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# Spaceport News

John F. Kennedy Space Center - America's gateway to the universe

www.nasa.gov/centers/kennedy/news/snews/spnews_toc.html

## INSIDE . . .



# Leaders assess future of US space travel

*By Rebecca Sprague*
*Spaceport News*

For the first time in nearly 50 years of American human spaceflight, Kennedy Space Center could be at the forefront of designing, developing, demonstrating and flying human-rated vehicles.

"We're looking to create a robust commercial space program with multiple customers, multiple providers and multiple systems that take Americans to the International Space Station and other low Earth orbit destinations," said Ed Mango, director of the Space Transportation Planning Office.

In May, the office sent out a Commercial Crew Initiative Request for Information (RFI). Mango, along with the office's Exploration Systems Mission Directorate (ESMD) Planning Lead Phil McAlister, Deputy Program Planning Manager Brent Jett and Insight Manager Scott Thurston, recently participated in a forum at NASA Headquarters to talk about common themes captured from dozens of industry responses. ESMD Deputy Administrator Dr. Laurie Leshin, Commercial Orbital Transportation Services (COTS) Program Manager Alan Lindenmoyer and the Space Transportation Office's Deputy Director Maria Collura also were on hand to offer insight.

"We have about 50 team members from shuttle, space station, Constellation, the Launch Services Program, the astronaut office, other NASA centers and contractors all coming together and melding our ideas of what commercial crew should be," Mango said. "And we're melding . . . it's like making gumbo and we just started making the roux."

If the Commercial Crew Program is approved by Congress and the White House, it would have several billion dollars within a five- year period to develop human-rating requirements, partner with commercial entities and complete design and development. The program also would include demonstration flights.

"We believe that we could fund up to four providers with that $5.8 billion," McAlister said. "We definitely want competition. That is a key aspect to our strategy. We need multiple providers that are coming

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# Workers prepare Alpha Magnetic Spectrometer

*By Anna Heiney*
*Spaceport News*

A new experiment designed to reveal the origin and structure of the universe has reached its last stop on Earth before it rides into orbit aboard space shuttle Endeavour early next year.

The long-awaited Alpha Magnetic Spectrometer-2 (AMS-2) arrived Aug. 26 at Kennedy Space Center's Shuttle Landing Facility, secured in the belly of a U.S. Air Force C-5M cargo plane.

Nobel Prize-winning physicist Samuel Ting of the Massachusetts Institute of Technology nurtured AMS from concept to reality.

"I'm very pleased to be here," Ting said as he waited for the experiment's arrival.

NASA/Frankie Martin

Employees monitor the arrival of a tractor-trailer carrying the Alpha Magnetic Spectrometer (AMS) to the Space Station Processing Facility on Aug. 27.

He was joined at the runway by several members of the international AMS team and the STS-134 astronaut crew.

Boasting a large magnet and state-of-the-art particle detector, AMS will use its lofty vantage point on the International Space Station's main truss to measure cosmic rays with unprecedented sensitivity and accuracy. In addition to a better understanding of cosmic radiation -- a major challenge of long-duration spaceflight -- the instrument could uncover evidence of mysterious dark matter or missing antimatter, discoveries that would help answer lingering questions about the universe and its beginnings.

"Over the last 50 years, all our knowledge about space has come from measuring light rays," Ting said. "Hubble (Space) Telescope is a good example. But besides light rays, there are charged particles: electrons, positrons, protons, antiprotons, helium and antihelium."

Ting and his scientific team believe that the best chance to detect these particles is in space, before they have hit Earth's atmosphere.

"And because it carries a charge, you need a magnet," he added.

The first-of-its-kind experiment is expected to operate for the rest of the station's life, at

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# Blog a great way to stay in touch, have voice heard

**Director's Note**

**Bob Cabana**

I've always believed that communication is the key to a successful organization. From the top to the bottom and from the bottom to the top, communication is essential for everyone to be on the same page. With that spirit in mind, we recently began a new KSC Center Director Blog. I believe it's a great way for everyone to stay connected.

Since we started the blog in June, you've all had many great questions. I'm impressed by the interest that the blog has generated and I hope you find it a worthwhile forum. I try to get the responses posted as soon as possible, but keep in mind some require a little more research than others.

On the blog you'll find a variety of topics, such as the final space shuttle launches. Some of my recent posts have included working on a Habitat for Humanity house, celebrating the culmination of five years of hard work on NASA's new mobile launcher, recognizing the Constellation Program team here at Kennedy, what our role is in the future of human spaceflight, showing my daughter space shuttle Endeavour in Orbiter Processing Facility-2, and speaking at a naturalization ceremony for more than 100 new U.S. citizens, which was quite a thrill.

