NASA Office of Inspector General
Open Recommendations as of December 15, 2024

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 156 recommendations that remained open as of December 15, 2024. 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.

Row No.	Issue Date	Report Title	Report No.	Recommendation No.	Recommendation	Responsible Office
1	9/26/2024	NASA's Management of Risks to Sustaining International Space Station Operations through 2030	IG-24-020	1	Report on NASA's progress to reexamine available orbital debris tracking tools and offices to ensure all practicable data sources are leveraged to inform ISS operations and ensure crew safety.	Space Operations
2	9/26/2024	NASA's Management of Risks to Sustaining International Space Station Operations through 2030	IG-24-020	2	Document safety contingency plans and vehicle reassignment rules to help ensure the safe return of crew in the event of an emergency—expanding these efforts to include damage to the Space Exploration Technologies Corporation's (SpaceX) Crew Dragon and The Boeing Company's Starliner.	Space Operations
3	9/26/2024	NASA's Management of Risks to Sustaining International Space Station Operations through 2030	IG-24-020	3	Develop plans that reflect potential cost savings measures and anticipated reductions in operations for ISS decommissioning.	Space Operations
4	9/26/2024	NASA's Management of Risks to Sustaining International Space Station Operations through 2030	IG-24-020	4	Update the controlled deorbit plan and ensure the plan includes key commitment, technical, schedule, and cost challenges impacting the 2031 deorbit time frame.	Space Operations
5	9/24/2024	NASA's Management of its Rocket Propulsion Testing (RPT) Capability	IG-24-018	5	Ensure that the appropriate revisions are made to NPR and NPD 8600.1 to clarify the authority structure.	Strategic Infrastructure
6	9/24/2024	NASA's Management of its Rocket Propulsion Testing (RPT) Capability	IG-24-018	2	Ensure that cost models deployed at all RPT Centers include full recovery of applicable maintenance costs for the infrastructure and facilities being utilized, similar to that being piloted at Stennis.	Space Operations
7	9/24/2024	NASA's Management of its Rocket Propulsion Testing (RPT) Capability	IG-24-018	4	Document the results and planned RPT actions following completion of the Commercial Capability Survey.	Space Operations
8	9/24/2024	NASA's Management of its Rocket Propulsion Testing (RPT) Capability	IG-24-018	1	Establish a requirement in the RPT Program Plan for recurring right-size studies for the RPT capability portfolio and use the results to reexamine workforce and capability requirements for the future.	Space Operations
9	9/24/2024	NASA's Management of its Rocket Propulsion Testing (RPT) Capability	IG-24-018	3	Formally document and establish the FM&M process in the RPT Program Plan or RPTMB Operating Procedures.	Space Operations
10	8/27/2024	NASA's Management of the Mobile Launcher 2 Project	IG-24-016	2	Conduct a thorough analysis of the feasibility of utilizing the fixed-price option, and if NASA determines that it will not be exercised, remove the option from the ML-2 contract.	Exploration Systems Development
11	8/27/2024	NASA's Management of the Mobile Launcher 2 Project	IG-24-016	1	Ensure lessons learned from the ML-2's acquisition, contract, and project management are codified to inform future development efforts.	Exploration Systems Development
12	8/8/2024	Artemis IV and Beyond - EPOC/Block 1B	IG-24-015	1	Coordinate with Boeing, the SLS Stages prime contractor, to develop a quality management system training program that is compliant with AS9100D and reviewed by the appropriate NASA officials.	Exploration Systems Development
13	8/8/2024	Artemis IV and Beyond - EPOC/Block 1B	IG-24-015	2	Institute financial penalties for Boeing's noncompliance with quality control standards.	Exploration Systems Development
14	8/8/2024	Artemis IV and Beyond - EPOC/Block 1B	IG-24-015	3	Perform a detailed cost overrun analysis on Boeing's Stages contract for EUS development.	Exploration Systems Development

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15	8/8/2024	Artemis IV and Beyond - EPOC/Block 1B	IG-24-015	4	Coordinate with DCMA to ensure contractual compliance with EVMS clauses.	Exploration Systems Development
16	7/31/2024	NASA's Nancy Grace Roman Space Telescope Project	IG-24-014	1	Further evaluate space communication and navigation risks, including running and reviewing loading analysis from all four networks.	Science
17	7/31/2024	NASA's Nancy Grace Roman Space Telescope Project	IG-24-014	2	Develop a contingency plan for Roman's space communication and navigation services, including an assessment of the Deep Space Network's (DSN) ability to support Roman.	Science
18	7/31/2024	NASA's Nancy Grace Roman Space Telescope Project	IG-24-014	3	Assess the potential impacts of the delayed upgrades to the Near Space Network (NSN) on Roman's scheduled launch timeline.	Science
