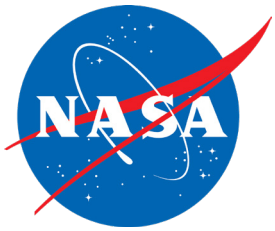
Office of Inspector General

2026 Report on NASA's

TOP MANAGEMENT and PERFORMANCE CHALLENGES



November 2026



Office of Inspector General

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To suggest ideas or request future audits, contact the NASA OIG Office of Audits.

Cover photo: A sliver of Earth is illuminated against the blackness of space in this photo taken by an Artemis II crew member through an Orion spacecraft window on the third day of the mission.
Source: NASA.

TABLE OF CONTENTS

Message from the NASA OIG Senior Official 4

Challenge 1: Establishing a Human Presence on the Moon 6

Challenge 2: Managing a Robust U.S. Presence in Low Earth Orbit 8

Challenge 3: Improving Management of Major Programs and Projects 10

Challenge 4: Managing Cybersecurity Risks and Emerging Technology 12

Challenge 5: Sustaining Mission Critical Capabilities and Support Services 14

Appendix A: Acronyms 16

Appendix B: Management's Comments 17



MESSAGE FROM THE

NASA OIG SENIOR OFFICIAL

Maintaining America's superiority in space has never been more crucial. Following the recent success of Artemis II and the launch of the Nancy Grace Roman Space Telescope, NASA is accelerating the pace of discovery and pushing the boundaries of space exploration. As the Agency manages an increasingly complex portfolio of missions, it continues to foster the low Earth orbit (LEO) economy and lay the groundwork for a sustained lunar presence. These ambitious endeavors require a resilient workforce and modern infrastructure, as well as cybersecurity defenses and robust internal controls that safeguard NASA assets and technology from foreign adversaries.

At the Office of Inspector General (OIG), we help NASA achieve these goals safely, efficiently, and cost-effectively. To that end, and in accordance with the Reports Consolidation Act of 2000, we publish this annual report outlining the foremost challenges facing the Agency. These challenges, in turn, underpin our audit and oversight work for the year ahead. This year, we identified five challenges based on their overall significance to NASA's mission, their systemic nature, and how they impact the Agency's susceptibility to fraud, waste, and abuse. These challenges do not imply deficiencies. Instead, they underscore long-standing, complex issues that demand sustained engagement from NASA leadership, Congress, and other key stakeholders. The five challenges are listed below:

Challenge 1: Establishing a Human Presence on the Moon
To advance its Ignition initiatives and establish an enduring lunar presence, NASA must overcome the complex technical challenges associated with the Artemis human landing systems and next-generation spacesuits. The Agency must also closely monitor its acquisition strategy for lunar delivery services to develop a permanent Moon Base and meet demanding mission timelines.

Challenge 2: Managing a Robust U.S. Presence in Low Earth Orbit
To prepare for the International Space Station's (ISS or Station) retirement, NASA must maintain safe operations while partnering with industry to develop future LEO destinations. This transition will require adequate oversight, significant financial investment, and reliable crew and cargo transport capabilities.

Challenge 3: Improving Management of Major Programs and Projects
To ensure the success of major programs and projects, NASA must commit to realistic schedules, adequate budget resources, and transparent reporting. The Agency's shift toward more service-based commercial acquisitions offers potential benefits but also demands heightened oversight to control costs and mitigate risks.

Challenge 4: Managing Cybersecurity Risks and Emerging Technology
To defend against evolving cybersecurity threats and protect sensitive data, NASA must address its decentralized approach to information technology (IT) management and keep pace with emerging technologies including super intelligence (SI) and quantum computing. To preserve national security, the Agency must also ensure grantees and contractors comply with strict security standards to safeguard intellectual property.

Challenge 5: Sustaining Mission Critical Capabilities and Support Services
To maintain America's preeminence in space, NASA must fortify its mission critical capabilities by modernizing aging infrastructure and sustaining a highly technical workforce. Simultaneously, the Agency must ensure rigorous oversight of the commercial partners, contractors, and grantees that provide essential support services.

Addressing these five challenges will be key as NASA tackles its boldest missions yet. The OIG remains committed to helping the Agency overcome these hurdles, and the tangible impact of our oversight is evident in our recent work. In fiscal year 2026, the Office of Audits announced and initiated 10 audits, made 35 recommendations, and identified $127.9 million in monetary impacts.[1] Concurrently, the Office of Investigations yielded a monetary impact of $12 million, with $2 million returned directly to NASA.[2]

As the Agency ventures to the Moon and beyond, we will ensure that accountability, integrity, and transparency continue to define this new era of space exploration.



Robert H. Steinau
Senior Official

[1] As of September 16, 2026.

[2] As of September 15, 2026.



Artemis II astronauts launch from Launch Complex 39B at NASA's Kennedy Space Center for a 10-day journey around the Moon and back aboard the Orion spacecraft.

Source: NASA.

ESTABLISHING A HUMAN PRESENCE ON THE MOON

Established in 2017, NASA's Artemis campaign aims to fulfill the nation's quest to return humans to the surface of the Moon and establish the framework for a sustainable lunar presence. While still early in its implementation, NASA continues to make steady progress with the Artemis campaign and its efforts to return humans to the Moon. In December 2022, NASA successfully completed Artemis I, the first and only integrated uncrewed flight test of NASA's deep space exploration systems, which include the Space Launch System, a two-stage, heavy-lift rocket that launches the Orion capsule into space from Exploration Ground Systems launch facilities. In April 2026, Artemis II successfully completed the first crewed test flight around the Moon in more than half a century. On this mission, four astronauts flew aboard the Orion spacecraft on a 9-day mission that took them further than any humans have traveled before—a record previously set by the Apollo 13 crew in 1970.

With Artemis III on the horizon, in March 2026, the Agency announced "Ignition," a series of initiatives that included significant changes to the Artemis effort to fulfill the President's National Space Policy to return American astronauts to the Moon and establish an enduring lunar presence.[3] As part of the Ignition initiatives, the Agency stated its intention to increase the cadence of Artemis missions, starting with Artemis III's launch in June 2027, followed by two launches, Artemis IV and V, in 2028.

As noted in our June 2026 interim memorandum, NASA also initiated efforts to repurpose or terminate multiple Artemis systems, including the Exploration Upper Stage, the Universal Stage Adapter, Mobile Launcher 2, and Gateway's Habitation and Logistics Outpost.[4] As such, the Agency will no longer upgrade the Space Launch System two-stage, heavy-lift rocket to a more powerful configuration utilizing the Exploration Upper Stage, Universal Stage Adapter, and second mobile launcher. Further, the Agency added an Artemis mission and revised its timeline for returning humans to the lunar surface. While NASA originally intended for Artemis III to return astronauts to the Moon, this crewed mission will instead test in-orbit capabilities in LEO, such as the Human Landing System (HLS) landers that will deliver astronauts to the Moon and next-generation spacesuits, to reduce risk for the first lunar landing.

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[3] Executive Order 14369, *Ensuring American Space Superiority* (December 18, 2025).

[4] NASA OIG, *NASA's Management of Programs and Projects after Mission Termination—Canceled or Repurposed Artemis Campaign Systems* (ML-26-002, June 24, 2026).

