



The University of Mississippi School of Law

National Center for Remote Sensing, Air and Space Law

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

# **Some International and U.S. Legal Considerations for Commercial Orbital Activities**

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Transportation Conference**  
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# Overview

- **International Legal Considerations**
  - Legal status of space is a global commons
  - U.S. treaty obligations
    - Outer Space Treaty Art. VI
    - Outer Space Treaty Art. IX
  - Definition of “commercial”
- **U.S. Legal Considerations**
  - Current
    - Federal space licenses in general
  - Evolving
    - Private lunar missions
  - Current and in need of development
    - Space advertising
  - On-orbit authority or coordination?
- **Conclusion**



# International Legal Considerations



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# Space is a Global Commons

- **Space law is part of public international law**
- **Space is a global commons**
  - Nonexclusive right to “use” and “explore”
    - **Orbital activities will be a “use”**
      - Will they be accepted?
      - Path similar to communications, GPS, remote sensing, etc.?
- **Other modern global commons**
  - Possible precedents?
    - Antarctica
    - Oceans



# The Outer Space Treaty

## Article VI: Nongovernmental Entities

- **States “shall”:**
  - “require authorization and continuing supervision” of nongovernmental entities
  - “bear international responsibility”
- **Very unusual at international law**
  - Rapid departure from evolution of law of other commons
    - Months versus centuries or decades
      - 10 months from end of negotiation to entering into force
    - Clear intent to be governed by international law
- **Result of U.S. - U.S.S.R compromise regarding appropriate actors in space**
  - U.S.S.R.: only Nation - States
  - U.S.: includes private actors
- **Source of authority at international law for private sector to be space actors**



# The Outer Space Treaty

## Article IX: Avoid Harmful Contamination

- **Recently catalyzed by interest in public and private orbital and celestial body activities**
  - Active debris removal, satellite servicing, lunar and asteroid missions, etc.
- **Applies to “activities” of “nationals” of States Parties**
- **Standard: “due regard to corresponding interests”**
- **“Potentially harmful interference” with activities of other States Parties require consultation**
  - **What is “consultation”?**
    - Formal diplomatic discussions?
    - International, public press conference?



# Definition of “Commercial”

- **U.S.: “private sector”**
  - Government does not engage in commerce
- **Most of the rest of the world: “generates revenue”**
  - Governments can engage in commercial activities
  - “Government” can equal “market”
    - Canada, Europe, Japan, etc.
- **On-going debate regarding “level playing field”**
  - Aerospace industry heavily subsidized and supported by buy national policies
  - “New space” companies changing this?



# U.S. Legal Considerations



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# Current:

## Federal Space Licenses in General

- **Interface between U.S. obligations at international law and private sector space activities**
  - Outer Space Treaty Art. VI
- **Application driven**
  - Maturity of technology
  - Politics
- **Congress grants jurisdiction to appropriate agency**
  - DoT/FAA/AST: commercial launches
  - DoC/NOAA: commercial remote sensing
  - FCC: commercial satellite communications
- **Usually requires interagency coordination**



# Evolving: Private Planetary Missions

- ***Phobos – Grunt***
  - **Planetary Society**
    - Scientific, noncommercial
- **Obtained export control license through State Department**
- **Not reviewed for OST Art. IX obligations**
- **Heightened awareness regarding relationship between national interests and regulations or coordination**



# Evolving: Private Lunar Missions

- Nature of new activity can give rise to necessary mechanisms
- **NASA Advisory Council Planetary Protection Subcommittee**
  - Addressed by interacting with FAA for launch licenses
  - Asked for opportunity to review license applications for planetary protection purposes
    - Outer Space Treaty Article IX obligations
  - Catalyzed by *Phobos-Grunt* mission
- **Did not involve new regulations**



# Current and in Need of Development: Space Advertising

- **Prohibits issuing or transferring launch license for payload containing “obtrusive space advertising”**
- **Allows nonobtrusive commercial space advertising, including advertising on—**
  - **commercial space transportation vehicles;**
  - **space infrastructure payloads;**
  - **space launch facilities; and**
  - **launch support facilities.**
- **“Nonobtrusive” requires definition**
  - **E.g. dark sky and light pollution issues**



# On-Orbit Authority or Coordination?

## “On-orbit authority”

- **Recognition regulatory mechanisms are necessary to protect national interests and to meet international obligations**
- **Not all or nothing**
- **At least two characteristics**
  - **Kind: nature of granted authority**
    - **Regulatory, administrative, etc.**
  - **Degree: extent of granted authority**



# On-Orbit Authority or Coordination?

## “Coordination”

- **National level**
  - Balance between interagency coordination and predictability of Administrative Procedure Act approved rules
- **International level**
  - Another emerging term: “space traffic management”
  - As other nations license orbital activities, will it become necessary to delegate legal authority to an international coordination entity?
    - Analogous to GEO slots, radio spectrum, aircraft
  - ICAO, for example
    - Well developed Standards And Recommended Practices (SARPs)
      - Not legally binding but *de facto* “regulations” if not *de jure*
      - Uniform application is “desirable” with “endeavour to conform”
        - » Failure to conform can result in serious economic harm
- **Can mean different things at different stages of activity development**
  - Positive aspect: flexibility
  - Negative aspect: unpredictability



# Conclusion

- **U.S. is State-Party to Outer Space Treaty**
  - Art. VI requires U.S. to “supervise and control”
    - On orbit commercial activities will be supervised and controlled
      - How?
  - National law must conform to international obligations
- **U.S. law implements and defines Art. VI and other obligations at national level**
  - DoT launch licenses implements Art. VI
  - DoC commercial remote sensing satellite operations licenses implement Art. VI and “nondiscriminatory access” of U.N. Principles
- **Legal mechanisms develop as technology develops and matures**
- **Launch license can be gateway to related activities**
  - E.g., advertising, planetary protection
  - No additional regulations
- **Will not know legal requirements until necessity forces response**
  - Credible private, commercial activity



# Conclusion

- **Opportunity to influence through U.S. law, principles, and values**
  - Law of other nations
    - U.S. space law is *de facto* model
    - National space laws fastest growing part of space law
  - Uniform definitions
    - “Suborbital rocket”
      - Hybrid in US law but “aircraft” in foreign law?
    - “Debris mitigation”
      - Impermissible “salvage” in foreign law?
- **Opportunity to choose best legal tools**
  - Indemnification, e.g.
    - Important to U.S. but not necessarily relevant to other States
    - Unclear if Congress will extend to orbital activities
      - Important issue in Executive and Legislative branch
- **Important in globalized businesses**



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**Thank you.**

