

EARTH DAY 2000

Stennis chosen as site for national program to take root

Stennis Space Center was selected as one of five NASA sites to participate in a pilot program aimed at redesigning federal Environmental Management Systems (EMS) based on ISO 14000 standards. The pilot program, according to NASA's Environmental Officer at Stennis, Ron Magee, is a result of a forthcoming Executive Order entitled "Greening the Government through Leadership in Environmental Management."

"Our first task will be to form a Core Implementation Team to begin development and implementation of the EMS policy, plan and procedure," Magee said.

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Earth Day
2000
Saturday
April 22



Plant life indigenous to the 139,000 acres of Stennis Space Center is diverse and abundant and includes more than 100 plant species. Some of these species are extremely rare or vulnerable to extinction.

See PLANTS, Page 11



The Boeing Company dedicated its new RS-68 Engine Assembly Facility at Stennis Space Center on March 17 underscoring an unprecedented government/industry partnership. Opening of the assembly plant marks the first time engines will be assembled and tested at Stennis. Here, Boeing President and Chief Executive Officer Harry Stonecipher and Senate Majority Leader Trent Lott, R-Miss., center, cut a ribbon to dedicate the facility. Other dignitaries in attendance were, from left, Jay Moon, deputy director, Mississippi Department of Economic and Community Development; Anthony Sconyers, chief counsel, U.S. Army Industrial Operations Command; Jim Albaugh, president, Space & Communications Group, Boeing; Stonecipher; Lott; Roy Estess, director, Stennis Space Center; and Byron Wood, vice president and general manager, Boeing Rocketdyne. For details, see complete story on Page 3.

LAGNIAPPE Commentary

Gator Previews StenniSphere . . .

I looked out my window to check out the spring fashions on their way to the cafeteria when, lo and behold, there came the Gator in the midst of the lunch-goers walking toward the visitor center. My goodness, why was he all decked out in white overalls, a railroad-type painters cap, a tool belt sagging around his waist, a tape measure dangling behind his tail and a paintbrush stuck in his back pocket? What was the old boy into now, I wondered? When I couldn't stand the mystery any longer, I opened my window and yelled at him, "Hey Gator, where you heading, decked out in all that working gear?"

"Oh, greetings, my hysterical friend," Gator replied. "Just going over to the visitor center to help out with the finishing work. Gotta get the new StenniSphere ready for the big, grand opening Memorial Day weekend."

"I've been hearing about the new look over there — the exhibits, the '60s café, gift shop and all, Gator, but I didn't know you were helping out."

"Of course. You know they couldn't do it without me and my artistic touch," he said. "I've been helping with the design and giving the engineers and carpenters a hand with their work."

"Well, I guess they recruited the right man for the job to assist with this important project, which I know will help us inform and inspire future generations about the space program and other endeavors under way here," I complimented the beaming Gator. "If you've got time, give me some idea of some of these things you are working on over at the visitor center."

"Glad you asked," Gator replied. "You know you can't learn much over here in 1100, hid behind all your dusty old books and archives. We are building a living, breathing exhibition that will capture the imagination and touch the senses of our visitors. When we open StenniSphere and its Millennium Hall, our visitors can see what we are doing with our new exhibits, but more importantly, they will have the chance to experience what we are doing, too. They can go into a test control center and push the buttons to fire an engine, or take a flight into space on the shuttle, or feel what it is like to board the International Space Station. They can even experience a walk on the bottom of the ocean in the spectacular new CNMOE exhibit.

"And, of course, my favorite place is the 'Swamp to Space' area that shows visitors what this place was like before we got here. With real cypress stumps, animals and even a gator, the forest comes alive. I'll bet some visitors will actually feel a little damp and soggy. And nearby, there is an impressive honor roll displaying the 2,202 original landowners who gave up their homes and property so NASA could build this space center. We're gonna go from prehistoric times into the 21st century!

"Gotta run, Mr. Historian, but when we're finished, meet me in the RocKeTeria for a Barq's and a po boy and we'll settle down in a corner booth and wrap it up!"

M.R.H.



NEWSCLIPS

A triumphant 10 years in space for Hubble Telescope — NASA's Hubble Space Telescope ushered in a new golden age of astronomy 10 years ago when the Space Shuttle Discovery carried it to orbit on April 24, 1990. Even though initially impaired by a flaw in its main mirror, Hubble's position above the distortion of Earth's atmosphere enabled it to begin making major discoveries even before astronauts repaired it in 1993. When corrective optics were installed, the Universe snapped into sharp focus, and there followed a flood of spectacular images and discoveries which have changed how we view the cosmos. More about the telescope and its anniversary can be found on the Internet at <http://hubble.stsci.edu/go/tenth>.

Compton Gamma-Ray Telescope's brilliant run at an end — NASA's productive and long-lived Compton Gamma-Ray Observatory mission — which exceeded its mission by four years and changed ideas on the most important unsolved puzzles in astrophysics — has come to an end with the failure of one of its three gyroscopes. NASA plans to safely direct the satellite back into Earth's atmosphere no earlier than June 1. Compton detected more than 400 gamma-ray sources, 10 times more than were previously known. More information is on the Internet at <http://pao.gsfc.nasa.gov/gsf/spacesci/structure/cgro.htm>.

