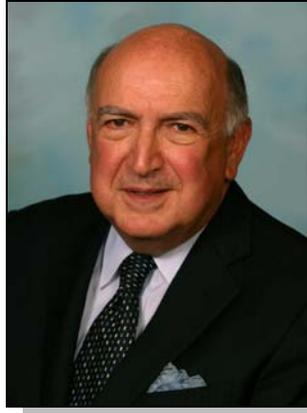




Space Florida 2009-2010 Annual Report
Submitted September 1, 2010

“Building a Foundation for Success”





Welcome to the Space Florida Annual Report

The 2010 Fiscal Year was an exciting one for Space Florida and the State of Florida. We are quickly gaining momentum in a very dynamic space marketplace, and ensuring Florida is well positioned for continued leadership in space.

In FY2010, we laid a solid foundation for growth, despite unpredictable changes within the industry. We defined and targeted 10 diversified commercial markets that we believe hold the most promise for current and future space applications and utilization – setting our “Vision 2020” market-facing strategy firmly in place – and moving toward a goal of tripling the size of Florida’s space industry by 2020.

As always, our #1 focus is jobs. With the retirement of the Space Shuttle Program less than one year away, we are already witnessing hundreds of jobs being lost in our state, with thousands more to come. In addition to targeting non-traditional markets through Vision 2020 initiatives, Space Florida also entered into a number of key State and Federal partnerships in FY2010 that will ensure our state is poised for success.

First and foremost, I’d like to extend my sincere appreciation to our State legislative partners, who demonstrated their unwavering commitment to Florida’s space industry through the passage of a \$31.1 million budget in difficult fiscal times. This budget will enable Space Florida to leverage its resources to maximize jobs and economic impact benefits for our state.

Federal partnerships have also proven critical to our state’s well being. This year, we were pleased to have the opportunity to work closely with the Review of Human Spaceflight Plans Committee (“The Augustine Commission”), the Federal Taskforce on Space Industry Workforce and Economic Development (Department of Commerce/EDA) and the FAA - to secure a Commercial Launch Site Operators License for Space Launch Complex 46 – a site that has already been targeted for Lockheed Martin/ATK’s reinvigorated Athena rocket program.

Additionally, Senator Bill Nelson championed the Senate Commerce Justice & Science Appropriations Bill in 2010, which resulted in the approval of \$1.5 million for launch complex enhancement and \$400,000 for a study to evaluate upgrading the existing vacuum chamber at the Operation & Checkout facility at Kennedy Space Center.

Today, it is no secret that commercial opportunities will play a critical role in our state's future in space. In June 2010, SpaceX demonstrated reliable commercial technology through the inaugural launch of the Falcon 9 heavy lift vehicle from Cape Canaveral. This was a significant win for Florida, proving that it is indeed ready for commercial space business. SpaceX has received more than \$500,000 in financial support from Space Florida since its arrival into our state, and we will continue to support SpaceX's cutting-edge programs moving forward, to ensure its success here.

In the area of emerging markets, Space Florida made significant strides in a number of diversified industries this year. From partnering with Florida universities to develop an industry-leading small satellite technology program, to investing in the future of an environmentally sound motor vehicle manufacturing company with roots in the space program – 2010 has laid the foundation for innovation that will ensure Florida's successful future in space-related economic development.

From an education perspective, another key responsibility Space Florida holds is to help prepare Florida's future space workforce for success. In FY2010, more than 1,800 Florida students benefitted directly from Space Florida programs. In particular, our education team initiated two new, innovative programs that garnered unprecedented interest from Florida educators and students. The "Butterflies in Space" program enabled Florida classrooms to study butterfly larvae growth habitats real time, while comparing insect development patterns to those of a control group undergoing the effects of a microgravity environment aboard the International Space Station. More than 720 Florida classrooms participated in this program, making it one of the most successful Space Florida STEM initiatives to date. Additionally, Space Florida leadership worked with Emmy Award-winning PBS show host Janet Ivey to develop a microgravity curriculum DVD that will be utilized in hundreds of Florida classrooms. These two stellar programs demonstrate the type of creative thinking that will ensure Florida continues to boast the world's most competent space workers.

As a final note, I'd like to take a moment to personally thank Space Florida's dedicated Board of Directors, who have served their last full year of service with our organization. A new Board will be named in FY2011, and while some of our current members may remain, I anticipate we will lose a fair number of individuals who have been key players in Space Florida's successes over past years. The tireless dedication of these leaders should be recognized, as many of the projects reported on within this document are a direct result of this Board's commitment to ensuring Florida remains a leader in the global space marketplace. My sincere thanks to each of you.

Sincerely,

A handwritten signature in black ink that reads "Frank A. DiBello". The signature is written in a cursive, flowing style.

Frank A. DiBello, President
Space Florida



SPACE FLORIDA ANNUAL PERFORMANCE REPORT

EXTERNAL AFFAIRS

Statutory Requirement: External Affairs

As a State-created entity, Space Florida's operations include specific administrative and policy-related responsibilities for which Communications, Government and External Affairs is responsible. An important element of Space Florida's mission is to promote federal and state policies that increase space enterprise within the state. The Long-Range Program Plan Measure is the level of technical, financial or other space-related services to Florida businesses.

Florida's space industry remained a critical issue throughout the 2010 legislative session, concluding with a unanimous vote to support Space Florida by increasing its budget to \$31.1 million for FY2011. This supported critical legislation designed to stimulate economic development and promote aerospace industry jobs. Backed by a sound space strategy, and legislative support, this budget increase allows Space Florida to foster strong working relationships with governmental, commercial and other entities to continue strengthening and increasing space enterprises within Florida, help diversify and expand aerospace-related jobs, and enable Florida to compete with other states in the aerospace marketplace.

PROJECT 1: STATE BUDGET

Space Florida, in collaboration with strategic partners, developed an initial plan for FY2010/11 requesting \$7.6 million, which was double the previous year's request. Following a change in leadership, Space Florida coordinated with OTTED and the legislature to re-establish this FY2010/11 budget request, taking into consideration the planned retirement of the Space Shuttle Program and its impact on the State of Florida.

Space Florida's External Affairs staff worked closely with OTTED and the Governor's office to emphasize the importance of increasing Space Florida's funding request to \$32.6 million for the 2010/11 Fiscal Year. A structure of allocation was proposed to the Senate in March 2010 and the House soon after. By the end of the legislative session, Space Florida was able to secure a \$31.1 million budget plan that includes the following:

- \$11.1 million for infrastructure improvements and development
 - \$7.5 million for Exploration Park (Road Fund)
 - \$3.6 million for launch pad infrastructure
- \$10 million in financing
- \$3.2 million for workforce retraining
- \$3 million for expanded business development
- \$3.8 million for Space Florida operations

PROJECT 2: STATE SPACE STRATEGY

To support Florida's strategic goals in advancing the State's space industry, a strategy was developed identifying goals, overall approach, priorities, and ways to coordinate efforts across organizations. The strategy outlined major federal and state policy objectives, proposed legislation, and funding requirements needed to advance the State's space industry vision and goals.

