



Spaceport News

America's gateway to the universe. Leading the world in preparing and launching missions to Earth and beyond.

<http://www-pao.ksc.nasa.gov/kscpao/snews/snewstoc.htm>

John F. Kennedy Space Center

NASA's Swift launches to solve mystery

NASA's Swift satellite successfully launched Nov. 20 aboard a Boeing Delta II rocket at 12:16 p.m. EST from Launch Complex 17A at the Cape Canaveral Air Force Station.

The satellite will pinpoint the location of distant yet fleeting explosions that appear to signal the births of black holes.

Approximately 80 minutes after launch, the spacecraft was successfully separated from the Delta second stage. It has also been confirmed that the solar arrays are properly deployed.

Each gamma-ray burst is a short-lived event, lasting only a few milliseconds to a few minutes, never to appear again. They occur numerous times daily somewhere in the universe, and Swift should detect several weekly.

Swift, a mission with international participation, was designed to solve the 35-year-old mystery of the origin of gamma-ray bursts. Scientists believe the

bursts are related to the formation of black holes throughout the universe, and are actually the birth cries of black holes.

To track these mysterious bursts, Swift carries a suite of three main instruments. The Burst Alert Telescope instrument will detect and locate about two gamma-ray bursts weekly, relaying a rough position to the ground within 20 seconds.

The satellite will swiftly re-point itself to bring the burst area into the narrower fields of view of the on-board X-ray Telescope (XRT) and the UltraViolet/Optical Telescope (UVOT). These telescopes study the afterglow of the burst produced by the cooling ashes that remain from the original explosion.

The XRT and UVOT instruments will determine a precise position of the burst and measure the spectrum of its afterglow from visible to X-ray wavelengths.

For most of the bursts detected, Swift data and comple-



THE ENGINES of a Boeing Delta II expendable launch vehicle ignite to blast NASA's Swift spacecraft on its way at Complex 17A, Cape Canaveral Air Force Station, on Nov. 20 at 12:16 p.m. EST. Swift, a mission with international participation, aims to solve the 35-year-old mystery of the origin of gamma-ray bursts.

mentary observations conducted with ground-based telescopes will enable measurements of the distances to the burst sources.

For more information about Swift, visit: <http://www.nasa.gov/swift>.

Spaceport security guard honors visiting war veterans

By Linda Herridge
Staff Writer

Great contributions to the welfare of our world call for expressions of gratitude and appreciation. That's what Joe Fay, Space Gateway Support security officer, showed when a group of World War II veterans recently toured Kennedy Space Center facilities as part of their annual Veteran's Day reunion.

Fay was on guard duty at Launch Pad 39A when a bus carrying a dozen veterans from the Regimental Weapons Company, 24th Marines, Fourth

Marine Division pulled up for a tour. The veterans fought in Saipan, Tinian, Roi-Namur and Iwo Jima. Moved by what he saw, Fay asked for permission to board the bus and speak to the men, who are in their 80s.

"Current events were at the forefront of my mind based on what's going on in the world," Fay said. "I felt the need to personally thank these veterans for their bravery, and let them know that the life we live today is basically due to their courage."

After exiting the bus, Fay, the father of six children, offered a heartfelt salute to each of the

veterans as they drove around the pad. When the bus returned to exit the area, Fay stood at attention and again saluted the men until the bus was out of sight.

According to tour escorts, Russ Lloyd and Peter Chitko, the simple gesture brought a great sense of pride and tears to the eyes of the touring veterans. Lloyd is former chief of Shuttle Facilities Division and Chitko is chief of the External Tank and Solid Rocket Booster Launch Accessories Branch.

"Throughout the history of



JOE FAY, a Space Gateway Support security officer.

(See FAY, Page 2)



Jim Kennedy
Center Director

The Kennedy Update

Greetings, everyone! I hope you all had a wonderful Thanksgiving and are looking forward to the upcoming holiday season. It'll still be busy around KSC, but I hope you find some quality time with family and friends.