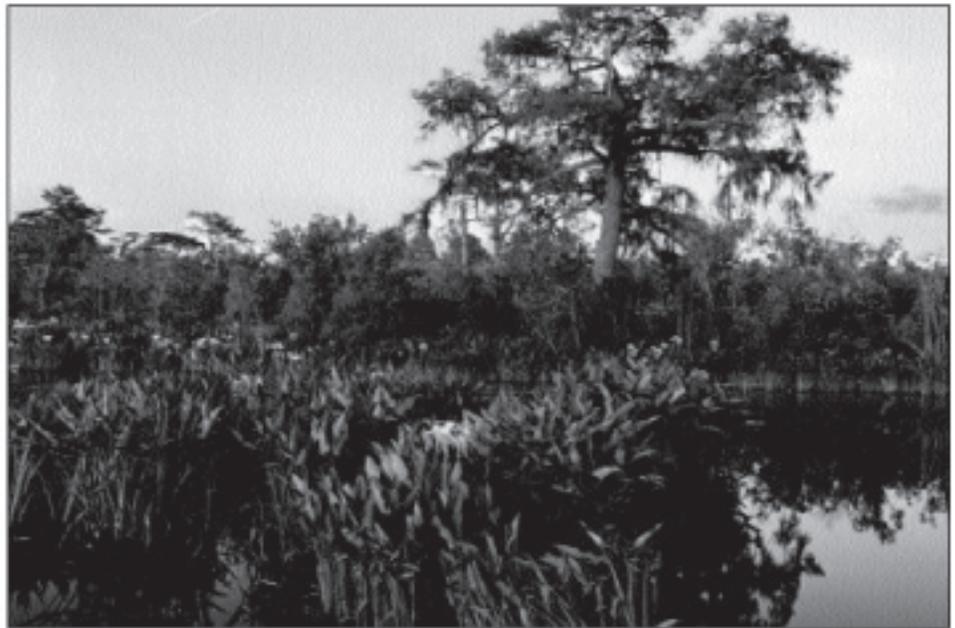
NASA develops drill for the future — It's an invention that may eventually end up in the hands of craftsmen and orthopedic surgeons. Scientists at NASA's Jet Propulsion Laboratory, Pasadena, Calif., together with engineers from Cybersonics Inc. in Erie, Pa., have developed an ultrasonic device that can drill and core very hard rocks and also has medical applications. Future space missions could use the device to drill for samples on asteroids or planets. More details can be found on the Internet at <http://ndea.jpl.nasa.gov>.

NASA technology has key role in effort to preserve Wolf River

Conservation management has a new champion in southern Mississippi now that an agreement has been reached between NASA's John C. Stennis Space Center and the Wolf River Conservation Society Inc. This partnership will investigate how emerging commercial space technologies can help preserve Mississippi's first officially designated scenic river.

"This project will promote environmental management in two important ways by using advanced satellite technologies and by promoting conservation education," NASA's Rodney McKellip, a geographer with the Commercial Remote Sensing Program at Stennis, said.

The Wolf River runs from its start in Lamar County for 66 miles through southern Mississippi and into the Bay of St. Louis. Last year, International Paper Co. donated a 15-mile easement along the river to the Wolf River Conservation Society. It is the society's responsibility to manage the easement, promote the river's scenic and recreational value and collect baseline information on plants and animals within the easement.



The Wolf River runs from Lamar County to the Bay of St. Louis in Hancock County. It is Mississippi's first officially designated scenic river. (Photo by Beth Young)

McKellip explained that Stennis would use the easement and the surrounding watershed as a testing site for new remote sensing technologies and products. The first such products to be tested over the Wolf River will be produced from images taken from IKONOS — the first commercial, high-resolution Earth observation satellite launched late last year.

Products will be created from IKONOS that can address the conservation management needs of the society. As NASA tests other products in a similar fashion against the society's needs, the Wolf River could become one of the most often-imaged locations in the South, McKellip said.

See WOLF, Page 6

Boeing's RS-68 production facility opens

Senate Majority Leader Trent Lott, R-Miss., visited Stennis Space Center on March 17 to participate in the dedication of The Boeing Company's new assembly facility that will produce the RS-68 engine, the latest large, liquid-fueled engine developed by the Rocketdyne Propulsion & Power business of Boeing. The new assembly facility occupies the former Mississippi Army Ammunition Plant at Stennis.

The 650,000-pound thrust engine will power the Delta IV family of expendable launch vehicles in Boeing's bid to meet the growing demands for commercial and government satellite launches.

Boeing invested \$11 million in the facility. That brought the total Boeing investment in improvements and upgrades to the facility and Stennis test stands to \$27 million. Additional funding came from the State of Mississippi and the U.S. Army.

The new facility at Stennis includes more than 100,000 square feet of assembly, stag-

RS-68 AT A GLANCE

About the engine facility:

- Construction began in December 1998; completed in December 1999.
- Forecasted production assembly rate of 40 RS-68 engines a year will use about 35 to 40 percent of factory capacity.
- Building space includes 100,000 square feet for assembly, staging area and office space.

ing and office space. It gives Boeing the capability to assemble engine kits before delivery to the test stands for development and certification testing.

Testing of the RS-68 engine at Stennis began in late 1999, after completion of modifications to the B-1 test stand.

Aerospikes passes longest test to date

As the single-engine test phase for the XRS-2200 Linear Aerospikes Engine nears completion, the engine that will power the X-33 Advanced Technology Demonstrator met every major objective in its longest test firing earlier this month.

In the 12th of 14 scheduled single-engine tests, officials fired the aerospikes engine April 6 for 250 seconds, a full 30 seconds longer than any previous test. Engineers also throttled the engine between a wide range of power levels, up to full power, and used extreme mixture ratios.

