History of the debate as to the delimitation of airspace and outer space

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Overview

• Origins and issues involved
• Theories
• COPUOS deliberations
Origins

• Delimitation of spaces/territories in general
• Issues of sovereignty and jurisdiction
• Long debate
• 1906 – with regard to the development of aerial photography: 4500 feet above the surface of the Earth as exclusive sovereignty (Fauchille, Regime Juridique des Aerostats)
Theories of definition and delimitation of outer space

• Late 1950s
• “No-present-need” theory
• Theories in favor of delimitation:
  – Functional approach
  – Spatial approach
    • Aerodynamic lift theory
    • Theories of arbitrary distances
    • The lowest point of orbital flight
    • Effective control
    • Bogota Declaration
  – Uniform legal regime
No need to demarcate

- No international tensions so far
- High seas demarcation experience
- Technical progress
- Definite legal regime as too stiff and difficult to alter
- Recognition of the right of passage through airspace
- Definition will accommodate interests only of those involved
Critique

• Coherent legal regime equals greater security and adherence to the rules agreed upon
• Space activities develop and intensify
• Accidents
• Necessity of clarity the applicable regime
Functional theory of delimitation

- Purpose of the activity, not space it takes place in
- To cover travel of space objects through airspace
- Based on the definition of the “aircraft”
- Large portion of the surface of the Earth is high seas
Spatial theories

• Aerodynamics:
  – Based on the features of the flight of aircraft, & the altitude it can fly at
  – Height at which aerodynamic lift ceases and centrifugal force takes over
• Lowest orbital flight
  – Ability of spacecraft to remain in orbit
• Arbitrary
  – Anything between 30 miles and ... 1,500,000 km(!)
• Effective control
  – Technological ability to retain control over the space above national territory
• Bogota Declaration
  – Satellites in GEO as part of the territory of the state below
Critique

• Different altitudes identified
  – Aerodynamics: 25, 50 miles
  – Orbital flight: 70-160 km
• Often a “grey” area exists between airspace and outer space
• Technological progress
Discussions in COPUOS

- 1966 – France
  - Scope of application of the legal regime
  - Functional/spatial
- 1968 – STSCT: not possible to identify scientific/technical criteria
- 1970-79 – no consideration
- 1984-85 – discussion on the priority basis
- 1987 onwards – proposals to remove from the agenda
- 1990 – issues related to aerospace systems/objects
- Till now – no sign of an agreement to be reached
Thank you!

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