19	6/6/2024	Audit of NASA's Commercial Lunar Payload Services Initiative	IG-24-013	3	Finalize a management plan with clear leadership authority and responsibility that would delineate CLPS initiative performance goals and metrics that are measurable and targeted, criteria for augmented insight, a formal lessons-learned process, and any other relevant guidelines for the management plan's implementation.	Science
20	6/6/2024	Audit of NASA's Commercial Lunar Payload Services Initiative	IG-24-013	1	Conduct updated market research to assess capability growth across the lunar economy and associated transportation sector since 2017.	Science
21	6/6/2024	Audit of NASA's Commercial Lunar Payload Services Initiative	IG-24-013	2	Reassess NASA's role in, and contribution to, the commercial lunar delivery market.	Science
22	6/6/2024	Audit of NASA's Commercial Lunar Payload Services Initiative	IG-24-013	4	Prepare and formalize a CLPS Manifest Selection Board charter and processes.	Science
23	6/6/2024	Audit of NASA's Commercial Lunar Payload Services Initiative	IG-24-013	5	Strengthen procedures to ensure science payload interfaces and requirements are mature enough to write an RFTP that would minimize future requirement changes.	Science
24	5/1/2024	NASA's Readiness for the Artemis II Crewed Mission to Lunar Orbit	IG-24-011	1	Ensure the root cause of Orion heat shield char liberation is well understood prior to the Artemis II mission.	Exploration Systems Development
25	5/1/2024	NASA's Readiness for the Artemis II Crewed Mission to Lunar Orbit	IG-24-011	3	Require EGS conduct additional verification and validation for launch imagery equipment prior to launch attempts should launch conditions change.	Exploration Systems Development
26	5/1/2024	NASA's Readiness for the Artemis II Crewed Mission to Lunar Orbit	IG-24-011	2	Conduct analysis of Orion separation bolts using updated models that account for char loss, design modifications, and operational changes to Orion prior to launch of the Artemis II mission.	Exploration Systems Development
27	5/1/2024	NASA's Readiness for the Artemis II Crewed Mission to Lunar Orbit	IG-24-011	5	Develop a corrective action plan to mitigate or prevent the recurrence of uninterpretable Orion telemetry data for the Artemis II mission.	Exploration Systems Development
28	5/1/2024	NASA's Readiness for the Artemis II Crewed Mission to Lunar Orbit	IG-24-011	4	Reexamine procedures to better ensure recovery of Orion jettisoned hardware for the Artemis II mission.	Exploration Systems Development
29	5/1/2024	NASA's Readiness for the Artemis II Crewed Mission to Lunar Orbit	IG-24-011	6	Establish a course of action and timeline for individual Artemis system design changes before beginning integrated system assembly stacking operations.	Exploration Systems Development

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30	4/25/2024	STEM Engagement	IG-24-010	7	Require OCHCO, Mission Directorates, and Centers collaborate to identify and incorporate critical Agency workforce needs when developing future STEM engagement activities and develop a plan that increases the number of STEM engagement activities aimed at skilled trade occupations.	Office of the Administrator
31	4/25/2024	STEM Engagement	IG-24-010	1	Re-evaluate the OSTEM performance goals to ensure they are distinct and well correlated with outcomes.	STEM Engagement
32	4/25/2024	STEM Engagement	IG-24-010	6	Require all NASA organizations capture STEM engagement activities in STEM Gateway.	Office of the Administrator
33	4/25/2024	STEM Engagement	IG-24-010	5	Re-evaluate jurisdictions eligible for EPSCoR funds to ensure effective and equitable distribution of Agency funds.	Office of the Administrator
34	4/25/2024	STEM Engagement	IG-24-010	2	Develop a procedure to ensure OSTEM tracks and reports funding for all Agency STEM engagement activities.	STEM Engagement
35	4/25/2024	STEM Engagement	IG-24-010	4	Develop a standardized grant process that ensures mandatory performance reporting and that expiration dates are tracked and monitored to meet requirements and develop practices to ensure grant recipients are reporting subrecipient awards over $30,000 as required.	STEM Engagement
36	3/14/2024	Audit of NASA's High-End Computing Program	IG-24-009	2	Develop enterprise-wide HEC stakeholder requirements to validate commitment agreements as required in NASA Procedural Requirements 8600.1, NASA Capability Portfolio Management Requirements.	Office of the Administrator
37	3/14/2024	Audit of NASA's High-End Computing Program	IG-24-009	3	Identify technology gaps, such as graphics processing unit transition and code modernization, essential for meeting current and future needs and strategic technological and scientific requirements.	Office of the Administrator
38	3/14/2024	Audit of NASA's High-End Computing Program	IG-24-009	4	Develop a strategy to improve HEC asset allocations and prioritization for usage, including the appropriate use of on-premises versus cloud resources.	Office of the Administrator
39	3/14/2024	Audit of NASA's High-End Computing Program	IG-24-009	5	Evaluate cyber risks associated with HEC assets to determine oversight and monitoring requirements, establish risk appetite, and address control deficiencies. Consider using NASA's Splunk enterprise platform as a shared resource.	Office of the Administrator
