



DARE TO DREAM

SPACE FLORIDA



2019 ANNUAL REPORT



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LETTER TO THE STAKEHOLDERS

Dear Stakeholder:

Over the past year, Florida has continued to strengthen its position as the best state in the nation for the aerospace industry.

In February, I was pleased to announce Firefly Aerospace's selection of Florida Space Coast's Exploration Park for its launch and manufacturing project. This new project will include the capability to locally manufacture, test and launch rockets delivering payloads that will harness the commercial potential of space exploration. This is part of a multi-year \$52 million endeavor that is expected to generate over 200 jobs with an average salary of \$70,000.

In July, OneWeb Satellites opened the doors to their new full-scale satellite production facility, which is also in Exploration Park. The company plans to use the over 100,000-square-foot facility to revolutionize satellite manufacturing.

Florida was also fortunate to welcome to the Space Coast the relocation of both Boeing's Space and Launch Headquarters and Lockheed Martin's Fleet Ballistic Missile Headquarters.

We even recently executed a new partnership between Space Florida and the Israel Space Agency to engage in collaborative research to mutually benefit both Florida and Israel.

While these developments help solidify Florida's aerospace prominence, we cannot rest on our laurels. To that end, this past summer, I visited the Space Florida offices in Merritt Island to sign a workforce bill that promotes career readiness and workforce opportunities for students and working adults. Ultimately, a skilled workforce is necessary to support and sustain current and future industries, including the exciting commercial space industry.

We appreciate Space Florida's efforts and look forward to our continued partnership to ensure Florida remains the premier location for aerospace.

Sincerely,

Governor Ron DeSantis



GOVERNOR RON DESANTIS



MESSAGE FROM SPACE FLORIDA CHAIR OF THE BOARD

This year, I have had the honor to serve as Chair of Space Florida's Board of Directors and what a year it has been!

Our journey began with a strong commitment from Governor DeSantis to diversify Florida's economy and make our Space industry the top in the nation.

With that mission in mind, Space Florida has been systematically positioning Florida as a leader in the space industry. As an integral component to the Sunshine State's space enterprise, I could not be prouder to have a front-row seat in this endeavor.

We continue to attract and expand commercial investment, and are working diligently to ensure the next generation of space industry businesses are firmly rooted in our state. In 2019, Space Florida saw two exciting launches in one week – one from the Cape Canaveral Spaceport and the other from SpaceX's Falcon Heavy.

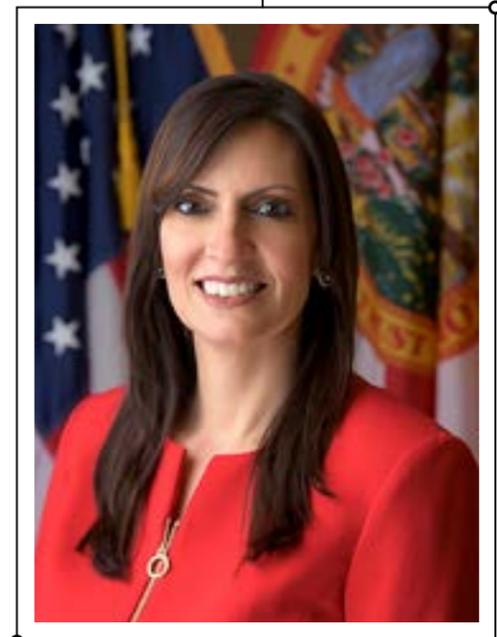
This dynamic field is also witnessing a continued commitment to innovation and space exploration with dramatic developments in the high-tech communications field and enhancements in the industrial capability to meet the needs of the marketplace.

I sincerely thank the Space Florida Board of Directors for your commitment. Your leadership and vision is the very engine for the industry's growth and prosperity. I would also like to extend a very special thank you to Space Florida's CEO, Frank DiBello, and the staff of Space Florida, for the excellent work you do.

As we look to the future, Space Florida is ready to launch us into the 21st century as the global leader in aerospace research, investment, exploration and commerce. The Sunshine State is OPEN FOR BUSINESS and is certainly the ideal location for aerospace businesses to thrive.

Sincerely,

Lieutenant Governor Jeanette M. Nuñez
Chair of the Board, Space Florida



LIEUTENANT GOVERNOR
JEANETTE M. NUÑEZ

BOARD OF DIRECTORS



**LIEUTENANT GOVERNOR
JEANETTE M. NUÑEZ,**
Chair of the Board, State of Florida



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Vice President, Government
& External Relations



SHARON SPRATT
Vice President,
Government Relations



TONY GANNON
Vice President,
Research & Innovation





ANNUAL OUTCOMES

COMPLETED

LAUNCHES
16

COMPLETED

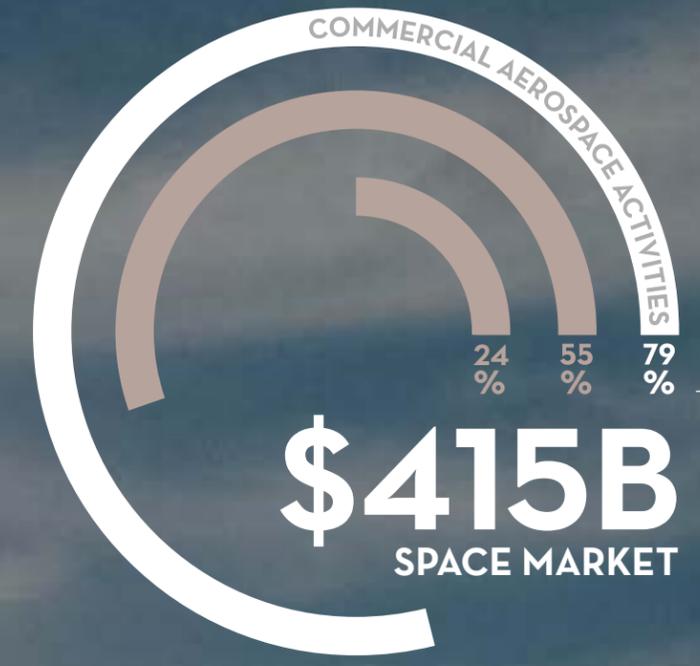
LANDINGS
12

JULY 1, 2018 - JUNE 30, 2019



THE SPACE FOUNDATION'S SPACE REPORT 2019 Q2:

