EVALUATION REPORT

Evaluation of NOAA's Progress Implementing the GeoXO Satellite Program

REPORT NO. OIG-26-009-I

MARCH 9, 2026

U.S. Department of Commerce
Office of Inspector General
Office of Audit and Evaluation

UNITED STATES DEPARTMENT OF COMMERCE
Office of Inspector General
Office of Audit and Evaluation
Washington, DC 20230

March 9, 2026

MEMORANDUM FOR: Dr. Neil Jacobs
Under Secretary of Commerce for Oceans and Atmosphere
and NOAA Administrator
National Oceanic and Atmospheric Administration

FROM: Arthur L. Scott, Jr.
Assistant Inspector General for Audit and Evaluation

SUBJECT: *Evaluation of NOAA's Progress Implementing the GeoXO Satellite Program*
Report No. OIG-26-009-I

Attached is the final report on our evaluation of NOAA's progress implementing the Geostationary Extended Observations (GeoXO) satellite program. We will post the report on our website per the Inspector General Act of 1978, as amended (5 U.S.C. §§ 404, 420).

Within 60 calendar days, please provide an action plan addressing the report's recommendations, as required by Department Administrative Order 213-5.

We appreciate your staff's cooperation and professionalism during this evaluation.

Attachment

Evaluation of NOAA's Progress Implementing the GeoXO Satellite Program

Evaluation Report OIG-26-009-I
March 9, 2026

What We Evaluated | Our objective was to assess the progress of the National Oceanic and Atmospheric Administration (NOAA) in implementing the Geostationary Extended Observations (GeoXO) weather satellite program. We also evaluated NOAA's efforts to address the risk of a future gap in geostationary observations, and we assessed the program's risk management processes.

Why This Matters | GeoXO represents the next generation of NOAA's geostationary weather satellites. Its purpose is to provide observational continuity as the current satellite series nears the end of its operational lifetime.

Geostationary satellites gather data that is primarily used for short-term weather forecasts and real-time tracking of storm systems and environmental hazards such as fires, smoke, and fog. Continuous observational coverage is essential for weather forecasts and warnings; a gap in the data could impair NOAA's ability to track and issue warnings about severe weather. Beyond this, the program needs to manage risk if it is to be successful and decrease the likelihood of schedule delays, cost overruns, and performance issues.

What We Found | We found that the GeoXO program has made adequate progress in its current phase of development and that it is achieving the desired technology maturity. However, NOAA should consider enhancing its continuity planning and risk management processes by:

- Managing the risk of a continuity gap in geostationary satellite data, as the current series's backup satellites are likely to reach the end of their lifespans before the first GeoXO satellite becomes operational
- Improving risk management processes to ensure the mission's success

What We Recommend | We made six recommendations to NOAA to mitigate the risk of a continuity gap and improve the GeoXO program's risk management. NOAA concurred with all six recommendations but asserted that program restructuring has affected the applicability of two recommendations. We did not evaluate the restructuring; however, the recommendations remain valid because they address processes that must be implemented to adequately manage risk over the life of the program.

Contents

Introduction

Geostationary weather satellites identify and track severe weather conditions and environmental hazards like fires, smoke, dust storms, fog, and volcanic ash. Information from geostationary satellites is primarily used for short-term (1- to 2-day) forecasts and for tracking storm systems and environmental hazards in real time.

