Housekeeping for Listening Session

- The listening session is for 1-hour total time.

- Will be recorded and posted online to the TraCSS website afterwards

- Will be taking feedback but no Q&A in this session

- Agenda:
  - Welcome & Brief Intro - Christine Joseph, OSC
  - Updated Data Sharing Policy (Lead: Dr. Mariel Borowitz, OSC)
  - Feedback Time: Registered Participants - 3 minutes each
  - Closing, Wrap-Up, & Adjourn

- Next steps:
  - Written comments may be submitted per the guidelines in the posted online on the TraCSS webpage until 5:00 pm ET December 3, 2024
    - tracss.commerce@noaa.gov
  - Future listening sessions are planned for 2025 - will be announced on TraCSS webpage and via email blasts, LinkedIn, and on X (@CommerceinSpace)
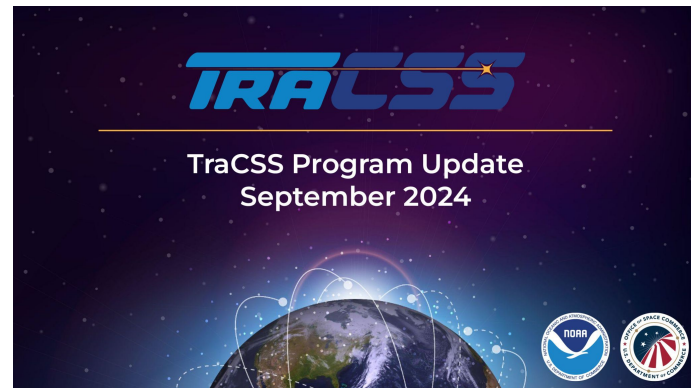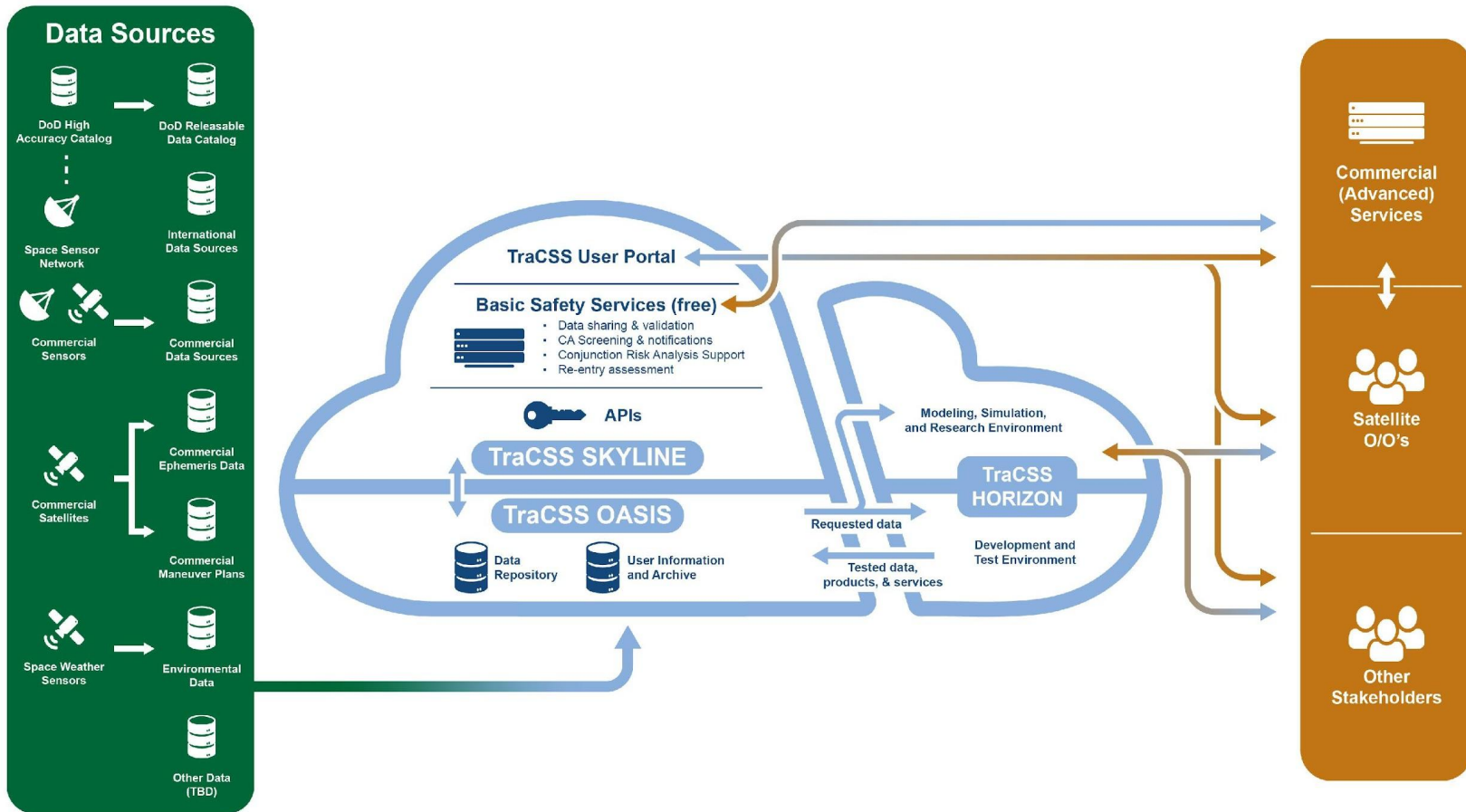
TraCSS' Safety Services