Assuming a successful Artemis III mission, NASA intends to launch two Artemis missions in 2028. Projected to launch early in the year, Artemis IV aims to return humans to the lunar surface for the first time in over 50 years. For this mission, NASA will leverage either SpaceX's Starship HLS or Blue Origin's Mark 2 HLS and Axiom Space's next-generation spacesuits, as well as the Agency's Space Launch System, Orion capsule, and associated ground systems. Later in 2028, NASA expects to launch Artemis V as the fourth crewed mission and second lunar landing of the Artemis campaign. NASA plans to start building a permanent Moon Base during this mission; however, the HLS provider—SpaceX or Blue Origin—has yet to be determined.

The most significant challenges to achieving these near-term Artemis missions are overcoming the technical difficulties associated with the human landing systems and next-generation spacesuits. For the human landing systems, in March 2026 we reported that both HLS providers have experienced schedule delays, technical difficulties, and integration challenges, along with unmitigated crew safety risks that could threaten the launch date of NASA's missions.[5] In particular, the HLS Program considers demonstrating cryogenic propellant transfer to be one of the most significant technical challenges facing both providers. Cryogenic fluid management is the ability to store, transfer, and measure ultra cold fluids, such as those used for propellants in space exploration. Further, our report noted that while NASA is proactively taking measures to mitigate and prevent hazards associated with the landers, gaps still exist in the Agency's risk reduction methodology.

Like the human landing systems, the successful completion of next-generation spacesuits is critical to the Agency's ability to conduct astronaut operations on the Moon, but spacesuit development risks could delay the Agency's efforts to return humans to the Moon. To incentivize competition and create redundancy, these spacesuits were initially developed by two contractors, Axiom Space and Collins Aerospace. However, in June 2024, the Agency and Collins Aerospace mutually agreed to descope the company's efforts citing an inability to meet the agreed-upon schedule, negating the competition and redundancy originally sought by NASA and leaving the Agency reliant on Axiom Space as the single provider. Since that time, our office has reported on NASA's challenges to ensure these spacesuits are available to meet the Artemis schedule for astronaut operations on the Moon in 2028.[6] While Axiom Space passed a contractor-led technical review milestone for the spacesuits, according to our analysis, if they experience delays in line with the historical average for recent space flight programs, the suits may not be available until 2031. In August 2026, NASA announced that it was revising requirements and providing additional resources to Axiom Space to ensure the lunar spacesuit the company is developing is ready in time for Artemis IV.

Under its updated Artemis plans, NASA will undertake a multi-phased approach to build a permanent base on the Moon. A key element of this strategy is the acquisition of lunar delivery services from commercial vendors to send NASA science and technology payloads through a series of robotic missions. For the first phase, through its Ignition initiatives, NASA will use Commercial Lunar Payload Services (CLPS) and the Lunar Terrain Vehicle to focus on experimental efforts to gain experience landing and operating rovers on the Moon. The Agency expects this phase to cost around $10 billion. In June 2026, NASA announced the selection of three companies to land four new missions on the Moon in 2028. We believe this approach faces the risk of potential schedule delays and performance shortfalls. In June 2024, we reported that CLPS missions cost more, took longer than anticipated, and adhered to aggressive development schedules that increased risk-averse practices and policies. For example, NASA insight and oversight increased and more detailed vendor proposals were required, resulting in higher costs and delayed delivery schedules.[7]

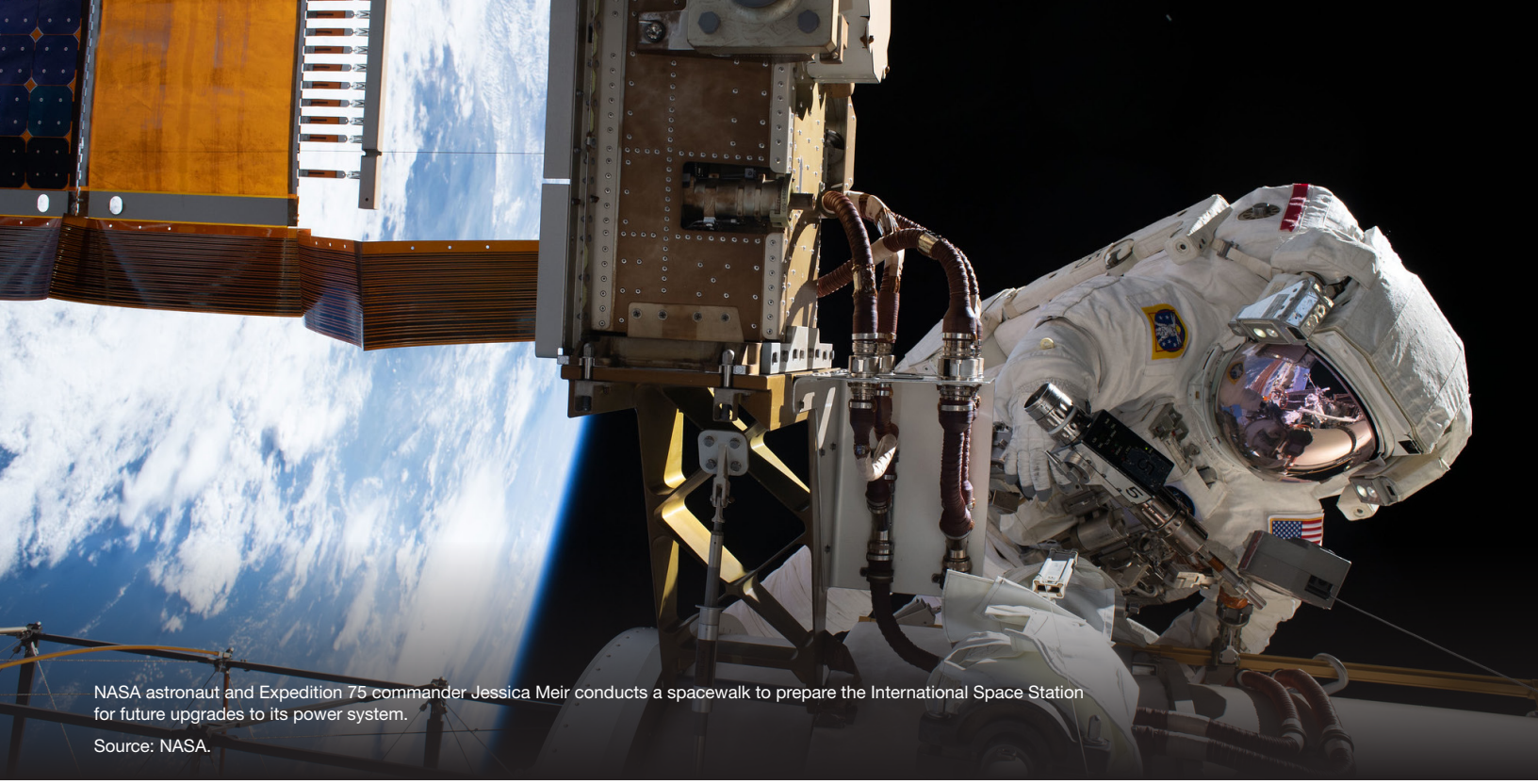
The Agency expects to begin its phased approach to build a permanent lunar base with robotic missions that explore the lunar environment and test new technologies. Subsequently, NASA plans to gradually establish the systems and infrastructure needed for astronauts to live and work on the Moon. Looking forward, beginning in 2029, NASA plans to shift its focus from cultivating semi-habitable infrastructure and logistics to supporting recurring astronaut operations. During the final phase, beginning around 2032, the Agency's efforts will be focused on enabling a permanent and continuous human presence on the Moon. The implementation of these changes may create acquisition and project management challenges as NASA quickly adjusts its Artemis strategy to meet the ambitious objectives and timelines.

