

The Department of Commerce's Traffic Coordination System for Space

Office of Space Commerce

*Fostering economic growth and technological advancement
in the U.S. commercial space industry*

Janice Starzyk, Acting Director



April 2025

Space Situational Awareness (SSA) and the Office of Space Commerce

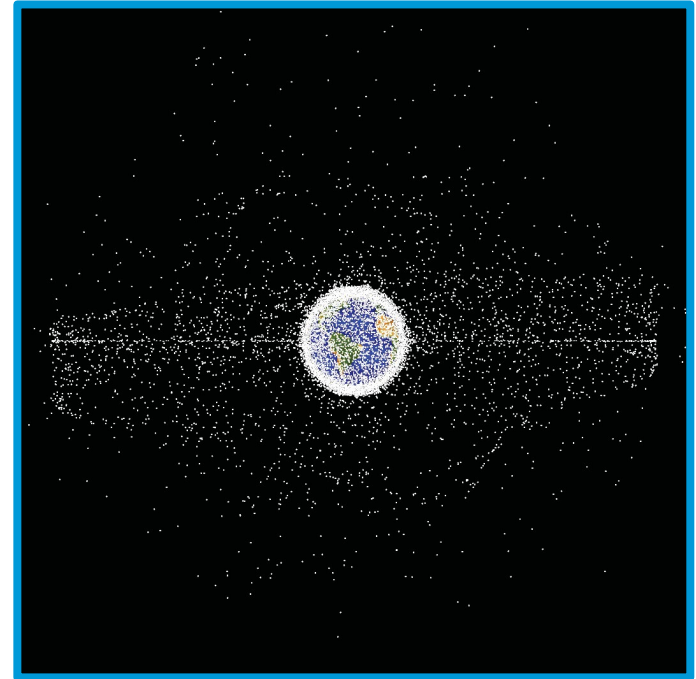


As space commerce grows, so too does the population of objects and debris in orbit - **potential collisions pose a major operational and safety risk.**

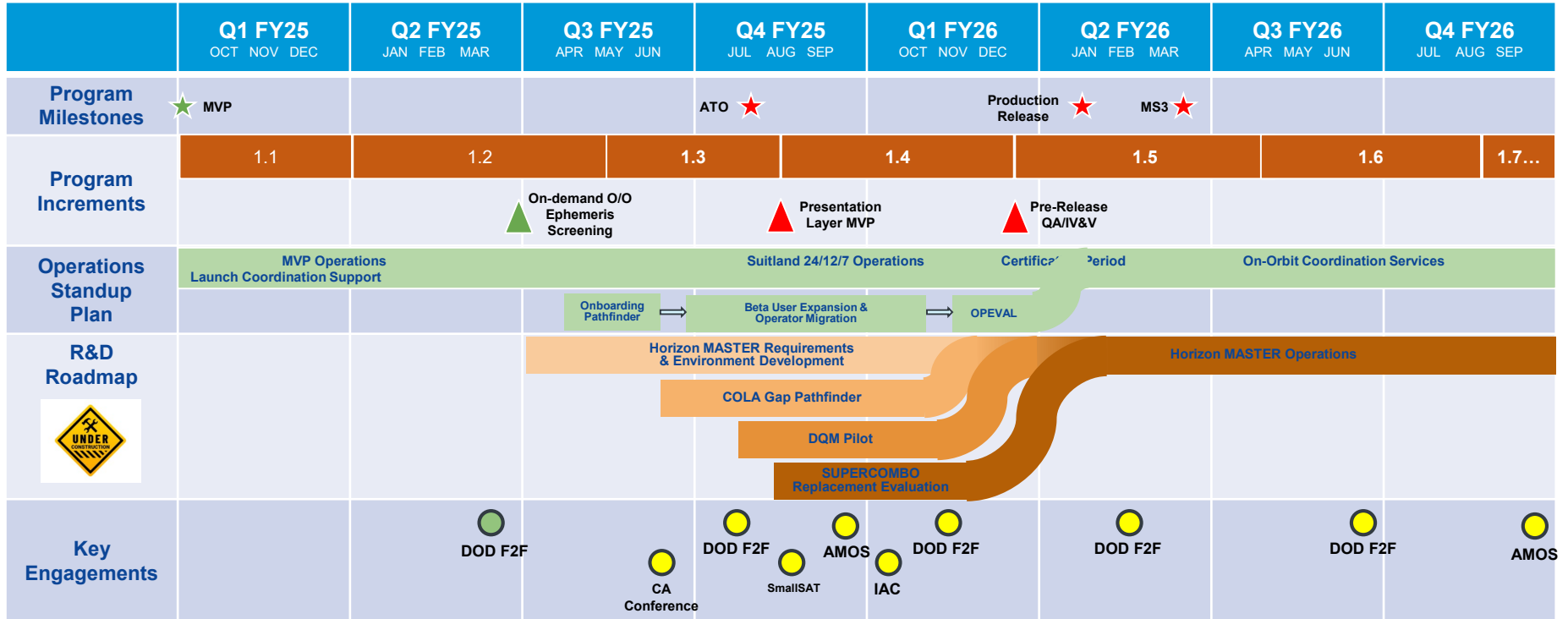
The Trump Administration's Space Policy Directive-3 (2018) directs a **transfer of responsibility from the DOD to DOC for providing basic "space situational awareness" (e.g., tracking) data and services** to space operators free of charge.

