The Florida Senate

COMMITTEE MEETING EXPANDED AGENDA

MILITARY AFFAIRS, SPACE, AND DOMESTIC SECURITY
Senator Altman, Chair
Senator Sachs, Vice Chair

MEETING DATE: Monday, December 5, 2011
TIME: 9:30 —11:30 a.m.
PLACE: *Mallory Horne Committee Room,* 37 Senate Office Building

MEMBERS: Senator Altman, Chair; Senator Sachs, Vice Chair; Senators Bennett, Bullard, Fasano, Gibson, Jones, Norman, and Storms

TAB	BILL NO. and INTRODUCER	BILL DESCRIPTION and SENATE COMMITTEE ACTIONS	COMMITTEE ACTION
1	**SB 520** Braynon (Identical H 4049)	Veteran's Guardianship; Repealing provisions relating to guardians of incapacitated world war veterans, etc. JU 11/17/2011 Favorable MS 12/05/2011 Favorable	Favorable Yeas 8 Nays 0
2	**SB 532** Altman (Identical H 347)	College Credit for Military Training and Education Courses; Requiring the Board of Governors of the State University System and the State Board of Education to adopt regulations and rules, respectively, which enable United States Armed Forces servicemembers to earn college credit for college-level training and education acquired in the military, etc. MS 12/05/2011 Favorable HE BC	Favorable Yeas 8 Nays 0
3	**SB 634** Benacquisto (Identical H 97)	Spaceport Facilities; Defining the term "launch support facilities"; deleting the term "spaceport launch facilities," etc. MS 12/05/2011 Favorable	Favorable Yeas 8 Nays 0
4	Workshop on Enhancing Space-related Academic Research (regarding Interim Report 2012-135)		Presented
5	Other Related Meeting Documents		

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 Military Affairs, Space, and Domestic Security Committee

BILL:	SB 520
INTRODUCER:	Senator Braynon
SUBJECT:	Veteran's Guardianship
DATE:	December 5, 2011 REVISED:

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	Munroe	Maclure	JU	**Favorable**
2.	Fleming	Carter	MS	**Favorable**
3.				
4.				
5.				
6.				

I. Summary:

A provision within the guardianship statutes specifies a rule of statutory construction for the Veterans' Guardianship Law that is applicable to incapacitated world war veterans when there is any conflict with general law relating to guardianship. The section provides that, with respect to guardianship matters, the Veterans' Guardianship Law is a special or limited law, to which the general law relating to guardianship is cumulative. This bill repeals that particular section.

This bill repeals section 744.103, Florida Statutes.

II. Present Situation:

Chapter 744, F.S., outlines the statutory requirements for matters relating to guardians and wards. The chapter provides the general law by which all matters pertaining to guardians and wards and the property of wards are governed.[1] A guardian is a court-appointed surrogate decision-maker to make personal or financial decisions for a minor or for an adult with mental or physical disabilities. Section 744.102(9), F.S., defines "guardian" to mean a person who has been appointed by the court to act on behalf of a ward's person or property or both. A ward is defined as a person for whom a guardian has been appointed.[2]

The Legislature enacted chapters 293 and 294, F.S., relating to veterans' guardianship, in 1929.[3] The provisions of chapters 293 and 294, F.S., specifying requirements for veterans'

[1] *Hughes v. Bunker*, 76 So. 2d 474, 476 (Fla. 1954).
[2] Section 744.102(22), F.S.
[3] Chapter 14579, Laws of Fla. (1929) ("This Act may be cited as the 'Uniform Veterans' Guardianship Act."').

guardianship, limit the application of those chapters to veterans and other persons entitled to receive benefits from the United States Department of Veterans Affairs.[4] The provisions of the "Uniform Veterans' Guardianship Act" codified in chapters 293 and 294, F.S., were repealed or transferred to part VIII of ch. 744, F.S., and renamed the "Veterans' Guardianship Law."[5]

With respect to guardianship matters, the Veterans' Guardianship Law is a special or limited law, to which the general law relating to guardianship are cumulative.[6] Section 744.602(2), F.S., which is a provision within the Veterans' Guardianship Law, outlines a rule of statutory construction applicable to veterans and other persons who are entitled to receive benefits from the United States Department of Veteran Affairs. Under this rule of statutory construction, when there is any conflict with general law relating to guardianship and the Veterans' Guardianship Law, the conflict must be resolved by giving effect to the Veterans' Guardianship Law. Section 744.602(2), F.S., states:

> The application of this part is limited to veterans and other persons who are entitled to receive benefits from the United States Department of Veterans Affairs. This part is not intended to replace the general law relating to guardianship except insofar as this part is inconsistent with the general law relating to guardianship; in which event, this part and the general law relating to guardianship shall be read together, with any conflict between this part and the general law of guardianship to be resolved by giving effect to this part.

In 1945, the Legislature enacted s. 744.05, F.S., now codified as s. 744.103, F.S., which applies to incapacitated world war veterans and provides a similar rule of statutory construction for the Veterans' Guardianship Law and the general law relating to guardianship.[7] Section 744.103, F.S., provides:

> The provisions of this law shall extend to incapacitated world war veterans, provided for in chapters 293 and 294 or any amendment or revision of them. The provisions of this law are cumulative to those chapters. Any conflict between chapters 293 and 294, or any amendment or revision of them, and this law shall be resolved by giving effect to those chapters.

Section 744.103, F.S., applies to incapacitated world war veterans and provides that the general laws relating to guardianship are cumulative to the Veterans' Guardianship Law. Under s. 744.103, F.S., any conflict between the Veterans' Guardianship Law and the general law relating to guardianship must be resolved by giving effect to the Veterans' Guardianship Law.[8]

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[4] *Id.* See also *In re Adams' Guardianship*, 99 So. 2d 723, 725 (Fla. 2d DCA 1958).
[5] Chapter 84-62, Laws of Fla.
[6] 28 Fla. Jur 2d Guardian and Ward s. 5; *In re Adams' Guardianship*, 99 So. 2d at 725.
[7] Chapter 22750, Laws of Fla. (1945), and ch. 74-106, s. 1, Laws of Fla.; *In re Adams' Guardianship* 99 So. 2d at 725 ("The Florida Uniform Veterans' Guardianship Law relates to veterans or others entitled to receive benefits through the veterans' administration, and was adopted as a uniform veterans' guardianship law.").
[8] *In re Adams' Guardianship*, 99 So. 2d at 725.

III. Effect of Proposed Changes:

The bill repeals s. 744.103, F.S., which specifies a rule of statutory construction for the Veterans' Guardianship Law that is applicable to incapacitated world war veterans. Under the section, the general guardianship laws are extended to incapacitated world war veterans. The section also provides that the general laws relating to guardianship are cumulative to the Veterans' Guardianship Law. The section provides that any conflict between the Veterans' Guardianship Law and the general law relating to guardianship must be resolved by giving effect to the Veterans' Guardianship Law.

Although s. 744.103, F.S., is being repealed by the bill, s. 744.602(2), F.S., which is a provision within the Veterans' Guardianship Law, outlines a rule of statutory construction applicable to veterans and other persons who are entitled to receive benefits from the United States Department of Veteran Affairs.

This bill provides an effective date of July 1, 2012.

IV. Constitutional Issues:

A. Municipality/County Mandates Restrictions:

None.

B. Public Records/Open Meetings Issues:

None.

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.)

None.

B. Amendments:

None.

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 Military Affairs, Space, and Domestic Security Committee

BILL:	SB 532
INTRODUCER:	Senator Altman
SUBJECT:	College Credit for Military Training and Education Courses
DATE:	December 5, 2011 REVISED:

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	Fleming	Carter	MS	**Favorable**
2.			HE	
3.			BC	
4.				
5.				
6.				

I. Summary:

This bill directs the Board of Governors to adopt regulations and the State Board of Education to adopt rules that enable members of the U.S. Armed Forces to earn academic credit at public postsecondary educational institutions for college-level training and education acquired in the military.

This bill creates section 1004.096 of the Florida Statutes.

II. Present Situation:

Military servicemembers and veterans represent a growing proportion of the student population within postsecondary institutions. The Post-9/11 Veterans Educational Assistance Act, otherwise known as the Post-9/11 GI Bill, offers an unprecedented level of educational benefits to nearly 2 million individuals nationwide who have served in the U.S. Armed Forces since the attacks of September 11, 2001.[1] As a result of this benefit, the state of Florida and other states have experienced an influx of veterans on college campuses. Nationwide the number of veterans enrolling in college and using the GI Bill has increased to approximately 800,000 in 2010, which is up 40 percent from 2009.[2]

[1] RAND Corporation. Research Brief. How Military Veterans Are Using the Post-9/11 GI Bill and Adapting to Life in College (2010). http://www.rand.org/pubs/research_briefs/RB9560.html

[2] Vets go from Combat to Campus by Trevor Hughes, USA Today, April 12, 2011 from http://www.usatoday.com/news/education/2011-04-11-college-vets_N.htm.

Currently, neither the Florida Board of Governors nor the State Board of Education have rules or regulations in place that require or prescribe a process for Florida public educational institutions to award college credit to members of the U.S. Armed Forces based on training and education acquired in the military. Despite the absence of the mandate to do so, evaluating military training and experience for college credit is a common practice among all Florida public higher education institutions. The processes and policies which individual postsecondary institutions have established for the evaluation of military training and experience vary among institutions.