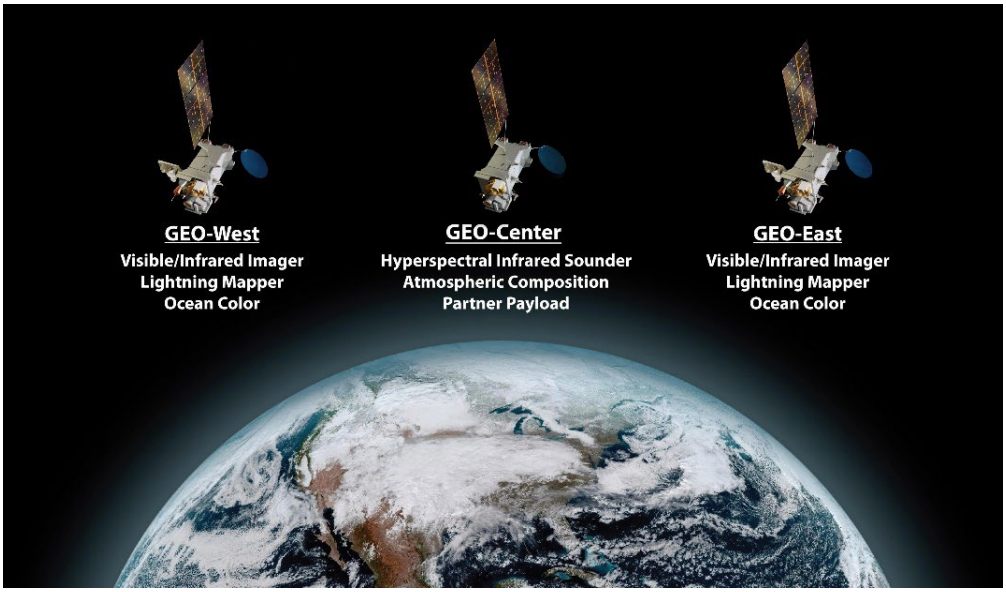
The National Oceanic and Atmospheric Administration (NOAA) is responsible for two Department of Homeland Security-identified Primary Mission Essential Functions that depend on these satellites: providing satellite imagery and meteorological forecasts. NOAA's Geostationary Extended Observations (GeoXO) satellite program will provide the foundation for meeting these responsibilities.

Overseen by NOAA's National Environmental Satellite, Data, and Information Service (NESDIS), the GeoXO program is the follow-on to the Geostationary Operational Environmental Satellite-R (GOES-R) Series satellites. GeoXO will field the next generation of geostationary earth orbit (GEO) capabilities for weather tracking and forecasting in support of NOAA's mission.

As originally planned, the GeoXO system was to consist of three operational satellites, located approximately 22,300 miles away from Earth at western, eastern, and center points over the Western Hemisphere (see figure 1, on the next page).[1] GeoXO program funding in FYs 2024 and 2025 was less than NOAA requested, causing the deferral of some development activities; however, NOAA still plans to launch the first satellite in 2032, with the rest of the constellation operating through approximately 2050. Potential future changes to funding and mission scope may further affect the number of satellites, launch timelines, and instrument configurations.

[1] For additional details on the GeoXO program and instruments, see our September 20, 2023, audit: *The GeoXO Program: Cost and Schedule Baselines Are Established, But NOAA Should Evaluate Plans for the Central Satellite Mission and Revise Its Approach to Performance Gains to Provide the Best Overall Value*, OIG-23-028-A.

Figure 1. GeoXO System



Source: GeoXO program

NOAA and the National Aeronautics and Space Administration (NASA) jointly manage GeoXO. NOAA manages the ground project and thus will acquire satellite ground systems and services. NASA is the acquisition agent for the flight project's instruments, spacecraft, and integration activities. GeoXO program management and systems engineering processes follow NASA procedural requirements. A joint NOAA/NASA program management council reviews and assesses the program, with NOAA having final decision authority.[2]

➤ Objective

Our objective was to assess NOAA's progress implementing the GeoXO program. To meet the objective, we reviewed the program's efforts to complete formulation phase activities and technology development. Additionally, we evaluated NOAA's efforts to address the risk of a continuity gap in geostationary observations and assessed the risk management processes used by the GeoXO program. Appendix 1 details our scope and methodology.

[2] The NOAA Assistant Secretary of Commerce for Environmental Observation and Prediction and the NASA Associate Administrator cochair the council.

Findings and Recommendations

Summary: We found that the GeoXO program made adequate progress through the formulation phase, achieving the desired technology maturity. However, we did observe some areas in which NOAA should consider making further enhancements to its satellite mission continuity planning and risk management processes:

- Managing the risk of a continuity gap in geostationary satellite data
- Improving the risk management processes to ensure the mission's success

