal Year 2017 | IG-18-017 | 1 | Implement a procedure to use information regarding known improper payments, including the latest available data used for payment recapture reporting, when performing the annual risk assessment. | Chief Financial Officer |
| 84 | 5/14/18 | NASA's Compliance with the Improper Payments Information Act for Fiscal Year 2017 | IG-18-017 | 3 | Develop a process for tracking overpayments identified and subsequently recovered through reductions in future billings on existing contracts such as contract credits. | Chief Financial Officer |
| 85 | 4/26/18 | NASA's Management of ISS Commercial Resupply Services Contracts | IG-18-016 | 5 | Ensure the ISS Program decides by January 2020 whether to compete task orders beyond the minimum guarantee of six for each contractor through the existing IDIQ contract or through the On-Ramp clause. | Human Exploration and Operations |

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| 86 | 4/5/18 | NASA's Management of the Goddard Institute for Space Studies and Related Activities | IG-18-015 | 8 | To the extent practicable, implement the GAO's best practices for establishing partnerships, including the formalization of agreements that outline the roles and responsibilities of each agency in the performance and application of climate research performed at GISS. | Office of International and Interagency Relations |
| 87 | 10/5/17 | NASA's Management of Spare Parts for its Flight Projects | IG-18-001 | 3 | Develop a standardized cataloging process for OSCAR to ensure NASA program and project officials can effectively identify and reserve compatible flight inventory. | Strategic Infrastructure |
| 88 | 10/5/17 | NASA's Management of Spare Parts for its Flight Projects | IG-18-001 | 5 | Work with Center logistics officials to develop alternative approaches to ensure Centers can meet the requirement to conduct complete reviews of spare parts inventories every 5 years. | Strategic Infrastructure |
| 89 | 5/17/17 | Audit of the Construction of Test Stands 4693 and 4697 at Marshall Space Flight Center | IG-17-021 | 1 | Perform a comprehensive review of Program-funded construction projects to ensure adequate analysis, including all life cycle costs, is completed prior to project initiation. | Strategic Infrastructure |
| 90 | 5/17/17 | Audit of the Construction of Test Stands 4693 and 4697 at Marshall Space Flight Center | IG-17-021 | 2 | Develop additional construction project guidance for establishing unallocated construction reserves for program-direct construction facility projects to better account for significant expected risks. | Strategic Infrastructure |
| 91 | 5/17/17 | Audit of the Construction of Test Stands 4693 and 4697 at Marshall Space Flight Center | IG-17-021 | 3 | Ensure facility needs, such as construction of new facilities and/or modification of existing facilities, are appropriately included in program planning and scheduling and that testing requirements are adequately understood prior to committing the Agency to construction or modification of test facilities. | Human Exploration and Operations |
| 92 | 4/13/17 | NASA's Plans for Human Exploration Beyond Low-Earth Orbit | IG-17-017 | 4 | Include cost as a factor in NASA's Journey to Mars feasibility studies when assessing various missions and systems | Human Exploration and Operations |
| 93 | 3/9/17 | NASA's Management of Electromagnetic Spectrum | IG-17-012 | 2 | Incorporate the Spectrum Guidance for NASA Small Satellite Missions into formal NASA electromagnetic spectrum policies NPD 2570.5E, NASA Electromagnetic Spectrum Management - Revalidated 9/13/16, and NPR 2570.1C, NASA Radio Frequency Electromagnetic Spectrum Management Manual. | Human Exploration and Operations |
| 94 | 2/8/17 | Audit of Industrial Control System Security over NASA's Critical Infrastructure. | IG-17-011 | 3 | Ensure OCIO and OSI representatives are included in functional reviews of NASA's critical infrastructure assets and facility security assessments so that cyber and facility interdependencies are addressed appropriately. | Office of the Administrator |