The American Council on Education

Since 1945, the American Council on Education (ACE) has provided a collaborative link between the U. S. Department of Defense and higher education through the review of military training and experiences for the award of equivalent college credits for members of the U.S. Armed Forces.[3] In doing so, the ACE maintains the ACE Guide to the Evaluation of Educational Experiences in the Armed Services (ACE Military Guide). The ACE has established a rigid process in evaluating military service school courses to determine the appropriate amount and level of academic credit that should be awarded by postsecondary institutions.[4]

More than 2,200 higher education institutions recognize ACE course credit recommendations for granting credit to their military students.[5]

> Institutions consult with and follow the ACE Military Guide to determine how military training and experience might be awarded for equivalent course credit. Typically, military courses that are recommended by the ACE Military Guide for college credit are considered first to determine if they meet degree requirements, and second to determine if they fulfill any electives. Some of the military training involved may be more vocational in nature, such as the Advanced Helicopter Pilot Training 1 course. This course would not be accepted at a state university because there is no equivalent course and it is more vocational in nature than academic credit.[6]

Each branch of service provides transcripts for current and former servicemembers as an official record of military education, training, and experience. Postsecondary institutions using the ACE Military Guide evaluate an individual's military transcript according to the ACE standards for recommended college credit. The following is a break-down of the service-specific transcripts available to current and former servicemembers:

- **U.S. Army:** Army/American Council on Education Registry Transcript System (AARTS)
- **U.S. Navy/U.S. Marine Corps:** Sailor/Marine American Council on Education Registry Transcript (SMART)
- **U.S. Air Force:** Community College of the Air Force (CCAF)

[3] http://www.acenet.edu/AM/Template.cfm?Section=Military_Programs
[4] Military courses that are eligible for inclusion in the ACE Military Guide are courses that are conducted for a specified period of time with a prescribed course of instruction, in a structured learning situation, and with qualified instructors.
[5] Available at: www.acenet.edu.
[6] Information from this paragraph obtained from the Florida Board of Governors 2012 Legislative Bill Analysis.

- **U.S. Coast Guard:** U.S. Coast Guard Institute (CGI)[7]

Servicemembers Opportunity Colleges Consortium

The Servicemembers Opportunity Colleges (SOC)[8] was created in 1972 to provide educational opportunities to servicemembers who, because they frequently moved from place to place, had trouble completing college degrees.[9] The SOC supports a consortium of approximately 1,900 colleges and universities pledged to support the higher education needs of military personnel. SOC works with civilian and military educators to overcome obstacles associated with gaining a college education when pursued through traditional means.

Among the SOC Consortium key goals is the award of credit for military training and experience. All SOC Consortium institutions provide processes to determine credit awards and learning acquired for specialized military training and occupational experience when applicable to a servicemember's degree program. In doing so, SOC Consortium members recognize and use the ACE Military Guide in evaluating and awarding academic credit for military training and experience. Other key features of the SOC Consortium include:

- Reasonable Transfer of Credit;
- Reduced Academic Residency; and
- Credit for Nationally-Recognized Testing Programs.[10]

Florida has a high representation within the SOC Consortium in that 25 of the 28 Florida College System institutions and 9 of the 11 State University System institutions are members.[11]

III. Effect of Proposed Changes:

Section 1 creates s. 1004.096, F.S., to require the Board of Governors to adopt regulations and the State Board of Education to adopt rules to provide guidance to their respective institutions regarding procedures for military credential evaluation and the award of college credit for military training and education.

Procedures shall include, but not be limited to, equivalency and alignment of military coursework with appropriate college courses, course descriptions, type and amount of college credit that may be awarded, and transfer of credit.

Section 2 provides an effective date of July 1, 2012.

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[7] ACE. A Transfer Guide. Understanding Your Military Transcripts and ACE Credit Recommendations. pp. 11-14. (August 2011). Available at: http://www.acenet.edu/Content/NavigationMenu/ProgramsServices/MilitaryPrograms/TransferGuide_Updated2011.pdf

[8] SOC is funded by the Department of Defense (DoD) through a contract with the American Association of State Colleges and Universities (AASCU). The contract is managed for DoD by the Defense Activity for Non-Traditional Education Support (DANTES).

[9] For more information, *See* SOC homepage at: http://www.soc.aascu.org/

[10] Information in this paragraph obtained from the *SOC Principles and Criteria* website at: http://www.soc.aascu.org/socconsortium/socPrinCriteria.html

[11] For a comprehensive list of SOC consortium membership, *See*: http://www.soc.aascu.org/pubfiles/socmisc/SOCConsort_Schools.pdf.

IV. Constitutional Issues:

A. Municipality/County Mandates Restrictions:

None.

B. Public Records/Open Meetings Issues:

None.

C. Trust Funds Restrictions:

None.

V. Fiscal Impact Statement:

A. Tax/Fee Issues:

None.

B. Private Sector Impact:

Students who are either members of the U.S. Armed Forces or who are veterans will have their college-level training evaluated and provided equivalent college credit as appropriate. To the extent a student with military training earns college credit for such training, the cost to the student to complete a postsecondary degree may decrease.

C. Government Sector Impact:

The Board of Governors notes no fiscal impact to the state universities as a result of this bill.[12] Information is not available as to the expected fiscal impact this bill would have on the State Board of Education and their higher education institutions.

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.

[12] Board of Governors 2012 Legislative Bill Analysis.

B. Amendments:

None.

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 Military Affairs, Space, and Domestic Security Committee

BILL:	SB 634
INTRODUCER:	Senator Benacquisto
SUBJECT:	Launch Support Facilities
DATE:	December 5, 2011 REVISED:

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	Fleming/Willar	Carter	MS	**Favorable**
2.				
3.				
4.				
5.				
6.				

I. Summary:

The bill amends s. 331.303, F.S., by defining the term ‘launch support facilities’ and deleting the term ‘spaceport launch facilities’. "Launch support facilities," as defined by the bill, means facilities that are located at launch sites or launch ranges that are required to support launch activities, including launch vehicle assembly, launch vehicle operations and control, communications, and flight safety functions, as well as payload operations, control, and processing. This change is intended to provide an updated definition of spaceport infrastructure for state and federal purposes.

The bill substantially amends section 331.303 of the Florida Statutes.

II. Present Situation:

Florida’s Aerospace Economic Development Organization

Florida’s aerospace industry is integral to the state’s long-term success in diversifying and building a knowledge-based economy that is able to support the creation of high-value-added businesses and jobs.[1] As such, the Florida Legislature found that a strong public and private commitment was required to foster the growth and development of a sustainable and world-leading aerospace industry in the state.[2] Space Florida[3] is one manifestation of this commitment, and among many other things, fosters economic development by:

[1] s. 331.3011(1), F.S.
[2] s. 331.3011(2), F.S.
[3] Space Florida was created by ch. 2006-60, L.O.F.; codified in ch. 331, F.S.

- Enhancing the state's workforce, education and research capabilities, with an emphasis on mathematics, science, engineering and related fields;
- Focusing on the state's economic development efforts in order to capture a larger share of activity in aerospace research, technology, production and commercial operations, while maintaining the state's historical leadership in space launch activities;
- Preserving the unique national role served by the Cape Canaveral Air Force Station and the John F. Kennedy Space Center by reducing costs and improving the regulatory flexibility for commercial sector launches while pursuing the development of complementary sites for commercial horizontal launches; and
- Facilitating business financing, and when necessary, entering into memoranda of agreement with municipalities, counties, regional authorities, state and federal agencies and other organizations, as well as other interested persons or groups.[4]

As an independent special district and political subdivision of the state, Space Florida has all the powers, rights, privileges and authority as provided under Florida law.[5] This authority allows Space Florida to act as a special purpose government and finance vehicle to carry out the legislative intent behind its creation. In doing so, Space Florida is governed by an independent board of directors and an advisory council.[6] Securing funding for aerospace related infrastructure is one of the many duties and responsibilities of the board of directors.[7]

Florida's Strategic Intermodal System

Space Florida secures funding for aerospace related infrastructure in part from the Florida Department of Transportation's Strategic Intermodal System ("SIS"). The SIS is composed of the following three components:

- Statewide and regionally significant facilities and services (strategic);
- All forms of transportation for moving both people and goods, including linkages that provide for smooth and efficient transfers between modes and major facilities (intermodal); and
- Integration of individual facilities, services, forms of transportation and linkages into a single, integrated transportation network (system).[8]

Because 'space' is a recognized mode of transportation, 'spaceports' are considered transportation facilities.[9,10] This recognition makes certain spaceport infrastructure projects

[4] Id.
[5] Id.
[6] s. 331.3081(1), (2), F.S.
[7] s. 331.310(1)(d), F.S.
[8] *See* information on Florida Department of Transportation's Strategic Intermodal System. This information can be accessed via the following link: http://www.dot.state.fl.us/planning/sis/.
[9] s. 339.62(3), F.S.
[10] More specifically, 'spaceports' are considered transportation 'hubs' in the SIS Strategic Plan. *See* the Florida Department of Transportation's information on the SIS Strategic Plan, which in relevant part reads "Hubs are ports and terminals that move goods or people between Florida regions or between Florida and other markets in the United States and the rest of the

eligible for inclusion in the Florida Department of Transportation's (FDOT) planning and programs.[11] Annually, the Florida Legislature appropriates a portion of the State Transportation Trust Fund, specifically revenues collected from taxes on aviation fuel, to the State Aviation Program, which in part funds the SIS.[12] During the 2011 Regular Legislative Session, Space Florida was allocated $16 million for infrastructure spending related to the spaceport launch complex and spaceport infrastructure projects.[13]

Inconsistent Definitions of Spaceport Infrastructure

Space Florida and FDOT work closely on SIS funding so no issues have arisen regarding the current statutory definition. However, Space Florida is interested in avoiding future issues of interpretation and to address federal definition issues.

Currently, Florida law uses the term 'spaceport launch facilities' and defines it to mean "industrial facilities . . . [including] any launch pad, launch control center, and fixed launch support equipment."[14]

Federally, the term 'launch support facilities' means "facilities located at launch sites or launch ranges that are required to support launch activities, including launch vehicle assembly, launch vehicle operations and control, communications, flight safety functions, payload operations, control and processing."[15]

Florida's current definition of 'spaceport launch facilities' uses outdated terminology and the proposed definition is intended to parallel the more broad federal definition of 'launch support facilities.'

III. Effect of Proposed Changes:

Section 1 amends s. 331.303, F.S., to define the term 'launch support facilities' and to delete the term 'spaceport launch facilities.'

