



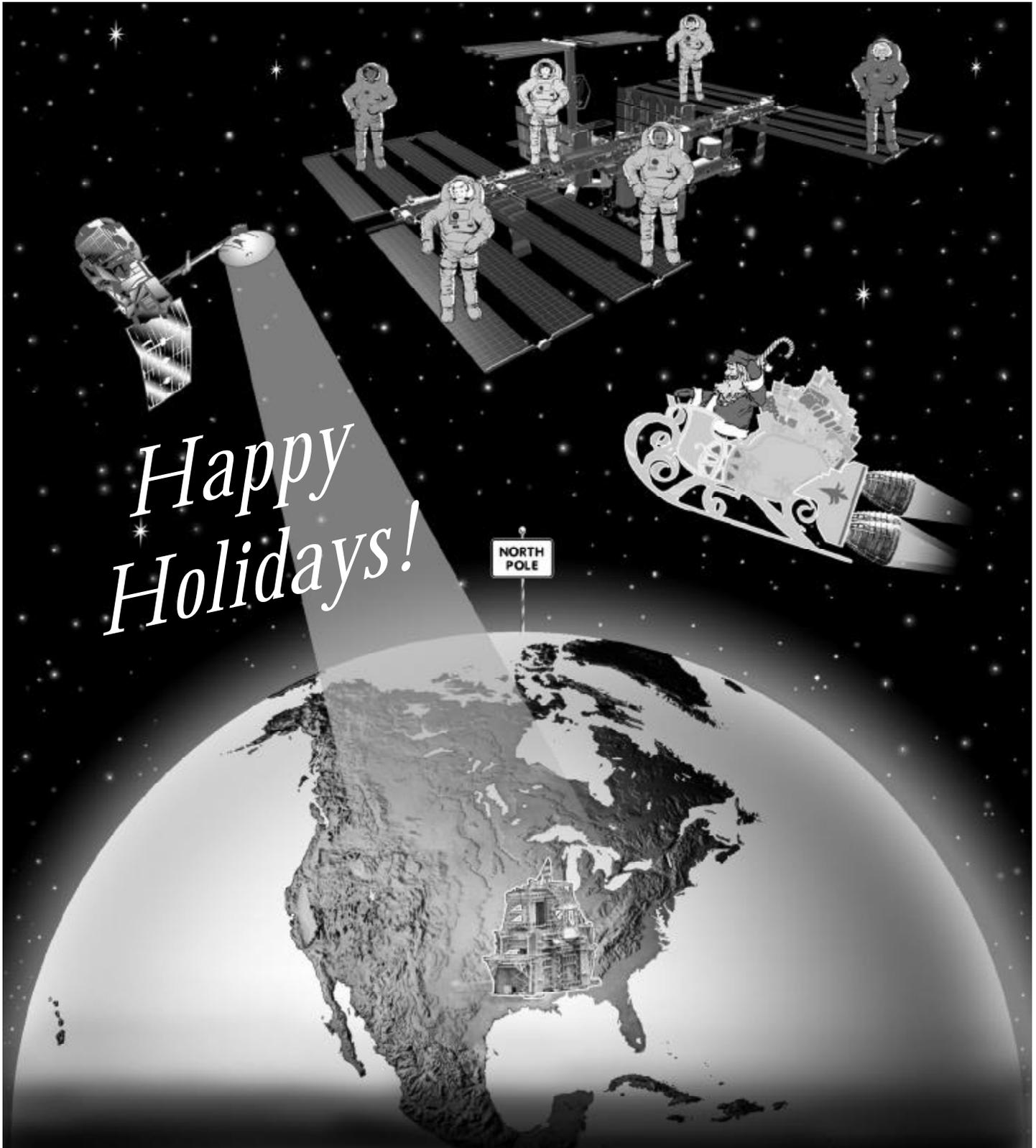
National Aeronautics and  
Space Administration

# LAGNIAPPE

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John C. Stennis Space Center

December 17, 1998



## LAGNIAPPE Commentary

### Gator's Christmas list...

Christmas is a season filled with all kinds of emotions. Of course, it's the happiest time imaginable for the youngsters so full of joy and anticipation that their little eyes light up as bright as their Christmas trees. Their smiles stretch from ear-to-ear, just like the most famous grin of all on the white-bearded face of old Saint Nicholas.

The season is also the one time of year that seems to bring out the best in all of us — 'tis the season of giving. For some reason, the yuletide holidays are also melancholy for me. I have never known why. Or, maybe the intensity of the special feelings makes me wonder why everyone can't be happy, and why all of the little children all over the world can't get just the gift they wanted.

I was having one of those pre-Christmas days when I was trying to write this commentary. When what did I hear out in the hall but a most familiar, "Ho, Ho, Ho!" No doubt about it, it was the Gator.