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5 NASA OIG, *NASA's Management of the Human Landing System Contracts* (IG-26-004, March 10, 2026).

6 NASA OIG, *NASA's Acquisition of Next-Generation Spacesuit Services* (IG-26-006, April 20, 2026).

7 NASA OIG, *NASA's Commercial Lunar Payload Services Initiative* (IG-24-013, June 6, 2024).



NASA astronaut and Expedition 75 commander Jessica Meir conducts a spacewalk to prepare the International Space Station for future upgrades to its power system.

Source: NASA.

MANAGING A ROBUST U.S. PRESENCE IN LOW EARTH ORBIT

For almost three decades, humans have sustained a continuous presence in LEO—the region in space located about 200 to 270 miles above the Earth's surface—through living in and conducting research aboard the ISS. LEO's microgravity environment offers the ISS essential opportunities for crew training, fundamental and applied research, advanced systems development, and other activities that facilitate human deep space exploration for Artemis and potential future longer-duration missions to Mars. The United States, along with Canadian, European, and Japanese partners, operate the United States Orbital Segment of the ISS, while Russia exclusively operates its own segment. Continuously maintaining ISS operations, including crew and cargo transportation, maintenance, and research, accounts for expenditures worth nearly $3 billion per year plus another $1 billion needed for additional costs that support ISS and other space operations missions. With the creation of NASA's Human Spaceflight Mission Directorate, through merging the Exploration Systems Development and Space Operations Mission Directorates, the ISS is expected to absorb around 8 percent of the directorate's $11.6 billion budget in fiscal year 2027.

To sustain Station operations through its planned retirement in 2030, the Agency must overcome increasing risks to long-standing operational challenges. As we reported in 2024, with multiple extensions to the intended end of the ISS's operational life, managing repairs and upgrades has become increasingly difficult in part due to suppliers decreasing or ceasing production of parts not intended to be in production for this long.[8] In addition, an ongoing air leak in a Russian Transfer Tunnel that was first discovered in 2019 continues to require structural risk mitigation efforts, an issue we first reported on in 2021 and again in 2024.[9] Moreover, in a 2025 report, we noted that the current ISS spacesuits used by astronauts to perform spacewalks necessary to replace parts, perform routine

[8] NASA OIG, *NASA's Management of Risks to Sustaining ISS Operations through 2030* (IG-24-020, September 26, 2024).

[9] NASA OIG, *NASA's Management of the International Space Station and Efforts to Commercialize Low Earth Orbit* (IG-22-005, November 30, 2021), and IG-24-020.

[10] NASA OIG, *NASA's Management of ISS Extravehicular Activity Spacesuits* (IG-25-012, September 30, 2025).

maintenance, and make other needed repairs were designed more than 50 years ago, resulting in increased maintenance costs and safety risks.[10]

In addition to the challenges surrounding maintenance and safety, the Agency has limited transportation capabilities to bring supplies, science, and crew to and from the Station, relying on its commercial cargo and crew partners for transportation capabilities. The Agency has partnered with Northrop Grumman and SpaceX to deliver cargo to the ISS, but only SpaceX is able to return cargo from the Station. For crew, NASA relies on the SpaceX Crew Dragon for U.S.-based crew transportation to and from the Station while the Boeing Starliner continues to work toward its human-rating certification. In June 2024, Starliner's first crewed flight test to the ISS experienced multiple problems and faced risks of continued propulsion system failures on the return flight. This ultimately led NASA to bring the astronauts home on SpaceX's Crew Dragon vehicle instead. As a result, in March 2025, two NASA astronauts returned to Earth on a Crew Dragon after what was expected to be a 10-day mission on the Starliner became a nine-and-a-half-month stay aboard the ISS. Currently, NASA and Boeing have yet to schedule the next Starliner flight, a cargo-only mission.

As the ISS's planned retirement in 2030 nears, the Agency plans to continue its presence in LEO by utilizing one or more commercially owned and operated space destinations. The Agency planned to have at least one new commercial station available by 2028, allowing for a 2-year overlap with the ISS before it is decommissioned in 2030. To this end, NASA contracted Axiom Space to provide a commercial module to be attached to the Station and awarded Space Act Agreements to multiple companies for the design of stand-alone commercial space stations.

While NASA has been working toward this post-ISS strategy for several years, in March 2026, the Agency announced revised strategies for LEO development centered around the ISS as part of its Ignition initiatives. These strategies included the procurement of a government-owned module that will attach to the ISS, validation of commercial modules using ISS capabilities, and eventual detachment from the Station into free flight. Further, as commercial industry readiness and demand mature, these ISS-anchored commercial modules would eventually detach, and NASA would become one of many customers procuring commercial services in LEO.

However, due to industry feedback, in July 2026 the Agency revised its strategy and went back to the original approach of commercially owned and operated space stations. NASA intends to award contracts to two providers for the development of commercial space stations in 2027, ultimately selecting one of those providers following the completion of crewed test flights by 2029. NASA will have to provide adequate oversight of these contracts to ensure the providers are successful within agreed-upon cost and schedule parameters. The procurement approach is structured similar to NASA's 2014 commercial crew transportation effort, in which Boeing and SpaceX were awarded $4.2 billion and $2.6 billion, respectively. While SpaceX ultimately proved to be successful under this procurement model after several years of delay, Boeing, as of September 2026, had not delivered a certified operational vehicle for crew transportation.

The transition to a commercially owned and operated station will also require significant financial investment from NASA and industry, and substantial demand for commercial services in LEO. Investment from NASA is expected to increase in the coming years. However, based on previously reported expected capabilities and estimated prices for commercial LEO destination services, transitioning from a government-owned to a privately-owned station is estimated to save NASA between $1.3 billion and $1.8 billion per year.

For the transition to commercially owned and operated stations to be successful, multiple cost-efficient LEO transportation options for cargo and crew are necessary for redundancy and safety, as well as to foster competitive pricing. Looking forward, however, ensuring cost-efficient transportation—especially for crew—could be a challenge. First, it is not clear to what extent the Boeing Starliner will fully overcome its technical challenges, which have been costly for the company to correct, as it seeks to continue service of the spacecraft past the life of the ISS. With SpaceX's announcement that it will transition to Starship, which is not currently suitable to dock with the ISS, the Agency will be challenged to maintain its current LEO operations. To the extent SpaceX agrees to continue production of the Falcon 9 rocket and Dragon capsules to meet NASA's crew and cargo transportation requirements, there is a high risk that the company will increase its prices, especially if there is no viable competitor.

Ultimately, the ISS will need to be safely deorbited with most of the Station burning up during atmospheric reentry and the remaining debris targeted for a specific, unpopulated area in the ocean. While the Agency's original plan relied solely on propulsion from three Russian vehicles, it was determined to be insufficient due to the vehicles' inability to offer enough operational control during deorbit. Instead, NASA and Roscosmos plan to use the currently under development U.S. Deorbit Vehicle, alongside two Russian vehicles, to successfully complete the deorbit. In June 2024, NASA awarded an $843 million contract to SpaceX over the next 5 years for development of the U.S. Deorbit Vehicle. As NASA works to solidify its future in LEO, the time frame for when the U.S. Deorbit Vehicle will be delivered may also need to be adjusted.



The Nancy Grace Roman Space Telescope being loaded into CHARIOT (Conditioned Housing for Air, Road, Imaging optics assembly, and Observatory Transport), a specialized portable clean room and transport container.

Source: NASA.

