

# **NASA Office of Inspector General**

## **Open Recommendations as of September 15, 2021**

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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 170 recommendations that remained open as of September 15, 2021. 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.

**NASA OFFICE OF THE INSPECTOR GENERAL – OPEN RECOMMENDATIONS as of September 15, 2021**

Row no.	Issue Date	Report Title	Report no.	Recommendation	Responsible Office
1	5/14/18	NASA's Compliance with the Improper Payments Information Act for FY 2017	IG-18-017	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
2	11/7/19	Review of NASA's FY 2019 Digital Accountability and Transparency Act Submission	IG-20-004	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
3	11/7/19	Review of NASA's FY 2019 Digital Accountability and Transparency Act Submission	IG-20-004	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
4	6/25/20	Review of NASA's Information Security Program under the Federal Information Security Modernization for FY 2019 Evaluation	IG-20-017	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 FY 2019 Evaluation	IG-20-017	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
6	6/25/20	Review of NASA's Information Security Program under the Federal Information Security Modernization for FY 2019 Evaluation	IG-20-017	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
7	6/25/20	Review of NASA's Information Security Program under the Federal Information Security Modernization for FY 2019 Evaluation	IG-20-017	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

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8	6/25/20	Review of NASA's Information Security Program under the Federal Information Security Modernization for FY 2019 Evaluation	IG-20-017	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
9	6/25/20	Review of NASA's Information Security Program under the Federal Information Security Modernization for FY 2019 Evaluation	IG-20-017	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
10	5/15/20	NASA's Compliance with the Improper Payments Information Act for FY 2019	IG-20-016	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
11	11/16/20	Audit of NASA's FY 2020 Financial Statements	IG-21-005	Improve the patch and vulnerability management program.	Chief Information Officer
12	11/16/20	Audit of NASA's FY 2020 Financial Statements	IG-21-005	Eliminate configuration weaknesses.	Chief Information Officer
13	11/16/20	Audit of NASA's FY 2020 Financial Statements	IG-21-005	Improve technical controls, including controls that monitor and control communications at the boundary of information systems.	Chief Information Officer
14	11/16/20	Audit of NASA's FY 2020 Financial Statements	IG-21-005	Improve the scope and extent of segregation of duties monitoring controls.	Chief Information Officer
15	11/16/20	Audit of NASA's FY 2020 Financial Statements	IG-21-005	Improve user administration controls, specifically around temporary elevated access and user access recertification.	Chief Information Officer
16	11/16/20	Audit of NASA's FY 2020 Financial Statements	IG-21-005	Utilize available layers of application security controls to enhance the existing "defense in depth" approach.	Chief Information Officer
17	11/16/20	Audit of NASA's FY 2020 Financial Statements	IG-21-005	Improve the scope and extent of financial system, database and infrastructure audit logging and review controls.	Chief Information Officer
18	12/22/20	FY 2020 Federal Information Security Modernization Act Evaluation – An Agency Common System	IG-21-010	Assign the personnel resources necessary to ensure the Agency's security plans for systems that inherit the controls within the Agency's new hybrid common controls system are updated and that those hybrid controls are removed from the ACS system security plan.	Chief Information Officer

