

National Center for Remote Sensing, Air and Space Law

Informational resources on the legal aspects of human activities using aerospace technologies

One Half Century and Counting: The Evolution of U.S. National Space Laws

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6th Eilene M. Galloway Symposium on Critical Issues in Space Law

A Comparative Look at National Space Laws and Their International Implications



**Cosmos Club, Washington D.C.
December 1, 2011**





One Half Century and Counting: The Evolution of U.S. National Space Law and Three Long-Term Emerging Issues

4 Harvard Law & Policy Review 405 (2010)





50 Years of the Evolution of the Law: The Law Follows Technology and Geopolitics

- **1958**
 - Infrastructure response to Cold War exigencies
 - Civil program and national security
- **1980s**
 - Commerce added to civil and military sectors
- **1980s and 1990s**
 - Technology applications
 - Launch
 - Remote sensing/Earth observations
- **2000s: Regulatory refinement**
- **2010: Codification USC Title 51**



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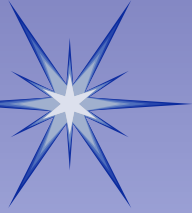




1958 National Aeronautics and Space Act

- **Created the U.S. civil space program**
- **Established NASA**
- **Multiple bodies of law**
 - Contract, tort, international, intellectual property, etc.
- **Wide variety of subjects**
 - International Space Station, space settlements, Congressional Space Medal of Honor, Science, Space, and Technology Education Trust Fund, space commerce agreements, etc.
- **Features**
 - Civil – military separation
 - Peaceful purposes
 - Annual amendments, including appropriations





1980s: Commerce

“Congress declares that the general welfare requires that NASA...seek and encourage, to the maximum extent possible, the fullest commercial use of space.” NAS Act, Section 102 (a)

- **Commercial added to civil and military**
 - Became the third space sector
- **Information access, invention property rights for small and large businesses, procurement, etc.**





1980s and 1990s: Applications

Commercial Space Launch Activities

- **1984 Commercial Space Launch Act**
 - Transportation Dept. established as regulatory agency
 - Encourage, facilitate, and promote private commercial space launches by develop licensing requirements through consultation with other agencies

- **1988 Amendments**
 - Risk sharing regime
 - Authorized U.S. Government to indemnify commercial space transportation for third-party liability
 - Required launch providers to buy insurance





1980s and 1990s: Applications

Remote Sensing - Earth Observations

- **1984 Land Remote Sensing Commercialization Act**
 - Commercialization focus; privatized Landsat
 - 3 phase commercialization process
 - Envisioned no need for public systems in future
- **1992 Land Remote Sensing Policy Act**
 - Amended 1984 law
 - Public sector and environmental focus
 - Public and private distinction
 - Commerce Department licenses and regulates private systems
 - Company must disclose amount of government resources that went into launch or operation of the system





2000s: Regulatory Refinement: Remote Sensing

The Public-Private Spectrum for Data Access Policy

Public

**All Tax
Money**

**Full
nondiscriminatory
access at cost of
reproduction/free**

Hybrid

**Public and Private
Money**

**Case-by-case
determination**

Private

**All Private
Money**

**Access to sensed
states only on
commercial terms**





2000s: Regulatory Refinement: Commercial Human Space Flight

- **2004 Amendments**
 - “Space tourism”
 - Authorizes private and commercial passengers to engage in space travel
 - Establishes licensing of private sector spacecraft to bring paying passengers on sub-orbital flights.
- **Law and regulations address suborbital flight**
 - Ship leaves Earth, goes beyond air space to very high altitude, returns to Earth
 - Does not go into orbit and then orbit Earth
- **Law looks to the physics of air travel and space travel**
 - Aircraft operate on dynamics of “lift”
 - Rockets operate on dynamics of “thrust”



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2000s: Regulatory Refinement: International Space Station Code of Conduct

- **Required by IGA and establishes**
 - Guidelines and procedures
 - Commander's authority and responsibility
- **Applies to all NASA-provided persons including**
 - USG employees,
 - Uniformed Armed Services members
 - U.S. citizens who aren't USG employees
 - foreign nationals



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2000s: Regulatory Refinement: International Space Station Code of Conduct

Establishes

- On-orbit chain of command
- Relationship between ground and on-orbit management and management hierarchy
- Work and activity standards in space and, as appropriate, on the ground
- Elements and equipment responsibilities
- Disciplinary regulations
- Physical and information security guidelines





2000s: Regulatory Refinement: International Space Station Code of Conduct

Commander's Authority and Responsibility

- On behalf of all Partners
- Enforce
 - safety procedures
 - physical and information security procedures
 - crew rescue procedures



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ETC.

- **GPS**
- **Telecommunications**
- **Weather Satellites**
- **Military**
- **Intelligence**





2010 Codification: Title 51 of the U.S.C

- **Single USC section**
 - First new title to US Code in 83 years
- **National and Commercial Space Programs**
 - Pres. Obama signed H.R. 3237 into P. L. 111-314
 - Enacted new Title 51, United States Code
 - December 20, 2010
- **Does not change the law**
- **Brings U.S. Space Law into the 21st Century**
- **Provides unified national model**



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Questions? Comments?