"What on Earth are you doing at the computer, Mr. Charles Dickens, making a list and checking it twice?" Gator asked, as he entered my office. He was all decked out like old Saint Nick and was gently ringing a decorated dinner bell.

"And why the frown on your face, my friend, this is supposed to be the happiest season of the year!"

"Aw, Gator, I always get this melancholy feeling during the Christmas season. I'll get over it in time to buy you a present!" I retorted.

"Well, my woebegone friend, for starters you can help me check off my Christmas 'To Do' list." Gator handed me a long roll of adding machine paper. I started unrolling the list and reading old Gator's tasks...

"Pick up a Barbie and a Brett Favre football for Toys for Tots; pack canned goods for Guatemala and Nicaragua; spend Saturday ringing a bell for the Salvation Army; prepare a basket for a needy family; help serve food for Feed My Sheep; take senior shut-ins groceries; take magazines and books to the hospital; visit patients in the Veterans Hospital," and the list went on.

"Gator, how in the world are you going to have time to do all this before Christmas?" I asked.

"Well, old friend, that's why I need some help. Besides the items on that list, I still have to write my Christmas cards, pick up presents for my friends and family and help decorate a tree for the kids. And of course, you must know, I have to get things ready for the Big Night," Gator closed in a whisper.

"Big night? What big night are you talking about, Gator?"

Gator just smiled and gently shook his gloved finger my way.

"Gotta get going. I've got miles and miles to go before I sleep!" Gator left with the bells on his red and white suit ringing as he disappeared down the hall. "Ho, Ho, Ho!"

After Gator left, I looked on my desk, and what did I see?

Gator had left his "To Do" list. When I unrolled it, written at the bottom in Gator's own handwriting was "Merry Christmas and good will to all!"

M.R.H.

## NASA NEWSCLIPS

**New cameras can see fog**—New digital video cameras installed by NASA at the San Carlos, Calif., airport control tower are helping to better report current weather conditions for aircraft landing at San Francisco International Airport, some 10 miles away.

Installed by engineers from NASA's Ames Research Center, Moffett Field, Calif., the Airport Approach Zone Camera System enables air traffic controllers and weather forecasters to track real-time onset and dissipation of fog and low clouds in the airport's approach zone.

The Airport Approach Zone Camera System will significantly reduce telephone calls between the FAA Oakland Center meteorologist and the San Francisco Air Traffic Control Tower.

The high-speed video cameras operate 24 hours-a-day and provide a 220-degree field of view with rotation, zoom and tilt capabilities.

The Airport Approach Zone Camera System is a joint effort between Ames, the FAA and NOAA. The project is managed by the aviation safety monitoring office at Ames and funded by NASA's aviation safety program.

**Boeing awarded NASA contract**—NASA has signed a contract modification with the Boeing Company of Houston, Texas, to supply additional engineering support and prelaunch testing for the International Space Station, increasing the prime space station contract held by Boeing by \$163.4 million.

Boeing was awarded the eight-year prime contract, currently valued at \$7.1 billion, for the construction and integration of the space station in 1995. The modification to the cost-plus-award-fee contract with Boeing Information, Space and Defense Systems has a value of \$163,477,000.

The modification will cover sustaining engineering for station elements, engineering support required after a component has been constructed and delivered to NASA, as well as support of multi-element integrated testing, a program which links the various station components together prior to launch.

Work on the contract may be performed at Boeing facilities in Huntington Beach, Calif.; Canoga Park, Calif.; Huntsville, Ala.; Orlando, Fla.; Houston, Texas; and at Honeywell Inc. in Glendale, Ariz.



## CFC and United Way drives once again exceed all goals

The Combined Federal Campaign and United Way charity drives have once again exceeded expectations by surpassing the goals set this year by both the federal-military agencies and industrial contractors at Stennis Space Center with a total contribution of \$305,319.

Becky Rotundo, with the Naval Research Laboratory at Stennis, was the site-wide coordinator of this year's Combined Federal Campaign.



As of Dec. 3, the Combined Federal Campaign had exceeded its 1998 goal of \$150,000, with a total federal-military employee donation pledge of \$181,267, an amount that is 20.8 percent higher than the set goal. Last year's total donation by federal employees was about \$148,000.

Dave Geiger with the Boeing Co. was chairman of this year's United Way drive among industrial contractors at Stennis. Industrial contractor employees at Stennis greatly exceeded this year's goal of \$110,000 by pledging \$124,057.

The amount raised by Stennis' federal employees through the Combined Federal Campaign exceeded the goal by \$32,429,  
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Stennis tour guide Joe Weems, left, helps Long Nguyen, center, a third-grade student at Oak Grove Upper Elementary School in Hattiesburg, Miss., and Elizabeth White, a sixth-grade student at Gulfview Elementary School in Lakeshore, Miss., reach the proper orbit to connect their modules of the International Space Station. The children were among more than 250 Mississippi and Louisiana students who attended the opening ceremonies of the Star Station One™ program.

