

NASA Office of Inspector General

Open Recommendations as of September 19, 2022

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 19, 2022. 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 July 22, 2022

Row no.	Issue Date	Report Title	Report no.	Recommendation	Responsible Office
1	1/11/2022	NASA's Management of its Astronaut Corps	IG-22-007	1. Further centralize and maintain its collection, summary, and monitoring of detailed astronaut data to better support the sizing and alignment of the astronaut corps	Human Exploration and Operations
2	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	Human Exploration and Operations
3	4/6/2022	Volatiles Investigating Polar Expansion Rover (VIPER)	IG-22-010	2. Develop a VIPER Mission Cost Estimate	Science
4	4/6/2022	Volatiles Investigating Polar Expansion Rover (VIPER)	IG-22-010	3. Major Project Developed under NPR 7120.8 should complete a formal JCL analysis	Chief Engineer
5	4/6/2022	Volatiles Investigating Polar Expansion Rover (VIPER)	IG-22-010	4. Major Project developed under NPR 7120.8 should implement a formal EVM	Chief Engineer
6	4/6/2022	Volatiles Investigating Polar Expansion Rover (VIPER)	IG-22-010	1. Publish Lesson Learned Associated with CLP provider	Science
7	12/15/2021	Oversight of FY 2021 Financial Statement Audit	IG-22-004	1. Design and Implement Controls	Chief Financial Officer
8	12/15/2021	Oversight of FY 2021 Financial Statement Audit	IG-22-004	2. Provide Operating Procedures and Training	Chief Financial Officer
9	12/15/2021	Oversight of FY 2021 Financial Statement Audit	IG-22-004	3. Discussions with FASAB personnel	Chief Financial Officer
10	4/7/2022	NASA's Multi-Mission Program Cost Estimating	IG-22-011	5. Report life cycle cost per Title 51	Chief Engineer
11	4/7/2022	NASA's Multi-Mission Program Cost Estimating	IG-22-011	6. Update 7120.5 to comply with Title 51 and NPRs	Chief Engineer
12	4/7/2022	NASA's Multi-Mission Program Cost Estimating	IG-22-011	7. Establish policy for risk posture analysis	Chief Engineer
13	4/7/2022	NASA's Multi-Mission Program Cost Estimating	IG-22-011	1. Report production as a development cost	Chief Financial Officer
14	4/7/2022	NASA's Multi-Mission Program Cost Estimating	IG-22-011	2. MPAR life cycle cost for missions	Chief Financial Officer
15	4/7/2022	NASA's Multi-Mission Program Cost Estimating	IG-22-011	3. Life cycle cost for missions outside of MPAR	Chief Financial Officer
16	4/7/2022	NASA's Multi-Mission Program Cost Estimating	IG-22-011	4. Develop process for global and interdependency risks	Chief Financial Officer

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17	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
18	5/18/2021	Audit of NASA 's Cybersecurity Readiness	IG-21-019	4. Determine Current Cost and Resources	Chief Information Officer
19	5/18/2021	Audit of NASA 's Cybersecurity Readiness	IG-21-019	5. Consolidate A&A as a Single Functional Line of Business within the CyPress Contract	Chief Information Officer
20	5/18/2021	Audit of NASA 's Cybersecurity Readiness	IG-21-019	1. Formalize and integrate EA and ESA and develop metrics	Chief Information Officer
21	5/18/2021	Audit of NASA 's Cybersecurity Readiness	IG-21-019	2. Collaborate with Chief Engineer	Chief Information Officer
22	5/18/2021	Audit of NASA 's Cybersecurity Readiness	IG-21-019	3. Determine Optimal Placement of Enterprise Architect	Chief Information Officer
23	11/10/2020	NASA's Acquisition Strategy for the Lunar Gateway and Artemis Missions	IG-21-004	6. NASA policy to definitize contracts is not enforced	Human Exploration and Operations
24	11/10/2020	NASA's Acquisition Strategy for the Lunar Gateway and Artemis Missions	IG-21-004	1. Baseline Gateway requirements and specifications in contract modifications	Human Exploration and Operations
25	11/10/2020	NASA's Acquisition Strategy for the Lunar Gateway and Artemis Missions	IG-21-004	2. Sufficient schedule margin needed for PPE and HALO launch dates	Human Exploration and Operations
26	11/10/2020	NASA's Acquisition Strategy for the Lunar Gateway and Artemis Missions	IG-21-004	3. HEOMD policy needed for recommended schedule margin	Human Exploration and Operations
27	10/27/2020	NASA's Management of Its Acquisition Workforce	IG-21-002	1. Performance metrics dashboard implementation	Procurement
28	10/27/2020	NASA's Management of Its Acquisition Workforce	IG-21-002	2. Centralized system needed to document contract assignments	Procurement
29	10/27/2020	NASA's Management of Its Acquisition Workforce	IG-21-002	4. Verify if active CORs have met learning requirements	Procurement
30	3/31/2020	FY 2020 FISMA (Review of NASA's Information Security Program)	IG-21-014	2. Implement and Monitoring and Surveillance Process	Chief Information Officer
31	10/2/2020	Geospatial Data Act Audit	IG-21-001	3. Develop Records Schedules	Chief Information Officer
32	10/2/2020	Geospatial Data Act Audit	IG-21-001	4. Collaborate with NARA Concerning Affiliated Archive Agreements	Chief Information Officer

