CubeSat Policy: Challenges & Opportunities

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Overview

• Current Challenges
• Current Approach
• Key Policy Issues
• Role of Private Sector
• Role of the DoD
Current Challenges

- Pre-launch coordination
- Operator non-influence on launch
- Tracking
- Identification
- On-orbit risk mitigation
  - Ability to perform collision avoidance
  - Contribution to orbital debris
- Timely, responsible reentry
Current Approach

- Early engagement
- Cooperative identification
- Cooperative catalog maintenance
- On-orbit conjunction assessment
- End-of-life support

Does this approach address the challenges?
Key Policy Issues

• Governance

• Increased requirements to ensure spaceflight safety
  • Mandatory identification mechanism
  • Require some level of collision avoidance capability
  • Orbital debris mitigation: shift from 25-year requirement to ratio-based reentry requirement

• Spectrum of Liability
  • Operator → Launch Intermediary → Launch Provider

• Enforcement

Question:
How do we enforce requirements to ensure spaceflight safety without stifling research and development efforts?
Role of the Private Sector

- Technological innovation
- Acceleration of adoption
- Meet market needs that:
  - Provide additional data sources and services
  - Are not inherently government responsibilities
- Collaborate with DoD to ensure mutual mission success

Answer: Leverage the Private Sector
Role of the DoD

• Protect and defend
• Empower responsible actions through accessible data
• Reduce barriers to integration of new technologies and data sources
• Educate SmallSat community on how they impact the space domain and how they can improve SSA
• Collaborate with private sector to ensure mutual mission success
Questions?