OSC is developing an SSA capability – the **Traffic Coordination System for Space (TraCSS)** – that leverages government and commercial capabilities to provide actionable SSA to space operators for spaceflight safety.

As an agile IT program, TraCSS is iteratively rolling out updated capabilities and services; **a Minimum Viable Product launched for beta users in September 2024.**



Credit: NASA ODPO



Collaborative R&D Options/Backlog:

- Launch Approval Coordination Services
- Independent Commercial Catalog Development
- Catalog Reconciliation
- International SSA/STC Data-Sharing
- Improved OD/OP Capabilities
- Space Weather & Drag Modeling
- Re-Entry Services
- M&S and AI/ML Implementation

2025 TraCSS Capability Roadmap - Overview



PI 1.0



- ✓ Ingest DoD Catalog
- ✓ CA screening with DoD data
- ✓ Generate Conjunction Data Messages (CDMs)
- ✓ Post CDMs to Space-Track for beta user consumption
- ✓ Ingest beta user Orbit Comprehensive Messages (OCMs)
- ✓ Provide DoD access to beta user ephemerides
- ✓ Initial platform, infrastructure & security
- ✓ TraCSS MVP govcloud dev deployment

PI 1.1



- ✓ Presentation Layer Contract Award
- ✓ CDMs accessible to O/Os and DoD directly from TraCSS via API
- ✓ CA Screening with beta user OCMs
 - ✓ Includes on-demand screening of candidate ephemeris
- ✓ All Vs. All CA Screening with DoD data

PI 1.2



- ✓ TraCSS agile tools govcloud deployment
- ✓ TraCSS stops posting beta user CDMs to space-track.org
- Presentation Layer Beta Testing
 - Operations Team Displays
 - Public Displays
 - Owner/Operator (O/O) Displays