40	3/14/2024	Audit of NASA's High-End Computing Program	IG-24-009	6	Implement an HEC classification/category designation within Risk Information Security Compliance System for identifying HEC assets.	Office of the Administrator
41	3/14/2024	Audit of NASA's High-End Computing Program	IG-24-009	7	Develop an inventory of enterprise-wide HEC assets and formalize procedures for hardware and software life-cycle management.	Office of the Administrator
42	3/14/2024	Audit of NASA's High-End Computing Program	IG-24-009	8	Document data risk impact levels, classification, and export control categorization for all HEC jobs.	Office of the Administrator
43	3/14/2024	Audit of NASA's High-End Computing Program	IG-24-009	9	Identify and mitigate gaps in the foreign national accreditation access process.	Office of the Administrator

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44	2/28/2024	Audit of Mars Sample Return Program	IG-24-008	2	Ensure the life-cycle cost and schedule estimates properly incorporate MSR Program complexity and performance as factors and do not only focus on external cost growth impacts and ongoing design issues.	Science
45	2/28/2024	Audit of Mars Sample Return Program	IG-24-008	3	Ensure the Agency Program Management Council is provided with a set of potential launch scenarios by KDP-C, including life-cycle cost and schedule estimates and an associated Joint Cost and Schedule Confidence Level for each.	Science
46	2/28/2024	Audit of Mars Sample Return Program	IG-24-008	1	Ensure the MSR Program establishes a stable CCRS design prior to establishing the life-cycle cost and schedule estimate at KDP-C, incorporating recommendations from the 2023 IRB as appropriate.	Science
47	12/19/2023	Audit of NASA's Privacy Program	IG-24-006	5	Ensure that designated members of a Breach Response Team participate in a tabletop exercise, at least annually.	Chief Information Officer
48	12/19/2023	Audit of NASA's Privacy Program	IG-24-006	6	Require those with specific security and privacy roles to take privacy role-based training.	Chief Information Officer
49	10/19/2023	NASA's Management of the Artemis Program's Supply Chain	IG-24-003	2	Complete the Supply Chain Visibility Data Requirement Description effort to gain supplier data from contractors.	Procurement
50	10/19/2023	NASA's Management of the Artemis Program's Supply Chain	IG-24-003	5	Ensure data is regularly entered into a supplier database (e.g., Insight Central) to track supplier data and ongoing challenges.	Exploration Systems Development
51	10/19/2023	NASA's Management of the Artemis Program's Supply Chain	IG-24-003	6	Incorporate a representative from the Logistics Management Division into each Artemis-related program and project at appropriate milestones, including at the onset of a contract and each life-cycle milestone.	Exploration Systems Development
52	10/19/2023	NASA's Management of the Artemis Program's Supply Chain	IG-24-003	7	Ensure an Artemis-specific study of the Agency's industrial base and supply chain is completed on a recurring basis.	Exploration Systems Development
53	10/12/2023	Artemis IV and Beyond - EPOC/Block 1B	IG-24-001	1	Establish achievable cost saving metrics beginning with Artemis IV SLS elements and production contracts.	Human Exploration and Operations
54	10/12/2023	Artemis IV and Beyond - EPOC/Block 1B	IG-24-001	2	Transition the core stage and Exploration Upper Stage contracts to fixed-price contracts with a per mission price to codify the actual costs.	Human Exploration and Operations
55	10/12/2023	Artemis IV and Beyond - EPOC/Block 1B	IG-24-001	3	If keeping contracts as cost-plus-award-fee, increase the percentage of cost as a factor when conducting contractor evaluations for award fee purposes.	Human Exploration and Operations
56	10/12/2023	Artemis IV and Beyond - EPOC/Block 1B	IG-24-001	4	Conduct a detailed review of all contractor-submitted documents to ensure the government's rights to data and processes are not unnecessarily transferred to the contractor.	Human Exploration and Operations
57	10/12/2023	Artemis IV and Beyond - EPOC/Block 1B	IG-24-001	5	Include contract flexibility on future SLS acquisitions that will allow NASA to pivot to other commercial alternatives.	Human Exploration and Operations
58	10/12/2023	Artemis IV and Beyond - EPOC/Block 1B	IG-24-001	6	For each Artemis SLS rocket under EPOC, add compensation to the DST contract such as incentive fees for when the contractor achieves specific cost saving goals.	Human Exploration and Operations

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59	10/12/2023	Artemis IV and Beyond - EPOC/Block 1B	IG-24-001	7	Ensure Government Mandatory Inspection Points and government oversight teams remain throughout the EPOC transition period.	Chief, Safety and Mission Assurance
60	10/4/2023	NASA's On-Orbit Servicing, Assembly, and Manufacturing-1 Mission (OSAM-1)	IG-24-002	1	Recoup the costs of the labor and services (supplemental work) provided by NASA to Maxar to complete the work on the spacecraft bus contract.	Space Technology