One of my more recent posts drew a very interesting poem that addresses the final space shuttle flights.

*On the strength of one link in the cable,*
*Dependeth the might of the chain.*
*Who knows when thou may'st be tested?*
*So live that thou bearest the strain!*

What an inspiring poem that we should all take to heart.

While on center, employees can view my blog by clicking "Center Director Blog" on Kennedy's internal web page or at **cdblog.ksc.nasa.gov**. I want to hear from you and I encourage you to ask questions, make suggestions and stay up-to-date on the latest happenings at the center.

I can't thank you enough for all that you do to make Kennedy an outstanding and enjoyable place to work. We are making a difference for NASA, for our country and for exploration beyond our home planet.

You have my full commitment to serving Kennedy's needs, and part of that is communication. We must communicate in order to pull together and approach our future as a team because we have an opportunity to do something phenomenal for the Kennedy Space Center, the Space Coast and the nation.

Keep charging!
Bob

# NASA payloads take first trip to station aboard Japanese rocket

***By Linda Herridge***
*Spaceport News*

*NASA/Frankie Martin*

Technicians at the Space Station Processing Facility prepare to lift the cargo transportation container (CTC) on Aug. 9 for installation into a shipping container. The container will be transported to the Japanese Aerospace Exploration Agency's Tanegashima Space Center to begin processing for launch to the International Space Station aboard HTV-2, scheduled for Jan. 20, 2011.

For the first time, two unpressurized orbital replacement units (ORUs) bound for the International Space Station will be delivered by a launch vehicle other than the space shuttle. Pressurized ORUs have been sent to the station before on other spacecraft. Another first for the unpressurized ORUs was traveling more than 7,500 miles by land, air and sea to arrive at their final processing and launch destination in Tanegashima, Japan, which is an island about 35 miles off the country's coast.

The ORUs are the flex hose rotary coupler (FHRC) and the cargo transportation container (CTC), which basically is a box containing five smaller ORUs. They will be installed in a Japanese H-II Transfer Vehicle (HTV-2) and launched to the International Space Station aboard a Japanese H-IIB rocket in January 2011.

"We've never done this before," said Dr. Jose Nunez, who is the NASA mission manager at Kennedy Space Center. "This is a whole new set of firsts that we've embarked on for NASA and Kennedy Space Center."

The ORUs and associated equipment were processed at Kennedy's Space Station Processing Facility and crated for shipping. Then, the two massive containers, combined weighing nearly 9,000 pounds, and several smaller crates were transferred by forklift from the facility's shipping and receiving bay and loaded into a truck to start their journey.

"The upcoming HTV-2 launch is unique and exciting on multiple levels," said Josephine Burnett, director of Kennedy's International Space Station and Spacecraft Processing Directorate. "Our expertise in flight hardware ground processing is absolutely world class and I am extremely proud of the hard work and dedication of the Kennedy and Japan Aerospace Exploration Agency (JAXA) HTV-2 teams."

The ORUs overseas trip began with stops in Orlando, Fla., Atlanta and Chicago, before their flight to Narita and Kagoshima Port in Japan. They were then loaded on a ferry for transport to the space launch complex on the island.

Nunez explained that the ORUs are critical for the space station. The rotation capability for each station radiator assembly is provided through a thermal radiator rotary joint (TRRJ). The TRRJ then provides power, data and liquid ammonia transfer to the rotating radiator beam while providing structural support for the radiator panels. "The FHRC is the one that provides the transfer of liquid ammonia across the rotary joint. It will be stored up in space in case the one on station should fail," Nunez said.

"With each ORU having its own specific set of requirements and issues it was a lengthy event to get to this moment," Nunez said. "This is only the first phase, the second phase starts as soon as Kennedy's mission processing team arrives at the Tanegashima Space Center."

Nunez, along with Boeing Task Lead Mike Little, NASA Operations Engineer Curt Horanic, NASA Quality Engineer Steve Barry, and several Checkout Assembly and Payload Processing workers, will travel to Japan in early September to work with JAXA on final processing of the ORUs and installation into the transfer vehicle.

After launch to the orbiting laboratory, HTV-2 will fly close enough to the station for Expedition crew members to use the Canadarm2 to capture it and berth it to the Nadir port on the Harmony module. The ORUs will be removed and attached to the Japanese Exposed Facility and then to the Express Logistics Carrier-4 on the station.