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33	10/2/2020	Geospatial Data Act Audit	IG-21-001	2. Develop Geospatial Data Strategy	Chief Information Officer
34	5/18/2021	Audit of NASA's Compliance with the Payment Integrity Information Act for Fiscal Year 2020	IG-21-020	3. Enhance Guidance	Chief Financial Officer
35	5/18/2021	Audit of NASA's Compliance with the Payment Integrity Information Act for Fiscal Year 2020	IG-21-020	1. Consultation with OMB	Chief Financial Officer
36	5/18/2021	Audit of NASA's Compliance with the Payment Integrity Information Act for Fiscal Year 2020	IG-21-020	2. Report as instructed by OMB	Chief Financial Officer
37	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
38	11/15/2021	NASA's Acquisition Strategy for the Artemis Program	IG-22-003	2. Expand upon the existing draft Artemis IMS to include programs outside of AES and ESD to properly align dependencies across directorates	Human Exploration and Operations
39	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
40	11/15/2021	NASA's Acquisition Strategy for the Artemis Program	IG-22-003	6. Develop realistic HLS funding profile and schedule given the underfunding of HLS in FY 2021, the selection of one HLS award, and the desire to complete a sustainability contract for future lunar missions.	Human Exploration and Operations
41	11/15/2021	NASA's Acquisition Strategy for the Artemis Program	IG-22-003	8. Validate that the annual synchronization reviews meet the intent and expectations of the milestone reviews replaced by the tailored acquisition approach.	Chief Engineer
42	11/15/2021	NASA's Acquisition Strategy for the Artemis Program	IG-22-003	7. Identify measurable cost reduction targets for its ESD contractors	Human Exploration and Operations
43	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
44	11/15/2021	NASA's Acquisition Strategy for the Artemis Program	IG-22-003	5. Definitize outstanding Artemis-related contracts and make every effort to definitize contracts within 180 days in accordance with NASA FAR Supplement 1843.7005(a), Definitization (2018)	Human Exploration and Operations
45	3/3/2020	Audit of NASA's Management of the Distributed Active Archive Data Centers	IG-20-011	1. Complete an Independent Analysis	Science
46	11/7/2019	Audit of NASA's Compliance with the Digital Accountability and Transparency Act for FY 2019	IG-20-004	2. Assess Timeliness in Verification and Validation Process	Procurement
47	11/14/2019	NASA's Management of Crew Transportation to the International Space Station	IG-20-005	2. Fix Safety-Critical Systems Before Crewed Flights	Human Exploration and Operations