PI 1.3

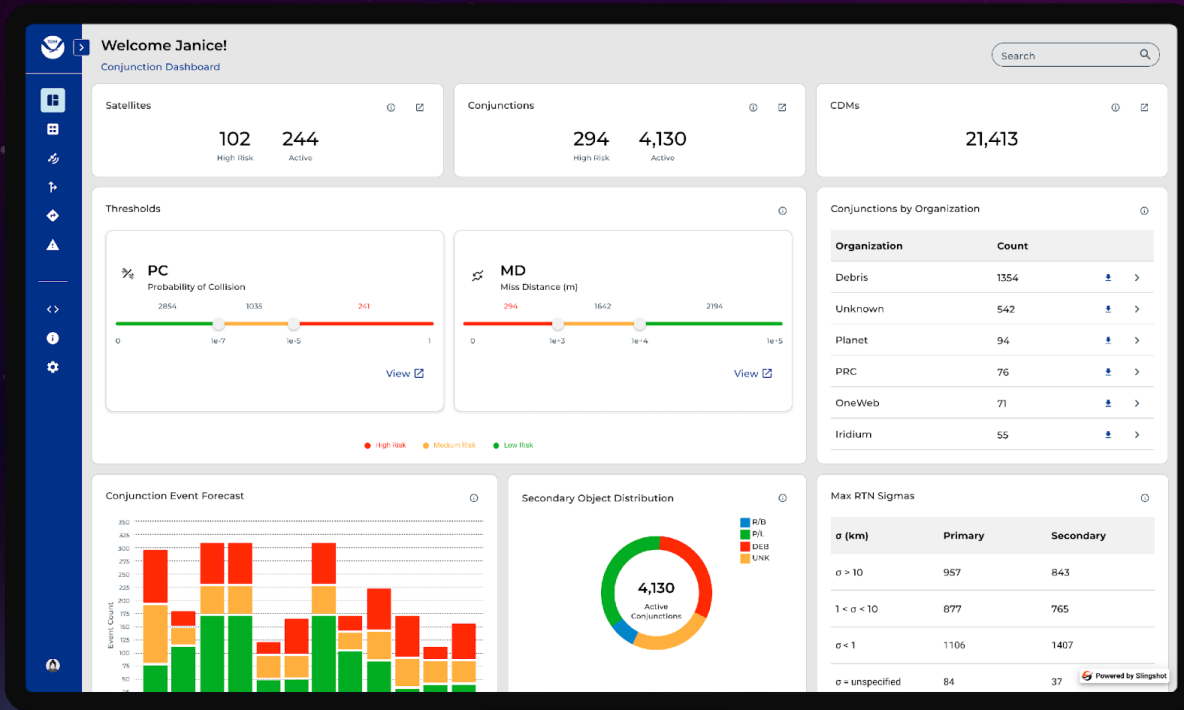


- Presentation Layer Initial Fielding & Debugging
- Subset of O/Os begin registration
- TraCSS govcloud production environment deployment

PI 1.4



- Presentation Layer continuous improvement
- Full onboarding of O/Os
- Sharing of DoD TIPs
- Sharing of DoD breakup notifications
- TLE access
- Anomaly reporting via O/O displays
- Detection & Notification of Alert Events



Dashboard > Watchlist

Satellite Catalog

Public Conjunctions

Decay Data

My Conjunctions

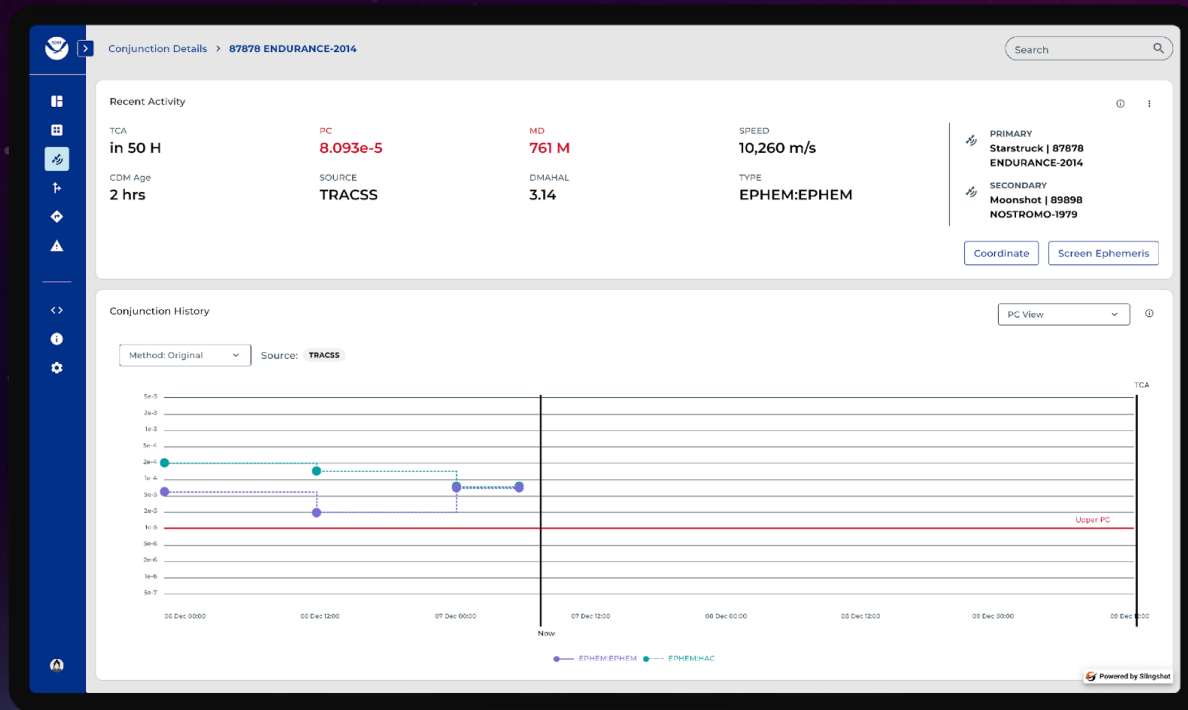
CDM View v

Filter by: Secondary: Moonshot x TCA Start Date: 2024-12-06 x TCA End Date: 2024-12-23 x x

Constellation	Message ID	Created	Sat 1 Name	Sat 2 Name	TCA	PC	MD (m)	Options
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Results: 10 of 21,413 records

1 of 2,142 pages v



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<https://www.space.commerce.gov/>



Website



TraCSS



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