# Launch Equipment Test Facility is ready for new business

***By Rebecca Sprague***
*Spaceport News*

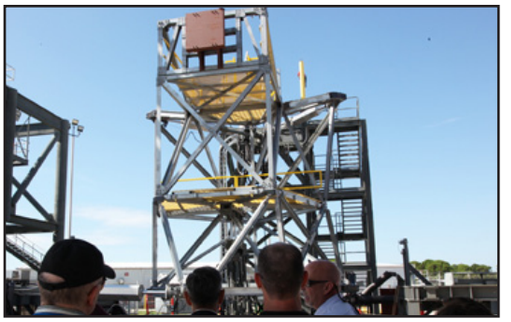
Kennedy Space Center's Launch Equipment Test Facility (LETF) is an engineer's paradise. Take huge fixtures capable of simulating launch conditions and a complex data system then add a machine shop and a welding facility, and you get a testbed up to the task of proving launch support equipment will work right every time.

A four-year comprehensive upgrade recently was completed to make sure the testing ground remains at the top of the support system testing pyramid.

Since 1977, the facility has supported NASA's Launch Services, shuttle, International Space Station, and Constellation programs, as well as commercial providers.

"We were continuing to satisfy customer requirements at the same time that we were doing the upgrades," said Pat Simpkins, the director of Kennedy's Engineering Directorate. "That's what is really fascinating about this facility."

On Aug. 27, a team from NASA, ASRC Aerospace and MTS Engineering Consulting Services celebrated the



*NASA/Dimitri Gerondidakis*

Onlookers observe the vehicle motion simulator (VMS) at the Launch Equipment Test Facility, which recently underwent a comprehensive upgrade.

$35 million worth of upgrades.

"It plays a vital role in proof-of-concept testing, prototype testing and operations support," said Eric Ernst, LETF's upgrade project manager.

Pepper Phillips, director of Kennedy's Constellation Project Office, said the upgrade project is proof that "people can count on the Kennedy Space Center for executing what they promised."

Stepping outside the 40-foot-tall high bay doors is a steel playground, equipped with a 600-ton test fixture used for tension and compression testing, a water flow test loop that tests valves, pumps and flow meters, two launch simulation towers and two 15,000-gallon cryogenic towers.

"People who are experts in different areas of science come here, plan their tests months in advance, and I get to learn from them," said Geoffrey Rowe, an engineer with ASRC Aerospace. "It's much better than doing the same thing day-in-and-day-out."

Perhaps most impressive is the new vehicle motion simulator, or VMS, which simulates all of the movements a vehicle could experience from rollout to launch.

"It's like the Tower of Terror!" said Craig Technologies' Sandi Slaughter as she watched the simulator move up and down, right to left, and then around and around, similar to the amusement park ride at Disney's Hollywood Studios.

According to the engineers who work in the LETF, the possibilities for testing launch equipment are endless.

"We're looking forward to supporting multiple customers for NASA in the future," Ernst said. "Whether it's heavy-lift, horizontal launch systems or commercial providers . . . we really are a multifaceted facility that can support a broad spectrum of customers."

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forward with innovative solutions."

In addition to competition, will be collaboration. Thurston described more in depth about how NASA will take on a more "insight" role than its traditional "oversight" role and it's a change that the team doesn't take lightly.

"NASA has to re-examine what has been our traditional identity," said Leshin, "and think about our role in a new way as catalysts of a much broader and more inclusive activity."

Another aspect of collaboration would come from industries that are interested in performing science and research in low Earth orbit, whether on board the International Space Station or other future orbiting complexes.

Mango said because this would be the first Kennedy-led human spaceflight program, it could have quite an effect on the local economy.

"There is a door that is beginning to open to allow the Central Florida area to grow with dozens of companies, probably more engineering and technology firms, much like around other NASA centers," Mango said.

Currently, the office is working closely with the 21st Century Space Launch Complex Planning Office at Kennedy to determine what facilities and capabilities commercial providers are looking for. For example, Mango said they are looking at ways to improve Launch Complex 39 so it can be used for multiple launch vehicles.

"We're encouraging you all (industry) to go talk to the NASA centers, please provide them input, let them know of your needs, let them know the timing of your needs, and start negotiating pricing," Collura said.

Jett described some requirements NASA will be looking for commercial companies to meet, including health, medical and safety. Some of those, Mango said, include life support requirements for the astronauts to be able to breathe and redundancies for emergency situations, such as a backup flight control system.

The office is looking to NASA's Launch Services Program and the Commercial Orbital Transportation Services Office for guidance on how to move forward with commercial partnerships.