61	9/5/2023	Management of NASA's Earth System Science Pathfinder Program	IG-23-018	7	Develop a formal and clear guidance on the roles, responsibilities, and expectations for the inclusion of applications within Earth Venture Class projects.	Science
62	9/5/2023	Management of NASA's Earth System Science Pathfinder Program	IG-23-018	2	Reexamine its selection process to ensure PIs or their team have sufficient experience, including project management, and the ability to dedicate necessary resources to effectively manage ESSP projects.	Science
63	9/5/2023	Management of NASA's Earth System Science Pathfinder Program	IG-23-018	8	Develop a methodology for funding applications in Earth Venture Class projects.	Science
64	9/5/2023	Management of NASA's Earth System Science Pathfinder Program	IG-23-018	5	Conduct a lessons learned review of the GeoCarb mission to identify what NASA, PI, and contractor practices and activities should be revised and applied to the management of future Earth Venture Class projects.	Science
65	9/5/2023	Management of NASA's Earth System Science Pathfinder Program	IG-23-018	6	Develop a plan to provide principal investigators (PIs) and their teams with contract and project management training post-selection approval to better equip them to manage subcontractors.	Science
66	8/17/2023	Evaluation of NASA's Information Security Program under FISMA for FY 2023	IG-23-017	27	Ensure that each information system owner of external systems has a current ISA that defines how each entity will manage, operate, use, and secure the interconnection.	Chief Information Officer
67	8/17/2023	Evaluation of NASA's Information Security Program under FISMA for FY 2023	IG-23-017	20	Continue its efforts to prioritize projects that address the complexities required across EL tiers to meet the intermediate (EL2) maturity level in accordance with OMB M-21-31.	Chief Information Officer
68	8/17/2023	Evaluation of NASA's Information Security Program under FISMA for FY 2023	IG-23-017	8	Revise its policies and procedures to document and implement a lessons learned process based on risk events within the ISCM and Risk Management areas. System security personnel should be instructed to record, analyze, and revise control activities to improve NASA's security posture.	Chief Information Officer
69	8/17/2023	Evaluation of NASA's Information Security Program under FISMA for FY 2023	IG-23-017	11	Continue to implement the necessary entity-wide oversight to improve enforcement mechanisms and controls to ensure all standard baselines and vulnerabilities are monitored and remediated in accordance with Federal and Agency requirements.	Chief Information Officer
70	8/17/2023	Evaluation of NASA's Information Security Program under FISMA for FY 2023	IG-23-017	15	Ensure that the security controls in control families PM, PT, and SR are updated and defined within the Agency's ISCM strategy.	Chief Information Officer
71	8/17/2023	Evaluation of NASA's Information Security Program under FISMA for FY 2023	IG-23-017	16	Document the NMI process in NASA's ISCM Strategy to ensure its hardware inventory monitoring process is accurate, complete, and fully aligns with NASA's other continuous monitoring guidance and integrates processes, associated outputs, and incorporates results to provide situational awareness.	Chief Information Officer

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72	7/12/2023	Audit of NASA's Deep Space Network	IG-23-016	1	Explore more efficient options for DSN scheduling, such as maintaining a list of DSN users by priority that is updated in real-time and accessible to all users.	Space Operations
73	7/12/2023	Audit of NASA's Deep Space Network	IG-23-016	2	Ensure completion of the DAEP's remaining antennas and transmitters and finalize requirements for the LEGS project.	Space Operations
74	7/12/2023	Audit of NASA's Deep Space Network	IG-23-016	3	Finalize international agreements, obtain appropriate clearances for installing the remaining 80 kW transmitters, and establish mechanisms to allow for greater oversight of DAEP project sites.	Space Operations
75	7/12/2023	Audit of NASA's Deep Space Network	IG-23-016	4	Explore options for utilizing commercial and international partners networks to offload excess demand from the DSN and to serve as backups in the event of network overages or outages.	Space Operations
76	6/20/2023	Artemis IV and Beyond - EPOC/Block 1B	ML-24-007	1	Coordinate with the Assistant Administrator for Procurement to address the identified instances of Northrup Grumman Corporation's Government Furnished Property misuse at its Promontory, Utah, facility.	Exploration Systems Development
77	5/25/2023	NASA's Management of the Space Launch System Booster and Engine Contracts	IG-23-015	6	Conduct a thorough review of BPOC's scope of work and technical requirements needed to complete the respective periods of performance and update the contract as appropriate.	Exploration Systems Development
78	5/3/2023	Audit of NASA's Management of its Artificial Intelligence Capabilities	IG-23-012	4	Develop a method to track budgets and expenditures for AI use case inventory.	Chief Information Officer