NASA is saying goodbye to a living legend and a giant within the Agency this month with the retirement of John Young. There is a special celebration in his honor Tuesday at the Air and Space Museum in Washington.

His career truly defines the history of NASA success: He was the first person to fly into space six times. He first flew with Gus Grissom in the Gemini program in 1965.

He walked on the Moon with Charlie Duke as part of Apollo 16 in 1972. He commanded STS-1, the first Space Shuttle launch in 1981, and flew his final

mission on STS-9 in 1983, the first Spacelab mission.

In reality, this only begins to scratch the surface. John Young will be missed, but his legacy of success, triumph and accomplishment will live on at NASA.

I want to invite everyone to my annual Holiday Coffee from 8:30 - 11:30 a.m. Dec. 14, held on all four floors of the KSC Headquarters building. I'll be out and about and I look forward to meeting with you and wishing you a great holiday season.

If last year is any indication, bring an appetite, because the goodies will be incredible. See you then!

Admiral Craig Steidle, Associate Administrator of the Office of Exploration Systems, will be at KSC Dec. 16, hosting a leadership workshop as part of our One NASA transformation effort. Dr. Phil Meade, Vicki

Novak, Mary Kicza and the team will release more details soon.

I believe attending any of the day's events will be beneficial and worth your time. The main session will be broadcast on local NASA-TV and builds off of last year's event. I know Adm. Steidle has tremendous insight to offer as the person leading the Vision of Space Exploration effort.

This week I'm hosting the NASA KSC leadership team at Dodger Town for off-site strategic planning, looking at the future of KSC and its programs. As in the past, we'll continue to lay the path the Center will follow to accomplish our important missions, ranging from Space Shuttle Return to Flight to supporting future programs sending humans back to the Moon, then to Mars and beyond.

Look to my columns in the future, as I'll discuss our results and will continue to appreciate your thoughts as we "create our future" for KSC.

If you happen to be in the Orlando International Airport during the holiday season, look for the new Kennedy Space Center Visitor Complex store in Terminal A. It joins the existing store in Terminal B.

This is a super way to highlight the space program and to draw more visitors to KSC to see what we do. Hopefully, they'll then become full-fledged supporters of our nation's space program. Congrats to Delaware North for the opening and I look forward to the ribbon cutting Monday.

Take care, everyone and we hope to see you at the Holiday Coffee!



SPACE SHUTTLE ASTRONAUTS John Young and Robert Crippen (in space suits left to right) are greeted by members of the ground crew after stepping off the Space Shuttle Columbia after STS-1. Young, who first flew with Gus Grissom in the Gemini program in 1965, is retiring from NASA.

NASA's next mission: Deep Impact set for January launch



ON LAUNCH PAD 17-B at Cape Canaveral Air Force Station, another Solid Rocket Booster arrives at the pad. It will be lifted up the mobile service tower and attached to the Boeing Delta II launch vehicle for launch of the Deep Impact spacecraft. A NASA Discovery mission, Deep Impact

will probe beneath the surface of Comet Tempel 1 on July 4, 2005, when the comet is 83 million miles from Earth, and reveal the secrets of its interior. At press time, the spacecraft is scheduled to launch no earlier than Jan. 8, 2005. Deep Impact management is handled by the Jet Propulsion Laboratory.

Visitor Complex, Space Walk of Fame offer holiday discounts

Through Dec. 24, all badged Kennedy Space Center and Cape Canaveral Air Force Station employees receive a 30 percent discount at all Visitor Complex retail locations, including the Space Shop at the main Visitor Complex and the gift shop at the U.S. Astronaut Hall of Fame. Present your badge at the will call ticket window to receive a complimentary limited admission ticket for shopping. You must present your badge at the time of purchase.

* The Space Walk of Fame Museum and Gift Shop, located within the Searstown Mall in

Titusville, is offering a 15 percent discount to all badged KSC and CCAFS personnel until Dec. 23.

