

# Spaceport News



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

[http://www.nasa.gov/centers/kennedy/news/snews/spnews\\_toc.html](http://www.nasa.gov/centers/kennedy/news/snews/spnews_toc.html)

## Space station module Columbus lands on Florida shores

By Cheryl Mansfield  
Staff Writer

It may sound like a rewrite of history, but Columbus has landed on the shores of Florida. As a component of the International Space Station, the Columbus Laboratory's final earthly stop is the Space Station Processing Facility where it arrived May 31.

As the European Space Agency's largest single contribution to the space station, the research laboratory module — with four payload facility racks — was completed in early May and delivered to the agency in a ceremony in Bremen, Germany. It must be processed in Florida before being ferried to the station within the space shuttle's cargo bay.

The physical design and layout of the Columbus laboratory is not unlike the three multi-purpose logistics modules built by the Italian Space Agency and used for transporting scientific experiments, materials and supplies to the station via the space shuttles. But unlike the visiting logistics modules that return to Earth with the shuttles, Columbus will



THE EUROPEAN Space Agency's research laboratory, Columbus, is offloaded from a Beluga aircraft onto a platform before being lifted onto a flatbed truck and transported to the Space Station Processing Facility.

permanently expand the research facilities of the space station.

The laboratory will be con-  
(See COLUMBUS, Page 4)

## GOES-N satellite launches for next-generation weather forecasts

At right, a Delta IV rocket roars into life after ignition to lift the GOES-N satellite on top into space. Liftoff from Launch Complex 37 at Cape Canaveral Air Force Station was at 6:11 p.m. May 24. GOES-N is the latest in the Earth-monitoring series of Geostationary Operational Environmental Satellites developed by NASA and the National Oceanic and Atmospheric Administration. By maintaining a stationary orbit, hovering over one position on the Earth's surface, GOES will be able to provide a constant vigil for the atmospheric "triggers" for severe weather.



## NASA unveils Constellation Program plans

Shortly after NASA Administrator Mike Griffin announced the agency-wide responsibilities for the Constellation Program in a June 5 all-hands meeting, Kennedy Space Center Director Jim Kennedy reaffirmed the center's contribution to America's space program.

"The future is very bright for NASA and, indeed, for the Kennedy Space Center," Kennedy said. "In terms of the goals outlined in NASA's strategic plan, there are six goals and the first four are the same as the Kennedy Space Center's."

The first goal is to return the space shuttle safely to flight and to continue operations until 2010. The second strategic goal is completing assembly of the International Space Station, with 16 assembly missions left on the schedule. The third goal is to pursue a balance of human and robotic missions.

(See CONSTELLATION, Page 2)



**Jim Kennedy**  
Center Director

# The Kennedy Update

**G**reetings, everyone! It's exciting to think we are only about three weeks from launching Space Shuttle Discovery and the STS-121 crew on the second Return to Flight mission to the International Space Station.

I'm extremely proud of the way the Kennedy work force safely processed the orbiter before her move to Launch Pad 39B. And I look forward to the weeks ahead as we continue to prepare for a safe launch. We have the Terminal

Countdown Demonstration Test set for the week of June 12 and we will pick up the count to launch as early as June 28.

With Discovery now sitting on the pad pointing toward space, America - in fact the entire world - anticipates our successes.

While launch preparations continue for Discovery, it is important to note that a new module for the space station recently arrived at KSC. The European Space Agency's primary contribution to the space station,

the Columbus laboratory, made its way from Bremen, Germany, aboard the massive Beluga aircraft and is now being processed in the Space Station Processing Facility.

This module will further support a variety of life and physical science experiments when it's delivered on orbit in 2007.

It is people who make these exciting hardware movements happen and this week I was pleased to welcome some of the young people who may one day be employed at KSC — the high school and college students who

these students, as well as college and high school educators participating in summer programs, will be at the Black Employee Strategy Team's Barbecue, scheduled for June 23 at KARS Park 1.

It will be held off center this year so guests and family members will be able to enjoy this fun event.

