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LAGNIAPPE

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Commitment to safety key to NASA's success

A message from NASA Administrator Sean O'Keefe:

"The success of this historic Agency starts with an unwavering commitment to safety. In April, we corresponded on NASA's responsibility to protect the safety of our people and our valuable assets, on and off the ground. Recently, we have witnessed clear examples of how integrity and a dedication to excellence lead to making the right choice.

"The Office of Space Flight made the decision to delay the launch of the Space Shuttle Columbia on STS-107, not because of a problem with the orbiter, but because tiny cracks were discovered in metal liners used to direct the fuel flow inside propellant lines on two different orbiters. Ron Dittemore and his outstanding team made the decision to delay Columbia's launch until we better understand the cause of the cracks and their possible impact on our orbiter fleet at launch. This kind of responsible approach is essential to the safety and success of our exploration objectives.

"The landing of the Space Shuttle Endeavour ended a U.S. record-breaking mission for Expedition Four crewmembers Daniel Bursch and Carl Walz. Their stay on board the International Space Station was extended, in part, because the launch of STS-111 fell victim to Florida's often-violent late afternoon thunderstorms. Despite some disappointing attempts, the dedicated launch team held fast to its strict protocol and safely sent Endeavour on its way June 5.

"When it came time to bring the crew home, Mission Control waived off initial landing opportunities due to unacceptable weather conditions at the Florida runway and directed Endeavour to its alternate landing site at Edwards Air Force Base in California — a decision driven by our commitment to safety.

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White House formally nominates Gregory

The White House has officially presented the U.S. Senate with the nomination of Frederick D. Gregory, astronaut and associate administrator for Space Flight, as the next NASA deputy administrator.

Frederick D. Gregory

Gregory, a veteran Space Shuttle commander and former U.S. Air Force combat pilot, currently leads NASA's human space flight endeavors.

If confirmed, Gregory will serve as the chief operating officer for the Agency and report directly to Administrator Sean O'Keefe.

Before being named to his current position in December 2001, Gregory served as associate administrator for the Office of Safety and Mission Assurance.

Gregory, selected as an astronaut in 1978, logged more than 455 hours in space during three shuttle missions. In 1985, he served as pilot on board Challenger during STS-51B. Gregory was mission commander for STS-33 in 1989 and STS-44 in 1991.

NASA engineers, from left, Nickey Raines, Jared Sass and Maury Vander conduct a high-pressure liquid oxygen facility activitation flow at the E-1 test facility in preparation for future Space Launch Initiative test programs.

Stennis prepares for accelerated role in SLI

Stennis Space Center is stepping to the front line in testing engine components for the next generation of reusable space launch vehicles, according to NASA's Robert Lightfoot, director, Propulsion Test Directorate at Stennis.

The goal of the Space Launch Initiative is to design a space transportation system that can meet NASA's needs with greatly increased safety and reliability and at a much lower cost than current systems.

With component testing already scheduled for three of the four engine design efforts funded by NASA's Space Launch Initiative (SLI), Lightfoot said the pace of activities at the E-Complex,

See **SLI,** Page 7

Technology improvements:

NASA dual-use program helps improve Stennis engine testing

Every Space Shuttle Main Engine (SSME) undergoes acceptance testing at Stennis Space Center. During these tests, engineers record instrumentation measurements for engine performance analysis. A NASA Dual-use Technology Development Program product that records dynamic data directly to a computer disk instead of to magnetic tape has reduced system maintenance and improved delivery of the data product.

"During an engine test, we record both high- and low-speed test data," said NASA's Randy Holland, electrical design and analysis lead engineer with the Propulsion Test Directorate (PTD) at Stennis. "Static pressures, for example, change in milliseconds during an engine test and are considered low-speed data. High-speed dynamic measurements, such as acceleration, change considerably faster, in microseconds, and require specialized acquisition and recording systems."

To monitor engine test dynamic data, SSME rocket test engineers once recorded all high-speed data onto specialized magnetic tapes. The tapes, however, required high maintenance on the recorders, and processing the information into usable data was time consuming.

