Overview of United States Laws Governing Space Activities

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Introduction

- U.S. law applies to governmental and non-governmental space activities through, inter alia:
  - Commercial Space Launch Act
  - Land Remote Sensing Policy Act
  - Communications Act of 1934
  - National Aeronautics and Space Act

- Address international obligations of the U.S. and promote exploration and use of outer space
Commercial Space Launch Act
(CSLA) 49 U.S.C. §§ 70101-70121

- Administered by the Office of Commercial Space Transportation, Federal Aviation Administration of the U.S. Department of Transportation

- Purposes:
  - Safely open access to space and encourage private sector development
  - Simplify and expedite issuance and transfer of launch and reentry licenses
  - Promote safety
  - Strengthen and expand space transportation infrastructure
CSLA: Licensing Requirements

- FAA license required for:
  1. Launch/reentry in U.S.;
  2. For launch/reentry by U.S. citizen outside U.S.;
  3. For launch/reentry by U.S. citizen outside U.S. and outside territory of foreign country, unless foreign country’s government has an agreement with U.S. on jurisdiction over the launch or operation; and
  4. For launch/reentry by U.S. citizen in foreign country if U.S. has jurisdiction by agreement with government of foreign country

- Pre-application consultation required
CSLA: Other Requirements

- License application subject to policy, safety and environmental impact reviews
- Must provide information to FAA for compliance with Registration Convention
- Orbital debris mitigation
- Flight crew qualifications, training, safety and waiver of claims against U.S.
Licensee must obtain third party liability insurance or demonstrate financial ability to pay maximum probable loss (MPL) arising from third party claims.

- MPL established for each license by FAA (maximum $500 million; $100 million for loss or damage of U.S. government property).
- U.S. government to pay damages that exceed amount of third party liability insurance, up to $1.5 billion (adjusted for inflation).
- Licensee must include reciprocal waiver of claims in contracts with contractors and subcontractors.

- Administered by the National Oceanic and Atmospheric Administration of the Department of Commerce
- Purposes:
  - Stimulate commercial marketing for unenhanced data
  - Furthering the long-term role of commercialization of land remote sensing
  - Promote international trade and access to unenhanced data on a nondiscriminatory basis
LRSPA: Licensing and Oversight

- License required to operate private remote sensing satellite systems
- Provide NOAA with orbit and data collection characteristics and any deviations
- Proper post-mission disposal
- Government approval required for any “significant or substantial agreement” with a foreign entity
To extent consistent with national security, foreign policy and international obligations:

- Make available to government of any country unenhanced data related to territory under jurisdiction of that government
- Make unenhanced data designated by the Secretary of Commerce available to all users without preference or special arrangement regarding delivery, pricing or technical considerations
- May make data available at reduced prices for noncommercial purposes, such as education or research
Communications Act of 1934
47 U.S.C. §§ 151 et seq.

- Administered by the Federal Communications Commission
- Licensing and operating requirements for satellites and associated ground stations
- Purposes:
  - Avoid radio frequency interference
  - Coordinate commercial satellite operations in U.S.
  - Coordinate international satellite operations and use of the frequency spectrum, along with the National Telecommunications and Information Administration, through the International Telecommunication Union
Communications Act: Orbital Debris Mitigation

- **Purposes:**
  - Preserve continued affordable access to space
  - Continue provision of reliable U.S. space-based services
  - Help ensure the continued safety of persons and property in space and on Earth

- Submit mitigation plan with license application

- **End-of-life operation requirements**
  - Consistent with ITU requirements
  - Ensure discharge of energy sources
National Aeronautics and Space Act of 1958
42 U.S.C. §§ 2451-2487

- Authorized creation of NASA
- Objectives and Responsibilities:
  - International cooperation
  - Expand knowledge of Earth and space
  - Disseminate information on NASA activities
  - Encourage commercial use of space and use by the U.S. Government of commercially provided services and hardware
  - Improve usefulness, performance, speed, safety and efficiency of aeronautical and space vehicles
  - Establish studies on the benefits from and problems involved in the use of space for peaceful and scientific purposes
  - Conduct aeronautical and space activities
  - Arrange for participation by the scientific community in scientific measurements and observations
National Aeronautics and Space Act: Liability and Insurance

- Subject to certain restrictions, NASA:
  - May provide liability insurance for any user of a space vehicle
  - May provide that the U.S. will indemnify such user against claims by third parties
    - For amounts in excess of insurance
    - May be limited to claims resulting from other than the actual negligence or willful misconduct of the user
    - Similar provisions for experimental aerospace vehicles
  - May reciprocally waive claims, on behalf of the USG, in cooperative agreements (cross-waiver)
Other Statutory Provisions Relevant to the Commercial Use of Space


- 35 U.S.C. § 105: U.S. patent laws apply to inventions made in space on a space object under U.S. jurisdiction or control

- 42 U.S.C. §§ 14713 and 14715: Acquire space science and Earth science data from commercial providers