

Congress of the United States
House of Representatives

COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY

2321 RAYBURN HOUSE OFFICE BUILDING

WASHINGTON, DC 20515-6301

(202) 225-6371
<http://science.house.gov>

October 19th, 2026

The Honorable Neil Jacobs
Administrator
National Oceanic and Atmospheric Administration
1401 Constitution Avenue NW
Washington, DC 20230

Dear Administrator Jacobs,

Last May, when we confronted the White House about one of the many assaults against NOAA taking place at the beginning of the Trump Administration, we told the Director of the Office of Management and Budget that “it is so much easier to destroy than to rebuild.”¹ Sadly, the truth of those words echoes louder with each passing month. The early verdict has started to arrive regarding the White House’s irrational and ideological attacks on core NOAA functions. It is a damning verdict indeed.

In 2025, the White House targeted GeoXO, the next generation program for NOAA’s geostationary weather satellites. The Office of Management and Budget (OMB) and its Director, Russell Vought, forced NOAA to slash the number of satellites and scientific instruments that would be launched into orbit under the program. OMB’s motives were hardly subtle: the goal was to deprive NOAA’s satellites of the capability to collect scientific data that would inform the American people about the reality of climate change in our world. Perhaps, in its ignorance, OMB believed that it could eliminate NOAA’s ability to collect “climate” data without harming the agency’s ability to collect “weather” data. Perhaps it hoped that less capable weather satellites would make it easier to privatize essential parts of NOAA’s forecasting infrastructure. Or perhaps it simply did not care. Regardless, a year later, we are beginning to see the consequences of this triumph of ideology over science. The Government Accountability Office (GAO) recently completed a review of the diminished GeoXO program and concluded that the program’s challenges “put vital observations at risk” because “there is a risk of a gap in the continuity of satellite data” due to the program’s launch timeline and cost uncertainty.² GAO also found that the loss of key scientific instruments will deprive the satellite program of critical

¹ <https://democrats-science.house.gov/news/press-releases/ranking-members-lofgren-and-amo-implore-trump-administration-to-end-reckless-hiring-freeze-at-nws>.

² Government Accountability Office, “Geostationary Weather Satellites: Next Generation Program Challenges Put Vital Observations at Risk,” GAO-26-107739, September 16, 2026, accessed here: <https://www.gao.gov/products/gao-26-107739>.

scientific capabilities to such an extent that “it is unclear whether GeoXO will improve, or even continue, the functionality available in the current generation of satellites.”³ In other words, thanks to the Trump Administration, the next generation of America’s weather satellites could very well be worse than the current ones. This would be nothing less than a generational setback for our country. NOAA must explain how it intends to undo this damage and maintain American leadership in weather satellite capability.

NOAA’s weather satellites are the backbone of the agency. The data they collect provides the foundation for NOAA’s weather forecasting activities and its broader scientific work. But satellites cannot remain in orbit forever. The current generation of geostationary weather satellites, called the Geostationary Operational Environmental Satellites (GOES-R) program,⁴ is nearing the end of its operational lifetime and must be replaced by a new generation of satellites to prevent any interruption in observational data and to ensure that data collection capabilities reflect the latest scientific and technological advances. That new generation of satellites is called the Geostationary Extended Observations program, or GeoXO.⁵

GeoXO has been a major undertaking for NOAA, and the program was far along in planning and development before the radical changes of 2025. The agency published an extensive study in 2018 that evaluated roughly 100 architecture alternatives and projected future environmental data collection needs for NOAA and its partners.⁶ This study laid the groundwork for GeoXO, which began defining its system requirements in 2019 before being formally initiated in 2021.⁷