The Authoritative Guide to Global Space Activity Executive Summary revealed that in 2018, **79%** of the global \$415 billion space market came from commercial aerospace activities. That number includes both commercial infrastructure and support industries (**24%**) and commercial space products and services (**55%**). Additionally, the global space economy grew **8%** during the year.



COMMERCIAL AEROSPACE ACTIVITIES

- 55% - Commercial space products & services
- 24% - Commercial infrastructure & support industries

In PY2019, Space Florida was able to recruit, retain and/or expand 15 space and aerospace-related companies and 4,139 jobs averaging a \$91,641 annual salary. PY2018 saw 21 space and aerospace-related companies recruited, retained and/or expanded.

Additionally, Space Florida implemented 23 strategies, noted in the "Florida Strategic Plan for Economic Development," in PY2019. The annual number of research projects, partnerships and grants supported by Space Florida in PY2019 was 30.

Funding appropriated by the State of Florida is vital to our efforts, providing us the leverage we need to enable new business development each year. Because of the State's trained workforce, incentives and infrastructure, Florida continues to attract and expand aerospace and high-tech companies. Space Florida's ongoing efforts maintain that Florida is the Place for Space.

We are pleased to share Space Florida's top projects and outcomes for PY2019 in the following pages.

FIREFLY AEROSPACE

In February 2019, Firefly Aerospace, Inc., a provider of economical and dependable launch vehicles, spacecraft and in-space services, announced the execution of a binding term sheet with Space Florida, under which Firefly will establish business operations at Cape Canaveral Spaceport, including launch operations at historic Space Launch Complex (SLC) 20 and manufacturing facilities at Exploration Park, Florida.

Space Florida will enable the company's Florida operations by matching the company's infrastructure investments up to \$18.9 million via the Florida Department of Transportation Spaceport Improvement Program. Firefly will invest \$52 million and will bring more than 200 high-paying jobs to Florida.

Firefly Aerospace's mass production manufacturing facility in Exploration Park will enable Firefly to produce 24 Alpha vehicles a year, allowing a launch cadence that will support a rapidly expanding global small satellite revolution and the commercialization of cislunar space.

“AS THE WORLD’S PREMIER GATEWAY TO SPACE, FLORIDA REMAINS THE PREFERRED LAUNCH SITE FOR SENDING HUMANS AND CARGO INTO SPACE”

“Firefly’s decision to establish launch and manufacturing activities on Florida’s Space Coast confirms the commercial advantages of conducting business in our state and reaffirms Florida’s position as a national leader in innovation and job growth,” said Governor Ron DeSantis.

SLC-20 will allow Firefly access to lower inclination orbital trajectories for its customers and enable access to lunar trajectories for its lander program as part of its Commercial Lunar Payload Services contract with NASA.

