National Space Law

The United States

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U.S. Space Law: A Complex System

- Is consistent and compliant with international space obligations and the UNGA 68-74
- Detailed regulations for all U.S. non-government launches, payloads, and activities
  - Emphasizes safety of operations and financial responsibility
  - Involves many Agencies and entities
- Detailed and published operational rules developed for Government space activities
- A flexible system that can incorporate formal changes as needed

Structure: A System of Checks and Balances

- United States Constitution establishes Three Branches of Government
  1. Legislative (Senate and House of Representatives)
     - Develops and enacts legislation that empowers different agencies to operate and/or regulate
       - President of the United States must sign Bills for them to become law
       - Congress has the power to override a Presidential veto
     - Allocates funds to agencies
  2. Executive
     - Carries out the laws
  3. Judicial
     - Determines Constitutionality of Laws
     - Administers Courts and Appeals Process

Selected U.S. Legal Milestones in Space Law

- 1950s: No specific space law but concerns about space; Congressional reports
- 1958: NASA created
- 1960s: U.N. Space Treaties, Treaty Banning Nuclear Weapon Tests in Outer Space and Under Water (1963)
- 1972: ABM Treaty (U.S. and U.S.S.R.)
- 1980s: Commercial space first addressed in U.S. law
  - 1984 Commercial Space Launch Act
- 1990s: Outsourcing, privatization, industry consolidation
- 2000s: Telecom; tourism; debris concerns
- 2010s: Private launch companies; Space Act Agreements
- Beyond: New private sector activities in outer space

U.S. Space Legal Framework

- Title 51 of the U.S. Code (consolidated space-related sections of other Titles)
  - (Other laws also apply to space: Example: export controls)
- Many agencies acting somewhat independently of each other, but
- Interagency coordination on major space policy issues
- Some issues not yet codified or regulated

Making U.S. Space Law

Involves A Large Number of People and Organizations

- Congress
  - Committees of the Senate and House of Representatives
  - Regulatory and advice: FCC, GAO, CBO report to Congress directly
- Executive Branch
  - Office of the President: OMB, OSTP, NSC
  - Regulatory Agencies: DOT/FAA, DOC/NOAA, and others
- Industry, Trade Associations, Academia, Others
  - Investments, expertise, policy, etc.

Legislative Actions are not the Only Way to Regulate Space Affairs

- Legislation cannot and does not cover all aspects of regulations
  - Detailed regulations written to enact and enforce laws
  - Presidential Directives
  - Budget priorities
  - Judicial decisions
  - International agreements and cooperative programs

Who's in Charge of Space Affairs?

- Structure within the United States Government has changed over the years
- No one Agency oversees all of space activities in the United States
- Very complex relationships, coordination through the interagency process
- Agencies may have different regulations for similar activities
- Some proposed future space activities currently lack a clear regulatory path

Today's New Economic Challenges

- Unmistakable changing market trends in space activity
- Government civil space budgets will remain level or decline
- Space applications will become necessary for efficient use of critical infrastructure.
- Space is not always a "global commons," nor is space a public good or a free good
- Access to space will become less expensive, but mainly because space assets will be smaller and lighter
- Space services will also compete with high altitude and terrestrial capabilities

New Technologies and Private Sector Space Capabilities

- Satellite servicing of various kinds
- Active debris removal
- Planetary defense—moving NEOs
- Resource utilization including mining of celestial bodies
- Launches (cube-sats) from space platforms

New Legal Challenges

- Technology may differ but legal issues are similar for many on-orbit activities.
- Need to treat on-orbit legal issues systematically, not program by program.
- Private firms think differently from governments.
- Space treaties—won't change but must consider new interpretations that don't violate the words or spirit (principles) of the treaties
- Current national regulatory systems are not equipped to meet these challenges

Examples of Past U.S. Adaptations to New Technology and New Market Conditions

- Communications Satellite Act of 1962 established a corporation (Comsat) for R&D and operations of U.S. telecommunications and to be U.S. interface with Intelsat
- Amendments to the NASA Act for 3rd party indemnification of Shuttle (1980) and X-33 experimental spacecraft (2000)
- The Commercial Space Launch Act and its Amendments
  - Regulations for re-entry (1998)
  - Human suborbital flights (2004)
- Land Remote Sensing Act of 1992

National and International Issues to be Resolved

- Consistency with United States treaty obligations
  - Adhering to no declarations of sovereignty (OST-Article II) while recognizing the differences between sovereignty, ownership, and liability.
  - Defining state responsibility and continuing supervision (Article VI)
  - Resolving new pressures on the relationship between a launching state (Art. VI and VII) and "control and jurisdiction" in the registration system (Art. VIII)
- Obtaining international recognition and acceptance of regulatory actions

Summary: Role of National Law

- Changes in rules related to on-orbit activities will originate in national law, not in treaties or international forums
- Enabling legislation will define new regulatory authorities
- Old cultures of protectionism and national security dominating space regulatory affairs must change to meet new markets and technologies.
- New era of trust between industry and governments and among governments internationally will be essential for coordinated and consistent legal approach to space