## Visitors Center kicks off Star Station One™

The Stennis Space Center Visitors Center officially kicked off its participation in the Star Station One™ program Dec. 3.

The program is designed to build awareness of the International Space Station and was developed and organized by Bishop Museum of Honolulu, Hawaii, in cooperation with Space Center Houston and sponsored by the Boeing Co. The Visitors Center now offers timely demonstrations and programs to educate and excite the public about the International Space Station.

The program began with Myron Webb, NASA public affairs officer for Stennis Space Center, officially announcing the program's debut and emphasizing Stennis' commitment to

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## *Stennis Director's Holiday Message*

As we near the holiday season, I want to thank every member of the NASA/Contractor Team at Stennis Space Center for your dedication, hard work and outstanding accomplishments during this eventful year. Thanks to your energy and your talents, the future of this center has never been brighter!

During all my years at this center, only one other time have I witnessed as much change and advancements as we now experience. The opportunities abound, and we together are pursuing those that make sense.

I believe we all recognize that NASA has accomplished much in its

first 40 years. Stennis Space Center, with its multiagency environment and diverse technologies, has truly come of age in the past few years. In fact, I have seen even more cooperation throughout NASA during this year.

On a more personal note, it has been especially heartening for me to see the caring and charity of my colleagues at work during this year. Many of you have found time in your busy schedules to help shelter evacuees during Hurricane Georges, contribute some of your earnings to the United Way, to donate blood, to volunteer for Special Olympics and to give of yourselves and money to your favorite charities.

I am very proud of all of you, and I am very fortunate to be associated with such an outstanding group of professional people. It is my wish and prayer that you experience a wonderful holiday season and have a happy and healthy New Year. May you and your families, who do so much to support us all in our endeavors, be blessed.

Roy S. Estess

## Stennis 1998 year in review

New activities are setting a pace at Stennis Space Center that has not been seen since America's race to the moon during the Apollo era.

New propulsion programs, improvements to major rocket test facilities, and community outreach activities were among some of the exciting things that took place at Stennis in 1998.

As NASA's lead center for rocket propulsion testing, as well as for commercial remote sensing, Stennis Space Center plays a vital leadership role in the nation's space program. The Commercial Remote Sensing Program at Stennis continues to build the remote sensing industry of the United States through partnerships with more than 500 companies. The goal is to enhance U. S. economic competitiveness through the development of the multibillion dollar remote sensing industry.

### Propulsion Test Programs

Never before, as is the case today, have all major test stands at Stennis been equipped with rocket engines at the same time. The stands contain engines for today's Space Shuttle, as well as new engines that will power future rockets. These programs are ushering in a new era of space transportation for the United States and a bright future for Stennis Space Center.

The year began with the January 22 liftoff of Space Shuttle Endeavour, the first shuttle to use three, redesigned and enhanced main engines called Block II-A. Stennis was responsible for testing these engines and making sure they were ready for flight.

During a shuttle launch, three main engines operate for 8 1/2 minutes from liftoff to orbit. The



**Since 1975, Stennis Space Center has tested all main engines that power the Space Shuttle during the orbiter's 8 1/2-minute flight to space. Stennis made history in October by conducting the 2,000th test of a Space Shuttle Main Engine.**

engines had to be redesigned and made more powerful for the shuttle to deploy America's components of the International Space Station. Heavy space station hardware requires the shuttle to carry an additional 16,000 pounds into space.

The center made history in October by conducting the 2,000th test of the Space Shuttle Main Engine. Stennis has tested shuttle engines since 1975.

Stennis will also assemble and test the RS-68 engine and first-stage common booster core for Boeing's new Delta 4 rocket. Plans are to begin assembling the first RS-68 engine in September 1999.

The Delta 4 will be an unmanned, expendable rocket that will put commercial and government payloads into orbit. It is the first long-term commitment NASA has made that provides its propulsion test facilities at Stennis for commercial use.

The X-33 era at Stennis began in March with a series of facility evaluation tests on a stand previously used for shuttle engine tests. It has been converted and modified to test the X-33's linear aerospike engines. The X-33 is a prototype of the Reusable Launch Vehicle program. The program is a NASA-industry partnership that is designing a new generation of launch vehicles expected to dramatically cut the cost of putting payloads into orbit.

Lockheed Martin Skunk Works of Palmdale, Calif., is building the X-33 as a half-scale forerunner of the VentureStar™. Lockheed Martin plans to develop the VentureStar™ early in the next century.