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19	12/22/20	FY 2020 Federal Information Security Modernization Act Evaluation – An Agency Common System	IG-21-010	Establish a process to ensure that cost estimates are developed and included for all POA&Ms for the ACS system prior to their establishment and approval in RISCS to ensure that costs are properly captured and included in submissions to OMB.	Chief Information Officer
20	3/2/21	FY 2020 Federal Information Security Modernization Act Evaluation – A Center Command and Control System	IG-21-014	We recommend that the Information System Owners implement a monitoring and surveillance process over security controls to ensure that all controls nearing their due date for assessment are properly identified, scheduled for assessment, and assessed prior to the due date.	Chief Information Officer
21	5/18/21	NASA’s Compliance with the Payment Integrity Information Act for FY 2020	IG-21-020	In consultation with OMB, determine the appropriate method to update NASA’s FY 2020 payment integrity information on the Paymentaccuracy.gov website to capture the results of the disaster relief improper payment testing.	Chief Financial Officer
22	5/18/21	NASA’s Compliance with the Payment Integrity Information Act for FY 2020	IG-21-020	Report payment integrity information using the appropriate medium (e.g., AFR or OMB data call submission) as instructed in guidance issued by OMB.	Chief Financial Officer
23	5/18/21	NASA’s Compliance with the Payment Integrity Information Act for FY 2020	IG-21-020	Enhance NASA’s Payment Recapture Audit Program Administration Guidance by providing more detailed information and/or job aids, such as a checklist, outlining the review procedures performed by QAD within the reporting process for overpayments from sources other than recapture audits.	Chief Financial Officer
24	5/17/17	Audit of the Construction of Test Stands 4693 and 4697 at Marshall Space Flight Center	IG-17-021	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
25	5/17/17	Audit of the Construction of Test Stands 4693 and 4697 at Marshall Space Flight Center	IG-17-021	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
26	5/17/17	Audit of the Construction of Test Stands 4693 and 4697 at Marshall Space Flight Center	IG-17-021	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

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27	10/22/18	NASA's Management of Historic Property	IG-19-002	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
28	10/22/18	NASA's Management of Historic Property	IG-19-002	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
29	10/22/18	NASA's Management of Historic Property	IG-19-002	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
30	10/21/19	NASA's Security Management	IG-20-001	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
31	10/21/19	NASA's Security Management	IG-20-001	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
32	10/21/19	NASA's Security Management	IG-20-001	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
33	10/21/19	NASA's Security Management	IG-20-001	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
34	3/26/19	Service Contracts	IG-19-014	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
35	3/26/19	Service Contracts	IG-19-014	Require Center Procurement Offices to formally collect, track, and report data to the Headquarters Office of Procurement on these metrics at least annually.	Procurement

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36	3/26/19	Service Contracts	IG-19-014	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
37	5/18/21	NASA's Cybersecurity Readiness	IG-21-019	Integrate EA and ESA, and develop metrics to track the overall progress and effectiveness of EA.	Chief Information Officer
38	5/18/21	NASA's Cybersecurity Readiness	IG-21-019	Collaborate with the Chief Engineer on strategies to identify and strengthen EA gaps across mission and institutional IT boundaries.	Chief Information Officer
39	5/18/21	NASA's Cybersecurity Readiness	IG-21-019	Evaluate the optimal organizational placement of the Enterprise Architect and Enterprise Security Architect during and after MAP implementation to improve cybersecurity readiness.	Chief Information Officer
40	5/18/21	NASA's Cybersecurity Readiness	IG-21-019	Determine each Center's annual cost for performing independent assessments, including staffing, during the A&A process for NASA's 526 systems.	Chief Information Officer
41	5/18/21	NASA's Cybersecurity Readiness	IG-21-019	Develop baseline requirements in the planned CyPRESS contract for a dedicated enterprise team to manage and perform the assessment process for all NASA systems subject to A&A.	Chief Information Officer
42	10/2/20	Final Memorandum, Audit of NASA's Compliance with the Geospatial Data Act	IG-21-001	Develop a unified Strategy Implementation Plan or "Roadmap" that defines detailed action items, milestones, and responsibilities for geospatial data management in support of missions across NASA.	Chief Information Officer
43	10/2/20	Final Memorandum, Audit of NASA's Compliance with the Geospatial Data Act	IG-21-001	Develop records schedules in coordination with NARA for NASA's historically significant geospatial data assets.	Chief Information Officer
44	10/2/20	Final Memorandum, Audit of NASA's Compliance with the Geospatial Data Act	IG-21-001	Collaborate with NARA to determine if there is value in establishing affiliated data archive agreements for NASA's remote sensing/earth observing geospatial data assets.	Chief Information Officer
45	11/2/16	NASA's Portfolio of Earth Science Missions	IG-17-003	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
46	5/7/19	NASA's Heliophysics Portfolio	IG-19-018	Complete implementation of 2015 NSWAP tasks in accordance with SWORM subcommittee deadlines;	Science