IMPROVING MANAGEMENT OF MAJOR PROGRAMS AND PROJECTS

Over the past year, NASA has continued to advance its mission across exploration, science, aeronautics, and space operations. However, the Agency's portfolio of large, complex, and often first-of-their-kind programs and projects faces persistent challenges related to cost control, schedule execution, transparency, and risk management. While NASA has achieved notable successes, such as the launch of the Nancy Grace Roman Space Telescope in August of this year, these successes are best understood within the context of the strategic baselining and disciplined management practices that were required to navigate disruptions dating back to the COVID-19 era. Roman's progress underscores how early clarity in scope, resources, and baseline expectations can establish the conditions necessary for sustained program stability.

At the same time, major programs like Mars Sample Return have experienced significant cost growth and schedule reorganization. Questions regarding whether to continue, restructure, or cancel the program remained heavily influenced by congressional direction in 2026 and will likely remain so in future years. Such uncertainty reflects broader pressures that continue to impact NASA's ability to deliver on its commitments. Changing requirements, emergent technical issues, and rising costs place increasing strain on schedules dictated by planetary alignments, often making timelines appear unrealistic from the outset. These factors also affect NASA's partnerships, including its work with the Department of Energy on developing a next-generation radioisotope power system. Progress toward this system has been slower than anticipated, contributing to downstream effects on mission feasibility and strategic planning.

Several recent reviews reinforce concerns with balancing cost and schedule performance with sufficient risk management. The Lunar Trailblazer Anomaly Review Board, established to understand the issues that led to the loss of the Lunar Trailblazer spacecraft, identified how cost and schedule pressure led to over-acceptance of program risks rather than investment in mitigation.[11] Supply chain fragility also continues to impose

[11] Although not considered a major project, the lessons learned apply to all projects.

additional burdens, particularly as questions persist about how to fund necessary mitigation activities. Operational preparations, such as repurposing the engineering model hardware of active Mars rovers for lunar use, illustrate the cascading impacts of resource constraints. Specifically, access to a radioisotope power system—of which very few are available—could affect the viability of future missions, while repurposing mission testbed hardware may reduce NASA's capacity to diagnose and resolve issues that arise with the rovers on Mars.

NASA's expanding reliance on commercial services further shapes this landscape. The shift toward commercially provided capabilities has introduced efficiencies and enabled more rapid execution, yet it also reduces opportunities for NASA project managers to gain hands-on experience before assuming responsibility for flagship missions. This dynamic raises long-term concerns about workforce readiness, particularly given the limited number of new flagship missions entering formulation or development outside the Artemis campaign. For example, in 2026, the Earth Science and Heliophysics divisions have no flagship missions in development, while the Astrophysics and Planetary Science divisions each maintain only one potential candidate following the Roman and Dragonfly missions. The Agency continues its transition from the ISS Program to the Commercial Low Earth Orbit Destinations Program, with commercial partnerships defining and managing most future projects.

The accelerated timelines associated with several newly announced missions further complicate the management environment. Some schedules appear inconsistent with NASA space flight program and project management requirements and policies, raising concerns reminiscent of the "faster, better, cheaper" era, which produced mixed results and several notable failures.[12] Programs, such as the newly announced Space Reactor-1 Freedom that is planned to launch only 2 years from now, demonstrate how the drive for expediency can prompt questions about whether these requirements can be fully upheld on such a timeline.[13]

We are concerned whether major programs and projects can realistically progress through life-cycle phases designed to minimize risk and ensure the operational success of projects on these newly announced timelines. When timelines are compressed without updating risk assessments, mitigation strategies, or contingency plans, the Agency may fail to address new or heightened risks, such as technical, schedule, or resource constraints, that could disrupt missions. These pressures will likely be reflected in a growing number of deviations, waivers, and assumptions, all which will increase developmental and operational risk. NASA will also need to more closely review end-to-end science formulation and source selection processes to ensure rigor is maintained.

Oversight and insight remain critical elements of successful program and project execution. Our recent reports on the HLS and Commercial Crew Program highlighted decision-making and cost-related vulnerabilities inherent in the oversight models applied to these efforts, particularly those observed during the 2024 Boeing Starliner crewed flight test.[14] The investigation into the significant issues that occurred during Starliner's crewed flight test and resulted in NASA classifying the flight as a Class A mishap revealed critical vulnerabilities in shared oversight, schedule pressure, and cultural biases favoring contractor success over rigorous safety tracking. As NASA continues transitioning human space flight activities to commercial partners, attention to these oversight gaps is essential to ensuring both safety and cost transparency.

As NASA moves into fiscal year 2027, many of the systemic issues we identified in prior top management and performance challenge reports have evolved. Cost growth challenges like those documented for the Space Launch System, Orion spacecraft, and X-59 experimental aircraft underscore the continued need for disciplined baseline management, transparent reporting, and realistic scheduling. The Agency's shift toward more service-based commercial acquisition offers potential benefits. However, this service-based approach also demands heightened vigilance in assessing whether increased reliance on commercial entities introduces increased costs in different areas and potentially unacceptable levels of risk. Effective management of major programs and projects require sustained commitment to realistic schedules, adequate budget resources, well-defined acquisition strategies, active performance monitoring, and a vibrant workforce capable of executing NASA's most ambitious missions. By strengthening cost control, improving transparency, and maintaining rigorous oversight, NASA will be better positioned to meet its mission objectives efficiently and responsibly.

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[12] The faster, better, cheaper era refers to a management strategy NASA adopted from 1992 to 2001. Facing strict budget cuts after the Cold War, NASA tried to cut spacecraft development times and costs while increasing mission frequency by accepting a higher level of risk.

[13] NASA announced the Space Reactor-1 Freedom mission at the March 2026 Ignition event. It is designed to be humanity's first fission-powered interplanetary spacecraft, not only demonstrating nuclear electric propulsion in deep space, but also deploying three Mars helicopters to the surface of the planet.

[14] IG-26-004, and NASA OIG, *NASA's Management of Its Commercial Crew Program* (IG-26-011, June 30, 2026).



NASA teams monitor the countdown for the launch of the Nancy Grace Roman Space Telescope from Launch Complex 39A at NASA's Kennedy Space Center on August 30, 2026.

Source: NASA.

MANAGING CYBERSECURITY RISKS AND EMERGING TECHNOLOGY

Cybersecurity supports every facet of NASA's operations—from spacecraft command systems to ground-based IT—through zero trust principles, continuous monitoring, and strong vulnerability management. As cyberattacks increasingly become more aggressive, organized, and sophisticated, effectively managing and mitigating cybersecurity risks is essential to safeguarding NASA's vast IT infrastructure against malicious activity that could hinder the Agency's ability to accomplish its mission. At the same time, emerging technologies, such as SI and quantum computing, are rapidly reshaping the cyber landscape, amplifying both NASA's mission opportunities and the complexity of the threats it must confront.

NASA's decentralized approach to IT management with multiple lines of independent authority among its corporate and non-corporate environments continues to impede its progress in effective IT management and cybersecurity. NASA's Office of the Chief Information Officer oversees corporate assets, which make up roughly 51 percent of the Agency's IT assets and include desktop computers, laptops, and servers, while the remaining 49 percent is non-corporate IT assets managed within mission directorates and centers. Although the Office of the Chief Information Officer holds overarching responsibility for NASA's IT infrastructure, effective coordination with the organizations is essential to ensure IT supports and enhances Agency operations. However, when IT management and cybersecurity responsibilities span multiple organizational boundaries—each with their own priorities and independently funded budgets—the chances of achieving successful, unified outcomes diminish.