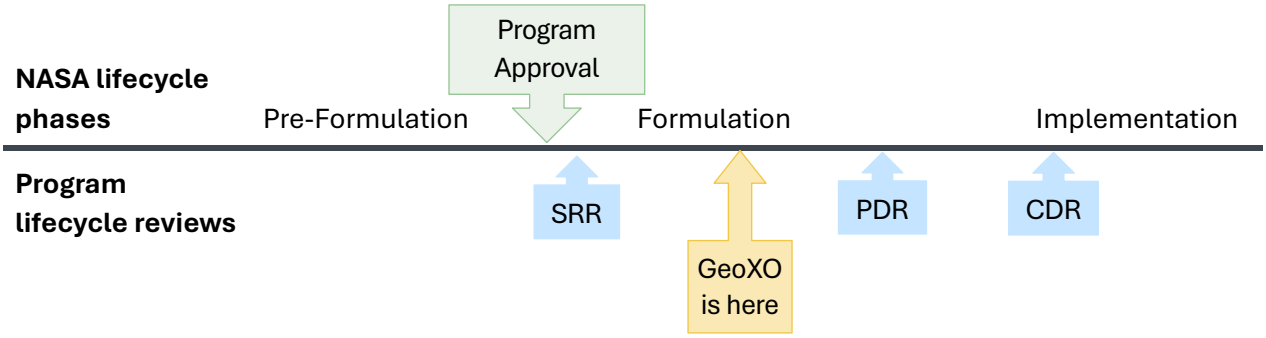
Without proper plans to mitigate the likelihood of a continuity gap, the ability to track severe weather and issue warnings could be impaired. Moreover, lacking improved risk management, the program may not be able to support effective decision-making or achieve its goals.

NOAA Made Adequate Progress Implementing the GeoXO Program

To assess the progress of the GeoXO program implementation, we reviewed program activities through the formulation phase (the first major phase of the NASA program lifecycle; see figure 2, on the next page). During formulation, a program should assess its technology maturity and risk; establish requirements; and prepare plans, budgets, and schedules.[3] The GeoXO program has also awarded contracts for the spacecraft and all instruments as part of this phase.

[3] In our September 2023 audit, we assessed the program's mission definition and baseline establishment activities, as well as its approach to defining requirements for performance gains. (See Commerce OIG, *The GeoXO Program*, OIG-23-028-A.)

Figure 2. GeoXO's Current Phase in the Satellite System Development Lifecycle



Source: Office of Inspector General (OIG), derived from GeoXO program documentation

Abbreviations: SRR = system requirements review; PDR = preliminary design review; CDR = critical design review

Our review included risk management and technology maturity activities from May 2024 through the end of our fieldwork. We found that generally, the program made adequate progress during the formulation phase. The program completed its Mission Definition Review,[4] and the joint NOAA/NASA management council approved the program to start preliminary design.

Subsequently, the program demonstrated that all spacecraft and instrument technologies will meet or exceed recommended technology readiness by their required design reviews. It applied heritage technologies across instruments and subsystems to reduce risk, shorten development time, and lower overall mission cost. The program continues to implement systems engineering policies and best practices related to technology maturation, demonstrating sound technical and programmatic management. This approach provides greater assurance that the program will meet its technical requirements.

Observations Related to Satellite Mission Continuity Planning and Risk Management

During our evaluation, we found that NOAA could improve its satellite mission continuity planning and risk management. Specifically, a potential data gap may occur as GOES-16 and GOES-17 reach their end of life before GeoXO becomes operational, and although the GeoXO program is considering risk mitigation strategies like orbit modifications, it faces funding challenges and uncertain test outcomes. Additionally, the program lacks critical risk mitigation strategies such as defined off-ramps and specific contingency plans, increasing the likelihood of schedule delays, cost overruns, and performance issues.

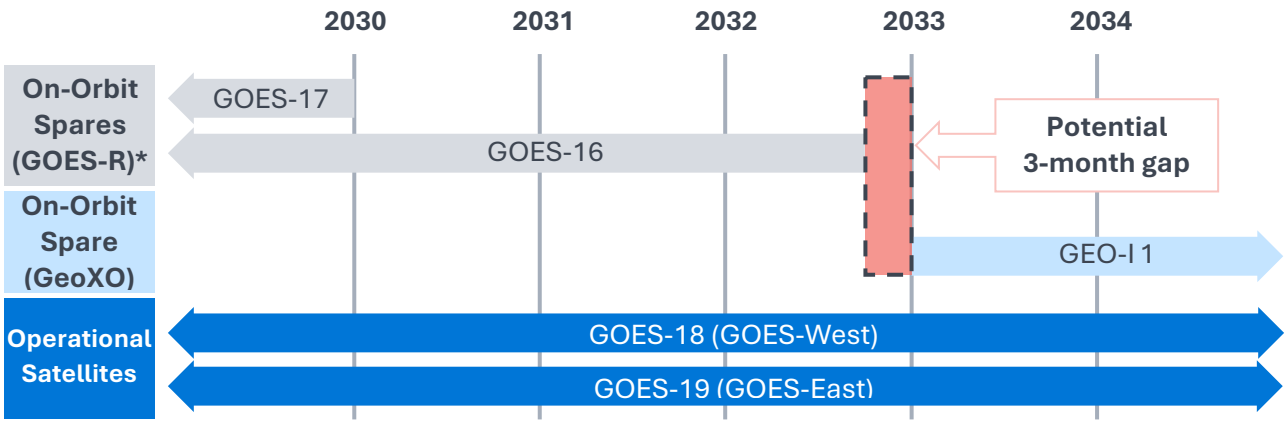
[4] This review evaluates a program's architecture, requirements allocation, and sufficiency of associated plans.

