Some International and U.S. Legal Aspects of Fostering Sustainable Satellite Servicing

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LIMITING FUTURE COLLISION RISK TO SPACECRAFT
AN ASSESSMENT OF NASA’S METEOROID AND ORBITAL DEBRIS PROGRAMS
International Aspects

• Space law part of public international law
• Global commons
  – Nonexclusive right to use and explore
    • Satellite servicing is a “use”
      – Will it be accepted?
      – Path similar to communication, remote sensing, etc.?
• Space law treaty regime
  – Art IX Outer Space Treaty
    • Most important, relevant provision
    • Still at early stages of development
    • Negotiators opted to finish treaty rather than develop Article further
  – Registration regime
    • Critical aspect for servicing activities
National Aspects

• National regulations can inform international regime
• Dramatic growth in last 5 – 6 years
• On agendas of UNCOPUOS LSC and International Law Association
• Peaceful purposes balanced with national security
  – E.g., remote sensing regulations in Canada, France, Germany, Japan, U.S., etc.
• Satellite servicing likely to follow similar development
Sustainable Satellite Servicing Legal Issues

- Protecting object, environment, or both?
  - UNCOPUOS LSC issue
- Intellectual property and classified information
- Liability and risk sharing
- Level of international participation
  - From case-by-case, to IADC model, to intergovernmental consortium
    - Issue of political will
- Level of bilateral and multilateral arrangements
  - Requires focused diplomacy, transparency
- Single nation operations
  - Requires focused diplomacy, transparency
- Definitions: “space object” “state of registry” etc.
U.S. Legal Aspects

- Public, private, or public-private partnership activity?
- Interagency
  - Regulations
    - Administrative Procedure Act, etc.
  - “Turf”
    - Jurisdiction and budget
      - Who contracts with private sector?
  - Licensing
    - Which appropriate agency?
      - Possible models: launch, remote sensing, etc.
- Liability and risk-sharing
  - Possible precedent: launch law regime
  - Federal Torts Claim Act
Insurance: Critical Component
Special Issue, Special Precedents

• 1984 Palapa B-2 and Westar 6
  – Operators wanted money for loss, not rescue
  – Another company bought and relaunched
  – Insurers saved some money

• 1992 Intelsat VI F-3
  – Insurers went to NASA to make arrangements
  – Insurers paid $90-100 million for rescue

• Both
  – NASA interested in demonstrating Shuttle capability
  – “Best efforts” basis
  – Government “held-harmless”
Insurance: Critical Component
Special Issue Today

• Implementation difficult, unproven
  – Actuarial “vacuum”
  – No Shuttle; no advocate with a need to demonstrate?
  – How will “best efforts” and government “held-harmless” be applied, if at all?

• Underwriters/Insurers
  – Have option to take title to failed satellite
    • Rare, don’t like doing this
  – Uninterested in satellite servicing R&D
  – Interested in service if and when available
  – Need ability to estimate “pay-off”

• Operators
  – Likely to prefer cash for loss
  – Need rational cost-benefit results
Thank you.

Questions, Comments?