The Department of Commerce (DOC) approved the GeoXO program baseline with an estimated \$19.6 billion lifecycle cost in December 2022.⁸ The plan called for three operational satellites, with backups, over the West, East, and Central regions of the country. The West and East satellites were to host the Visible/Infrared Imager, Lightning Mapper, and Ocean Color instruments. The Central satellite was to host the Infrared Sounder and Atmospheric Composition instruments, as well as another instrument to be provided by a federal or international partner that had yet to be selected. The Imager and Lightning Mapper instruments were intended to improve on the GOES-R versions of those instruments. The Atmospheric Composition and Ocean Color instruments were intended to build on NASA’s Earth Venture instruments, reducing their development risk and successfully transferring research to operations earth system monitoring capabilities.⁹ By 2023, the required studies for evaluating the development of the GeoXO program and ensuring that the concepts met program expectations had been completed. NOAA transmitted the Determination of Readiness Report to Congress in February 2023, which included the technical, cost, and schedule risks of the program, including

³ Government Accountability Office, “Geostationary Weather Satellites: Next Generation Program Challenges Put Vital Observations at Risk,” GAO-26-107739, September 16, 2026, accessed here: <https://www.gao.gov/products/gao-26-107739>.

⁴ <https://www.ospo.noaa.gov/operations/goes/>.

⁵ <https://www.nesdis.noaa.gov/our-satellites/future-programs/geostationary-extended-observations-geoxo>.

⁶ <https://www.regulations.gov/docket/NOAA-NESDIS-2018-0053>.

⁷ <https://www.nesdis.noaa.gov/news/noaa-geoxo-program-formally-initiated>.

⁸ <https://www.nesdis.noaa.gov/news/noaas-geoxo-program-approved>.

⁹ https://www.nesdis.noaa.gov/s3/2025-07/22-O-857-NOAA-NESDIS-Determination-of-Readiness-of-the-Geostationary-Extended-Observations-Program_REPORT.pdf.

the plan to manage those risks.¹⁰ By October 2024, GeoXO’s developers and vendors had all been selected, including the spacecraft, Lightning Mapper, Ocean Color, and Atmospheric Composition instruments.¹¹

While the aims of GeoXO were ambitious and significant challenges are unavoidable for any major acquisition program, NOAA’s initial plan was well-vetted. GAO’s report affirms that NOAA had “made progress in determining the scope of the program, awarding contracts, and completing mission reviews” by early 2025.¹² But the Trump White House and OMB had other ideas. In April 2025, three months after President Trump took office, OMB sent a budget “passback” memorandum to NOAA.¹³ When the passback subsequently leaked, it revealed OMB’s intention to drastically circumscribe the next generation of NOAA’s weather satellites. OMB directed NOAA to “immediately institute a major overhaul to lower [GeoXO’s] lifecycle costs by 50%” and to make certain “adjustments” to the program accordingly. In a notable signal of its true motivations, OMB declared that GeoXO should “deliver exclusively on NOAA’s weather data needs” by “de-scoping the atmospheric composition and ocean color instruments.” In other words, the instruments that OMB (incorrectly) perceived to be focused solely on climate change had to go. OMB further ordered NOAA to “maintain a two orbit (East and West) posture with two additional satellites for continuity,” thereby eliminating the two additional satellites whose orbit had been planned for the Central part of the United States. Finally, OMB expressed its skepticism towards the Lightning Mapper instrument as well, stating that it should “only be pursued” if it was consistent with GeoXO’s newly reduced budget and “if there is sufficient evidence that the benefits outweigh the costs after conducting a robust cost-benefit analysis” that was due to OMB in one month, barely enough time to conduct any kind of analysis at all.

The message from OMB to NOAA was clear: GeoXO would receive far less funding in order to do the absolute minimum required for “weather” because anything else risked informing the country about climate change. None of these changes were directed by Congress, which had supported the previous version of the program. But that did not matter. To the White House, the highest priority was waging an ideological crusade against the government’s ability to collect scientific data related to the climate, even if that crusade sabotaged essential weather forecasting capabilities in the process.

