

Report in Brief

July 30, 2024

Background

Objects orbiting Earth such as satellites and debris continue to increase in number, making space contested and congested. Preventing collisions is crucial to protecting the safety of space activities and assets.

In June 2018, the White House issued Space Policy Directive-3, National Space Traffic Management Policy (SPD-3), acknowledging that the number of space objects was increasing while the activity and architecture to ensure space safety, including existing traffic management activities, was becoming inadequate.

Currently, the Department of Defense (DOD) is providing basic space situational awareness data and potential collision notifications to space operators. SPD-3 directs the transfer of certain responsibilities for providing data and services from DOD to the Department of Commerce, specifically to the National Oceanic and Atmospheric Administration's (NOAA's) Office of Space Commerce (OSC), which is responsible for the coordination of space-related issues, programs, and initiatives within the Department.

Why We Did This Audit

Our audit objective was to assess OSC's progress in providing space situational awareness (SSA) data and space traffic management (STM) services in accordance with SPD-3.

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

NOAA's Office of Space Commerce Efforts to Provide Space Situational Awareness Services Have Been Delayed and Need a Realistic Schedule

OIG-24-031-A

WHAT WE FOUND

OSC is developing an enterprise solution—the Traffic Coordination System for Space, or TraCSS—to screen space objects and provide notifications of potential conjunctions to civil and commercial space operators. OSC plans for TraCSS to provide an initial capability to civil and commercial space operators in fiscal year 2024.

We found the following:

- I. OSC is behind schedule in providing basic SSA data and services.
- II. A new approach to STM is not yet defined and remains a distant goal.

Despite being behind schedule, OSC did not update the TraCSS timeline to reflect delays. Also, OSC's lack of a long-term plan for its STM-related responsibilities may delay development of a new approach to mitigate the increasing risk of collisions in space, jeopardizing orbit availability and, potentially, human life.

WHAT WE RECOMMEND

We recommend that the NOAA Administrator direct the Office of Space Commerce Director to do the following:

- I. Revise the TraCSS program timeline using agile best practices to include realistic dates, capabilities, and actual progress.
- 2. Develop and communicate a plan to ensure stakeholders stay informed of changes to the TraCSS timeline.
- 3. Modify the TraCSS staffing plan to include roles, responsibilities, and priority for each position and strategies for attrition management.
- 4. Define and document OSC's approach for STM-related responsibilities in the near and long terms to address current and future operational risks and include items such as guidelines, safety standards, behavioral norms, and conjunction prevention protocols.
- 5. Develop and regularly update a plan to implement OSC's approach to fulfilling the Department's STM-related responsibilities set in SPD-3.