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47	5/7/19	NASA's Heliophysics Portfolio	IG-19-018	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
48	5/7/19	NASA's Heliophysics Portfolio	IG-19-018	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
49	6/18/19	JPL Network Security	IG-19-022	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
50	5/29/19	Management of NASA's Europa Mission	IG-19-019	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
51	8/27/20	NASA's Policy and Practices Regarding the Use of Non-Agency IT Devices	IG-20-021	Fully implement NAC and CDM at all Centers to detect, prevent, and remove unauthorized IT devices accessing NASA networks.	Chief Information Officer
52	8/27/20	NASA's Policy and Practices Regarding the Use of Non-Agency IT Devices	IG-20-021	Incorporate into applicable IT policy and requirements documents IT systems security controls for life cycle management in accordance with NIST Special Publication 800-124.	Chief Information Officer
53	8/27/20	NASA's Policy and Practices Regarding the Use of Non-Agency IT Devices	IG-20-021	Define requirements and implement controls to monitor and enforce MDM business rules, including defining the office responsible for performing monitoring and enforcement.	Chief Information Officer
54	8/27/20	NASA's Policy and Practices Regarding the Use of Non-Agency IT Devices	IG-20-021	Revise cybersecurity policy, guidance, and requirements to provide OCIO with a level of direct oversight of enterprise-wide IT management to ensure consistent practices across Centers.	Chief Information Officer
55	8/27/20	NASA's Policy and Practices Regarding the Use of Non-Agency IT Devices	IG-20-021	Revise NSINS to implement controls to ensure adequate SAISO visibility into cybersecurity practices at the Centers.	Chief Information Officer
56	9/16/20	NASA's Management of the Planetary Science Portfolio	IG-20-023	Communicate to the National Academies realistic costs of planetary science missions and consider resetting the cost caps and/or the cadence of PSD missions to reflect rising mission costs.	Science

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57	9/16/20	NASA's Management of the Planetary Science Portfolio	IG-20-023	In coordination with the Office of Chief Financial Officer, engage relevant Centers and technical capability leaders to identify budgetary and accounting system solutions within the current budgetary and full cost accounting system to adequately fund and sustain critical technical discipline capabilities needed to support current and future projects.	Science
58	9/16/20	NASA's Management of the Planetary Science Portfolio	IG-20-023	In coordination with the Office of the Chief Human Capital Officer, review and identify opportunities based on existing NASA leading practices to foster and monitor mentoring to ensure a robust pipeline for PSD-related disciplines.	Science
59	9/16/20	NASA's Management of the Planetary Science Portfolio	IG-20-023	In coordination with Space Communications and Navigation, complete an assessment of DSN's infrastructure in order to develop and implement a maintenance and upgrade plan to support PSD missions.	Science
60	9/16/20	NASA's Management of the Planetary Science Portfolio	IG-20-023	In coordination with the Space Technology Mission Directorate, evaluate each Directorate's respective roles in basic research that may affect PSD projects and identify opportunities to advance technologies through flight demonstrations.	Science
61	9/16/20	NASA's Management of the Planetary Science Portfolio	IG-20-023	Reassess the NEOO Program's priority in meeting the goal of cataloging 90 percent of the NEOs larger than 140 meters, establish cost and schedule estimate with proposed funding profile to meet the NEOO's goal of cataloging, and coordinate with Congress and request funding to support the implementation goal.	Science
62	9/16/20	NASA's Management of the Planetary Science Portfolio	IG-20-023	In coordination with the NASA Shared Services Center, comply with the Federal Grant and Cooperative Agreements Act of 1977 on the proper use of grants and contracts to allow Center and Program personnel greater visibility into partner operations and to ensure that funding levels and performance are commensurate with requirements.	Science
63	9/16/20	NASA's Management of the Planetary Science Portfolio	IG-20-023	Implement the National Academies recommendation to establish a common interface for CLPS contractors between instrument and spacecraft or to require that each commercial provider supply a document that describes provider and payload capabilities.	Science



