



# Overview of NOAA's Office of Space Commerce

A Presentation to the  
NOAA Science Advisory Board

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# Outline



- Purpose
- Overview of the Office of Space Commerce
- Space Situational Awareness and TraCSS



# Purpose

Provide the SAB an overview of the Office of Space Commerce (OSC) and activities related to space situational awareness (SSA).



# Overview of OSC



- NOAA is expanding the role of the Office of Space Commerce (OSC) to respond to a significant increase in commercial space activities
  - Policy/Advocacy
  - Regulation
  - Space situational awareness (SSA)
- At the direction of the White House, OSC is developing an operational SSA system for civil and commercial operators
  - Traffic Coordination System for Space (TraCSS)



# Background

- Commercial space companies have launched thousands of new satellites over the past few years and plan to launch tens of thousands more
- There is an urgent need for better SSA as Earth's orbits become increasingly congested with space traffic and hazardous debris, putting commercial, civil, and national security space missions at risk.
- Current space regulations are inadequate to properly authorize and supervise novel commercial space activities such as in-space servicing, assembly, and manufacturing
- NOAA recently reorganized and expanded the Office of Space Commerce (OSC) to address these challenges
- Most notably, OSC is developing a Traffic Coordination System for Space (TraCSS) that will blend government and commercial data to produce actionable SSA for civil and commercial space operators