Finally, but all important to KSC's future, is the announcement made by Administrator Mike Griffin this week. You may have read about this in my earlier CD

With Discovery now sitting on the pad pointing toward space, America - in fact the entire world - anticipates our successes.

Communication so I won't repeat it here, but be aware that KSC is gearing up to provide a very

smooth transition into the agency's Constellation Program as we carry out the processing, launch and recovery of the next generation of space vehicles.

I look forward to seeing you around the center. Take care and have a great week!

One great opportunity to meet

## CONSTELLATION

*(Continued from Page 1)*

"It is our Launch Services Program and the people who support them that allow us to explore this universe from one end to the other. We have 26 operational missions in orbit as we speak, with many more planned."

The fourth strategic goal for the agency is preparing facilities for the launch of the Crew Explora-

tion Vehicle and associated hardware. "Kennedy Space Center is very proud to be NASA's launch operations center," Kennedy said.

KSC will host the Ground Operations Project, which manages all activities related to ground operations for the launch and landing sites, including ground processing, launch and recovery systems.

For more information, visit [www.nasa.gov/exploration](http://www.nasa.gov/exploration).

## June NASA employees of the month



**T**he June NASA employees of the month, seated from left, include: Michelle Edelman, Chief Financial Office; Julie Shally, Engineering Development; and Ginger Arrington, Chief Counsel Office. Standing from left are: Douglas Younger, Center Operations; and Stephen Tam, Information Technology and Communications Services Directorate. Not shown are: Lyle Davis, Shuttle Processing; Vanessa Stroh, Payload Processing; and Timothy Bianchi, Mission Assurance.



CENTER DIRECTOR Jim Kennedy (center) talks about NASA's Constellation Program at a June 5 press conference with KSC's Constellation Project Office Director Tip Talone (right) and NASA Public Information Officer Bruce Buckingham.

# Phillips helps plan center's future in space exploration

By Linda Herridge  
Staff Writer

As deputy director of Kennedy Space Center's Constellation Project office, Pepper Phillips' past helps him plan the future.

Specifically, his experience aids in planning to successfully transition from processing and launching space shuttles to working on the new crew and cargo exploration vehicles.

His current projects include preparing to establish a ground infrastructure that will meet the needs of the Constellation Program. This involves identifying the best technical solution for processing these next-generation vehicles and working with the center to determine how to best transition assets from KSC's existing programs.

Crew Exploration Vehicle final assembly, launch vehicle integration, and launch will be performed and managed at the center, according to Phillips.

"It's incredibly exciting to be part of the development of a new program," Phillips said. "It's a big challenge to find a perfect solution within the program's aggressive schedule and limited budget constraints."

As Phillips looks toward the future, he's also mindful of the past and where he spent most of his time at the center. "I was what you

would call 'raised by the Space Shuttle Program.'"

After working for McDonnell Douglas for a year, Phillips began his career with NASA at KSC in 1987 in the shuttle processing engineering directorate, where he worked on hazardous gas detection systems. He worked as a shuttle operations engineer from 1988 to 1990 and then became a NASA test director in 1990.

After the STS-49 mission landing in May 1992, Phillips became vehicle manager of the orbiter Endeavour — one of the best jobs he ever had. "I gained a real appreciation for the work required to make everything come together," he said.

In 1995, he became branch chief for processing operations before becoming flow director for Endeavour in 1998. Phillips was named chief of the Shuttle Processing business office in 2000, then deputy director of the Shuttle Processing directorate in January 2005 before moving to his current position in the Constellation office.

"It was amazing to be part of the day-to-day processing operations and see KSC's talented people work with some pretty complicated machinery, and get it done every day," Phillips added.

Tip Talone, director of the Constellation Project Office, said Pepper acts as more of a partner in



PEPPER PHILLIPS, deputy director of KSC's Constellation Project, has held varied positions at the center, including flow director for the orbiter Endeavour and deputy director of Shuttle Processing.

the management of the wide-ranging responsibilities included in the Constellation Project at KSC.

