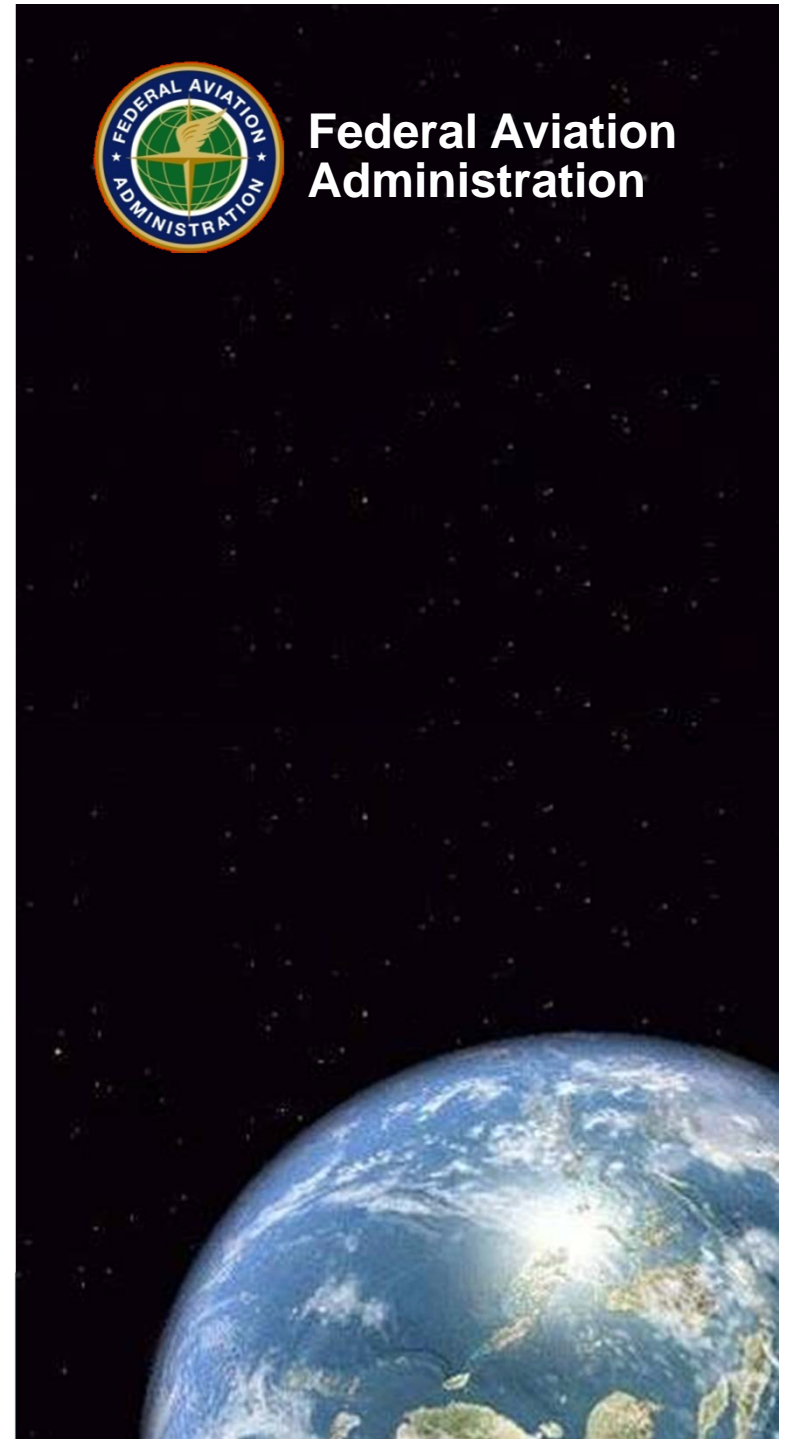


Introduction to the FAA Office of Commercial Space Transportation

*November 9, 2011
Ken Davidian
AST Director of Research*



**Federal Aviation
Administration**





Ken Davidian [YOU](#)

Director of Research at the FAA Office of Commercial Space Transportation (AST)

