Spaceways: Airspace in Outer Space

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Topics

• Airspace in Aviation
• Spaceways
  – Orbits
  – Capabilities
• Sovereignty and Jurisdiction
• Conclusion
Airspace in Aviation

[Diagram showing various classes of airspace with specific altitudes and restrictions]
Spaceways

- Two concepts
  - SpaceCast 2020
    - Interim step to full satellite autonomy.
    - Like airways and jet routes through air space today
    - Ensure safe operations with traffic deconfliction and sequencing
    - Set of minimum requirements based on class
  - Space Safety Regulations and Standards (Pelton)
    - Used in conjunction with Space transition corridors (STCs) to route traffic to and from space

Hunter, Stephen K., "How to Reach an International Civil Aviation Organization Role in Space Traffic Management", Embry-Riddle Aeronautical University, November 2014
Orbits

- LEO
- Sun-synchronous
- MEO
- HEO
- GEO/GSO
- GTO
- Super-GEO

Capabilities

- Maneuver
- Tracking and Identification
- Disposal
- Autonomy
- Redundancy
- Operations
- Mission Importance
Sovereignty and Jurisdiction

• Definition of a demarcation line?
• International organization to coordinate space traffic
• Definitions of authorities
Interviewees Wanted

Perceptions in Space Traffic Management

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