



Developing Cislunar Enabling Infrastructure






About Us

Advanced Space exists to support the sustainable exploration, development, and settlement of space.

We respect the past, believe nothing is sacred, and understand that fundamentals change.

Our core business is delivering solutions that support and improve mission planning and operations.





Cislunar Autonomous Positioning System



AdvancedSpace.com

The background of the slide is a large, detailed image of the Moon. Several satellites are shown in orbit around the Moon, with wavy lines representing communication signals between them. The Earth is partially visible in the top left corner.

CAPS

- Self-sustainable, evolvable, and scalable position, navigation, and timing

- Capable of providing absolute solutions with two participating vehicles

- Reduce ground network congestion for standard tracking and operations

About

- Utilizing over 10+ years of algorithm development

- Building on existing software and hardware standards

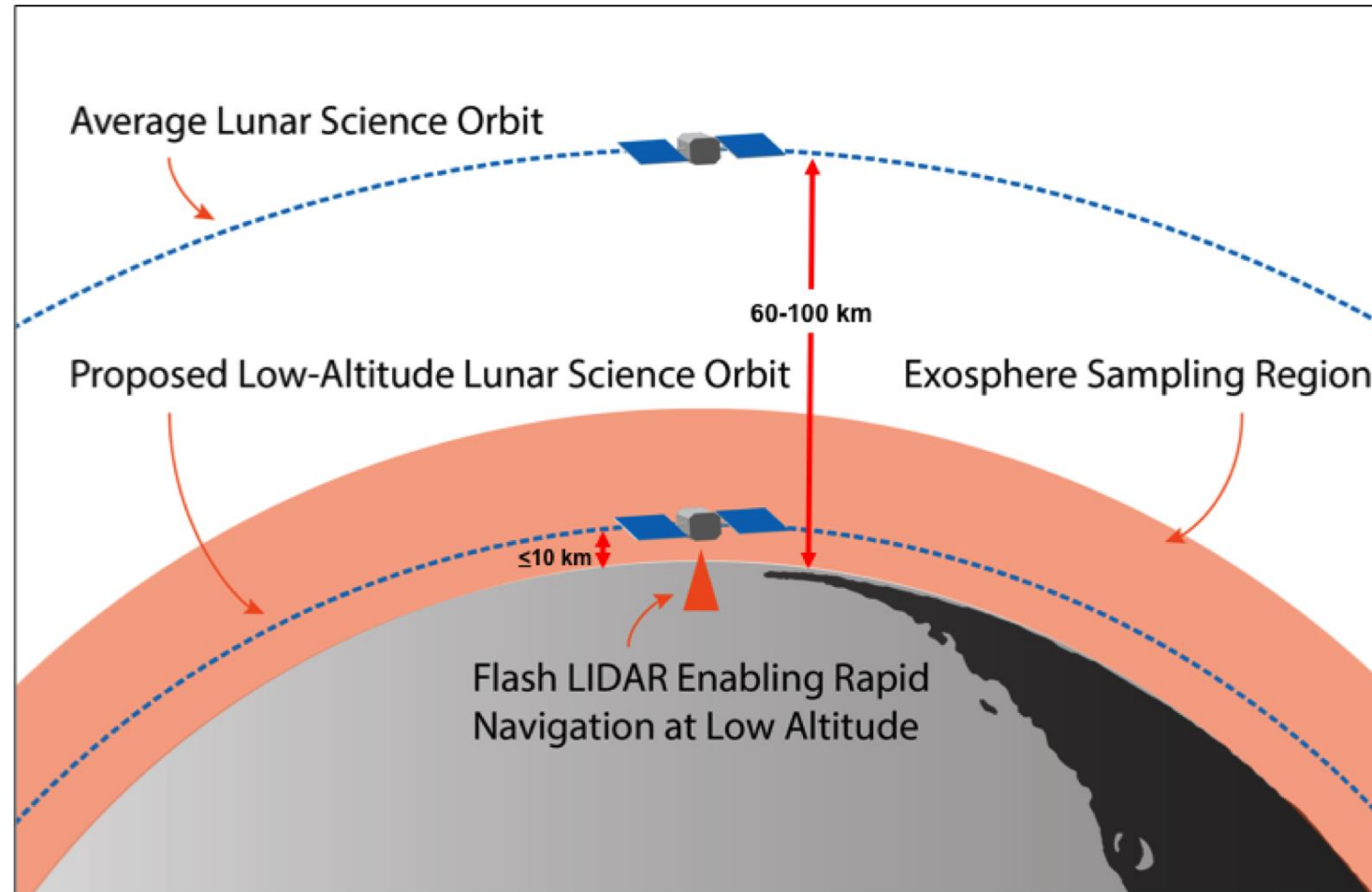
- Leveraging public-private partnerships