The Taxi-100 Direct-to-Disk system, developed by Integrated Systems Consultants (ISC) of San Jose, Calif., and Omni Technologies of New Orleans, is an interface system that uses fiber optics to transfer high-speed dynamic data from an engine test directly to a computer disk drive. The new system eliminates the need for tape, thus saving the time it takes to transfer the data from tape to disk, and reduces maintenance costs, particularly for the high data volume from long-duration testing.

The Dual-use Technology Development Program is based on the sharing of costs, risks and successes between the government and a commercial partner. In dual-use projects, NASA contributes unique facilities and knowledge, engineering resources and funding. In turn, the commercial partner contributes its unique resources, facilities, manufacturing and marketing capabilities, and potential cash.

"The Taxi-100 system is saving the Propulsion Test Directorate time and money, and helping them provide a better product," said NASA's Kirk Sharp, manager of the Office of Technology Transfer at Stennis. "In addition, the product has been made commercially available, making it an excellent exam-

See **DUAL-USE,** Page 8

Telephone system changeover completed

The click of a switch brought an unceremonious end to an exceptional 16-year career of the Stennis Space Center telecommunication system, the InteCom IBX S80, which was replaced with a new state-of-the-art system.

The old system was installed in 1986 and performed almost flawlessly, handling more than a million calls per month and providing customers around-the-clock support.

"When I gave the Stennis management an overview of the project, I explained that I had two major objectives," said NASA's Terry Bordelon, telecommunication manager at Stennis. "My first goal was to make the change as transparent as possible to our customers, requiring little or no disruption of service. The second goal was to minimize costs by maximizing the use of established government investments in training, equipment, fiber and cabling.

Myles Bernard, deputy program manager, Lockheed Martin Information Technology, left, and NASA's Terry Bordelon, telecommunication manager at Stennis, oversee the last minutes of operation for the old telephone system.

Approximately 6,000 customer telephones and data lines were transitioned to the new system with fewer than 60 minor customer trouble calls.

NEWSCLIPS

NASA selects next SMEX missions: Spacecraft that will observe the Earth's highest clouds and detect hidden matter in the universe have been chosen as the next two missions in NASA's Small Explorer (SMEX) program. The first mission, to be launched in 2005, will map the "cosmic web" of hot gas that spans the universe. The second mission, to be launched in 2006, will determine the causes of the highest altitude clouds in the Earth's atmosphere. The Explorer Program, managed by NASA's Goddard Space Flight Center, Greenbelt, Md., is designed to provide frequent, low-cost access to space for physics and astronomy missions with small to mid-sized spacecraft.

CONTOUR to provide unparalleled look at comets: NASA's Comet Nucleus Tour (CONTOUR) spacecraft, launched July 3, is set to provide the closest look yet at the center of a comet. CONTOUR will orbit Earth until Aug. 15, when it's scheduled to enter a comet-chasing orbit around the Sun. The Johns Hopkins University Applied Physics Laboratory in Laurel, Md., manages the mission for NASA. NASA's Goddard Space Flight Center, Greenbelt, Md., provided a neutral gas/ion mass spectrometer, and NASA's Jet Propulsion Laboratory, Pasadena, Calif., provided navigation.

Colorful fireworks finale caps a star's life: Glowing gaseous streamers of red, white and blue — as well as green and pink — illuminated the heavens like Fourth of July fireworks in a photo taken by NASA's Hubble Space Telescope. The gaseous streamers were created by one of the biggest firecrackers seen to go off in our galaxy in recorded history, the titanic supernova explosion of a massive star. The light from the exploding star reached Earth 320 years ago. The picture is available at *http://heritage.stsci.edu*. The observations were made by Hubble's Wide Field and Planetary Camera 2, designed and built by NASA's Jet Propulsion Laboratory, Pasadena, Calif.

Busy stay on tap for crew of Expedition Five

Expedition Five Commander Valery Korzun and Flight Engineers Peggy Whitson and Sergei Treschev are scheduled to have a busy tour of duty on board the International Space Station. Four spacecraft — two shuttles and two Russian Progress cargo ships — are slated to visit the station, and two Expedition Five spacewalks are on tap.