The new definition states:

> "Launch support facilities" means facilities that are located at launch sites or launch ranges that are required to support launch activities, including launch vehicle assembly, launch vehicle operations and control, communications, and flight safety functions, as well as payload operations, control, and processing.

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world. These include airports, spaceports and interregional passenger terminals." This information can be accessed by clicking the link titled 'Adopted SIS criteria and thresholds at http://www.dot.state.fl.us/planning/sis/strategicplan/.

[11] *See* Florida Department of Transportation's information on 'Space Programs.' This information can be accessed via the following link: http://www.dot.state.fl.us/aviation/space.shtm.

[12] s. 339.61(3), F.S.

[13] Ch. 2011-69, Part 4, L.O.F., which states "[f]rom the funds in Specific Appropriation 1918B, $16,000,000 from the State Transportation Trust Fund as proposed in the Transportation Work Program is provided to Space Florida for up to 100 percent of the non-federal share of the Spaceport Launch Complex and Spaceport Infrastructure Projects."

[14] s. 331.303(17), F.S.

[15] 51 USC § 50501 (formerly cited as 15 USC § 5802(7)).

Section 2 provides an effective date of July 1, 2012.

IV. Constitutional Issues:

A. Municipality/County Mandates Restrictions:

None.

B. Public Records/Open Meetings Issues:

None.

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.)

None.

B. Amendments:

None.

THE FLORIDA SENATE

APPEARANCE RECORD

(Deliver BOTH copies of this form to the Senator or Senate Professional Staff conducting the meeting)

Waive in support

12/5/11
Meeting Date

Topic Launch Support Facilities

Bill Number SB634 *(if applicable)*

Name Chris Snow

Amendment Barcode *(if applicable)*

Job Title Senior Director of Government Relations

Address 1580 Waldo Palmer Lane
Street

Phone 321-474-9754

Tallahassee FL 32301
City *State* *Zip*

E-mail csnow@spaceflorida.gov

Speaking: ☑ For ☐ Against ☐ Information

Representing Space Florida

Appearing at request of Chair: ☐ Yes ☑ No

Lobbyist registered with Legislature: ☑ Yes ☐ No

While it is a Senate tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this meeting. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard.

This form is part of the public record for this meeting.

S-001 (10/20/11)

THE FLORIDA SENATE

APPEARANCE RECORD

(Deliver BOTH copies of this form to the Senator or Senate Professional Staff conducting the meeting)

12/5/2011
Meeting Date

Topic SB 634 Spaceport facilities Bill Number SB 634 *(if applicable)*

Name Ryan West Amendment Barcode *(if applicable)*

Job Title Policy Director for Education & Economic Development

Address 136 South Bronough St Phone (850) 521-1251
Street

Tallahassee FL 32301 E-mail rwest@flchamber.com
City *State* *Zip*

Speaking: ☑ For ☐ Against ☐ Information

Representing Florida Chamber of Commerce

Appearing at request of Chair: ☐ Yes ☑ No Lobbyist registered with Legislature: ☑ Yes ☐ No

While it is a Senate tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this meeting. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard.

This form is part of the public record for this meeting.

S-001 (10/20/11)

THE FLORIDA SENATE

APPEARANCE RECORD

(Deliver BOTH copies of this form to the Senator or Senate Professional Staff conducting the meeting)

12/5/11
Meeting Date

Topic Launch Support Facilities

Bill Number SB634 *(if applicable)*

Name Chris Snow

Amendment Barcode _____ *(if applicable)*

Job Title Senior Director of Government Relations

Address 1580 Waldo Palmer Lane
Street
Tallahassee FL 32301
City *State* *Zip*

Phone 321-474-9754

E-mail csnow@spaceflorida.gov

Speaking: ☑ For ☐ Against ☐ Information

Representing Space Florida

Appearing at request of Chair: ☐ Yes ☑ No

Lobbyist registered with Legislature: ☑ Yes ☐ No

While it is a Senate tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this meeting. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard.

This form is part of the public record for this meeting.

S-001 (10/20/11)

THE FLORIDA SENATE

APPEARANCE RECORD

(Deliver BOTH copies of this form to the Senator or Senate Professional Staff conducting the meeting)

12/5
Meeting Date

Topic SPACEPORT FACILITIES

Bill Number 634 *(if applicable)*

Name CAMERON YARBROUGH

Amendment Barcode *(if applicable)*

Job Title

Address PO Box 128 *Street*

Phone 850/528-9034

TALLAHASSEE FL 32301 *City* *State* *Zip*

E-mail Cameron@tgsmostyle1.com

Speaking: ☑ For ☐ Against ☐ Information

Representing BREVARD Co.

Appearing at request of Chair: ☐ Yes ☑ No

Lobbyist registered with Legislature: ☑ Yes ☐ No

While it is a Senate tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this meeting. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard.

This form is part of the public record for this meeting.

S-001 (10/20/11)

THE FLORIDA SENATE

APPEARANCE RECORD

(Deliver BOTH copies of this form to the Senator or Senate Professional Staff conducting the meeting)

12/5/11
Meeting Date

Topic SPACE INFRASTRUCTURE

Bill Number SB 634 *(if applicable)*

Name JEFF SHARKEY

Amendment Barcode _____ *(if applicable)*

Job Title PRESIDENT

Address 106 E College Ave, #640
Street
TLH FL
City *State* *Zip*

Phone 224 1660

E-mail JEFF@capitolalliance.com

Speaking: ☒ For ☐ Against ☐ Information

Representing SPACE EXPLORATION TECHNOLOGIES (SPACE X)

Appearing at request of Chair: ☐ Yes ☒ No

Lobbyist registered with Legislature: ☒ Yes ☐ No

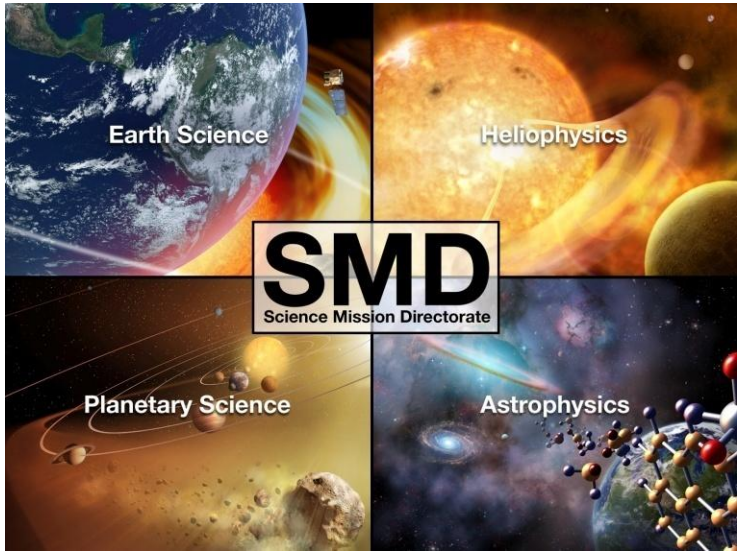
While it is a Senate tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this meeting. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard.

This form is part of the public record for this meeting.

S-001 (10/20/11)

Florida Universities and Their Involvement in NASA Missions

NASA Science Mission Directorate



CURRENTLY: 98 spacecraft, 57 missions in operation, 28 more in development

ANNUAL BUDGET = $5 Billion. Over 94% of every dollar NASA receives goes out the door to universities, commercial entities, and not-for-profits

More than 10,000 U.S. scientists funded by 3,000 competitively selected research awards

During the last decade NASA has undertaken 104 different science missions

BARREL	SeaWinds (ADEOS II)	ST6	NPOESS Preparatory Project (NPP)
CLARREO	CHIPS	THEMIS	Mars Science Laboratory
ExoMars Trace Gas Orbiter	ICESat	AIM	NuSTAR
IXO	SORCE	Phoenix	AirMOSS
JDEM	GALEX	Dawn	CARVE
Keck Interferometer (KI)	Hayabusa	TWINS A & B	RBSP
LBTI	Mars Express (ASPERA-3)	CINDI/CNOFS	ST-7 / Lisa Pathfinder
LISA	Mars Exploration Rover - Spirit	Fermi	Space Environment Testbeds
OAO	Mars Exploration Rover - Opp	OSTM	IRIS
SIM	Spitzer	IBEX	LDCM
SOFIA	Rosetta	Chandrayaan-1 (M3)	OCO-2
Solar Orbiter	Gravity Probe B (GP-B)	OCO	LADEE
Solar Probe Plus	Aura	Kepler	GPM
Stardust-NExT	MESSENGER	Herschel	HS3
TPF	Swift	Planck	MAVEN
Mars Odyssey	Deep Impact	Lunar Reconnaisance Orbiter	Astro-H
WMAP	Epoxi	Operation IceBridge	NPOESS
Genesis	NOAA-N	WISE	GEMS
Jason-1	Suzaku (Astro-E2)	Solar Dynamics Observatory (SDO	SAGE III - ISS
TIMED	Mars Reconnaissance Orbiter	GOES N - P	MMS
SAGE III – Meteor-3M	New Horizons	GRIP	SMAP
RHESSI	ST5	Aquarius	GOES-R
GRACE	CALIPSO	DISCOVER-AQ	DESDynI
Aqua	CloudSat	ATTREX	ICESat-2
CONTOUR	Hinode (Solar-B)	Juno	JWST
INTEGRAL	STEREO	GRAIL	ILN

Florida Universities

Florida universities have participated in only 8 of the 104 NASA missions.

More than 230 different universities (see attachment A) have been involved in these missions. Only 4 were from Florida.

