National Aeronautics and Space Administration

John C. Stennis Space Center

LAGNIAPPE

Volume 2 Issue 6 www.nasa.gov/centers/stennis June 2007

STS-117 begins ISS mission

The space shuttle Atlantis and its seven-member crew lifted off June 8 from NASA's Kennedy Space Center at 7:38 p.m. EDT to continue construction of the International Space Station.

Atlantis' crew is: Commander Rick Sturckow, Pilot Lee Archambault and mission specialists Patrick Forrester, Steven Swanson, John "Danny" Olivas, Jim Reilly and the station's newest resident, Astronaut Clayton Anderson.

During the 13-day mission, designated STS-117, the crew will add a new structural component to the station, deploy a new set of solar arrays and retract an existing array.

ON-TIME LAUNCH – Trailing fire, Space Shuttle Atlantis blasts away from the earth's surface on NASA's STS-117 mission. The orbiter's launch took place on time June 8 from Kennedy Space Center. STS-117 is the 118th space shuttle flight, the 21st flight to the station, the 28th flight for Atlantis and the first of four flights planned for 2007.

The mission will deliver and install the 17.5 ton S3/S4 truss segments. This latest addition to the station's backbone will extend the right side of the truss and includes a new set of solar arrays. When unfolded, the 240-foot arrays provide additional power to the station in preparation for the arrival of new science modules from the European and Japanese space agencies. The crew also will retract a solar array to allow for the rotation of the new arrays to track the sun.

Anderson joined the Expedition 15 crew June 10. Sunita Williams, aboard the station since December, will return to Earth with the Atlantis crew. Anderson is scheduled to return to Earth on space shuttle Discovery's STS-120 mission in October.

On June 11, STS-117 spacewalkers Reilly and Olivas worked outside the space station to activate the S3/S4. The spacewalk was the first of three scheduled for STS-117.

The spacewalking duo made power, data and cooling connections between the station and the S3/S4, which contains a new set of solar arrays.

The mission's second spacewalk took place June 13. Mission Specialists Steve Swanson and Pat Forrester continued the activation of the S3/S4 and helped retract the starboard solar array on the P6 truss during the spacewalk.

From the desk of

Dr. Richard Gilbrech

Director,
Stennis Space Center

Summer is here, and with it came the first space shuttle launch of the year. The launch of Space Shuttle Atlantis on STS-117 was a great moment for NASA and the space program.

I am always rejuvenated when I get to see such an amazing display of technology and teamwork that is a space shuttle launch. It always makes my drive to work more meaningful and I take great pride in the fact that those three main engines are verified right here by the Stennis team.

We try to share that pride with our congressional leaders in Washington, D.C. So on May 23-24, I joined the other NASA center directors to meet with congressional delegations for discussions on the Vision for Space Exploration.

It was a fruitful visit, and helped reinforce to our elected officials the importance of space exploration. Last month's announcement of construction of the new A-3 altitude test stand at Stennis reinforced our role as NASA's prime site for testing large liquid engines and stages, and continues to demonstrate our importance as an economic engine for the Gulf Coast.

This month also signaled the official start of the 2007 hurricane season. Now is the time to ensure your emergency contact information is up to date and that your personal storm preparations are in order.

I certainly hope this turns out to be another light hurricane season, but hope is not a strategy. I urge everyone to go into the summer months fully prepared.

Please remember that SSC now has a sheltering agreement with the American Red Cross. Employees and their families will shelter with their agency/company, and the public will shelter in Buildings 1105, 2105 and 2204 as long as capacity is available. Red Cross rules apply to all our sheltering locations, so remember to bring your medications, as our medical clinic will not be open. Bring a minimum three days' supply of food and keep in mind that no pets will be allowed.

Be safe, and let's have a great summer!

Gilbrech joins center directors for Capitol Hill briefing

Stennis Space Center Director Dr. Rick Gilbrech joined the directors of NASA's nine other field centers in Washington, D.C., on May 23-24. The directors met more than 100 members of their respective congressional delegations to discuss the Vision for Space Exploration, its importance to the nation, to NASA and to their centers. Gilbrech and Astronaut Kay Hire (at left in photo, above right) talked with Mississippi's Sen. Thad Cochran (left photo), Sen. Chip Pickering (center photo) and Rep. Gene Taylor (above).

FULFILLING THE VISION FOR SPACE EXPLORATION

Engine assembly operations consolidating

In mid-May, the Space Shuttle Main Engine Program at Stennis Space Center made a big move – literally.

Pratt & Whitney Rocketdyne, the main contractor for testing space shuttle main engines and other propulsion systems at SSC, is consolidating its SSC engine processing and assembly operations into one facility, Building 9101.