See YEAR IN REVIEW, Page 5



**A 400-foot flame rose high above the 155-foot A-1 test stand on May 29 when Stennis personnel began a series tests to prepare for testing the power pack assembly for the X-33's linear aerospike engine.**

**Pictured above, Stennis won a contract to assemble and test the RS-68 engine and first-stage common booster core for Boeing's new Delta 4 rocket. The Delta 4 will be an unmanned, expendable rocket that will put commercial and government payloads into orbit.**

## YEAR IN REVIEW...

(continued from Page 4)

The Stennis team achieved the first successful test on the aerospike's powerpack assembly in October. The powerpack consists of the aerospike's main power generating and pumping components, including turbopumps. Stennis will begin full-scale engine tests in 1999.

Major hardware components for NASA's Low Cost Technologies program arrived May 7 at Stennis for testing. Fuel tanks and a 60,000-pound thrust engine, called Fastrac, make up the first stage of a small rocket booster. The program's goal is to reduce the cost of launching small payloads—up to 500 pounds—into low-Earth orbit.

Fastrac is one of the newest rocket engines developed in the United States in 25 years. Upon completion of development and flight certification tests in 1999, Fastrac will power the new, unmanned X-34 prototype.

### Commercial Remote Sensing

NASA is exploring new ways of doing business to develop faster, better and cheaper methods to acquire data for scientific research and make these results available to the American public.

The Commercial Remote Sensing Program Office's mission at Stennis is to enhance U.S. economic competitiveness by partnering with industry in the development of remote sensing technology. This is done by building the remote sensing industry through

**NASA's Bruce Spiering, left, with the Earth System Science Office at Stennis, explains to industry representatives how the Plant Chlorophyll Meter he developed works during a technology briefing held by NASA's Technology Transfer Office.**



**This Landsat image of the Nile River in Egypt is a sample of imagery provided through the Science Data Buy. This project, managed by the Commercial Remote Sensing Program, will be buying imagery from five companies to support the science community during Phase II of the data buy.**

joint partnerships with companies, agencies and centers of learning in the United States.

Remote sensing is the ability to acquire and produce images of specific areas of Earth using sensors mounted on aircraft or satellites. Stennis Space Center is NASA's lead center for remote sensing within the Earth Science Enterprise.

Examples of remote sensing applications include: finding the best routes for highways; determining placement of utility lines; and determining the amount and the best time to irrigate and fertilize crops.

One of the projects the CRSP office worked on this year was the second phase of the \$50 million Science Data Buy. During this phase, approximately 15 terabytes of data will be purchased from five companies. The data will be available for global environmental research within NASA's Earth Science Enterprise.

The companies selected to participate in Phase II of the data buy are AstroVision, EarthSat Inc., Earthwatch Inc., Positive Systems Inc. and Space Imaging Inc. Data provided by these companies address the scientific research themes of land cover and land use research and natural hazards research and applications.

Phase II will run through Sept. 2001. In the future, NASA will continue to purchase data from the commercial sector and work to understand scientific needs and industry concerns. This investment, to promote cooperation between science and industry, is good for the country and good for the world.

### Earth Science Research

The Earth System Science Office continued its study of the world's oceans in partnership with the Naval Oceanographic Office (NAVOCEANO), also located at Stennis.

A NASA scientist accompanied NAVOCEANO scientists on an overseas cruise to determine if information gathered by remote



**NASA's Tom Stanley, left, with the Commercial Remote Sensing Program Office, discusses with Richard Campanella, center, and Jim Johnson, both with the Institute for Technology Development, a project demonstration CRSP did for the Mississippi Department of Transportation.**

## YEAR IN REVIEW...

(continued from Page 5)



**Nick Theobald, a participant in Stennis Space Center's Astro Camp, uses a computer to learn about astronomy during one of the week-long summer day camps.**

sensing satellites is correct.

The scientist also traveled to the Czech Republic to assess recovery and revitalization efforts of one of that country's major forests. The soil became acidic and did not support life very well because of acid rain caused by pollution. The pollution has come from different sources, particularly from the burning of coal and wood during the industrial revolution in Europe.

Scientists with the Earth System Science Office also developed two new technologies that can help determine if plants are becoming sick before the trouble signs become visible to the human eye. This will help farmers determine the best methods to improve the health of crops and could help save forests.

Research also continued in 1998 on Louisiana's Barataria Bay, where NASA Earth scientists are studying the role of the bay in the global carbon cycle, which is critical to life. This research might provide new information with regard to shrimp and oyster production in the bay. This research complements remote sensing studies on the health of Lake Pontchartrain and the occurrence of red tide along the Louisiana coast.

### Technology Transfer

The wealth of technology resulting from space exploration is a valuable national resource and an investment in the future.

The mission of the Technology Transfer Office at Stennis Space Center is to share and help develop NASA technology, products and services for use by the private sector to create jobs, improve productivity and increase U.S.

competitiveness.

