

Global Governance of Human Spaceflight

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on Global Space Governance

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“Commercial” means:

- Vehicles designed, developed and operated by the private sector
- Private investment
- Systems designed to serve more more than one customer (government and/or private)
- Development based on fixed-priced, streamlined contract vehicles in which payment is based on achieving milestones
- Services and data also purchased fixed-price via commercial services contracts
- Driven by the method of doing business, not size of the company. Both large, traditional contractors and small, entrepreneurial firms are engaging in commercial spaceflight.

U.S. Commercial Space Timeline

- 1984 – Commercial Space Launch Act
 - “Encourage, Facilitate and Promote”
 - Establishes a licensing regime (not certification)
- 1996 – X Prize established
- 2004
 - SpaceShipOne wins Ansari X Prize
 - Commercial Space Launch Amendments Act
 - Amends original act to include human spaceflight
 - Establishes “learning period”
- 2006 NASA Commercial Orbital Transportation Services announced
- 2010 NASA Commercial Crew Program announced
- 2012 NASA Commercial Resupply Service begins
- 2013 SpaceShipTwo first powered flight

Regulation?

- Commercial Space Launch Act
 - Passed in 1984
 - To encourage, facilitate and promote commercial launches
 - Establishes the Office of Commercial Space Transportation as the single agency for regulation
 - Amended in 2004
 - Commercial Space Launch Amendments Act addresses human spaceflight

CSLAA Findings (1 of 3)

- (1) the goal of safely opening space to the American people and to their private commercial enterprises should guide Federal space investments, policies, and regulations;
- (2) private industry has begun to develop commercial launch vehicles capable of carrying human beings into space;

CSLAA Findings (2 of 3)

- (3) greater private investment in these efforts will stimulate the commercial space transportation industry;
- (4) space transportation is inherently risky, and the future of the commercial human space flight industry will depend on its ability to continually improve its safety performance;

CSLAA Findings (3 of 3)

(5) the regulatory standards governing human space flight must evolve as the industry matures so that regulations neither stifle technology development nor expose crew or space flight participants to avoidable risks as the public comes to expect greater safety for crew and space flight participants from the industry

Commercial Space Launch Amendments Act

- Establishes a licensing (not certification) regime for commercial human spaceflight
- Allows for regulation to protect the public health and safety, safety of property, national security interests, and foreign policy interests during launch and reentry
- Allows for issuance of permits for new design concepts, crew training, etc.

Commercial Space Launch Amendments Act

- Allows for regulation of occupant safety only as a result of
 - Fatal or serious injury to crew or SFP; or
 - Event or series of events that posed a high risk
- Establishes a cross waiver regime between licensees, crew, SFPs and USG
- Specifically exempts SFPs from 3rd party liability indemnification

What's Next?

- Risk sharing (aka indemnification) extended through 2016
- “Moratorium” to expire October 2015
 - Extension?
 - Data sharing?
- Inclusion of SFP in 3rd party indemnification?
- Federal jurisdiction of liability claims?
- Industry standards

