

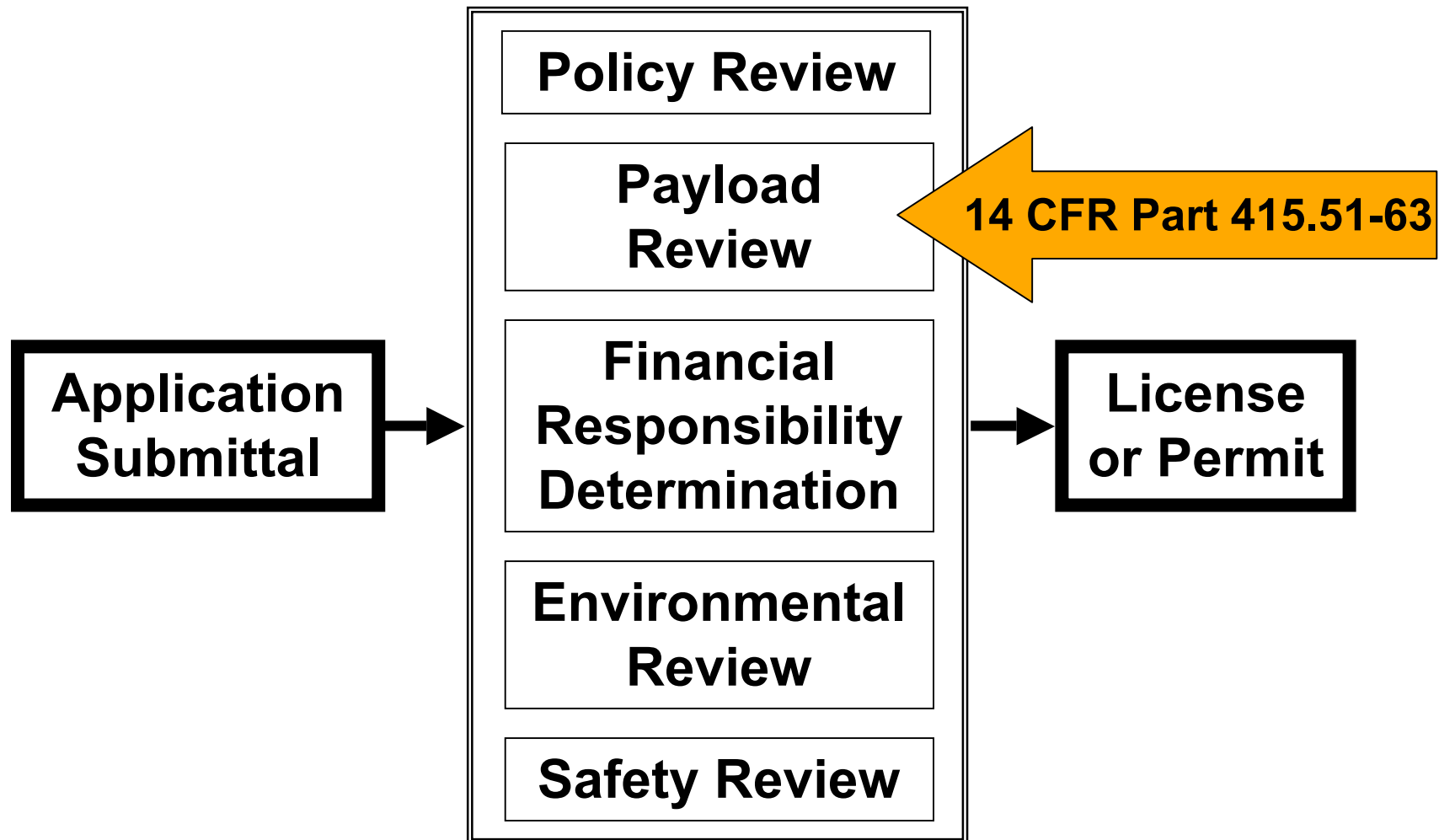
AST Statutory Authority - Dual Roles

Title 49 US Code Subtitle IX, Ch. 701

- **Regulate** the commercial space transportation industry, **only to the extent necessary**, to ensure compliance with international obligations of the United States and to protect the public health and safety, safety of property, and national security and foreign policy interest of the United States
- **Encourage, facilitate, and promote** commercial space launches and re-entries by the private sector

Licensing / Permitting Process Flow

AST Reviews, Approvals, and Determinations



Q2: “What If My Payload Flies?”

- The FAA reviews a payload proposed for launch or reentry to determine whether a license applicant or payload owner or operator has obtained all required licenses, authorizations, and permits, unless the payload is exempt from review.
- Each payload is subject to compliance monitoring by FAA before launch, unless otherwise exempt.

Is My Payload Exempt?

- **You Are Exempt If...**

- ...your payload is subject to the regulation of the FCC or DoC/NOAA.
- ...your payload is owned and operated by the government of the United States.

- **If You Are Not Exempt...**

- ...A payload review may be requested as part of a license application review.
- ...A payload review may be requested by the payload owner in advance of or apart from a license application.

Payload Review Details

- Why Information is Required
 - To identify and address possible safety and policy issues related to the payload.
 - To conduct any necessary interagency review.
- Who Conducts the Payload Review
 - The FAA coordinates a payload review with other gov't agencies (DoD, DoS, DoC, NASA, FCC, etc.)
- Considerable detail may be necessary for cases which present potential unique safety concerns.
 - Payload physical characteristics, functional description, operations
- The FAA will issue a payload determination unless policy or safety considerations prevent launch of the payload.

Payload Review Info Required

- Payload name
- Payload class
- Physical dimensions and weight of the payload
- Payload owner and operator, if different from the person requesting payload review
- Orbital parameters for parking, transfer and final orbits
- Hazardous materials
- Intended payload operations during the life of the payload
- Delivery point in flight at which the payload will no longer be under the licensee's control

Source: 14 CFR 14 §415.59 Information requirements for payload review.



“What If I Personally Want To Fly?”

- The Space Flight Participant (SFP) regime was included in the Commercial Space Launch Amendments Act of 2004.
 - Passed on 8 Dec 2004 and signed on 23 Dec 2004.
 - Clear regime for commercial human spaceflight.
 - Created new experimental permit regime.
- SFP regulations were released on December 15, 2006.
 - 14 CFR Subpart (sec 460.41-49)

“Congress finds that 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.”

Obligations of Human Space Flight

- **Obligations of the Operators**

- Get the "informed consent" of all SFPs.
- Information given to SFPs must include:
 - Known risks.
 - Safety history of all human space vehicles generally.
 - Detailed safety briefing on vehicle the SFP will fly in.
- Instruct passengers of safety and dealing with vehicle emergencies.

- **Obligations of the SFPs**

- Execute a reciprocal waiver agreeing not to sue the U.S. government.

Space Flight Participant Checklist

- Informing SFP of risk.
- Risk disclosure in writing.
- USG has not certified vehicle as safe.
- Safety record of all human carrying vehicles.
- Safety record of operator's vehicle.
- SFP requesting additional information.
- Opportunity for SFP to ask questions.
- SFP written consent.
- SFP waiver of claims against the USG.

Source: FAA AST Human Space Flight Checklist.pdf, version 2.0 dated Jan 6 2008.

URL:
http://www.faa.gov/about/office_org/headquarters_offices/ast/licenses_permits/sub_orbital_rockets/media/Human%20Space%20Flight%20Checklist.pdf



Psychographics of the Revised Technology Adoption Life Cycle

Source:
Crossing the Chasm
by Geoffrey Moore