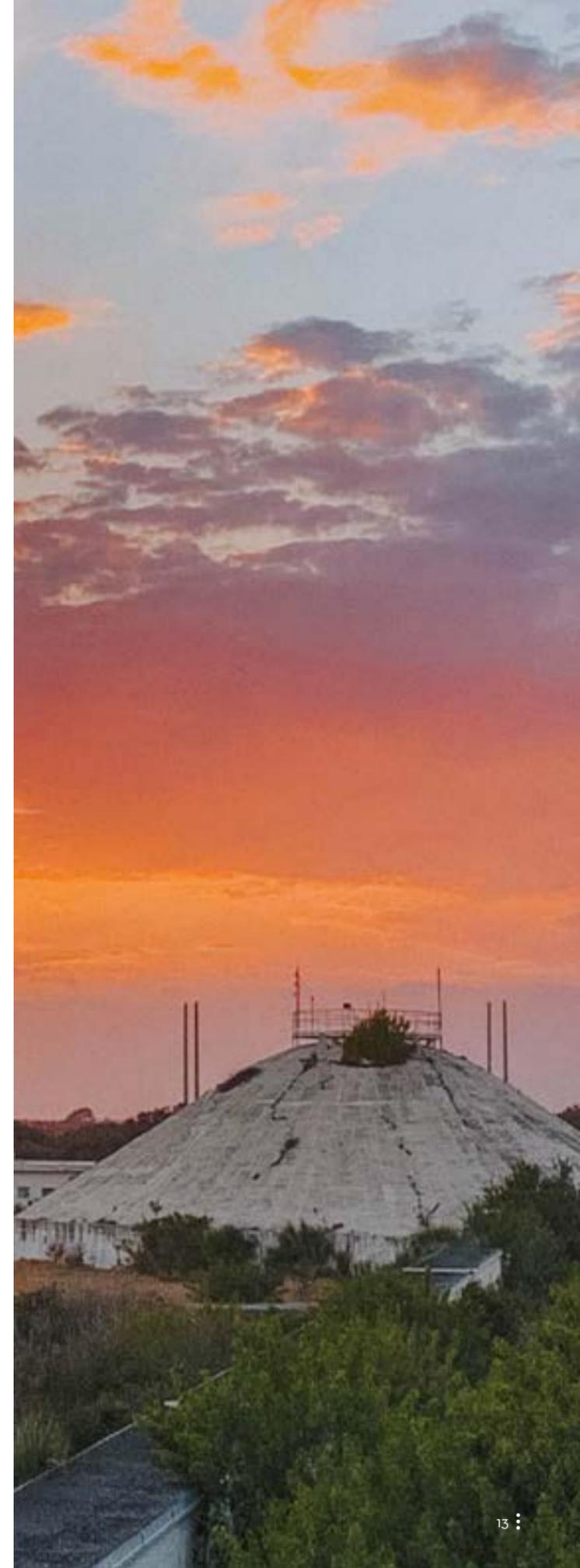


NEXT GENERATION SMALL SATELLITE LAUNCH OPERATIONS: SPACE LAUNCH COMPLEX 20

In PY2019, Space Florida’s Board of Directors ratified a formal Right of Entry agreement between Space Florida and the United States Air Force for Space Launch Complex (SLC) 20 at the Cape Canaveral Spaceport. The Right of Entry agreement will allow Space Florida to fast-track site assessment in anticipation of entering a lease with the United States Air Force to enable redevelopment of the historic location for multiple commercial satellite launch sites.

Previously used for Titan launch operations, SLC-20 is positioned to support the emerging small satellite launch market, to include Firefly Aerospace, with existing infrastructure that includes a 6,000 square-foot hangar for horizontal launch vehicle processing, two launch areas with lightning protection, and a blockhouse in operational condition. SLC-20 is centrally located at the Cape Canaveral Spaceport, which offers the widest range of launch azimuths on the East Coast, and unparalleled launch support infrastructure and services as the most active spaceport in the world.

By securing and developing fallow assets such as SLC-20 and sub-leasing to industry, Space Florida can provide a variety of financial tools. This toolbox can be leveraged by industry for the development of spaceport infrastructure, including investment in capital improvements via the Florida Spaceport Improvement Program and financing of construction and equipment through Space Florida’s unique conduit financing structure. These tools are designed to lower upfront capital requirements and ongoing cost of operations for commercial companies, while encouraging private investment in the spaceport necessary to enable sustainable growth and certainty into the future.



SPACE FLORIDA'S SPACEPORT OPERATIONS

In PY2019, Space Florida completed a very-involved refurbishment of SLC-46 in preparation to support NASA's launch. These improvements included overhaul of launch pad mechanical and structural systems, renovation of pad electrical and communications systems, and the design and installation of a brand new Lightning Protection System (LPS) over the pad. As well as supporting the AA-2 launch campaign, this new LPS will also provide increased protection for future SLC-46 customers by providing launch vehicle shielding from lightning events.

Space Florida's Spaceport Operations team provides support for the Space Coast Integration Facility at the Cape Canaveral Spaceport Area 57 which enables Aerojet Rocketdyne Coleman Aerospace to service multiple customers including Missile Defense Agency and commercial clients. Additionally, Spaceport Operations continue to provide construction, engineering and inspection oversight of Blue Origin's construction of their 650,000-square-foot Launch Vehicle Manufacturing Facility in Exploration Park and Orbital Launch Complex at SLC-36 on the Cape Canaveral Air Force Station.

Space Florida continues to provide construction, engineering and inspection oversight of the OneWeb Satellite Manufacturing and Integration Facility in Exploration Park, Phase 1 and SpaceX's Launch Complex (LC) 39A upgrades.

Space Florida worked closely with the Florida Department of Transportation to execute infrastructure upgrades, planning and program support projects to support multiple Spaceport Improvement Projects including Blue Origin's Rocket Testing Complex, SpaceX's Space Vehicle Operations Facility, launch complex upgrades to United Launch Alliance's SLC-41 and helium and electrical infrastructure expansion at the Cape Canaveral Spaceport. Space Florida's Spaceport Operations participated in the implementation of 11 infrastructure projects totaling more than \$112 million of Spaceport Improvement Fund investment in Florida infrastructure.



LAUNCH AND LANDING FACILITY LAUNCH SITE OPERATOR LICENSE

In PY2019, the Federal Aviation Administration (FAA) Office of Commercial Space Transportation (AST) issued Space Florida a Launch Site Operator License (LSOL) for operations at Space Florida's Launch and Landing Facility (LLF). This landmark license expands the capabilities of the Cape Canaveral Spaceport to multiple horizontal launch and landing customers. The license, which is required by any site with multiple users, provides new attractiveness to the Cape Canaveral Spaceport and the storied runway.

The license allows Space Florida to support operations of aircraft that carry an air-launched vehicle such as the Northrop Grumman Pegasus, Virgin Orbit LauncherOne, Virgin Galactic SpaceShipTwo, potential new national security programs and others.

The issuance of an LSOL culminates a multi-year effort as Space Florida and the FAA completed significant policy, safety, and environmental planning and assessment. Submitted in February 2018, the more than 120 page Space Florida application was reviewed, assessed and ultimately approved by the FAA for compliance with Federal statute. For the Environmental Assessment, Space Florida and the FAA reviewed more than 400 comments from various agencies including NASA, the U.S. Air Force, U.S. Fish and Wildlife Service and the National Park Service.

The LSOL at Space Florida's LLF is a key part in transforming the Cape Canaveral Spaceport into the nation's premier spaceport.

"ONE OF THE MOST FAMOUS RUNWAYS IN THE WORLD IS NOW ONE STEP CLOSER TO BECOMING FLORIDA'S NEXT GENERATION COMMERCIAL SPACEPORT."

"We look forward to the new capabilities and customers that this Launch Site Operator License will draw to the State," said Space Florida Senior Vice President and General Manager, Jim Kuzma.

Space Florida will shortly begin a process to identify a new name for the facility. This branding effort will encompass the future of commercial space, while holding on to traditions and honoring its proud legacy of supporting America's Space Shuttle program.