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64	9/16/20	NASA's Management of the Planetary Science Portfolio	IG-20-023	In coordination with CLPS contracting personnel, establish procedures for evaluation, periodic re-evaluation, and monitoring of current and prospective CLPS contractors' past performance and financial capabilities risk, and steps to mitigate those risks when applicable.	Science
65	9/16/20	NASA's Management of the Planetary Science Portfolio	IG-20-023	Comply with NASA policy to establish program/project quality assurance surveillance plans, or its intent thereof, for all applicable CLPS task orders.	Science
66	12/3/20	NASA's Management of Hazardous Materials	IG-21-006	Evaluate Centers' application of Agency policy to maintain a list of restricted and prohibited materials and their associated waiver processes and make improvements as warranted.	Mission Support
67	12/3/20	NASA's Management of Hazardous Materials	IG-21-006	Assess various options for development and implementation of an Agency-wide hazardous materials information system that tracks hazardous materials throughout the life cycle, and ensure processes are in place to consistently maintain a complete and accurate inventory.	Mission Support
68	12/3/20	NASA's Management of Hazardous Materials	IG-21-006	Develop and implement an Agency-wide policy that establishes a standard for storage spaces and facilities used to house hazardous materials.	Mission Support
69	12/3/20	NASA's Management of Hazardous Materials	IG-21-006	Require Center Directors to inspect and replace, as required, laboratory hazardous material storage structures and improve shelters that do not follow CDC guidelines or comply with Agency requirements.	Mission Support
70	9/14/20	Management of Stratospheric Observatory for Infrared Astronomy	IG-20-022	Establish science metrics, such as publications and citations per year, as criteria for the performance evaluation of the USRA contract award fee.	Science
71	9/14/20	Management of Stratospheric Observatory for Infrared Astronomy	IG-20-022	Develop a process for tracking science instrument productivity and cost to maintain and establish an evaluation program to determine when an instrument should be retired.	Science
72	1/27/21	NASA's Efforts to Mitigate the Risks Posed by Orbital Debris	IG-21-011	Lead national and international collaborative efforts to mitigate orbital debris including activities to encourage active debris removal and the timely end-of-mission disposal of spacecraft.	Office of the Administrator
73	1/27/21	NASA's Efforts to Mitigate the Risks Posed by Orbital Debris	IG-21-011	Collaborate with Congress, other federal agencies, and partners from the private and public sectors to adopt national and international guidelines on active debris removal and strategies for increasing global compliance rates for timely removal of spacecraft at the end of a mission.	Office of the Administrator

