AST Commercial Space Transportation

SSA Feasibility Study (CSLCA Section 110 Report)



Federal Aviation Administration

Congressional Actions

U.S. Commercial Space Launch Competitiveness Act (CSLCA) became Public Law No. 114-90 on 25 November 2015.

- It made several updates to U.S. space law including:
 - The extension of U.S. Government coverage of third-party liability claims in excess of the amount of insurance required by the FAA;
 - The removal of a restriction that there cannot be an experimental permit and license on the same design of a suborbital launch vehicle;
 - The recognition of government astronauts as a category in addition to crew and space flight participants; and
 - Other technical changes.
- It directed the development of 12 reports including the Section 110 report on the feasibility of processing and releasing safety-related SSA data and information.

On 6 Sep 2016, the Secretary of Transportation, in concurrence with the Secretary of Defense, signed and submitted a feasibility study on space situational awareness data sharing in accordance with Section 110 of the CSLCA



SEC. 110. SPACE SURVEILLANCE AND SITUATIONAL AWARENESS DATA.

The Secretary of Transportation in concurrence with the Secretary of Defense shall—

(1) in consultation with the heads of other relevant Federal agencies, study the feasibility of processing and releasing safety-related space situational awareness data and information to any entity consistent with national security interests and public safety obligations of the United States; and

(2) submit a report on the feasibility study to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Science, Space, and Technology of the House of Representatives.

{emphasis added}

Stakeholders – extensive coordination

Lead: Secretary of Transportation

• Lead office: Federal Aviation Administration Office of Commercial Space Transportation (AST)

In Concurrence with Secretary of Defense:

- Lead DoD office OSD Space Policy
- Joint Staff Pentagon, J5 Strategic Plans and Policy, Space Policy Division
- U.S. Strategic Command
- Principal DoD Space Advisor (PDSA) Staff
- Air Force Space Command
- National Reconnaissance Office

In Consultation with:

- Office of the Director of National Intelligence
- Department of State
 - Office of the Secretary
 - Bureau of Arms Control, Verification and Compliance
 - Bureau of Oceans and International Environmental and Scientific Affairs Office of Space and Advanced Technology
- Department of Commerce
 - International Trade Administration
 - Office of Space Commercialization
 - NOAA Commercial Remote Sensing Regulatory Affairs (CRSRA) Office
- National Aeronautics and Space Administration (NASA)
- Federal Communications Commission

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Report Key Findings

- The report concluded that it is feasible that a civil agency, specifically the DOT acting through the FAA Office of Commercial Space Transportation, with additional legislative authority in Title 51 of the United States Code, could provide SSA data and information to commercial, civil, and foreign entities when such support is not inherently military in nature.
- The report notes that in addition to SSA data on spacecraft location, information provided for safety services would include, but is not limited to, conjunction assessments, collision avoidance support, and emergency close approach notifications.
- Statutory authority would be required to authorize a civil agency to release safety-related space situational awareness data and information to any entity consistent with the national security and public safety interests of the United States.

Report Key Findings (continued)

- The Department of Defense will continue to maintain capabilities, collect data, and maintain a master object catalog as well as conduct any operations necessary to maintain national security.
- Pursuant to the 2010 National Space Policy, all departments and agencies will share their capabilities, specifically SSA data and expertise as available, to assist each other in the accomplishment of the space safety mission.
- Existing individual support agreements will require review to determine which agreements are appropriate for a civil agency to assume and would therefore require amendments or new agreements to be negotiated

Section 110 Report - What remains constant

If authorized as recommended by the Secretary of Transportation in the 110 report:

- Currently, the DoD provides information services to space operators, in line with their authorities, and will continue until an authorized and capable alternative is in place.
- Current JSpOC customers should expect to see very little change in the SSA services the USG presently provides.
- The FAA will not take over or assume any Department of Defense systems.
- The FAA intends to continue the current U.S. practice of providing orbital safety services as a public good no change in fees for use of the service.
- The U.S. government will continue to support previous SSA sharing agreements. SSA sharing agreements that are not for national security purposes could be transferred to FAA support (not expected prior to the 2020 timeframe) after careful review.

Section 110 Report - What may change

• In response to direction from leadership and the findings of the Section 110 report, FAA AST is working with the Department of Defense to plan for transitioning orbital safety awareness/collision avoidance reporting to FAA AST.

FAA position – If authorized as recommended by the Secretary of Transportation in the 110 Report:

- Providing an orbital safety information service is in line with Congress's statutory direction to FAA AST to "protect public health and safety, safety of property, national security interests, and foreign policy interests of the United States" (51 USC 50905) and in so doing, "encourage, facilitate, and promote" the commercial space industry (51 USC 50903).
- The FAA will work with the Department of Defense and commercial SSA providers to obtain the best available data to support orbital safety.
- Providing SSA data for safety purposes is advisory in nature and doesn't mean the FAA will be directing spacecraft to maneuver.
 - Any proposed regulations would follow applicable law under the Administrative Procedures Act and be in line with current statutory authority.

Space Traffic Service Evolution (Start to 110)



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AST Commercial Space Transportation

Friday, August 12, 2016 | 9