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Joint Functional Component Command for Space

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CubeSat Policy: Challenges & Opportunities



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Overview

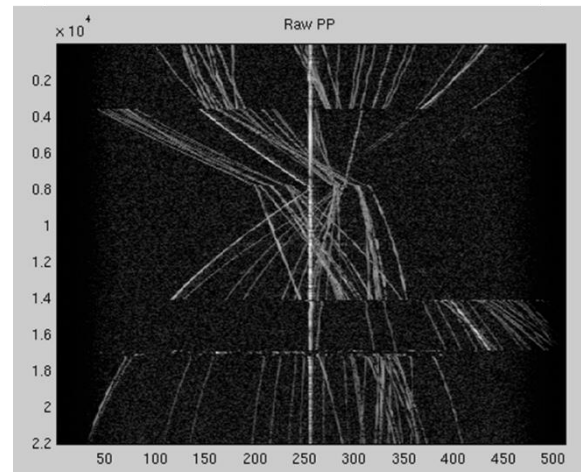
- Current Challenges
- Current Approach
- Key Policy Issues
- Role of Private Sector
- Role of the DoD



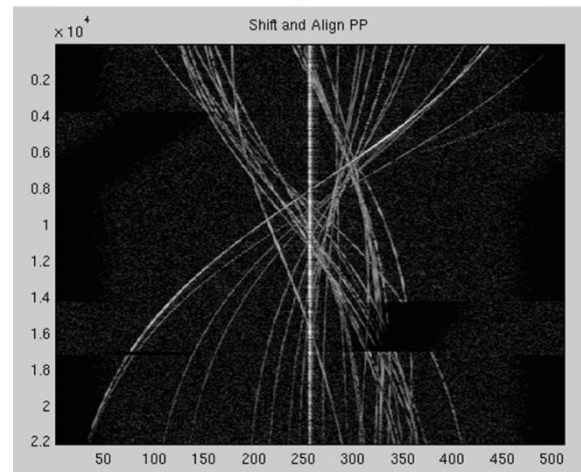
Current Challenges

- 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

MHR Raw RTI



MHR Aligned RTI





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?