FAY . . .

(Continued from Page 1)

our nation, our military has always stepped up when we needed them," said Fay, who has worked at KSC since 1989. "I just wanted to give credit where credit is due."

During Veteran's Day, the KSC family honored the memory of those who served before and remembered those who are serving now.

Co-workers inspire NASA employee of the year

By Linda Herridge
Staff Writer

It's easy to see why U.S. Air Force Master Sgt. Juan Riquelme, on loan to NASA as logistics engineering manager for the Cape Canaveral Spaceport Management Office (CCSMO), received the 2004 NASA Employee of the Year Award from his directorate.

"Juan is an outstanding employee...the ultimate team player," said Bill Roy, lead in the CCSMO for Logistics Operations. "He brings much-needed technical expertise and experience in calibration and metrology to the organization and the spaceport."

According to Riquelme, it's his co-workers that inspire him to do his best. "I see the people I work with and their caliber of work. It is very motivating," he said. "Receiving this award is overwhelming."

Riquelme became project manager for the Joint Base Operations Services Contract's (JBOSC) vehicle operations and maintenance in 2003, and he works closely with the Spaceport Services directorate. In vehicle operations, he brings Kennedy Space Center, Cape Canaveral

Air Force Station, the 45th Space Wing at Patrick Air Force Base and the Range Management Squadron together and establishes partnerships.

He also serves as logistics manager for various spaceport laboratories. These include Non-Destructive labs (NDE), sampling and cleaning labs at KSC, the NASA and Air Force calibration labs, primary lab facilities at PAFB, CCAFS and KSC, and the portable labs from CCAFS that visit Antigua and Ascension Islands in the Atlantic. Riquelme said his office oversees any device that takes measurements. His current projects include redefining what the NDE labs need to respond to the new tasks assigned to KSC from the Columbia Accident Investigation Board requirements.

"This is a very important project that is vital to the success of our Return to Flight," said Riquelme.

This work requires interfacing with KSC's Spaceport Engineering and Technology and Space Shuttle Processing directorates. He also supported requests from Johnson Space Center in Houston and Marshall Space Flight Center in Huntsville, Ala.

Riquelme helped in saving \$236,000 on the JBOSC contract by combining the efforts and assets of CCAFS and PAFB to bring its Precision Measurement Equipment Labs up to global standards. The CCAFS and KSC labs were recently recognized nationwide for setting standards, identifying new processes and discoveries, and as Agencywide trendsetters in the areas of calibration and metrology, he said.

When not at work, Riquelme is studying for his Bachelor of Science degree in Technical Management at Embry Riddle Aeronautical University. He also enjoys hunting and camping and serves as an assistant scoutmaster for Boy Scout Troop 362 in Rockledge.

Riquelme was stationed at Mountain Home Air Force Base in Idaho prior to coming to KSC. He served as a production supervisor and coordinated intersquadron aircraft maintenance



U.S. AIR FORCE Master Sgt. Juan Riquelme is a logistics engineering manager for the Cape Canaveral Spaceport Management Office.

efforts, which he said was quite a challenge when the F-16 and F-15 fighters were all lined up for service at the same time. In his spare time there, he worked with kids in the base youth center and was a scoutmaster.

The youngest of two brothers and one sister, Riquelme was born in Cuba just before his parents came to the United States in 1961. He lived in New York most of his life before joining the Air Force and eventually arriving on the Space Coast.

NASA Values: Lewis believes in safety for all

To stress the importance of NASA's commitment to the shared values of safety, the NASA family, excellence and integrity, the Kennedy Space Center Star Alignment Team held an essay contest encouraging employees to submit what one of these values meant to them and to give examples of how it is demonstrated at the Center. This winning essay addresses safety:

By Pattie Lewis
ITB, Inc.

We are "committed, individually and as a team, to protecting the safety and health of the public, our partners, our people and those assets that the nation entrusts to us. Safety is the cornerstone upon which we build

mission success," according to NASA's definition of the safety value.