Two more tests are scheduled during the single-engine phase of testing. Dual-engine tests should begin in late July.

The engine will power the X-33, a half-scale, technology demonstrator of Lockheed Martin's proposed commercial reusable launch vehicle, VentureStar™.

Company to use new NASA technology for industrial thermometer

ThermoProbe Inc., a Jackson company, recently signed a non-exclusive license with NASA's John C. Stennis Space Center for industrial use of a process that will be used to create a new thermometer. The thermometer called the TL-9002 is currently under development and is predicted to be on the market by early 2001.

"NASA, at Stennis, is always excited to do business with Mississippi companies," said Kirk Sharp, NASA's technology transfer officer at Stennis. "We feel that ThermoProbe's experience in the field of industrial thermometers is a perfect match for this technology. We plan to work closely with them to get the TL-9002 to market."

ThermoProbe designs and makes precision portable thermometers for liquid temperature gauging and explosive environments. Uses include petroleum inventory control, custody transfer of bulk liquid commodities, meter proving at truck-loading racks, and other storage and transportation methods, such as ship, barge, tank, rail car and pipeline.

The license with NASA is for use of an imbedded software algorithm that speeds up the processing capabilities of sensor technologies. NASA received a patent in 1998 on the technology developed by Stennis engineers Tom Koger and Bud Nail. Nail has since retired. They and former Stennis employees Patrick Diaz and Vivien Cambridge designed a predictive sensor technology so that a sensor's endpoint reading could be accurately predicted prior to reaching that point.

The technology is currently used by NASA to speed up hydrogen detection system sensors.

Luke Bartkiewicz, owner/president of ThermoProbe, said potential industrial applications for the thermometer include petroleum testing, flow meter calibration, chemical testing, beer brewing, ice cream processing, pharmaceutical production and bulk photograph developing.

Typical applications for these instruments are related to the volume-temperature gauging of petroleum products.

Director's Dialogue

from Center Director
Roy Estess



STOP

Safety — of people, of assets, and of the environment — is critical to our future. In this column in the past I've discussed the importance of safety and have described our use of the Dupont Company to make Stennis Space Center safer. Dupont, a world leader in safety, has in the past year audited our operation and has conducted training for management on how to improve. One of their fundamental tenets is that safety starts with management, and they're right. At the end of the day, though, safety is about people and how we behave, each of us, in whatever we do. Do we follow procedures? Do we wear protective equipment? Do we run extension cords across walkways? Do we keep a cluttered office?

To put in place what we learned in the training, the SSC Safety Management Council of the NASA and the contractor management team has decided to implement Dupont's Safety Training Observation Program (STOP). STOP has been used to dramatically increase safety by thousands of organizations around the world. It has been in use here at SSC for several years by a member of our contractor team, with good results. STOP works to eliminate unsafe behavior; in so doing, it works to eliminate unsafe conditions because they ultimately are the result of unsafe behavior.

The STOP behavior modification program is based on basic safety principles, as well as observation and communication techniques that have proven to be effective. The observation program works to ever improve safety through heightened awareness of risk and positive feedback. STOP begins by training supervisors to eliminate incidents and injuries by carefully observing work and then reinforcing safe work practices and correcting unsafe behavior and conditions. We will use a layered observation system where all managers, from general managers to first-line supervisors and project engineers, will perform observations. The ultimate goal is for each of us to be ever aware of unsafe behavior and conditions and to work to correct them in real time. Basically, STOP is people helping people be safe.

More information on the STOP program will be available in the coming weeks, as will training. I ask for your help and involvement everyday in making SSC a safer place to work for everyone.

Improved Stennis Intranet page ready to debut

The Procurement and Business Management Office (P&BMO) will introduce a new Stennis Space Center Intranet site Monday, April 24.

"The site will have a new look along with some new features for Stennis employees," NASA's Mike Wethington, P&BMO Management Analyst responsible for refining the Stennis Intranet site, said. "We wanted to make the site more appealing, more user friendly, more up-to-date and provide greater functionality. Our employees are more computer literate than just a few years

ago, so there was a need to keep pace with the newer Web features and layouts."

The new design, according to Wethington, offers access to most links listed on the older Intranet home page. Information will be organized in more self-explanatory categories and will use tab features to provide clearer and more direct access. The redesign has eliminated scrolling, yet retains the capability to easily expand the site that is designed to be an evolving communication forum for the work force.

NASA employees' job satisfaction is higher than most, new survey shows

According to a newly published government survey, NASA employees enjoy a greater level of job satisfaction than most other federal workers. The National Partnership for Reinventing Government (NPRG) Employee Survey showed NASA employees gave the agency the highest favorable ratings in 14 out of 32 categories.

NASA's highest favorable ratings were in employee job satisfaction, customer orientation and placing reinvention as a priority. NASA employees pointed to several factors for the ratings: employee involvement in decisions that directly affect them; recognition for creativity and innovation and for doing a good job; working as a team; and, getting quality results.