"His leadership experience in shuttle, both in operations and business, are invaluable in leading our team to meaningful solutions to the constant barrage of issues inherent in a start-up of this size and significance," Talone said.

Some of Phillips' family members also have a long history in the space program. His father, Don Phillips, is retired from shuttle

operations. His mother, Judy Phillips, worked in quality control for the U.S. Air Force. His wife, Stacie Phillips, works in NASA's Human Resources office, while his sister, Susan Feagan, works in the NASA comptroller's office. His brother-in-law, Chris Feagan, and mother-in-law, Marilynn Burger, work for United Space Alliance.

In his spare time, Phillips likes to play tennis, ride his Harley-Davidson and spend time with his family.

## Asian Americans and Pacific Islanders Month celebration



JAPANESE WOMEN'S drum team Maturiza Sakuragumi perform at the Asian Americans and Pacific Islanders event.

The sound of drums and vibrant colors of traditional costumes of the Asian Pacific culture filled Kennedy Space Center's training auditorium on May 30 for the Asian Americans and Pacific Islanders Heritage Month event. The theme of NASA's monthlong recognition was "Celebrating Decades of Pride, Partnerships and Progress." The keynote speaker was Japan's consul general, Masakazu Toshikage, who spoke about the history of the Japanese and Asian Americans in the United States and their contributions to the space program. The event was organized by United Space Alliance's Diversity and Compliance Office, the USA Solid Rocket Booster Element team, Boeing-Florida Operations' Asian American



JAPAN'S CONSUL general, Masakazu Toshikage (right), receives an appreciation plaque from Tommy Wai of Boeing.

Professional Association, NASA's Asian American Pacific Islanders Working Group, JAXA and the 45th Space Wing at Patrick Air Force Base.

# European research lab Columbus an

## COLUMBUS . . .

(Continued from Page 1)

ected to the rest of the orbiting outpost by NASA's Node 2 module.

Columbus is about 23 feet long and 15 feet wide, allowing it to hold 10 "racks" of experiments, each approximately the size of a phone booth. Five NASA racks will be added to the laboratory once it is in orbit.

Each rack provides independent controls for power and cooling, as well as communication links to earthbound controllers and researchers. These links will allow scientists all over Europe to participate in their own experiments in space from several user centers and, in some cases, even from their own work locations.

The Columbus laboratory's flexibility provides room for the researchers on the ground, aided by the station's crew, to conduct thousands of experiments in life sciences, materials sciences, fluid physics and other research in a weightless environment not possible on Earth.

In addition, the station crew

can conduct experiments outside the module within the vacuum of space, thanks to four exterior mounting platforms that can accommodate external payloads.

With a clear view of Earth and the vastness of space, external experiments can run the gamut from the microscopic world of bacteria to the limitlessness of space. The first two experiment packages will fly to the station on the shuttle with the module.

The control center for the work that will be conducted in the Columbus laboratory is located in Oberpfaffenhofen, Germany. From there, ground controllers can communicate with the module as the space station orbits the Earth, as well as with researchers across Europe and their partners in the United States and Russia.

Once the module is in orbit as part of the International Space Station, the Columbus laboratory is expected to provide at least 10 years of science capabilities for researchers, whether they're working at their desks on Earth or floating weightlessly in space.



THE DELIVERY of the Columbus module is officially accepted by NASA during a ceremony at the Kennedy Space Center. Participating in the welcoming ceremony are, from left, William Gerstenmaier, NASA's associate administrator for Space Operations; Alan Thirkettle, International Space Station program manager, European Space Agency; and Russell Romanella, director, International Space Station Program, NASA's Kennedy Space Center.



A BELUGA aircraft taxis on the runway at the Shuttle Landing Facility. The Beluga carries the European Space Agency's research laboratory, designated Columbus, flown to Kennedy from its manufacturer in Germany.



THE EUROPEAN Space Agency's laboratory is moved under escort past the Shuttle Landing Facility's Assembly Building.