Regrettably, DOC and NOAA fell into line and hastily overhauled the GeoXO program to comply with OMB’s directives. Between August 2025 and April 2026, the number of GeoXO satellites was reduced from six to four as the two Central satellites were eliminated.¹⁴ Three of the five proposed scientific instruments were descope from the program, specifically the Atmospheric Composition, Ocean Color, and Lightning Mapper instruments, precisely as OMB

¹⁰ https://www.nesdis.noaa.gov/s3/2025-07/22-O-857-NOAA-NESDIS-Determination-of-Readiness-of-the-Geostationary-Extended-Observations-Program_REPORT.pdf.

¹¹ Government Accountability Office, “Geostationary Weather Satellites: Next Generation Program Challenges Put Vital Observations at Risk,” GAO-26-107739, September 16, 2026, accessed here: <https://www.gao.gov/products/gao-26-107739>.

¹² *Id.*

¹³ <https://www.politico.com/news/2025/04/11/white-house-plan-guts-noaa-climate-research-00286408>.

¹⁴ Government Accountability Office, “Geostationary Weather Satellites: Next Generation Program Challenges Put Vital Observations at Risk,” GAO-26-107739, September 16, 2026, accessed here: <https://www.gao.gov/products/gao-26-107739>.

had directed.¹⁵ The program’s lifecycle program cost was slashed from \$19.6 billion to \$13 billion, a roughly 33% budget cut imposed for no legitimate reason whatsoever.¹⁶ In just one year, between April 2025 and April 2026, the Trump Administration cast aside years of careful planning and sharply diminished the scientific capabilities of a satellite program that will define the quality of our weather forecasting system for decades to come. These changes, implemented so rashly and with so little justification, will now require years of effort to reverse.

And the negative impacts of the changes to GeoXO, for the American people and the communities they live in, will be very real. First and foremost, according to GAO the current launch timeline for the first GeoXO satellite has created “a risk of a gap in the continuity of geostationary satellite data.”¹⁷ The risk exists because of the need for NOAA to maintain an operational spare satellite in orbit at all times as a redundancy in case an operational satellite becomes impaired. According to GAO, the current operational spare satellite will reach the end of its operational life in October 2032, but the first GeoXO satellite is not scheduled to become operational until early 2033 due to the need for several months of on-orbit testing after its scheduled 2032 launch. Thus, a period of time will exist between October 2032 and early 2033 when the first GeoXO satellite will not be ready to operate and the final two GOES satellites will be operating without a spare. If either of the GOES satellites became impaired during that period, GAO concludes that “there would be a gap in geostationary weather data.”¹⁸ If it occurred, this gap would severely disrupt the country’s weather forecasting operations and NOAA would possess “diminished abilities to observe the development of hazardous weather, such as hurricanes, wildfires, and severe thunderstorms” for the duration of the gap.¹⁹

The Trump Administration’s overhaul of GeoXO did not create the risk of a gap, as the timeline for an initial 2032 launch predated the changes in 2025. But OMB’s directives have made the risk worse. According to GAO, the “ongoing program restructuring exacerbates risk and uncertainty to the program” by creating new schedule and cost uncertainty that calls the 2032 launch timeline further into question.²⁰ Specifically, new cost uncertainty now exists because “it is unclear whether the \$13 billion estimate for the proposed restructuring is reasonable” and because “the changes to the program introduce uncertainty in the ability of it to meet the \$13 billion cost estimate.”²¹ This cost uncertainty, in turn, creates new schedule uncertainty, as GeoXO program officials acknowledged to GAO that “disruptions in funding could affect the schedule and the 2032 launch, which could increase the risk to geostationary data continuity.”²² Any delay in the launch of the first GeoXO satellite beyond 2032 would only extend the period of time during which the two final GOES satellites would be forced to operate without any replacement and without any spare, increasing the risk of a gap in geostationary weather data if something were to go wrong. In effect, the Trump Administration’s reckless actions have taken

¹⁵ Government Accountability Office, “Geostationary Weather Satellites: Next Generation Program Challenges Put Vital Observations at Risk,” GAO-26-107739, September 16, 2026, accessed here: <https://www.gao.gov/products/gao-26-107739>.

