HOUSE OF REPRESENTATIVES STAFF ANALYSIS

BILL #: HB 1719 PCB SPT 05-01 Commission on the Future of Space in Florida
SPONSOR(S): Spaceport & Technology Committee
TIED BILLS: **IDEN./SIM. BILLS:** SB 1026

REFERENCE	ACTION	ANALYST	STAFF DIRECTOR
Orig. Comm.: Spaceport & Technology Committee	6 Y, 0 N	Saliba	Havlicak
1) Transportation Committee	12 Y, 0 N	Pugh	Miller
2) Transportation & Economic Development Appropriations Committee			
3) State Infrastructure Council			
4)			
5)			

SUMMARY ANALYSIS

Florida's aerospace industry is estimated to be a $45 billion sector of the state's economy with the space sector making up approximately $11 billion of the total. The state is ranked 4th nationally in aerospace employment. Enterprise Florida, Inc., reports the aerospace industry employs over 28,000 Floridians working in 300 companies throughout the state with an estimated payroll of $1.7 billion. The Kennedy Space Center's (KSC) and Cape Canaveral Air Station's economic impact in this sector is estimated at over $4 billion in direct annual spending and billions more in extended economic impacts. Florida's aviation industry's impact makes up almost half of the sector total weighing in at approximately $22 billion

HB 1719 creates the Commission on the Future of Space in Florida to study the changes in the space industry and to recommend actions the state can take to strengthen Florida's aerospace industry. The bill directs the commission to prepare a report of its findings and recommendations for submission to the Governor and the Legislature by January 30, 2006. The commission is abolished on May 31, 2006.

This bill appropriates $300,000 from the General Revenue fund to the Florida Department of Transportation for administrative and support costs incurred by the commission.

HB 1719 takes effect July 1, 2005.

FULL ANALYSIS

I. SUBSTANTIVE ANALYSIS

A. HOUSE PRINCIPLES ANALYSIS:

- Provide Limited Government:

  HB 1719 creates the Commission on the Future of Space in Florida within the Florida Department of Transportation, which is appropriated $300,000 from the General Revenue fund to pay administrative and support costs related to the new commission.

B. EFFECT OF PROPOSED CHANGES:

Background

Since its establishment 50 years ago, the space industry has developed a statewide presence, with half of the space-related businesses located outside of Brevard County. The industry has expanded to include additional capabilities and services contributing significantly to the growth of Florida's research, technology development, and tourism sectors. Florida is proud of its historic association with space flight. It has been the starting point for most of the modern era's most significant scientific space expeditions – from Man's first landing on the moon to the Voyager probe currently exploring deep space outside our solar system.

The primary space industry segment within Florida remains launch operations. This includes products and services related to payload support and processing, spaceport operations, and ground operations equipment and support. Within the spaceport, most activities revolve around three major programs: the Space Shuttle; the International Space Station; and expendable launch vehicles. The Space Shuttle Program, which is managed by United Space Alliance (a joint venture between Boeing Company and Lockheed Martin Corporation), constitutes the largest expenditure and employment category at Kennedy Space Center (KSC). Almost 10,000 employees currently work on the Space Shuttle Program.[1]

Efforts to diversify Florida's space industry beyond launch-related operations have achieved some results. The Space Life Sciences Laboratory (previously known as the Space Experiment Research and Processing Laboratory or SERPL) serves as the primary gateway to the International Space Station for science experiments and a home to ground-based investigations in biological science. This facility will anchor the 400-acre International Space Research Park at KSC. This research park is intended to serve as a magnet for new space research and technology development initiatives.

The presence of the space industry has stimulated opportunities in other sectors of Florida's economy. Numerous technologies, products, and businesses have been generated through research and technology development programs in support of the space industry. Florida's academic community has benefited from access to National Aeronautics and Space Administration (NASA) and Department of Defense research initiatives. And, the KSC Visitors Complex attracts almost one million out-of-state visitors annually[2], making space a complement to Florida's other tourist attractions.