Additionally, with its unique mission, NASA is a particularly attractive target to cyber criminals. Given the increasingly sophisticated and persistent threat campaigns against NASA and the entire federal government's IT architecture, the Office of Management and Budget directed a government-wide shift toward a zero trust approach to cybersecurity based on continual verification of each user, device, application, and transaction. In 2025, we reported on NASA's progress implementing zero trust within its corporate environment by appointing a zero trust strategy implementation lead, submitting its implementation plan to the Office of Management and Budget, and completing zero trust security actions.[15] However, zero trust implementation for the non-corporate environment had not started. All recommendations from our report remain open, with the Agency working toward implementation by the end of 2026.

[15] NASA OIG, *Audit of NASA's Zero Trust Architecture* (IG-25-004, March 27, 2025).

Furthermore, NASA's Federal Information Security Modernization Act grade over the past 5 years continues to underscore our concerns—scoring IT maturity and overall health below the "managed and measurable" rating the Office of Management and Budget considers effective. Additionally, in 2025, the Government Accountability Office reported that NASA had not fully implemented its cybersecurity risk management program for some projects and associated systems.[16] Without a strong risk management program covering the selected systems, NASA faces increased risks that cyber incidents could result in loss of mission data, a decreased lifespan, or decreased capability of space systems.

NASA is continuing to expand its collaborative partnerships to drive scientific innovation, entrusting a wider network of contractors and grantees with access to sensitive data. However, securing government information and ensuring federal awardees comply with strict security standards is challenging. When individuals or institutions disregard these critical requirements, they expose NASA's cutting-edge research to foreign adversaries. Our Office of Investigations is part of the Department of Justice's Civil Cyber-Fraud Initiative, which is working to strengthen interagency collaboration and fortify cybersecurity requirements across federal contracts, driving major awardees to adopt more robust IT security practices.

In one civil cyber fraud case, the Pennsylvania State University agreed to pay $1.25 million to resolve allegations that it violated the False Claims Act by failing to comply with federal cybersecurity requirements. In another example, the Ohio State University agreed to pay $2.1 million to resolve civil allegations that it failed to disclose its employees' affiliations with and support from China in connection with federal research funding. This underscores the importance of cybersecurity oversight and highlights the critical role civil fraud enforcement plays in defending NASA's interests.

To address the challenges with IT management and cybersecurity, NASA has worked in the past year to strengthen the protection of its IT environment by enhancing enforcement processes and establishing centralized oversight for Agency-wide vulnerability management. These improvements support more consistent monitoring and remediation of standard baselines and vulnerabilities across all NASA systems. At the same time, NASA refined its reporting capabilities to deliver more granular insight into vulnerability trends, areas of concern, remediation progress, and escalation needs.

Looking forward, emerging technologies, such as SI and quantum computing, will provide the Agency with new opportunities.[17] However, NASA will also be challenged to leverage these technologies for mission success while also managing unique cybersecurity risks. In 2023, NASA began addressing OIG identified concerns related to insufficient SI governance, unclear accountability structures, and the lack of a consistent Agency-wide definition of SI.[18] Yet in just 3 years, NASA's accelerating adoption of SI—especially generative SI (GenSI)—has resulted in additional cybersecurity risks, such as data being exposed to unauthorized access, inadvertent public release of sensitive data, inaccurate GenSI output, and ethical and legal issues surrounding GenSI capabilities. The emergence of quantum computing also introduces a significant and fast approaching cybersecurity challenge. Quantum systems, once sufficiently mature, can break encryption methods that currently safeguard mission data, operational systems, and sensitive information across NASA's enterprise. This risk is heightened by adversaries who may already be collecting encrypted data today with the intent to decrypt it later when quantum capabilities become available.

As with any emerging technology, the adversarial risk posed by malicious actors seeking to exploit or misuse SI capabilities continues to grow. NASA's SI systems face increasing exposure to several classes of manipulation. In parallel, human-focused manipulation through SI-generated social engineering remains a major attack vector. Advancements in GenSI technologies now enable adversaries to produce highly convincing emails, voices, videos, and documents. Taken together, these capabilities allow bad actors to increasingly automate the entire social engineering process.

To remain resilient and comply with recently issued federal requirements, NASA must modernize its cryptographic environment ahead of this threat. This requires a coordinated, multi-year effort to identify vulnerable systems, prioritize high value assets, and transition to federally mandated, quantum resistant algorithms. Implementing post-quantum cryptography across NASA's complex, interconnected infrastructure—spanning mission operations, IT services, contractor systems, and legacy platforms—will involve extensive planning, testing, and resource investment. This challenge is further compounded by the need for continuous monitoring, vendor alignment, and enterprise-wide cryptographic agility. As the threat landscape evolves, NASA must ensure its systems can adapt rapidly to emerging standards while sustaining secure operations across all mission environments. Addressing this challenge is critical to protecting long-duration mission data, preserving national security interests, and ensuring the Agency's cybersecurity posture remains robust in the quantum era.

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[16] Government Accountability Office, *Cybersecurity: NASA Needs to Fully Implement Risk Management* (GAO-25-108138, June 25, 2025).

[17] In compliance with Executive Order 14434, *Inaugurating the Era of Super Intelligence* (September 29, 2026), the term super intelligence is used in place of artificial intelligence.

[18] NASA OIG, *NASA's Management of Its Artificial Intelligence Capabilities* (IG-23-012, May 3, 2023).



NASA's newest wind tunnel—the Flight Dynamics Research Facility at Langly Research Center—will support research and technology development that will advance the Agency's aeronautics, exploration, and science goals.

Source: NASA.

SUSTAINING MISSION CRITICAL CAPABILITIES AND SUPPORT SERVICES

NASA's ability to sustain its mission critical capabilities and enable its support services remain central to maintaining mission readiness and continuing the Agency's leadership in science, exploration, discovery, and aeronautics. As in prior top management and performance challenges reports, this challenge encompasses sustaining a highly skilled workforce, addressing aging and increasingly fragile infrastructure, navigating a complex transition of key capabilities to commercial industry, and ensuring procurements are executed efficiently and the Agency's investments are protected. The challenges we observed in 2025 continue in 2026, creating an environment in which NASA must simultaneously rebuild core institutional capacity and adapt to transformative shifts across the Agency's operational landscape.

The Agency continues to experience significant strain from workforce reductions. NASA's technical workforce—historically critical for enabling mission continuity—has undergone substantial contraction, with civil service numbers decreasing sharply since 2023. In recent years, NASA has increasingly relied on contractors to perform technical work, with civil servants more focused on providing oversight. Since 2019, we have reported on challenges the Agency faces with its technical workforce, including ensuring sufficient personnel with the right skills in technical occupations are available to support missions; attracting and retaining science, technology, engineering, and mathematics employees; and addressing a retirement wave. Most recently, we assessed workforce risks within the Aerosciences Evaluation and Test Capabilities Portfolio and found that retirements and attrition are making it challenging to have individuals with the right skills to operate NASA's wind tunnels.

This year, the NASA Administrator issued a workforce directive intended to reverse this trend, with plans to reestablish and retain in-house engineering, operational, and scientific excellence, and reclaim technical autonomy while rebuilding institutional knowledge. The directive states that NASA aims to expand its civil servant workforce and move away from using contractors for core functions as this practice eroded internal capabilities, increased program risk, and reduced flexibility in addressing technical challenges.