NOAA Needs to Manage the Risk of a Geostationary Satellite Data Continuity Gap

It is critical for NOAA to ensure that its geostationary satellites provide uninterrupted coverage for weather forecasts and environmental measurements. NOAA policy requires at least two operational satellites and one operational spare to maintain the availability of geostationary satellite data.[5] The purpose of the GeoXO program is to provide observational continuity as the GOES-R series nears the end of its operational lifetime.

In 2022, the Department approved a 2032 launch for GEO-I 1, the first GeoXO imager spacecraft. However, NESDIS's current estimates show an increased potential risk of a continuity gap in geostationary satellite data. Currently, NOAA has two spare satellites: GOES-16 and GOES-17. GOES-17's life is expected to end by 2030, so it will not be a viable spare when GEO-I 1 launches. And although GOES-16's life is projected to end in October 2032, GEO-I 1 is not projected to become operational until approximately 3 months later, in early 2033 (see figure 3).

Figure 3. Potential 3-Month Period Without Spare Satellite



Source: OIG graphic analysis of NOAA FY 2025 data

* GEO-I 1 is planned to launch in April 2032 and will be operational in early 2033, after testing and checkout.

With no on-orbit spare satellites between the end of GOES-16's fuel life and GEO-I 1's start of operations, a gap in geostationary weather satellite data could occur if either GOES-18 or -19 fails. A lack of GOES-East or -West satellite observations would likely degrade weather forecasts and warnings and pose a high risk to lives, property, and the nation's critical infrastructure.

The GeoXO program has identified the possibility of a data continuity gap as a top risk. Since the program uses NASA's risk management guidelines, it must develop risk

[5] *GEO Launch and Spare Call-Up Policy*, NESDIS-PD-4134.1.

mitigation plans as part of its program-level risk management process.[6] In addition, NESDIS procedures[7] recommend elevating risks that may have "wide-ranging consequences across the NESDIS enterprise" to NESDIS's Enterprise Risk Management Board. However, as of September 2025, NESDIS has not referred this risk to the board for enterprise-level management.

As part of its own efforts to mitigate the risk, the program explored options such as on-orbit servicing for extending GOES-16's life. It has not, however, pursued these options as they were determined to be ineffective or unreasonable.

The program has also assessed whether it could modify GOES-16's orbit to make its fuel last longer, thus extending its life. While this strategy may be a viable option, it is the only risk mitigation strategy currently being considered, and it poses potential issues:

- According to program officials, the program will not decide whether to implement this strategy until after it tests it on the other spare satellite, GOES-17. Modifying GOES-17's orbit will take several years to complete, so the test would not end until 2027 or 2028. If the test results are unfavorable and changing GOES-16's orbit is not viable, there may not be enough time to consider other options for GOES-16.
- Modifying GOES-16's orbit would affect data quality, which would require coordination with users of that data.

Beyond these potential problems, continued funding challenges could lead to deferring development or replanning the program, which could also impact GEO-I 1's launch.

Program officials also told us that if one operational satellite failed and no spare was available, leaving just one in the constellation, the program might move the remaining satellite over the middle of the United States and explore the possibility of borrowing a satellite from Europe or Japan.[8]

Although GeoXO is considering other plans that could adjust GEO-I 1's initial launch date, those plans have yet to be formalized. Therefore, the likelihood of a geostationary data continuity gap continues to increase.

[6] *NASA Agency Risk Management Procedural Requirements*, Procedural Requirement 8000.4C.

[7] *NESDIS Risk Management Plan,* NESDIS-PLN-1313.1, December 2020, para. 3.