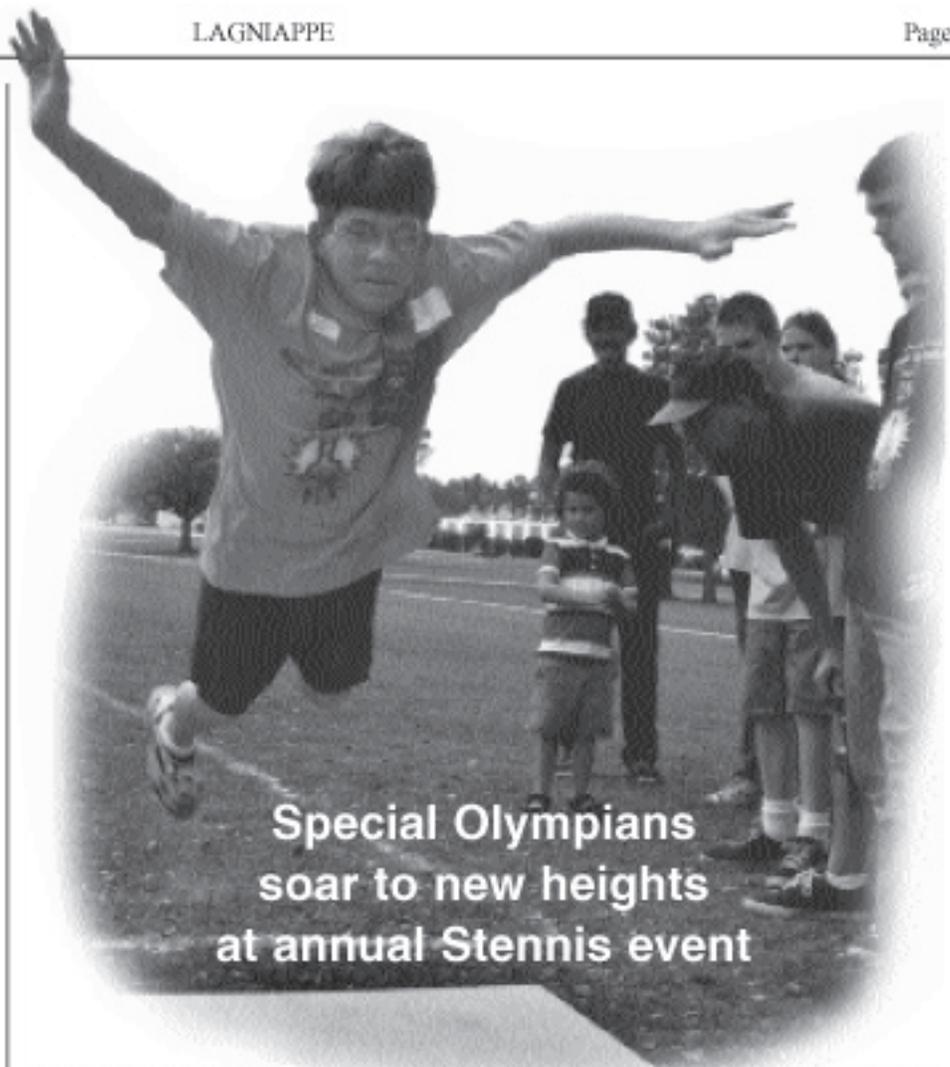
NASA also finished with the highest favorable ratings on questions about managers communicating the organization's missions, vision and values; employee participation in cross functional teams; and, supervisors/team leaders understanding and supporting employees' family and personal responsibilities.

"I am incredibly proud of these results," NASA Administrator Daniel Goldin said. "They represent a strong statement of the top-to-bottom excellence of the NASA team.

"Our greatest strength is our work force. We are committed to demonstrating and promoting excellence and continually improving processes, products and services to better satisfy our customers' needs and requirements."

NASA, the nation's premier civilian research and development agency, manages 10 facilities in eight states around the country. The Agency not only launches Space Shuttles and satellites, but also conducts basic aeronautical research and is deeply involved in helping the scientific community better understand our planet through advanced Earth Science.

Additional survey information is available on the Internet at www.nasa.gov/newsinfo/survey.html.



Special Olympians soar to new heights at annual Stennis event

Never mind the annual springtime rush of major sporting events: college basketball's March Madness, the NBA's sprint to the playoffs, a PGA major tournament with the Masters and Major League Baseball's Opening Day. No sporting event came off with more thrill and excitement, greater effort and exuberance and sheer joy on the part of the athletes than the Special Olympics hosted by Stennis Space Center on March 25.

Almost 250 athletes from Hancock, Harrison Pearl River and Stone counties converged at Stennis to walk, run, leap and throw. But most of all, the Area III Special Olympics were marked by huge grins and big hugs.



Top, Joe Anderson, 14, of North Woolmarket Middle School, launches himself in the long jump event at Stennis Space Center, while a young Special Olympian, inset, gets a big hug from NASA's Kathy Slade after the 50-yard race.

According to Peggy Lamey, Area III Special Olympics director and a teacher at Gulfport High School, some of the top performers will advance to the state Special Olympics and may be eligible for the U.S. regional and even the World Games.

The competitors who came to Stennis ranged in size and shape. They also ranged in age — from 8 to 80. Every one of them had at least one thing in common, though. They went away winners. All received ribbons and pats on the back from the 350 volunteers that cheered and urged them on through track and field events, walking

events, assisted walks, wheel chair competitions, bocce (Italian lawn bowling), the softball throw, basketball shots and more.



WOLF ...

(Continued from Page 3)

As a first step in its conservation efforts, the society has contracted a natural resource service company based in Vicksburg to conduct a baseline biological inventory of the easement — a report created by field biologists and foresters that documents the presence and condition of plant and animal communities in the easement. This inventory will be collected by surveyors walking and canoeing through the easement, making notes, taking pictures and marking maps. Once this baseline is developed, it will be possible to monitor changes in the easement.