Florida State University
University of Central Florida
University of Florida
University of Miami

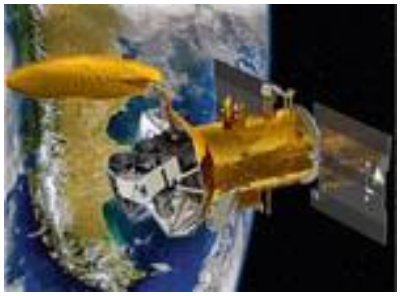
Data is based on review of each individual NASA Mission web page and the participating universities listed on those pages.

Florida's Minor Role in Missions

Furthermore, Florida universities typically had a substantially smaller role within these 8 missions, when compared to other participating universities.

The slides that follow detail these 8 missions.

Mission Aquarius



Aquarius will observe and model seasonal and year-to-year variations of sea-surface salinity and how these variations relate to changes in the water cycle and ocean circulation. The science focus areas served by Aquarius will include: climate variability and change; and water and energy cycles.

Major University Involvement:

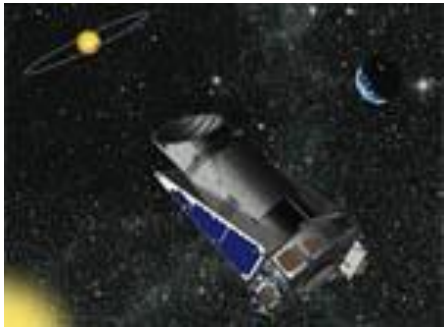
$128.67 million - California Institute of Technology
- Contract #NMO710798 – 2003-2012

$8.52 million - California Institute of Technology
- Contract #NMR710798 – 2009-2011

Florida University Involvement:

$601,643 – University of Central Florida
– Contract #NNX09AU67G – 2009-2013

Mission Kepler



Kepler is specifically designed to survey the distant stars in this region of the Milky Way galaxy to detect and characterize rocky planets in or near the "habitable zone" of their host star. As time progresses, smaller and smaller planets with longer and longer orbital periods will begin to emerge from the data.

Major University Involvement:

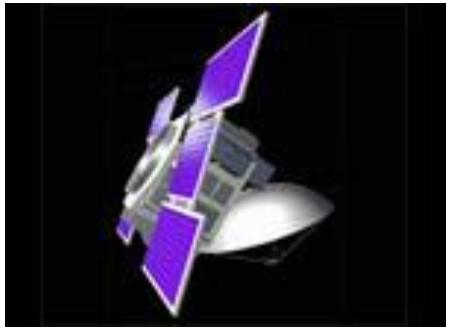
$148.9 million - California Institute of Technology
- Contract #NMO710711 – 2003-2008

$5.5 million - California Institute of Technology
- Contract #NMR710798 – 2009-2010

Florida University Involvement:

$299,778 – University of Central Florida
– Contract #NNX08AR04G – 2008-2012

Mission CloudSat



CloudSat is the first satellite that uses an advanced radar to "slice" through clouds to see their vertical structure. CloudSat's primary goal is to furnish data needed to evaluate & improve the way clouds are represented in global models, thereby contributing to better predictions of clouds and thus to their poorly understood role in climate change and the cloud-climate feedback.

Major University Involvement:

$41.11 million - California Institute of Technology
- Contract #NMO710246 – 2003-2005

$25.63 million - California Institute of Technology
- Contract #NMO710984 – 2009-2010

$17 million – Colorado State University
- Contract #GSFC0199912DNAS599237 – 1999-2000

Florida University Involvement:

$336,144 – Florida State University
- Contract #NNX07AQ79G – 2007-2011

$630,000 – University of Miami
- Contract #NNX07AQ80G – 2007-2012

Mission NPOESS

The National Polar-orbiting Operational Environmental Satellite System (NPOESS) is a satellite system used to monitor global environmental conditions, and collect and disseminate data related to weather, atmosphere, oceans, land and near-space environment. In 1994, it was recognized that converging the existing polar systems from the Department of Commerce (DoC) and Department of Defense (DoD) would result in a higher performance integrated system. NPOESS will gather those existing polar-orbiting satellite systems into a single national program.

Major University Involvement:

$12.19 million - California Institute of Technology
- Contract #NMO711019 – 2007-2009

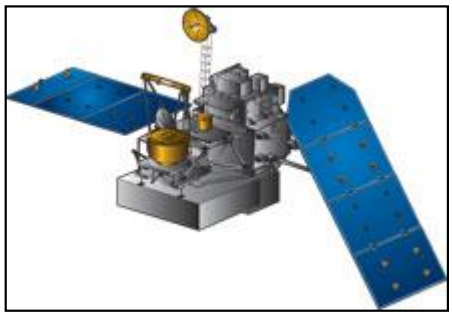
$5.25 million - California Institute of Technology
- Contract #NMO710876 – 2011-2012

$1.53 million – Colorado State University
- Contract #NMO710926 – 2005-2007

Florida University Involvement:

$749,993 – University of Miami
- Contract #NNX08AD55G – 2007-2011

Mission GPM



GPM will provide detailed, frequent measurements of precipitation including rain rates and droplet size distributions. A joint mission between NASA and JAXA, GPM's two instruments will make valuable direct precipitation measurements and allow precise characterization of many other on-orbit NASA instruments, enabling first-ever, accurate, near-global precipitation maps to be produced. GPM data will contribute to improved operational meteorological predictions, as well as to advances in the NASA science.

Major University Involvement:

$2.79 million – John Hopkins University
- Contract #NN08AA03T – 2008-2011

Florida University Involvement:

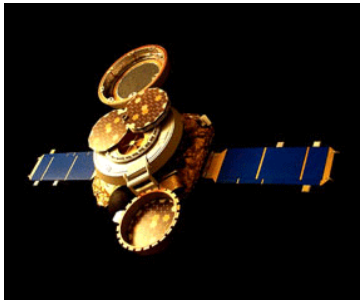
$210,000 – University of Central Florida
- Contract #NAG513650 – 2003-2006

$309,209 – University of Central Florida
- Contract #NNX07AD23G – 2007-2010

$434,362 - Florida State University
- Contract #NNX10AG76G - 2010-2013

$360,077 - Florida State University
- Contract #NNX10AG86G – 2010-2013

Mission Genesis



The primary objective of the Genesis mission was to collect samples of solar wind particles and return them to Earth for detailed analysis. The science objectives were to obtain precise measurements of solar isotopic and elemental abundances and provide a reservoir of solar matter for future scientific analysis. The mission will help improve theories about the origin of the Sun and the planets, which formed from the same primordial dust cloud.

Major University Involvement:

$1.432 million – California Institute of Technology
- Contract #NNX09AC35G – 2008-2012

$959,392 – California Institute of Technology
- Contract #NAG91013

Florida University Involvement:

$675,900 – Florida State University
- Contract NNJ05HB56G – 2005-2010

$463,000 – Florida State University
- Contract #NNG05GR54G – 2005-2009

$267,694 – Florida State University
- Contract #NNG05GH81G – 2005 - 2009

Mission GRIP

The GRIP deployment with bases in Ft. Lauderdale, FL for the DC-8, at Houston, TX for the WB-57, and at NASA Dryden Flight Research Facility, CA for the Global Hawk. This campaign will be conducted to capitalize on a number of ground networks, airborne science platforms and space-based assets. GRIP will assist the hurricane research community in addressing shortcomings in the current state of the science.

Major University Involvement:

$320,590 – University of Maryland - Baltimore
- Contract #NNX09AV79G – 2009-2012

Florida University Involvement:

$35,124 – Florida State University
- Contract #NNX09AV80 – 2009-2011

Mission SeaWinds

SeaWinds is the main instrument on the QuikSCAT satellite. It is an active radar scatterometer. This scatterometer operates by transmitting high-frequency microwave pulses to the ocean surface and measuring the echoed radar pulses bounced back to the satellite. The scatterometer estimates wind speed and direction over the Earth's oceans at 10 m above the surface of the water. The instrument collects data over ocean, land, and ice in a continuous, 1,800-kilometer-wide band, making approximately 400,000 measurements and covering 90% of Earth's surface in one day.

Major University Involvement:

The only contract that could readily be identified for this project is the contract with University of Central Florida, which is found below.

Florida University Involvement:

$512,658 – University of Central Florida - Contract #NNX10AO88G – 2010-2014

University of Miami and Florida State University listed on mission website, but no contracts found

Misconception: NASA Missions are ending

While it is true that the Space Shuttle budget is being phased out ....

… the NASA Science Mission Directorate is slated to receive $25 billion over the next 5 years

FY 2012 Budget Request

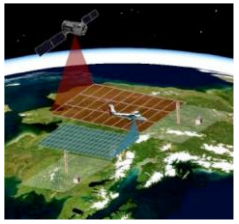
Outyears are notional

Budget Authority ($M)	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
Science	**5,017**	***5,017***	***5,017***	***5,017***	***5,017***
Earth Science	1,797	*1,822*	*1,819*	*1,858*	*1,915*
Planetary Science	1,540	*1,429*	*1,395*	*1,344*	*1,257*
Astrophysics	683	*758*	*775*	*780*	*811*
James Webb Space Telescope	375	*375*	*375*	*375*	*375*
Heliophysics	622	*634*	*653*	*660*	*659*
Aeronautics	**569**	***569***	***569***	***569***	***569***
Space Technology	**1,024**	***1,024***	***1,024***	***1,024***	***1,024***
Exploration Systems	**3,949**	***3,949***	***3,949***	***3,949***	***3,949***
Human Exploration Capabilities	2,810	*2,810*	*2,810*	*2,810*	*2,810*
Commercial Spaceflight	850	*850*	*850*	*850*	*850*
Exploration Research and Development	289	*289*	*289*	*289*	*289*
Space Operations	**4,347**	***4,347***	***4,347***	***4,347***	***4,347***
Space Shuttle	665	*80*	*1*	*1*	*1*
International Space Station	2,841	*2,960*	*3,005*	*3,098*	*3,175*
Space and Flight Support	841	*1,307*	*1,341*	*1,248*	*1,172*
Education	**138**	***138***	***138***	***138***	***138***
Cross-Agency Support	**3,192**	***3,192***	***3,192***	***3,192***	***3,192***
CoF and ECR	**450**	***450***	***450***	***450***	***450***
Inspector General	**38**	***38***	***38***	***38***	***38***
NASA FY 2012	**18,724**	***18,724***	***18,724***	***18,724***	***18,724***

Future NASA Missions

NuSTAR – February 3, 2012 Launch
The Nuclear Spectroscopic Telescope Array is a pathfinder mission that will open the high energy X-ray sky for sensitive study for the first time. This mission is part of SMD's Astrophysics Explorers program.