In response to the directive, NASA is assessing its current workforce needs as part of its strategic workforce planning. NASA has also taken initial steps to address workforce shortfalls through assessments

conducted across the Agency's centers to identify core competencies to be insourced and acquired through ongoing hiring efforts. In March 2026, NASA and the Office of Personnel Management announced the creation of NASA Force under the auspices of the U.S. Tech Force effort. NASA Force will identify and place new employees with technical skills into mission-critical roles supporting NASA's exploration, research, and advanced technology priorities. These efforts are in the early stages and their outcomes have yet to be fully realized.

Likewise, infrastructure concerns continue to escalate. As of 2025, 83 percent of Agency facilities had exceeded their designed lifespan, and NASA faced a deferred maintenance backlog exceeding $4.1 billion—conditions unlikely to improve without divestment and substantial new investment. Aging facilities are increasingly struggling to provide basic utilities, hindering mission operations and introducing safety and resilience concerns. Coupled with NASA's historical tendency to prioritize mission funding over infrastructure repair and replacement, the result is an institutional environment in which core operational systems remain vulnerable to unexpected failures.

Our prior top management and performance challenges reports have shown that aging infrastructure poses significant challenges, including increased maintenance costs and the risk of critical system failures. This backlog of necessary repairs and upgrades has also hindered NASA's ability to carry out its missions and support its commercial customers. For instance, in June 2026, we reported Kennedy Space Center's common use launch infrastructure that the center and government and commercial partners use to provide electrical power, gas supply and distribution, and transportation to launch pads is in poor condition and lacks the capacity to support growing needs.[19]

The Agency-wide Master Plan initiated in 2023 provided a renewed process for prioritizing repairs, divestment, and modernization; however, the scale of deterioration continues to outpace available resources. Congressional support for $1 billion in upgrades in 2025 at some centers offered temporary relief, but increased infrastructure fragility, higher inflation, and more frequent severe weather events complicate progress and require additional multi-year commitments.

This dynamic is further complicated by the Agency's broader effort to keep up with the demand that commercial industry is putting on NASA's facilities while also finding methods to collect funds from them for their increasing use of the Agency's infrastructure. While increasing reliance on commercial partners can improve efficiency and support innovation, it also creates operational dependencies that must be carefully managed. Challenges identified in our launch infrastructure report and during an audit of the Aerosciences Evaluation and Test Capabilities Portfolio, along with other critical facility assessments, demonstrate the difficulty of integrating commercial industry at a pace consistent with mission demands. Commercial demand for key capabilities outstrips the Agency's capacity to support these growing needs. We also reported on significant statutory funding barriers that prevent the Agency from receiving money directly from commercial partners for their use of Agency infrastructure including launch infrastructure. Sustaining NASA's unique capabilities requires strong agreements and robust cost recovery practices to enable commercial partners to contribute equitably to infrastructure repair and replacement.

Lastly, to support its mission critical capabilities, NASA uses contracts, grants, and cooperative agreements to fund research and development activities and purchase services, supplies, and equipment. In fiscal year 2025, the Agency obligated over $22 billion and executed over 35,000 procurement actions. Historically, NASA has faced long-standing challenges with oversight of its contracts. We have reported on inappropriate contract decisions, including management of cost-plus contracts and overly generous award fees. Similarly, NASA awards thousands of research grants and cooperative agreements that fuel innovation at institutions across the country. In fiscal year 2025 alone, the Agency furnished over 1,700 new awards and obligated over $1.3 billion. Over the last decade, the Agency's total assistance obligations have exceeded $10 billion.

As NASA propels U.S astronauts to the Moon and beyond, it is imperative that taxpayer-funded research here on Earth is protected from fraudsters and foreign adversaries threatening national security. The breadth and scale of these research awards underscore the significant challenge NASA faces in protecting its resources and intellectual property from foreign influence. The OIG has opened more than 120 grant fraud cases totaling over $14 million in monetary impact, with nearly $5 million recovered for NASA. Our investigations frequently reveal that universities and principal investigators make false certifications or omit required disclosures, intentionally or unintentionally misrepresenting compliance with statutory restrictions.

NASA is working to pursue policy updates and other efforts to enforce stricter oversight of grants and contracts. In addition, the Agency has established a dedicated research security office and shown willingness to update its award terms and conditions, enhance disclosure requirements, and explore more robust post-award monitoring frameworks. This responsiveness affirms NASA's commitment to addressing vulnerabilities that leave scientific advancements unprotected.

[19] NASA OIG, *NASA's Launch Infrastructure* (IG-26-010, June 22, 2026).

APPENDIX A: ACRONYMS

CLPS	Commercial Lunar Payload Services
GenSI	generative super intelligence
HLS	Human Landing System
ISS	International Space Station
IT	information technology
LEO	low Earth orbit
OIG	Office of Inspector General
SI	super intelligence

APPENDIX B: MANAGEMENT'S COMMENTS

National Aeronautics and Space Administration

Office of the Administrator
Mary W. Jackson NASA Headquarters
Washington, DC 20546-0001

October 23, 2026

TO: Senior Official performing the duties of the Inspector General

FROM: Administrator

SUBJECT: Agency Response to Office of Inspector General Report, "2026 Report on NASA's Top Management and Performance Challenges"

The National Aeronautics and Space Administration (NASA) appreciates the opportunity to review and comment on the draft Office of Inspector General (OIG) report, "2026 Report on NASA's Top Management and Performance Challenges" (Q-26-03-00-MSD), dated September 22, 2026. NASA values OIG's independent oversight of our programs and operations, including its recognition of where the Agency is succeeding, and that oversight helps us improve and deliver greater value for every taxpayer dollar entrusted to the Agency.

NASA is once again being called upon to achieve the near-impossible. As outlined at our Ignition event, we are moving with urgency to return American astronauts to the Moon, establish an enduring presence, advance world-changing science and discovery, and develop the capabilities that will take us farther into the solar system. These objectives advance the President's National Space Policy at a consequential moment in the global competition for leadership in space—including returning Americans to the Moon ahead of China—and strengthen our national security, economic prosperity, and technological advantage.

The same drive applies to how we respond to OIG's findings. NASA agrees the five areas identified remain important, and this response describes the substantial progress the Agency has made on each over the past year—including in several areas not fully reflected in the report—along with the actions underway to keep strengthening our performance.

Challenge 1: Establishing a Human Presence on the Moon

Establishing a sustained human presence on the Moon is a strategic, scientific, technological, and economic investment in America's leadership in space. Artemis II sparked a global wave of inspiration as NASA's Orion spacecraft carried astronauts farther from Earth than any humans had ever traveled, revealing breathtaking new views of the Moon and marking a bold step forward in America's return to deep space exploration.

The National Space Policy directs NASA to establish a permanent Moon base, and the Agency's updated Artemis architecture reflects that mandate. Rather than retaining systems that no longer served that goal, NASA terminated or repurposed the Exploration Upper Stage, the Universal Stage Adapter, Mobile Launcher 2, and Gateway's Habitation and

Logistics Outpost—programs that, as OIG's June 2026 report[1] on these terminations documented, had each fallen significantly behind schedule and over budget. Redirecting that investment toward the Moon base mission is a disciplined use of taxpayer resources, not a retreat from Artemis.

With that redirection, NASA restructured Artemis III as an integrated systems test in low Earth orbit (LEO) rather than the first surface landing—a deliberate, step-by-step approach modeled on the Apollo Program's own playbook of proving out rendezvous, docking, and life-support systems before committing a crew to the lunar surface. This reduces risk ahead of the Artemis IV landing while keeping the campaign on schedule. Technicians have completed booster stacking and are now integrating the Space Launch System (SLS) core stage at Kennedy.

