The Florida Senate

BILL ANALYSIS AND FISCAL IMPACT STATEMENT

(This document is based on the provisions contained in the legislation as of the latest date listed below.)

Prepared By: The Professional Staff of the Commerce and Tourism Committee

BILL:	SB 110
INTRODUCER:	Senator Wise
SUBJECT:	Spaceport Territory
DATE:	October 3, 2011
REVISED:	

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	Fleming	Carter	MS	**Favorable**
2.	Pugh	Hrdlicka	CM	**Favorable**
3.			CA	
4.				
5.				
6.				

I. Summary:

In January 2010, the Federal Aviation Administration (FAA) issued Jacksonville Aviation Authority a Space Launch Cite Operator's License, which authorizes the use of Cecil Field Spaceport for horizontal take-off and landings of suborbital launch vehicles.

SB 110 amends s. 331.304, F.S., to update the inventory of existing spaceport territories in the state by designating the property Cecil Field Spaceport in Jacksonville as a spaceport territory. This bill also permits the board of directors of Space Florida to designate real property within the state as a spaceport territory if the property has been licensed by the FAA as a spaceport or if the property serves as space-related infrastructure.

This bill substantially amends s. 331.304, F.S.

II. Present Situation:

Background on the Commercial Space Launch Industry

The United States' space program constitutes three sectors – civil, military and commercial. The commercial space sector will play an increasingly important role in the U.S. space program with the retirement of the Space Shuttle Program in July 2011. President Obama's National Space Policy (policy),[1] issued on June 28, 2010, emphasizes the need to utilize the commercial space industry to meet the current and future U.S. space transportation needs. Specifically, the policy states, "The United States is committed to encouraging and facilitating the growth of a U.S.

[1]National Space Policy of the United States of America. June 28, 2010. Available at: http://www.whitehouse.gov/sites/default/files/national_space_policy_6-28-10.pdf. Site last visited Sept. 25, 2010.

commercial space sector that supports U.S. needs, is globally competitive, and advances U.S. leadership in the generation of new markets and innovation-driven entrepreneurship."[2]

Space transportation is the movement of, or means of moving, objects such as communications and observation satellites, to, from, or in space. Commercial space transportation is carried out by vehicles owned and operated by private companies or organizations. The majority of such launches carry satellites and other payloads owned by private companies and procured through a competitive bidding process, although government payloads are occasionally launched commercially.[3]

In 2010, commercial launches comprised approximately 31 percent of all launches conducted worldwide.[4] The chart below illustrates the worldwide participation in commercial and non-commercial orbital launch activity in 2010.

2010 WORLDWIDE ORBITAL LAUNCH ACTIVITY[5]

Nations	Commercial Launches	Non-Commercial Launches	Total Launches
United States[6]	4	11	15
Russia	13	18	31
Europe	6	0	6
China	0	15	15
Japan	0	2	2
India	0	3	3
Israel	0	1	1
South Korea	0	1	1
Total	23	51	74

The Office of Commercial Space Transportation (office) within the Federal Aviation Administration (FAA) is the U.S. government organization responsible for regulating and facilitating the safe operations and international competitiveness of the U.S. commercial space transportation industry. The FAA's launch regulations and licensing procedures apply to all commercial launches taking place within U.S. territory, and for launches being conducted abroad by U.S. companies. In general, the FAA does not license launches by U.S. government organizations and certain classes of small rockets. Since the office was created in 1984, the FAA has issued licenses for more than 200 launches, licensed the operation of eight FAA-approved launch sites known as spaceports, and has helped ensure that no loss of life or serious injury has been associated with these efforts.[7]

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[2] Ibid p. 3.
[3] Information in this paragraph summarized from information posted at website of FAA's Office of Commercial Space Transportation. See: http://ast.faa.gov./about/office_org/headquarters_offices/ast/industry. Site last visited Sept. 25, 2011.
[4] FAA report: *Commercial Space Transportation: 2010 Year in Review*. January 2011. Available at: http://www.faa.gov/about/office_org/headquarters_offices/ast/media/2010%20Year%20in%20Review.pdf. Site last visited Sept. 25, 2011.
[5] Ibid p. 3.
[6] Eleven of the 15 total U.S. orbital launches in 2010 took place in Florida, in which 3 were commercial launches and 8 were non-commercial.
[7] Supra note 3.

FAA Licensed Commercial Spaceports

Spaceports are sites designated to launching orbital or suborbital vehicles into space. These sites often also provide the capability to integrate launch vehicle components, to integrate vehicles with payloads, to fuel and maintain vehicles, and to launch vehicles.[8] As stated above, the FAA licenses the operation of commercial spaceports in the United States and thus far has issued eight licenses. The chart below lists the eight FAA licensed commercial spaceports.

