Integrating Orbital Carrying Capacity into International Policy Constructs: Leveraging Best Practices from Aviation's Risk-Based Norms



Help shape the future of space sustainability—your participation could drive the development of essential international standards for managing orbital risks.

As Low Earth Orbit (LEO) becomes increasingly complex, concern over orbital carrying capacity grows. Drawing on the global aviation community's approach to airspace classification, this interactive presentation proposes a framework for orbital classification that aims to manage the unique risks of the orbital domain. It provides a pathway for developing globally harmonized policies that ensure the safety and sustainability of space activities.

Key Insights:

Adapting Aviation's Risk-Based Approach

- Learn how aviation's airspace classification (varying by density and user type) can be adapted to the orbital environment.
- Explore how this model can inform an orbital classification framework that addresses the varying risks across different orbits.

Framework for Orbital Classification

- Understand the proposed notional orbital classification system that identifies where risks vary between orbital altitudes.
- Discover how this classification can serve as a foundation for setting clear entry and equipment requirements, tailored to the specific risks of each orbit.

Maneuverability and Risk Management

- Consider the importance of maneuverability and active risk management in maintaining orbital safety.
- Examine how maneuverability levels can be used to establish entry requirements for different orbital classes, ensuring that only capable objects are authorized to occupy certain orbits.

Policy Development and International Collaboration

- Gain insights into how this classification framework can facilitate international collaboration and standard-setting.
- Learn how States can leverage this framework to develop launch authorization policies that enhance the long-term sustainability of space operations.

Call to Action

- Participate in the discussion on integrating best practices from aviation into space governance.
- Engage with experts and stakeholders to shape the future of orbital safety and sustainability through informed policy development.

Why This Matters

The rapid growth of the space sector necessitates a responsive and adaptable approach to managing orbital carrying capacity. By drawing on aviation's risk-based norms, this interactive presentation offers a practical framework for ensuring the safety and sustainability of space operations. Attendees will gain a comprehensive understanding of how to apply these principles to the orbital domain, contributing to the creation of robust international policies.

Session Details

Session: Leveraging Aviation's Risk-Based Norms for Space Sustainability
Date: October 18
Time: 1345 - 1545 (within this time frame)
Location: Brown Hall 1

Presenters

Dr. Ruth Stilwell, Aerospace Policy Solutions, LLC
Dr. Nathaniel Dailey, MITRE
Dr. Darren McKnight, MITRE

Contact information

For inquiries, please email
ndailey@mitre.org

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