"We've learned so much over the last four years since we awarded our first COTS agreement," Lindenmoyer said. "We let the creativity, innovation, ingenuity and flexibility happen . . . and yet, we still have to maintain our standards of safety and reliability."

NASA also is imbedding workers in the Federal Aviation Administration (FAA) and vice versa so the two agencies can understand day-to-day operations and iron out future roles and responsibilities.

"We're working with the FAA to figure out how to take 50 years of how we've done business, which involves a lot of requirement iterations, and merge it into the FAA's more regulatory-type environment," Mango said. "So in a generation or two, the FAA should be licensing spacecraft like they do aircraft today."

So, what's the ultimate goal for commercial crew?

"In the future, NASA will buy tickets to low Earth orbit that way we can focus more on exploration," Mango said. "I believe there are companies in this country that can definitely do commercial crew . . . and do it well."

From **AMS**, Page 1

least 10 years.

"It's a really neat design and as an astronaut, I appreciate the elegance of it," said STS-134 Mission Specialist Michael Fincke.

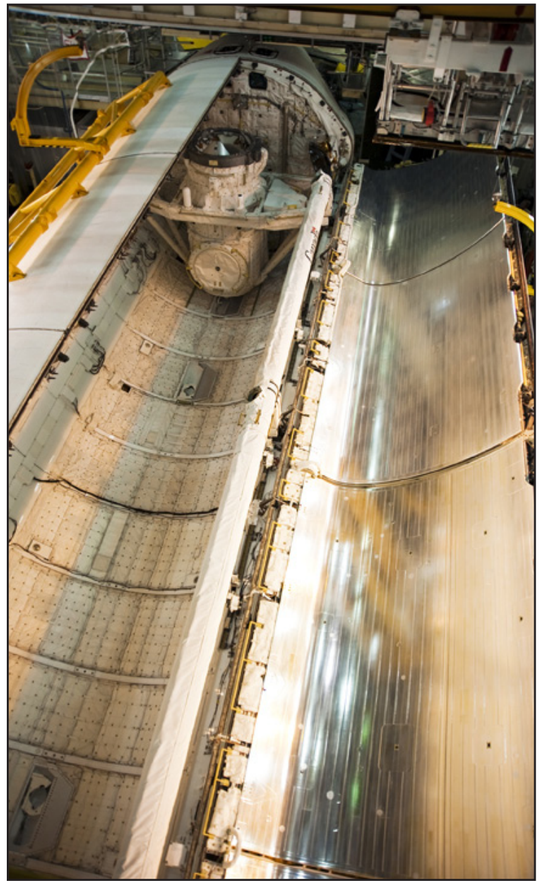
Endeavour astronauts will use the shuttle's robotic arm to remove AMS from the payload bay and hand it to the station's arm.

Sponsored by the Department of Energy, AMS-2 was developed by an international team of 56 scientific institutions from 16 countries. The approximately 15,000-pound experiment was built and tested at the European Laboratory for Particle Physics, or CERN, in Switzerland.

The 15-foot-wide, 13-foot-tall experiment was removed from the cargo plane and transported to Kennedy's Space Station Processing Facility, where it will undergo final testing and integration.

"It's fitting that on its (Endeavour's) last assembly mission, the space station is going to be complete," STS-134 Commander Mark Kelly said.