In a similar manner, the satellite imagery will be used by NASA to create highly detailed land cover maps. "Land cover maps will provide a snapshot of locations and quantities of different plant communities and other ground features occurring in the easement,"

McKellip said.

The remote sensing products can then be used in conjunction with the information acquired on the ground to enhance the conservation society's understanding of the easement it controls and the river system it is committed to preserve.

"This is a partnership that allows both parties to learn from one another," McKellip said. "This project will help NASA evaluate emerging remote sensing technologies and test them against real life applications. NASA gains an understanding of how these new technologies can be applied, and the Wolf River Conservation Society gains a greater understanding of how it can use space-age technologies to manage the easement."

In addition, a long-term goal of this partnership is to use the Wolf River easement as a learning laboratory and environmental camp. This will allow local students, as well as students from across the country, to spend

"This project will help NASA evaluate emerging remote sensing technologies and test them against real life applications."

RODNEY MCKELLIP
CRSP GEOGRAPHER

time on the Wolf River gaining hands-on experience using remote sensing technology for environmental management.

"The opportunity to promote awareness of conservation efforts and satellite technologies through an educational project is one that both the Wolf River Conservation Society and NASA did not want to miss," McKellip said.

Stennis' recycling program in running for White House award

NASA's John C. Stennis Space Center has been nominated for the White House Closing the Circle Award 2000 for its successful on-site recycling program.

This program was developed to recognize federal employees and their facilities for outstanding efforts that resulted in significant contributions to, or impacts on the environment.

Currently, a number of materials are recycled including paper, used oil, tires, batteries and Freon. The program's success is due principally to the excellent cooperation

between NASA and its contractors and the on-site resident agencies. Through the cooperative efforts between NASA and the Naval Oceanographic Office, paper and cardboard recycling containers have been procured and placed in offices and work areas throughout the center. In 1999, the center experienced a large increase in its recycling totals, recycling more than 110 tons of paper and 45 tons of cardboard. Since about 40 percent of what was traditionally landfilled was cardboard and paper, this effort has increased the operating life of

Stennis' on-site landfill by 30 years.

"Much of the success of this program has been in keeping the employees at Stennis involved and aware of recycling efforts on site," NASA's Environmental Officer Ron Magee said. "Knowing what material can be recycled and where to take it or whom to call to pick it up is important information. It is our goal to maximize the quantity of materials recycled and minimize the generation of solid waste."

Award winners will be announced later this year.

NON-HAZARDOUS SOLID WASTE DISPOSAL AT STENNIS

The following list explains where to dispose of waste and gives appropriate contact information.

■ For disposal of used antifreeze or mercury, call MSS-EH at Ext. 7945 or Ext. 1503.

■ For alkaline, lead-acid or other batteries, a completed Waste Removal Form (SSC-696F) must be sent to MSS-EH at fax 1326, or call Ext. 7945 or Ext. 1503.

■ Metal paint cans can be recycled only if they are empty (less than 1/2 inch dried residue). Otherwise, contact MSS-EH at Ext. 7945 or Ext. 1503.

■ Empty metal drums that stored non-hazardous material go to the recycling facility at the landfill to be crushed and put in the scrap metal bin. Call MSS-EH at Ext. 7945 or Ext. 1503 for pickup.

Drums that stored hazardous materials must be treated as potentially hazardous waste. Contact MSS-EH at Ext. 7945.

■ Clear, green or brown glass, dry newspaper, flattened plastic milk jugs or soft drink bottles (no caps), tin or aluminum cans can be disposed of at the recycling bins located at the south gate. Employees may deposit these recyclable items generated at home in these bins.

■ Unpainted, untreated wood goes to the rubbish site, otherwise to the landfill. Contact the operator at the landfill. If potentially lead-based, contact MSS-EH at Ext. 7945 or Ext. 1503.

■ Aerosol cans, oily rags, scrap metal and used oils can only be disposed of

in designated containers located in work areas. Call MSS-EH at Ext. 7945 or Ext. 1503 for pickup when containers are full.

■ Cardboard sheets, broken down cardboard boxes and white office paper can be placed in the recycling bins located in work areas.

■ Place used telephone books in outgoing mailboxes.

■ For recycling of toner cartridges, unbroken pallets or tires, call Redistribution at Ext. 3737 or MSS-EH at Ext. 7945 or Ext. 1503 for pickup.

■ CFC refrigerants are recycled through MSS-HVAC shop at Ext. 1375.

EARTH . . .

(Continued from Page 1)

"Over the course of the next year, our team will look at all processes within NASA and NASA contractor activities to see how they match with new EPA requirements," Magee said. "We will use the ISO 14000 EMS standards as a template for setting up a system at Stennis."

Magee said Stennis Core Implementation Team members include a cross section of representatives from NASA and NASA contractors. They are NASA's Hugh Carr and Jenette Gordon, along with Magee, all from the Stennis Environmental Office; NASA's Robert Bruce of the Stennis Propulsion Test Directorate; Boeing's Marianne Smith; Lockheed Martin Stennis Operations' Anthony Taconi; GB-Tech's Kathy Lehr; and Mississippi Space Services' Carolyn

Kennedy and Marcia Stewart.

The Executive Order is the third in a series of initiatives aimed at achieving the "greening" of the American government that provides all federal agencies develop plans and procedures for EMS standards. Ames Research Center, Glenn Research Center, Johnson Space Center and Goddard Space Flight Center are the other NASA centers named to participate in the national pilot program.