Washington D.C. Metro Area | Aviation & Aerospace

Current

- **Vice President, Strategic Communications at American Astronautical Society**
- **Director of Research at Federal Aviation Administration, Office of Commercial Space Transportation** [📄](#)
- **Chairperson (Acting), Entrepreneurship & Investment Committee at International Astronautical Federation**

Past

- Lead, Commercial Space Group at AIAA, American Institute of Aeronautics and Astronautics [📄](#)
- Program Lead of "Encourage, Facilitate, and Promote" at FAA Office of Commercial Space Transportation [📄](#)
- ESMD Commercial Development Policy Lead at NASA Headquarters
- Program Manager, Centennial Challenges at NASA Headquarters [📄](#)
- Senior Systems Engineer at DMG Associates / Whitney, Bradley & Brown
- Principal at KD Consulting [📄](#) (Self-employed)
- Director of Programs at Paragon Space Development Corporation [📄](#)
- Director of Operations at X PRIZE Foundation [📄](#)
- Project Manager/Deputy Manager of Operations at Paragon Space Development Corporation [📄](#)
- Aerospace Engineer at NASA Glenn Research Center [📄](#)
- Assistant Director of Operations at International Space University [📄](#)
- Aerospace Engineer at NASA Glenn Research Center [📄](#)

[see less...](#)

Education

- International Space University
- Case Western Reserve University
- The Ohio State University

List of Recent Papers

2011

- Overview of the FAA Center of Excellence for Commercial Space Transportation
- Disruptive Innovation Theory Applied to Commercial Cargo and Crew Space Transportation Markets
- Are Commercial Space Transportation Industries Emerging?

2010

- Suborbital Market Overview and Application of the Disruption Theory
- FAA AST Economic Impact Report Results and Analysis

2009

- Definition of the Promotion Role of the FAA Office of Commercial Space Transportation
- Introduction of the AIAA Commercial Space Group

2008

- Commercial Development & PPP for the US-UK Lunar Initiative
- Commercial Development Policy of the NASA Exploration Systems Mission Directorate
- Applying the UK's PPP Lessons to NASA's Commercial Development Policy
- Commercial Issues and Opportunities in the Global Exploration Strategy

See all 25 at <http://bit.ly/kd-papers>

AGENDA

- Statutory Authority
- What Does AST Regulate?
- Who Does AST Regulate?
- Regulation Process
- Commercial Human Spaceflight