# Scenes Around Kennedy Space Center



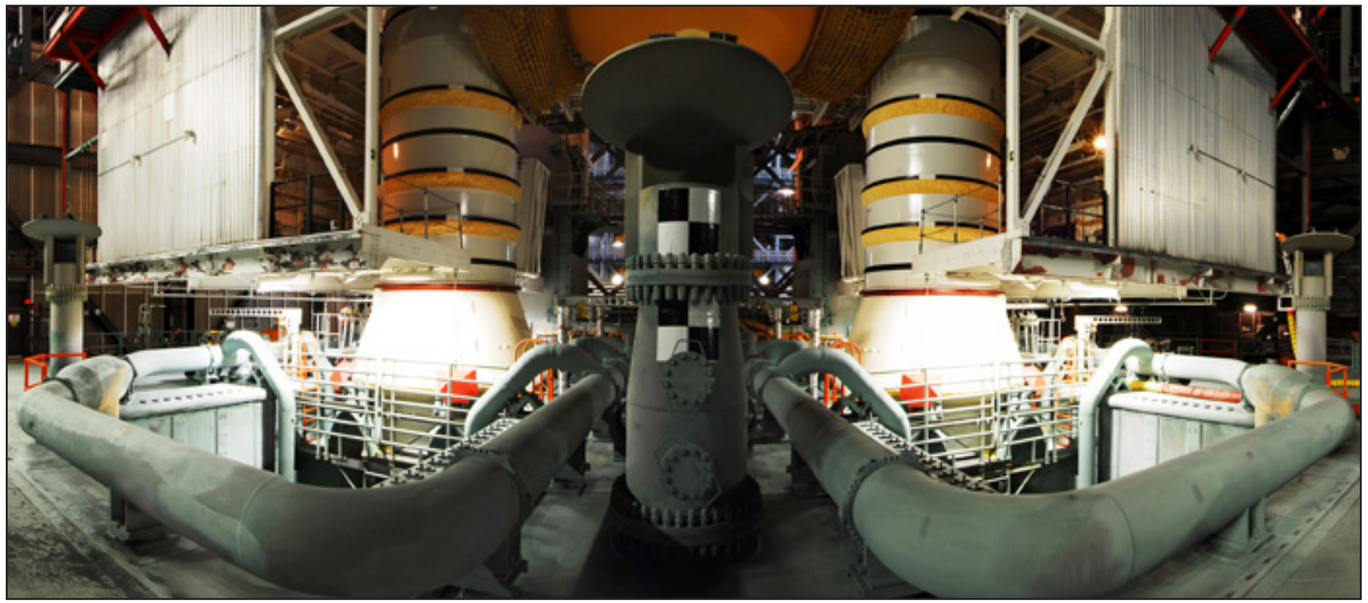
NASA/Kim Shiflett

The clamshell doors of space shuttle Discovery's payload bay close Aug. 19 in preparation for its move from Orbiter Processing Facility-3 to the Vehicle Assembly Building next month. There, it will be attached to its external fuel tank and a set of solid rocket boosters for launch on the STS-133 mission to the International Space Station. Targeted to launch Nov. 1, STS-133 will carry the permanent multipurpose module, or PMM, packed with supplies and critical spare parts, as well as Robonaut 2, or R2, to the station.

**Spaceport News wants your photos, ideas**

Send photos of yourself and/or your co-workers in action for possible publication. Photos should include a short caption describing what's going on, with names and job titles, from left to right.
Also, if you have a good story idea chime in.
Send your story ideas or photos to:

**KSC-Spaceport-News@mail.nasa.gov**



NASA/Frankie Martin

In the Vehicle Assembly Building, this panoramic image consisting of two images melded together, captures the twin solid rocket boosters and the base of the external fuel tank in place on the mobile launcher platform on Aug. 24, awaiting the arrival of space shuttle Discovery. Discovery's move from its processing hangar to the VAB is planned for Sept. 8.

for NASA

The National Space Club of Florida awarded 2010's annual Lifetime Achievement Award to John Conway, left, Warren Lackie and Tim Hanrahan at a ceremony in Cape Canaveral, Fla., on Aug. 10. Conway was NASA's director of Payload Processing at Kennedy from 1985 to 1996. Lackie held various key positions while at Kennedy, including hypergolic propulsion engineer. He collaborated with computer specialists to program the ground computer system for controlling high-pressure helium servicing for the Apollo capsule. From 1968 to his retirement in 1996, Hanrahan served as the Aerospace Corporation's Eastern Range Directorate's longest assigned principal director.

NASA/Jim Grossmann

Kennedy Center Director Bob Cabana presents Brian Gawronski the 2010-11 NASA College Scholarship Award on Aug. 16. The scholarship is awarded only to dependents of NASA employees who plan to major in science or engineering. NASA awarded five scholarships this year. Gawronski was the only recipient from Kennedy, which had 153 applicants. This is the 29th year of the NASA Scholarship Fund, which has given 146 scholarships. The scholarship is for $2,000 per year.

## CDC keeps its cool

Kennedy's Child Development Center knows how to deal with the sweltering heat. "Water Days" were sprinkled throughout the summer to give the children an opportunity to cool down and have fun. Water slides were brought in Aug. 13.

Photos by NASA/Jack Pfaller

# Hundreds of workers attend KSC Resource Showcase

***By Linda Herridge***
*Spaceport News*

Robert Link, a United Space Alliance IT security specialist, met up with his wife, Tina, as she exited a workshop on starting a business. They eagerly headed toward another workshop featuring a presentation by the U.S. Small Business Administration. The workshops were part of the Community Resource Showcase on Aug. 26 at Kennedy Space Center's Operations and Support Building II.

"This has been so informative," Tina Link said. "It's been very helpful to gather information on what I'd like to do as far as starting my own business."

The Links were among several hundred Kennedy workers and family members who attended the showcase. The event was coordinated by the center's NASA Human Resources Office and Brevard Workforce, and featured information booths and workshops on money management, protecting retirement and health benefits, social security, family counseling, education and retraining, mortgage assistance, childcare services, coping with change and more.