Recent activities included work with the station's robotic arm, Canadarm2. Korzun and Whitson commanded Canadarm2 to "walk off" the Destiny Laboratory and attach itself to the Mobile Base System. The maneuver was in preparation for the installation of the S1 Truss.

Science operations will continue during Expedition Five's stay. There will be a total of 24 new and continuing science investigations — 10 human life sciences studies, six in microgravity, five in space product development and three sponsored by the Office of Space Flight.

Cosmonaut Valery Korzun (left), Expedition Five mission commander, Astronaut Peggy Whitson and Cosmonaut Sergei Treschev, both flight engineers, attired in training versions of the shuttle launch and entry suit, pause from their training schedule for a crew portrait. Korzun and Treschev represent the Russian Aviation and Space Agency.

Flight processing continues for shuttles

Space Shuttle Program Manager Ron Dittemore on July 12 said teams of engineers and experts across the country are closing in on a plan that could enable a shuttle flight as early as September, with decisions yet to be made on which flight would take place and what repair, if any, is required for launch.

On June 24, NASA managers temporarily suspended launch preparations for Space Shuttle Columbia until they have a better understanding of several small cracks found in metal liners used to direct the flow inside main propulsion-system propellant lines on other orbiters in the fleet.

By the end of July, two of the orbiters would be in a position to launch at about the same time, which would lead managers of the Space Shuttle and International Space Station (ISS) Programs to decide which flight would occur first: STS-107, a dedicated scientific research mission on Columbia; or STS-112, an ISS assembly mission on Atlantis.

STS-107 is a mission devoted to research and will include more than 80 experiments that will study Earth and space science, advanced technology development, and astronaut health and safety. In order to perform the research, STS-107's crew will be split into two teams to allow around-the-clock operations during the 16-day flight.

STS-112 is scheduled to deliver the first starboard truss segment, the S1 Truss. Additional cooling radiators will also be delivered but will remain stowed until STS-115 arrives next year. The mission will also include a Crew and Equipment Translation Aid (CETA) cart that can be used by spacewalkers to move along the truss with equipment.

With the engines removed from Space Shuttle Endeavour at Kennedy Space Center, the flow line can be inspected. United Space Alliance's Gerry Kathka, right, hands part of a fiber-optic camera system to Scott Minnick, left. Minnick wears a special viewing apparatus that sees where the camera is going. NASA is inspecting small cracks discovered on the LH2 Main Propulsion System (MPS) flow liners in other orbiters. Endeavour is next scheduled to fly on mission STS-113.

ReMaP task force recognized for review

NASA Administrator Sean O'Keefe has expressed his appreciation for the work completed by an independent task force of Nobel laureates and world-class scientists and engineers charged with identifying research priorities for the Agency. The Research Maximization and Prioritization Task Force, or ReMaP, completed an external review and recently presented its executive summary to the NASA Advisory Council.

"The recommendations outlined by the ReMaP Task Force will help NASA develop a comprehensive strategy that will fully utilize the research capabilities of the International Space Station, the Space Shuttle, and a full complement of science-driven programs," said Administrator O'Keefe. "One important ReMaP recommendation, establishing a chief science officer on board the International Space Station, is something I hope to implement quickly once the criteria for the position is firmly established.

"ReMaP Chair Dr. Rae Silver, Vice Chair Dr. David Shirley, and the rest of the dedicated members of this task force are truly interested in seeing the full research potential of the space station and this Agency realized, and I would like to express my gratitude for their efforts."

EARTH SCIENCE APPLICATIONS DIRECTORATE

A Day in the Life of . . .

Cultural resource management

NOTE: The background art for this story is a visual rendition of an 1840s Gainesville, Miss., which was created using historic aerial photography and a high resolution terrain model extracted from remote sensing data. The image is part of NASA's cultural resource management efforts at Stennis Space Center.

