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 Committee

BILL:	CS/SB 888
INTRODUCER:	Commerce Committee and Senators Lynn and Baker
SUBJECT:	The Space Industry
DATE:	April 6, 2009 REVISED:

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	Pugh	Cooper	CM	**Fav/CS**
2.			HE	
3.			WPSC	
4.				
5.				
6.				

Please see Section VIII. for Additional Information:

A. COMMITTEE SUBSTITUTE.....	X	Statement of Substantial Changes
B. AMENDMENTS.....		Technical amendments were recommended
		Amendments were recommended
		Significant amendments were recommended

I. Summary:

NASA is in a period of transition, with the planned retirement of the Space Shuttle in 2010, continued development of the successor program called Constellation, potentially a greater emphasis on using commercial spacecraft and partners for missions, and an evaluation by the Obama Administration of the agency's mission and funding. Florida has a storied history in spaceflight and considers aerospace activities among its key industries, but also is having to reassess its future role in spaceflight.

CS/SB 888 seeks to lay groundwork for addressing some of those issues. The bill creates a multi-university Space Technology and Research Development Institute (STRDI) within the Governor's Office of Tourism, Trade and Economic Development (OTTED) to pursue sponsorship by the Federal Aviation Administration (FAA) for a "Center of Excellence" focused on high-impact space transportation research, technology and development, and policy analysis activities. Space Florida also shall provide support for certain STRDI activities.

STRDI will be led by Embry-Riddle Aeronautical University (ERAU).[1] Among the types of research to be performed by STRDI are: range and airspace management systems; spaceflight human factors; launch vehicle safety; materials science; and spaceport instrumentation, technologies, and processes.

Space Florida is directed to support STRDI by providing such services as advisory support and access to spaceport sites; by engaging STRDI as a partner in some of its activities; and financially supporting STRDI projects with Florida-NASA Matching Grant Program for innovative, space-related education programs.

CS/SB 888 specifies that STRDI will be developed in phases, with the first phase focused on laying the new program's administrative groundwork. The CS specifically states that it does not create an appropriation for STRDI, nor does it require OTTED to assign staff or resources to STRDI.

STRDI also must provide OTTED with quarterly reports on a number of its activities.
CS/SB 888 creates s. 331.365, F.S., and an unnamed section of law, and amends s. 331.3051, F.S.

II. Present Situation:

Space Florida

Space Florida is responsible for promoting the development of a sustainable aerospace industry, space infrastructure, and educational opportunities for people interested in working in the industry. Among the elements in the Space Florida's 2007 strategic plan are:[2]

- Broaden Florida's presence in the space industry beyond launch activity to include the R&D, design, manufacturing, assembly, testing, launch, and servicing of space vehicles;
- Claim a large share of the emerging global market for horizontal launches, including suborbital space tourism, transportation and cargo, and orbital payload delivery;
- Expand and focus use of the Space Life Sciences Laboratory;
- Establish a Center of Excellence for Aerospace; and
- Provide focused funding support to the most relevant and worthwhile education programs.

In 2001, Space Florida's predecessor agency, the Florida Space Authority, broke ground on what was originally called the Space Experiment Research and Processing Laboratory (SERPL), but which has since been renamed the Space Life Sciences Lab (SLS Lab). Now owned by Space Florida, the SLS Lab is a world-class laboratory with all the capability and systems necessary to host International Space Station experiment processing, as well as associated biological and life sciences research. The SLS Lab is valued at $23.4 million, according to Space Florida's FY 06-07 Financial Statements, and collected $1.26 million in rental fees that fiscal year.

[1]Information about Embry Riddle is available on its website at http://www.erau.edu/.
[2] Available at http://69.89.14.74/docs/Strategic_Business_Plan-2007-2.pdf.

Florida's other space-related educational opportunities

Besides the SLS Lab, Space Florida partners with the NASA/Florida Space Grant Consortium (consortium) for a number of education-related programs.[3] Formed in 1989, the Florida Space Grant Consortium is a voluntary association of 17 public and private Florida universities and colleges, and other educational entities. Administered by the University of Central Florida through the Florida Space Institute at Kennedy Space Center, the consortium provides grants, scholarships, and fellowships to students and educators in Florida. The current round of applications for the various programs is beginning.