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48	6/25/2020	FY 2019 FISMA (Review of NASA's Information Security Program)	IG-20-017	9. Implement Process to Review IT Documents Annually	Chief Information Officer
49	7/16/2020	Audit of NASA's Management of the Orion Multi Purpose Crew Vehicle	IG-20-018	2. Adjustment of production schedules for Artemis 4 and 5 is needed	Human Exploration and Operations
50	9/16/2020	Planetary Science Division Portfolio	IG-20-023	9. Procedures lacking for CLPS contractors' past performance and financial risk	Science
51	9/16/2020	Planetary Science Division Portfolio	IG-20-023	6. Prioritize meeting congressional mandate; cost schedule; request funding	Science
52	9/16/2020	Planetary Science Division Portfolio	IG-20-023	2. Engage Centers and leaders to implement budgetary and accounting system options	Science
53	9/16/2020	Planetary Science Division Portfolio	IG-20-023	3. Instituting mentoring	Science
54	9/16/2020	Planetary Science Division Portfolio	IG-20-023	8. CLPS Interface	Science
55	9/16/2020	Planetary Science Division Portfolio	IG-20-023	10. Quality assurance surveillance plans needed	Science
56	12/3/2020	Audit of NASA's Management of Hazardous Material	IG-21-006	7. Some hazardous materials shelters not in compliance with guidelines/requirements	Chief, Safety and Mission Assurance
57	12/3/2020	Audit of NASA's Management of Hazardous Material	IG-21-006	5. NASA lacks processes to consistently maintain complete and accurate inventory of hazardous materials	Chief, Safety and Mission Assurance
58	5/15/2020	Audit of NASA's Compliance with the Improper Payments Information Act for Fiscal Year 2019	IG-20-016	2. Statistically Valid Estimate	Chief Financial Officer
59	5/14/2018	Audit of NASA's Compliance with the Improper Payments Information Act for Fiscal Year 2017	IG-18-017	3. Develop Process for Tracking Overpayments Identified but Recovered through Contract Credits	Chief Financial Officer
60	10/21/2019	Audit of NASA's Security Management	IG-20-001	4. Jurisdiction - Agency Wide	Office of Protective Services
61	10/21/2019	Audit of NASA's Security Management	IG-20-001	5. Firearm Carry Policy	Office of Protective Services
62	3/26/2019	Audit of NASA's Service Contracts	IG-19-014	1. Develop Standardized Set of Metrics	Procurement
63	3/26/2019	Audit of NASA's Service Contracts	IG-19-014	2. Require Procurement to Report Data	Procurement
64	5/29/2019	Audit of NASA's Europa Mission	IG-19-019	9. Isolating Key Project Personnel from Instrument Selection	Science
65	3/17/2020	Audit of the Mobile Launcher	IG-20-013	3. Ensure Life-Cycle and Milestone Reviews Include Risks	Human Exploration and Operations
66	3/17/2020	Audit of the Mobile Launcher	IG-20-013	4. Require Separate ABC	Human Exploration and Operations
67	3/10/2020	NASA's Cost Management of the Space Launch System	IG-20-012	2. Review of HEOMD and NASA program management policies	Human Exploration and Operations

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68	3/10/2020	NASA's Cost Management of the Space Launch System	IG-20-012	2b. Establish methodologies and processes to track set cost commitments	Human Exploration and Operations
69	3/10/2020	NASA's Cost Management of the Space Launch System	IG-20-012	2c. Determine reporting and tracking procedures for setting cost and schedule commitments	Human Exploration and Operations
70	3/10/2020	NASA's Cost Management of the Space Launch System	IG-20-012	5. Review of each major contract's scope of work is needed	Human Exploration and Operations
71	4/5/2018	NASA's Management of Goddard Institute for Space Studies and Related Activities	IG-18-015	8. Implement Partnership Best Practices	International and Interagency Relations
72	10/22/2018	Audit of NASA's Historic Property Management	IG-19-002	2. Develop Comprehensive Procedures for Identifying and Managing Heritage Assets	Strategic Infrastructure
73	10/22/2018	Audit of NASA's Historic Property Management	IG-19-002	3. Evaluate and Justify Existing List of Heritage Assets	Strategic Infrastructure
74	10/22/2018	Audit of NASA's Historic Property Management	IG-19-002	5. Ensure Policy for Using Proceeds Aligns with Agency Goals	Strategic Infrastructure
75	5/7/2019	NASA's Management of the Heliophysics Portfolio	IG-19-018	2. Implement National Space Weather Action Plan Tasks	Science
76	5/7/2019	NASA's Management of the Heliophysics Portfolio	IG-19-018	3. Reassess HPD's Capabilities and Resources	Science
77	5/7/2019	NASA's Management of the Heliophysics Portfolio	IG-19-018	4. Establish Official Framework for Collaborating	Science
78	3/9/2017	NASA's Management of Electromagnetic Spectrum	IG-17-012	2. Incorporate SmallSat Guidance into NPD 2570.5 and NPR 2570.1	Human Exploration and Operations
79	5/17/2017	Audit of the Construction of Test Stands 4693 and 4697 at Marshall Space Flight Center	IG-17-021	2. Develop additional construction project guidance	Strategic Infrastructure
80	5/17/2017	Audit of the Construction of Test Stands 4693 and 4697 at Marshall Space Flight Center	IG-17-021	1. Perform comprehensive review of program-funded construction projects	Strategic Infrastructure
81	5/17/2017	Audit of the Construction of Test Stands 4693 and 4697 at Marshall Space Flight Center	IG-17-021	3. Ensure facility needs are included in program planning and scheduling	Human Exploration and Operations
82	6/14/2022	Management and Resilience of NASA's Earth Science Disasters Program	IG-22-013	1. Establish and Document Program Management Requirements	Science
83	6/14/2022	Management and Resilience of NASA's Earth Science Disasters Program	IG-22-013	2. Funding Analysis of ESDP	Science