SSMEs have been assembled and processed at Building 3202, a combination workshop, warehouse and shipping bay just down-canal from the test complex.

While NASA sanctioned the move as a way to optimize space allocations, the consolidation will streamline PWR's support of three rocket engine programs that will run simultaneously for a time. Until its retirement in 2010, NASA's Space Shuttle Program will continue to need flight-certified engines to support the space shuttle's flight manifest.

The J-2X engine being developed for NASA's Constellation Program is set to begin power pack testing this year. And PWR's RS-68 is in use as the booster engine for United Launch Alliance's Delta IV family of heavy-lift launch vehicles. The J-2X will power the second stage of NASA's new crew launch vehicle, Ares I, and the Earth departure stage of the new cargo launch vehicle, Ares V. The RS-68 will power the Ares V core stage. SSC will test the J-2X, which is now in development.

Moving SSME activities to B9101 required modifications to 40,000 square feet of the building. That square footage is in addition to the 90,000 square feet PWR already leases for the RS-68 Program.

Among the changes were construction of two SSME assembly stations, upgrading the panels to feed pneumatics and hydraulics to the engines, the addition of ground support equipment processing and storage areas, new shop welding and specialty welding areas, warehouse and property crib area reconfigurations and the addition of a calibration lab for test instrumentation.

Diane Luxich (left) and Una Faciane, both of Pratt & Whitney Rocketdyne, prepare parts carousel bins in Building 3202 for transport to PWR's facility in Building 9101. Luxich estimated some 10,000 labels had been printed and attached to parts in anticipation of the move.

The RS-68 and SSME programs will share a shipping and canning bay. With no direct outside access, engine processing will be cleaner in the warehouse where the J-2X and SSME will be worked on side-by-side. Color-coding will keep each program's parts organized.

"Representatives from SSME, RS-68 and J-2X worked together to create the most efficient building design to support all these programs," said Tim Lorenz, PWR's engine assembly facility manager.

Transfer of SSME's inventories should be complete in July. NASA and PWR expect SSME activities to be fully operational in Building 9101 in September.

"This move certainly will make the whole operation more efficient," said Don Beckmeyer, SSME project manager in the Test Projects Office of SSC's Project Directorate. "Since the engine programs will coexist in the same facility, consolidating engine processing and assembly under one roof will make the whole operation easier."

After the move from 3202 is complete this summer, NASA will lease that space to the National Oceanic and Atmospheric Administration's Data Buoy Center.

"NOAA benefits because they can take over the whole 3202 facility," said Randy Canady of NASA's Center Operations Directorate at SSC. "It's part of our responsibility to make good use of the space we own and manage here, so this move just makes sense all the way around."

2007 NASA Stennis Spac

NASA Stennis Space Center Director Dr. Richard Gilbrech and NASA Associate Deputy Administrator Charles Scales presented the annual NASA Honor Awards during a ceremony held at SSC on June 14.

Walker, La., resident Bartt Hebert, chief engineer, Engineering and Science Directorate at SSC, received NASA's prestigious Outstanding Leadership Medal.

NASA's Outstanding Leadership Medal recognizes an individual who has exhibited notably outstanding leadership that has had a pronounced effect on the technical or administrative programs of NASA. Hebert received the award for his recent efforts in aligning SSC with NASA's strategic goals and bringing together engineering technical capabilities from the center's propulsion and earth sciences. His leadership was key to the technical efforts associated with SSC's support of the space shuttle's 2005 return to flight. That support covered critical activities in re-establishing the safety and reliability of the shuttle's external fuel tank.

Bartt Hebert

Phillip Hebert

Kevin Power

Slidell, La., and Madison, Ala., resident Phillip Hebert, an electrical engineer in the Engineering and Science Directorate's Operations Division at SSC, received NASA's prestigious Exceptional Service Medal.

NASA's Exceptional Service Medal recognizes significant, sustained performance characterized by unusual initiative or creative ability that results in engineering, space flight, administrative or support endeavors that contribute to NASA's mission. Hebert received the award for his achievements as co-electrical lead on the Integrated Powerhead Demonstrator System test project and as engineer on the High Speed Data Acquisition System in SSC's E Test Complex. His innovative approach contributed to successful testing and data acquisition on the IPD system and in the space shuttle main engine liquid hydrogen feedline flowliner. His new processes and procedures resulted in lower costs and higher data quality.

Mandeville, La., resident Kevin Power, an aerospace technologist for the Project Integration Office in SSC's Project Directorate, received NASA's prestigious Exceptional Achievement Medal.