# Arrives for processing at KSC



ceremony in the Space Station Processing Facility, NASA associate administrator for Space Station Operations; Jim Kennedy, director, Space Station and Payloads Processing.



INSIDE THE Space Station Processing Facility, an overhead crane is lowered onto the Columbus module to lift it out of its transportation canister.



research facility past the Vehicle



THE TRUCK transporting Columbus moves the module inside the Space Station Processing Facility. In the SSPF, the module will be prepared for delivery to the International Space Station on a future space shuttle mission. Columbus will expand the research facilities of the station and provide researchers with the ability to conduct numerous experiments in the area of life, physical and materials sciences.

# KSC encourages summer students to make most of internship

By Jennifer Wolfinger  
Staff Writer

Did anyone notice the wave of enthusiasm that washed over Kennedy Space Center on June 5? It was the refreshing eagerness to explore that arrives with the summer interns in the Education Programs and University Research Division.

Approximately 50 interns attended an orientation for their summer internships at the Operations and Checkout Building Mission Briefing Room. Education Chief Gregg Buckingham welcomed the students, who will be at KSC for seven to 10 weeks, and reminded them of their potential.

"Neil Armstrong was 38 years old when he landed on the moon. There was a 16-year gap between his college graduation and landing on the moon," Buckingham said. "Add 16 years to your college graduation (and) that's 2025, so your timing is perfect to be part of the exploration vision."

Highlighting the importance of observing our surroundings, Safety and Mission Assurance's Tom Dwyer had group members close their eyes and point to the closest exit. When they looked around, they were surprised to see that among several doorways, only one was an official exit.

He summarized many safety and health guidelines by saying that it's an employer's responsibility to provide a safe work environment and the employee's responsibility to comply with applicable rules.

Before Export Control Administrator Wayne Ranow spoke, the students watched safety and



THE KENNEDY Space Center summer interns class of 2006 gained valuable insight at a June 5 orientation held at the Operations and Checkout Building. Approximately 50 students will be participating in the program.

security videos. Ranow emphasized that everyone is responsible for abiding by the rules of export control, which maintains national security and limits access to the most sensitive space technologies, equipment and software.

External Relations Director Lisa Malone advised the students to make the most of their internships since they were selected among hundreds of applicants. She urged them to not be intimidated. "If you see exciting projects, ask to be part of it," she said.

Embry-Riddle Aeronautical University intern Robert Latta is following that advice by studying the effects of the new launch vehicle on the surface of Mars and the moon.

"It's exciting to be part of the

future of space flight," he said.

University of Central Florida intern Katie Collier also is ambitious. "I want to become an astronaut, so I am excited about seeing a launch and astronauts," she said.

Center Director Jim Kennedy said he entered the NASA family as an intern about 35 years ago.

"Don't think that because you're young and relatively inexperienced in the business world that you don't have a lot to offer, because, trust me, you do. You are bringing great intellect and the excitement of youth," he said.

He mentioned a young employee from the early space shuttle era who questioned why money and effort were being wasted on

painting the external tank white at that time. He determinedly questioned the policy, and after two missions, it was never painted white again.

Led by Diversity and Equal Opportunity Manager Tara Gillam, Equal Opportunity Office representatives instructed the interns on ways to be responsible in the areas of disability sensitivity, cultural diversity and sexual harassment.

Steve Chance, College Recruiting Program manager, explained the Cooperative Education Program which allows students to alternately work for NASA and attend college.

The interns ended their orientation by touring the center.

## Employees, guests invited to BEST barbecue at KARS Park I

The Black Employee Strategy Team (BEST) cooks are firing up the grills and all Kennedy Space Center and Cape Canaveral Air Force Station employees and students are invited, along with off-center guests. Don't miss the fun from 3 to 6 p.m. June 23 at KARS Park 1. Dinner is served from 3:15 to

5 p.m. Tickets are \$9 each and can be purchased until June 9. Ticket distributors include: Maggie Forbes, Headquarters room 2223C, (867-3305); Maxine Daniels, Space Station Processing Facility room 3228X, (867-5976); and Latasha Walker, Logistics Building room 2710F2. For information, contact Stacie Smith at 867-5298.