Margaret Truitt, a NASA Human Resources communications specialist, said the event was created to connect the work force with available resources and opportunities in the community. "It was the first time we created an event like this and our goal was to equip the work force with information to make more informed decisions," Truitt said.

Representatives from the Consumer Credit Counseling of Brevard, U.S. Department of Housing and Urban Development, Department of Labor, KSC Credit Union, Women's Business Center at Florida Tech, Brevard Health Alliance, Brevard Community College, the Early Learning Coalition of Brevard, Technological Research and Development Authority, Florida Power and Light and Brevard Workforce Aerospace Workforce, among many others, talked with workers about their services.

Janet Greene, a USA software engineer, said the event featured a lot of great resources as she exited a panel presentation given by the U.S. Department of Housing and Urban Development.

An on-site job fair will be held Sept. 15 in the Space Station Processing Facility, Operations and Support Building II, and Operations and Checkout Facility from 9:30 a.m. to noon, and from 1:30 to 6 p.m. Continuous bus transportation will be provided between the SSPF and OSB II.

An off-site job fair will be Sept. 16, at the Radisson Resort at the Port's Convention Center in Cape Canaveral, from 9:30 a.m. to noon, and from 1:30 to 6 p.m.

**More online**

For more informations, visit:
**http://kscvoice.ksc.nasa.gov**

# Education program inspires dozens of at-risk young teens

***By Elaine M. Marconi***
*Spaceport News*

Inspiring young minds is at the heart of NASA's outreach education program. Helping young males who are at risk is a special bonus.

This year, NASA kicked off a program to support President Barack Obama's "Educate to Innovate" initiative in order to boost interest in science, technology, engineering and mathematics (STEM) education particularly for underrepresented students across the nation.

Education specialists based at Kennedy Space Center had an opportunity to share their knowledge of the nation's space program with a group of young men who typically would not have a chance to learn about it.

The Brevard Group Treatment Home (BGTH), a residential facility for boys in Brevard County, Fla., invited personnel to visit and provide space education to its students. An elite education team brought to the center attention-grabbing videos, demonstrations and hands-on learning activities. About 30 boys, ages 12 to 15, attended the event.

Kennedy's Education Specialists Lania Rosengren, Frank McDonald, Jessica Paglialonga and Chris Blair served up a program that kept the kids engaged, entertained and curious.

NASA

NASA educators from Kennedy, Frank McDonald and Lania Rosengren, demonstrate the heat resistant qualities of a space shuttle thermal protection tile to young men.

The excitement that filled the room was evident as Rosengren and McDonald asked for volunteers to be "vacuum wrapped" like the food available on the International Space Station and ride a makeshift "hovercraft." Hands were constantly raised to ask questions and one could almost see the minds of these young men wanting to know more.

Part of the education team's assortment of activities included hands-on projects that the boys became totally engrossed in. In one experiment, the group donned gloves, similar in weight and bulk of the protective gloves the astronauts wear while in space, and was asked to perform small tasks and to try tying shoe laces -- not as easy as one might think.

Next up, Blair intrigued the boys with his presentation about the family of rockets that have lofted NASA's satellites into space to study Earth's environment, the sun and other planets in our solar system.

Blair explained the dynamic properties of the rockets and what it takes to launch them with their payloads up and out of Earth's gravity. After handing out tape and preshaped paper, the boys jumped into the project, forming a rocket's base by wrapping paper around a section of PVC pipe and then taping on the nose cone and finally the fins.

But there was more to the project than just forming the paper rockets. Blair took them outdoors and with longer connecting pieces of PVC pipe and a plastic bottle for ballast, the propulsion system was built and primed for launch.

Each young man was able to attach his rocket to the end of the pipe, give the plastic bottle a swift and heavy foot stomp -- and liftoff!

Todd Dixon, director of the Center for Drug-Free Living, also stopped by to observe the boys' participation in NASA's education program and he commented about how proud he is of the facility, staff and residents, and the progress that's being made moving these boys in the right direction.

After the close of the event, Rosengren and McDonald were brought to the boys' dormitory to say goodbye but not before asking them to recall five things they learned from the two days. "They kept raising their hands, telling us the details of what they learned," said Rosengren. "We stood there in awe of everything they learned. It was not only touching, but it made me so proud of the boys. They have inspired me and have touched my heart."

BGTH's Director Kerilynn Kelly-Moss let the education team know that its program was, in her words, "outstanding," thanked NASA for making this experience possible for the center's students and is looking forward for a return visit in the near future.