Space Florida worked with Enterprise Florida to ensure consistency between the State Space Strategy and the State Strategic Plan as required by Section 288.905, Florida Statutes. Other economic development partners and stakeholders were consulted in order to provide a comprehensive, consistent and balanced approach to these plans. Space Florida submitted the updated plan to OTTED and provided quarterly activity reports that outlined activities and progress in support of the State Space Policy and Legislative Plan.

Throughout the year, Space Florida proactively identified State policies and appropriations; developed and drafted bills that would create incentives for commercial space entities to move to Florida. These programs worked to advance the State's space programs and initiatives, and remove barriers to enable businesses to grow, locate or relocate to Florida.

- **Legislative Policy for the 2010 Florida State session:** The Space Florida External Affairs Staff developed a legislative agenda, which was submitted at the February 2010 board meeting, and included the following:
 - Aerospace jobs tax credit ([SB2572/HB1539](#))
 - Senate version is in third committee of reference and passed, while House version is in its second committee of reference.
 - Commercial Launch Zone incentives ([SB1188/HB133](#))
 - Third committee of reference in the Senate. Didn't move in the House.
 - Cost benefit analysis ([SB1178/HB121](#))
 - On the floor in each of its respective chambers.
 - Freeing up of remaining LC-36 funds appropriated in 2008 ([SB1776/HB969](#))
 - Passed and signed into law
 - Research and development tax credit ([SB1184/HB607](#))
 - Passed in the second committee of reference in the House. Didn't move in the Senate.
 - Space Transition and Revitalization (STAR) Act ([SB2500/HB1389](#)).
 - Passed and signed into law

- Collaboration and Partnerships:** Space Florida also worked diligently with state, regional and local economic development organizations to ensure that Florida's space industry was well positioned to address the negative impacts associated with Shuttle retirement and the cancellation of the Constellation program. Such organizations included Enterprise Florida, The Florida Chamber, Associated Industries of Florida, Workforce Florida, the Florida Economic Development Council and others.



ECONOMIC DEVELOPMENT COMMISSION
Of Florida's Space Coast

PROJECT 3: STATE AND FEDERAL SPACE POLICY AND LEGISLATIVE PLAN

Throughout FY2010 Space Florida identified federal and state executive actions, legislative changes, and appropriations needed to advance the State space strategy. Space Florida coordinated federal space policy positions and the legislative plan with the Executive Office of the Governor, and each quarter, reported participation in official proceedings to OTTED. Using the Quarterly Activity Reports, Space Florida kept OTTED abreast of activities and progress supporting the Federal Space Policy and Legislative Plan, as well as coordinated agenda and legislative efforts with OTTED.

FY2010 highlights:

- Space Florida-specific appropriations were included in the Senate Commerce Justice & Science Appropriations Bill, which went to the Senate floor for debate. Senator Bill Nelson championed the bill and \$1.5 million within NASA's budget was approved for the following projects:
 - \$1.1 million for LC36/46
 - \$400,000 to conduct a study on an existing thermal vacuum chamber at the O&C facility at KSC, to determine next steps in optimizing the equipment for use in the Orion Program
- Space Florida worked with a coalition of national space partners to secure \$1 million in appropriations in the THUD appropriations bill in the House for a commercial space program known as STIM-Grants. The program has been authorized since 1992, but never funded. STIM-Grants was funded for the first time in 2009 at \$500,000. Additional funding was also sought in 2010 but still "to be determined."
- NASA announced it would allocate \$40 million from its budget to be used for economic development to aid in the transition of Florida's Shuttle workforce. In addition, the Department of Labor awarded a \$15 million grant to Brevard Workforce for additional retraining initiatives. The combined \$55 million will be critical in ensuring Florida's positive transition from Shuttle to next-generation space programs. Space Florida continues to play an integral role through partnerships with the Federal Taskforce, as well as Brevard Workforce, to most effectively deploy these funds.



- President Obama's visit to Kennedy Space Center in April 2010 spotlighted the challenges Florida's space industry faces, as well as ideas from The White House on how to ensure that space assets and jobs remain in the state. Space Florida worked with the Administration to keep Florida top of mind. Both the House and Senate worked on authorization bills that would change NASA's direction from Constellation to the President's emphasis on commercial space. Space Florida continues to work with Congress to disseminate information that will benefit Florida regardless of the direction Congress takes.



SPACE FLORIDA ANNUAL PERFORMANCE REPORT

SPACE BUSINESS DEVELOPMENT

Statutory Requirement: Business Development

The Space Business Development department recruits and supports new space operations and customers in Florida. These activities are in direct alignment with Space Florida's economic development mission and the Governor's priority goal of economic diversification.

Long Range Program Plan measures include: "Number of Financial Deals Facilitated by Space Florida," "Number of Research Projects, Partnerships and Grants Supported," "Technical, Financial or Other Space-Related Services to Florida Business," "Number of Non-Disclosure Agreements Entered Into by Space Florida," and "Number of Qualified Investment Opportunities."

The future of Florida's aerospace industry is subject to ongoing debate by federal, state and local legislators. It is clear that Space Shuttle retirement will cause workforce capabilities to shift dramatically throughout the state in the coming months. What is less clear, however, is what specific program will succeed Shuttle. During FY2010, President Obama's administration proposed a fundamental shift in direction for the U.S. Space Program – away from Constellation – to a more commercially-focused initiative that would result in longer-term timelines for space travel outside the boundaries of LEO or lunar exploration. To date, Congress is somewhat resistant to this new direction – and as of the end of FY2010 – the outcome (and resulting impact to Florida) was not clear. As a result of this uncertainty, several viable business development deals have been put on hold pending definition of U.S. next-generation space exploration programs.

Regardless of the shape our domestic space program takes, however, Space Florida leadership is certain that commercial space companies will play a significant role. As a result, the State's space business development organization took significant steps in FY2010 to establish a solid foundation for such companies to thrive in Florida.

Moving forward, our goal is to target unique industry clusters – identified in the organization's strategic planning document "Vision 2020" – that naturally intersect with our core capabilities to grow new enterprise, investment and job opportunities, and develop infrastructure to support the future.