More than 40 representatives from 31

briefings earlier this year. The purpose of the briefings was to seek qualified companies

commercial uses for two NASA technologies designed to detect the amount of chlorophyll in

### Education Programs

In 1998, the NASA Education and

busy as it continued to provide support to the education systems in Mississippi and St.

Education Initiative Consortium.

The consortium is a partnership among

Mississippi and 19 member school districts. The consortium supports the school districts



**Astronaut John Phillips talks with children during StennisFEST at the Mall of Louisiana in Baton Rouge.**

for the high-tech job market of the 21st century. Technology

designed to fit the needs of each school. In addition, the consor-

going through the National Board Certification process.

More than 100,000 visitors came to see new, interactive

37,000 children from area schools attended education programs at

Visitors Center personnel were extremely active in outreach

included: Summer Reading Programs at area libraries, state



**Apollo 13 astronaut Fred Haise, left, speaks with David Brannon, right, program manager of the Commercial Remote Sensing Program Office at Stennis, during NASA's 40th anniversary activities held at Stennis in October.**

hockey game.

NASA and other agencies located at Stennis showcased their programs and achievements at StennisFEST, held at the Mall of Louisiana in Baton Rouge April 30 through May 2. More than 25,000 people toured the exhibits, and approximately 6,000 students and Scouts participated in "Living and Working in Space" programs that were conducted throughout the event.

In October, area community leaders helped celebrate NASA's 40th Anniversary and NASA's close association with the surrounding communities since the beginning of Stennis Space Center.



**Leo Seal, chairman of the board of directors of Hancock Bank; Dwight Evans, president of Mississippi Power; Co.; and George Schloegel, president of Hancock Bank were among the many community leaders that viewed the historic launch of John Glenn and the STS-95 crew.**

## Clarke puts his heart and soul into his work

Engineer Andrew Loyd (Bo) Clarke has left his mark on all the structures he has helped build from one end of Stennis Space Center to the other.

As a project engineer in the Facilities Engineering Division, Center Operations Directorate, the Mississippi born and bred engineer is right in the middle of the center's continuing building boom as Stennis prepares to meet its many challenges in the 21st century.

Born in Columbus, Miss., the 40-year old engineer has really never strayed far from his Mississippi roots. He grew up in Gulfport and is a Gulfport High School graduate. Clarke went on to Mississippi State University at Starkville where he received a bachelor's degree in civil engineering.

Following graduation, he began working with the Mississippi Department of Transportation in a job he has said he greatly enjoyed. He left the highway department in 1985 to work closer to his home at the Naval Construction Battalion Center (Seabee Base) located in Gulfport. In this position he worked as a project engineer on construction projects from Pascagoula to Stennis Space Center. This job brought him to the center often. By chance, in 1987 he met now retired NASA engineer Jack Rogers at an airport, and during the resulting conversation he became aware of an engineering position at Stennis.

One month later, Clarke became one of the first new engineers hired to help with major projects under way at that time, such

*"I believe the work we are doing in educating our young people in science and math may be the most important thing we do here."*

Bo Clarke



as the Advanced Solid Rocket Motor test stand and the Component Test Facility. Interestingly, Clarke recalls first hearing about Stennis Space Center back in the 1960s when his father worked on a project here during the building of the test facility.

As a member of the Stennis team, Clarke threw himself into the job, learning as much as he could about the center's activities. One of the best characteristics of this soft spoken, popular engineer is that he gets involved in his "customer's projects" in order to make sure a particular facility is built right. He is excited about the work of all lines of business at Stennis and is undaunted in meeting the challenges of his day-to-day activities. Furthermore, he believes that Stennis will have an exciting and bright future in the new millennium.

Clarke makes himself available to help out in education and public affairs activities by judging science fairs and giving talks in the community.

"I believe the work we are doing in educating our young people in science and math may be the most important thing we do

### SSC Employee Profile



here," the serious-minded Clarke said. "If we don't bring a new generation along to compete in technology, our country may well perish."