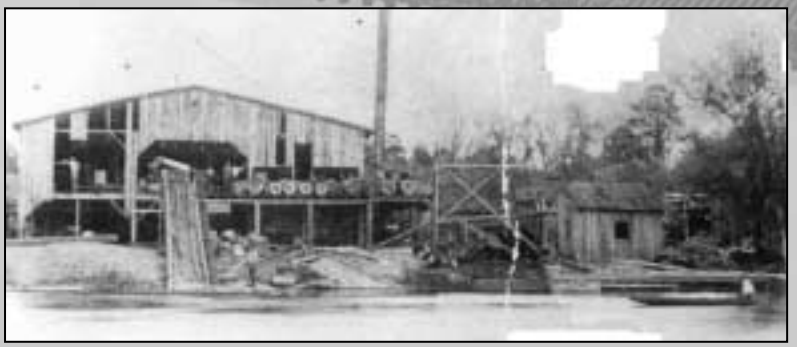
With the help of historic deeds and maps, old photos, historic records and state-of-the-art remote sensing technology, NASA's Dr. Marco Giardino of the Earth Science Applications Directorate and his contractor team are creating realistic visualizations of Gainesville, Miss. They are also testing non-invasive technology for conducting archaeological research and applying what they learn to cultural resource management.

When NASA came to Hancock County, Miss., in 1961, the towns of Gainesville, Napoleon, Santa Rosa, Logtown and Westonia were relocated to make way for Mississippi Test Operations, now the John C. Stennis Space Center. The sparse population of the area, the natural water access and vast acreage made the area along the East Pearl River a suitable setting for testing the rocket engines that would take Americans to the Moon. Today, the 125,000-acre acoustic buffer zone surrounding the center is a national asset.

The sacrifice of the people of Hancock County has not been forgotten. Today, the land is preserved and protected and serves as a testing ground for archaeological methods and theories that will benefit historic research far beyond the buffer zone. NASA archaeologists at Stennis are using the historic Gainesville landscape, literally in their own back yard, to advance cultural resource management locally and globally.

By merging data from numerous sensors, including orbiting, airborne and on-the-ground geophysical prospecting tools, NASA and contractors Lockheed Martin Space Operations (LMSO) and Datastar of Picayune, Miss., are discovering new information about the history and settlement of Gainesville.

"When combined with historic records and placed in the capable hands of our computer visualization folks at Lockheed and Datastar, Gainesville comes to life," said Giardino. "The pioneering remote sensing techniques being validated at Gainesville offer great hope for conducting the federally mandated work of protecting cultural resources in any threatened coastal or riverine environment throughout the Southeastern United States.



"In the 1770s, the British surveyor George Gauld was the first documented owner of the land that eventually took the name of Gainesville, after Ambrose Gaines, who lived here after 1782," explained Giardino. "We are using an early British land deed of Gauld's property and aerial photography from 1962 to narrow the search for historic buildings and artifacts."

"We have a name, a location and an owner for each plat on this map," said Giardino at a recent dig on the former Gainesville site at Stennis.

To search for clues about mysterious landscape features, a ground referencing team from Earth Sciences and LMSO conducted a ground penetrating radar (GPR) survey on a parcel
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and Main streets).