In FY2010, the Space Florida Business Development team laid the foundation for next-generation space industry activities through a number of progressive partnerships, including:

- Facilitated five financial deals
- Supported 30 research projects, partnerships and grants
- Provided 169 technical, financial or other space-related services to Florida businesses
- Entered into 41 Non-Disclosure Agreements; and
- Became integral in five qualified investment opportunities;

Following are highlights of some of these transactions:

PROJECT 1: ECONOMIC EXPANSION AND DIVERSIFICATION PROJECTS

Space Florida used the State's strengths in space launch, private sector, and university capabilities to attract new, high-value space enterprises to the state. Emphasis was placed on opportunities in the following: technology development and commercialization; International Space Station usage; DoD research, technology and systems development; space-related tourism and transportation; and space-related or space-enabled commercial products and services (electronics, remote sensing, etc). Space Florida has taken a leadership role in coordinating the resources of NASA, DoD, Enterprise Florida, the Executive Office of the Governor and other organizations in support of these initiatives. FY2010 top-level examples:



- **Avera Motors Partnership:** Space Florida announced a partnership with Avera Motors, based in Rockledge, Florida. Avera, whose parent company has a history of advancing space-related technologies, has developed and plans to manufacture innovative, environmentally friendly performance vehicles. Space Florida invested in the purchase of a four-passenger, ultra-efficient, 90-mile-per-gallon vehicle that will be competitively priced with other mid-sized sedans. Space Florida plans to validate Avera's ultra-efficient technology with NASA, with the goal of relocating Avera's manufacturing to Florida's Space Coast. Avera management believes that it can create 1,000 jobs by 2015, most of which will be a solid skills fit for former Space Shuttle workers, keeping that high-tech talent in Florida.

- **Space Life Sciences Lab (SLSL):** The SLSL is a world-class, 104,000-square-foot facility that supports NASA's on-orbit life sciences experiments. It brings government, industry and academia together for ground-based support services for the ISS.

NASA-KSC currently leases the SLSL from Space Florida, and in turn, contracts with Dynamac to operate the facility. NASA's current lease of the SLSL expires September 30, 2010. NASA-KSC has indicated that it intends to continue leasing the SLSL in total during FY2011. At the time this annual report was compiled, Space Florida was actively negotiating with NASA-KSC the specific terms of their continued occupancy.

During FY2010, Space Florida, in anticipation of a gradual reduction in NASA's presence, undertook a planning effort to transition the SLSL to a commercial platform. Space Florida devoted considerable staff resources to working with NASA-KSC's contractor to understand the intricacies of the SLSL, from both an operational and financial standpoint. As part of this effort, Space Florida issued a Request for Information in Fall 2009, to determine potential vendors for operating and leading the SLSL once Space Florida assumed control of the facility. The RFI yielded four responses, and was followed in April 2010 by a formal Request for Proposal that resulted in one response. Space Florida has evaluated the response and currently is in negotiations with that vendor.

- **Interflight Global Consulting Award:** Space Florida engaged Interflight Global Consulting in Miami to conduct a feasibility study of a commercial horizontal lift spaceport at Dade Collier Training Airport (KTNT) in South Florida. The study revealed that horizontally-launched spacecraft would be the best operational fit for the area. Next steps in advancing the spaceport project include performance of a financial feasibility study by the Miami Dade Aviation Authority and an enhanced environmental study and working with KTNT's owner/operator, the Miami-Dade Aviation Authority, in determining interest in pursuing an FAA license. If successful, this effort (along with the recently acquired FAA spaceports license at Jacksonville's Cecil Field and KSC) will allow Florida to establish the world's first network of intra-state spaceports.



- **\$40 Million in EDA/NASA funding for Florida’s Space Coast:** In FY2010, President Obama announced a \$40 million funding package, that would be administered through the U.S. Economic Development Administration, to assist Florida in the post-Shuttle program transition. Space Florida formed a close working partnership with key leadership at the EDA office and NASA shortly after this announcement, to assist in the formulation of ways to best leverage those dollars into a much larger positive economic impact for Florida. At the close of FY2010, Space Florida worked closely with the EDA and DoC to plan a “Best Ideas Forum” (to take place in July 2010) that would result in the presentation of 40+ concepts that would not only provide suitable employment for many high-tech, high wage Shuttle employees, but would also maximize return on investment of government dollars through the use of matching funds. The assignment and distribution of these funds will take place in FY2011 - and as a result of forming key partnerships early on - Space Florida will play a key role in the facilitation of that process.
- **White Papers Submitted to the Augustine Commission:** Space Florida developed a series of white papers for submission and consideration by the Augustine Commission that focused on three areas critical to preserving and enhancing the State’s position in the U.S. space industry. These documents served as the basis for Lt. Gov. Kottkamp’s testimony before the Commission in July 2010 in Cocoa Beach. Key points addressed in the white papers included:
 - Preserving heavy lift capability post-Shuttle is critical. Without heavy lift capability, future manned exploration missions to the Moon, Mars, or other parts of the solar system are not possible.
 - Full use of the International Space Station will continue to secure the SLSL as an integral component of the National Laboratory Network.
 - KSC was designated as NASA recognized Center of Excellence for its spacecraft design/manufacturing/operations interface. The KSC workforce has unique knowledge of the operational characteristics of spacecraft and how they integrate with the launch system. NASA can gain considerable schedule and cost efficiencies by tapping into KSC expertise much earlier in the spacecraft design and manufacturing process.

- **Commercial Crew Transport Procurement:** Space Florida, NASA-KSC, and the Economic Development Commission of Florida's Space Coast responded to a Request for Information for procurement of NASA's anticipated Commercial Crew Transport (CCT). The response outlined Florida's proposed solutions for facilities, financing, and labor. Space Florida received informal feedback that the company was very impressed by the level of detail in the response compared to those received from other states. The company anticipates issuing a formal RFP to the states two to three months in advance of NASA's deadline for the CCT proposal.
- **NASA-KSC Engineering Services Contract (ESC) Procurement:** KSC's contract to provide Center-wide engineering services came up for re-bid in 2010. Space Florida worked with several of the bidders in crafting customized packages to support their bids by helping to provide facilities, equipment, and workforce training.

PROJECT 2: SPACE AND AEROSPACE INDUSTRY SUPPLY CHAIN DEVELOPMENT

Space Florida made ardent strides to further develop and grow the aerospace supply chain industry within the state. FY2010 highlights include:



Exploration Park: Exploration Park at NASA-KSC is Florida's newest research and innovation park project, which will eventually host diverse aerospace-related activities for commercial, civil, and military tenants. Phase One will consist of a 60-acre, master-planned research park adjacent to the SLSL and housing more than 300,000 square feet of office, R&D, and light industrial space. Phase two consists of approximately 120 acres located across Space Commerce Way that will be reserved for heavier industrial uses.

Space Florida helped advance the Exploration Park project during FY2010 as follows:

- The Florida Legislature appropriated \$7.5 million to Space Florida to fund construction of the access road and related infrastructure for Exploration Park. This funding enables Space Florida to satisfy its obligation, under the Enhanced Use Lease with NASA-KSC, to provide this infrastructure as an in-kind donation.