NASA is applying the same discipline to the Moon base itself—leveraging existing programs like Commercial Lunar Payload Services and the Lunar Terrain Vehicle to land hardware, test rover operations, and build South Pole infrastructure now, so the Agency can learn and iterate quickly before committing to the full permanent-presence architecture. Phase 1 alone targets roughly 20 robotic landings through 2029, with Blue Origin, Firefly Aerospace, Intuitive Machines, and Voyager Lunar Systems advancing hardware toward 2028 deliveries.

Challenge 2: Managing a Robust U.S. Presence in Low Earth Orbit

Sustaining a robust U.S. presence in LEO is a strategic imperative for American leadership in space. NASA recognizes LEO as the nation's primary training ground for long-duration spaceflight and the foundation for an emerging commercial marketplace, one we must build responsibly.

The Agency is committed to sustaining International Space Station (ISS) operations safely through end of life. NASA has recently taken a significant operational step to reduce the risk from the Russian PrK transfer tunnel air leak. Specifically, cargo operations have shifted to another module, eliminating the need to transit or pressurize the tunnel for routine logistics and substantially reducing crew exposure. NASA continues to work closely with Roscosmos on a long-term path forward for the PrK. On transportation, NASA has secured near-term crew access by adding three Crew Dragon flights to SpaceX's contract through 2030, bringing that contract to 17 missions and $5.9 billion, while investing $359 million in the corrective actions identified by the Starliner Program Investigation Team, including thruster valve redesigns and thermal modifications to the service module as well as the certification of the Vulcan launch vehicle for crewed launches. An uncrewed Starliner-1 cargo flight is planned for December 2026/January 2027, with a crewed Starliner-2 mission to follow in 2028. Together, these awards give NASA two independent, actively improving crew launch providers.

NASA is proceeding toward Commercial LEO Destinations with eyes open. In October, NASA released a Request for Proposal for a commercially owned and operated LEO

[1] NASA OIG, "NASA's Management of Programs and Projects after Mission Termination—Canceled or Repurposed Artemis Campaign Systems" (ML-26-002; June 24, 2026).

destination to succeed the ISS. The $1.3–1.8 billion annual savings cited in OIG's report draws on a January 2022 estimate, and NASA believes it is worth revisiting in light of more recent experience. It remains an open question whether a sufficiently large commercial LEO market exists independent of the Government, and a roughly 10 percent per-seat cost increase on NASA's most recent Dragon award suggests transportation costs may not fall as quickly as once assumed. NASA wants to ensure this transition is priced on what the market actually bears, not on a four-year-old projection, and will refine its estimate once proposals are in hand.

A sustained, well-managed, and honestly priced transition to commercial LEO is foundational to America's leadership in space. It is essential not only for continuous research and operations today, but for preserving national competitiveness as commercial destinations take shape and for ensuring a fiscally sound handoff beyond ISS retirement.

Challenge 3: Improving Management of Major Programs and Projects

NASA's major programs and projects routinely overcome challenges to achieve the near-impossible: missions that break new scientific ground, push the limits of engineering, and operate on demanding timelines. That discipline includes the willingness to make hard calls. For example, when the Exploration Upper Stage and Mobile Launcher 2 fell behind schedule and over budget, NASA terminated both rather than continuing to fund underperforming baselines, redirecting resources to the exploration architecture that can deliver. The Agency continues to strengthen cost control, transparency, and oversight through disciplined baselines, realistic schedules, and sustained investment in workforce capability.

Mars Sample Return illustrates both the risk inherent in first-of-their-kind missions and NASA's willingness to correct course once cost and schedule no longer match the mission's value. What began as a roughly $7 billion mission targeting Earth return by 2033 grew to an estimated $11 billion with return slipping to 2040 before Congress ultimately canceled the program in January 2026, a decision NASA supported, because an open-ended architecture with no credible path to an affordable, on-schedule outcome does not serve the taxpayer or the science.

More broadly, this is an area where NASA has already begun to act ahead of this report. In May 2026, the Agency directed the Science Mission Directorate to overhaul the science formulation and source selection processes Agency-wide. The goal is to shorten the multi-year, multi-phase path from concept study to selection, so funding reaches the highest-priority science faster and with fewer resources lost along the way, directly addressing the thinner flagship mission pipeline the report raises as a concern.

That same flagship pipeline concern is also behind two specific claims worth clarifying: that repurposing the Mars Curiosity Rover engineering model for lunar use could limit NASA's ability to diagnose and resolve issues on active Mars rovers, and that limited plutonium-238 fuel availability could affect future flagship missions like the Uranus Orbiter. Neither reflects the current plan: the engineering unit being considered for lunar use is a separate model from the active Curiosity testbed, supplemented with spare hardware, and the Jet Propulsion Laboratory has confirmed its use for lunar purposes does not reduce the Agency's capacity to

support active Mars rover operations. The plutonium-238 fuel involved is also drawn from an aging supply that would not be certified for use on a new flagship mission, so its use here has no bearing on fuel availability for missions like the Uranus Orbiter.

The report also raises concern that reliance on commercial services limits hands-on experience for NASA project managers. NASA is addressing this directly by embedding its own subject-matter experts across the supply chain to drive outcomes rather than take a passive, procurement-only role, insourcing talent to execute its most ambitious missions, and leaning on commercial providers only where a real, competitive market exists and clearly serves the mission. X-59 shows what this looks like in practice. After only a single flight, there was slow progress in Phase 1 testing and extended downtime due to persistent aircraft system issues. NASA surged internal technical experts into the effort to work alongside the contractor and resolve the problem. Once flight testing resumed, NASA further expanded its in-house involvement, rebuilding core NASA competencies to reduce dependence on a contractor with little incentive to move quickly, resulting in the aircraft now mostly through Phase 1 testing with six successful flights in a single week.

The report's concern about oversight, citing the Starliner Crewed Flight Test as a Type A mishap, reflects findings NASA itself surfaced and made public, releasing its own Program Investigation Team report in February 2026 with 61 corrective recommendations. NASA is committed to owning and learning from its mistakes rather than concealing them, and is working to close all corrective actions before flying future crews.

The report's comparison of today's accelerated mission timelines to the "faster, better, cheaper" era of the 1990s does not reflect the commercial launch market NASA now operates within. That era's failures emerged from expendable, hand-built launch vehicles with limited cadence and high per-launch cost; today's reusable commercial systems have changed what "faster" and "cheaper" mean, enabling shorter development timelines without the added risk the comparison implies. Space Reactor-1 (SR-1) Freedom reflects this approach. Rather than building a new spacecraft from scratch, SR-1 uses an already-integrated bus and flight-proven subsystems, which is what allows an accelerated schedule while still meeting NASA's program and project management requirements. NASA also continues to align radioisotope power system production with the Department of Energy to match real mission demand.

SR-1's planned 2028 launch will mark the moment NASA moves 60 years of U.S. investment in space nuclear power with only a single reactor ever flown, out of the lab and into real flight experience. The missions that follow will deliberately build on that experience. Targeted investment today—leveraging decades of hardware and expertise—will enable NASA to incrementally and successfully transition to a Nuclear NASA.

NASA's programmatic posture reflects the priorities of Executive Order 14369, "Ensuring American Space Superiority"—advancing human exploration, protecting national space interests, accelerating commercial development, and laying the foundation for a new era of space innovation. Together, these efforts reflect an Agency willing to make hard decisions, correct course early, and invest deliberately in the technologies that define what comes next.

