

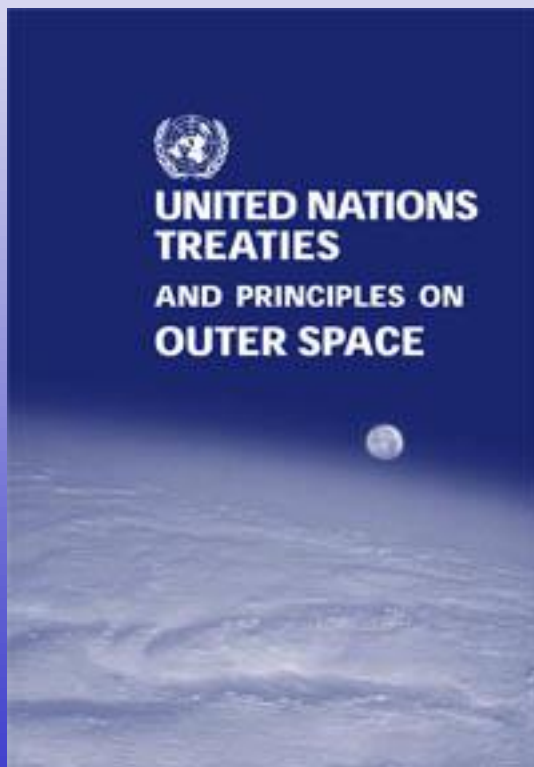
# Some Legal Aspects of SPS

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# Overview

- International Space Law
- Overview of US National Space Law
- Safety Concerns
- Responsibility and Liability
- Possibilities for the Future
- Dispute Resolution

# International Space Law



- Outer Space Treaty (1967)
- Return and Rescue Agreement (1968)
- Liability Convention (1972)
- Registration Convention (1976)
- Moon Agreement (1984)

# International Space Law (cont.)



Convention, Constitution, Radio Regulations

Advance Publication (2-5 years before use), Coordination,  
Notification/Recording

# National Space Law (US)

## USC Title 51

### FAA Launch Licensing

Policy and Environmental Review

Ensures all necessary licenses, permits, authorizations received

Compliance with Export Controls

### Liability Requirements

Insure MPL up to \$500Million

Congress can authorize indemnification \$500Million-2Billion

Licensee liability >\$2Billion

## CFR § 120: FCC Frequency Allocation

GEO/Fixed Antennae: First Come, First Served, Non-transferrable

Non-Geo/Directional Antennae: Lead/Competing Applications, Transferrable

## CFR § 101: Licensing for Fixed Microwave Services

# Safety Concerns

- Primarily with regard to WPT
  - Environmental concerns
  - Wildlife issues (birds)
  - Impact of (long-term) exposure
  - Relevance to aircraft/suborbital craft traveling in the path of WPT
  - RFI

# Liability

- OST Article VII establishes liability
- Liability Convention:
  - Absolute liability for damage to aircraft in flight or on the surface of the Earth
  - Fault-based liability for space object to space object damage

# Who is liable?

## The Launching State(s)

- OST Article VII:
  - Launches
  - Procures the launch
- Liability Convention
  - Launches or procures the launch
  - From whose territory or facility an object is launched



# Damage

- "damage" means loss of life, personal injury or other impairment of health; or loss of or damage to property of States or of persons, natural or juridical, or property of international intergovernmental organizations;

# Causation – “by a space object”

- What qualifies?
  - Physical collision
    - Satellite
    - Debris from satellites and launch vehicles
  - Lasers?
  - EMI?
  - Impacts of active weather control?

# Insurance

- Pre-launch, Launch, On-Orbit (1 year to life of satellite)
- Options: total loss, constructive total loss, or partial loss of the space asset, including loss of operational capacity and, sometimes, loss of revenues
- Cross-waivers of liability between participants

# Possibilities

- International Consortium
- Public-Private Partnership: contractual relationship between the public sector and a private sector company designed to deliver a project or service that traditionally is carried out by the public sector
- Contracts and terms are essential: Cross-waivers of liability, etc

# Dispute Resolution

- Liability Convention: Diplomatic Channels, States Only
- ITU: Optional Protocol on Dispute Resolution
- Arbitration Agreements
- UN Model Law on International Commercial Arbitration, drafted by the United Nations Commission on International Trade Law (UNCITRAL)
- Optional Rules for Arbitration of Disputes Relating to Outer Space Activities, put forth by the Permanent Court of Arbitration (PCA)
- Mediation

## Conclusions

- Safe design and operation
- Identification of safety standards prior to design and construction
- Uniform standards implemented within the existing international and national regulatory regimes