To me, that means that NASA is not only concerned with the safety and health of the people directly involved in the space program at this time, but everyone, everywhere, now and in the future. It means that the environment and life here on Earth are as important as any distant environment or life we may find out in the great beyond.

As a member of the Acquisition Pollution Prevention (AP2) Office team, I see firsthand the commitment to finding those products that are safest for our workers, have minimal impact on the environment and are capable of protecting NASA's assets, on Earth and in space. That is not

always an easy task with our unique mission requirements.

Many of the products we currently use were chosen because of their specific properties to protect against corrosion, heat or cold, or any number of conditions that other industries do not have to consider. And these products were chosen before we had knowledge of any possible detrimental side effects of their use.

Since we have learned of these hazards, however, every effort has been made to protect our workers and the environment while we diligently work to find alternatives that are safe and still meet our strict performance requirements.

I am proud to work with the AP2 team in its search for



PATTIE LEWIS of ITB, Inc. wrote the winning NASA Values Essay on safety.

worker-safe and environmentally friendly alternatives. We have a robust program that works together with all the NASA centers and contractors to pool our resources so that we can find common solutions to uncommon problems.

Sixth-graders discover a backyard full of rockets

By Cheryl Mansfield
Staff Writer

By the thousands, sixth-grade students from throughout Brevard County recently descended upon the Kennedy Space Center Visitor Complex. The second annual Brevard Space Week was celebrated Nov. 15-19, giving every sixth grader in the county a full day to take an up-close look at what many had only seen from their backyards: the wonders of space flight.

Brevard has been home to space exploration since the 1960s, so today's sixth graders - born in 1993 - could easily feel the Space Program's launches are routine. But during the week-long event, 1,200 students per day were inspired by demonstrations, a 3-D IMAX movie and a veteran astronaut.

All of this was devised to show the value of space exploration and inspire them to join in the quest by studying hard and dreaming big.

Astronaut John Blaha, a veteran of six Space Shuttle flights and four months aboard the Russian Mir space station, spoke to the students about the importance of their current education as a foundation for anything they choose to do in life.

"Each one of you can contribute to making planet Earth a

WITH THE VISITOR COMPLEX'S full-size Space Shuttle mock-up behind them, students look on as a high school robotics team shows off its creation during Brevard Space Week.



better place to live in your life," Blaha told the attentive crowd. "If you put the effort in, you can do anything you want to do."

Blaha shared personal experiences of living and working in space, while showing a video of his time aboard Mir in 1996. Later, Damon Talley of Kennedy's Center For Space Education captivated the students with an experiment using liquid nitrogen and a demonstration on the way gyroscopes steer spacecraft.

After learning about the

construction of the International Space Station through a 3-D IMAX movie, participants were treated to numerous demonstrations throughout the Shuttle Plaza at the complex. A poster contest with the theme "Return to Flight" brought out the artist in many students, resulting in 170 posters that were displayed during the week.

Other highlights included watching a Brevard County High School robotics team show off its creation, learning how Space Shuttle tile material resists heat,

viewing a hydroponics display and hearing a Return to Flight briefing.

The week is just part of a cooperative space curriculum developed by NASA, Brevard Public Schools and the Visitor Complex to emphasize the importance of math and science through fun space-exploration activities. By the end of the week, more than 6,000 students participated in a one-of-a-kind learning experience aimed at inspiring the next generation of scientists and astronauts.



VISITOR COMPLEX staff presented briefings to students attending Brevard Space Week, including updates on the Space Shuttle's Return to Flight.



VETERAN NASA astronaut John Blaha answers questions from students in the IMAX Theater during Brevard Space Week.

Wiring new Space Shuttle wing sensors is an inside job

By Anna Heiney
Staff Writer

Returning the Space Shuttle to flight is so important to Lisa Campbell, she's willing to spend 10 hours a day crawling around on her hands and knees to help make it happen.