Apparently, for NASA the feeling was mutual. Rosengren said, "I had an amazing time at the BGTH … it was the most amazing experience of my teaching career."

*Remembering Our Heritage*

# Evolution of Launch Pad 39A ever-changing

***By Kay Grinter***
*Reference Librarian*

NASA file/1976

An aerial view of Launch Pad 39A during the Apollo/Saturn era.

As Labor Day arrived in 1965, the hard work to construct Launch Complex 39's Pad A was complete, and the pad was ready to be turned over to NASA.

Designed to launch the Apollo Program's Saturn V rocket, Pad A was the first of two planned pads in the complex to be completed. Construction began in November 1963. The prime contractor was a joint venture of Blount Brothers Construction Corp. and M. M. Sundt Construction Co.

NASA alum Harry May was Launch Complex 39's project engineer during the pad's creation. "Pad A was completed on time and within budget, a testimony to the experienced engineers on the NASA team who managed the project," May said. "It was very rewarding to be a member of that exceptional team."

The pad is at the eastern end of Complex 39, a quarter of a mile from the Atlantic Ocean. A total of 120,000 cubic yards of concrete and 8,000 tons of reinforced steel were used in its construction.

Observed from a distance, the pad was virtually flat. A two-story concrete building, housing environmental control system and pad terminal connection equipment, and a high pressure gas storage facility were built under the east and west sides of a hardstand, dissected by a flame trench. A mobile flame deflector awaited service during launches on the north pad perimeter.

Beneath the hardstand was the blast room, known as the "rubber room," the final destination along the Apollo astronauts' emergency escape route. A 200-foot-long chute led into the dome-shaped room, which had a floating concrete floor built on a spring suspension system.

No towers were installed on the pad's surface. Rather, the Saturn V was supported by a launch umbilical tower (LUT) secured atop a mobile launcher, and a mobile service structure.

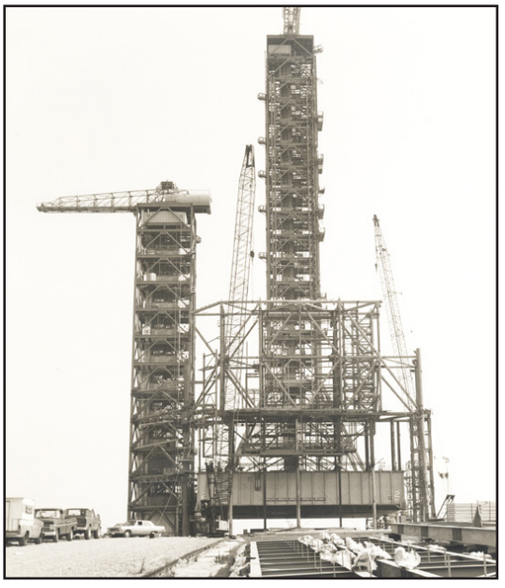
Following the conclusion of the Apollo Program, Pad 39A was modified to support NASA's new crew transport vehicle, the space shuttle.

The upper portion of the LUT was removed from the launch platform and permanently installed on the pad's hardstand to become the fixed service structure (FSS). The blast room was retired in favor of a slidewire basket system, designed to whisk its passengers away from danger to an above-ground bunker on the pad's perimeter.

A rotating service structure, adjoining the FSS, included a payload changeout room to provide environmentally controlled conditions for inserting vertically handled payloads in the shuttle's payload bay, and protection of the shuttle from the elements.

An Apollo-era hammerhead crane, a recognizable feature at the top of the FSS in early shuttle launch photos, was removed from Pad A in December 1994 when it became more cost-effective to use a mobile crane than to maintain the hammerhead crane, experiencing the corrosive effects of the sea air.

NASA engineer Scott Colloredo, chief architect for 21st Century Space Launch Complex Program planning at Kennedy, is confident that the pad will be used for years to come. "Pad 39A is destined to play a role in NASA's future," he predicted, "and will be reconfigured, once again, to support a number of heavy-lift, commercial crew or other launch vehicles."



NASA file/1977

Looking like a giant erector set, is the construction of the payload changeout room for the Space Shuttle Program at Launch Pad 39A. It allows the capability of loading the shuttle vertically, and making installation or removal of payloads at the launch pad possible.