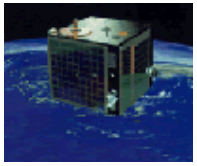
AirMOSS – March 1. 2012 Launch
North American ecosystems are critical components of the global carbon cycle, exchanging large amounts of carbon dioxide and other gases with the atmosphere. Root-zone soil measurements can be used to better understand these carbon fluxes and their associated uncertainties .



CARVE – March 1, 2012 Launch
The carbon budget of Arctic ecosystems is not known with confidence since fundamental elements of the complex Arctic biological-climatologic-hydrologic system are poorly quantified. CARVE will collect detailed measurements of important greenhouse gases on local to regional scales in the Alaska.

RBSP – May 18, 2012 Launch
he RBSP mission will provide scientific understanding, ideally to the point of predictability, of how populations of relativistic electrons and ions in space form and change in response to variable inputs of energy from the Sun.

ST-7 / Lisa Pathfinder – June 30, 2012 Launch
Space Technology 7 project will flight test a Disturbance Reduction System (DRS) that will aid scientists o detect and measure gravitational waves in space.



Space Environment Testbeds – October 12, 2012 Launch
The Space Environment Testbeds (SET) Project performs flight and ground investigations to understand how the Sun/Earth interactions affect humanity.

Future NASA Missions

IRIS – December 1, 2012 Launch
The primary goal of the Interface Region Imaging Spectrograph (IRIS) explorer is to understand how the solar atmosphere is energized. The investigation combines advanced numerical modeling with a high resolution UV imaging spectrograph.

LDCM - December 1, 2012 Launch
is a joint NASA-United States Geological Survey (USGS) mission to extend the Landsat record of multispectral, 30-meter resolution, seasonal, global coverage of the Earth's land surface.

OCO-2 - February 13, 2013 Launch
The Orbiting Carbon Observatory -2 (OCO-2) is based on the original OCO mission that was developed under the NASA Earth System Science Pathfinder (ESSP) Program Office and launched from Vandenberg Air Force Base on February 24, 2009.

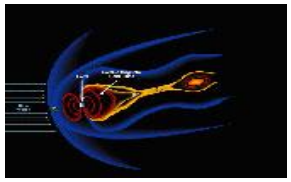
LADEE - May 2, 2013 Launch
Lunar Atmosphere and Dust Environment Explorer (LADEE) is a NASA mission that will orbit the Moon and its main objective is to characterize the atmosphere and lunar dust environment. This mission is part of SMD's Robotic Lunar Exploration program.

MAVEN – May 1, 2013
The Mars Atmosphere and Volatile Evolution Mission (MAVEN), set to launch in 2013, will explore the planet's upper atmosphere, ionosphere and interactions with the sun and solar wind.

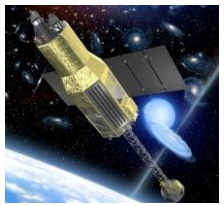
Future NASA Missions

GPM – July 1, 2013 Launch
GPM Constellation follows the success of Tropical Rainfall Measuring Mission (TRMM) in initiating the measurement of global precipitation, a key climate factor. Its science objectives are: to improve ongoing efforts to predict climate by providing near-global measurement of precipitation.

HS3 – August 1, 2013
Close to 100 million Americans now live within 50 miles of a coastline, thus exposing them to the potential destruction caused by a landfalling hurricane. While hurricane track prediction has improved in recent decades, improvements in hurricane intensity prediction have struggled. This mission will help address that issue.



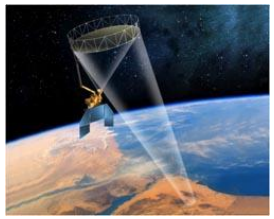
MMS – August 14, 2014
The Magnetospheric Multiscale mission will determine the small-scale basic plasma processes which transport, accelerate and energize plasmas in thin boundary and current layers – and which control the structure and dynamics of the Earth's magnetosphere.



Astro-H - February 15, 2014
Astro H s a powerful orbiting observatory being developed by the Japan Aerospace Exploration Agency (JAXA) for studying extremely energetic processes in the universe.

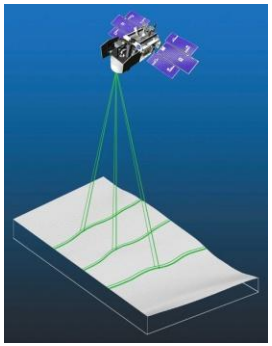
GEMS – July 1, 2014
GEMS will use an X-ray telescope to explore the shape of space that has been distorted by a spinning black hole's gravity, and probe the structure and effects of the formidable magnetic field around magnetars and dead stars with magnetic fields .

Future NASA Missions



SMAP - November 1, 2014
The Soil Moisture Active-Passive (SMAP) will use a combined radiometer and high-resolution radar to measure surface soil moisture and freeze-thaw state, providing for scientific advances and societal benefits. This mission is part of SMD's Earth Systematic Missions program.

GOES - R – January 1, 2015
GOES-R satellites will comprise improved spacecraft and instrument technologies, which will result in more timely and accurate weather forecasts, and improve support for the detection and observations of meteorological phenomena that directly affect public safety and protection of property.



ICESat- January 1, 2016
ICESat (Ice, Cloud,and land Elevation Satellite) is the benchmark Earth Observing System mission for measuring ice sheet mass balance, cloud and aerosol heights, as well as land topography and vegetation characteristics.

Attachment A

(The attached represents the 104 missions undertaken by NASA during the last decade. The left had column identifies the NASA mission, as well as a university's particular role in that mission. The right hand column provides the name of the corresponding university. Any participation by a Florida university is highlighted in yellow.)

Mission	University
AIM-Education & Public Outreach	Hampton University
AIM-Education & Public Outreach	University of Alaska, Fairbanks
AIM-Education & Public Outreach	University of Colorado
AIM-Mission Ops & Data Systems	University of Colorado
AIM-Partner Organizations	George Mason University
AIM-Partner Organizations	Hampton University
AIM-Partner Organizations	Norwegian University of Science and Technology
AIM-Partner Organizations	Utah State University
AIM-Partner Organizations	Virginia Polytechnic Institute and State University
AIM-Project Data Center	Hampton University
AIM-Science Team	George Mason University
AIM-Science Team	Hampton University
AIM-Science Team	University of Colorado
AIM-Science Team	Utah State University
AIM-Science Team	Virginia Polytechnic Institute and State University
AirMOSS	University of Michigan
Aqua - Key Personell	Universitty of Colorado
Aqua - Key Personell	University of Utah
Aquarius-EPO Team	University of Maine
Aquarius-Instrument Team	University of Michigan
Aquarius-Science Team	Columbia University
Aquarius-Science Team	George Washington University
Aquarius-Science Team	University of Central Florida
Aquarius-Science Team	University of Maryland
Aquarius-Science Team	University of Michigan
Aquarius-Science Team	University of New Hampshire
Aquarius-Science Team	University of North Carolina
Aquarius-Science Team	University of Washington
Aquarius-Science Team	University of Washington
Aquarius-Science Team	Unversity of Hawaii
Astro-H	Mision Project Page Not Working
ATTREX	No Universities Found
Aura - PI	Oxford University
Aura - PI	University of Colorado
BARRELL-Collaborators	University of California, Berkeley
BARRELL-Collaborators	University of California, Los Angeles
BARRELL-Collaborators	University of Minnesota
BARRELL-Science Team	Dartmouth College
BARRELL-Science Team	Moscow State University
BARRELL-Science Team	University of California, Berkeley
BARRELL-Science Team	University of California, Santa Cruz
BARRELL-Science Team	University of Washington
CALIPSO - Education and Public Outreach	Hampton University
CARVE	No Universities Found
Chandrayaan-1 (M3) Team	Brown University
Chandrayaan-1 (M3) Team	College of Charleston
Chandrayaan-1 (M3) Team	University of Maryland
CHIPS	Unversity of California, Berkeley
CINDI/CNOFS-Science Team	University of Texas, Dallas
CLARREO	No Universities Found
CLOUDSAT -Partner	Colorado State University
CLOUDSAT -Science Team	City College of New York/GISS
CLOUDSAT -Science Team	Florida State University
CLOUDSAT -Science Team	Georgia Tech
CLOUDSAT -Science Team	Hampton University
CLOUDSAT -Science Team	McGill University
CLOUDSAT -Science Team	Oregon State University
CLOUDSAT -Science Team	Texas A&M University
CLOUDSAT -Science Team	Tohoku University
CLOUDSAT -Science Team	Tokai University
CLOUDSAT -Science Team	University of Alaska