Campbell, an aerospace technician with United Space Alliance, spends most of her time in a crawlspace deep inside the left wing of Space Shuttle Discovery, installing temperature sensors within the wing's leading edge. The sensors are part of the Wing Leading Edge Impact Detection System, a new safety measure added for all future Space Shuttle missions.

The system also includes accelerometers that monitor the orbiter's wings for debris impacts during launch and while in orbit. Sensor data will flow from the wing to the crew compartment, where it will be transmitted to Earth.

Campbell leads the team installing the sensors on Discovery's left wing. There are 22 temperature sensors and 66 accelerometers on each wing.

Rather than wire and install each sensor one at a time, the work is being done in three phases. Technicians already have completed the first step, which involves bonding nuts to the wing at specific attach points.

Now the crew is completing the second process, routing wires to each of these locations from relay boxes located on the sidewall of the main landing gear and the wing glove, the forward portion of the wing. Finally, they



UNITED SPACE ALLIANCE aerospace technician Lisa Campbell leads the team installing the sensors on Discovery's left wing. There are 22 temperature sensors and 66 accelerometers on each wing.

will attach the wiring to each sensor and fasten it to a nut already in place.

Campbell's job requires her to crawl through three different open sections, called cavities, to reach the wing's edge. She squeezes through small openings - about the size of a clothes dryer door - that provide access from one cavity to the next.

"There's a big cavity to start with, and then you go through a little hole and there's another cavity, and another hole and another cavity," Campbell explains. "It gets smaller and smaller as you go farther back.

And there's a place all the way out to the end where, because there are two braces and a wall, you have to just reach through with your hands."

If that sounds hard enough, bear in mind that she has to carry a light source and any necessary tools along with her while maneuvering around structural parts of the orbiter's airframe.

"The first week - actually, the first two or three days I was in here doing the wiring - I couldn't walk," she admits. "My legs hurt so bad, I could hardly stand up. At the end of the day, when I

walked up the steps, they just felt like jelly. But I found some new tools to make it a little easier, like a little, teeny stool I can use in certain areas."

Campbell enjoys the work despite the occasional discomfort. "We were in the wing the other day, and just from the angle, you could look along the belly of the bird, and that was just so neat," she recalls, shortly before venturing into the darkness of the wing again. "It was really neat to stand there and look at it from a different perspective."

NASA spokesman earns National Space Club award

The National Space Club Florida Committee is honoring Kennedy Space Center Public Information Officer George Diller with the Harry Kolcum Memorial News and Communications Award for his excellence in "communicating the space story" along Florida's Space Coast and throughout the world. Diller has served at KSC in the Office of Public Affairs for 24 years.

NASA PUBLIC AFFAIRS specialist George Diller (right) is honored with a Harry Kolcum Memorial News and Communications Award for 2004. He is joined by Committee Chairman Jerry Moyer (left) and Eddie Kolcum, wife of the late journalist for whom the award is named.



Rescue teams train for emergency launch scenario

By Jennifer Wolfinger
Staff Writer

Stay calm...! Whether it's a fishing hook through the thumb or a fatal accident, those words are often said when disaster strikes. However, it's sometimes impossible to remain this way, especially without proper preparation.

To ensure Kennedy Space Center's work force remains steady regardless of what it faces, key Space Shuttle managers, launch team members, Closeout Crew, fire and rescue workers and many others participated in a Launch Pad Emergency Egress Simulation Dec. 1.

The training exercise, which helps in preparing the teams for Return to Flight, called for the assistance of a rescue team to evacuate a mock flight crew from a simulated orbiter vehicle, and to remove Closeout Crew members with replicated injuries from the 195-foot level of Launch Pad 39A.

To maintain professional certifications for the Closeout Crew, fire and rescue, Medical and Flight Assets and Test teams, the activity demonstrated the abilities of the groups to respond



TRAINING EXERCISES simulating a launch pad rescue, similar to this one in February, helps the rescue teams maintain professional certifications.

to a rescue situation, and trained them with the latest equipment. It also tested each team's egress methods, rescue approaches at tremendous heights, basket evacuation work, triage care, transportation of injured employees to hospitals, communication and coordination.