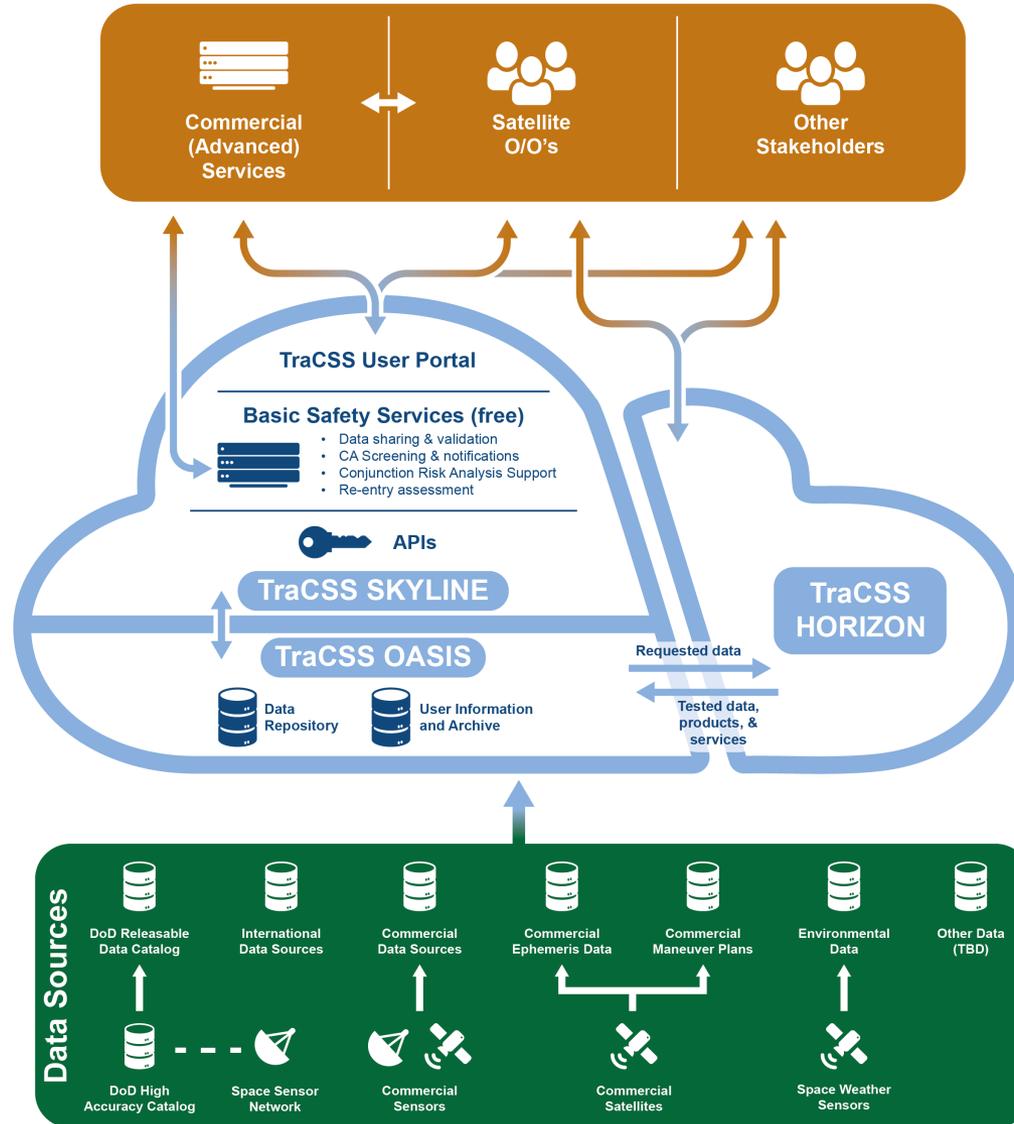
# TraCSS Program Objectives



- Relieve DoD of responsibility for SSA monitoring of burgeoning global commercial space industry
- Provide “Basic SSA Services” in a manner that promotes safer space operations
- Encourage US Commercial SSA leadership and rely on commercial SSA providers to the greatest extent possible
- Establish and maintain a Resident Space Object data repository from which all basic services will be derived and utilized for international coordination purposes
- Conduct R&D activities that will advance the science and technology of SSA
- Promote global SSA standards and best practices



# TraCSS Architecture





# Open Items and Forward Plan



- Hosted webinar on April 12, 2023 to present findings from RFI on the scope of basic SSA services
- Further User community engagement (O/Os, service providers):
  - Data requirements (input/output), standards, exposure/access
  - Further dialogue regarding industry questions on some of the basic services
  - Metrics
- Pathfinder activity with private industry:
  - Mature industry capabilities in targeted areas
  - Demonstrate ability to meet government need
  - Research and development to advance knowledge base
- Increased Tempo of Communications
- Discussions between DoD/DoC to define transition plan



# Backup Slides





# Policy and Advocacy Activities



- DOC Commercial Space Coordination Committee
- White House/interagency working groups
  - In-space servicing, assembly, manufacturing
  - Orbital debris R&D strategy
  - Space manufacturing
  - Near Earth objects / planetary defense
  - National Spaceport Strategy
  - Export control rulemaking processes
  - Space-based PNT
- International space dialogues
  - Bilaterals with:
    - France, Japan, India, Korea
  - U.S.-Africa Space Forum
  - Multilaterals
- Outreach and engagement
  - CEO roundtables
  - Space cybersecurity symposia
  - Space counselors roundtables
  - Conference keynotes
  - National Space Council Users Advisory Group



# Commercial Remote Sensing Regulatory Affairs (CRSRA)



- CRSRA licenses private remote sensing space systems, which are systems in orbit that are capable of collecting images of surface features of the Earth
- Activities include: monitoring licensees for compliance with U.S. law and regulation; and investigating regulatory noncompliance
- Carries out these responsibilities in consultation with other Federal partners
- Advisory Committee on Commercial Remote Sensing (ACCRES)



# SSA and Space Policy Directive-3



- Issued June 2018
- Transfers responsibility from Department of Defense (DoD) to DOC for providing basic SSA and space traffic management (STM) services to commercial and international missions
- Recognizes the pressing need for more accurate and timely SSA data:
  - Supporting needs of commercial and international space operators
  - Enhancing data sharing and transparency among space operators
  - Promoting best practices and norms of behavior
- Enables DoD to concentrate resources on national security