[8] NOAA has agreements with the European Organization for the Exploitation of Meteorological Satellites and the Japan Meteorological Agency for backups of geostationary satellites.

Recommendations

We recommend that the NOAA Deputy Under Secretary for Operations and the Assistant Administrator for Satellite and Information Services consider the following actions for future operations:

1. Evaluate alternatives to the current life extension option to manage the risk of a continuity gap in geostationary satellite data.
2. Monitor and report the progress of the GOES-17 test to the joint agency program management council.
3. Elevate the risk of a continuity gap in geostationary satellite data to the NESDIS Enterprise Risk Board.

The Program's Risk Management Processes Need Improvement to Ensure Mission Success

Risk management is a decision-making tool for enabling program success. As a program identifies risks, it selects a strategy for managing them. The GeoXO risk management plan describes several strategies, one of which is risk mitigation.

According to the risk management plan, if the program chooses mitigation as a strategy, it develops a mitigation plan. The mitigation plan must include triggers, which are specific events that act as the "go-ahead" for implementing the steps in the plan. The program must also prepare contingency plans, also with triggers, in case the mitigation plan is ineffective. These plans support project success by managing risks and lessening their impact when they occur.

We found that the program has not developed critical strategies for mitigating risk. Specifically, the flight project has not defined capability off-ramps (the removal or deferral of capabilities). In addition, while the program has developed risk mitigation plans, it has not created contingency plans to accompany them.

The flight project should develop capability off-ramps for risk mitigation. Off-ramps are a beneficial part of an overall risk management approach. NASA requires a program to describe how it will use off-ramps to manage technology risks.[9]

The GeoXO program management and risk management plans describe a process for using off-ramps to mitigate risk on the ground project, but not the flight project (instruments and

[9] NASA Procedural Requirement 7120.5F, August 2021, Appendix F, para. 8.0, p. 97.

spacecraft). The ground project, which encompasses both GOES-R and GeoXO programs, includes off-ramps for numerous risks in mitigation plans for the GOES-R program, but none of the GeoXO risk mitigations include off-ramps. Additionally, the program's top risks, all related to the flight project, do not include off-ramps and triggers as part of their risk mitigation plans. The flight project also has an open risk that identifies off-ramps as part of its risk mitigation plan but does not describe any off-ramp or descoping details.

Delays in the development of instruments for environmental satellites often affect the overall schedule, especially at early stages of development. Implementing off-ramps for instrument and spacecraft contracts at this stage, versus later in the program, would offer more risk mitigation benefits. Therefore, it is important to plan risk mitigations with defined off-ramps and triggers as early as possible.

As we found in a 2019 audit of GOES-R, developing a comprehensive, prioritized set of off-ramps and triggers mitigated program risk.[10] Off-ramps considered for GOES-R included relaxing product latency and deferring antenna integration in the ground system,[11] but the program ultimately developed off-ramps only on lower-priority capabilities (portions of the system's or a subsystem's full capability that were not needed to meet launch or mission critical requirements). These types of off-ramps do not require buy-in from stakeholders or changes to the approved baseline.

The GeoXO program has adopted the same practice it used for GOES-R, which was to consider off-ramps only for its ground project's lower-priority capabilities. However, for the flight project, the program does not consider off-ramps for lower-priority capabilities of instruments or the spacecraft to be a viable option. NESDIS Systems Architecture and Engineering staff explained to us that because the instruments and spacecraft are highly integrated, it is more difficult and expensive to implement off-ramps that would not require adjustment to the program's baseline. As a result, the program has only considered removing entire instruments from its flight project, which would require approval as a deviation from the program's baseline.

Without a documented process and accompanying off-ramps for its flight project, the program lacks an important means to mitigate its top risks and reduce costs without eliminating entire instrument capabilities. Once off-ramps are identified, the program will also need to define triggers that set clear criteria for when the off-ramps should be executed.

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[10] Commerce OIG. August 12, 2019. *Geostationary Operational Environmental Satellite-R Series: Program Success Requires Added Attention to Oversight, Risk Management, Requirements, and the Life-Cycle Cost Estimate*, OIG-19-022-A.

[11] Latency refers to the time between a satellite observation and the time the data are available to the ground station.