The initial part of the four-hour exercise simulated normal launch countdown operations and identified a fictional vehicle

problem. The scripted scenario quickly degraded and culminated with the Test Team and Shuttle test director establishing that an event occurred which forced an evacuation of the vehicle and launch pad.

During the next phase, pad rescuers were deployed to the 195-foot level to help save flight and Closeout Crews. They prepared for a slide-wire basket evacuation, and participants in

the baskets then made their way to the emergency bunker.

Once it was declared safe, all flight and ground crew relocated to triage at a makeshift field hospital location, where caregivers established the medical conditions of the evacuees and determined treatment.

Although unlikely, the scenario helps the teams be ready for anything. To establish a realistic atmosphere, the drill included activating emergency fire-suppressing water on the 195-foot level, using three armored vehicles and transporting some evacuees to hospitals by helicopter. A post-test debriefing follows each simulation to identify necessary changes.

"One of the more recent simulations identified a need to upgrade the rescue chairs utilized during the simulation," said NASA Test Director Jeremy Graeber, who coordinated the simulation participation of the required organizations.

"New rescue chairs were designed and purchased specifically for this application, and the new chairs were used for the first time in this exercise."

Solid Rocket Booster stacking begins in VAB

The aft skirt and lower segment of the Solid Rocket Booster (SRB) being prepared for Return to Flight on mission STS-114 move through the open doors of the Vehicle Assembly Building. The segments will be prepared for stacking, with the other segments arriving later.

Two SRBs support the liftoff of the Space Shuttle on a launch. The twin 149-foot-tall, 12-foot-diameter SRBs provide the main propulsion system during launch to place the 180,000-pound orbiters in the proper orbit around the Earth.

They operate parallel with the Space Shuttle main engines for the first two minutes of flight and jettison away from the orbiter with help from the Booster Separation Motors, about 26.3 nautical miles above the Earth's surface.



TWO SEGMENTS of a Space Shuttle Discovery Solid Rocket Booster are moved into the VAB.

NASA's future topic of Dec. 16 workshop

You won't want to miss a workshop hosted by KSC's One NASA team featuring several Agency leaders at 10 a.m. Dec. 16 in the Visitor Complex's IMAX Theatre II.

Learn more about the Agency's ongoing transformation activities and the Center's role in the Vision for Space Exploration. Seating in the IMAX Theatre is limited, so contractor and directorate seat allocations will be provided. It will be broadcasted over KSC TV, channel 7, and webcasted for those who are not able to attend in person.

Remembering Our Heritage

Launch team had much to be thankful for in 1974

Three successful launches and home for the holidays

By Kay Grinter
Reference Librarian

Every November, Kennedy Space Center employees know that any launch scheduled that month may require the launch team to work over the Thanksgiving weekend. Thankfully, this year, KSC's Launch Services Program team celebrated the successful liftoff of NASA's Swift spacecraft on Nov. 20, in time to be home for the holidays.

In November 1974, Kennedy's Unmanned Launch Operations (ULO) teams had much for which to be thankful, as well. They orchestrated three successful launches in eight days from two coasts, with days to spare to join their families for Thanksgiving dinner on Nov. 28.

Thirty years ago, three of the 10 ULO launches were scheduled in November – one set to lift off from California and two from

Cape Canaveral just a day apart. John Neilon was launch director for all three.

The first was Delta 104, which lifted off from Vandenberg Air Force Base on Nov. 15 at 12:11 p.m. EST. Its primary payload was the ITOS-G weather satellite, renamed NOAA-4 once in orbit. There were two piggyback spacecraft on the vehicle, as well: OSCAR-7, an amateur radio satellite, and INTASAT, Spain's first satellite which conducted studies of the ionosphere.