79	4/20/2023	NASA's Efforts to Increase Diversity in Its Workforce	IG-23-011	1	Ensure hiring and promotion managers across NASA receive appropriate training to increase DEIA awareness on topics such as implicit bias and inclusive leadership.	Human Capital Management
80	4/20/2023	NASA's Efforts to Increase Diversity in Its Workforce	IG-23-011	7	Designate an official or organization to oversee coordination between the stakeholders (OCIO, ODEO, and OCHCO) to develop a sustainable operation and funding structure for the EDP.	Office of the Administrator
81	4/20/2023	NASA's Efforts to Increase Diversity in Its Workforce	IG-23-011	2	Ensure leadership-related professional development courses and detail assignments are widely available to prepare a more diverse cohort of employees for promotional opportunities.	Human Capital Management
82	4/20/2023	NASA's Efforts to Increase Diversity in Its Workforce	IG-23-011	4	Conduct a barrier analysis to identify obstacles restricting women and minorities from senior management positions and develop a plan to address and eliminate these obstacles.	Office of Diversity and Equal Opportunity
83	4/20/2023	NASA's Efforts to Increase Diversity in Its Workforce	IG-23-011	6	Conduct an analysis of all applicant data (similar to interns), including veterans, to better understand hiring trends and outcomes.	Human Capital Management
84	3/20/2023	NASA's Management of Radioisotope Power Systems (RPS) Program	IG-23-010	2	Conduct high quality, frequent, and routine self-assessment TRAs by project management beginning after the initial implementation of a technology development project as a basis for TRL assessment and risk management discussions.	Science
85	3/20/2023	NASA's Management of Radioisotope Power Systems (RPS) Program	IG-23-010	1	Create an RPS resource allocation and technology development strategic plan that includes an evaluation and mitigation of risks for each project through its completion and provide a communication plan to stakeholders and mission managers.	Science

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86	3/20/2023	NASA's Management of Radioisotope Power Systems (RPS) Program	IG-23-010	3	Per Title 51 and NPR 7120.5F, recalculate the life-cycle costs for Next-Gen RTG and DRPS projects to include funding NASA provides to DOE.	Science
87	3/20/2023	NASA's Management of Radioisotope Power Systems (RPS) Program	IG-23-010	9	Reevaluate the need and if appropriate reauthorize the organizational position of the Nuclear Power and Propulsion System Capability Leadership Team through the appropriate Mission Directorate and provide the Team responsibility for monitoring and advocating strategic nuclear power coordination across NASA.	Space Technology
88	3/20/2023	NASA's Management of Radioisotope Power Systems (RPS) Program	IG-23-010	6	In coordination with DOE, develop a means for the RPS Program to obtain high-fidelity Pu-238 and fueled clad current and future inventory information.	Science
89	3/20/2023	NASA's Management of Radioisotope Power Systems (RPS) Program	IG-23-010	4	Institute an EVM process for Next-Gen RTG and DRPS projects that conforms with NASA policy, FAR requirements, and industry best practices.	Science
90	3/20/2023	NASA's Management of Radioisotope Power Systems (RPS) Program	IG-23-010	5	For Next-Gen RTG and DRPS development efforts that transition to a space flight project, execute a JCL analysis at the proper phases in accordance with NPR 7120.5F.	Science
91	3/20/2023	NASA's Management of Radioisotope Power Systems (RPS) Program	IG-23-010	7	Develop a means to quantify risk of future Pu-238 and fueled clad availability that can be communicated to NASA mission managers and incorporated into mission development proposals and plans.	Science
92	3/20/2023	NASA's Management of Radioisotope Power Systems (RPS) Program	IG-23-010	8	Leverage the RPS Program's existing business processes with its element structure to monitor fission technology development for SMD feasibility and educate stakeholders on the possibilities and differences.	Science
93	1/17/2023	Review of NASA's Efforts to Partner with International Space Agencies for the Artemis Missions	IG-23-004	2	Establish NASA-led Artemis campaign boards and working groups for partners with agreed-upon commitments with NASA and provide opportunities for liaison representation from international partner agencies.	Exploration Systems Development
94	1/17/2023	Review of NASA's Efforts to Partner with International Space Agencies for the Artemis Missions	IG-23-004	9	Execute appropriate Artemis agreements with key international space agency partners to ensure partner roles and responsibilities are clearly understood and allow for efficient and timely partnerships in support of Artemis.	International and Interagency Relations
95	1/17/2023	Review of NASA's Efforts to Partner with International Space Agencies for the Artemis Missions	IG-23-004	10	Develop an automated routing method for the processing of international agreements within NASA.	International and Interagency Relations
96	1/17/2023	Review of NASA's Efforts to Partner with International Space Agencies for the Artemis Missions	IG-23-004	5	Establish a full-time export control team dedicated to the various Artemis programs in support of space flight developments.	Exploration Systems Development