Five Stennis Space Center employees have been honored with NASA Space Flight Awareness Awards. The Space Flight Awareness program was established to prevent human error by instilling in civil service and contractor employees an awareness of personal responsibility for shuttle missions. Recipients, from left, are NASA's Randy R. Holland of Picayune; Lester A. Langford, Lockheed Martin Stennis Operations, and Willow J. "Billy" Martin, Boeing/Rocketdyne, both of Slidell; James E. Seals, Lockheed Martin Stennis Operations, of Carriere; and Deborah L. Jackson, MSS/InDyne Inc., of Pass Christian.

New and improved Atlantis set for launch on April 24 for mission to space station

Following a review of flight readiness, Space Shuttle managers had, at press time, confirmed April 24 as the launch date for Atlantis on a mission that will continue the development of the orbiting International Space Station and usher in a new era of shuttle improvements.

Atlantis' liftoff is planned for approximately 3:15 p.m. CDT, within a 10-minute launch window. The precise launch time and window could vary slightly and will be established about 24 hours ahead of liftoff to optimize the shuttle's performance.

"Atlantis' last flight in space was a visit to the Mir space station," Space Shuttle Program Manager Ron Dittmore said. "Since then, Atlantis has had more than 100 modifications and improvements made,

making it the most up-to-date Shuttle ever."

In recognition of Easter weekend, provisions will be made for launch team personnel to honor family and personal obligations.

Atlantis' mission on STS-101 will be the first flight of a new Shuttle "glass cockpit" and more than a dozen other shuttle improvements. Atlantis will dock with the International Space Station and the seven-member crew will unload more than a ton of cargo, performing several maintenance tasks onboard to ensure the station remains in good condition as its orbital assembly continues later this year. The crew will also conduct one spacewalk to perform work on the exterior of the station.

Atlantis is scheduled to spend almost six days docked with the station before returning to Earth on May 4.



International Space Station Status Report

The International Space Station continues to be monitored by flight controllers in Houston and Moscow, with no major systems problems. Attention soon will turn toward preparations for the arrival of the Space Shuttle Atlantis bringing life-extension components while awaiting the launch of the next module in the assembly sequence — the Zvezda service module.

Atlantis' STS-101 mission remains scheduled for launch April 24 with the mission's major goals to accomplish the complete restoration of the electrical power system on the Zarya module and raising the station's altitude in preparation for Zvezda's arrival in late July.

Meanwhile, halfway around the world in Russia and Kazakhstan, work continues in preparation for Zvezda's launch atop a Proton launch vehicle. The Proton that will carry Zvezda into space currently is being assembled at its manufacturing plant at the Kurnichev Space Center in Moscow. Its assembly is scheduled to be completed in mid May with delivery to the Baikonur Cosmodrome scheduled about two weeks later.

Awaiting the Proton's arrival at the launch site is the Zvezda service module, which will house life-support systems, serve as the living quarters, and provide the ISS with command and control capability, as well as reboost capability through the early assembly sequence. Zvezda's launch remains targeted to occur between July 8 and 14.

The current orbit of the ISS is 231 by 214 miles. The average decay of the station's orbit is about 1-1/2 miles a week. While docked, Atlantis' reaction control system thrusters will be used to raise the orbit of the station by as much as 19 miles. The actual orbit raising distance is calculated to place the ISS at an altitude conducive to the rendezvous with Zvezda in late July.

Path of achievement leads Jenette Gordon to Stennis

Jenette Gordon's grandmother, Jettie, will be 103-years old in May. Gordon, an environmental specialist for NASA's Environmental Office at Stennis Space Center, said two of the things she learned from her grandmother that apply to her everyday life are — you have to believe in yourself and there is room for everybody in this world.

Gordon came to Stennis in 1974 as a lab technician for General Electric. Fresh out of teaching in a junior high school classroom in Slidell, La., she credits her math and science students with putting her on the track for her career with NASA.

"As a teacher, I had the idea that with these little minds I could change the world," she said with a knowing grin. "The irony is, they changed my world! They taught me that I just 'thought' I wanted to be a teacher."

A native of Winnsboro, La., Gordon says her grandmother has always been very proud that she (Jenette) was the first child in her family to leave home and receive a college degree. She holds a bachelor's of science degree in chemistry from Southern University in Baton Rouge. During her sophomore and junior years, she explored life "up North" working as a cooperative industry student with Polaroid in Boston.

"Between semesters I worked in Boston, and for several summers I worked in Chicago. That experience changed my



Jenette Gordon

Stennis
Employee
Profile

mind completely about living in the South," she said. "After about two years, I decided 'up North' was not for me. Also, I was getting ready to marry a fine south Louisiana gentleman, so it was easy to come home."

Once settled at Stennis, Gordon made several transitions as contracts moved from General Electric to Pan American, which was a subcontractor to Global, but she always managed to stay close to her chosen field of chemistry.

"In high school I knew I wanted to be a chemist," she said. "I had an instructor who served as my mentor. I never lost sight of that inspiration."

In June 1994, Gordon joined NASA and Center Operations working as an environmental specialist with Ron Magee, the Stennis Environmental Officer.

"Stennis has become a really wonderful small city," she said, describing the changes she has seen since coming to Stennis in 1974. "You have to see the resident agencies and contractors as neighbors. As a whole, we

are more environmentally conscious now than ever before. We have made strides in preserving resources and in recycling."