- A formal groundbreaking ceremony was held on June 25, 2010 with Lt. Gov. Kottkamp and several other dignitaries in attendance. Design work for the Exploration Park access road is underway, with construction slated to begin by December 31, 2010. Assuming favorable weather conditions, the road should be complete by fall 2011.
- To date, there are six commercial companies with Letters of Intent to lease in the park.

Technology Commercialization: Space Florida worked with several Florida companies that are commercializing technologies with roots in the Space program, providing technical assistance in business plan development, marketing, and financing strategies, in anticipation of funding that was approved during the 2010 Legislature. Space Florida expects that several of these companies will qualify for financial assistance provided by this funding and will leverage the work done in 2010 with several financings, supporting creation of several hundred new jobs in 2011.

PROJECT 3: BUSINESS DEVELOPMENT PROJECTS

Space Florida worked extensively to recruit and support space and aerospace operations and customers during FY2010. Some examples:



- **SpaceX:** On June 4, 2010, SpaceX launched the Falcon 9 from Launch Complex 40. This successful launch symbolized a significant step forward in the future of commercial space operations out of Florida. To date, Space Florida has contributed more than \$500 thousand in financial assistance to SpaceX, who has brought approximately 50 jobs to their Cape Canaveral operation to date. Space Florida will continue to serve as a critical partner and advocate for SpaceX and its current and future space endeavors from Florida.
- **Starfighters, Inc.:** This small commercial spaceflight company operates a fleet of Lockheed F-104 Starfighters at NASA-KSC. It completed initial commercial spaceflight training and inaugural flights in February 2010. The company currently has 10 employees located throughout the State, and expects to add more. Space Florida provided extensive technical assistance to Starfighters to secure financing and continues to work with the commercial company to ensure smooth operations and civil partnerships on NASA-KSC property.

- **Facilitated Key Commercial Banking Relationships:** Recognizing the important of access to capital to grow and mature Florida's commercial aerospace industry, Space Florida has established strong working relationships with commercial bankers throughout the Space Coast, Central Florida region, state and nation. In FY2009-10, Florida companies with significant employee bases benefited from these Space Florida created relationships as evidenced by the \$100 million refinance of a space launch complex at Cape Canaveral. With increased financial capacity as a result of the 2010 state legislative session, Space Florida expects that companies benefiting from these relationships and Space Florida's ability to leverage state funds with commercial bank funds.
- **NASA-KSC Industry Day:** As part of NASA-KSC Industry Day in March 2010, Space Florida identified future spaceport customers. The Industry Day was a critical first step in proactively reaching out to the commercial space community to learn their needs and ensure that the 21st Century Spaceport funding takes their full needs into account. We actively participated in one-on-one meetings with companies to better learn about their business plans, needs for launch and related infrastructure, and perceptions of doing business with NASA-KSC. We also briefed the entire group on our financing powers and services available to launch customers.



SPACE FLORIDA ANNUAL PERFORMANCE REPORT

SPACEPORT PLANNING AND DEVELOPMENT

Statutory Requirement: Spaceport Planning and Development

Spaceport Planning and Development is the funded activity for planning and coordinating the improvement of Florida's space transportation infrastructure and systems. This activity facilitates Space Florida's transportation mission. Space Florida's statutory mandate includes coordination among space businesses, Florida universities, space tourism, and the Spaceport Florida launch centers; and encourages cooperation with municipalities, counties, regional authorities, state agencies, and organizations, appropriate federal agencies and organizations, and other interested persons and groups. The Long Range Program Plan measure is "Number of Projects."

Space Florida continues to make great strides in positioning the State of Florida as a global aerospace leader. Through vital contributions from the spaceport and aerospace communities, as well as Florida stakeholders, Space Florida outlined a dynamic strategy for expanding and modernizing space transportation facilities and infrastructure in Florida. In addition, FY2010 was a year of significant progress in many other arenas: building global relationships, collaborating with state-based military and civil space organizations, and honing R&D assets, to name a few.

PROJECT 1: SPACE INFRASTRUCTURE AND RANGE MODERNIZATION

According to Florida Statute 331.360, it is the duty of Space Florida to, "...develop a spaceport master plan for expansion and modernization of space transportation facilities... which shall contain recommended projects to meet current and future commercial, national, and state space transportation requirements... shall submit the spaceport master plan to the Department of Transportation, and such plan may be included within the department's 5-year work program of qualifying aerospace discretionary capacity improvement..."

Space Florida's 2010 Spaceport Master Plan was completed and approved in November 2009. A number of diversified, statewide projects were identified within the plan, including 13 specific projects tied to emerging commercial space efforts within the state through Cecil Field in Jacksonville, United Launch Alliance, the Shuttle Landing Facility and SpaceX, who currently operates out of Cape Canaveral AFS.

In FY2010, several infrastructure and Eastern Range modernization efforts took place, providing a solid foundation for future commercial expansion in Florida.



- **Space Exploration Technologies (SpaceX) Falcon 9 Launch:** As noted in the Business Development Section of this report, on June 4, 2010, SpaceX successfully launched the Falcon 9 from Launch Complex 40. For this historic launch, SpaceX sub-licensed the Space Florida Space Operations Control Center (SOCC). This was the first time in six years that the SOCC has been used for its intended function as a launch control facility. To date, Space Florida has also proposed four major projects for the commercial launch company in its 2010 Spaceport Master Plan. In this, and other initiatives, Space Florida will continue to serve as a key partner and advocate for SpaceX and its Florida-based space initiatives.
- **Improvements and Upgrades to 21st Century Space Launch Complex and the Eastern Range:** The 21st Century Space Launch Complex at KSC and CCAFS offer numerous untapped opportunities for commercial spaceflight providers and government users. Space Florida initiated several technical interchange meetings with the NASA-KSC Planning and Development office in FY2010 to outline specific improvements that will attract more commercial and government users to the KSC area. Furthermore, Space Florida worked closely with the FAA, NASA, DOD and industry to identify unique Eastern Range requirements for current and future commercial launch systems. Areas examined included enhancing technical capabilities and organizational processes, as well as modernizing communications and data infrastructure.
- **CASPER:** In 2007, Space Florida developed the Customer Assistance Service Program for the Eastern Range (CASPER) to help refine Range policies and regulatory processes that blend the needs of military and civilian users. Through CASPER, Space Florida provided a single point of contact for navigating launch and Universal Documentation System (UDS) processes from Florida's Space Coast quickly and efficiently. This program reduced the need for commercial customers to

have the specialists or budgets that would otherwise be needed to meet federal range requirements in a fiscally responsible manner.

Through CASPER, Space Florida provided consulting and mentoring assistance to ATK and Masten Space Systems to guide their new programs through the Eastern Range approval process.