NASA's Exceptional Achievement Medal recognizes a significant, specific accomplishment or contribution that improves operations, efficiency, savings, science or technology contributing to the mission of NASA. Power was awarded the medal for his leadership of a study critical to the formulation of a viable ground-testing strategy for NASA's J-2X rocket engine, considered the most critical item for fulfilling the directives of NASA's Constellation Program for returning to the moon and going to Mars and beyond. Power assembled a team from across NASA's field centers and its contracting agencies to address the design concept, acquisition strategy, life cycle cost and schedule estimates for the J-2X engine.

Carriere, Miss., resident Pamela Covington, manager of the Office of External Affairs and Education at SSC, also received the Exceptional Service Medal.

Covington received the award for her leadership in instituting SSC's weekly internal "Orbiter" e-newsletter, for her responsibilities for the delivery of NASA's Space Flight Awareness awards and for implementing several initiatives, including the Quality of Life Web site, a compilation of demographic, economic and lifestyle information of the region surrounding SSC. Covington was also recognized for managing the transition of the Stennis Child Development Center to new management.

Diamondhead, Miss., resident Linda Theobald, public affairs officer for the Office of External Affairs and Education at SSC, also received the Exceptional Service Medal.

Theobald received the award in recognition of her 15 years of significant service to NASA. During that time, she has been instrumental in the redesign and refocus of

ce Center Honor Awards

the visitor's center program and a number of high-profile special events, including a space shuttle Return to Flight campaign and the commissioning of a mosaic mural honoring the crew of Space Shuttle Columbia. She led the orchestration of several major events – the 30th anniversary of space shuttle main engine testing; the 40th anniversary of the first engine test at SSC; and the transition ceremony of SSC's A-1 Test Stand for testing the engines that will power NASA's next generation of spacecraft. After Hurricane Katrina, Theobald provided guidance for developing a report and oral histories that chronicled the experiences of the center and its employees during and after the storm.

Slidell, La., resident James Biles, project manager for Jacobs Sverdrup at SSC, has received NASA's prestigious Public Service Medal.

NASA's Public Service Medal is awarded to an individual who is not a government employee, and is granted for exceptional contribution to NASA's mission. Biles was recognized for his leadership of SSC's cryogenic/propellant storage area and its high pressure industrial water plant. Because of heavy schedules in the space shuttle main engine and RS-68 test programs, Biles recently coordinated moving SSC's entire fleet of propellant storage barges in one day. He accomplished this duty without interruption to the rocket engine testing schedule. Biles is acknowledged as a key resource for ensuring success of the overall mission of testing space shuttle main engines and RS-68 engines at SSC.

Carriere, Miss., resident Jeanette Stogner, real property specialist for Mississippi Space Services at SSC, also received the Public Service Medal.

Stogner performs the center's annual real property inventory of institutional and test facilities required by NASA Headquarters. Stogner was a pioneer in implementing the site's computerized maintenance management system, and has personally input more than 15,000 equipment records into the system, which verifies equipment criticality and creates field equipment labels. In addition to her work contributions, the medal citation also recognized Stogner's many years of medical mission trips to Peru, and her volunteer efforts to help coworkers recover after Hurricane Katrina.

Group Achievement Awards

A-1 Test Stand Transition Team

NASA

Don H. Beckmeyer
Sallie N. Bilbo
Pamela G. Covington
Lynda Cywanowicz (HQ)
Paul Foerman
Sandra C. Ladner
Mike P. Nichols
Tessa L. Quave
Ashley K. Stockinger (JSC)
Rebecca A. Strecker
Linda L. Theobald
Myron L. Webb

Computer Sciences Corp.

Jack T. Allen
Rex Cooksey
Jennifer C. Melton
Shelby F. Russell
Perry E. Schmidt Jr.
Billy Stewart
Karl H. Wilcox

Mississippi Space Services

Daphne W. Alford
Mike A. Badon
Vicki S. Bess
Sheila M. Blair
Beverly P. Courrege
Patricia G. Gaspard
Jessica L. George
Graham Golden Jr.
Holley S. Hahn
Angela L. Lane
Wendy Lesieur
Douglass W. Mayberry
Danny Nowlin
Lynne R. Oshiro
Bobby Phares
Shannon T. Simpson
Suzanne R. Stephan
Courtney Thomas

*See **HONOR AWARDS,** Next Page*

Pamela Covington

Linda Theobald

James Biles

Jeanette Stogner

HONOR AWARDS

Continued from Page 5

Sheilah F. Ware

Pratt & Whitney Rocketdyne
Brian R. Sproles
David A. Geiger

KSC Vessel Relocation Group

NASA
Gary L. Benton
Bruce R. Farner
Poppy B. Dennis (MSFC)
Kim H. Guin
Roger D. Hall (KSC)
Richard W. Harris
Kerry D. Klein
Son K. Le
Jeffrey W. Lott
Bryon T. Maynard
Brennan Sanders
Dale L. Sewell
David E. Taylor (KSC)