Stennis was nominated for a national environmental award earlier this year for its recycling program. The program was developed and is managed by the NASA Environmental Office.

Gordon has two children: Danielle and Gabrielle. Danielle, a systems analyst for an Atlanta arbitration firm, is 23 years old. Gabrielle, an eighth-grader at St. Tammany Junior High School, is 13 years old and is fascinated with all that NASA does.

Gordon said she finds the joys of her life are her family and her community outreach through El Shaddi United Ministries, where she is the founder and vicar.

"At the end of the day," Gordon said, "It is my grandmother, my children and assisting others — I think these are the components of what living a good and happy life are about."

"The ministry is just getting off the ground," she said. "The name means the God that is more than enough, and the motto is 'the place where everybody is somebody.' It is about people being who they are. At some point in our lives, jobs, homes and churches, success comes down to application. Who we are, where we came from, or what we do, is not as important as how well we apply the lessons learned in our lives."

NASA-developed technology gets test in flight over Mobile Bay

Scientists from NASA's John C. Stennis Space Center and representatives of the Associated Technical Management Corporation (ATMC), of Texarkana, Texas, took to the air over Mobile Bay last month to test commercial modifications to the Multispectral Telescope and Portable Video Imager.

In August last year, ATMC received Stennis' first "dual-use" license for commercialization of the portable video imager. The flight is the first test of the company's progress in converting the NASA-developed technology to commercial use. Two applications tested during the March flight were the technology's ability to detect leaking raw sewage into the environment near Mobile

Bay for the Mobile County, Ala., Health Department and to detect algae blooms in the Gulf of Mexico, for the EPA's Gulf of Mexico Program at Stennis. Both agencies are collaborators in the dual use license project with ATMC.

The portable video imager detects plant stress before it becomes visible to the human eye. Plant stress is the reaction of plants to environmental conditions that are unfavorable to growth, such as a lack of sufficient nutrients, inadequate watering, disease or insect infestation.

Originally developed by NASA's Bruce Spiering and Greg Carter of Stennis' Earth System Science Office, the commercial

adaptation of the device has potential in a number of markets — particularly in agriculture and forestry, according to Don Sumner, ATMC chief executive officer.

"Past attempts to detect plant stress have been too labor intensive to be cost effective," Sumner said. "If an efficient method of analyzing plant stress could be designed to work with the farmer or forester, as a matter of routine — such as we have hopefully done here by adapting the imager to be used on a fixed-wing aircraft to evaluate larger or more distant locations — the resulting savings in harvest time, fertilization costs, and potential crop loss could double or triple profits."

RSVP members get look at StenniSphere and offer assistance

More than 50 members of the Hancock County Retired Senior Volunteer Program (RSVP) recently took the first public look at NASA's John C. Stennis Space Center's newly redesigned visitor center, StenniSphere. When StenniSphere reopens Memorial Day weekend, these retired senior volunteers will work with the Stennis team greeting visitors, answering questions and assisting with the daily activities of the visitor center.

The expanded visitor center presents a 14,000-square-foot interactive review of America's race for space and a preview of the spacecraft of the future.

Designed to entertain while educating, StenniSphere includes informative displays and exhibits from NASA, the Naval Meteorology and Oceanography Command, and other agencies located at the NASA center.

"We are so pleased to have the members of Hancock County's RSVP onboard," NASA's Myron Webb, public affairs chief at Stennis, said. "Their participation will be a great benefit to the center in countless ways. This effort is typical of the involved support



A special group of retired senior volunteers recently took the first public look at the John C. Stennis Space Center's newly redesigned visitor center, StenniSphere. Members of the Hancock County Retired Senior Volunteer Program will work with the StenniSphere team greeting visitors and assisting with the daily activities at the center.

from the community that Stennis enjoys."

The Stennis Volunteer Program is divided into three areas: in-house support to StenniSphere; support to the I-10 Welcome Center, where tours will leave every 15 minutes for the space center; and special

project support, which will include activities such as celebrations and major events.

Volunteer positions are open to all members of the Hancock County RSVP who are able to commit a minimum of eight hours a month and perform prescribed duties.

"This effort is on a scale like none other we have ever done," Jo Ann Lagasse, Hancock County RSVP director, said. "Years ago, our group helped the Navy at Stennis put their library together, but it was nothing like this will be. There is only one other RSVP group in the nation that works hand-in-hand with a NASA facility, and that is in Cleveland, Ohio, at Glenn Research Center."

Lagasse said enthusiasm for the project has spread by word-of-mouth. She has had four new gentlemen volunteer specifically for the Stennis program in recent days.

"It is hard to find volunteer jobs for men," she said. "The Stennis project is going to be perfect for these gentlemen as well as the many ladies we have in our group."

Seniors interested in the Stennis Volunteer Program should call the Hancock County RSVP office at (228) 467-9204 in Bay St. Louis or contact Cheryl Bennett at Stennis Space Center at (228) 688-2322 or by e-mail at cheryl.bennett@ssc.nasa.gov.



Stennis employees and guests enjoyed a crawfish feast at the NASA/Stennis Exchange Crawfish Boil on April 7 at the Cypress House pavilion. In the foreground are John Dupuis of the Naval Oceanographic Office, left, and at right, guest Alex Holmes, Propulsion Test Directorate director Boyce Mix and his wife Carol. They and others enjoyed crawfish, corn on the cob, potatoes, hamburgers, live music and more.