- **Grant Fund Requests:** Space Florida pursued grant funds to support the study of Thermal Vacuum Chamber retrofit at the KSC Operations & Checkout Building, which will serve as the site for ORION capsule processing for NASA's next-generation space initiatives. Once complete, the Thermal Vacuum Chamber will also be useable for testing other satellites and spacecraft, a capability new to Florida. NASA received these funds via a Congressionally Directed Item initiated by Senator Nelson.
- **Reusable Booster System:** Space Florida collaborated with the U.S. Air Force Research Lab (AFRL) to begin development of reusable booster system technology for future space systems. Initial funding of the system is slated to begin in FY2012.
- **Commercial Launch Zone (CLZ) Support:** As part of the CASPER program, Space Florida received professional mentoring and consultation from Science Applications International Corporation (SAIC) through January 15, 2010. This CLZ support contract developed operational concepts and campaign plans for Launch Complex 36 and associated commercial facilities; researched facility and launch pad requirements; expedited environmental and FAA license applications for Complex 36 and 46; and generated needed data for Range safety submissions in the areas of Explosive Site Plans and Launch Complex Site Plans.

PROJECT 2: STATEWIDE TRANSPORTATION COMMITTEES

The Spaceport Master Plan outlined numerous transportation requirements to best serve planned spaceport development for Florida in the near and long-term. To help spearhead these requirements, Space Florida spent FY2010 getting actively involved in various State planning boards and councils. Space Florida leadership used these critical planning meetings to advocate on behalf of the State by crafting specific projects for inclusion/consideration in the Florida Department of Transportation's 5-year work plan for funding. Highlights from the past year are listed below. Our work in securing funding to sustain and improve Florida's space transportation infrastructure continues to make progress.

- **Statewide Intermodal Transportation Advisory Council (SITAC) Appointment:** The SITAC advises and makes recommendations to the Legislature and the Florida Department of Transportation on policies, planning, and funding of intermodal transportation projects. Frank DiBello, president of Space Florida, was appointed to the SITAC in accordance with 339.64 (5) F.S. and the 2025 Florida Transportation Plan Update Steering Committee.

- **Florida Department of Transportation (FDOT) Strategic Intermodal System (SIS):** Mark Bontrager, vice president of Space Florida's Spaceport Operations, served as a key partner to FDOT and SIS while participating in a number of key meetings of the SIS Leadership Committee. Mark's input was compiled with other recommendations that were presented to the Florida Secretary of Transportation. In this role, Mark will advocate for the projects that benefit Florida's dynamic space industry.
- **Florida Transportation Plan (FTP) 2060 Steering Committee:** This steering Committee is recognized by State Transportation planners and decision makers as being an integral player in shaping Florida's future economy. Both Frank DiBello and Mark Bontrager served key roles on this committee in FY2010.

PROJECT 3: COMMERCIAL SPACEPORT IN FLORIDA

A critical component of the Space Florida Spaceport Master Plan is the development of a designated commercial spaceport in the state. During FY2010, Space Florida took steps in developing the funding plan, design and implementation of this facility. Highlights include the following:

- **Jacksonville Aviation Authority (JAA) Launch Site Operator's License:** Space Florida has been working with JAA to develop new commercial launch capabilities, modernize and expand facilities, and assist JAA in obtaining their Spaceport Site Operator's license. In January 2010, Cecil Field Airport, near Jacksonville, Florida, received a launch site operator's license from the FAA, allowing it to support horizontal space launches and landings. This makes Cecil Field the nation's seventh commercial spaceport.
- **Spaceport Master Plan 2010 Mid-Year Update:** Space Florida's Spaceport Operations division hosted a workshop in May 2010 to brief the public on plans to bring Florida's commercial spaceport concept to fruition. This workshop included briefings from the 45th Space Wing, NASA Kennedy Space Center, Cecil Field Spaceport, and key Florida space transportation stakeholders. More than 25 stakeholders attended, including representatives from FDOT, NASA, USAF, Space Coast TPO and local municipalities.
- **Spaceports3 Proposal:** The U.S. Air Force's Space and Missile Systems Center/Space Development and Test Wing (SMC/SDTW) at Kirtland AFB, N.M. issued a Request for Proposal to provide launch facilities, launch site, operations support, range and range integration support, logistics support, facility engineering, and program support for future launches. Realizing that such a procurement was an opportunity to create new jobs and use existing assets at CCAFS, Space Florida submitted a response and is awaiting award of the first task order -- development of a Logistics Strategy Plan applicable to USAF Minotaur launch operations at the Eastern Range and Cape Canaveral Spaceport.

- **Alaska Aerospace:** Space Florida representatives traveled to Alaska to tour Alaska Aerospace's facilities in Anchorage and Kodiak and glean key "lessons learned" that could be applicable to Florida's commercial spaceport. A partnership agreement was reached to define arrangements for sharing operational strategies and marketing concepts. (Note: Alaska's launch capabilities are not competitive with Florida's, as missions from the Kodiak Spaceport are destined for orbits not achievable from Florida.)
- **Spaceport Sweden:** Spaceport Sweden plans to operate commercial suborbital vehicles. Space Florida hosted company representatives to discuss possible collaborations and tour Space Florida and KSC facilities.

PROJECT 4: SPACE FLORIDA FACILITIES

Space Florida spent FY2010 marketing its facilities to commercial launch service providers and other entities. Key highlights over the last year included the following:



- **Reusable Launch Vehicle (RLV) Hangar:** As an RLV tenant, Space Florida offers ample storage opportunities for commercial customers. NASA-KSC, which operates the hangar, recently modified the facility to accommodate its helicopters. They also added two air-conditioned rooms, an office, a workshop and a secure tool crib. Starfighters, a commercial jet operator, now occupies a portion of this facility and featured its first commercial flight from the site this year.



- **Launch Complex 46:** SLC-46 has drawn significant interest from the commercial launch community over the past fiscal year, and is a critical component to the State's 21st Century Spaceport plan. The site has an existing Mobile Service Tower and can support solid-propellant launch vehicles with a maximum height of 120 feet and payloads up 10 feet (3m) in diameter. Key accomplishments during FY2010 included:

- Obtaining the real property license from the USAF allows us to proceed with planned construction and refurbishment at the launch location.
 - Receiving a Navy Joint Use Agreement, which allows Space Florida to share full utilization of the site by either party, as needed.
 - Dialoging with Lockheed Martin/ATK (Athena) and Orbital (Minotaur) regarding potential future use of this complex.
- **Launch Complex 36:** This site has the ability to support liquid-propellant commercial launches that can accommodate specific launch vehicle configurations ranging from low-lift to medium-lift into low-Earth orbit and beyond, per customer requirements. Key milestones completed in FY2010 included receiving a Real Property License in February 2010 from the USAF to proceed with construction and refurbishment.
 - **Launch Complex 47:** Space Florida partnered with the 45th Space Wing, FAA/AST, Florida Space Institute, University of Central Florida, and Brevard Community College to provide a site capable of launching Loki and Super Loki suborbital rockets to altitudes exceeding 200,000 feet. As part of its role in enabling the continuation of small rocket launches for research and education, Space Florida liaises between the 45th Space Wing and potential customers to support planned and future launches from SLC-47. Key milestones during FY2010 included:
 - Receiving the Real Property License amendment from the USAF 45th Space Wing in September 2009, extending the term an additional two years.
 - Assuming facility management responsibility during 3rd quarter of FY2010.
 - **Space Life Sciences Laboratory (SLSL) and Exploration Park:** In FY2010, Space Florida broke ground on Exploration Park, KSC's next-generation science and technology park to be located adjacent to the SLSL. The SLSL will serve as the anchor facility for the Park, and will provide the ground node to the ISS for many years to come. This historic facility will continue to provide cutting-edge R&D capability for space-bound payloads, and has already attracted the interest of several commercial companies that have signed Letters of Intent to occupy space at the new Park.
 - **Facility 90327 (CCAFS SOCC):** The Space Operations Control Center is located at the Space Florida CCAFS South Gate Campus just outside the south security gate to Cape Canaveral Air Force Station. This facility supported SpaceX's Launch Control Center function for the inaugural launch of the Falcon 9 rocket in June 2010.
 - Maintenance: SpaceX performed the necessary changes/repairs to make this facility their Launch Control Center operations these included installing a lighting suppression system, updating the HVAC system.
 - **Operational Storage Facility (OSF) at Camp Blanding:** Under the existing lease arrangement, the OSF now hosts a full complement of over a dozen Atlas V SRMs in preparation for their eventual launch from the Cape. Also stored on-site are Space Florida's stock of Super Loki sounding rockets.

Facility 90326 (CCAFS Space Florida Office): Co-located with the Space Operations Control Center, the Space Florida CCAFS South Gate Campus is just outside the south security gate to Cape Canaveral Air Force Station.

- Current Tenants:
 - Special Aerospace Services (SAS) is a small business with the core of its development work in Boulder, Colo. Their goal is to bring a portion of work to Florida, specifically to Exploration Park. They offer advisory services in the areas of human rating, launch services support, demilitarization, and safety mission assurance.
 - Quantum Technology Services, Inc. (QTSI) QTSI is working on a DOD contract to prove a new technology site security system using ground sensors. Space Florida worked with the U.S. Air Force and QTSI to install and successfully demonstrate the system at the South Campus helping QTSI meet all of its business objectives. This project lasted approximately six months and QTSI returned the site to its original condition as of March 30, 2010.
 - The IT Center of Excellence is also a new tenant at the facility that is growing, and has future plans to relocate to Space Florida's Exploration Park, once built.
- Maintenance: Interior doors were rekeyed, a tankless water heater was installed and the air conditioning system was upgraded.

Project 5: Spaceport Operations Projects

Spaceport Operations plans and coordinates improvement of Florida's space and aerospace infrastructure and systems. The following is a summary of significant Spaceport Operations projects conducted during FY2010:

- **Lockheed Martin/ORION project:** Space Florida signed a \$35 million agreement with the Office of Tourism, Trade and Economic Development to use non-recurring funds from the 2006-2007 State Budget to modify the Operations and Checkout Building for ORION Crew Exploration Vehicle Assembly and Checkout at KSC. Modifications – which came in on time and on budget – included developing a high bay crane to be utilized to lift ORION into the thermal vacuum chamber, relocating HVAC doors in the air lock area, building workstations, and more. These renovations contributed a significant economic impact to Florida and provided 100 direct, full-time jobs over 29 months.
- **30 Robinsphere/Defense Advanced Research Projects Agency (DARPA):** In support of a hypersonic research project, Space Florida provided DOD contractor 30 Robinsphere payloads extracted from the existing stock of Super Loki darts. In exchange, Space Florida received a result report, which provided valuable data on the viability of the remaining stock of darts.

- **Super Loki Motor Inspections:** Space Florida assisted in the X-ray and detailed visual inspection of 62 Super Loki motors stored at Camp Blanding to determine which are viable assets. Such inspections help overcome the 45th Space Wing Range Safety prohibitions that have been in place for three years.
 - 62 motors inspected; 24 were deemed flyable
 - Supplied 42 Super Loki rocket systems (motors and darts) to a DOD contractor at White Sands Missile Range in support of various projects.
 - Discussions related to suborbital payload and Super Loki launch capabilities to support State university programs are currently underway.

- **CASPER Studies:** As part of the CASPER contract, Space Florida and its contractor generated a significant number of studies, reviews, and white papers aimed at better explaining where the Commercial Launch Zone concept fits into the global commercial launch environment and how it compares to other domestic spaceport concepts. These studies included:
 - Multi-Vehicle Launch Complex White Paper
 - Orbital Mechanics and Launch Site Summary White Paper
 - Domestic and Global Launch Site Comparisons
 - Payload and Satellite Provider Information and Market Assessment Primer
 - Wallops Flight Facility Taurus II Explosive Site Plan Arc Assessment
 - US Launch History Database for Jan 89 – Aug 09
 - Worldwide Launch Failure Database
 - CLZ Orbital Mechanics Facts

- Space Florida developed an Orbital Mechanics Tool to generate basic performance data on various launch location options for commercial boosters. This tool provides an analytical, PC-based program useful in determining the actual performance characteristics for select launch vehicles. This data is useful for deflating the sometimes grandiose claims of orbital superiority for Florida's competitors.



SPACE FLORIDA ANNUAL PERFORMANCE REPORT

EDUCATION, RESEARCH & DEVELOPMENT, WORKFORCE

Statutory Requirement: Education, R&D, Workforce

In its Annual Report, Space Florida shall include, at a minimum, a description of programs funded, the number of students served, and private-sector support. The Long Range Program Plan measures are “Number of Research Projects, Partnerships and Grants Supported by Space Florida,” “Number of Students Attending Space Florida Educational Programs,” and “Technical, Financial or Other Space-Related Services to Florida Business.”

Space Florida’s Education Programs offers students and teachers a wide range of innovative, inquiry-based and hands-on educational programs and workshops intended for all levels of students and researchers. Using space as a theme for learning, Space Florida sponsored programs enable participants to develop relationships with key industry partners and enable these students to solve real world science challenges. We continued to invest in R&D programs that advance the State’s goals of attracting higher quality proposals and expand program impact throughout the State. Education, R&D and Workforce programs work together to pursue development of strategies that best leverage Florida’s aerospace assets. As the Shuttle program comes to an end, we are working collaboratively to educate and develop thousands of current employees – as well as future employees from State careers.