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84	6/14/2022	Management and Resilience of NASA's Earth Science Disasters Program	IG-22-013	3. Compliance with Stafford Act	Science
85	6/14/2022	Management and Resilience of NASA's Earth Science Disasters Program	IG-22-013	4. Finalize the NASA Disasters Program Playbook	Science
86	6/14/2022	Management and Resilience of NASA's Earth Science Disasters Program	IG-22-013	5. Regular Training for Disaster Coordinators	Science
87	6/14/2022	Management and Resilience of NASA's Earth Science Disasters Program	IG-22-013	6. Capture Knowledge / After-Action Activities	Science
88	6/14/2022	Management and Resilience of NASA's Earth Science Disasters Program	IG-22-013	7. System to Track Lessons Learned	Science
89	11/2/2016	NASA's Management of the Earth Science Portfolio	IG-17-003	1. Update Architecture Plan Every 5 Years	Science
90	1/27/2021	NASA's Efforts to Mitigate Risks Posed by Orbital Debris	IG-21-011	1. Lead Mitigation and Remediation Efforts	Office of the Administrator
91	1/27/2021	NASA's Efforts to Mitigate Risks Posed by Orbital Debris	IG-21-011	2. Collaboratively Develop Strategies for ADR and Improving Mitigation Compliance	Office of the Administrator
92	1/27/2021	NASA's Efforts to Mitigate Risks Posed by Orbital Debris	IG-21-011	3. Invest in Active Debris Removal Methods and Technologies	Office of the Administrator
93	1/27/2021	NASA's Efforts to Mitigate Risks Posed by Orbital Debris	IG-21-011	4. Prioritize direct measurements needed to fill debris gaps	Office of the Administrator
94	1/27/2021	NASA's Efforts to Mitigate Risks Posed by Orbital Debris	IG-21-011	5. Explore alternative orbital debris radar assets	Chief, Safety and Mission Assurance
95	1/27/2021	NASA's Efforts to Mitigate Risks Posed by Orbital Debris	IG-21-011	7. Develop and document a formal signature process	Chief, Safety and Mission Assurance
96	3/14/2022	Audit of NASA's Insider Threat Program	IG-22-009	1. Unclassified Systems Insider Threat Remains Important to Evaluate and Mitigate	Office of Protective Services
97	3/14/2022	Audit of NASA's Insider Threat Program	IG-22-009	2. Establish Cross-Discipline Communications Working Group for Classified + Unclassified Systems	Office of Protective Services
98	7/14/2021	Universities Space Research Association (USRA)	IG-21-022	12. Transitioning cooperative agreements to contracts	Education Office
99	8/10/2021	NASA's Development of Next Generation Spacesuits	IG-21-025	2. Develop an Integrated Master Schedule	Human Exploration and Operations