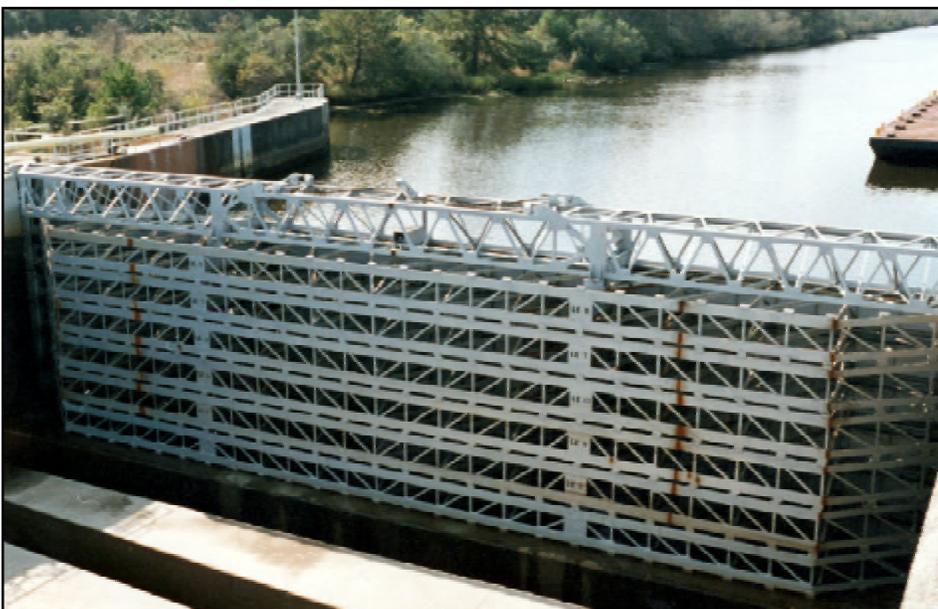
He is also active in community affairs, especially in helping with youth activities in Long Beach, Miss.

His 12-year old son, Drew, is involved in peewee hockey, soccer, basketball, baseball and football. Clarke is involved in coaching, organizing and "participating" as a fan. He is also active in the local sailing community. In fact, he serves on the board of the Long Beach Yacht Club and has won numerous handicap races. In addition, he and his wife, Debbie, and their children, Shannon and Drew, are active in their church.

Debbie is currently working on her master's degree and also works for NASA at Stennis as team lead of the commercial accounting and financial services branch for the financial management division in the office of the chief financial officer.

Shannon graduated from the nursing program of the University of South Alabama this month.

Clarke has said that he is not interested in pursuing his career elsewhere, even if the compensation may be greater. It is reassuring to know that Clarke will be around, continuing to leave his mark on Stennis, his friends, fellow employees and the young people of Mississippi for generations to come.

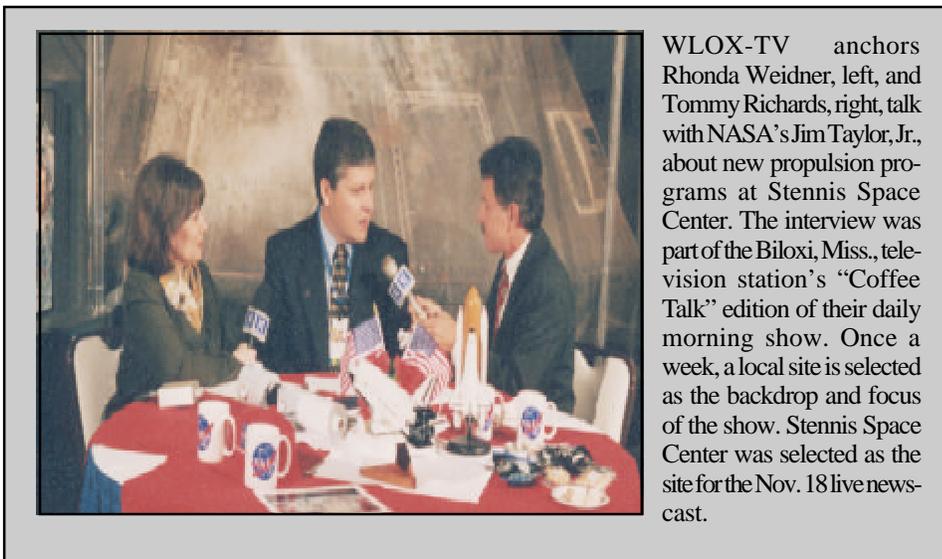


**Renovation of the canal lock system at Stennis began November 1. The work is being performed in two phases. Phase one consists of emptying the locks of water, replacing wooden timber fenders and cleaning and painting the metal parts of the lock system. T.C. Broome Construction Inc. of Pascagoula, Miss., is the contractor for phase one. Phase two is being performed by the Johnson Controls World Services Inc. shops at Stennis. This group will repair the mechanical working parts of the locks, including the seals that hold back the water, and repair the seals on the valves that are used to fill and drain the canal during locking operations. The 7 1/2-mile, man-made canal system, once used to carry the stages of the Saturn V launch vehicle and propellants to the test stands, still carries some propellants, and now serves as a transportation system for the National Data Buoy Center. The project is scheduled for completion by December 31.**