The program should create contingency plans to accompany its mitigation plans. NASA procedural requirement 8000.4C states that programs must develop mitigation and contingency plans.[12] GeoXO's risk management plan further provides more-specific processes for mitigation and contingency plans when the program chooses to mitigate a risk. Government and industry best practices call for organizations to develop contingency plans to maintain essential functions in case of adverse events.[13]

We examined the program and flight project risk registers from February 2025 and January 2025, respectively. The registers contained 25 risks in total, of which the program chose to mitigate 15. However, the program had not created contingency plans for any of these risks.

For example, when we asked how the program would address the potential data continuity gap if mitigations were ineffective (see our previous observation), program officials stated that they would consider how to temporarily maintain just two satellites in the geostationary constellation. This contingency, however, was not documented in the program risk database. When we asked why the program did not document contingency plans for its risks, program officials said they did not think contingency planning was worth putting energy into at that time.

We also determined that the program uses the terms "mitigation plan" and "contingency plan" interchangeably, sometimes combining actions in the same area of the program's risk database. As a result, program personnel assigned to manage individual risks focus on updating mitigation plans rather than developing contingency plans for their assigned risks. While risk owners stated that the last steps of their risk mitigation plans were sometimes considered contingency plans, the program has not identified these contingency plans as such. Having separate mitigation and contingency plans with accompanying triggers, in all cases, would ensure that contingencies are only implemented once mitigation steps are shown to be ineffective.

Finally, the program's risk management database has separate fields for the proposed start and estimated end dates for mitigation and contingency plans, but no specific field for triggers. The program instead considered the proposed start and end dates to be the triggers for steps in the mitigation plan.

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[12] NASA Procedural Requirement 8000.4C, para. 1.2.3.2, p. 13. Contingency plans are created for cases where mitigations prove ineffective.

[13] Heiman, J.F., 2000, *Contingency Planning as a Necessity.* Paper presented at Project Management Institute Annual Seminars and Symposium, Houston, TX; and Government Accountability Office, September 9, 2013, *Geostationary Weather Satellites: Progress Made, but Weaknesses in Scheduling, Contingency Planning, and Communicating with Users Need to Be Addressed*, GAO-13-597.

The lack of documented contingency plans and triggers diminishes the program's ability to manage risk and respond to issues. This increases the likelihood of schedule delays, cost increases, and performance problems.

Recommendations

We recommend that the NOAA Deputy Under Secretary for Operations and NESDIS consider the following actions for the GeoXO program:

4. Develop off-ramps and contingency plans to reduce risk.
5. Distinguish between mitigation and contingency plans in the risk management database.
6. Add specific fields for triggers in the risk management database.

Summary of NOAA's Response and OIG Comments

NOAA reviewed a draft version of this report and responded to our findings and recommendations. In its response, NOAA concurred with all of our recommendations but asserted that recommendations 4 and 5 were no longer applicable because the program had undergone a restructuring that "inherently addresses many of the risks that would have necessitated the originally recommended off-ramps and contingency plans," with a "simplified satellite constellation design and elimination of higher-risk program elements." NOAA argued that the restructured program "represents a fundamental risk mitigation itself . . . through adoption of best practices, conversion of contracts to firm-fixed price, and NOAA's expanded role as a decision-making authority guiding program direction." NOAA's complete response is included in this report as appendix 2.

Recommendation 4 (Develop Off-Ramps and Contingency Plans)

NOAA concurred with the recommendation but asserted that "this particular risk has been overcome by events" due to the program's "reduced scope and focused mission architecture." NOAA stated that many of the risks that would have necessitated the recommended off-ramps and contingency plans no longer exist.

Recommendation 5 (Distinguish Between Risk Mitigation and Contingency Plans in Risk Database)

While acknowledging the value of clear distinctions in risk documentation, NOAA asserted that with the restructuring, several complex elements of the program have been eliminated from its risk database, simplifying the "overall risk landscape and associated risk management requirements."

OIG Comments

While we are aware of the program's restructuring, we did not evaluate it and therefore cannot validate NOAA's assertions that certain risks have been resolved by the changes. However, we assert that both recommendations remain applicable because they address processes that must be implemented to adequately manage risk over the life of the program. Program requirements call for the development of both off-ramps and contingency plans whenever risks warrant mitigation. Risks requiring mitigation are expected over the lifecycle of a satellite acquisition program, particularly when a great deal of development and integration is yet to be completed.