This license gives the state of Florida two horizontal launch and landing facilities as the LLF joins the Cecil Spaceport in Jacksonville, which was licensed by the FAA in 2010. The Space Coast Regional Airport in Titusville is also in the LSOL application process with the FAA for a similar designation in the future.



LAUNCH AND LANDING FACILITY FUEL FARM

Space Florida increased capability for its Launch and Landing Facility (LLF), announcing the addition of a fuel farm. For the first time in the LLF's history, Jet-A fuel will be available for aviation that use the LLF for commercial spaceflight operations and aviation activities.

The fuel farm, located on the east side of the aircraft ramp, has a 20,000-gallon capacity. Coupled with two 5,000-gallon fueling vehicles, Space Florida's LLF provides 30,000 gallons on-site to support heavy lift, commercial and government-supported aircraft. The fuel farm meets all Federal Aviation Administration, Air Transport Association, National Fire Protection Agency and Environmental Protection Agency standards.

THE ADDITION OF THE FUEL FARM AT THE LLF IS AMONG THE FIRST STEPS IN MAKING THE CAPE CANAVERAL SPACEPORT A FULLY VIABLE LAUNCH AND LANDING LOCATION.

Using the two 5,000-gallon fuel trucks, Space Florida sold 132,000 gallons of fuel at the LLF between August 2017 to June 2018. Prior to 2017, fueling at the LLF was limited to government aircraft and not available to commercial customers and partners.

The LLF is registered as a private-use airfield under Florida Administrative Code 14-60, and permissions from Space Florida are required prior to use.

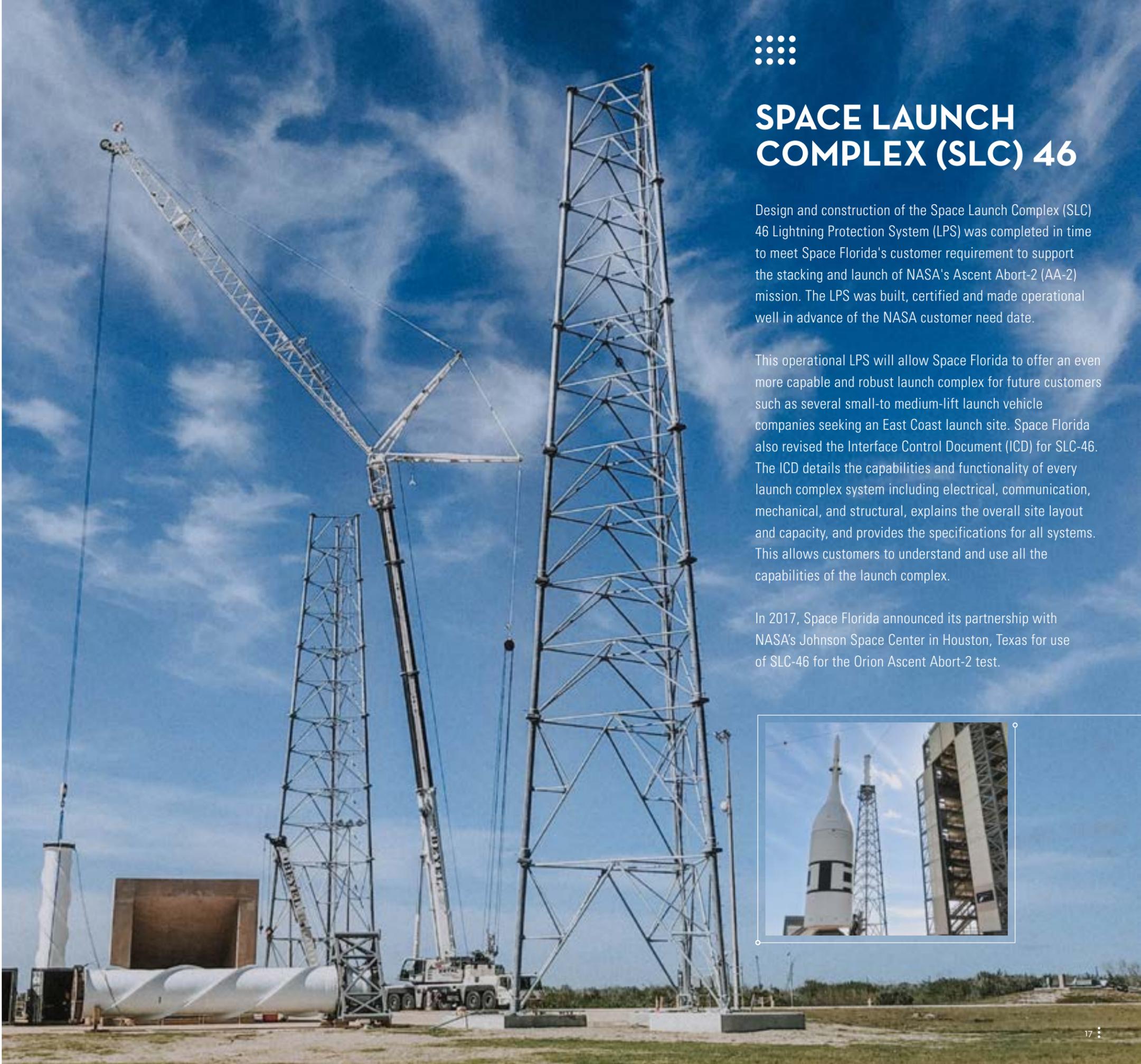


SPACE LAUNCH COMPLEX (SLC) 46

Design and construction of the Space Launch Complex (SLC) 46 Lightning Protection System (LPS) was completed in time to meet Space Florida's customer requirement to support the stacking and launch of NASA's Ascent Abort-2 (AA-2) mission. The LPS was built, certified and made operational well in advance of the NASA customer need date.