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74	1/27/21	NASA's Efforts to Mitigate the Risks Posed by Orbital Debris	IG-21-011	Invest in methods and technologies for removing defunct spacecraft. As part of this effort, conduct a study evaluating the technical merit and cost to investing in active debris removal systems and technologies.	Office of the Administrator
75	1/27/21	NASA's Efforts to Mitigate the Risks Posed by Orbital Debris	IG-21-011	Prioritize obtaining direct measurements needed to fill the 3 mm and smaller sized debris gap at the 600 to 1,000 km altitude in LEO.	Office of the Administrator
76	1/27/21	NASA's Efforts to Mitigate the Risks Posed by Orbital Debris	IG-21-011	Explore alternative orbital debris radar assets to fill the data gaps caused by the increased costs of utilizing existing radars and the loss of legacy assets.	Safety & Mission Assurance
77	1/27/21	NASA's Efforts to Mitigate the Risks Posed by Orbital Debris	IG-21-011	Explore commercial alternatives to obtaining information on debris smaller than 10 cm until Space Fence becomes fully operational.	Safety & Mission Assurance
78	1/27/21	NASA's Efforts to Mitigate the Risks Posed by Orbital Debris	IG-21-011	Coordinate with Mission Directorate officials to develop and document a formal signature process that clarifies needs and expectations and supports the timely delivery of ODARs and EOMPs before critical decision point reviews.	Safety & Mission Assurance
79	7/14/21	NASA's Management of Universities Space Research Association's Cooperative Agreements	IG-21-022	Revise the GCAM to add criteria and review approval thresholds beyond grant and technical officers for cooperative agreement extensions and augmentations.	Chief Financial Officer
80	7/14/21	NASA's Management of Universities Space Research Association's Cooperative Agreements	IG-21-022	Require technical sponsoring offices to provide grant officers with a determination as to why requested extensions or augmentations, that will result in an agreement exceeding 5 years, are in the best interest of the government or otherwise specified by a program's unique needs, policies, or procedures.	Chief Financial Officer
81	7/14/21	NASA's Management of Universities Space Research Association's Cooperative Agreements	IG-21-022	Develop a template or standardized format for officials to use in evaluating recipient performance.	Chief Financial Officer
82	7/14/21	NASA's Management of Universities Space Research Association's Cooperative Agreements	IG-21-022	Revise the GCAM to enhance NASA's existing review of the PMS financial information requiring the periodic sampling of detailed supporting documentation to validate the accuracy and completeness of expenditures charged to the Agency.	Chief Financial Officer

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83	7/14/21	NASA's Management of Universities Space Research Association's Cooperative Agreements	IG-21-022	Reevaluate and reassign grant officers to specific agreements to improve oversight and accountability.	NASA Shared Services Center
84	7/14/21	NASA's Management of Universities Space Research Association's Cooperative Agreements	IG-21-022	Have grant officers modify current cooperative agreements to include NASA's responsibility to evaluate performance detailing how the recipient's progress will be measured.	NASA Shared Services Center
85	7/14/21	NASA's Management of Universities Space Research Association's Cooperative Agreements	IG-21-022	Conduct periodic reviews of cooperative agreements to ensure work performed under the agreement is consistent with a cooperative agreement and not a contract.	NASA Shared Services Center
86	7/14/21	NASA's Management of Universities Space Research Association's Cooperative Agreements	IG-21-022	Develop a plan for retaining NASA's performance evaluation reports in a centralized database for access by grant and contracting officers.	NASA Shared Services Center
87	7/14/21	NASA's Management of Universities Space Research Association's Cooperative Agreements	IG-21-022	Ensure that the follow-on GESTAR cooperative agreement is assigned to a specific grant officer(s) and not subject to transactional processing to ensure the appropriate oversight of the complex nature of the effort.	NASA Shared Services Center
88	7/14/21	NASA's Management of Universities Space Research Association's Cooperative Agreements	IG-21-022	Require that the NSSC Division Chief, Procurement Services direct grant officers to review USRA expenditures for allowability and recover any expenditures deemed unallowable.	NASA Shared Services Center
89	7/14/21	NASA's Management of Universities Space Research Association's Cooperative Agreements	IG-21-022	Ensure that the excess \$246,060 charged for executive compensation is credited back to the Agency in USRA's general ledger.	NASA Shared Services Center
90	7/14/21	NASA's Management of Universities Space Research Association's Cooperative Agreements	IG-21-022	Complete planned actions to finalize, document, and deliver a plan and timeline for transitioning all internship cooperative agreements to contracts before the USRA cooperative agreement extensions end in August 2022.	Education