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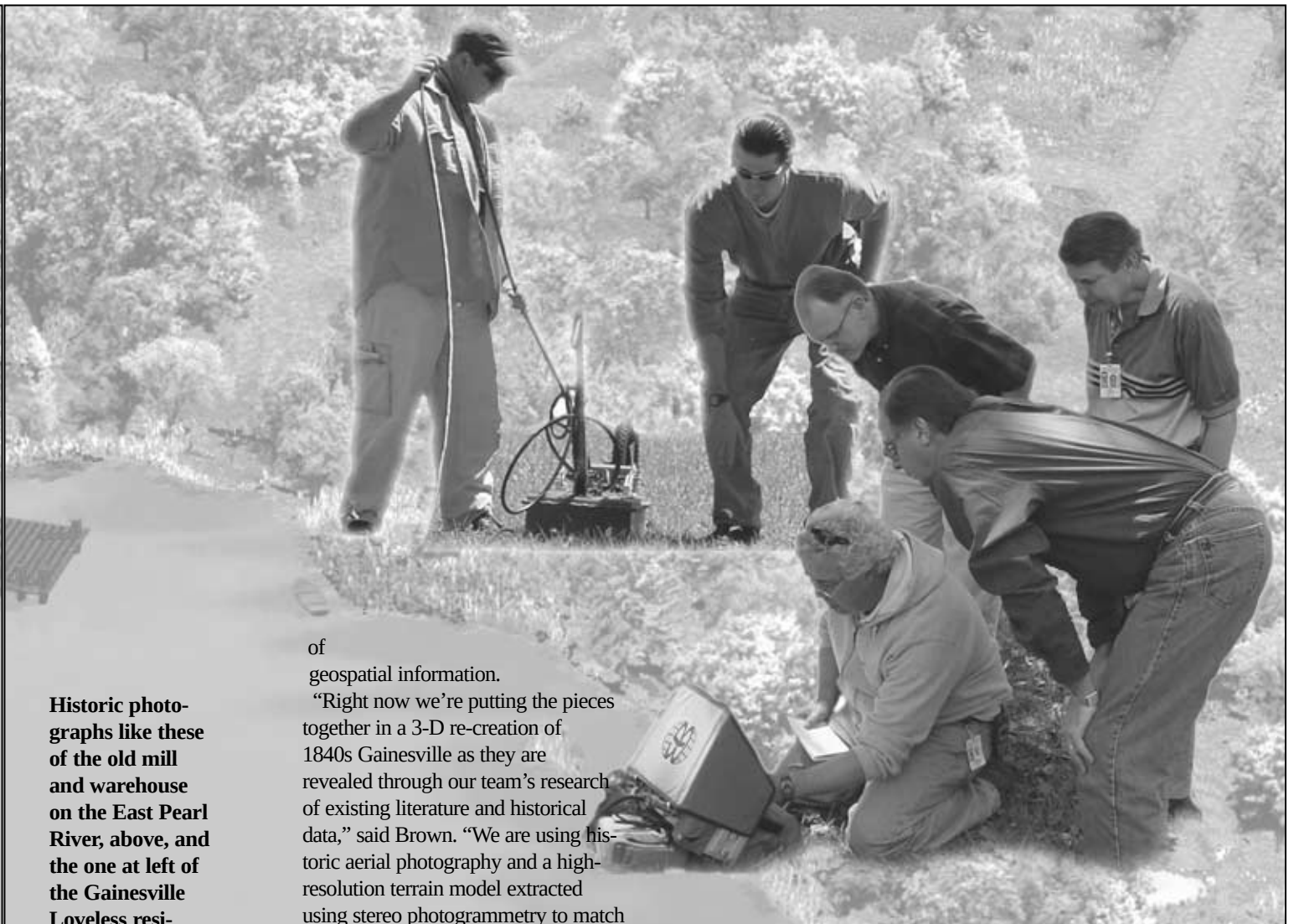

Historic photographs like these of the old mill and warehouse on the East Pearl River, above, and the one at left of the Gainesville Loveless residence and store have provided valuable information to the project's development.

With the help of historic deeds and maps, old photos, historic records, historic markers and a good bit of remote sensing expertise, NASA's Dr. Marco Giardino, kneeling, and fellow NASA and contractor employees work to create a digital vision of Gainesville, Miss. They are testing non-invasive technology for conducting archaeological research and applying what they learn to cultural resource management.

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"Right now we're putting the pieces together in a 3-D re-creation of 1840s Gainesville as they are revealed through our team's research of existing literature and historical data," said Brown. "We are using historic aerial photography and a high-resolution terrain model extracted using stereo photogrammetry to match the landscape and the historic accounts."

To show the known elements of Gainesville, Brown has created a hawk's-eye view of Gainesville and produced short video clips that depict the approach to Gainesville via the river.

"The video gives you a ride up the river to dock at one of the three most important towns of South Mississippi in that time period," said Brown.