In 2002, the Legislature passed the "Florida Technology Development Act"[4] that directed the State Board of Education to designate Centers of Excellence at state universities, the purpose being to stimulate university research and commercialization efforts in high-tech fields. Since that time, the Legislature has funded 11 "Centers of Excellence." Only one clearly has an aerospace /aeronautical bent – Florida State University's Center of Excellence for Advanced Aero-Propulsion.[5] The center is targeting, at least initially, four research areas: advanced gas turbine technology; active flow and noise control; alternative power systems; and tools for next generation aircraft design and air traffic management.[6] FSU's academic partners in this endeavor are the University of Central Florida, the University of Florida, and ERAU.[7]

III. Effect of Proposed Changes:

Section 1 creates a short title for the bill – the Space Transportation Research and Development Institute (STRDI) Act.

Section 2 expresses a number of legislative findings about the importance of space-related business and activities to Florida's economy.

Section 3 amends s. 331.3051, F.S., to direct Space Florida, as part of its existing responsibilities for research and development, to support the development and operation of STRDI. That support may include, but not be limited to:

- Advising STRDI on defining the focus and scope of multi-university projects;
- Providing access to the Cape Canaveral Spaceport and other spaceport sites in Florida;
- Developing support for STRDI among state and federal agencies and policymakers;
- Engaging STRDI as a partner in support of space policy, range and spaceport technology development, and other space transportation technology programs; and
- Providing support for STRDI projects through the Florida-NASA Matching Grant Program, created in s. 331.3051(10), F.S.

[3] Description of the center's activities is found on page 14 of the Florida 21st Century Technology, Research and Scholarship Enhancement Act Programs: Annual Report December 2008. On file with the Senate Commerce Committee. Additional information is available at http://www.floridaspacegrant.org/.
[4] Chapter 2002-265, L.O.F.
[5] This Center of Excellence received $14.57 million in the FY 2008-2009 General Appropriations Act, but that was reduced by 25 percent during the Legislature's 2009 budget-cutting special session.
[6] Description of the center's activities is found on page 14 of the Florida 21st Century Technology, Research and Scholarship Enhancement Act Programs: Annual Report December 2008. On file with the Senate Commerce Committee.
[7] Additional information is available at http://aapl.fsu.edu/FCAAP/index.html.

Section 4 creates s. 331.365, F.S., establishing STRDI within OTTED as a multi-university entity led by ERAU, to pursue sponsorship by the Federal Aviation Administration (FAA) for a "Center of Excellence" focused on high-impact space transportation research, technology and development, and policy analysis activities. STRDI is directed to support the following areas of research:

- Spaceport licensing and safety;
- Range and airspace management systems development, simulation, and qualification;
- Issues related to human spaceflight;
- Spaceflight passenger, crew, and technician training and certification;
- Launch vehicle safety analysis;
- Spaceflight materials;
- Spaceport instrumentation, technologies, and processes; and
- Any other topics of interest to federal and state agencies and the space industry.

STRDI will be established in phases, with the initial phase focused on developing a management structure, establishing a formal relationship with the FAA, and forming partnerships with academic institutions and the space industry.

Additionally, STRDI is directed to provide OTTED with a quarterly report on its activities, the status of its relationship with the FAA, its research, and its partnerships.

According to an ERAU position paper,[8] STRDI may be able to attract funding from the Federal Aviation Administration (FAA) as a federal "Center of Excellence" for aerospace research – much like the federal agency's existing centers for aviation-oriented research, which receive annual federal funding leveraged by other agencies and private partners. STRDI also could participate in policy and project development led by the FAA's Office of Commercial Space Transportation, whose mission is to regulate the emerging private-sector space industry.[9]

Section 5 specifies that this legislation does not require an appropriation of funds, nor does it require OTTED to assign staff or resources to STRDI.

Section 6 provides an effective date of July 1, 2009.

IV. Constitutional Issues:

A. Municipality/County Mandates Restrictions:

None.

B. Public Records/Open Meetings Issues:

None.

[8] On file with the Senate Commerce Committee.
[9] More information about the office is available at http://www.faa.gov/about/office_org/headquarters_offices/ast/about/.

C. Trust Funds Restrictions:

None.

V. Fiscal Impact Statement:

A. Tax/Fee Issues:

None.

B. Private Sector Impact:

None.

C. Government Sector Impact:

None.

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.)

CS by Commerce Committee on April 6, 2009:

- Specifies that Space Florida may, in general, provide support for STRDI among state and federal agencies, rather than, as the bill states, "provide the institute with support for the institute among state and federal agencies."
- Directs STRDI to pursue sponsorship by the Federal Aviation Administration (FAA) for a "Center of Excellence" focused on high-impact space transportation research, technology and development, and policy analysis activities.
- Requires the institute to provide OTTED a quarterly report on its activities, relationship with FAA, its research and its partnerships.
- Specifies that this legislation shall not require an appropriation of funds or assignment of OTTED staff or resources to assist STRDI.

B. Amendments:

None.