¹⁶ *Id.*

¹⁷ *Id.*

¹⁸ *Id.*

¹⁹ *Id.*

²⁰ *Id.*

²¹ *Id.*

²² *Id.*

an already challenging situation for NOAA satellite continuity and made it even worse in ways that NOAA does not yet fully understand.

Furthermore, even if a gap in geostationary data continuity can be avoided, the GeoXO program that does eventually become operational will be a far less capable one thanks to the actions of the Trump Administration. The changes described earlier require a more detailed discussion to fully understand what would be lost; or to be more precise, what the White House wants to take away from the American people in the service of its anti-science agenda. Each scientific instrument descope from GeoXO would have produced significant public safety, public health, and scientific benefits for the country:²³

- GAO describes the Atmospheric Composition instrument as collecting data related to “air quality forecasting, air quality monitoring, airborne hazards, and emissions monitoring.” Specifically, the instrument was “expected to measure ozone, nitrogen dioxide, and other pollutants used to determine forecasts and warnings of national air quality, hazard, and fire smoke. Data from this instrument was to provide the first operational capability to monitor air quality over North America on hourly time scales. These data would then drive forecasts and warnings issued by the Environmental Protection Agency and National Oceanic and Atmospheric Administration (NOAA).”
- GAO describes the Ocean Color instrument as collecting data related to “harmful algal blooms, water quality, oil spill tracking, and habitat and species protection.” Specifically, the instrument was “expected to collect imagery of the earth’s coastal waters for harmful algal blooms, water turbidity, and general water quality. The ocean color instrument was also expected to monitor dynamic coast/ocean features, ecosystem change, and other hazards.”
- GAO describes the Lightning Mapper instrument as collecting data related to “thunderstorm and tornado warning, precipitation forecasts, and tropical storm diagnosis.” Specifically, the instrument was “expected to provide tracking of lightning in a storm cell to improve lightning hazard information and storm warnings and provide continuity for the lightning mapper data from GOES satellites. The lightning mapper was also expected to help with weather forecasting and provide the aviation community the ability to avoid cloud-to-cloud lightning.”

Hourly monitoring for air pollution from wildfire smoke. Detecting harmful algal blooms. Tracking lightning in storm cells to improve thunderstorm and tornado warnings and help keep airplanes safe. These were the enhanced capabilities that GeoXO would have supported for the next generation of America’s weather satellites, until the White House and OMB decided that it was more important to blind the country to climate change than to help the country more clearly see the weather and the public safety threats right in front of it. Two fewer satellites and three fewer scientific instruments are not line items in a budget. They represent a concrete, tangible weakening of America’s ability to understand the weather, the climate, and the world around us.

²³ Government Accountability Office, “Geostationary Weather Satellites: Next Generation Program Challenges Put Vital Observations at Risk,” GAO-26-107739, September 16, 2026, accessed here: <https://www.gao.gov/products/gao-26-107739>.

They also signify the narrowing of America's scientific horizons and the loss of its scientific ambition under the Trump Administration. While the rest of the world races to improve weather forecasting capabilities as fast as possible, the Trump Administration is determined to hold this country back. We now confront the real possibility that America's next generation of weather satellites will be no better – or even worse – than the generation in orbit today. As GAO concludes in its report, “it is unclear whether GeoXO will improve, or even continue, the functionality available in the current generation of satellites.”²⁴ That is an unacceptable notion, and we are determined to return this program to its proper path.

Congress did not initiate the damaging changes to GeoXO that have occurred since August 2025, and Congress has not authorized them. Now it is up to Congress to assess how the damage to the program can be repaired without causing new and counterproductive programmatic delays in the process. As the Ranking Members of the Committee on Science, Space, and Technology and the Committee's Subcommittee on Environment, we are considering how GeoXO can best support America's need for geostationary weather and climate data in the decades to come. In order to understand the current state of the program and inform the Committee's deliberations, we request answers to the following questions no later than 5:00 PM on Monday, November 16th, 2026:

1. What are NOAA's current plans to mitigate the risk of a gap in geostationary satellite data between the end of GOES's operational life and the beginning of GeoXO-1's operational life? Is NOAA developing a plan to reduce or eliminate this risk, and if so, when does NOAA expect to complete this plan?
2. Did NOAA conduct any review, between April 2025 and April 2026, of the impacts that the descoping of the Atmospheric Composition, Ocean Color, and Lightning Mapper instruments would create for agency forecasting capabilities? If so, please provide a copy of that review to the Committee.
3. Did NOAA conduct any review after April 2026 of the impacts that the descoping of the Atmospheric Composition, Ocean Color, and Lightning Mapper instruments would create for agency forecasting capabilities, or is it presently conducting such a review? If so, please provide a copy of any finished review to the Committee.
4. Did NOAA conduct a cost-benefit analysis regarding the Lightning Mapper, or any other aspect of the GeoXO program, between April 2025 and April 2026? If so, please provide a copy of that analysis to the Committee, whether NOAA submitted it to OMB or not.
5. What is the current developmental status of the Atmospheric Composition, Ocean Color, and Lightning Mapper instruments? How far along in their development was each instrument when NOAA initiated the process of descoping them from the GeoXO program, and where is each instrument physically located at the present time?

²⁴ Government Accountability Office, “Geostationary Weather Satellites: Next Generation Program Challenges Put Vital Observations at Risk,” GAO-26-107739, September 16, 2026, accessed here: <https://www.gao.gov/products/gao-26-107739>.

6. Please provide the total dollar amounts expended by NOAA for the following:
- The development of the Atmospheric Composition instruments before the decision to descope them and after the decision to descope them.
 - The development of the Ocean Color instruments before the decision to descope them and after the decision to descope them.
 - The development of the Lightning Mapper instruments before the decision to descope them and after the decision to descope them.
 - The development of the two Central satellite buses before the decision to cancel them and after the decision to cancel them.
7. Was any official from the National Weather Service consulted before or during the restructuring of the GeoXO program in 2025 and 2026? What were the data requirements and requests provided by the National Weather Service to NOAA leadership and/or OMB in 2025 pertaining to GeoXO?
8. Did NOAA develop alternative solutions to save money before moving forward with OMB's directive to overhaul the GeoXO program? If so, please provide those alternative solutions to the Committee, whether NOAA submitted them to OMB or not.

In exchange for a less advanced, less capable next generation of weather satellites, the only meager rationale the Trump Administration can muster is \$6.6 billion in reduced lifecycle costs. At a time when the war in Iran has cost the country an estimated \$38 billion and counting²⁵ while President Trump proposes to spend another \$1.2 trillion on checks intended to lessen the political fallout of that war,²⁶ it is hard to think of a more foolish, self-defeating way to save money than by stripping capabilities from a weather satellite program of vital long-term national significance. The Trump Administration has the wrong priorities, but NOAA must get GeoXO right. We expect nothing less.

Pursuant to Rule X of the House of Representatives, the Committee on Science, Space, and Technology "shall review and study on a continuing basis laws, programs, and Government activities relating to nonmilitary research and development."²⁷ The Committee possesses jurisdiction over "environmental research and development... marine research ... outer space, including exploration and control thereof," and the National Weather Service.²⁸ If you have any questions regarding this letter, please contact Josh Schneider or Kristi Parrott with the Committee's Minority staff at (202) 225-6375. Thank you for your attention to this important matter.

²⁵ <https://www.cnbc.com/2026/09/15/cbo-iran-war-cost-pentagon-weapons.html>.

²⁶ <https://www.pbs.org/newshour/politics/trump-promised-5000-checks-if-republicans-win-the-midterms-how-would-that-work>.

²⁷ [119 First Session House Rules](#).

²⁸ *Id.*

Sincerely,



Zoe Lofgren
Ranking Member
Committee on Science, Space, and Technology



Gabe Amo
Ranking Member
Subcommittee on Environment

CC: Chairman Brian Babin
Committee on Science, Space, and Technology

Chairman Scott Franklin
Subcommittee on Environment