FAA LICENSED COMMERCIAL SPACEPORTS[9]

Spaceport	Operator	State	License First Issued	Expires
California Spaceport	Spaceport Systems International	CA	1996	9/18/2011
Cape Canaveral Spaceport	Space Florida	FL	1999	6/ 30/ 2015
Cecil Field Spaceport	Jacksonville Aviation Authority	FL	2010	1/10/ 2015
Kodiak Launch Complex	Alaska Aerospace Development Corp.	AK	1998	9/24/2013
Mid-Atlantic Regional Spaceport	Virginia Commercial Space Flight Authority	VA	1997	12/18/2012
Mojave Air and Space Port	East Kern Airport District	CA	2004	6/16/2014
Oklahoma Spaceport	Oklahoma Spaceport Industry Development Authority	OK	2006	6/11/ 2011
Spaceport America	New Mexico Spaceport Authority	NM	2008	12/15/ 2013

Florida's Existing Spaceports

Currently, there are four spaceport locations in Florida, which include two federally-owned spaceports and two FAA licensed commercial spaceports. The Cape Canaveral Air Force Station (CCAFS) and the National Aeronautics and Space Administration's Kennedy Space Center (KSC) constitute the federal spaceports in Florida. The two FAA licensed commercial spaceports in Florida include the Cape Canaveral Spaceport, operated by Space Florida, and Cecil Field Spaceport, operated by the Jacksonville Aviation Authority (JAA).

Cape Canaveral Spaceport

Space Florida was first issued a FAA commercial spaceport license in 1999 and with that license operates the Cape Canaveral Spaceport, a group of facilities that include launch complexes leased from and co-located on CCAFS. Space Florida utilizes these launch complexes to facilitate private and commercial space ventures as well as research and development.

Cecil Field Spaceport[10]

In January 2010, the FAA issued the JAA a Space Launch Site Operator's License. The license authorizes use of Cecil Field Spaceport for horizontal take off and landings for suborbital launch vehicles. The U.S. Navy once operated Cecil Field as an airfield, which was closed in 1993 and transferred to the City of Jacksonville in 1999. Cecil Field Spaceport is located about 15 miles from Jacksonville and features a 12,500 foot runway and three shorter runways. Cecil Field Spaceport shares assets with Cecil Field Airport, which services military and civil aircraft and

[8] FAA report: *2011 U.S. Commercial Space Transportation Developments and Concepts: Vehicles, Technologies, and Spaceports*. January 2011. p. 47. Available at: http://www.faa.gov/about/office_org/headquarters_offices/ast/media/2011%20DevCon%20Report.pdf. Site last visited Sept. 25, 2011.
[9] Ibid p. 48.
[10] Ibid p. 50.

general aviation customers. The FAA awarded $105,000 to JAA, as part of the FAA's Space Transportation Infrastructure Matching Grants program[11] in 2010. JAA will use the money to develop a Spaceport Master Plan for Cecil Field.

Spaceport Territories Designated in the Florida Statutes

Section 331.304, F.S., provides that certain property in the state constitutes "spaceport territory." This property includes:

- Certain real property in Brevard County that is included within the 1998 boundaries of Patrick Air Force Base, Cape Canaveral Air Force Station, or John F. Kennedy Space Center; and
- Certain real property located in Santa Rosa, Okaloosa, Gulf, and Walton counties which is included within the 1997 boundaries of Eglin Air Force Base.[12]

The property within Duval County which constitutes Cecil Field Spaceport is not currently designated as a "spaceport territory" in the Florida Statutes.

Economic Impact of Space and Aerospace Businesses in Florida

The Brevard Workforce Development Board, Inc., (BWDB) has estimated that, at its height, Space Shuttle-related activity in Florida supported a workforce level of approximately 9,160 employees, earning estimated total annual wages of $660 million. The majority of this workforce is located at or near KSC.[13] No statistics are currently available, but there may be hundreds more Florida workers, employed at businesses throughout the state that are part of the Space Shuttle program's "supply chain," who likely will be negatively impacted.

The most recent information compiled by the BWDB indicates that as many as 7,000 of the 9,160 Space Shuttle employees will likely encounter difficulties in finding new employment.[14] These actions have accelerated efforts by BWDB, Space Florida, and other entities to help recruit out-of-state companies or promote development or expansion of Florida businesses to hire these displaced workers.

NASA's operations in Florida are a major economic driver.[15] The total amount of NASA spending (so-called "outside money") for KSC-related activities was $1.8 billion, including $1.1 billion in wages in FY 2009-2010. Counting indirect spending, the total economic impact of

[11] For more information on the FAA's Space Transportation Infrastructure Matching Grants program, see http://www.faa.gov/about/office_org/headquarters_offices/ast/grants_program/.