Recent Events Impacting Florida's Space Industry

A number of developments in recent years have significantly impacted space enterprise in Florida. For example, increased global competition in the face of relatively flat demand for launch services has created a challenging environment for Florida's commercial launch operators. Similarly, the tragic loss of the Shuttle Columbia in 2003 and the resulting recommendations of the accident investigation board

[1] W. Warren McHone, Transportation Economics Research Institute, *The Economic Impact of NASA in Florida – 2003*, March 2004.
[2] Ibid.

have impacted Florida-based Shuttle and Space Station operations. Finally, President Bush's New Vision for the Future of Space Exploration promises both opportunities and challenges for Florida's space industry.

New Vision for the Future of Space Exploration – In January of 2004, President Bush announced a new vision for the nation's space program. The President committed the U.S. to a long-term human and robotic program to explore the solar system, starting with a return to the Moon that will ultimately enable future exploration of Mars and other destinations. The President's plan is based on the implementation of the following priorities:

- The U.S. plans to complete work on the International Space Station by 2010. The U.S. will launch a renewed research effort on board the Space Station to better understand and overcome the effects of human space flight on astronaut health. Following final assembly of the Station, the Shuttle will be retired.

- The U.S. will begin developing a new manned exploration vehicle to explore beyond our orbit to other worlds. The new spacecraft, the Crew Exploration Vehicle, will be developed and tested by 2008 and will conduct its first manned mission no later than 2014.

- The U.S. will return to the Moon as early as 2015 and no later than 2020 and use it as a stepping-stone for more ambitious missions. A series of robotic missions to the Moon will explore the lunar surface beginning no later than 2008. Using the Crew Exploration Vehicle, humans will conduct extended lunar missions as early as 2015.

The President's new vision has significant implications for Florida. As previously noted, more than half of Florida's current space-related activities are linked to the Shuttle and International Space Station. The new vision calls for the retirement of the Shuttle by 2010, and the reallocation of funds from the International Space Station to NASA's exploration mission. The smaller Crew Exploration Vehicle, which is scheduled to enter service in 2014, will require significantly fewer personnel.

State Support for Space Enterprise

The state has long supported the development of space-related industry to complement and support federal space efforts. During the 1980's multiple initiatives confirmed the state's effort to adjust to changes in federal space policies and to business and economic dynamics. Through the 1990's, additional organizations were established to further these efforts.

Governor's Commission on Space – In response to the changing landscape of space commerce, Governor Bob Martinez created the Governor's Commission on Space in 1987. Creation of the Commission was prompted by changes in federal space policies, increased global competition for space-related services, and the commercialization of the space industry. The commission's final report was published in 1988 and included an analysis of Florida's competitive position in attracting space commerce. The report pointed to the following as significant areas of concern: Florida's public educational system; the shortage of skilled labor; the state's overall business climate; and the lack of suppliers for space goods and services.[3]

Florida Space Authority – In 1989, the Legislature realized a key commission recommendation through the creation of a permanent state space office – the Spaceport Florida Authority.[4] As authorized under s. 331.302, F.S., the authority constitutes the state's space transportation and economic development agency and is charged with retaining, expanding, and diversifying the state's space-related industry. The authority, modeled after similar types of transportation authorities (airport, seaport, etc.), is granted a wide range of powers and responsibilities. For example, the authority is empowered to own, operate, construct, and finance spaceport infrastructure. Similarly, the authority fosters space-related research

[3] *Steps to the Stars*, Governor's Commission on Space, 1988.
[4] Chapter 2002-183, Laws of Florida, revised the name of the authority to the Florida Space Authority

and education by providing access to facilities, technology, and partnerships. Finally, the authority is responsible for space transportation planning and the coordination of state space policy. The authority is funded through a combination of state appropriations and revenues generated through the authority's activities. For fiscal year 2004-2005, the Legislature appropriated $1.8 million to the authority through the Office of Tourism, Trade and Economic Development (OTTED).

Florida Space Research Institute – In 1999, the Legislature created the Florida Space Research Institute (FSRI) to develop opportunities for Florida's academic institutions to support space technology programs.[5] FSRI leverages state resources with those of NASA, the military, and industry, to expand and diversify Florida's space-related enterprise. For example, FRSI is responsible for co-management (with NASA) of the new Space Life Sciences Laboratory and to assist Florida-based companies and universities with a variety of space-related research projects. FSRI also sponsors a range of workforce initiatives, including space-oriented instruction for K-12 teachers, and training for future aerospace technicians. For fiscal year 2004-2005, the Legislature appropriated $800,000 to FSRI through OTTED.