EMPLOYEES AND guests will enjoy meeting the summer students and faculty at the June 23 BEST barbecue at KARS Park 1.

# Remembering Our Heritage

## 40 years ago: Hurricane sim was the real thing

Unseasonable Alma turned drill into real situation

By Kay Grinter  
Reference Librarian

As the hurricane season approached in 1966, the work force at Kennedy Space Center was on deadline, testing Apollo hardware and conducting fit checks of facilities as Gemini missions launched like clockwork from pads on the neighboring Cape.

AS 500-F, a full-scale Apollo/Saturn V facilities integration vehicle, was at Pad 39A for a dress rehearsal. The goal of meeting President Kennedy's mandate to land a man on the moon before the decade's end was attainable.

Amid the best laid plans, Hurricane Alma roared to life unseasonably early. No direct impact was forecast for the Space Coast. Alma's ground track was over Cuba, then north through the Gulf of Mexico.

Center Director Kurt Debus seized the opportunity to test the weather protection plans under the threat of a real storm. A "dry run" on hurricane preparations had been planned for the following week anyway.

At 1 p.m. on June 8, Debus ordered 500-F back to the Vehicle Assembly Building, creating an impromptu second loaded move of the crawler. According to opera-



HURRICANE ALMA roared through the Gulf of Mexico (above) in June 1966. The AS 500-F, a full-scale Apollo/Saturn V facilities integration vehicle (right), returned safely to Pad 39A from the VAB.

tion plans, the team had 12 hours to complete the job.

First motion from the pad came at 5:30 p.m. Ron Benti, a recently hired hydraulic systems engineer, was on the crawler transporter for the first half of its journey, with winds gusting more than 60 miles per hour.

Retired now and living in Edgewater, Benti recalls: "I signed on with NASA in August 1965, and had been working for Boeing in Huntsville. Alma was the first hurricane I experienced up close.

"While riding in the crawler

transporter control room, I was glad to observe the stability of the hydraulic leveling system in those gusty winds," Benti explained.

When his 12-hour shift ended, Benti was sent home. He and his family rode out the storm from their oceanfront apartment in Cocoa Beach, where they watched the turbulent Atlantic Ocean churn.

AS 500-F rolled into the Vehicle Assembly Building at 11:43 p.m. and was secure an hour later, within the 12 hours allotted for the task.



An assessment of the facilities at KSC following the storm found damage to be minimal. Water intrusion and washouts were the only problems identified.

Hurricane Alma made the history books as the earliest hurricane strike on the continental U.S. since 1825. In Florida, Alma caused \$10 million in property damage. Ten more storms followed Alma in 1966; the strongest among them, Hurricane Inez, passed through the Florida Keys in October.

## NASA selects Georgia, Virgin Islands schools for Explorer program

NASA recently selected 26 new schools in the Explorer Schools program, including three schools from Kennedy Space Center's district area in Florida, Georgia, Puerto Rico and the Virgin Islands.

These schools include Jean Childs Young Middle School in Atlanta, Conyers Middle School in Conyers, Ga., and Charles H. Emanuel School in St. Croix, Virgin Islands.

The NASA Explorer Schools program provides unique opportu-

nities designed to engage and educate the future scientists who may someday help advance scientific interests through space exploration in the United States.

"The NASA Explorer Schools program continues to bring new students and educators into the NASA family," said KSC Education Director Gregg Buckingham. "Our goal is to inspire and engage these students as they begin to think about career choices so that we can build the nation's work force of the future."

Selected schools are eligible to receive up to \$17,500 during a three-year partnership to help buy technology tools. Each year, new schools are selected to work with

**Three schools from Kennedy's district are in Georgia, Puerto Rico and the Virgin Islands.**

NASA to inspire students in science, technology and mathematics. The partnerships include teachers and education administrators serving grades four through nine, and students who primarily

come from minority and underrepresented communities.