NOAA's response also states that the program restructuring addresses "many of the risks," which suggests that not all risks requiring mitigations have been addressed or fully mitigated. The revised instrument configurations, changes in integration approaches, and reliance on new or modified components are examples of factors that introduce unknowns, which have not yet been fully characterized or validated. Further, any remaining technology development efforts related to instruments or spacecraft likely require off-ramps to ensure that alternate development paths are available if technologies do not mature as expected.

We are pleased that NOAA concurs with our recommendations. We look forward to receiving NOAA's action plan, which will provide details on its corrective actions.

Appendix 1. Scope and Methodology

Our objective was to assess NOAA's progress implementing the GeoXO program. To satisfy our objective, we reviewed various program formulation activities related to technology maturity, data availability, and risk management.

To assess how the program was managing technology risks, we:

- Reviewed criteria for technology readiness levels, technology development, and maturation to establish a foundation for evaluating progress and compliance
- Compared the readiness of instruments and spacecraft with applicable agency policies and recognized best practices
- Evaluated the program's plans for technology maturation, focusing on whether proposed strategies and timelines were sufficient to advance technologies to required technology readiness levels

To assess how the program managed its geostationary data availability requirements, we:

- Reviewed NESDIS's policies related to availability, launch and space call-up, and satellite life extension
- Interviewed the Systems Architecture and Engineering team to gain insights into processes and documentation related to the geostationary reliability assessments and their reporting schedule
- Interviewed the GeoXO program team to understand the program's planned actions to mitigate the imaging continuity risk
- Compared the annual *Geostationary Reliability and Constellation Availability Assessment* reports from 2020 to 2024 with corresponding published geostationary flyout charts to determine the progression of satellite life estimations
- Evaluated Systems Architecture and Engineering's and the program's tracking and reporting of the data continuity risk

To assess the program's risk management process, we:

- Evaluated how the program implemented the requirements of its risk management plan and agency policy
- Attended joint agency program management council briefings and joint program monthly status reviews to understand the program's requirements, goals, and progress towards mitigating its risks

- Observed the Key Decision Point-B and contractor lifecycle reviews to assess program progress and understand risk management strategies
- Reviewed program risk management documentation to identify risks and mitigation plans that the program captured through the formulation phase
- Reviewed NOAA contingency planning requirements and agreements with international partners
- Reviewed prior audits to understand similar issues related to risk management that were identified in the past
- Interviewed NASA leadership, the system program director, flight project manager, and program risk management staff to understand its risk management process and approach to contingency planning; we also gained an understanding of the details related to risk mitigation plans and tools

To supplement this analysis, we interviewed program personnel and technical subject matter experts who are directly involved in or oversee technology development activities. These interviews provided valuable context on challenges, development strategies, and the rationale behind key decisions. We also engaged with systems engineers and project managers to understand how risks were identified, tracked, and addressed throughout development. Finally, we attended meetings, reviews, and briefings related to technology development and maturation, which allowed us to verify information gathered during interviews and document review.

We assessed the internal controls that were significant to our objective through document reviews and interviews with key personnel to determine adherence to procedures and plans. This included examining the design of management controls as documented in program-level management plans. Specifically, we observed the program's participation in joint monthly status reviews and joint agency program management council briefings to agency leadership. We also reviewed NOAA's reports to Congress on the program as well as program documentation to assess the implementation of internal controls. We did not have any specific internal control weaknesses to include in our findings.

We did not rely on computer-processed data to support our findings, conclusions, and recommendations. Although we could not independently verify the reliability of all the information we collected, we assessed its reliability by comparing it with other available supporting documents to determine consistency and reasonableness. We found the data to be sufficiently reliable to support our findings and conclusions.

We conducted our evaluation from July 2024 through December 2025 under the authority of the Inspector General Act of 1978, as amended (5 U.S.C. §§ 401–424), and Department Organization Order 10-13, as amended October 21, 2020.

We conducted this evaluation in accordance with *Quality Standards for Inspection and Evaluation* (December 2020) issued by the Council of the Inspectors General on Integrity and Efficiency. Those standards require that the evidence must sufficiently and appropriately support evaluation findings and provide a reasonable basis for conclusions and recommendations related to the objective. We believe that the evidence obtained provides a reasonable basis for our findings, conclusions, and recommendations based on our review objective.

Appendix 2. NOAA's Response

NOAA's response to our draft report begins on the next page.