- Addressing NASA, international, and commercial needs



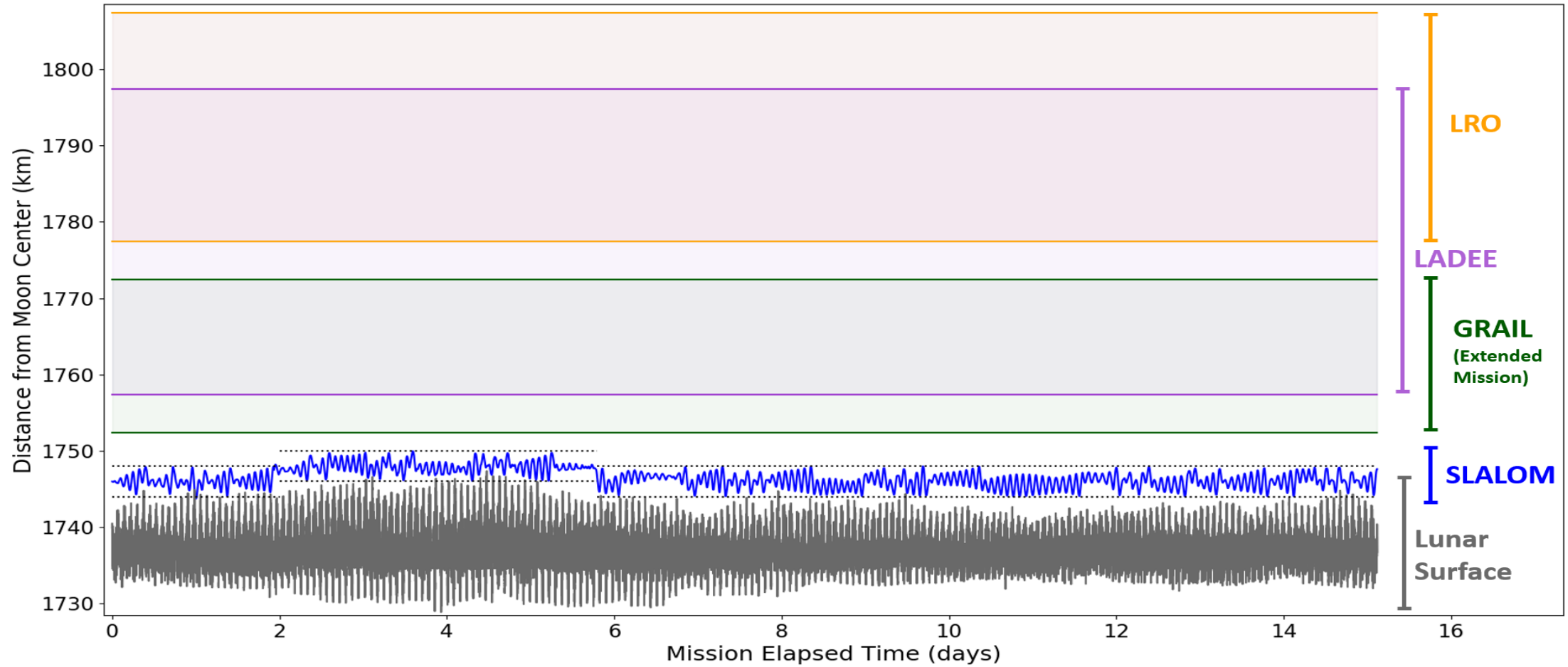


Sustained Low Altitude Lunar Orbital Missions



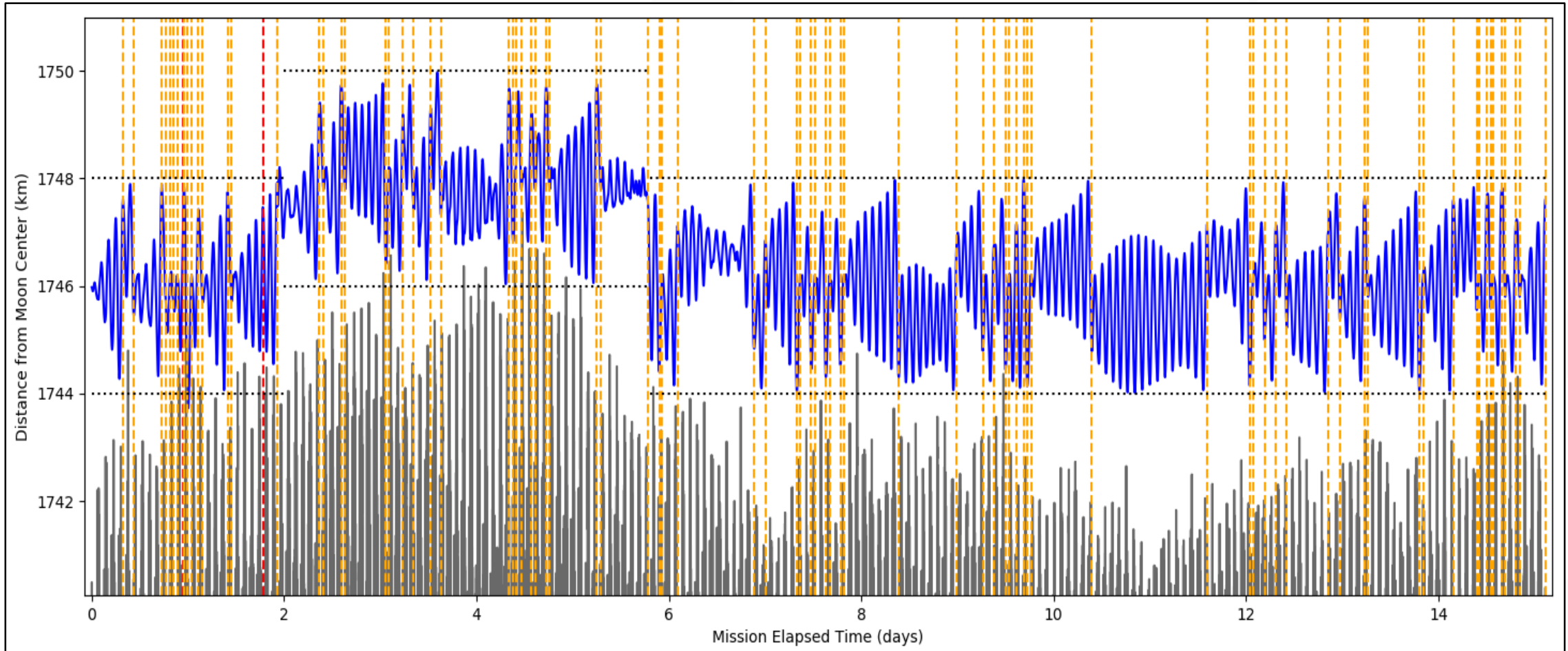


Comparative Orbits



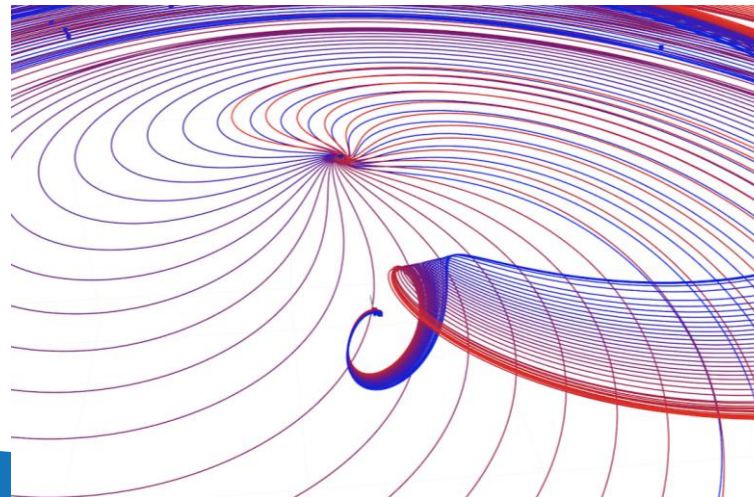
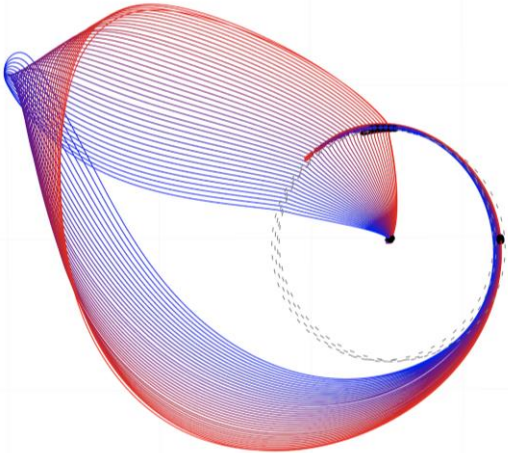
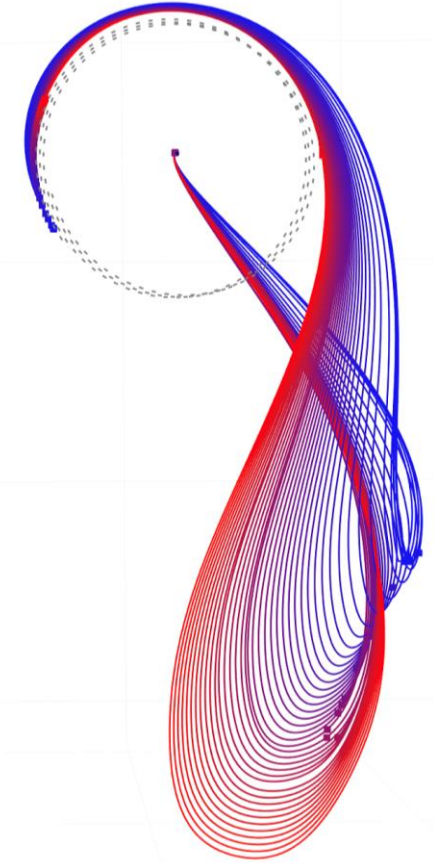
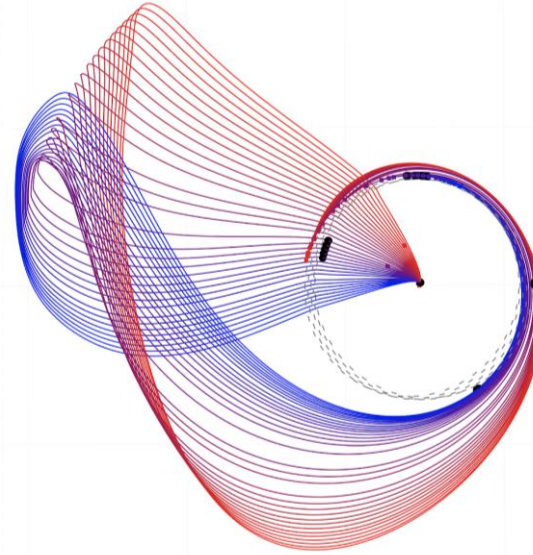
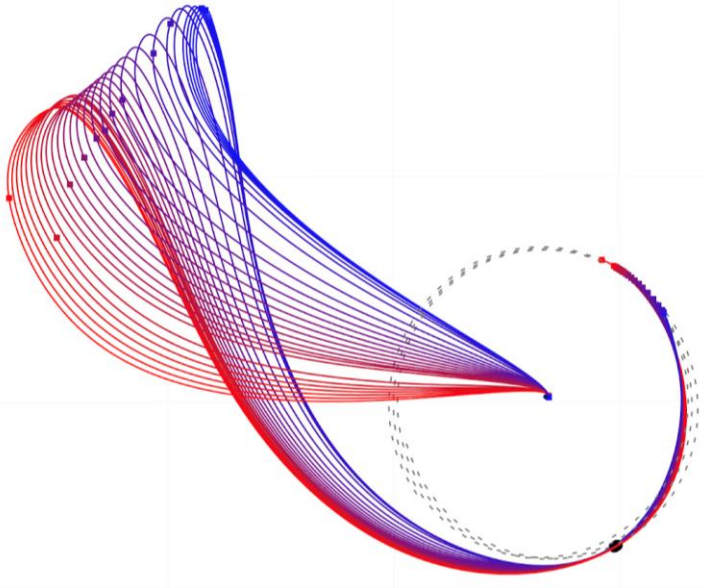


Feasibility





Unique Expertise – Ballistic Lunar Transfers





Technical Capabilities

Mission Planning, Analysis, & Support

- ✦ Launch and Early Operations
- ✦ Orbit Transfers