## International Space Station Assembly Sequence

Date	Launch Vehicle	Elements
11-20-98	Russian Proton	Zarya
12-03-98	STS-88 (Endeavour)	Unity
05-13-99	STS-96 (Discovery)	Spacehab Double Cargo Module
7-99	Russian Proton	Service Module
08-05-99	STS-101 (Atlantis)	Spachab Double Cargo Module
10-28-99	STS-92	Integrated Truss Structure; PMA-3; Ku-band
12-02-99	STS-97	Integrated Truss Structure P6
01-00	Russian Soyuz	1st ISS crew
02-00	STS-98	U.S. Lab Module
03-00	STS-102	Logistics and resupply
04-00	STS-100	Leonardo MPLM
07-00	STS-104	Joint airlock high pressure gas assembly



WLOX-TV anchors Rhonda Weidner, left, and Tommy Richards, right, talk with NASA's Jim Taylor, Jr., about new propulsion programs at Stennis Space Center. The interview was part of the Biloxi, Miss., television station's "Coffee Talk" edition of their daily morning show. Once a week, a local site is selected as the backdrop and focus of the show. Stennis Space Center was selected as the site for the Nov. 18 live newscast.

Tom Stanley, right, with the Commercial Remote Sensing office, is presented a plaque by Ralph Lawrence, NASA associate administrator for small and disadvantaged business. Stennis was presented this award for achieving all goals for small, small disadvantaged and small woman-owned business contracting for fiscal year 1997.



## National Data Buoy Center director retires

A pioneer of the computing age and participant in America's frantic race to the moon, Dr. Jerry McCall, will retire at the end of this year.

McCall, currently the director of the National Data Buoy Center at Stennis Space Center, a position he has held for the past 21 years, will begin his first day of retirement on Jan. 3, 1999.

"Right now, the only plans I have for my future include getting back to my former level of physical fitness and getting better acquainted with my four grandchildren," McCall said.

Throughout his career, McCall has been involved in many different jobs in many different places. To an employee working at Stennis Space Center, the one job that stands out on McCall's resume is the one he held as personal assistant to Dr. Werhner von Braun.

From 1960 to 1966, McCall worked at the Marshall Space Flight Center in Huntsville, Al., with von Braun, who was the director of the center. The center built the Saturn launch vehicle for the lunar landings.

"Von Braun was a great leader with great vision," McCall said. "There are a lot of stories that could be told (about working with von Braun)."



McCall



**This Saturn V ornament is just one of many handcrafted ornaments that were placed on the Christmas tree in the Visitors Center lobby. The ornaments were made by children from NASA/SSC's two adopted schools -Charles B. Murphy Elementary School in Pearlington, Miss., and West Side Elementary School in Picayune, Miss.**

## Workforce representative visits Stennis *Jackson State and NASA work together*

Dr. Bettye Fletcher, vice president of Research and Development at Jackson State University, visited Stennis Space Center Dec. 8 to further develop relationships between the university and the Center.

"We are exploring the landscape to see what possibilities and opportunities are available at Stennis," said Fletcher.

Jackson State University is currently one of the Centers of Excellence for Geospatial Studies in Workforce Development Education and Training (WDET).

WDET has been given the task of ensuring that a trained work force will be available to populate the commercial remote sensing industry.

The centers of excellence will offer degrees in remote sensing related fields.

"Additionally, we will be looking to Jackson State to help us in at least two areas that need support—teacher training and staff preparation," said Dr. George Leggett, director of WDET.

"I am familiar with the university's teacher training program and I am very impressed," Leggett said.

While at Stennis, Fletcher was briefed on the Commercial Remote Sensing Program. She also visited the Naval Research Laboratory, the Naval Oceanographic Office and the Center of Higher Learning.

"We feel that this visit is extremely important in developing relationships with the agencies at Stennis," Fletcher said. "The next step in the process will be getting our faculty linked with scientists in NASA and the Navy."

Dr. Loretta Moore, chairperson of the computer science department at Jackson State University, and Julius Baham, associate director of the GIS and Remote Sensing Lab at the university, accompanied Fletcher on this visit.

The visit was hosted by NASA's Education and University Affairs office at Stennis. Dr. David Powe, chief of Education and University Affairs, was pleased with the visit.

"We are always looking for new and exciting opportunities that will enhance education in the areas surrounding Stennis Space Center, and Mississippi as a whole," Powe said.

## STAR...

(continued from Page 3)

sharing with the public the fascinating venture of constructing a huge laboratory in space.

"Stennis Space Center is delighted that our Visitors Center has been chosen as one of only 60 museums around the country to feature new educational and fun demonstrations for everyone," Webb said. "The International Space Station promises new medicines, materials, technologies and career options to benefit everyone on Earth. The Star Station One™ program is important because it will allow the public, and especially our youth, a resource for information about what's happening in space."

Dave Geiger with Boeing/Rocketdyne Propulsion and Power at Stennis gave a brief presentation on that company's contribution to the International Space Station. Boeing/Rocketdyne at Stennis tests every Space Shuttle Main Engine for NASA that helps send the shuttle into orbit.