Mississippi Space Services
Patrick Abercrombie
Barry J. Autin Jr.
Ethan W. Calder
Scott Hariel
Anthony C. Jackson
Kevin M. Jurich
Danny P. Lambert
Frank J. Lorusso
Ronnie A. Lyons
Robbie D. Miller
Stanley E. Mitchell
Rocky P. Pullman
Ronald L. Seal

Mike C. Smith
Steven J. Stockstill

Jacobs Technology Inc.
Jody G. Knight

USA Marine Operations
Joseph Chaput
John Fischbeck
Paul Gutierrez

Length of Service Awards

25 Years
Bruce R. Farner
Charlene E. Guin
Patricia G. Penton
Thomas M. Stanley Jr.
Ramona E. Travis

30 Years
Michael J. Blotzer
David P. Brannon
Cynthia W. Aubin

35 Years
Constance M. Shuler

40 Years
James Washington

Group Achievement Award
A-1 Transtition Team

Group Achievement Award
Kennedy Space Center Vessel Relocation Group

NASA SPACE FLIGHT AWARENESS LEADERSHIP AWARD
Kelly Geroux

SPECIAL RECOGNITION J. HARRY GUIN LEADERSHIP AWARD
Nickey Raines

SPECIAL RECOGNITION QUALITY AND SAFETY ACHIEVEMENT RECOGNITION (QASAR)
Arthur Rieben

Celebrating Old Times

Floyd Goughenour (far left), a retired Mississippi Space Services employee, and about 160 fellow retirees and their guests attended Old Timers Day at SSC's Cypress House on May 18. The event was sponsored by the Old Timers Club of SSC's Recreational Association, with donations from Abacus, MSS and Jacobs Technology. Door prizes this year were donated by the Hollywood, Silver Slipper and IP resorts, as well as Paul's Pastries, Hancock Bank and Keesler Federal Credit Union. Retired employees from NASA and all its contracting agencies attend the event every year, on or near the anniversary of the first tree-cutting in 1963 on the Hancock County land that would become Stennis Space Center.

Goal-setting key to real success

Ralph Waldo Emerson's noted quote defines success: "To laugh often and love much; to win the respect of intelligent persons and the affection of children; to earn the approbation of honest critics and to endure the betrayal of false friends; to appreciate beauty; to find the best in others; to give of one's self; to leave the world a bit better, whether by a healthy child, a garden patch or a redeemed social condition; to have played and laughed with enthusiasm and sung with exultation; to know that even one life has breathed easier because you have lived – this is to have succeeded."

From the **Office of Diversity and Equal Opportunity**

Having goals, setting them and influencing the subconscious mind to achieve them is what management science calls probably the most important action in achieving success. If you ponder the above quote, most of us have had occasion to accomplish most of the things on Emerson's list, even in a small way.

What are goals? How do you achieve them? Goals are objectives, purposes. They are not just dreams.

What are the steps to achieve your goals and ultimately success? Many successful people believe in order to achieve goals, the goals must be absolutely clear and time limits must be set for the achievement of the goals. Goals may be short-term: one to two years; midterm: three to five years; or long-term: more than five years.

Many successful people write down their goals, visualize them, start a "dream book" and load it with pictures. Constant viewing of the "dream book" puts goals into the perceptive subconscious, and influences the actions that will lead to their attainment.

Finally, to succeed, a person needs friends and support. As Albert Schweitzer believed, "In everyone's life, at some time, our inner fire goes out. It is then burst into flame by an encounter with another human being. We should all be thankful for those people who rekindle the inner spirit."

AROUND NASA

■ **Piece of the past hitches ride on Atlantis:** A small piece of early American history is the latest space traveler with the June 8 liftoff of NASA's Space Shuttle Atlantis. A nearly 400-year-old metal cargo tag bearing the words "Yames Towne" and some commemorative mementoes were packed in Atlantis' middeck floor cargo space on STS-117's roundtrip flight to the International Space Station. The items' hitchhike through the galaxy honors this year's 400th anniversary of Jamestown, Va., the first permanent English settlement in North America. The tag was found at the bottom of a well during a dig at the James Fort, according to William M. Kelso, director of archaeology at Historic Jamestowne for the Association for the Preservation of Virginia Antiquities. "It appears to be a discarded shipping tag from a crate or trunk that arrived from England around 1611," he said. "The artifact clearly marks Jamestown as a destination – our nation's first address." When the artifact lands back on Earth, it will have logged more than 4 million miles spanning four centuries.