97	1/17/2023	Review of NASA's Efforts to Partner with International Space Agencies for the Artemis Missions	IG-23-004	6	Review export control requirements and consider additional roles for partner astronauts to increase their utilization in NASA space flight operations, to include amending existing agreements if necessary.	Space Operations
98	1/17/2023	Review of NASA's Efforts to Partner with International Space Agencies for the Artemis Missions	IG-23-004	7	Establish a full-time export control team dedicated to the Artemis programs in support of space flight operations.	Space Operations

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99	1/12/2023	Audit of NASA's Software Asset Management	IG-23-008	2	Implement a single Software Asset Management tool across the Agency.	Chief Information Officer
100	1/12/2023	Audit of NASA's Software Asset Management	IG-23-008	9	Centralize software spending insights to include purchase cards.	Chief Financial Officer
101	12/19/2022	Review of NASA's Space Technology Mission Directorate (STMD) Portfolio	IG-23-005	3	Complete efforts to develop additional outcome-based performance measures based on the transition, advancement, and infusion of technologies.	Space Technology
102	10/5/2022	Audit of NASA's Compliance with the Geospatial Data Act for Fiscal Year 2022	IG-23-001	3	Ensure the implementation plan for the Geospatial Data Strategy contains detailed action items and milestones, including those for developing a complete and accurate inventory of the Agency's geospatial data.	Chief Information Officer
103	10/5/2022	Audit of NASA's Compliance with the Geospatial Data Act for Fiscal Year 2022	IG-23-001	1	Ensure the role of the SAOGI is strategically positioned within the Agency to have responsibility, accountability, and authority needed to meet GDA-assigned agency responsibilities.	Chief Information Officer
104	10/5/2022	Audit of NASA's Compliance with the Geospatial Data Act for Fiscal Year 2022	IG-23-001	2	Ensure roles and responsibilities of the SAOGI and other key stakeholders are defined in both the Geospatial Data Strategy and its implementation plan.	Chief Information Officer
105	10/5/2022	Audit of NASA's Compliance with the Geospatial Data Act for Fiscal Year 2022	IG-23-001	4	Ensure continued coordination with NARA to establish the appropriate level of scientific data for inclusion in NARA-approved records schedules.	Chief Information Officer
106	8/4/2022	Ames Lease Management Practices	IG-22-015	1	Conduct cyclical reviews (no less than once every 5 years) of the Ames lease process to ensure compliance with federal and NASA requirements.	Strategic Infrastructure
107	8/4/2022	Ames Lease Management Practices	IG-22-015	2	Update applicable real estate policies and NASA-wide guidance to enhance requirements and procedures to comply with EUL authority and to require maintaining appropriate documentation, documenting decisions, and fostering transparent coordination and communication with internal and external stakeholders in a timely manner.	Strategic Infrastructure
108	8/4/2022	Ames Lease Management Practices	IG-22-015	5	Implement written procedures in the lease process to ensure compliance with federal and NASA requirements applicable, but not limited to, timely involvement of the RPAO, competition, life-cycle cost analysis, fair market value assessments, certifications, and termination clauses as appropriate.	Ames Research Center (Center Director)
109	8/4/2022	Ames Lease Management Practices	IG-22-015	3	Update applicable real estate policies and NASA-wide guidance to enhance requirements and standardize applicable financial practices (such as the benefit and cost analysis, life-cycle cost analysis, and audits of tenants' books and records when required) associated with leases.	Strategic Infrastructure
110	8/4/2022	Ames Lease Management Practices	IG-22-015	4	Update applicable real estate policies and NASA-wide guidance to incorporate applicable security requirements and agreement clauses in leases.	Strategic Infrastructure
111	8/4/2022	Ames Lease Management Practices	IG-22-015	9	Within the next 3 years, conduct a Center-wide security vulnerability risk assessment, including the districts outside Ames Campus, to ensure compliance with federal and NASA requirements.	Office of Protective Services

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112	8/4/2022	Ames Lease Management Practices	IG-22-015	10	Identify and implement mitigation strategies and resource requirements to address the security vulnerability assessment risks.	Office of Protective Services
113	6/28/2022	Audit of NASA's Compliance with the Payment Integrity Information Act for Fiscal year 2021	IG-22-014	7	Develop a detailed review process, such as a checklist or job aid, outlining the review procedures performed by the Quality Assurance Division within the reporting process for overpayments from sources other than recapture audits to ensure that the primary reviewer and the supervisory quality control reviewers are performing a thorough review of the aggregated submissions of overpayments. Necessary review steps include ensuring overpayments are not reported twice, capturing issues with overpayments submitted for the incorrect period, and tracking identified and collected portions that occur in different fiscal years for accurate reporting.	Chief Financial Officer