 - ✦ Chemical, electric, hybrid, and exotic
- ✦ Ground System Requirements and Capabilities
- ✦ Operations
- ✦ Innovative Architectures for Resilience and Competitiveness

Space Systems Engineering

- ✦ Development and Design Reviews
- ✦ Analysis and Evaluation Support
- ✦ Technical Due Diligence

Deep Space Missions

- ✦ Launch Targeting
- ✦ Ground Segment Design and Requirements
- ✦ Trajectory and Maneuver Design / Operations
- ✦ Navigation Design and Operations
- ✦ Payload Scheduling and Prioritization
- ✦ Proposal and Program Development Support

Guidance, Navigation, & Control

- ✦ Launch Vehicle Control
- ✦ Simulation, Analysis, and Requirements
- ✦ Algorithm and Software Development
- ✦ Avionics Interface, Design, and Requirements



Experience

- ✧ 29 + missions supported (7 of last 8 U.S. spacecraft to the Moon)
- ✧ Experience across civil, commercial, and national security space
- ✧ State-of-the-art software tools and processes
- ✧ Existing contracts and relationships with:

NASA | USAF | Primes | Commercial Operators | Start-ups



We are going!

- Excited to be supporting Orbit Beyond for upcoming missions to the Moon
- **L – 459 days**



Thank you

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