NASA provides training to science and math teachers at the agency's centers during the summer to acquire new teaching tools using the agency's resources. The program was chosen as one of the "Top Innovations in American Government Awards for 2006" by the Ash Institute for Democratic Governance and Innovation at Harvard University.

# Visitor Complex offers free admission, Liberty Bell 7 exhibit

Through Sept. 4, all Kennedy Space Center and Cape Canaveral Air Force Station badged employees will receive one complimentary maximum-access admission to the Kennedy Space Center Visitor Complex.

Employees may also purchase up to six additional maximum-access admissions at half price.

Present your badge between 9 a.m. and 4 p.m. at ticket windows 1 through 4 at the Visitor Complex to receive complimentary admission. This offer is not transferable and cannot be combined with any other discount.

This admission includes all exhibits, the Astronaut Encounter, IMAX space films, the KSC bus tour and U.S. Astronaut Hall of Fame. The offer is not valid on space shuttle launch days.

For a limited time, the Visitor Complex will offer "The Lost Spacecraft: Liberty Bell 7 Recovered," an interactive exhibit featuring the Liberty Bell 7 spacecraft that was lost in the

Atlantic Ocean in July 1961 and recovered 38 years later. Through Sept. 10, the complex will be the final museum stop for the Liberty Bell 7 touring exhibit before it goes on permanent display.

Guests will take a virtual ride with astronaut Virgil "Gus" Grissom, heading 118 miles into space and then three miles below the ocean's surface. Visitors will flash back to 1961 to experience astronaut training, spacecraft technology and launch sequences.

Then they'll fast-forward to 1999 to follow the exciting events surrounding the rescue of the spacecraft and personal triumph by deep sea search-and-recovery expert Curt Newport and his Discovery Channel expedition team.

In addition to the Liberty Bell 7 exhibit, guests can see Grissom's Mercury spacesuit on display at the U.S. Astronaut Hall of Fame. On the "Cape Canaveral: Then and Now" tour, visitors can view Launch Pad 5/6, the launch site for



THE LIBERTY Bell 7 spacecraft, currently on display at the Visitor Complex, was lost in the Atlantic Ocean in July 1961 and recovered 38 years later.

the Mercury flight.

Liberty Bell 7, America's second manned space flight, was flown in 1961 and lasted 15 minutes and 37 seconds. When it splashed down in the Atlantic, the hatch unexpectedly blew open.

Grissom narrowly escaped

before the spacecraft sank to the ocean floor. For nearly four decades, it remained NASA's only lost spacecraft.

For more information, call 321-449-4444 or visit:

[www.KennedySpaceCenter.com](http://www.KennedySpaceCenter.com).

## Camp KSC gives students enjoyable reasons to explore

Camp Kennedy Space Center is offering children entering second through ninth grades an out-of-this-world experience to explore space this summer.

Weeklong camp sessions are

available June 5 through Aug. 11.

Regular tuition is \$280 per child per session. There is a 10-percent discount for badged employees and contractors of KSC, Cape Canaveral Air Force Station, Patrick Air Force Base and retired

KSC personnel.

Camp KSC is based at the U.S. Astronaut Hall of Fame. Summer camp hours are from 9 a.m. to 4:30 p.m., with extended early drop-off and late pick-up hours available. If booked by May 29, early drop-off and late pick-up is free for badged employees.

Campers receive a complimentary KSC Visitor Complex 12-

month pass, lunches and afternoon snacks, an official Camp KSC T-shirt, four complimentary admission tickets to the U.S. Astronaut Hall of Fame, a Camp KSC graduation ceremony and a certificate of completion.


For more information and registration details, call

321-449-4444 or visit

[www.KennedySpaceCenter.com](http://www.KennedySpaceCenter.com).



THESE CAMP Kennedy Space Center students enjoyed the opportunity to view the July 2005 launch of Space Shuttle Discovery on STS-114.



John F. Kennedy Space Center

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