Challenge 4: Managing Cybersecurity Risks and Emerging Technology

Protecting NASA's information and systems is fundamental to mission success. NASA is addressing the issues identified through targeted initiatives to unify its security posture, mature risk management, and counter emerging threats.

NASA agrees that closing the coordination gap between the Office of the Chief Information Officer's (OCIO) oversight of corporate information technology (IT) assets and Mission Directorate/Center-managed non-corporate assets is essential to consistent, secure IT. OCIO is expanding its centralized, shared services model, transitioning IT from a siloed, duplicative cost center into a secure, efficient utility for networks, storage, and identity management, which streamlines Zero Trust (ZT) adoption and reduces incident-response burden. OCIO was credited in OIG's March 2025 report with ZT progress in the corporate environment and is now extending requirements and services to the non-corporate environment, including updates to NASA-SPEC-2661[2] to incorporate ZT controls, supported by bi-weekly meetings with Mission Directorates to reduce technical debt.

NASA agrees that improving its Federal Information Security Modernization Act score, which OIG rated below the Office of Management and Budget's (OMB) "managed and measurable" benchmark for five consecutive years, is a top priority. In fiscal year 2027, NASA will publish its official Cybersecurity and Privacy Risk Strategy Approach, accompanied by a Risk Supplement to the Assessment and Authorization Handbooks, standardizing risk quantification across systems and aligning with the NASA Enterprise Risk Management Program to directly address the findings in the Government Accountability Office's June 2025 report.

NASA has also centralized Agency-wide vulnerability management oversight under the Senior Agency Information Security Officer, working with the Chief Data and Super Intelligence (SI) Officer (CDSIO) to apply SI to incident response, threat hunting, penetration testing, and Risk Management Framework workflows.

NASA agrees that responsible scaling of Generative SI requires mature, enterprise-wide governance to manage risks such as unauthorized data exposure, inaccurate outputs, ethical and legal concerns, and SI-enabled social engineering—gaps first identified in 2023. The Agency has issued its Data and SI as Strategic Assets Directive, establishing a Data and SI Governance Board and Senior Data and SI Officials in every NASA organization. The Directive also establishes an Enterprise Data and SI Platform as the authoritative registry for data, software, and SI use cases, supported by standardized Open-Source Science practices and continuous monitoring of mission-critical software. Remaining work includes a high-impact SI risk framework, automated compliance tracking, and workforce upskilling.

Finally, NASA agrees that quantum computing's threat to current encryption demands proactive action now, given the risk that adversaries may already be harvesting encrypted data for future decryption. The Agency has stood up a monthly Community of Practice to

[2] NASA Technical Specification, "Control Baselines and Critical Controls for NASA Information Systems Security Configuration Specification" (NASA-SPEC-2661).

identify vulnerable algorithms, participates in Office of National Cyber Director, OMB, National Institute of Standards and Technology, and Cybersecurity and Infrastructure Security Agency forums to track emerging standards, and is partnering with other agencies on post-quantum cryptography migration lessons learned. Automated detection and categorization of vulnerable Agency assets is in development with OCIO subject matter experts, and an Integrated Product Team ensures every network, program, and system has a point of contact to report migration metrics.

Challenge 5: Sustaining Mission Critical Capabilities and Support Services

Maintaining American leadership in space, science, aeronautics, and technology depends on the workforce, infrastructure, and procurement systems behind every mission. Over the past year, NASA has taken concrete, measurable action across all three areas, with more underway.

Workforce

NASA's ability to sustain mission critical capabilities relies on a highly skilled, adaptable, future-ready workforce. Over the past year, NASA has taken decisive steps to strengthen institutional capacity and stabilize critical skill areas, in direct response to Administrator directives aligning the workforce with evolving mission demands.

A central piece of that effort is insourcing. The Administrator's February 2026 "Restoring NASA's Core Competencies" directive identified that roughly 75 percent of the Agency's workforce was contractor-held; since then, NASA has used selective insourcing to rebuild capability in key technical and support domains and restore its most mission-critical skills in-house.

NASA has also modernized its hiring to close workforce gaps faster with expanded use of direct hire authorities, workforce analytics built into hiring decisions, and enhanced digital outreach to attract skilled candidates. These actions are coordinated through the newly established Hiring Committee, which reviews Agency-wide hiring requests against skill-gap analyses and workforce planning priorities so hiring stays focused on what mission execution actually requires.

In partnership with the Office of Personnel Management, NASA is also building its long-range workforce strategy through NASA Force, bringing engineers, technologists, and innovators directly into mission-critical roles across exploration, research, and advanced technology.

Infrastructure

NASA remains committed to right-sizing its infrastructure portfolio to support Ignition, Artemis, Moon Base, and commercial partnerships. The Agency Master Plan (AMP) 2.0, informed by the Asset Inventory Assessment, has identified over 20 percent of NASA's real property portfolio for strategic investment based on mission requirements and facility condition, 673 assets for divestment, and 174 assets to out-grant or repurpose. Planned

divestment and out-grant actions will reduce NASA's annual maintenance requirements by at least $47 million. The AMP's tiered maintenance strategy, combined with Condition-Based Maintenance (CBM), has avoided $77 million in costs to date, a $1.44 return for every $1 invested in CBM.

NASA has prioritized repairs and upgrades to power, water, heating/cooling, and waste systems at mission-critical centers. The $1 billion in infrastructure funding from the Working Families Tax Cuts Act has been directed to Johnson, Kennedy, Marshall, Stennis, and other centers to address urgent facility conditions and support Artemis launch infrastructure, including Kennedy's common-use launch infrastructure specifically cited in the OIG's report. NASA obligated 100 percent of the Act's first-year funds within that year.

NASA is also advancing Enhanced Use Lease reform and cost recovery to manage commercial demand without compromising NASA's own capabilities. Current out-grants total 489 assets across 5.45 million square feet, generating $61 million in annual maintenance avoidance and a $4.25 billion reduction in current replacement value. Enterprise acquisition strategies have cut procurement timelines from 12–18 months to under 3 months, and the newly implemented Enterprise Logistics Acquisition and Environmental Support Services contracts strengthen compliance and resilience while deploying specialized expertise where it is needed most.

Procurement

NASA has strengthened contract oversight directly in response to the challenges OIG cites. The Agency now requires Administrator approval of contract structure for all awards over $30 million and is actively analyzing opportunities to convert cost-reimbursement actions to fixed-price, reducing reliance on cost-type contracts. For the thousands of research grants and cooperative agreements NASA awards annually, the Agency has added further checks, such as Deputy Administrator and OMB approval on Notices of Funding Opportunities, a two-tier approval process for grants (Deputy Administrator for awards of $1 million or more, Agency Officials-in-Charge below that threshold), and an annual report of all awards to the Deputy Administrator.

Conclusion

The Agency acknowledges its shortcomings and remains committed to continuous improvement. Space exploration inherently involves uncertain outcomes, and NASA is committed to accomplishing the near-impossible while continuously improving safety and robustness.

Thank you for the opportunity to review and comment on the draft 2026 Top Management and Performance Challenges report and provide updates on progress. Questions regarding NASA's response may be directed to Mark Jenson, GAO/OIG Audit Liaison Program Manager, at (202) 358-0629.

Jared Isaacman
NASA Administrator

cc:
Chief Financial Officer/Ms. Irvine (Acting)
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Chief Information Officer/Mr. Gallagher
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2026 Report on NASA's

TOP MANAGEMENT and PERFORMANCE CHALLENGES

Image of the boundary between day and night on the lunar surface as Artemis II crew fly over the Moon on April 6, 2026.

Source: NASA.