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91	3/28/16	Audit of the Spaceport Command and Control System	IG-16-015	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
92	3/9/17	NASA's Management of Electromagnetic Spectrum	IG-17-012	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
93	4/13/17	NASA's Plans for Human Exploration Beyond Low-Earth Orbit	IG-17-017	Include cost as a factor in NASA's Journey to Mars feasibility studies when assessing various missions and systems.	Human Exploration and Operations
94	4/5/18	NASA's Management of the Goddard Institute for Space Studies and Related Activities	IG-18-015	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
95	3/17/20	NASA's Management of the Mobile Launcher	IG-20-013	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
96	3/17/20	NASA's Management of the Mobile Launcher	IG-20-013	Require the ML-2 project to develop an ABC separate from the EGS Program.	Human Exploration and Operations
97	3/10/20	NASA's Management of Space Launch System Program Costs and Contracts	IG-20-012	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
98	3/10/20	NASA's Management of Space Launch System Program Costs and Contracts	IG-20-012	Establishing methodologies and processes to track and set cost commitments for Artemis II.	Human Exploration and Operations

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99	3/10/20	NASA's Management of Space Launch System Program Costs and Contracts	IG-20-012	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
100	3/10/20	NASA's Management of Space Launch System Program Costs and Contracts	IG-20-012	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
101	3/3/20	NASA's Distributed Active Archive Centers	IG-20-011	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
102	3/3/20	NASA's Distributed Active Archive Centers	IG-20-011	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
103	11/14/19	NASA's Management of Crew Transportation to the International Space Station	IG-20-005	Correct identified safety-critical technical issues before the crewed test flights, including parachute, propulsion, and launch abort systems, to ensure sufficient safety margins exist.	Human Exploration and Operations
104	7/16/20	NASA's Management of the Orion Multi-Purpose Crew Vehicle Program	IG-20-018	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
105	10/27/20	NASA's Management of its Acquisition Workforce	IG-21-002	Finalize and fully implement the performance metrics dashboard to measure acquisition performance.	Procurement
106	10/27/20	NASA's Management of its Acquisition Workforce	IG-21-002	Document contract assignments to COs, CORs, and program/project managers in a centralized system in the performance metrics dashboard.	Procurement
107	10/27/20	NASA's Management of its Acquisition Workforce	IG-21-002	Take action to ensure that active CORs that have not met continuous learning requirements are removed from their COR position in a timely manner.	Procurement

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108	9/8/21	NASA's Construction of Facilities	IG-21-027	Develop and institute an Agency-wide process to prioritize and fund institutional and programmatic CoF projects that align with Agency-level missions and require business case analyses to be completed and considered as part of the process prior to the projects' approval.	Strategic Infrastructure
109	9/8/21	NASA's Construction of Facilities	IG-21-027	Revise NASA Procedural Requirements 8820.2G to define and establish parameters for the use of institutional and programmatic CoF funds and establish a cost-sharing method for facilities that will have more than one user.	Strategic Infrastructure
110	9/8/21	NASA's Construction of Facilities	IG-21-027	Revise NASA Procedural Requirements 8820.2G to require energy saving projects to consider life-cycle costs as part of their cost-benefit analyses.	Strategic Infrastructure
111	9/8/21	NASA's Construction of Facilities	IG-21-027	Revise NASA Procedural Requirements 8820.2G to include requirements to reduce and consolidate the Agency's footprint that consider the demolition of like facilities when possible for discrete construction projects.	Strategic Infrastructure
112	9/8/21	NASA's Construction of Facilities	IG-21-027	In coordination with the Mission Directorates, institute a process to ensure facility requirements are identified and funding sources are specified during a program's development and implementation phases.	Strategic Infrastructure
113	9/8/21	NASA's Construction of Facilities	IG-21-027	Reexamine policies regarding oversight of the CoF program to identify alternative approaches to more effectively oversee the program.	Strategic Infrastructure
114	11/10/20	NASA's Acquisition Strategy for the Artemis Missions	IG-21-004	Baseline the Gateway requirements and specifications in contract modifications prior to updating and awarding the PPE and HALO fixed-price contracts.	Human Exploration and Operations
115	11/10/20	NASA's Acquisition Strategy for the Artemis Missions	IG-21-004	Ensure PPE and HALO delivery and launch dates are realistic by including sufficient schedule margin in their development schedules.	Human Exploration and Operations
116	11/10/20	NASA's Acquisition Strategy for the Artemis Missions	IG-21-004	Develop a HEOMD policy that establishes a reasonable amount of recommended schedule margin by phase of program or project.	Human Exploration and Operations
117	11/10/20	NASA's Acquisition Strategy for the Artemis Missions	IG-21-004	Work with the contractors to obtain a credit for the amount already spent on launch services under the PPE contract.	Human Exploration and Operations
118	11/10/20	NASA's Acquisition Strategy for the Artemis Missions	IG-21-004	Take action to enforce NASA policy to definitize contracts within 6 months of award.	Human Exploration and Operations