CLOUDSAT -Science Team	University of Arizona
CLOUDSAT -Science Team	University of Colorado
CLOUDSAT -Science Team	University of Maryland, Baltimore County
CLOUDSAT -Science Team	University of Maryland, College Park
CLOUDSAT -Science Team	University of Miami
CLOUDSAT -Science Team	University of Reading
CLOUDSAT -Science Team	University of Tokyo
CLOUDSAT -Science Team	University of Utah
CLOUDSAT -Science Team	University of Washington
CLOUDSAT -Science Team	University of Wisconsin
CLOUDSAT -Science Team	University of Wyoming
CONTOUR - PI	Cornell University
CONTOUR - PI	Johns Hopkins University
Dawn-Education and Public Outreach Team	University of Texas, Austin
Dawn-Framing Camera Team	Technische Universitate Braunschweig
Dawn-Paticipatin Scientists	Arizona State University
Dawn-Paticipatin Scientists	John Hopkins University
Dawn-Paticipatin Scientists	University of maryland
Dawn-Paticipatin Scientists	University of North Dakota
Dawn-Paticipatin Scientists	Westfalische Wilhelms-Universitat Munster
Dawn-Science Team	Brown University
Dawn-Science Team	Freie Universitat Berlin
Dawn-Science Team	Massachusetts Institute of Technology
Dawn-Science Team	Technische Universitate Braunschweig
Dawn-Science Team	University of California, Los Angeles
Dawn-Science Team	University of Maryland
Dawn-Science Team	University of Tennessee
Deep Impact - Science Team	Brown University
Deep Impact - Science Team	Cornell University
Deep Impact - Science Team	University of Arizona
Deep Impact - Science Team	University of Hawaii
Deep Impact - Science Team	University of Maryland
DESDynI	No Universities Found
DISCOVER-AQ- Collaborator	Howard University
DISCOVER-AQ- Collaborator	University of Houston
DISCOVER-AQ- Collaborator	University of Maryland
DISCOVER-AQ- Collaborator	University of Texas
DISCOVER-AQ- Ground Instrumentation	Millersville University
DISCOVER-AQ- Ground Instrumentation	Penn State University
DISCOVER-AQ- P3B Instruments	University of California, Berkeley
DISCOVER-AQ- P3B Instruments	University of Innsbruck
Epoxi - Co-Investigator	Brown University
Epoxi - Co-Investigator	Cornell University
Epoxi - Co-Investigator	Purdue University
Epoxi - Co-Investigator	University of Hawaii
Epoxi - Co-Investigator	University of Washington
Epoxi - Partner	University of Maryland
ExoMars Trace Gas Orbiter	No Universities Found
Fermi	Institutions in France, Germany, Japan, Italy and Sweden
GALEX - team	California Institute of Technology
GALEX - team	Johns Hopkins University
GALEX - team	University of California, Berkeley
GALEX - team	University of California, Los Angeles
GALEX - team	Yonsei University
GEMS-Co-Is	Massachusetts Institute of Technology
GEMS-Co-Is	University of Iowa
GEMS-Science Collaborators	Cornell University
GEMS-Science Collaborators	Johns Hopkins University
GEMS-Science Collaborators	North Carolina State University
GEMS-Science Collaborators	Rice University
GEMS-Science Collaborators	The University of Oulu (Finland)
GEMS-Science Collaborators	Washington University

Genesis-Flight Team PI	California Institute of Technology
Genesis-Pre Launch Team PI	California Institute of Technology
Genesis-Science Team	Arizona State University
Genesis-Science Team	California Institute of Technology
Genesis-Science Team	California State University, Fullerton
Genesis-Science Team	Florida State University
Genesis-Science Team	Northern Illinois University
Genesis-Science Team	Open University, UK
Genesis-Science Team	University of California- Los Angeles
Genesis-Science Team	University of California, Berkeley
Genesis-Science Team	University of California, San Diego
Genesis-Science Team	University of Manchester,UK
Genesis-Science Team	University of Minnesota
Genesis-Science Team	University of Montana
Genesis-Science Team	Universtat Bern
Genesis-Science Team	Washington University, St. Louis
GOES N - P	No Universities Found
GOES-R	No Universities Found
GP-B - Science Advisory Committee	Cornell University
GP-B - Science Advisory Committee	Syracuse University
GP-B - Science Advisory Committee	University of California, Los Angeles
GP-B - Science Advisory Committee	University of Colorado
GP-B - Science Advisory Committee	University of Texas, Austin
GP-B - Science Advisory Committee	Washington University
GPM-PIs	Ciudad University
GPM-PIs	Colorado State University
GPM-PIs	Colorado State University
GPM-PIs	Duke University
GPM-PIs	Florida State University
GPM-PIs	Georgia Tech
GPM-PIs	Hebrew University of Jerusalem
GPM-PIs	Morgan State University
GPM-PIs	Texas A&M University
GPM-PIs	Texas A&M University – College Station
GPM-PIs	University Castilla-La Mancha
GPM-PIs	University de sao Paulo
GPM-PIs	University of Alabama, Huntsville
GPM-PIs	University of California, Irvine
GPM-PIs	University of Central Florida
GPM-PIs	University of Connecticut
GPM-PIs	University of Connecticut
GPM-PIs	University of Georgia, Athens
GPM-PIs	University of Iowa
GPM-PIs	University of Leicester
GPM-PIs	University of Maryland
GPM-PIs	University of Maryland
GPM-PIs	University of Michigan, Ann Arbor
GPM-PIs	University of Minnesota
GPM-PIs	University of Roma
GPM-PIs	University of Utah, Salt Lake City
GPM-PIs	University of Washington, Seattle
GPM-PIs	University of Wisconsin
Grace - Partners	John Hopkins University
Grace - Partners	Massachusetts Institute of Technology
Grace - Partners	Ohio State University
Grace - Partners	Technical University of Denmark
Grace - Partners	The University of Texas at Austin
Grace - Partners	University of Colorado
Grail	Massachusetts Institute of Technology
GRIP-Research Team	California Institute of Technology
GRIP-Research Team	Florida State University
GRIP-Research Team	Howard University

GRIP-Research Team	University of Maryland, Baltimore
Hayabusa	No Universities Found
Herschel	California Institute of Technology
HINODE MISSION - Principal Investigators	Harvard University
HS3	No Universities Found
IBEX	No Universities Found
ICESat - science team	University of Buffalo
ICESat - science team	University of Colorado, Boulder
ICESat - science team	University of Maryland
ICESat - science team	University of Missouri, Columbia
ICESat - science team	University of Texas, Austin
ICESat - science team	University of Washington
ICESat - science team	University of Wisconsin
ICESat-2 - Science Definition Team	Colorado State University
ICESat-2 - Science Definition Team	University of Buffalo
ICESat-2 - Science Definition Team	University of Colorado
ICESat-2 - Science Definition Team	University of Texas
ICESat-2 - Science Definition Team	University of Washington
ILN	No Universities Found
INTREGAL	European Entities only
IRIS-Team Members	Montana State University
IRIS-Team Members	Stanford University
IRIS-Team Members	University of California, Berkeley
IRIS-Team Members	University of Copenhagen
IRIS-Team Members	University of Leuven
IRIS-Team Members	University of Oslo
IRIS-Team Members	University of Sydney
IXO-Agency Appointed Community Scientists	Massachusetts Institute of Technology
IXO-Agency Appointed Community Scientists	Tokyo Metropolitan University
IXO-Agency Appointed Community Scientists	University of Michigan
IXO-Instrument Working Group	Kanazawa University
IXO-Instrument Working Group	Massachusetts Institute of Technology
IXO-Instrument Working Group	Open University, UK
IXO-Instrument Working Group	Osaka University
IXO-Instrument Working Group	Penn State University
IXO-Instrument Working Group	University of Colorado
IXO-Instrument Working Group	University of Iowa
IXO-Instrument Working Group	University of Leicester
IXO-Instrument Working Group	University of Tokyo
IXO-Science Definition Team	Columbia University
IXO-Science Definition Team	Penn State University
IXO-Science Definition Team	Rutgers University
IXO-Science Definition Team	Stanford University
IXO-Science Definition Team	Tokyo Metropolitan University
IXO-Science Definition Team	Tokyo University of Science
IXO-Science Definition Team	University of Colorado
IXO-Science Definition Team	University of Kyoto
IXO-Science Definition Team	University of Leicester
IXO-Science Definition Team	University of Maryland
IXO-Science Definition Team	University of Michigan
IXO-Science Definition Team	University of Michigan
IXO-Science Definition Team	Utrecht University
IXO-Telescope Working Group	Nagoya University
IXO-Telescope Working Group	University of Leicester
JASON - 1	No Universities Found
JDEM	Not Selected as One of the Recommendations
Juno	No Universities Found
JWST-Science Working Group	Arizona State University
JWST-Science Working Group	Cornell University
JWST-Science Working Group	Leiden University
JWST-Science Working Group	Swiss Federal Institute of Technology
JWST-Science Working Group	University of Arizona

JWST-Science Working Group	University of Montreal
JWST-Team Member	University of Arizona
Keck Interferometer (KI)-Project Scientist	California Institute of Technology
Kepler-Science Team	Aarhus University
Kepler-Science Team	Aarhus University
Kepler-Science Team	San Diego State University
Kepler-Science Team	University of California
Kepler-Science Team	University of California, Berkeley
Kepler-Science Team	University of California, Berkeley
Kepler-Science Team	University of California, Santa Cruz
Kepler-Science Team	University of Florida
Kepler-Science Team	University of Texas, Austin
Kepler-Science Team	Villanova University
Kepler-Science Team	York University
LADEE	No Universities Found
LBTI-Partner	University of Minnesota
LBTI-Partner	University of Virginia
LBTI-PI and Project Management	University of Arizona
LDCM	Team Page "Coming Soon"
LISA-International Science Team	College de France
LISA-International Science Team	Imperial College, London
LISA-International Science Team	Universidad de Barcelona
LISA-International Science Team	University of Birmingham
LISA-International Science Team	University of Glasgow
LISA-International Science Team	University of Hannover
LISA-International Science Team	University of Padova
LISA-International Science Team	University of Trento
LISA-International Science Team	University Zurich
LISA-International Science Team-US	California Institute of Technology
LISA-International Science Team-US	Massachusetts Institute of Technology
LISA-International Science Team-US	Montana State University
LISA-International Science Team-US	Penn State University
LISA-International Science Team-US	Stanford University
LISA-International Science Team-US	University of Colorado
LISA-International Science Team-US	University of Michigan
LISA-International Science Team-US	University of Washington
Lunar Reconnaisance Orbiter	No Universities Found
Mars Express (ASPERA-3)	Johns Hopkins Univerisity
Mars Express (ASPERA-3)	University of Arizona
Mars Express (ASPERA-3)	University of California, Berkeley
Mars Express (ASPERA-3)	University of Michigan
Mars Odyssey-Mission Team	University of Arizona
Mars Reconnaissance Orbiter - Contributor	Arizon State University
Mars Reconnaissance Orbiter - Contributor	California Institute of Technology
Mars Reconnaissance Orbiter - Contributor	Cornell University
Mars Reconnaissance Orbiter - Contributor	Johns Hopkins University
Mars Reconnaissance Orbiter - Contributor	Massachusetts Institute of Technology
Mars Reconnaissance Orbiter - Contributor	Ohio State University
Mars Reconnaissance Orbiter - Contributor	State University of New York at Stony Brook
Mars Reconnaissance Orbiter - Contributor	University of Alabama, Birmingham
Mars Reconnaissance Orbiter - Contributor	University of Arizona
Mars Reconnaissance Orbiter - Contributor	University of Nevada, Reno
Mars Reconnaissance Orbiter - Contributor	University of New Mexico
Mars Reconnaissance Orbiter - Contributor	University of Tennessee
Mars Reconnaissance Orbiter - Contributor	Washington University
Mars Reconnaissance Orbiter - Science Team	George Washington University
Mars Reconnaissance Orbiter - Science Team	Johns Hopkins University
Mars Reconnaissance Orbiter - Science Team	University of Arizona
Mars Reconnaissance Orbiter - Science Team	University of Rome
Mars Reconnaissance Orbiter - Science Team	Washington University
Mars Rover - Opportuniy - See Mars Reconnaissance	See Mars Reconnaissance
Mars Rover - Spirit - See Mars Reconnaissance	See Mars Reconnaissance