"The immediate practical application of this research is to detail what's under the ground at the site using non-intrusive techniques," said Giardino, who will prepare a report on the team's findings for the space center. "We want to identify those areas of the site that have the most historic value and alert our colleagues in the Center Operations and Support Directorate, and especially our Environmental Office, to avoid the costly and damaging disturbance of these localities."

The Gainesville research will contribute important technical advances as well.

"LMSO and Datastar mapping specialists have digitized and georeferenced several aerial and satellite images, maps and geospatial descriptions of prominent historic sites at Gainesville," explained Spruce. "These geospatial data are being used as a screening tool for guiding archaeological field surveys."

"The techniques developed from this work will be made available via publication for others to apply elsewhere," said Spruce.

"We want to match coordinates on the ground with features from remotely sensed images," said Giardino. "If we can match the subsurface features we discover with GPR and the surface indicators we see in remote sensing images, then we can predict subsurface features by looking at surface indicators. That way, archaeologists can use non-invasive remote sensing technology to evaluate cultural resources instead of having to dig them up."

Living a dream

For NASA's Barry Robinson, mentoring new engineers a natural part of the job

He was a fan of the Apollo program. He watched the early launches on a black-and-white television in a Louisiana classroom. The images of men walking on the Moon mixed well with images from the science fiction novels he read. He dreamed often of space. Barry Robinson never doubted that one day he would work for NASA. He just never imagined it would be in Mississippi.

"I talked with a lot of people about careers in engineering and in aerospace while I was in school," said Robinson, a mechanical engineering major at Southern University and A&M College, Baton Rouge. "My plan was to take a job with an industry contractor and after a few years migrate to a position with NASA."

In 1988, near the end of his senior year at A&M, Robinson was invited to interview with the aerospace industry contractor. The series of interviews led him to NASA's Stennis Space Center. "I was shocked to learn there was a NASA facility in Mississippi," Robinson said. "Although I had seen the signs along Interstate 10, it never registered with me that this was really a NASA center. I took one look at the Space Shuttle Main Engine and accepted the job on the spot."

Phase one of his plan was under way.

Robinson joined the Rocketdyne Division of Rockwell International at Stennis — a primary contractor for NASA responsible for the testing program of the Space Shuttle Main Engine (SSME) — as a test operations engineer.

"When they told me I would be responsible for knowing everything there was to know about these facilities and the SSME, I thought to myself, 'Who are they kidding?'" Robinson said. "If the engine itself weren't intimidating enough for a new engineer, I was overwhelmed with a sense of personal responsibility for making sure it was safe for flight into space. I was living out a dream. I didn't want to mess this up."

Fortunately, Robinson said, Rocketdyne didn't leave him on his own to figure things out. His training was placed in the hands of seasoned engineers. "There was probably a good 20- to 25-year difference in the ages of the guys on the job and the newest of the new hires." Robinson said. "I had a true sense of being mentored. These guys were handing down their knowledge and their experience. They wanted us to know what they had learned. Suddenly, I understood that my real responsibility was to learn as much as I could. With that, I got my feet under me. I knew I could do this. I had always been a good student."

Robinson set out to learn every aspect of test operations. "I was hungry for knowledge and for experience," Robinson said. "I wanted to know what happened before, during and after an engine got to Stennis. It was important for me to know the process."

Knowledge of the process led Robinson to become one of the first black test conductors at Stennis and later among even

NASA's Barry Robinson is the Mechanical Test Operations Branch chief, Operations Division, for Stennis' Propulsion Test Directorate

fewer engine systems engineers with "test conductor" as a part of their resume.

Phase two of his plan unfolded in 1994. He joined NASA as an aerospace technician in mechanical experimental equipment.

"When you think of Barry Robinson, you think of a test guy," said NASA's Robert Lightfoot, director of the Propulsion Test Directorate (PTD) at Stennis. "Barry has a real understanding of the value of a disciplined approach to running a test facility. That understanding is tempered with the common sense required to get the project smoothly to test."