PROJECT 1: SPACE FLORIDA INNOVATIVE EDUCATIONAL PROGRAMS

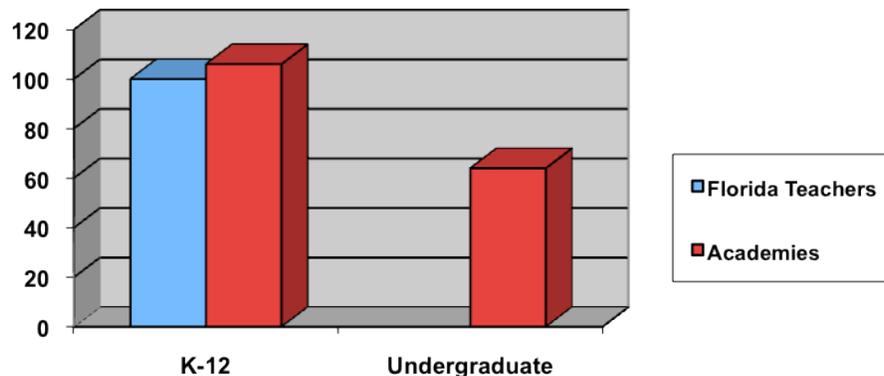
Space Florida hosts educational programs that inspire students to pursue STEM-based careers in aerospace industries. During the past year, Space Florida’s ERDW team successfully financed and/or supported a wide variety of hands-on educational programs, competitions, seminars and academies for **1,863** Florida students and teachers. Below is a summary of our FY2010 educational highlights:

- **Butterflies in Space:** Space Florida partnered with Department of Education for this popular, immersive STEM program that included the participation of **722 registered Florida schools and nearly 20,000 participants**. As part of the “Butterflies in Space” program, Florida classrooms hosted a butterfly larvae habitat and compared development of their habitat to that of a test group flying aboard STS-129, bound for the International Space Station. The program was conducted in collaboration with

BioServe, a space flight hardware company headquartered at the University of Colorado, in Boulder. Due to the overwhelming response from Florida educators, the initial program was broadened to include a web-based program that all interested Florida educators could follow, once they secured their own classroom habitats.



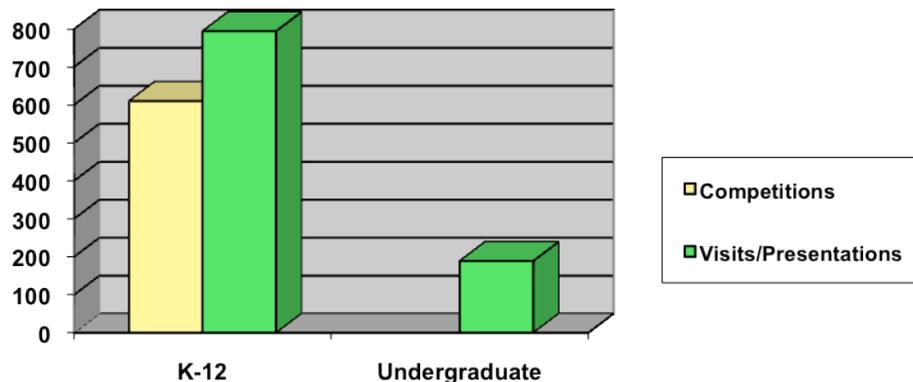
- Space Florida Academy:** Space Florida conducted eight, five-day Academy programs for K-12 students and teachers at the Center for Space Education, at Kennedy Space Center during FY2010. These programs provide opportunities for participants to engage in stimulating science and math activities over the course of a week. In addition, students had the opportunity to work as an “aerospace engineer” for a week and build an instrument package that would be launched on a weather balloon to a height of 100,000 feet (20 miles) at the end of the academy week. FY2010 academies included collaborative sponsorships with Northrop Grumman Corp., Lockheed Martin Corp., and the Florida Space Grant Consortium.
 - More than **100 Florida teachers and 170 students** participated in workshops and competitions



- Mars Experiment Design Competition:** Space Florida, NASA-KSC and the Mars Society conducted a statewide design competition for middle and high school

students, inviting them to design scientific experiments to send to the Mars Desert Research Station (MDRS) in Utah in March 2010. Space Florida received a total of **32 completed design entries**. In January 2010, Space Florida announced the three winning Florida school teams.

In FY2010, **983 K-12 and undergraduate students** visited KSC for one-to-two day visits, and were hosted by Space Florida. These numbers also reflect students impacted by Space Florida educational leadership visiting area schools for “Space 101” briefings, or to meet with competition winners.



PROJECT 2: RESEARCH AND DEVELOPMENT

Space Florida funds and administers a competitive research grant program to support the expansion and diversification of Florida’s space industry. Grants are used to increase statewide involvement in space research, engineering, education, and training programs that are consistent with the State’s space industry priorities. Below are highlights from FY2010:

- **Florida Space Research Program (FSRP):** Space Florida contributed \$60,000 to fund the Florida Space Research Program (FSRP), which uses federal and state funds to support R&D projects that diversify Florida’s space industry and support statewide aerospace workforce development. **The 2010 program generated 49 proposals vying for a total of \$453,191 in grant dollars.** Twenty-two (22) space research and education awards were granted in November 2009 alone. Awardees included nine Florida universities and two statewide educational organizations.
- **FUNSAT Design Competition (Florida University Satellite Program):** Space Florida co-sponsored the sixth annual FUNSAT competition in fall 2009, which teams college students with professionals to develop advanced space technologies that are expected to have a significant impact in the industry in coming years. FUNSAT is a pico-satellite with a maximum mass of 1Kg and the size of 10x10x10 cm³. Competition includes the design, fabrication and a possible launch of a FUNSAT into space. Six U.S. universities participated in the 2009 competition, with the team from University of Central Florida taking home first place honors.

- **Advanced Space Technologies Research & Engineering Conference (ASTREC):** Space Florida funding and participation on the governing board has been instrumental in the development of ASTREC, the first entity of its kind in the southeast devoted to developing small satellite technology. Space Florida a founding member of ASTREC and is currently one of 11 industry and government members on the Board. ASTREC's goal is to develop and validate innovative small satellite technologies, offering a responsive, cost-effective approach to space exploration and utilization through the development of long-term partnerships among universities, industry, and government. ASTREC held its first conference at the University of Central Florida in November 2009.



Janet Ivey

Microgravity Research Experiments -“Exploring Microgravity” DVD: Space Florida produced and launched the “Exploring Microgravity” DVD in spring 2010 with Emmy Award winning show host Janet Ivey. The Florida Department of Education secured the DVD to support CPALMS, a statewide infrastructure project that will build information systems and tools to support implementation of the Next Generation Sunshine State Standards. Specifically, the DVD will appear on the CPALMS website (www.cpalms.org) as a microgravity instructor reference and teaching tool. Space Florida will also provide a sub-site on which Florida teachers and students can view the entire program on the Internet.



