#### National Center for Remote Sensing, Air and Space Law

Informational resources on the legal aspects of human activities using aerospace technologies

# Legal Implications for Delimitation of Airspace and Outer Space

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### "Implications" not "Consequences"

- Original suggested title
  - "Legal consequences"
- Actual title
  - —"Legal implications"
- "Consequences" infers prediction of results
  - Impossible because process is inherently political
- "Implications" suggests possible results
  - —Reasonably achievable

### International Implications

- Could set upper limits to national sovereignty
  - —Favored by some non-spacefarers as clarity
  - Disfavored by some spacefarers as arbitrary, inappropriate and requiring change over time
- Challenge: definition of "spacefarer"
  - —Indigenous launch capability?
  - —Ground station operations?
  - —Consortium Member?

### International Implications

- Could favor one approach over another
  - —Spatial: where activity or object is
  - —Functional: how activity or object functions
- Clear distinction between aviation law and space law
  - —As practical matter not important to aviation law because no historical need to establish a border
- Currently, no internationally accepted definition



### National Implications

- If change is as formal treaty or amendment to treaty regime
  - —States are required to comply with international obligations
  - —May require a national legal framework
  - —Bound to include international law in their national law
  - —Nations determine how this is done





### National Implications

- States choose legal techniques for implementing treaty obligations in internal law
- If a "line" is articulated for delimitation, depending on basis of delimitation, for example, science, technology, State practice, etc. there may be room for national decisions to implement the "line"



### Australia

- —Space Activities Act
  - National law applies activities above 100 km above mean sea level
  - No definition of "outer space"; not an attempt to delimit
  - Law was amended to replace "outer space" with "an area beyond the distance of 100 km"
  - Does not limit other Commonwealth laws





### Colombia

- —Constitution
  - includes geostationary orbit segment
  - electromagnetic spectrum and space in which it operates
  - in accordance with international law or laws of Colombia in absence of international regulations



- European Union Council Regulation Annex
  - —EU export controls
    - Definition of "space-qualified" as "...products...operating at altitudes of 100 km or higher."
    - Possibly applicable to the Member States under European law?





- United States
  - —2004 Commercial Space Launch Amendment Acts
    - Commercial human spaceflight ("tourism")
    - based on distinctions in physics between "lift" and "thrust"
    - law classifies commercial space tourism vehicles as rockets, not aircraft



### United States

- —Code of Federal Regulations (Internal Revenue Service)
  - Identify income source; assert primary tax jurisdiction
    - "Space means any area not within the jurisdiction (as recognized by US) of a foreign country, possession of US, or US, and not in international water."
    - Space activity defined "as any activity conducted in space"
      - Examples:
        - leasing satellite on-orbit
        - Internet service provider using leased satellite capacity
  - Value of service attributable to functions performed, resources employed, and risks assumed in space

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## Some Implications of Existing Relevant Laws

- Contain elements of both spatial and functional approaches
- Some have been changed or clarified over time regarding application
- Some have multilateral ramifications
- Authority ranges from the level of a constitution to national acts to implementing regulations

## International and National Implications: Delimitation and Demarcation

#### Delimitation

- —process of determining land or maritime boundaries of a State, including continental shelf and EEZ
- —generally done by geographical coordinates of latitude and longitude

#### Demarcation

- —<u>further</u> and separate procedure for marking a line of delimitation, usually on land, with physical objects
- —often <u>involves some degree of delimitation</u> because a line on a map may look different on the ground requiring reasonable adjustments



## International and National Implications: Delimitation and Demarcation

- Terms are often confused even in treaties
- Based on geographical features and processes related to land and maritime territory and activities
- Would have to be adapted to features of space and space activities
- If a "line is drawn" it could be a beginning rather than an end.....

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### Questions? Comments?

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