NASA image

This is one of several concepts prepared by Kennedy Space Center's 21st Century Space Launch Complex Program planning team depicting Launch Pad 39A reconfigured to support a number of heavy-lift, commercial crew or other launch vehicles

## NASA Employees of the Month: September


NASA/Kevin O'Connell

Employees of the month for September are, from left, David Stewart, Engineering Directorate; Taya Stokes, Engineering Directorate; Jacquelyn LeClaire, Constellation Project Office; Nui Quander, Information Technology and Information Services; Patricia Gillis, External Relations; Sandy Walsh, Center Operations; and Eric Bissonnette, Constellation Project Office. Not pictured are Sariah Adams, Chief Counsel; Kari Cezat, Procurement Office; Todd Campbell, Launch Vehicle Processing Directorate; Thomas Dwyer, Safety and Mission Assurance Directorate; Kevin Zari, International Space Station and Spacecraft Processing Directorate; and Heidi Schultz, Launch Services Program.

## Upcoming events . . .

**Sept. 25** KSC Family Day/Take Your Children to Work Day;
For more information, go to **http://familyday.ksc.nasa.gov**
POC: Layla Higgins, **layla.m.higgins@nasa.gov**

For more, go to the internal Kennedy Events and Schedules Calendar at
**www.nasa.gov/centers/kennedy/events/index.html**

## Looking up and ahead . . .

| | |
|---|---|
| Targeted for Oct. 19 | Launch/CCAFS: Delta IV Heavy, NROL-32; TBD |
| No Earlier Than planning date Oct. 23 | Launch/CCAFS: Falcon 9, Dragon C1; TBD |
| Targeted for Nov. 1 | Launch/KSC: Discovery, STS-133; 4:40 p.m. EDT |
| Targeted for Nov. 17 | Launch/CCAFS: Atlas V, GPS IIF-2; TBD |
| Nov. 22 | Launch/VAFB: Taurus, Glory; 5:09 a.m. EST |
| Targeted for Jan. 22, 2011 | Launch/CCAFS: Atlas V, SBIRS GEO-1; TBD |
| Targeted for Feb. 26, 2011 | Launch/KSC: Endeavour, STS-134; 4:04 p.m. EST |
| Aug. 5, 2011 | Launch/CCAFS: Atlas V, Juno; TBD |
| Aug.15, 2011 | Launch/Reagan Test Site: Pegasus, NuSTAR; TBD |
| Sept. 8, 2011 | Launch/CCAFS: Delta II Heavy, GRAIL; TBD |
| Sept. 23, 2011 | Launch/VAFS: Delta II, NPP; TBD |
| To Be Determined | Launch/VAFB: Delta II, Aquarius / SAC-D Satellite; TBD |
| No Earlier Than Nov. 25, 2011 | Launch/CCAFS: Atlas V, Mars Science Laboratory; TBD |

# Ultimate team builder earns Center Director's Award

***By Rebecca Sprague***
*Spaceport News*

Maynette Smith believes that in today's global society, it takes a team to build just about everything.

As chief of the Safety and Mission Assurance Directorate's International Space Station and Spacecraft Processing Division, Smith recently won the Center Director's Award for being a top-notch team builder for NASA and Kennedy Space Center.

"As we step toward the future, the work we're going to do will really take a team effort by multiple nations to accomplish," Smith said. "Through the International Space Station, we've already learned to bridge cultures, bridge language barriers and bridge processes."

Smith describes her work with international partners, universities, other NASA centers and industries as "exciting" and "fascinating." She also said it's reassuring to know her team is in good hands as NASA becomes a customer of other nations to launch hardware, experiments and supplies to the space station.

Her dream of working for NASA didn't start with the orbiting outpost, though.

"I was sitting on my dad's lap when I watched Neil Armstrong step foot on the moon and from then on I really wanted to work for NASA," Smith said. "I also really wanted to be an engineer like my dad."

Smith began working for the space agency 27 years ago after graduating with an electrical engineering degree from Vanderbilt University in Nashville, Tenn.

"I started on the floor as a newbie electrical engineer . . . every supervisor, every manager I've had along the way has really shaped me as a leader," Smith said.

For the past two years, Smith and her team have been working closely with Johnson Space Center in Houston on the safety and quality requirements of the Orion spacecraft, including facility upgrades and processing in Kennedy's Operations and Checkout Building.

"Our team supported the spacecraft's abort flight test at White Sands and did such phenomenal work that John Trainor (Orion Chief Safety and Mission Assurance Officer) was very eager to have us engaged here," Smith said.

As the agency begins a transitional phase, Smith said she is looking forward to being a part of some of the agency's more static work.

Smith has some advice for leaders of the future:

"Stay true to your values, be sure to get all perspectives and understand the big picture, and connect with people on an emotional level to build strong relationships," she said.

John F. Kennedy Space Center
**Spaceport News**

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