NASA engineers help high school students win robotics contest

Battle of the bands, spirit chants, and fierce competition on the playing field. This sounds like a football game between cross-town rivals. In this case, though, the contestants were made of metal, and the scene was the Lone Star Regional FIRST Robotics Competition.

Stennis Space Center sponsored five Mississippi schools at the regional competition: Gulfport High School; Bailey Magnet School, Wingfield High School and Provine High School, all of Jackson; and, Warren Central High School in Vicksburg.

For six weeks, NASA engineers Wanda Solano, Scott Olive and Dale McCarty worked with the Gulfport High School students to construct the robot Flash.

Following two days of tough qualifying matches, Gulfport High School, Warren Central High School and Wingfield High School were all in the final rounds of competition.

The team consisting of Gulfport High School and its partners, Broadway High School and the team from Richardson High School and J.J. Pierce High School, were victorious, following a hard-fought champi-



onship match. Additionally, the Gulfport High School team was the recipient of the Rookie All Star Award, which was presented to the

For six weeks, NASA engineers contributed their time and expertise to Gulfport High School students helping them design and build a robot for the FIRST Robotics Competition. From the left are NASA engineers Scott Olive, Dale McCarty, Wanda Solano and Randy Canady, shown with the Gulfport High School entry that won the regional contest. Olive and Solano accompanied the team to the competition in Houston, where they were instrumental in the team's success.

rookie team that displayed a strong partnership effort and best demonstrated the mission of FIRST — to inspire students to learn more about science and technology.



Author, social worker and motivational speaker Marion Wikholm, second from left, discusses her book on positive attitude, "Bitter or Better: It's Up to You," with Stennis employees after speaking at the Eldercare Fair hosted by Stennis Space Center last month. NASA employees in attendance at the fair were employee benefits specialist Camille Biojack-Townsend, left, Anita Douglas, second from right, and Candace Rogers, both employee development specialists.

PLANTS ...

(Continued from Page 1)

NASA is concerned about the preservation of plant life and requires compliance with programs designed to conserve rare and endangered species at Stennis.

To know more, go to NASA's Environmental Office at the Stennis Web page at www.ssc.nasa.gov/environmental.



**Safety
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Batteries should be handled with extreme caution

Batteries help many appliances and items keep going and going and going . . .

But safety officials warn that batteries are not just a source of power. Even general purpose batteries (9-volt, D, C, AA, AAA, camcorder, cell phone, button cells, etc.), can also be a source of danger, so precautions should be taken.

Prolonged short circuits of battery terminals will cause rapid loss of battery energy and could generate enough temperature to burn skin, open battery vents and create a potential fire hazard. This is especially the case if the battery is of lithium, nickel-metal hydride, nickel-cadmium, alkaline or other high-energy, density-type chemistry.

Here are some precautions to consider when handling or using batteries:

- Unpack batteries carefully and only just before installation; inspect casing for damage or chemical leakage.
- Do not mix battery types for specific applications, such as lithium, alkaline, zinc-carbon, etc. Also, do not mix new and used or old batteries in apparatus.
- Avoid skin contact to battery chemical leakage.
- If a battery is venting, abandon the room due to possible hazardous material exposure.
- Do not penetrate batteries with nails, etc.

LAGNIAPPE

Lagniappe is published monthly by the John C. Stennis Space Center, National Aeronautics and Space Administration. Roy Estess is the center director, Myron Webb is the public affairs chief, and Lance Cooksey is the news chief. Comments and suggestions should be forwarded to the Lagniappe Office, Building 1200, Room 208D, Stennis Space Center, MS 39529, or call (228) 688-3585.

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QUICK LOOK



■ **Stennis employees are invited** to a sneak preview of StenniSphere Friday, May 12 from 1-4 p.m. The newly renovated visitor center will feature 14,000 square feet of interactive exhibits, a motion simulator ride, an expanded gift shop and a space-themed restaurant. The public grand reopening will be Memorial Day weekend.

■ **The NASA Exchange at Stennis** is offering employees discounted tickets to various theme parks and attractions. Those include Disney World, Universal Studios, Busch Gardens, Sea World, Astro World in Houston, Six Flags Over Georgia and, closer to home, the new Jazzland Theme Park in New Orleans (opening in May). There are also other attractions available, so give Alyce Moran, Ext. 7227, Bldg. 1100, Room 330 a call or visit for more information.

■ **Stennis' Federally Employed Women will sponsor** a Family Money Management Seminar Tuesday, April 25 from 11:30 a.m. until 12:30 p.m. in the Gainesville Room, Bldg. 1100. Jan Lukens of the Mississippi State Cooperative Extension Service will be the featured speaker.

■ **The Stennis Chapter of the NASA Alumni League** will hold a meeting April 29, at 1 p.m. in the Director's Conference Room, Bldg. 1100. All members and retirees are invited to attend. For more information call Helen Paul at (228) 467-7113.

■ **Stennis Space Center will participate** in the eighth annual Take Our Daughters to Work Day, Thursday, April 27. The program is designed to help young ladies become acquainted with a variety of career options. This year's theme is "Free to be You and Me." For additional information contact Rhonda Foley, Ext. 1081.

■ **Stennis Space Center will recognize Space Day 2000** on May 4 with presentations by Lockheed Martin Stennis Operations at East Hancock Elementary School in Kiln, West Elementary School in Gulfport and St. Tammany Junior High in Slidell, La. Space Day is an annual national program that highlights the extraordinary achievements, benefits and opportunities in the exploration and use of space. For details, call Jim Moretz at Ext. 1841.

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