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100	8/10/2021	NASA's Development of Next Generation Spacesuits	IG-21-025	1. Adjust xEVA System Schedule to Reduce Risks	Human Exploration and Operations
101	6/9/2022	NASA's Management of the Mobile Launcher 2 Contract	IG-22-012	3.b. Independent Government Cost Estimate	Human Exploration and Operations
102	6/9/2022	NASA's Management of the Mobile Launcher 2 Contract	IG-22-012	4. Minimize Availability of Award Fees in Light of Performance	Human Exploration and Operations
103	6/9/2022	NASA's Management of the Mobile Launcher 2 Contract	IG-22-012	1. Evaluate Bechtel's Estimate of Cost and Schedule at Completion	Human Exploration and Operations
104	6/9/2022	NASA's Management of the Mobile Launcher 2 Contract	IG-22-012	5. Reinforce Regulatory Guidance for Withholding Payments	Procurement
105	6/9/2022	NASA's Management of the Mobile Launcher 2 Contract	IG-22-012	3.a. Critical Design Review	Human Exploration and Operations
106	6/9/2022	NASA's Management of the Mobile Launcher 2 Contract	IG-22-012	2. Update JCL Analysis	Human Exploration and Operations
107	9/8/2021	NASA's Management of the Construction of Facilities Process	IG-21-027	1. Develop and Institute Agency-wide Process to Prioritize and Fund CoF Projects	Strategic Infrastructure
108	9/8/2021	NASA's Management of the Construction of Facilities Process	IG-21-027	2a. Revise NPR 8820.2 to Define and Establish Parameters for CoF Funding	Strategic Infrastructure
109	9/8/2021	NASA's Management of the Construction of Facilities Process	IG-21-027	2c. Revise NPR 8820.2 to Include Requirements to Reduce and Consolidate the Agency's Footprint	Strategic Infrastructure
110	9/8/2021	NASA's Management of the Construction of Facilities Process	IG-21-027	2b. Revise NPR 8820.2 to Require Energy Saving Projects to Consider Life-cycle Costs	Strategic Infrastructure
111	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 Early in Development	Strategic Infrastructure
112	9/8/2021	NASA's Management of the Construction of Facilities Process	IG-21-027	4. Reexamine Policies Regarding Oversight of the CoF Program	Strategic Infrastructure
113	6/28/2022	Audit of NASA's Compliance with the Payment Integrity Information Act for Fiscal year 2021	IG-22-014	2. Report Disaster Relief Funding Separately	Chief Financial Officer
114	6/28/2022	Audit of NASA's Compliance with the Payment Integrity Information Act for Fiscal year 2021	IG-22-014	3. Complete OMB Data Call Process	Chief Financial Officer
115	6/28/2022	Audit of NASA's Compliance with the Payment Integrity Information Act for Fiscal year 2021	IG-22-014	4. Exclude Transactions that Do Not Meet Definition	Chief Financial Officer
116	6/28/2022	Audit of NASA's Compliance with the Payment Integrity Information Act for Fiscal year 2021	IG-22-014	5. Revise Materiality Risk Calculation Methodology	Chief Financial Officer

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117	6/28/2022	Audit of NASA's Compliance with the Payment Integrity Information Act for Fiscal year 2021	IG-22-014	6. Consider OMB's Threshold for Program Selection	Chief Financial Officer
118	6/28/2022	Audit of NASA's Compliance with the Payment Integrity Information Act for Fiscal year 2021	IG-22-014	1. Complete Steps for 1st Year Non-Compliance	Chief Financial Officer
119	6/28/2022	Audit of NASA's Compliance with the Payment Integrity Information Act for Fiscal year 2021	IG-22-014	7. Develop Detailed Review Process	Chief Financial Officer
120	6/28/2022	Audit of NASA's Compliance with the Payment Integrity Information Act for Fiscal year 2021	IG-22-014	8. Identify Specific Programs with Overpayments	Chief Financial Officer
121	8/4/2022	Ames Lease Management Practices	IG-22-015	1. Conduct Cyclical Reviews of Lease Process	Strategic Infrastructure
122	8/4/2022	Ames Lease Management Practices	IG-22-015	2. Update NASA Leasing Policies, Requirements & Guidance	Strategic Infrastructure
123	8/4/2022	Ames Lease Management Practices	IG-22-015	3. Update NASA Real Estate Policy, Requirements & Guidance	Strategic Infrastructure
124	8/4/2022	Ames Lease Management Practices	IG-22-015	6. Properly Involved HQ & Ames Offices in Lease Process	Ames Research Center (Center Director)
125	8/4/2022	Ames Lease Management Practices	IG-22-015	5. Implement Procedures for Lease Process	Ames Research Center (Center Director)
126	8/4/2022	Ames Lease Management Practices	IG-22-015	7. Formal Management Structure for Ames Development Plan	Ames Research Center (Center Director)
127	8/4/2022	Ames Lease Management Practices	IG-22-015	8. Document Process with Defined Performance Metrics	Ames Research Center (Center Director)
128	8/4/2022	Ames Lease Management Practices	IG-22-015	4. Update Requirements for Security Clauses in Leases	Strategic Infrastructure
129	8/4/2022	Ames Lease Management Practices	IG-22-015	9. Security Vulnerability Risk Assessment	Office of Protective Services
130	8/4/2022	Ames Lease Management Practices	IG-22-015	10. Mitigation Plan	Office of Protective Services

Note: This table omits 40 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	Responsible Office
1	1/11/2022	NASA's Management of its Astronaut Corps	IG-22-007	4. Update internal guidance to document the process for identifying and developing training regimens to align with Artemis mission needs.	Human Exploration and Operations Mission Directorate