UNITED STATES DEPARTMENT OF COMMERCE
The Under Secretary of Commerce
for Oceans and Atmosphere
Washington, D.C. 20230

January 20, 2026

MEMORANDUM FOR: Kevin Ryan
Director of Engineering, Cybersecurity, and Systems
performing the duties of Assistant Inspector General for Audit and Evaluation
Office of Inspector General
U.S. Department of Commerce

FROM: Dr. Neil Jacobs
Under Secretary of Commerce for Oceans and Atmosphere
and NOAA Administrator

SUBJECT: Draft Report Response: Evaluation of NOAA's Progress Implementing the GeoXO Satellite Program
Report No. OIG-2024-492

The Department of Commerce's National Oceanic and Atmospheric Administration (NOAA) is pleased to submit the attached draft report response to the Office of Inspector General's draft report: *Evaluation of NOAA's Progress Implementing the GeoXO Satellite Program*.

If you have questions, please contact Mia Forgy, Director, Audit and Information Management Office at Mia.Forgy@noaa.gov.

Attachment

THE ADMINISTRATOR

Department of Commerce
National Oceanic and Atmospheric Administration
Draft Report Response to
Department of Commerce Office of Inspector General's
Evaluation of NOAA's Progress Implementing the GeoXO Satellite Program
(2024-492, December, 2025)

General Report Comments

The Department of Commerce's National Oceanic and Atmospheric Administration (NOAA) appreciates the opportunity to review the Department of Commerce Office of Inspector General's (DOC OIG) report on the Evaluation of NOAA's Progress Implementing the GeoXO Satellite Program.

NOAA Response to Recommendations

The draft report made 6 recommendations pertaining to NOAA.

Recommendation 1: Evaluate alternatives to the current life extension option to manage the risk of a continuity gap in geostationary satellite data.

Agency Response: We concur with this recommendation.

Recommendation 2: Monitor and report the progress of the GOES-17 test to the joint agency program management council.

Agency Response: We concur with this recommendation.

Recommendation 3: Elevate the risk of a continuity gap in geostationary satellite data to the NESDIS Enterprise Risk Board.

Agency Response: We concur with this recommendation.

Recommendation 4: Develop off-ramps and contingency plans to reduce risk.

Agency Response: We concur with this recommendation; however, due to changes in the GeoXO program, this particular risk has been overcome by events and the recommendation as originally framed is no longer applicable to the current GeoXO program structure.

As documented in NOAA's FY 2026 Congressional Justification, the GeoXO program has undergone comprehensive restructuring under direction from the Department of Commerce. Specifically, the program has been restructured into a focused, core weather mission that will meet essential observation needs to support weather forecasting, nowcasting, and severe storm warnings at a significantly reduced cost. The reduced scope and focused mission architecture inherently addresses many of the risks that would have necessitated the originally recommended off-ramps and contingency plans, as the program now operates with a simplified four-satellite constellation design and elimination of higher-risk program elements.

The restructured program represents a fundamental risk mitigation approach in itself, creating a

more streamlined, innovative, and cost-effective operation through adoption of commercial best practices, conversion of contracts from cost-plus to firm-fixed price, and NOAA's expanded role as a decision-making authority guiding program direction to ensure a more agile and cost-effective enterprise**.**

Recommendation 5: Distinguish between mitigation and contingency plans in the risk management database.

Agency Response: We concur with this recommendation; however, due to the GeoXO comprehensive program restructuring, the risk management framework for GeoXO has been fundamentally simplified, which affects the applicability and implementation of this recommendation.

As documented in NOAA's FY 2026 Congressional Justification, the GeoXO program has undergone comprehensive restructuring under direction from the Department of Commerce. The program has been restructured into a focused, core weather mission that operates as a more streamlined, innovative, and cost-effective operation.

The restructured program baseline eliminates several complex program elements that were previously tracked in the risk management database, including "the ocean color and atmospheric composition instruments" and "the third satellite position that was to fly over the central U.S." This reduced scope and focused mission architecture significantly simplifies the overall risk landscape and the associated risk management requirements.

With the program now consisting of a focused four-satellite constellation and adoption of commercial best practices and conversion of contracts from cost-plus to firm-fixed price, the complexity of risk management has been substantially reduced. While we acknowledge the value of clear distinctions in risk documentation, the streamlined program structure has materially changed the risk environment from that which existed when this recommendation was originally developed.

Recommendation 6: Add specific fields for triggers in the risk management database.

Agency Response: We concur with this recommendation.

REPORT

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