114	4/7/2022	NASA's Multi-Mission Program Cost Estimating	IG-22-011	4	Develop a formal process by which a risk-based probabilistic analysis is conducted to cover the global and interdependency risks of major programs and projects when those individual projects are required for the successful implementation of a mission; regardless of how those programs/ projects are categorized (i.e., tightly coupled, single-project program, etc.).	Chief Financial Officer
115	4/7/2022	NASA's Multi-Mission Program Cost Estimating	IG-22-011	7	Establish procedural requirements for a risk posture analysis to ensure that major programs supporting multiple missions identify and estimate the cost and schedule impact of global and major interdependency risk.	Chief Engineer
116	1/11/2022	NASA's Management of its Astronaut Corps	IG-22-007	3	At least 18 months prior to the planned Artemis II launch, coordinate with Artemis program offices to complete the development and chartering of the framework of Artemis boards and panels to ensure alignment with future mission training needs for new vehicles and missions, including Orion, next-generation spacesuits, HLS, and Gateway.	Human Exploration and Operations
117	11/30/2021	NASA's Utilization, Management, and Commercialization of Low Earth Orbit	IG-22-005	1	Ensure the risks associated with cracks and leaks in the Service Module Transfer Tunnel are identified and mitigated prior to agreeing to an ISS life extension.	Human Exploration and Operations
118	11/15/2021	NASA's Acquisition Strategy for the Artemis Program	IG-22-003	1	Develop a realistic, risk-informed schedule that includes sufficient margin to better align Agency expectations with the development schedule.	Human Exploration and Operations
119	11/15/2021	NASA's Acquisition Strategy for the Artemis Program	IG-22-003	3	Develop an Artemis-wide cost estimate, in accordance with best practices, that is updated on an annual basis.	Human Exploration and Operations
120	11/15/2021	NASA's Acquisition Strategy for the Artemis Program	IG-22-003	4	Maintain an accounting of per-mission costs to increase transparency and establish a benchmark against which NASA can assess the outcome of initiatives to increase the affordability of ESD systems.	Human Exploration and Operations
121	9/8/2021	NASA's Management of the Construction of Facilities Process	IG-21-027	1	Develop and institute an agency-wide process to prioritize and fund institutional and programmatic CoF projects that align with Agency-level missions and goals and require business case analyses to be completed and considered as part of the process prior to the project's approval.	Strategic Infrastructure

Row No.	Issue Date	Report Title	Report No.	Recommendation No.	Recommendation	Responsible Office
122	9/8/2021	NASA's Management of the Construction of Facilities Process	IG-21-027	3	Institute a process to ensure facility requirements are identified and funding sources are specified during a program's development and implementation phases.	Strategic Infrastructure
123	1/27/2021	NASA's Efforts to Mitigate Risks Posed by Orbital Debris	IG-21-011	1	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
124	1/27/2021	NASA's Efforts to Mitigate Risks Posed by Orbital Debris	IG-21-011	2	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
125	1/27/2021	NASA's Efforts to Mitigate Risks Posed by Orbital Debris	IG-21-011	3	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
126	11/10/2020	NASA's Acquisition Strategy for the Lunar Gateway and Artemis Missions	IG-21-004	3	Develop an HEOMD policy that establishes a reasonable amount of recommended schedule margin by phase of the program or project.	Human Exploration and Operations
127	10/27/2020	NASA's Management of Its Acquisition Workforce	IG-21-002	2	Document contract assignments to COs, CORs, and program/project managers in a centralized system for inclusion in the Performance Metrics Dashboard.	Procurement
128	10/2/2020	Geospatial Data Act Audit	IG-21-001	2	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
129	9/16/2020	Planetary Science Division Portfolio	IG-20-023	2	Engage relevant Centers and technical capability leaders to implement budgetary and accounting system options to support critical discipline capabilities.	Science
130	7/16/2020	Audit of NASA's Management of the Orion Multi-Purpose Crew Vehicle	IG-20-018	2	To the extent practicable, adjust the production schedules for Artemis 4 and 5 to better align with the successful demonstration of Artemis 2 to reduce schedule delays associated with potential rework.	Human Exploration and Operations
131	3/10/2020	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 program	Human Exploration and Operations
132	3/10/2020	NASA's Cost Management of the Space Launch System	IG-20-012	2	Establish methodologies and processes to track and set cost commitments for Artemis II.	Human Exploration and Operations
