



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 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



NATIONAL RESEARCH COUNCIL  
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# 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**
  - **Treaty? Executive Agreement? Charter? IGA?, etc.**
- **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”

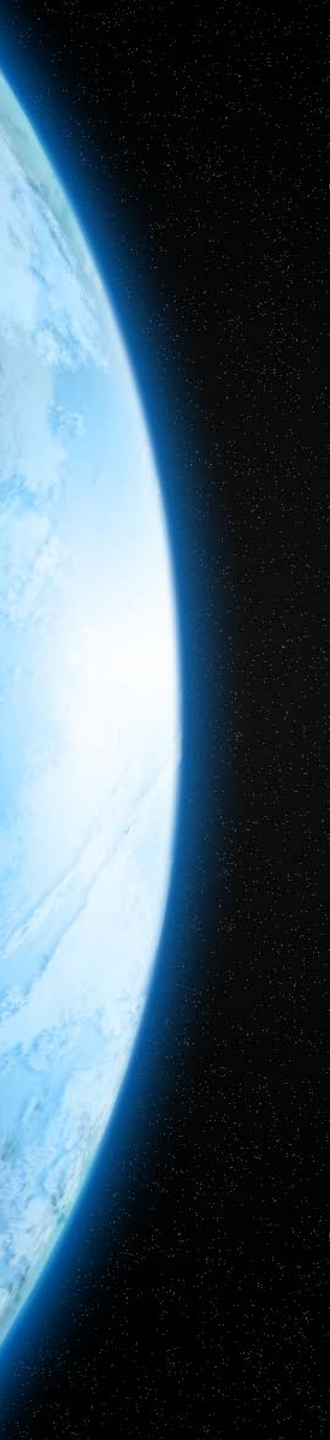


# Insurance: Critical Component Special Issue Today

- **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







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**Thank you.**  
**Questions, Comments?**



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