The Federal Aviation Administration Office of Commercial Space Transportation



FAA AST Presentation at ESIL-1
October 26, 2011



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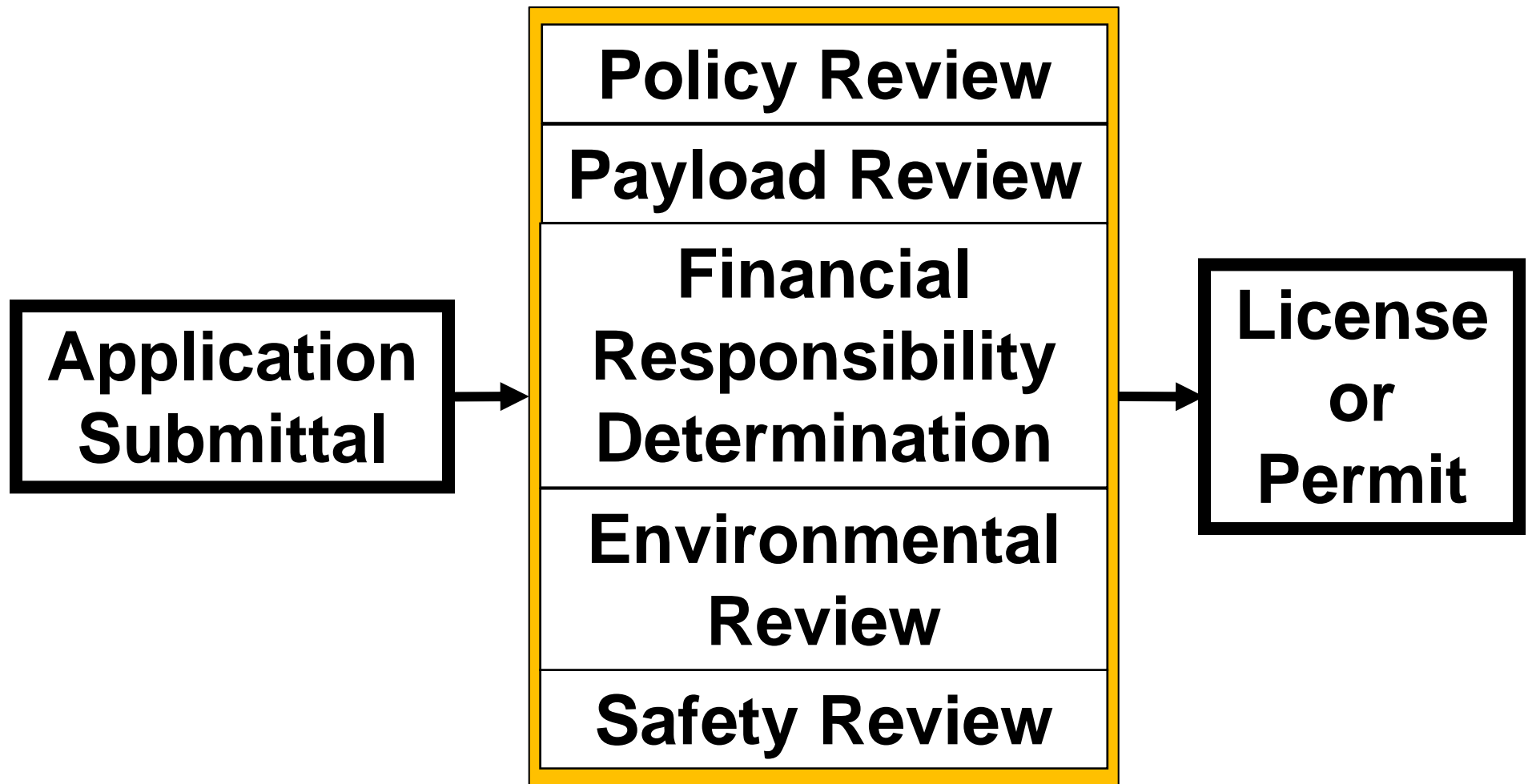
AST Statutory Authority

Title 51 US Code Subtitle V, Ch. 509

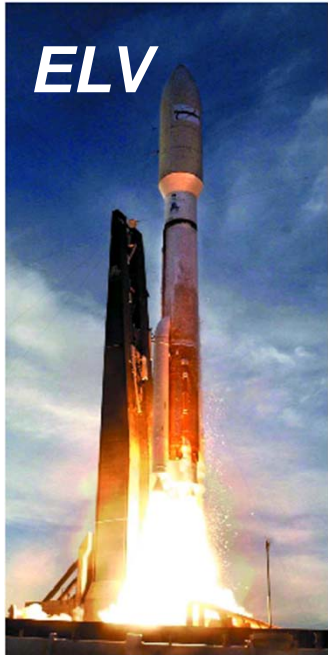
- Regulate the commercial space transportation
... only to the extent necessary ...
compliance with international obligations of the United States and to protect the public health and safety, safety of property, and national security and foreign policy interest of the United States
- Encourage, facilitate,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

Licensing / Permitting Process Flow

AST Reviews, Approvals, and Determinations



AST Statutory Mission



Launch & Reentry

Sea Launch

Human Space Flight

Who Needs a License or Permit?

License

- U.S. Companies
 - Launching inside US
 - Launching outside US
- Foreign Companies
 - Launching inside US
- U.S. Commercial Launch or Reentry Sites

Experimental Permit

- Reusable suborbital rockets may obtain a permit for the sole purpose of
 - Research & Development
 - Gathering data for a license
 - Crew Training

• Amateur Rocketry activities do not need a license or permit (unmanned, $I_{Tot} < 200 \text{ Klbf-sec}$)