This operational LPS will allow Space Florida to offer an even more capable and robust launch complex for future customers such as several small-to medium-lift launch vehicle companies seeking an East Coast launch site. Space Florida also revised the Interface Control Document (ICD) for SLC-46. The ICD details the capabilities and functionality of every launch complex system including electrical, communication, mechanical, and structural, explains the overall site layout and capacity, and provides the specifications for all systems. This allows customers to understand and use all the capabilities of the launch complex.

In 2017, Space Florida announced its partnership with NASA's Johnson Space Center in Houston, Texas for use of SLC-46 for the Orion Ascent Abort-2 test.



MADE IN SPACE

In December 2018, Space Florida and Made In Space, Inc., (MIS) announced a second round of financing provided by Space Florida to support MIS's expanding operations in Florida. This transaction builds on the successful financing arrangement pioneered between MIS and Space Florida in 2017 by further leveraging space-bound and space-based assets as collateral. With operations in Jacksonville, Florida and in Silicon Valley, MIS is a market leader in the growing segment of in-space manufacturing.

Space Florida recognizes in-space manufacturing as one of the highest growth potentials within the commercial space ecosystem.

“SPACE FLORIDA’S CONSIDERABLE EFFORTS AND RESOURCES HAVE ALLOWED MADE IN SPACE TO ACCELERATE OUR REVOLUTIONARY IN-SPACE TECHNOLOGY PLATFORM AND GROW OUR TEAM.”

“As we continue to build upon our relationship, Space Florida’s contributions have helped to further the success of our innovative fiber optics program and expand our presence within the commercial space sector,” said Andrew Rush, President and CEO of Made In Space, Inc.

MIS has continued to expand its track record of strong revenue growth and technological innovation over the past year as well as grew its contract backlog. This activity has boosted commercial space ventures in the state of Florida and attracted large market players. MIS looks forward to the launch of its in-space Recycler payload early next year to help complete the plastic sustainability lifecycle aboard the International Space Station.

Additionally, significant progress has been made in the development of Made In Space's Archinaut in-space manufacturing and assembly technology.



CAE USA

Space Florida is developing a three-building campus for CAE USA, Inc., at the Tampa International Airport. The campus will serve as a world-class training and simulation development center providing training and simulations solutions for the U.S. Department of Defense and allied defense forces.

The campus will support two other very important functions: serving as the U.S. headquarters and home office for 500 retained employees and 100 new employees, with an average annual wage of \$80,000 plus benefits; and supporting the manufacturing of aerospace training hardware.

The CAE USA project began as a response to a request for proposals for leased facilities from CBRE, who was leading CAE's efforts to secure turnkey, built-to-suit facilities. The company had been in its current facilities for nearly 50 years and required a new site to support future growth.

It did not take long for CAE USA to understand Space Florida's value proposition – a synthetic lease structure that provided the company with below-market lease rates, while also allowing for cost recovery under federal government procurement rules.

“BY WAY OF THEIR PARTNERSHIP WITH SPACE FLORIDA, CAE AND ITS SHAREHOLDERS ARE SAVING SOMEWHERE IN THE NEIGHBORHOOD OF \$20 MILLION ... HENCE THE INDUCEMENT [FOR THE COMPANY] TO REMAIN IN FLORIDA AND GROW.”

– **Michael Fisher,**
Tenant Representative of CBRE

The project will be completed through a design-bid-build process. The company has retained EDGE Architectural, Inc., to design the facilities and deliver to Space Florida a complete set of construction documents. In a traditional development role, Space Florida will utilize its conduit financing tool to complete the project. Construction is expected to be complete in early 2022, and once complete, Space Florida will lease this built-to-suit campus to the company under a long-term lease agreement.



SPACE FLORIDA-FLORIDA VENTURE FORUM CAPITAL ACCELERATORS



Space Florida continued its partnership with the Florida Venture Forum to strengthen its existing capital acceleration and small business development programs. In two separate capital acceleration events, Space Florida provided the Accelerating Innovation cash awards totaling \$200,000. To date, Space Florida-supported capital accelerators have attracted more than **\$300 million** in funding and investments for the participating companies.

\$300 MILLION IN CAPITAL INVESTMENTS

2018 FLORIDA AEROSPACE CAPITAL FORUM

In November 2018, Space Florida and the Florida Venture Forum, in partnership with Harris Corporation, hosted the first-ever Florida Aerospace Capital Forum at the Guidewell Innovation Center in Lake Nona. Of 17 presenting companies, the top three winners were Axion Technologies, Sensatek Propulsion Technology, Inc., and Spintech, LLC, respectively.



A panel of judges reviewed each selected company's presentation and supporting materials. Axion Technologies was named the top company and received \$50,000 of Space Florida's \$100,000 Accelerating Innovation Award. Sensatek Propulsion Technology, Inc., and Spintech, LLC were awarded the \$30,000 and \$20,000 cash prizes, respectively.

Axion Technologies, LLC, Tallahassee

has patented a high-speed, parallel Truly-Random Number Generator (TRNG or QRNG) based on fundamental Quantum Mechanical principles, achieving speeds of 1-2GHz per stream and providing up to 250 streams per device – competitors currently provide 1-4 streams, mostly in the MHz range.

Sensatek Propulsion Technology Inc., Daytona Beach

is a university technology spinout company formed to wirelessly detect extreme temperature and pressure. Their sensors allow wireless monitoring of harsh environments on application such as rocket motors that is not currently available on the market. "The Florida Aerospace Capital Forum and prize money from Space Florida benefited Sensatek in that we were able to create prototypes of our wireless sensors for extreme environments," said Reamonn Soto, CEO of Sensatek Propulsion Technology, Inc. "The prototypes helped us not only secure aerospace customers, but also close our Series Seed Financing Round."