Row no.	Issue Date	Report Title	Report no.	Recommendation	Responsible Office
119	11/10/20	NASA's Acquisition Strategy for the Artemis Missions	IG-21-004	Ensure the maturity of system requirements are fully understood before selecting the acquisition method and contract type for future acquisition strategies supporting Artemis and Mars missions by describing the state of the program requirements in the acquisition strategy memorandum for each new acquisition.	Human Exploration and Operations
120	8/10/21	NASA's Development of Next Generation Spacesuits	IG-21-025	To the extent that the schedule for Artemis II is extended beyond 2024, adjust the Exploration Extravehicular Activity (xEVA) System schedule as appropriate to reduce development risks. For example, this could include: (a) ensuring at least the first two xEMU flight suits can also be used for ISS priorities, (b) reducing the risk of concurrency in development of xEMU testing and qualification suits, and/or (c) baselining the xEVA system schedule and ensuring the schedule incorporates margin.	Human Exploration and Operations
121	8/10/21	NASA's Development of Next Generation Spacesuits	IG-21-025	Develop an integrated master schedule to incorporate and align the hardware deliveries and training needs of the dependent programs - Gateway, ISS, and Human Landing System (HLS) - and the Flight Operations Directorate.	Human Exploration and Operations
122	8/10/21	NASA's Development of Next Generation Spacesuits	IG-21-025	Ensure technical requirements for the next-generation suits are solidified before selecting the acquisition strategy to procure suits for the ISS and Artemis programs.	Human Exploration and Operations
123	8/10/21	NASA's Development of Next Generation Spacesuits	IG-21-025	Develop an acquisition strategy for the next-generation spacesuits that meets the needs of both the ISS and Artemis programs.	Human Exploration and Operations

**Note: This table omits 47 recommendations that NASA determined to be classified or sensitive and are therefore unsuitable for public release.**

**RECENTLY CLOSED RECOMMENDATIONS**

<b>Row No.</b>	<b>Issue Date</b>	<b>Report Title</b>	<b>Report no.</b>	<b>Recommendation</b>	<b>Responsible Office</b>
1	5/6/20	Management of Low-Boom Flight Demonstrator Project	IG-20-015	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
2	5/6/20	Management of Low-Boom Flight Demonstrator Project	IG-20-015	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
3	9/14/20	Management of Stratospheric Observatory for Infrared Astronomy	IG-20-022	Establish a requirement for new technology implementation given the cancellation of HIRMES.	Science
4	9/14/20	Management of Stratospheric Observatory for Infrared Astronomy	IG-20-022	Reassess SOFIA’s strategy and mission to identify and consider implementing alternative operational approaches and models to maximize SOFIA’s capabilities within the Astrophysics portfolio and return on investment.	Science
5	9/14/20	Management of Stratospheric Observatory for Infrared Astronomy	IG-20-022	Develop consensus between SMD officials and Program management and implement quantifiable operational and science output requirements.	Science
6	7/30/18	NASA’s Management and Utilization of the International Space Station	IG-18-021	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
7	11/14/19	NASA’s Management of Crew Transportation to the International Space Station	IG-20-005	Revise current schedules and establish realistic timetables for the remaining reviews and flights occurring before final certification and missions to the ISS.	Human Exploration and Operations