ABRS

- **Space Life Sciences Laboratory (SLSL) at KSC:** Space Florida worked in partnership with NASA-KSC and aerospace contractors to support two R&D projects aboard Space Shuttle Mission/STS-129, which took place in November 2009:
 - Advanced Biological Research Station – Space Florida provided three engineering interns to work on a biological experiment rack, which has now been placed aboard the ISS for full utilization over several years.
 - TAGES Flight Experiment – Space Florida assisted Dr. Rob Ferl at the SLSL in preparing the TAGES biological experiment, which tested plant growth in the stressful environment of microgravity.
- **Curriculum Improvement Partnership Award for the Integration of Research into the Undergraduate Curriculum (CIPAIR):** In FY2010, Space Florida supported an application for a grant that enabled internship/research opportunities for collegiate minority students and their advisors at the Space Florida laboratories at NASA-KSC. In FY2010, a team from Grambling State University in Louisiana submitted the winning proposal – “Minority Participation for Future NASA Workforce” – and received a \$450,000, three-year grant, which will cover the cost for the young researchers and their college mentors to work at KSC over the course of three summers (starting in summer 2010).
- **Other Research & Development Initiatives:** Space Florida participated in numerous other R&D projects and events through FY2010, including:
 - **FreeMind Company** – Space Florida initiated discussions with FreeMind Company about accessing National Institute of Health funding for SLSL support of the ISS.
 - Space Florida ERDW staff worked with **Florida Board of Governors** to coordinate a meeting of Florida university leadership, as well as NASA and industry representatives, led by Chancellor Brogan at the Space Life Sciences Lab (SLSL). The discussion centered on how the Florida

university system can initiate new space-based, life sciences research that would enable government and industry to collaborate effectively. Following this meeting, a decision was made to elevate the Florida Space Institute at the University of Central Florida and enable it to fulfill its mission of becoming a statewide space research university consortium. The University of Central Florida has initiated a national search, supported by Chancellor Brogan, to get a nationally recognized leader in space research to head FSI.

- In FY2010, Space Florida participated in initial conversations with academia, industry and government to pursue the establishment of a **Center of Excellence for Commercial Space Transportation** through the FAA. The goal of the CoE would be to create a cost sharing consortium between academia, industry, and government that will focus on research areas of primary interest to the FAA and the U.S. commercial space transportation industry as a whole. The consortium will identify solutions for existing and anticipated commercial space transportation challenges, and will plan to perform a significant amount of basic and applied research each year. The new center is expected to begin operations in September 2010 and research and development efforts will focus on: space launch operations and traffic management; launch vehicle systems, payloads, technologies, and operations; commercial human space flight; and space commerce (including space law, space insurance, space policy, and space regulation).
- Space Florida continued a working partnership with **RAWI (Regional Aerospace Workforce Initiative)** to connect workforce, economic development, educational, and research entities for the promotion of job opportunities in related and emerging industry clusters in the Florida High tech Corridor (FHTC). A rapid response approach has been designed that improves regional communication and infrastructure and makes it easier for the dislocated aerospace worker to find available job opportunities in central Florida and to obtain and needed training required for employment.
- Space Florida worked with **Lighting Science Group Corporation (LSGC)** on a proposal for the Florida Clean Energy Program under the American Recovery and Reinvestment Act. The proposed project for funding from the Florida Energy and Climate Commission focuses on developing and demonstrating a Light Emitting Diode (LED) street light augmented with solar energy and light controls to minimize energy usage while reliably maintaining a desired light level and quality. The goal is to create a street light tailored specifically to Florida locations that reduces grid power usage by 65% to 75% compared to the High Intensity Discharge (HID) street lights currently in place. LISC will satisfy the DOE's goals to provide economic development by taking on market transformation initiatives with Space Florida that will directly result in a product that increases energy efficiency and improves renewable energy technologies. The target street

light will put Florida on the map for adopting, innovating, and implementing energy efficient solutions.

- At the November 5, 2009 Florida Space Grant Consortium Advisory Committee meeting in the Orlando Science Center, 22 Space Research and Education awards were announced for 2009. The total funding amount made to Florida research institutions under this program known as the **Florida Space Research Program (FSRP)** was \$453,191.00, with \$60,000 being directly contributed by Space Florida. The intention of this annual program is to combine both Federal and State funds for projects that diversify Florida's space industry and research, while at the same time, support aerospace workforce developments statewide. Forty-nine (49) outstanding proposals were received this year. The awardees include nine Florida universities and two other Florida educational entities - The Astronaut Memorial Foundation's Teacher Connect program and the Jacksonville based 'Tekna-Theos.'
- Space Florida began discussions with FIT, NASA KSC, and ULA on the possible creation of a partnership after the donation of **Centaur upper-stage rocket propellant tanks** for a cryogenic experimental facility for upper-stage propellant research using full-scale flight hardware.
- Discussions also continued with the **University of Florida "SwampSat" Team** about how Space Florida can assist with the construction and launch of the SwampSat satellite, which would be the first such satellite ever built in Florida.

WORKFORCE DEVELOPMENT

Space Florida assists partner organizations in coordinating workforce development resources within the state. FY2010 highlights include:

- **Aerospace Workforce Transition Plan**: Space Florida partnered with the Brevard Workforce Development Board (BWDB), Aerospace Career Development Council (ACDC), Workforce Florida, Enterprise Florida and others, to outline the next logical steps in developing an aerospace workforce transition plan for displaced Shuttle workers.
 - Phase 1 featured a study to analyze and further define the workforce skills in specific Shuttle work areas and related system hardware elements.
 - Other actions included: developing a communications message and plan centered on lifelong learning; performing a workforce curriculum analysis; offering employed worker training; and the developing a learning management system for further workforce functional skills mapping.
- **Regional Aerospace Workforce Initiative (RAWI)**: Space Florida actively participated in RAWI during FY2010. RAWI is developing a regional strategic action plan to promote a collaborative exchange between industry, workforce, education and economic development leadership to leverage necessary resources to build a rapid response communications network that will assess and reassign dislocated aerospace workers into related and emerging industries within the Florida region.
- **Workforce Florida**: Space Florida continued to work closely with Workforce Florida, universities and other organizations to develop a Space Industry Workforce Initiative that will use or revise existing workforce retraining and placement programs and develop new ones to address the dynamic needs of today's aerospace workforce.
- **Existing Space Florida Initiatives**: Space Florida's existing suite of education and R&D initiatives are specifically designed to guide participants toward space science-related careers as well as to bridge engineering and science gaps that exist in the workforce. Education programs feature real-life, space science challenges for students, and introductions to space science communities through informative tours and panel discussions with key NASA-KSC and space industry employees. Participation in these programs, as well as meeting space industry scientists and leaders, has been proven to inspire and guide this next generation of Florida aerospace workers.