Spintech, LLC, Xenia, Ohio is changing how composite parts are manufactured in the Aerospace industry because they simply and eloquently deliver better, cheaper, faster composite part manufacturing for custom smart tooling solutions.

This event was an opportunity to broaden the spectrum of early stage, Florida-based aerospace and aviation companies and entrepreneurs, (as well as non-Florida entities with commitments to relocate), while engaging the industry with private equity, venture capital and angel investors.

2019 FLORIDA EARLY STAGE CAPITAL CONFERENCE

In May 2019, Space Florida and the Florida Venture Forum hosted the 2019 Florida Early Stage Capital Conference, held at Omni ChampionsGate in Orlando. A total of 20 Florida-based companies from a variety of industry sectors were selected to present before an audience of investors, deal professionals and entrepreneurs.

A panel of judges reviewed each selected company's presentation and supporting materials. The top Early Stage companies, SaferWatch and SegAna, LLC received \$50,000 and \$25,000, respectively, of Space Florida's Accelerating Innovation Award. Seed companies STAT3 Therapeutics and Capacitech Energy, LLC received \$15,000 and \$10,000, respectively.



SaferWatch, Boca Raton provides the ability for citizens to send in photos, videos, audio files and text messages directly to local law enforcement and public safety organizations. SaferWatch also provides its users with real-time safety notifications that are relevant to their area. SaferWatch Alerts are sent from official sources such as

local law enforcement, cities or emergency management organizations.

SegAna, LLC, Orlando is a medical device company that has developed a cloud-based software platform utilizing artificial Intelligence and a proprietary algorithm that measures changes in patient specific tissue elasticity for enhancing radiation treatment of cancer. The company's patent pending state of the art technology enhances the treatment of cancer by providing the Radiation Oncologist, in any setting or location, with the ability to accurately define the margin of the tumor on the day of treatment and predict an abnormal treatment up to three days in the future. The Radiation Oncologist utilizes this information to develop a new patient treatment plan which will ultimately reduce radiation damage to the tissue surrounding the tumor and improve a patient's outcome.

STAT3 Therapeutics, Coral Springs is a preclinical, biopharmaceutical company developing drugs that target the STAT3 pathway. STAT3, a signal transducer and activator of transcription protein, is found hyperactivated in 70% of all cancers, associated with immune suppression, and poor prognosis/outcomes.

Capacitech Energy, LLC, Orlando is commercializing patent protected, advanced energy storage technology from University of Central Florida. Capacitech sells 100-foot spools of series connected and customizable Cable Based Capacitors (CBCs) to distributors selling to OEMs and end users. The CBC will be used to complement batteries in the solar and IT markets to reduce their cost of ownership. It can also help miniaturize electronics by replacing large, traditional capacitors on circuits

The event marked the 12th year the Florida Venture Forum has hosted the Early Stage Capital Conference. The 20 presenting companies were selected from a pool of more than 150 applicants by a committee of active Florida venture capitalists and other investors.

FLORIDA-ISRAEL PARTNERSHIPS

FLORIDA-ISRAEL INNOVATION PARTNERSHIP SIXTH JOINT CALL FOR PROJECTS

In PY2019, Space Florida, the aerospace and spaceport development authority for the State of Florida, and the Israel Innovation Authority, an independent, publicly-funded agency created to address the needs of the local and international innovation ecosystems, announced the sixth-round winners of industrial research and development funding tied to the Florida-Israel Innovation Partnership Program.

In October 2013, Florida and Israel established a \$2 million recurring joint fund to support research, development and commercialization of aerospace and technology projects that benefit both Israel and Florida. In this Call for Projects, 12 joint proposals were submitted by teams of for-profit companies in Florida and Israel. Four teams were selected for this sixth round of awards.

The winners were as follows:

- Harris Corporation (Melbourne, Florida) & Nano Dimension (Israel)
- CadW Therapeutics/Moffitt Cancer Center (Tampa, Florida) & SpacePharma (Israel)
- Semplastics LLC (Oviedo, Florida) & Polymertal (Israel)
- Lockheed Martin (Kennedy Space Center, Florida) & StemRad (Israel)

Each company will receive their respective funding awards from Space Florida and the Israel Innovation Authority.

“Israel’s innovative aerospace sector is reaching new heights, on both a local and international level,” said Aharon Aharon, CEO of the Israel Innovation Authority. “Joint research and development between cutting-edge companies from both Israel and Florida will help usher in the next generation of space exploration and build bridges resulting in groundbreaking innovations benefiting the entire aerospace industry.”

In May 2019 an event held at the Peres Center for Peace and Innovation in Tel Aviv congratulating the grantees, Space Florida and the Israel Innovation Authority also announced the signing of another Memorandum of Understanding continuing the fruitful partnership between Florida and Israel.

SPACE FLORIDA MEMORANDUM OF UNDERSTANDING WITH ISRAEL SPACE AGENCY

Also in May 2019, Governor Ron DeSantis participated in a Memorandum of Understanding signing between Space Florida and the Israel Space Agency. The Governor, Space Florida President and CEO, Frank DiBello and Mr. Avi Blasberger, Director General of the Israel Space Agency, were all on hand for the signing, which took place at the Peres Center for Peace and Innovation.

Those in attendance included Florida Chief Financial Officer Jimmy Patronis, Enterprise Florida, Inc. President & CEO Jamal Sowell, Space Florida Vice President of Research and Innovation Tony Gannon, Chairman of the Israel Space Agency Major General Isaac Ben-Israel, Israel Minister of Science and Technology Ofir Akunis and Director-General of the Israel Ministry of Science and Technology Ran Ber.