Florida Aerospace Finance Corporation – The same 1999 legislation that created FSRI also established the Florida Commercial Space Financing Corporation.[6] The mission of the corporation is to support the development of commercial aerospace products, activities, services, and facilities. To achieve these goals the corporation is authorized to provide information, technical assistance, and financial assistance to aerospace businesses, including loan facilitations, equity facilitations, loan guarantees, and creative leases. For fiscal year 2004-2005, the Legislature appropriated $300,000 to the corporation through OTTED.

Other Space-Related Entities and Incentives – In addition to the entities previously discussed, Florida has a host of other organizations that support and promote space-related enterprise. Similarly, the state has created a number of business incentives to retain and recruit space-related firms. The following briefly summarizes some of these organizations and business incentives.

- The Technological Research and Development Authority, established by the Legislature in 1987[7], focuses on the cost-effective transfer of new technologies to schools and small businesses in Florida.

- The Florida Space Institute is a consortium of state academic institutions responsible for expanding Florida's space industry through applied research, developing and transferring technology, and providing education and training for individuals in space-related fields.

- Spaceport Management Council[8] was created by the Legislature to provide coordination and recommendations on projects and activities that will increase the capabilities of Florida's space industry.

- Enterprise Florida, Inc., is the public-private partnership responsible for leading Florida's statewide economic development efforts. Enterprise Florida, Inc., has designated aerospace as a target sector of Florida's economy.

- Sales Tax Exemptions – Section 212.08, F.S., provides an exemption for certain equipment and machinery used to expand the productive output of a spaceport activity. Similarly, s. 212.031, F.S., provides the lease of real property used for space flight business is exempt from Florida sales tax.

[5] Section 331.368, Florida Statutes.
[6] Chapter 2003-286, Laws of Florida, revised the name of the corporation to the Florida Aerospace Finance Corporation.
[7] Chapter 87-454, Laws of Florida.
[8] Section 332.367, Florida Statutes.

- Space Laboratories and Carriers Exemption – Section 196.1994, F.S., provides an ad valorem tax exemption for space laboratories launched into space aboard the space shuttle for the purpose of conducting scientific research in space or as cargo carriers launched into space for transporting or storing cargo. The provision expired June 30, 2004 and is currently being considered for re-enactment.

Present Situation

Florida's aerospace industry is estimated to be a $45 billion sector of the state's economy with the space sector making up approximately $11 billion of the total.[9] The state is ranked 4th nationally in aerospace employment.[10] Enterprise Florida, Inc., reports the aerospace industry employs over 28,000 Floridians working in 300 companies throughout the state with an estimated payroll of $1.7 billion.[11] The KSC/Cape Canaveral Air Station's economic impact in this sector is estimated at over $4 billion in direct annual spending and billions more in extended economic impacts.[12] Additionally, the KSC/Cape Canaveral Air Station infrastructure is estimated to have an overall replacement value of $8 billion.[13] Florida's aviation industry's impact makes up almost half of the sector total weighing in at approximately $22 billion.[14]

Florida's space entities have proliferated over the years, with a total of almost 30 organizations with "space" in their title or mission statement.[15] Interviews of industry representatives show a perception that the state's space-related efforts lack coordination and accountability and no single source tracks the performance of the state's space-related entities.[16] Additionally, there is currently no plan for a state-coordinated response to the rapid changes occurring in the aerospace industry.

The Florida Senate Interim Project Report on the Florida Space Industry recommends the Legislature conduct a comprehensive analysis of Florida's space-related programs and policies as well as other planning and investment options. Senate Bill 1026 acts on these recommendations and creates the Commission on the Future of Space in Florida.