Lightfoot said a good example of the

See **ROBINSON** Page 7

Members of Special Boat Unit Twenty-Two (SBU-22) observed a time-honored naval tradition with Change of Command ceremonies July 12. Cmdr. Patrick Butler, center, assumed command of the Navy's riverine component of special operations. SBU-22 trains, equips and deploys the special warfare combatant craft detachments for conducting special operations in the riverine environment worldwide.

Astro Camp 2002 Counselor Lauren Galmiche, center, helps students, Kate Thompson, left, and Emma Thompson, right, create life-sized drawings of astronauts. The exercise is part of activities that teach students about science, math and space-related subjects. The camp is one of a series of weeklong camps held at Stennis Space Center throughout the summer.

SLI. . .

(Continued from Page 1)

already dubbed one of the most active and flexible test complexes in America, definitely has been kicked up a notch.

"Over the last six months, we have been busy getting the E-Complex facilities ready to support this stage of SLI activity," Lightfoot said. "The schedule will require multiple tests during the week on the same test stand. In some instances, competing components will be tested side by side. As exciting as it is, coordination of this activity will be more challenging than anything yet undertaken by our current test teams."

Stennis' E-Complex test facility is a developmental rocket engine component test facility for future generation rocket engines. The flexible, three-stand complex with seven separate test cells can carry out rocket engine testing or testing involving ultra high-pressure gases and high-pressure, super-cold fluids. "Stennis' primary function at the E-Complex has been research and development," Lightfoot said. "With the testing of hardware components for the RS-83, the RS-84 and COBRA, Stennis moves into a more visible, active role in the SLI."

There are four competing engine design programs funded under SLI. Boeing Rocketdyne Power and Propulsion, Canoga Park, Calif., has two designs, the RS-83, a liquid oxygen/hydrogen engine in a class similar to the Space Shuttle Main Engine, and the RS-84, a liquid oxygen/kerosene (LOX/RP) fueled engine with more than one million pounds of thrust. Pratt & Whitney Space Propulsion, West Palm Beach, Fla., has teamed with Aerojet Propulsion Associates, Sacramento, Calif., to propose COBRA (Co-Optimized Booster for Reusable Applications), a reusable, hydrogen-fueled liquid booster/second-stage engine in the 600,000-pound thrust class. TRW Space and Electronics, Redondo Beach, Calif., is developing the TR107 main engine, also a LOX/RP engine in the 1,000,000-pound thrust class.

Testing of the preburner for Boeing's RS-83 is less than a month away. COBRA's preburner is slated to begin testing early next year, and testing for the subscale preburner and main injector for Boeing's RS-84 will begin in spring 2003.

Additional modifications to E-1 will be made over the next two years to accommodate testing of full scale components for the RS-84 and TRW's TR107.

SAFETY. . .

(Continued from Page 1)

"The culture of this institution is one of safe accomplishment of our missions, and I ask that all of us help NASA carry on this legacy. If something about your job or task is unclear, ask for clarification. No activities are important enough to compromise your safety or the safety of our colleagues at this Agency. If you suspect something isn't quite right, trust your instincts and your experience.

"With this ethos, we will continue to safely push the frontiers of exploration and discovery as only NASA can. Keep up the good work."

ROBINSON. . .

(Continued from Page 6)

assets Robinson brings to the table can be seen in his work on the MC-1 project, formerly known as the Low Cost Technologies Fastrac Engine Program.

"The project was struggling when Barry was moved into the program," Lightfoot said. "It was behind schedule and suffering from technical issues. The team was working as hard as they possibly could but lacked the focus that an experienced test guy can give. We put Barry out there, and the team jelled almost instantly."

The team was honored with the Interorganizational Group Award in 1999 and a Group Achievement Award in August 2000. The program received the NASA Turning Goals Into Reality Award for the Fastrac Engine Product Development Team in September that same year.

Robinson's success with the MC-1 project at Stennis led him to work nearly a year in the Stennis Project Office at the Rocketdyne facilities in Santa Susana, Calif., when the program moved into what became its final testing stages. Here, he served as the test operations consultant.