■ **Dawn spacecraft prepares for July launch:** Dawn, slated for launch in July to become the first spacecraft ever planned to orbit two different bodies after leaving Earth, will orbit Vesta and Ceres, two of the largest asteroids in our solar system. The final mission operations test with the spacecraft was successfully completed in late June. Dawn's solar arrays were attached to the spacecraft, and the system for deploying them in space was given one final test, which went very smoothly. An ion propulsion system makes the long-term mission possible. Its engine provides a very small acceleration, effective and efficient for travel to the asteroid belt.

■ **AIM mission flies to the edge of space:** NASA's AIM spacecraft began its two-year mission April 25, after a flawless ride to Earth orbit aboard an Orbital Sciences Pegasus XL rocket. Launched from Vandenberg Air Force Base in California, the AIM mission is the first dedicated to exploring mysterious ice clouds that dot the edge of space in Earth's polar regions. These clouds have grown brighter and more prevalent in recent years and some scientists suggest changes in these clouds may be the result of climate change. With AIM, Hampton University in Virginia becomes the first Historically Black College and University to lead a NASA satellite mission. By measuring the clouds and the thermal, chemical and dynamical environment in which they form, their connection to the meteorology of the polar mesosphere will be better understood. It will provide the basis for study of long-term variability in the mesospheric climate and its relationship to global change.

Hail & Farewell

NASA welcomes the following to SSC:

James Hamilton – engineering student trainee
Center Operations

And bids farewell to the following:

Gregory Byrd – aerospace technologist, flight systems test
Engineering and Science Directorate

Oktibbeha is latest Explorer School

Starkville district, NASA join hands

NASA announced May 11 that the Oktibbeha County School District in Starkville, Miss., has been selected to begin a special three-year partnership with NASA. It is among 25 school teams nationwide named new NASA Explorer Schools.

The goal of the NES program is to use NASA's unique missions to inspire student learning in science, technology, engineering, mathematics and geography. NASA's Stennis Space Center near Bay St. Louis, Miss., will administer the NES partnership with OCSD. Representatives from SSC will help kick off the program with presentations at the school during the coming school year.

"The NASA Explorer Schools program enables schools and their communities to partner with NASA to help develop the nation's future science, technology, engineering and mathematics work force," said SSC Education Officer Dr. Dewey Herring. "It is today's students who will help make the nation's vision of sending humans back to the moon, then on to Mars and beyond a reality."

To begin the formal partnership, a team of educators and administrators from OCSD will attend a one-week professional development workshop July 16-20 at Kennedy Space Center in Florida. The school team will develop a strategic plan to address its students' needs in mathematics, science and technology education. OCSD may apply for technology grants up to $17,500 over the three-year period to help implement their plans.

Barbara Marino (left), Stennis Space Center education technology specialist, shows Astro Camp Counselor Beverly Fitzsimmons a LEGO model during a teambuilding exercise May 29 at SSC's North Gate computer lab as a part of the counselors' 'new hire' orientation.

Astro Camp training

Astro Camp counselors began their summer session May 29, a week earlier than their day camp charges.

Before learning their duties and curriculum for "My Place in Space," they participated in a teambuilding exercise at Stennis Space Center's North Gate computer lab. Using the electronic meeting system known as "e-SPACE" and GroupSystems software, Education Technology Specialist Barbara Marino facilitated anonymous discussions within the group about goals for the summer's work. She used LEGOs to help the counselors learn to work and communicate as a team – a crucial element of the Astro Camp experience for campers and counselors.

Marino will use the lab's distance learning system for Astro Camp Plus sessions. Teen campers will connect to the Challenger Learning Center for an e-Mission, "Space Station Alpha," while a flight director tasks them to carry out a two-hour virtual mission via live Internet feed.

For information about teambuilding exercises and using the e-SPACE lab, call Marino at 228-688-1378.

LAGNIAPPE

is published monthly by the Office of External Affairs – Public Affairs at NASA's John C. Stennis Space Center.

Comments or suggestions should be forwarded to:

NASA PUBLIC AFFAIRS OFFICE
Attn: LAGNIAPPE
Mail Code IA10
Building 1100, Room 306
Stennis Space Center, MS 39529

or call:
228-688-3749

National Aeronautics and Space Administration

PRESORTED STANDARD
U.S. POSTAGE
PAID
BATON ROUGE, LA
PERMIT NO. 984

John C. Stennis Space Center
Stennis Space Center, MS 39529

Official Business
Penalty for Private Use $300