Effects of Proposed Change

HB 1719 creates the Commission on the Future of Space in Florida to recommend steps Florida should take to remain competitive in light of federal policy changes and a rapidly changing aerospace environment. The commission is directed to examine opportunities for growth and diversification of the industry; identify potential recruitment and retention of aerospace businesses; recruitment of related research and development; evaluate the effectiveness of the state's space-related programs and policies; identify federal funds available for these purposes; and evaluate the availability of graduates to meet the workforce needs of the aerospace industry. The commission must report findings and make recommendations in a preliminary and final report to the Governor and the Legislature by January 15, 2006 and January 31, 2006, respectively.

The commission is made up of 13 voting members and eight ex officio, nonvoting members. The voting members are selected from the following groups:

- Aerospace manufacturing
- Aerospace operations and maintenance
- Aerospace finance

[9] Florida Aviation Aerospace Alliance.
[10] *U.S. Aerospace and Aviation Industry: A State-by-State Analysis,* Commission on the Future of the United States Aerospace Industry, October 2002.
[11] *Florida's Aviation and Aerospace Industry – Companies, Employment, and Wages - 2003*, Enterprise Florida, Inc.
[12] *The 2003 Aviation/Aerospace Assessment*, Florida Aviation Aerospace Alliance, October 31, 2003.
[13] *Final Report*, Commission on the Future of the United States Aerospace Industry, November 2002.
[14] Florida Aviation Aerospace Alliance.
[15] *The 2003 Aviation/Aerospace Assessment*, Florida Aviation Aerospace Alliance, October 31, 2003.
[16] *Florida Space Industry*, Florida Senate Interim Project Report 2005-151, November 2004.

- Aerospace research
- Aerospace defense
- Commercial aerospace services
- Aerospace business with less than 250 employees
- Enterprise Florida, Inc.

Of the voting members, the Governor shall select one appointee from seven of the eight groups above. The President of the Senate and the Speaker of the House of Representatives each select one appointee from three of the eight groups. Ex officio, nonvoting members of the commission include two members of the state's Congressional Delegation appointed by the Governor and one member from both the Senate and the House appointed by the President and Speaker, respectively. Additionally, the Lieutenant Governor, the Secretary of Transportation, the Executive Director of the Florida Space Authority, and the Director of Workforce Innovation or their designees shall serve as ex officio, nonvoting members of the commission.

The commission is directed to convene no later than September 1, 2005, and shall meet at the call of the chair but no less frequently than monthly. The commission is authorized to appoint technical advisory committees and an executive director. The Florida Department of Transportation is directed to provide staff assistance to the executive director. Commission members may not receive remuneration for their services; however, they may be reimbursed for travel expenses and per diem. The commission is abolished effective May 31, 2006. The sum of $300,000 is appropriated from the General Revenue fund to the Department of Transportation for the purpose of implementing the commission.

HB 1719 takes effect July 1, 2005.

C. SECTION DIRECTORY:

Section 1: Creates the Commission on the Future of Space in Florida, its appointments, and reporting requirements.

Section 2: Provides a $300,000 appropriation from the General Revenue Fund to the Department of Transportation.

Section 3: Provides a July 1, 2005, effective date.

II. FISCAL ANALYSIS & ECONOMIC IMPACT STATEMENT

A. FISCAL IMPACT ON STATE GOVERNMENT:

1. Revenues:

   None.

2. Expenditures:

   The proposed committee bill appropriates $300,000 from the General Revenue fund to the Florida Department of Transportation for FY 2005-2006.

B. FISCAL IMPACT ON LOCAL GOVERNMENTS:

1. Revenues:

   None.

2. Expenditures:

None.

C. DIRECT ECONOMIC IMPACT ON PRIVATE SECTOR:

The recommendations formulated by the Commission on the Future of Space in Florida may assist Florida in remaining competitive in light of federal policy changes and a rapidly changing aerospace environment.

D. FISCAL COMMENTS:

None.

III. COMMENTS

A. CONSTITUTIONAL ISSUES:

1. Applicability of Municipality/County Mandates Provision:

None.

2. Other:

None.

B. RULE-MAKING AUTHORITY:

None.

C. DRAFTING ISSUES OR OTHER COMMENTS:

None.

IV. AMENDMENTS/COMMITTEE SUBSTITUTE & COMBINED BILL CHANGES