Mars Science Laboratory	No Universities Found
MAVEN	No Universities Found
Messenger - Core Tem	John Hopkins University
Messenger - Science Team	Arizon State University
Messenger - Science Team	Brown University
Messenger - Science Team	Case Western Reserve University
Messenger - Science Team	Massachusetts Institute of Technology
Messenger - Science Team	The Catholic University of America
Messenger - Science Team	University of Arizona
Messenger - Science Team	University of British Columbia
Messenger - Science Team	University of California, Berkeley
Messenger - Science Team	University of California, Los Angeles
Messenger - Science Team	University of California, Santa Barbara
Messenger - Science Team	University of Colorado
Messenger - Science Team	University of Colorado
Messenger - Science Team	University of Hawaii
Messenger - Science Team	University of Michigan
MMS	University of New Hampshire
New Horizons - Co-Investigators	George Mason University
New Horizons - Co-Investigators	Johns Hopkins University
New Horizons - Co-Investigators	Massachusetts Institute of Technology
New Horizons - Co-Investigators	Stanford University
New Horizons - Co-Investigators	University of Colorado
New Horizons - Co-Investigators	University of Colorado
New Horizons - Co-Investigators	Washington University
New Horizons - Science Team	Johns Hopkins University
NOAA-N	No Universities Found
NPOESS	No Universities Found
NPOESS Preparatory Project (NPP)-Science Team	Boston University
NPOESS Preparatory Project (NPP)-Science Team	Massachusetts Institute of Technology
NPOESS Preparatory Project (NPP)-Science Team	Stevens Institute of Technology
NPOESS Preparatory Project (NPP)-Science Team	University of Alabama, Huntsville
NPOESS Preparatory Project (NPP)-Science Team	University of Colorado, Boulder
NPOESS Preparatory Project (NPP)-Science Team	University of Maryland, Baltimore County
NPOESS Preparatory Project (NPP)-Science Team	University of Maryland, Baltimore County
NPOESS Preparatory Project (NPP)-Science Team	University of Maryland, College Park
NPOESS Preparatory Project (NPP)-Science Team	University of Maryland, College Park
NPOESS Preparatory Project (NPP)-Science Team	University of Miami
NPOESS Preparatory Project (NPP)-Science Team	University of Wisconsin, Madison
NuSTAR-Key Players	California Institute of Technology
NuSTAR-Key Players	Columbia University
NuSTAR-Key Players	Sonoma State University
NuSTAR-Key Players	University of California, Berkeley
NuSTAR-Key Teams	California Institute of Technology
NuSTAR-Key Teams	Columbia University
NuSTAR-Key Teams	Sonoma State University
NuSTAR-Key Teams	University of California, Berkeley
OAO	No Universities Found
OCO - Project Team	University of Maryland, College Park
OCO-2-Team Member	University of Maryland, College Park
Operation IceBridge-Instrument Pis	Columbia University
Operation IceBridge-Instrument Pis	University of Alaska, Fairbanks
Operation IceBridge-Instrument Pis	University of Colorado, Boulder
Operation IceBridge-Instrument Pis	University of Kansas
Operation IceBridge-Instrument Pis	University of Texas, Austin
Operation IceBridge-Science Team	Columbia University
Operation IceBridge-Science Team	Ohio State University
Operation IceBridge-Science Team	University at Buffalo
Operation IceBridge-Science Team	University of New Hampshire
Operation IceBridge-Science Team	University of Texas, Austin
Operation IceBridge-Science Team	University of Washington
OSTM-Team Scientists	California Institute of Technology

OSTM-Team Scientists	Massachusetts Institute of Technology
OSTM-Team Scientists	Oregon State University
OSTM-Team Scientists	Rutgers University
OSTM-Team Scientists	Technical University of Catalonia
OSTM-Team Scientists	Technical University of Crete
OSTM-Team Scientists	Technische Universitat Darmstadt
OSTM-Team Scientists	University of Colorado, Boulder
OSTM-Team Scientists	University of Hawaii
OSTM-Team Scientists	University of Maryland, Baltimore
OSTM-Team Scientists	University of Maryland, College Park
OSTM-Team Scientists	University of New Hampshire
OSTM-Team Scientists	University of Washington
Phoenix-Project Team	University of Arizona
Phoenix-Science Team	Texas A&M University
Phoenix-Science Team	Tufts University
Phoenix-Science Team	University of Arizona
Phoenix-Science Team	University of Bristol
Phoenix-Science Team	University of Colorado
Phoenix-Science Team	University of Michigan
Phoenix-Science Team	University of Neuchatel
Phoenix-Science Team	University of Texas
Phoenix-Science Team	Washington University
Planck-Education and Public Outreach Team	Haverford College
Planck-Education and Public Outreach Team	Univerisity of California, Santa Barbara
Planck-Education and Public Outreach Team	University of California, Davis
Planck-Education and Public Outreach Team	University of Illinois
RBSP-Team	John Hopkins University
RBSP-Team	New Jersey Institute of Technology
RBSP-Team	University of Iowa
RBSP-Team	University of Minnesota
RBSP-Team	University of New Hampshire
RHESSI - PI	University of California, Berkeley
RHESSI - ream members	University Alabama, Huntsville
RHESSI - team members	Montana State University
Rosetta	California Institute of Technology
Rosetta	San Jose State University
Rosetta	University of Arizona
Rosetta	University of Kansas
Rosetta	University of Maryland
Rosetta	University of Massachusetts
Rosetta	University of Michigan
SAGE	No Universities Found
SAGE III - ISS	No Universities Found
SeaWinds (ADEOS II)	Brigham Young University
SeaWinds (ADEOS II)	Florida State University
SeaWinds (ADEOS II)	Georgia Tech
SeaWinds (ADEOS II)	Oregon State University
SeaWinds (ADEOS II)	Tohoku University
SeaWinds (ADEOS II)	University at Colorado
SeaWinds (ADEOS II)	University of Central Florida
SeaWinds (ADEOS II)	University of Hawaii
SeaWinds (ADEOS II)	University of Maryland
SeaWinds (ADEOS II)	University of Massachusetts
SeaWinds (ADEOS II)	University of Miami
SeaWinds (ADEOS II)	University of Washington
SIM-Mission Scientists	California Institute of Technology
SIM-Mission Scientists	Leiden University
SIM-Mission Scientists	Washington State University
SIM-Science Team Key Projects	California Institute of Technology
SIM-Science Team Key Projects	Dartmouth College
SIM-Science Team Key Projects	Georgia State University
SIM-Science Team Key Projects	Ohio State University

SIM-Science Team Key Projects	University of California, Berkeley
SIM-Science Team Key Projects	University of Maryland
SIM-Science Team Key Projects	University of Virginia
SMAP-Team Members	Massachusetts Institute of Technology
SMAP-Team Members	Ohio State University
SMAP-Team Members	University of Maryland, Baltimore County
SMAP-Team Members	University of Montana
SMAP-Team Members	University of Reading
SMAP-Team Members	University of Washington
SOFIA	No Universities Found
Solar Dynamics Observatory (SDO) - SDO Team	Stanford University
Solar Dynamics Observatory (SDO) - SDO Team	University of Colorado
Solar Orbiter-PI	University of Alcala, Spain
Solar Probe+ - PI	University of California, Berkeley
SORCE - Science Team	Meteorological Institute of Belgium,
SORCE - Science Team	University of Colorado
Space Environment Testbeds	Site Not Working
Spitzer	California Institute of Technology
Spitzer	Cornell University
Spitzer	University of Arizona
ST5 - Partner	University of California
ST5 - Partner	University of New Mexico
ST6 - Team Member	Arizona State University
ST6 - Team Member	University of Arizona
ST-7 / Lisa Pathfinder	No Universities Found
Stardust-NExT-Science Team	Brown University
Stardust-NExT-Science Team	Cornell University
Stardust-NExT-Science Team	University of Arizona
Stardust-NExT-Science Team	University of Chicago
Stardust-NExT-Science Team	University of Hawaii
Stardust-NExT-Science Team	University of Maryland
Stardust-NExT-Science Team	University of Washington
STEREO - In situ Measurements of PArticles and CME Transients	University of California, Berkeley
STEREO - STEREO/WAVES (S/WAVES)	University of Minnesota
STEREO -PLAsma and SupraThermal Ion Composition (PLASTIC)	University of New Hampshire
Suzaku (Astro-E2)	Aoyama Gakuin University
Suzaku (Astro-E2)	Chuoh University
Suzaku (Astro-E2)	Ehime University
Suzaku (Astro-E2)	Hiroshima University
Suzaku (Astro-E2)	Iwate University
Suzaku (Astro-E2)	Kanazawa University
Suzaku (Astro-E2)	Kobe University
Suzaku (Astro-E2)	Kogakuin University
Suzaku (Astro-E2)	Kyoto University
Suzaku (Astro-E2)	Miyazaki University
Suzaku (Astro-E2)	Nagoya University
Suzaku (Astro-E2)	Nihon Fukushi University
Suzaku (Astro-E2)	Nihon University
Suzaku (Astro-E2)	Osaka University
Suzaku (Astro-E2)	Rikkyo University
Suzaku (Astro-E2)	Saitama University
Suzaku (Astro-E2)	Tokyo University
SWIFT - Associate Institutions	Sonoma State University
SWIFT - Associate Institutions	University of Tokyo
SWIFT - Collaborating Institutions	California Institute of Technology
SWIFT - Collaborating Institutions	Clemson University
SWIFT - Collaborating Institutions	John Hopkins University
SWIFT - Collaborating Institutions	John Moores University
SWIFT - Collaborating Institutions	Princeton University
SWIFT - Collaborating Institutions	Rice University
SWIFT - Collaborating Institutions	Saitama University
SWIFT - Collaborating Institutions	Tokyo Institute of Technology

