Some Legal Aspects of SPS

Andrea J. DiPaolo, Diane Howard, Ram Jakhu
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)
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 $500 Million
    Congress can authorize indemnification $500 Million - 2 Billion
    Licensee liability > $2 Billion

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
- 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