133	3/10/2020	NASA's Cost Management of the Space Launch System	IG-20-012	2	Determine 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
134	3/3/2020	Audit of NASA's Management of the Distributed Active Archive Data Centers	IG-20-011	1	In conjunction with ESDIS, once SWOT and NISAR 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

Row No.	Issue Date	Report Title	Report No.	Recommendation No.	Recommendation	Responsible Office
135	11/14/2019	NASA's Management of Crew Transportation to the International Space Station	IG-20-005	2	Correct identified safety-critical technical issues before the crewed test flights, including parachute and propulsion systems testing, to ensure sufficient safety margins exist.	Human Exploration and Operations
136	10/21/2019	Audit of NASA's Security Management	IG-20-001	5	Coordinate with the Office of 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
137	5/29/2019	Audit 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.	Science
138	10/22/2018	Audit of NASA's Historic Property Management	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; and adopt a process that more resembles the Smithsonian's approach to more effectively assess historic assets as to whether they should be retained or transferred to other organizations for preservation and utilization.	Strategic Infrastructure
139	10/22/2018	Audit of NASA's Historic Property Management	IG-19-002	5	Ensure NASA policy for using the proceeds from facilities leased under NHPA authority appropriately aligns with Agency goals to minimize excess facilities.	Strategic Infrastructure
140	10/22/2018	Audit of NASA's Historic Property Management	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 and adopt a process that more resembles the Smithsonian's approach to assess historic assets more effectively as to whether they should be retained or transferred to other organizations for preservation and utilization.	Strategic Infrastructure
141	11/15/2024	Oversight of the FY 2024 Financial Statement Audit	IG-25-001	1	Ensure that control activities are operating as designed and that the appropriate level of documentation to evidence reviews is maintained to prevent and detect material misstatements.	Chief Financial Officer
142	11/15/2024	Oversight of the FY 2024 Financial Statement Audit	IG-25-001	2	Consider whether additional training on proper operation of its controls is necessary to enhance NASA's financial reporting control environment.	Chief Financial Officer
143	11/15/2024	Oversight of the FY 2024 Financial Statement Audit	IG-25-001	3	Perform ongoing monitoring over the operating effectiveness of its financial reporting controls.	Chief Financial Officer

Note: This table omits 13 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.	Recommendation No.	Recommendation	Responsible Office
1	4/6/2022	Volatiles Investigating Polar Expansion Rover (VIPER)	IG-22-010	1	Coordinate with the Chief Knowledge Officer to submit and at appropriate intervals document and publish lessons learned associated with using a CLPS provider, particularly on major acquisitions.	Science
2	5/25/2023	NASA's Management of the Space Launch System Booster and Engine Contracts	IG-23-015	8	Develop a separate non-fee bearing contract line item for completion of the 11 unfinished heritage RS-25 adaptation engines.	Exploration Systems Development
3	5/25/2023	NASA's Management of the Space Launch System Booster and Engine Contracts	IG-23-015	5	Update RS-25 production per engine cost estimate to include investment costs in restart facilities, equipment, new production overhead costs, and government-funded property.	Exploration Systems Development
4	10/27/2020	NASA's Management of Its Acquisition Workforce	IG-21-002	1	Finalize and fully implement the Performance Metrics Dashboard to measure acquisition performance.	Procurement
5	6/9/2022	NASA's Management of the Mobile Launcher 2 Contract	IG-22-012	1	Evaluate Bechtel's support for the updated estimate of cost and schedule at project completion and finalize negotiations for Bechtel's currently proposed cost increases and NASA's government-driven changes.	Human Exploration and Operations
6	1/17/2023	Review of NASA's Efforts to Partner with International Space Agencies for the Artemis Missions	IG-23-004	8	Coordinate with other federal agencies to gain a unique EAR classification for the Gateway as appropriate.	International and Interagency Relations
7	3/14/2022	Audit of NASA's Insider Threat Program	IG-22-009	2	Improve cross-discipline communication by establishing a Working Group that includes OPS, OCIO, Procurement, human resource officials, and any other relevant Agency offices to collaborate on wide-ranging insider threat related issues for both classified and unclassified systems.	Office of Protective Services
8	9/4/2024	Audit of NASA's Compliance with the Geospatial Data Act for Fiscal Year 2024	IG-24-017	1	Formalize the designation of a Senior Agency Official for Geospatial Information (SAOGI) in NASA policy to institutionalize the role.	Office of the Administrator