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| 95 | 2/8/17 | Audit of Industrial Control System Security over NASA's Critical Infrastructure. | IG-17-011 | 4 | Coordinate the development of a methodology for the identification and protection of interdependencies (either within the facility security assessment or facility security level designation process). | Office of the Administrator |
| 96 | 2/8/17 | Audit of Industrial Control System Security over NASA's Critical Infrastructure. | IG-17-011 | 5 | Develop security policy based on NIST Special Publication (SP) 800-53, Revision 4, and NIST SP 800-82 guidance for managing the protection of OT within the mission and institutional directorates. | Office of the Administrator |
| 97 | 11/2/16 | NASA's Portfolio of Earth Science Missions | IG-17-003 | 1 | Update the Architecture Plan every 5 years to align with the release of Earth Science Decadal Surveys and mid-term Surveys and account for portfolio changes. | Science |
| 98 | 3/28/16 | Audit of the Spaceport Command and Control System | IG-16-015 | 1 | Commission an independent assessment to evaluate the status of the SCCS software development effort and determine the necessary steps to reduce the risk of further cost, schedule, and performance issues, including consideration of acquiring commercial command and control software to replace some or all of the system currently under development. | Human Exploration and Operations |
| 99 | 9/17/15 | NASA's Response to Orbital's 2014 Launch Failure: Impacts on Commercial Resupply of the International Space Station | IG-15-023 | 7 | Consider whether contract provisions relating to the boards should be revised to more closely align with NASA Mishap Investigation Board procedures (NASA Procedural Requirements 8621.1B, Chapter 4). | Human Exploration and Operations |
| 100 | 5/15/15 | NASA's Compliance with the Improper Payments Information Act for Fiscal Year 2014 | IG-15-015 | 5 | Include cost-type contract payments in the Agency's recapture audit efforts. If NASA determines this proposal is not cost-effective, the CFO should document its justification for excluding these payments, including demonstrating that costs associated with recovering the funds are projected to be greater than the amount recovered. | Chief Financial Officer |

**Note: This table omits 62 recommendations that NASA determined to be classified or sensitive and are therefore unsuitable for public release.**

# RECENTLY CLOSED RECOMMENDATIONS

| Row No. | Issue Date | Report Title | Report no. | Rec no. | Recommendation | Responsible Office |
|---|---|---|---|---|---|---|
| 1 | 2/28/18 | Review of NASA's Purchase and Travel Charge Card Programs | IG-18-014 | 1 | Establish a procedure, which may be risk-based, to monitor whether travelers are using their travel cards for all official travel expenses. Possible options include, but are not limited to: (a) modifying NSSC's existing pre- and post-payment procedures performed on travel vouchers and (b) instructing CAPCs to include this review as part of their oversight responsibilities. | Chief Financial Officer |
| 2 | 5/6/20 | Management of Low-Boom Flight Demonstrator Project | IG-20-015 | 3 | Document and provide the project management approach used by LBFD to the NASA Chief Knowledge Officer to serve as a reference for future large- scale X-plane development projects to be shared across the Agency. | Aeronautics Research |
| 3 | 11/28/18 | NASA's ETDY Travel | IG-19-007 | 1 | Review the ETDY travel authorization and lodging costs after the first 30 days of ETDY travel to validate, adjust, and update, if necessary, the authorized lodging reimbursements to more closely match actual lodging expenses but not to exceed the 65 percent maximum per diem rate. | Chief Financial Officer |
| 4 | 11/28/18 | NASA's ETDY Travel | IG-19-007 | 2 | Revise NASA policy to explicitly state that actual lodging costs will be reviewed after the first 30 days of ETDY travel and authorizations adjusted, if needed. | Chief Financial Officer |
| 5 | 11/28/18 | NASA's ETDY Travel | IG-19-007 | 3 | Include in all ETDY travel authorizations a statement that lodging costs will be reviewed after the first 30 days of ETDY travel with the corresponding authorized reimbursements adjusted to more closely match actual lodging expenses but not to exceed the 65 percent maximum per diem rate. | Chief Financial Officer |
| 6 | 5/29/19 | Management of NASA's Europa Mission | IG-19-019 | 1 | Evaluate current and future critical technical staffing requirements by project over the next 5 years. Assess each Center's ability to provide needed technical staff in critical skills based on projected surplus or shortfall of personnel for current and prospective projects. | Science |
| 7 | 5/29/19 | Management of NASA's Europa Mission | IG-19-019 | 4 | Continue to implement the instrument cost control plan, including de-scope options, based on balancing cost and Level 1 science requirements for future missions. Include the de-scope option in JCL calculations based on an assessment of the projects' Science Traceability and Alignment Framework. | Science |
| 8 | 3/19/20 | Management of Ground and Flight Application Software Development | IG-20-014 | 1 | Establish procedures for continually revising documentation and processes for efficient integration of flight software development and testing requirements to minimize the risks associated with parallel program development. | Human Exploration and Operations |

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| 9 | 6/28/16 | NASA's Response to SpaceX's June 2015 Launch Failure: Impacts on Commercials Resupply of the International Space Station | IG-16-025 | 6 | Update NPR 8621.1B to include commercial space launches with NASA payloads in official mishap policies. a. define commercial space launches with NASA payloads; b. determine the extent to which official NASA mishap policies apply in commercial space launches with NASA payloads; c. describe what types of investigations may occur and the processes to be followed in lieu of an Official MIB.; and d. clarify the scope and purpose of each investigation, such as a NASA defined root cause. | Safety & Mission Assurance |