“WE ARE HERE TO INITIATE A PARTNERSHIP THAT WILL BENEFIT THE SPACE INDUSTRIES OF BOTH FLORIDA AND ISRAEL ... I WANT TO THANK THE LEADERS FROM THE ISRAEL SPACE AGENCY FOR JOINING US TO OFFER AN OPPORTUNITY TO INCREASE COLLABORATIVE RESEARCH, PROVIDE EDUCATIONAL ENRICHMENT FOR OUR STUDENTS AND DRIVE INNOVATION LIKE NEVER BEFORE.”

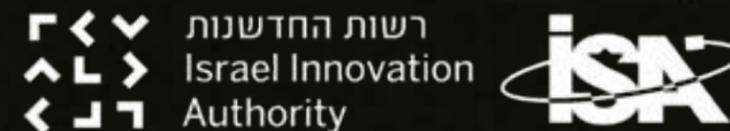
– Governor Ron DeSantis

“In the last year we have been making progress to reach this special day,” said Avi Blasberger, Director General of The Israel Space Agency. “The Israel Space Agency and Space Florida desire to work together to discuss potential

areas of collaborative relationships to support space exploration, scientific research and innovation and to jointly promote science, technology, engineering and math. This is a big step for the benefit of our communities and our peoples.”

The agreement between The Israel Space Agency and Space Florida will allow innovative collaboration and partnership in research, development and education. More specifically, there will be increased collaboration in scientific programs of remote sensing or other mutually agreed upon areas of interest; and educational programs, such as STEM-focused CubeSat competitions for Florida and Israeli students.

Additional potential research endeavors may include payload applications to specific bio-agriculture and water issues commonly faced in both Florida and Israel. The intent is to focus on taking space-related research from satellites and the International Space Station (ISS), and applying discoverable science to major agriculture and water issues which have a global impact. The goal will be to obtain high-resolution photographs of specific sites to track environmental issues such as desertification, erosion, pollution, natural disasters and other phenomena associated with environmental damage.



SPACE FLORIDA'S SPACE LIFE SCIENCES LAB

Space Florida's Space Life Sciences Lab and South Office welcomed three new tenants in PY2019 to include:

Space Pharma
Space Pharma provides researchers access to unique microgravity, using cutting-edge remote-controlled labs.

Systems Planning and Analysis, Inc.
Systems Planning and Analysis, Inc. supports planning and design efforts for Naval Ordnance Test Unit (U.S. Navy).

Michael Greg Search, Inc.
Michael Greg Search is a staffing agency.



INDIE GALACTIC SPACE JAM

For the fifth consecutive year, programmers, animators, modelers, sound effect pros, gamers, designers and interested non-gamers gathered at the Orlando Science Center for the annual Indie Galactic Space Jam. The event hosted with prize money sponsorship from Space Florida serves as a vehicle for research and development, innovation and networking between the game, space and simulation industries.

Subject matter experts from the space and tech community stopped by throughout the weekend to provide guidance.

The event drew more than 100 participants and saw more than 40 pitches for new games, focused on outer space, Mars, rockets, STEM education and space exploration. The participants voted on their favorite ideas and 14 teams were formed. Each group had less than 48 hours to take their game from idea to playable rapid prototype.

The developers worked tirelessly on Saturday, and again the following day. On Sunday evening, 24 games were submitted and finalist teams prepared for their presentations. The outputs ranged from an earth conservation simulator to a solar wind surfing game, mining asteroids and resource management across long distance space travel. Each game used accurate physics and aerospace principles.

Space Florida awarded \$5,000 in prize money to the top teams. At the 2018 Indie Galactic Space Jam, five teams took home prize money: Project Icarus; Solar Wind Surfer; Droid vs. Void; Satellite Parking; and Florida Man Discovers Gravity.



“THIS EVENT AGAIN BUILT MORE BRIDGES BETWEEN THE GAME DEVELOPMENT INDUSTRY OF ORLANDO (AND) THE SPACE INDUSTRY ... IT CREATED NEW RELATIONSHIPS BETWEEN THE ATTENDEES AND MORE OPPORTUNITIES FOR GAMES TO REACH A COMMERCIAL PLATFORM.”

— Space Jam organizer, Kunal Patel, Co-founder of Indienomicon and CTO of BrandXR



INDIE GALACTIC SPACE JAM



UNIVERSITY OF CENTRAL FLORIDA'S CENTER FOR MICROGRAVITY RESEARCH

Center for Microgravity Research (CMR) reports significant education, research and development, and workforce development activities, primarily including establishing laboratories at the University of Central Florida and being actively engaged in becoming a world leader in carrying out flight and ground-based experiments in astronomy and planetary science while utilizing microgravity environments.

Additionally, the Center has developed infrastructure that provides ongoing capabilities for microgravity research and spaceflight experiment developments. Principally among these, a laboratory drop tower providing 0.7 seconds of high-quality microgravity, including three payload vacuum chambers and multiple high-speed cameras for data collection and, a CubeSat electronics laboratory for development and testing of spaceflight electronics for CubeSats.

Several CMR staff flew on multiple flight projects, including the Physics of Regolith Impacts in Microgravity Experiment (PRIME) on multiple parabolic airplane flights. Additionally, Ejecta-Minimizing Protocols for Applications Needing Anchoring or Digging on Asteroids (EMPANADA) asteroid drilling experiment on parabolic airplane flights and lastly, the Collisions Into Dust Experiment (COLLIDE) on two flights of Blue Origin's New Shepard suborbital rocket and two flights of Virgin Galactic's SpaceShipTwo suborbital rocket. Finally, experiments flew a collection of Regolith Experiment (CORE) on Blue Origin's New Shepard suborbital rocket and the Suborbital Particle Aggregation and Collision Experiment-2.