A representative from the Michoud Assembly Facility in New Orleans, La., also gave a presentation on that NASA facility's role in the International Space Station. The facility constructs the External Fuel Tank that provides the fuel for the shuttle's main engines. To help the shuttle lift the heavier space station payloads, Michoud designed and constructed the Super Lightweight External Tank that is five percent lighter than previous tanks.

Following the presentations, the first program in a series of live demonstrations, "Get It Together," premiered in front of an audience of more than 280 visitors and students. This live, interactive demonstration explained to the audience and participants the challenges of getting station modules into orbit and putting them together in the weightlessness of space.

A regular series of Star Station One™ presentations titled "Star Station One™ at Two" will be conducted at 2 p.m. each Saturday and Sunday. Those education programs will also be incorporated into all live presentations conducted at the Visitors Center. These entertaining and informative presentations will allow the public to have continuous, up-to-the-minute knowledge of the station.

As a partner in the Star Station One™ program, Stennis' Visitors Center will also be provided with 1/50th scale "build-as-you-go" modules to replicate construction of the space station as it evolves. After three years, the Visitors Center will have constructed a complete International Space Station model, including its living quarters, working spaces and research modules.

For more information, call the Stennis Visitors Center at 1-800-237-1821 option 1, in Mississippi and Louisiana, or (228) 688-2370.



Information provided by NASA's Safety Reliability and Quality Assurance Office

## Safety first

During Dan Goldin's recent address to Stennis, he presented us with a challenge to put NASA number one in safety within the next five years. According to the Administrator, NASA has an excellent safety record, but NASA has a higher injury frequency and lost time rate when compared to private industry. He specifically mentioned the DuPont Company and that perhaps we could learn from their safety success.

In 1995, some 105,000 DuPont employees operated 300 facilities in 70 countries with only 41 lost workday cases. Some plants with more than 2,000 employees have operated for over 10 years without a lost-time injury. How are these impressive safety records achieved and sustained? DuPont adopted a "zero" goal for injuries, illnesses and incidents and they consider this goal a core value that is as important as other business parameters.

Safety and mission success are core values within NASA, and the Administrator places safety first. Stennis Space Center and its contractor teams have a safety-first policy, and this has resulted in injury frequency and lost time rates below the aerospace industry average. But there is room for improvement. To meet the Administrator's challenge, our goal must be "zero injuries and incidents." This is an aggressive goal. In coming issues of Lagniappe, Safety Corner will highlight Stennis' safety initiatives to meet that goal.

Note: Information on the DuPont Company was obtained from their web site at dupont.com

## LAGNIAPPE

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NASA at SSC is on the Internet at <http://www.ssc.nasa.gov>

## QUICK LOOK

■ **The following will be closed on Dec. 25 and Jan. 1 in observance of Christmas and New Year's:** Rightway Travel, airport dispatch, the barber shop, cafeteria, clinic, communications, Stennis Child Development Center, janitorial services, logistics, JCWS mail service, APG, snack bar, taxi service and the U.S. Post Office. The Wellness Center, the Visitors Center will be closed Dec. 25 only. Corporate Cleaners will be closed Dec. 24 through Jan. 4. The NASA Exchange store will be closed Dec. 31 and Jan. 1.

## CFC...

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which is 22 percent greater than the previous record high, set in 1997.

Contributions raised from both the Combined Federal Campaign and the United Way are distributed worldwide to a variety of charitable, nonprofit health and human services organizations. The contractor employee donations can at their request be dispersed to United Way member agencies serving Hancock, Harrison and Pearl River counties in Mississippi, as well as the Greater New Orleans area, which includes St. Tammany and Tangipahoa parishes in Louisiana.

Stennis Space Center Combined Federal Campaign activities are a division of the Mississippi Gulf Coast campaign, which solicits contributions from 22,000 federal employees coastwide.

## Weidler named associate administrator

NASA Administrator Daniel Goldin recently named Dr. Edward Weiler as Associate Administrator for NASA's Office of Space Science.

Weiler has served as acting Associate Administrator since Sept. 28, following the departure of Dr. Wesley Huntress, Jr.

In this capacity, Weiler is responsible for providing overall executive leadership of NASA's Space Science Enterprise. This enterprise aims to achieve a comprehensive understanding of the origins and evolution of the solar system and the universe, including connections between the sun and the Earth, the beginnings of life and the question of whether life exists elsewhere beyond Earth. It also is charged with communicating this knowledge to the public.

Weiler was appointed as Science Director of the Astronomical Search for Origins and Planetary Systems theme within the Office of Space Science in March 1996. He will continue to serve as the Program Scientist for the Hubble Space Telescope, a position he has held since 1979, until a replacement for that position is selected. Weiler joined NASA in 1978 as a staff scientist.



National Aeronautics and Space Administration

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