SWIFT - Collaborating Institutions	University of Arizona
SWIFT - Collaborating Institutions	University of Bologna
SWIFT - Collaborating Institutions	University of California, Berkeley
SWIFT - Collaborating Institutions	University of California, Riverside
SWIFT - Collaborating Institutions	University of California, Santa Barbara
SWIFT - Collaborating Institutions	University of California, Santa Cruz
SWIFT - Collaborating Institutions	University of Cambridge
SWIFT - Collaborating Institutions	University of Chicago
SWIFT - Collaborating Institutions	University of Copenhagen
SWIFT - Collaborating Institutions	University of Maryland
SWIFT - Collaborating Institutions	University of Michigan
SWIFT - Collaborating Institutions	University of Pennsylvania
SWIFT - Collaborating Institutions	University of Southampton, Highfield
SWIFT - Collaborating Institutions	University of Texas, Austin
THEMIS-Mission Team	University of California, Berkeley
THEMIS-Mission Team	University of California, Los Angeles
THEMIS-Science Team	University of Alberta Canada
THEMIS-Science Team	University of Calgary Canada
THEMIS-Science Team	University of Colorado
THEMIS-Science Team	University of St. Petersburg Russia
TIMED - WORKING GROUP	Hampton University
TIMED - WORKING GROUP	University of Colorado
TPF-Science Working Group	California Institute of Technology
TPF-Science Working Group	Massachusetts Institute of Technology
TPF-Science Working Group	Rutgers University
TPF-Science Working Group	Texas A&M University
TPF-Science Working Group	University of Arizona
TPF-Science Working Group	University of Colorado
TPF-Science Working Group	University of Michigan
TPF-Science Working Group	University of Rochester
Twins A&B-Science Team	Auburn University
Twins A&B-Science Team	Boston University
Twins A&B-Science Team	John Hopkins University
Twins A&B-Science Team	University of Bonn
Twins A&B-Science Team	University of New Hampshire
Twins A&B-Science Team	University of Southern California
Twins A&B-Science Team	West Virginia University
WFIRST-Science Definition Team	Cornell University
WFIRST-Science Definition Team	Georgia State University
WFIRST-Science Definition Team	John Hopkins University
WFIRST-Science Definition Team	Massachusetts Institute of Technology
WFIRST-Science Definition Team	Michigan State Univ
WFIRST-Science Definition Team	Nagoya University
WFIRST-Science Definition Team	Ohio State Univ
WFIRST-Science Definition Team	University of Berkeley
WFIRST-Science Definition Team	University of California, Los Angeles
WFIRST-Science Definition Team	University of Colorado
WFIRST-Science Definition Team	University of Notre Dame
WFIRST-Science Definition Team	University of Nottingham
WFIRST-Science Definition Team	University of Oklahoma
WFIRST-Science Definition Team	University of Portsmouth
WFIRST-Science Definition Team	Yale University
WISE-Science Team	California Institute of Technology
WISE-Science Team	University of Arizona
WISE-Science Team	University of California, Berkeley
WISE-Science Team	University of California, Davis
WISE-Science Team	University of California, Los Angeles
WISE-Science Team	University of Virginia
WMAP-Science Team	Brown University
WMAP-Science Team	Cornell University
WMAP-Science Team	Johns Hopkins University
WMAP-Science Team	Princeton University

WMAP-Science Team	University of British Columbia
WMAP-Science Team	University of California- Los Angeles
WMAP-Science Team	University of Chicago
WMAP-Science Team	University of Pennsylvania
WMAP-Science Team	University of Texas, Austin
WMAP-Science Team	University of Toronto

THE FLORIDA SENATE

APPEARANCE RECORD

(Deliver BOTH copies of this form to the Senator or Senate Professional Staff conducting the meeting)

12/5/11
Meeting Date

Topic Workshop on Enhancing Space Related Aviation Research Bill Number n/a *(if applicable)*

Name Mr. Gene Milowicki Amendment Barcode *(if applicable)*

Job Title Director, Aviation Programs Florida State College @ Jacksonville

Address 13450 Lake Fretwell Street Phone 904-317-3805
Street

Jax, FL 32221 E-mail gmilowic@fscj.edu
City *State* *Zip*

Speaking: ☐ For ☐ Against ☒ Information

Representing Florida College System's support of Aerospace Industry

Appearing at request of Chair: ☐ Yes ☐ No Lobbyist registered with Legislature: ☐ Yes ☒ No

While it is a Senate tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this meeting. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard.

This form is part of the public record for this meeting.

S-001 (10/20/11)

THE FLORIDA SENATE

Tallahassee, Florida 32399-1100

COMMITTEES:
Children, Families, and Elder Affairs, *Chair*
Budget - Subcommittee on Criminal and Civil Justice Appropriations
Community Affairs
Military Affairs, Space, and Domestic Security
Reapportionment
Transportation

JOINT COMMITTEE:
Public Counsel Oversight

SENATOR RONDA STORMS
10th District

December 5, 2011

Senator Thad Altman, Chairman
Senate Committee on Military Affairs,
Space and Domestic Security
314 Senate Office Building
404 South Monroe Street
Tallahassee, FL 32399-1100

Dear Chairman Altman:

Please excuse my absence to the Senate Committee on Military Affairs, Space, and Domestic Security meeting this morning, Monday, December 5, 2011. Due to personal illness, I will not be in attendance.

Thank you in advance for your understanding.

Sincerely,

Ronda Storms
Florida Senate
District 10

RRS/tlp

CC: Matthew M. Carter, III, Ph. D., Staff Director

REPLY TO:
❒ Lithia Oaks Business Center, 421 Lithia Pinecrest Road, Brandon, Florida 33511 (813) 651-2189 FAX: (813) 651-2188
❒ 413 Senate Office Building, 404 South Monroe Street, Tallahassee, Florida 32399-1100 (850) 487-5072
Internet Address: storms.ronda.web@flsenate.gov

Senate's Website: *www.flsenate.gov*

MIKE HARIDOPOLOS
President of the Senate

MICHAEL S. "MIKE" BENNETT
President Pro Tempore

CourtSmart Tag Report

Room: LL 37 **Case:** **Type:**
Caption: Military Affairs, Space and Domestic Security **Judge:**

Started: 12/5/2011 9:34:41 AM
Ends: 12/5/2011 10:36:17 AM Length: 01:01:37

9:34:53 AM Chairman Altman calls meeting to order
9:34:54 AM Roll Call by the Administrative Assistant, Lois Graham
9:35:01 AM SB 634 presented by Senator Benacquisto
9:35:09 AM Senator Benaquisto close on bill
9:39:29 AM AA roll call
9:39:40 AM Senator Braynon, SB 520
9:39:42 AM Senator Braynon close on bill
9:39:43 AM Roll call by Administrative Assistant
9:39:44 AM Senator Altman presents SB 532
9:40:54 AM Roll call
9:42:54 AM Setting up for presentation/workshop
9:45:15 AM Chairman Altman calls meeting back to order
9:45:43 AM Workshop on Enhancing Space-related Academic Research (regarding Interim Report 2012-135)
9:46:41 AM Chairman Altman presenting
9:54:13 AM Question/comment, Senator Bennett
9:55:43 AM Chairman
9:58:01 AM Senator Bullard
9:58:30 AM Chairman response
9:59:06 AM Senator Sachs comment
9:59:40 AM Chairman response/comment
10:00:33 AM Senator Sachs follow up comments
10:02:45 AM Senator Norman
10:04:27 AM Chairman comments
10:05:37 AM Senator Norman
10:05:45 AM Chairman
10:06:09 AM Senator Gibson comments
10:07:22 AM Senator Jones
10:07:52 AM Chairman
10:08:08 AM Senator Bullard
10:09:38 AM Chairman
10:13:03 AM Senator Bullard comment
10:13:40 AM Chairman
10:13:58 AM Senator Bullard
10:17:25 AM Senator Bennett
10:19:09 AM Chairman
10:19:25 AM Senator Bullard
10:19:53 AM Chairman
10:20:19 AM Senator Bullard
10:20:54 AM Chairman
10:24:01 AM Speaker, Gene Milowicki, Director of Aviation Programs Florida State College @ Jacksonville

10:30:18 AM Chairman
10:31:46 AM Speaker's response
10:33:11 AM Chairman
10:33:24 AM Senator Gibson
10:34:36 AM Chairman comments
10:35:42 AM Senator Bennett moves to adjourn