[12] Additionally, s. 331.307, F.S., refers to the "spaceport facility at Cape San Blas" in Gulf County, which appears to be owned by Eglin. This section of law, created in 1989, establishes certain conditions on Space Florida's use of the Cape San Blas launch site, related primarily to environmental safeguards and associated development. On Aug. 22, 1992, the Spaceport Florida Authority (one of Space Florida's predecessors) launched a 10-foot-tall, 90-pound Microstar rocket from Cape San Blas as part of a suborbital weather experiment by university researchers to take ozone measurements. No other space-related launches have occurred at Cape San Blas.

[13] Brevard Workforce Development Board: *Aerospace Workforce Outlook Report - Phase III*. January 2010. p.7. Available at: http://www.bwdb.org/DownloadDocuments/Misc%20Documents/AWO%20Phase%20III%20Report.pdf. Site last visited Sept. 25, 2011.

[14] Ibid p. 22.

[15] NASA: *Economic Impact of NASA in Florida FY 2010*. pp. 1-2. On file with the Senate Commerce and Tourism Committee.

NASA to Florida was estimated at $4.1 billion in production output; $2.2 billion in household income; 33,049 jobs; and $134 million in state and local tax revenues.

However, Florida-specific information about non-NASA spending on commercial space activities is not as readily available. The FAA's most recent economic impact study on the commercial space activities in the United States[16] indicated that commercial space transportation and related industries, such as launch vehicle manufacturing and services and satellite manufacturing, remains a lucrative job-creator in this country. In 2009, the commercial space industry sectors generated a total of $208.3 billion in economic activity in the United States, employing more than 1 million people with earnings that exceeded $53 billion.[17] While the overall numbers have increased each year, the employment, wage, and economic impact numbers within certain related industry sectors have declined, due in part to a reduction in commercial space launches in this country and more launches in other nations.[18]

Another source of data for in the space, aerospace, and defense fields is the Aerospace Industries Association, a professional organization that includes NASA and non-NASA contract employers. It reports that as of 2008, Florida was home to 105 aerospace-related companies that employed 28,508 persons earning an average wage of $56,226.[19]

III. Effect of Proposed Changes:

SB 110 amends s. 331.304, F.S., to:

- Update the inventory of existing spaceport territories in the state by designating the property within the boundaries of Cecil Airport and Cecil Commerce Center in Jacksonville as a spaceport territory.
- Permit the board of directors of Space Florida to designate real property within the state as a spaceport territory if the property has been licensed by the FAA as a spaceport or if the property serves as space-related infrastructure.

SB 110 has an effective date of July 1, 2012.

IV. Constitutional Issues:

A. Municipality/County Mandates Restrictions:

None.

B. Public Records/Open Meetings Issues:

None.

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[16] FAA: *The Economic Impact of Commercial Space Transportation on the U.S. Economy in 2009.* Available at: http://www.faa.gov/news/updates/media/Economic%20Impact%20Study%20September%202010_20101026_PS.pdf. Site last visited September 25, 2011.
[17] Ibid p. 6.
[18] Ibid p. 7.
[19] Posted on the Aerospace Industries Association website is an interactive map of the United States with pertinent data on the number of aerospace companies, their number of employees, their payroll, and the combined value of their sales. Map available at https://www2.aia-aerospace.org/stats/state_data/#. Site last visited Sept. 28, 2011.

C. Trust Funds Restrictions:

None.

V. Fiscal Impact Statement:

A. Tax/Fee Issues:

None.

B. Private Sector Impact:

By designating Cecil Field Spaceport, future FAA licensed spaceports in Florida, and other space-related infrastructure in Florida as spaceport territory, SB 110 has the potential to increase the economic development and commercial space business in Florida. Specifically, Cecil Field Spaceport may attract commercial ventures, such as space tourism, when that industry advances.

C. Government Sector Impact:

Designating Cecil Field Spaceport as spaceport territory and permitting the board of directors of Space Florida to recognize future FAA licensed spaceports and other space-related infrastructure as spaceport territory may aid Space Florida in attracting different types of commercial space companies and competing for spaceflight businesses. Also, as designated spaceport territories, they may be included in Space Florida's master-planning efforts, primarily with the Florida Department of Transportation, making them eligible for state funds for road or other infrastructure improvements.

VI. Technical Deficiencies:

None.

VII. Related Issues:

None.

VIII. Additional Information:

A. Committee Substitute – Statement of Substantial Changes:
(Summarizing differences between the Committee Substitute and the prior version of the bill.)

None.

B. Amendments:

None.