Types of Launch Sites



Sea Launch



Oklahoma Spaceport



Kodiak Launch Complex



Mojave Air and Space Port



California Spaceport

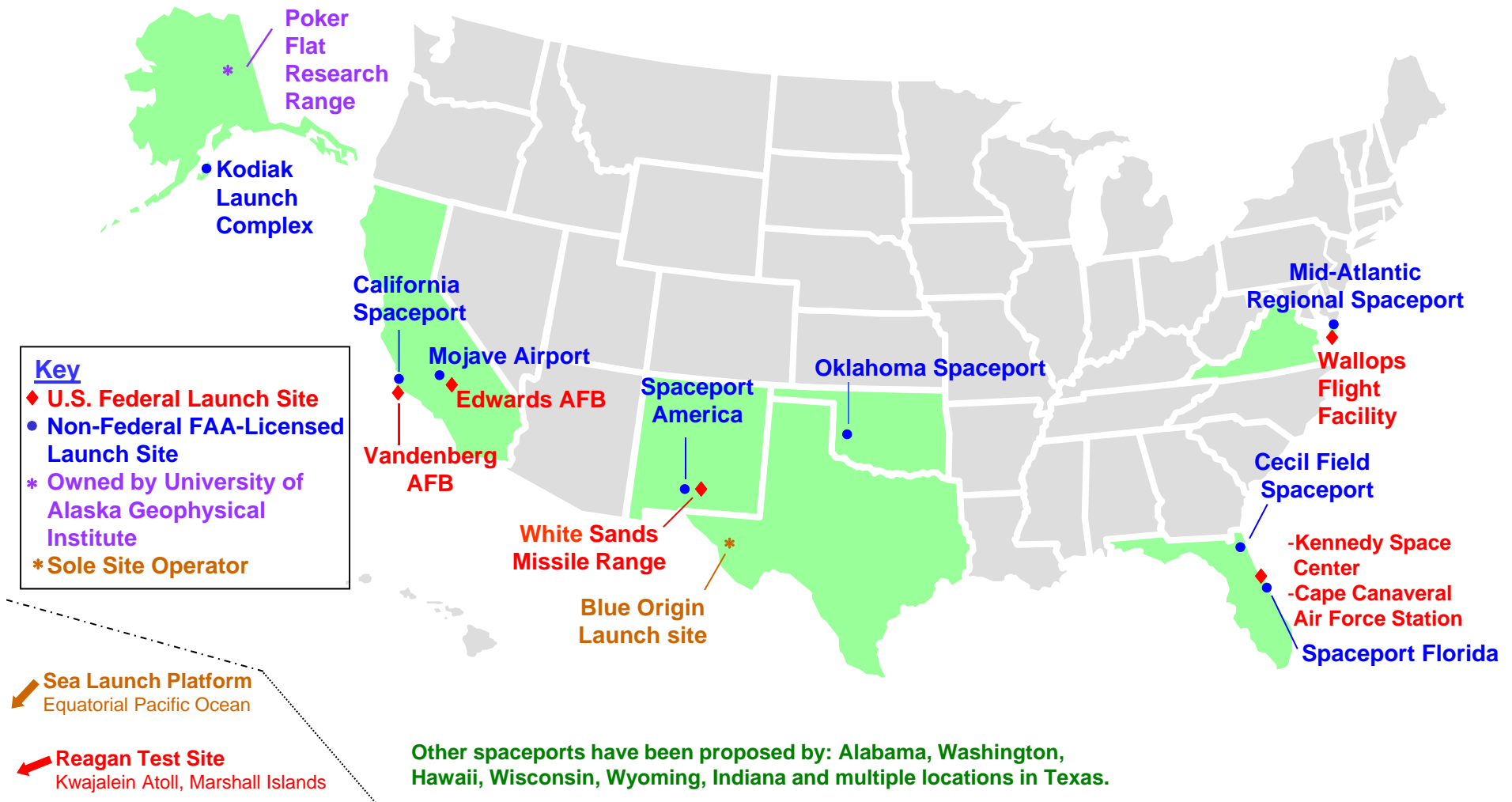


Florida Spaceport

Mid-Atlantic Regional Spaceport

U.S. Spaceports

Commercial/Government/Private Active and Proposed Launch Sites



FAA/AST: August 2011

FAA AST Presentation at ESIL-1
October 26, 2011



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Commercial Human Space Flight

- 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.”*

Summary

- AST Has Two Missions: Regulate and Encourage
- AST Currently Has Authority to Regulate Operations of Vehicles and Launch/Reentry Sites
- AST Regulates All U.S. Citizens Regardless of Activity Location, Anybody Operating in the U.S.
- Authority for Regulation of Commercial Human Spaceflight Exists NET EOY 2012