Robinson recently served as chair of the Operational Readiness Inspection Committee for return of the A-1 test stand to SSME testing. He serves as co-chair of the Stennis Training and Certification Board and has assisted in rewriting the PTD operational instructions, and in defining and implementing the Operations Division training plan.

Now, Robinson says he is beginning to see himself as one of those "old" guys whose job is to pass down knowledge. As chief of the Mechanical Test Operations Branch in the Operations Division of the Propulsion Test Directorate, he mentors and implements operational policies and processes for component and rocket engine testing.

"I am responsible for overseeing 16 mechanical engineers as they are moved around to the various test facilities for responsibilities including conducting hot-fire tests," said Robinson. "It is my job to see that they comply with site standards and directorate objectives. I want to make sure they get the training and educational opportunities needed to improve their job performances. It is my job to give back what I have been given."

SAFETY CORNER

Can you spell safety?

SOMEONE, somewhere in the next few seconds is going to be involved in an accident. It may be at work, at home and, most assuredly, where you least expect it.

ANYONE can be the next victim. The accident looking for a place to happen does not respect race, color, creed, rank or station in life.

FRUSTRATION on the job, carelessness at home, thoughtlessness on the highway and use of drugs or alcohol could be the last elements needed to turn your next action into an accident.

EVERY accident has a price — a price that someone must pay. That price may be only more frustration, the life of a loved one or an innocent one, the loss of a life's savings or an individual's capacity to earn a living.

TOMORROW will be too late to become aware of the many accident potentials around us. Too late to stop the unsafe acts we thoughtlessly commit or too late to reverse that new statistic. Today is the day.

YOU are the one who will prevent the next accident. A little bit of caution, a little extra thought, the patience that you exercise will prevent someone, somewhere, from being involved in the next accident.

QUICK LOOK

■ **Women's Equality Day** will be celebrated Aug. 28 with a guest speaker and a luncheon in the atrium of Bldg. 1100, from 11:30 a.m. until 1:30 p.m. The event is sponsored by the Planning Committee for Stennis Women's Equality Day. For information, contact Cathy Willis Ext. 8-4384.

■ **The fall course schedule at Stennis** offered by the University of Southern Mississippi - Gulf Coast Campus and the Center of Higher Learning includes Microsoft Certified Systems Engineer; Spacecraft Program Management; Advanced Liquid Rocket Engine Design; Franklin Covey's What Matters Most Seminar; Introduction to Fiber Optics; and Advanced Fiber Optics. To register, call (228) 867-8777 or fax to (228) 867-8775.

■ **Become familiar with the Stennis' language assistance plan.** Stennis has developed a plan to provide access to programs and activities to individuals who are not proficient in the English language. The Equal Opportunity Office encourages employees to become familiar with the plan and the reporting form that is on the Stennis Web site. For information, contact Jean Rhodes at Ext. 8-2079.

DUAL-USE. . .

(Continued from Page 2)

ple of a dual-use success."

The system may also be applicable at other test facilities that could benefit from increased efficiency in repetitive high-volume data handling.

The evaluation of high-speed, or dynamic, data is critical to the evaluation of engine performance. "We record dynamic conditions like pressure to evaluate combustion stability," said NASA's Lee Johns, instrumentation engineer at Stennis. "What we're trying to avoid are oscillations that cause disruptions or damage, and, in turn, compromise safety and efficiency."

Stennis engineer Paul Lagarde of Boeing Rocketdyne directed the systems integration of the Taxi-100 in the A-Complex. "What used to take hours now takes minutes," said Lagarde. "This system has dramatically improved the quality of the high-speed data acquisition product and provided some tools with which the health of the system can be determined in a more timely manner."

The time and labor saved by the Taxi-100 system also translate into cost savings.

"We enjoyed doing business with NASA," said Bruce Newnan of ISC. "We worked with very smart people and produced a new product for NASA, which otherwise would have been shelved. The dual-use contract mechanism is an effective tool to transfer ideas to products."

LAGNIAPPE

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