TraCSS will provide access to selected SSA data and information to spacecraft operators and governments, including:

- SSA data and information
- Conjunction screening every 4 hours using catalog and o/o ephemerides
- Risk assessment support information
- Detection and notification of emergency events
- Candidate maneuver screening
- Anomaly reporting

Traffic Coordination System for Space - TraCSS

Goals of TraCSS Data Policy

- **Provide SSA data and services that support global spaceflight safety, space sustainability, and international coordination**

- **This policy emphasizes the importance of transparency and open data sharing to best promote spaceflight safety. This aligns with the:**

  - Space Policy Directive 3 emphasis on the need for international transparency and STM data sharing, and direction to enable greater SSA data sharing, consistent with national security constraints

  - Foundations for Evidence-Based Policymaking Act (Evidence Act), Public Law 115-435, which describes responsibility of U.S. government agencies to make data "open by default"

  - NOAA Data Strategic Action Plan, which states: "Sharing NOAA data as openly and widely as possible, maximizing its utilization by NOAA partners, stakeholders, and the public, is foundational to NOAA's mission"

  - American Institute for Aeronautics and Astronautics (AIAA) Satellite Orbital Safety Best Practices, which state, "predicted ephemerides with covariance should be generated and shared without restriction." They also note, "if a feature or approach is discoverable after launch, then it should be shared explicitly before launch."

  - Space Safety Coalition Best Practices for the Sustainability of Space Operations, which encourage "spacecraft owners, operators and stakeholders to exchange information relevant to safety-of-flight and collision avoidance, including, at a minimum operator points-of-contact, ephemerides, ability to maneuver, and maneuver plans"

  - World Economic Forum Space Situational Awareness Data and Information Sharing Principles, which state, "SSA data and information should be made open by default while remaining consistent with national laws and regulations."

Goals of TraCSS Data Policy

- Open sharing of TraCSS SSA data and information:

    - Promotes **spaceflight safety** and **international cooperation** by enabling straightforward and efficient coordination among spacecraft operators and global SSA providers,

    - Enables **research and innovation** that can lead to improved SSA techniques and improve spaceflight safety and sustainability in the future,

    - Promotes the growth of the **commercial SSA sector**, which can build on these basic data and information to develop and provide innovative new products and services,

    - Supports **public awareness** of key issues of space safety and sustainability.

Access Levels for TraCSS Data and Products

- **TraCSS Open Data**
    - Publicly available with no restrictions on use
    - Creative Commons 0 Public Domain Dedication (CC0 1.0)
    - Available via the TraCSS website; OSC is determining implementation options
    - No registration or user agreement is required for access

- **TraCSS Restricted Data**
    - Available only to TraCSS registered users (i.e. satellite owner/ operators and government entities) and USG entities
    - Requires registration for TraCSS and signing the TraCSS User Agreement

TraCSS Open Data

TraCSS will support and facilitate free and open sharing of data and information via our website, with no log-in required, including:

- DoD public element sets catalog (aka two-line elements (TLE) catalog).
- DoD public satellite catalog (SATCAT), including satellite name and NORAD ID, launch date, launch location, international designator, apogee, perigee, period, inclination, and size (binned RCS) provided by the DOD.
- NASA mass and size catalog, developed by NASA based on U.S. sensor data and additional sources.
- Satellite attributes provided to TraCSS by satellite owner/ operators.
- Satellite ephemerides with covariance and maneuver plans provided to TraCSS by satellite owner/ operators.
- TraCSS-generated SP ephemerides without covariance
- TraCSS conjunction notifications (TCNs) for all events that meet "alertable criteria" defined by TraCSS, including events involving operational objects and/or debris.
- Other publicly-available information, as relevant.

TraCSS Restricted Data

Owner/ Operator Operational Contact Directory:

- Available to all registered TraCSS users
- Also shared with other national or regional SSA providers to facilitate international coordination

Conjunction Data Messages:

- Available to spacecraft owner/ operators involved in conjunction (and registered in TraCSS)
- Available to government entities with which satellites are associated

Data Provided by Satellite Owner/Operator Users

Described in accompanying document/handout
- "Information Collected by TraCSS from Owner Operators"

Data Provided by Government Users

Described in accompanying document/handout
- "Information Collected by TraCSS from Government Users"

Questions for Feedback

- What do you view as the most significant benefits and/or challenges associated with implementing this policy (particularly from an O/O perspective)?

- Does this policy help spacecraft operators and others achieve their mission, specifically related to spaceflight safety?

- For owner/ operators, what barriers do you see to sharing information (e.g. ephemerides, satellite attributes) openly, if any? How might these be addressed?

- How can TraCSS encourage owner/ operators to opt to share information openly?

- Are there ways in which the TraCSS data policy could be improved?

Acknowledgements

- NOAA Office of Space Commerce Space Operations Division and TraCSS team

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