FLORIDA SPACE GRANT CONSORTIUM

The Florida Space Grant Consortium and Space Florida annually and jointly fund the competitive Florida Space Research Program (FSRP). Space Florida provides \$100,000 for research funding, and the NASA Florida Space Grant Consortium, \$200,000. The purpose of this research funding is to support the expansion and diversification of Florida's space industry by increasing statewide academic involvement in space research, engineering, education, and training programs that are consistent with the State's space industry priorities.

This matching grant program combines state, federal, and other funds for competitive award to projects sponsored within, or conducted in partnership with, the state's public and private academic institutions. Teaming with industry, nonprofit institutions, and federal agencies is strongly encouraged. K-12 collaboration is also encouraged on appropriate projects. A total of eighteen Florida university research projects were funded this year in this program.



WORKFORCE CHALLENGE

As the State of Florida continues to establish itself as a dominant location for aerospace and the commercial space marketplace, our success here has drawn a spotlight on a national challenge: the available supply and pipeline for highly-skilled workers. Under the leadership of Governor DeSantis and aggressive support from the Legislature, this issue has been the focus of increasing attention in Florida. Space Florida is proud to have taken a key role in organizing industry, hosting workshops, and otherwise highlighting this challenge and the State's response. Much has been accomplished so far, including significant improvements in the basic infrastructure to support apprenticeship programs in aerospace and advanced manufacturing. But much remains to be done and Space Florida is up to the task of assuring this country-wide conundrum is finding its solutions in Florida.

In June 2019, Governor Ron DeSantis signed CS/HB 7071: Workforce Education at the Space Florida offices in Merritt Island. The bill promotes career readiness and workforce opportunities for students and working adults, ensuring alignment between Florida's education and workforce needs.

“BY INVESTING IN WORKFORCE EDUCATION AND APPRENTICESHIP PROGRAMS, OUR STUDENTS WILL HAVE NEW OPPORTUNITIES AND CAREER PATHS ... IN SIGNING THIS BILL, WE ARE ENSURING THAT FLORIDA CONTINUES TO BUILD UPON ITS ECONOMIC MOMENTUM AND FUTURE WORKFORCE BY INVESTING IN THE NEXT GENERATION.”

— Governor Ron DeSantis



FEDERAL GOVERNMENT RELATIONS

In December 2018, President Donald Trump issued a memorandum to the Secretary of Defense establishing the United States Space Command (USSPACECOM) as a Unified Combatant Command.

In February 2019, President Trump signed Space Policy Directive-4, proposing the establishment of a United States Space Force to “organize, train, and equip forces to provide for freedom of operation in, from, and to the space domain; to provide independent military options for national leadership; and to enhance the lethality and effectiveness of the Joint Force.”

That same day, Florida Governor Ron DeSantis sent a letter to President Trump requesting that USSPACECOM be headquartered in Florida. Simultaneously, Governor DeSantis sent a letter to Space Florida President and CEO, Frank DiBello, tasking Space Florida with prioritizing this effort. Accordingly, Space Florida hosted a statewide summit in May 2019 at Orlando International Airport to gather individuals and organizations together to compile information to present to the U.S. Department of Defense for consideration as an integral part of the country's Department of Defense space enterprise.



LOOKING AHEAD

This past year was an extraordinary year for growth of the aerospace industry in Florida. We saw the Cape Canaveral Spaceport clearly emerge as world's premier space transportation hub and global leader in enabling commercial space industry expansion.

Over the past decade, we have invested in available spaceport facilities in order to transition useful and underutilized federal infrastructure to support a growing commercial space marketplace. Our focus for the next 10 years is to build the capacity and capability of the Cape Canaveral Spaceport with new common-use and special purpose infrastructure that will enable the State of Florida to remain the world's primary gateway to space, serving space exploration, national security and space commerce needs.

The next space era already reflects a transition from a government-led industry to one that is increasingly and inevitably more commercially market-driven. Last year, the global space marketplace grew more than 8% to \$414 billion, with over 76% of that global revenue coming from commercial activity.

In continuing to define Florida's next era in space, we are planning new launch complexes, logistics, utilities, consumables and support facilities to handle a future environment which will see more than 100 launches a year from the Cape. That next era of launch activity will be accompanied by horizontal and vertical launches and landings of rockets and spacecraft that will be manufactured here. Additionally, spaceflight activities manned by both government and civilian astronauts, and a new era of space exploration, research, manufacturing and commercial service activity in Low Earth Orbit are ushering in a new space economy for Florida and the nation!

Our statewide space and aerospace-related workforce and supporting communities will grow, as well. Just at Space Florida's Exploration Park, we are seeing the addition of more than 1,000 new workers that were not there two years ago. And statewide, Florida's aerospace industry is being recognized by companies domestically and globally who see the kind of business operating and living environment in which the next generation of aerospace development and manufacturing companies need to thrive. They are choosing Florida as "the place to be" for aerospace!

The future of this industry is very bright for Florida across the State and represents an increasingly important segment of Florida's economy. Florida and the Cape Canaveral Spaceport are well-positioned to dominate the future of this industry and lead the world in enabling space commerce and innovation.

Space Florida will continue to work with the State's leadership to carefully invest in this bright future!



Frank DiBello
President and CEO, Space Florida



PRESIDENT AND CEO, SPACE FLORIDA
FRANK DIBELLO



INTERNATIONAL SPACE STATION

This remarkable display is a composite of five frames capturing the International Space Station as it streaks across a brilliant lunar backdrop at 17,000 miles per hour. Taken from Cape Canaveral, Florida, the world's premier spaceport.



SPACE FLORIDA