"The Delta 104 launched on a Friday," Neilon recalled. "The team and I had to hurry back to Florida to make final preparations for two more launches, just a week away. The readiness meetings started on Monday, and I spent all week skipping back and forth between the Atlas and Delta complexes.

"Fortunately, there were two separate launch teams - made up of NASA, McDonnell Douglas and General Dynamics employees - for the Cape launches, so the preparations went on even if



THE NOAA-4 weather satellite.



THIS ATLAS-CENTAUR 32 launched the Intelsat IV F-8 satellite.

the launch director was at the other blockhouse."

Next up was Atlas-Centaur 32 carrying the Intelsat IV F-8 communications satellite on Pad 36B. Launch took place on Thursday, Nov. 21, at 6:44 p.m. EST. It joined five operational Intelsat IV satellites and replaced F-4, which became a spare.

A little more than 24 hours later, at 7:28 p.m. EST on Nov. 22, Delta 105 lifted off from Pad 17B with the United Kingdom's Skynet IIB communications satellite aboard.

"At the Cape, the telemetry and data group was extra busy. They worked both launches and had to switch back and forth between Atlas and Delta operations," said Neilon.

"I was thankful to have two great teams - three counting the one at Vandenberg - who kept things on an even keel. And we were all thankful that the count-downs went so smoothly!"

USA employees give from the heart



UNITED SPACE ALLIANCE employees in the Launch Equipment Shop, including Joni Hawkins (pictured), super-sized their food drive contributions this year. Two-thirds of the building's employees participated, donating more than 700 pounds of food to replenish the Central Brevard Sharing Center.

Honor a child's wish at Christmas

The Federally Employed Women (FEW) have taken on "The Stuff a Stocking Project," part of the Salvation Army Christmas program for this holiday season. Remember that many of these children would not receive any other Christmas gifts without these donations. To donate, pick up a stocking and clearly mark the age and sex of a child. The Salvation Army list below is needed to fill the stockings.

Ages and items

* **Newborn to 1 year old:** teething ring, baby rattle, socks, stuffed toys, baby shampoo, baby powder, baby wipes, cup.
* **2 to 6 years old:** tooth brush, tooth paste, socks, underwear, bows (girls), cap (boys), crayons,

coloring book, small toys.

* **7 to 9 years old:** tooth brush, socks, pencils, fun pads, rulers, markers, notebook paper, kleenex, wallets.

* **10 to 12 years old:** tooth paste, underwear, crossword puzzles, trading cards, markers, notebook paper, nail polish, chapstick, wallets, combs.

To pick up stockings, please contact one of the following: Barbara Powell, HQ 2451; Eleanor Miller, Hangar R&D, room 121; Sandy Shaheen, OSB room 6403N; Dana St. Jean, SSPF 3218A; Sandy Eliason, LCC room 4p23; Michelle Burch, HQ 1147B; Valarie Franklin, O&C 2080.

For information, call Aneta Ott at 867-8548.

Code Talkers highlight Native American heritage

By Gisele Altman
Equal Opportunity Office

In honor of the Kennedy Space Center Native American Indian Heritage Month, two Navajo Code Talkers spoke passionately to employees Nov. 18 of life experiences that led to their careers in the U.S. military.

Sam Sandavol and Albert Smith, two American heroes who are now in their 80s, also shared captivating accounts of their time in World War II.

The Navajo Code Talkers devised a cryptic code from their native language which became a vital tool for the U.S. Marine Corps during the war. Ironically, it was that very language that brought them punishment if they spoke it at their "Indian schools" as children.

The men explained that the "code" they used wasn't necessarily a traditional code, but a message of words used to describe Native American symbols.

Code Talkers established their own alphabet - three different sets to our one - from

animals, minerals, birds and parts of the body.

For example, the Navajo word for "hummingbird" was used to describe a fighter plane, because it was fast and quick. An "owl" described an observation plane, while "turtle" described a tank, because of its slow walk. The word "nihima" (our mother) was used for America.

The numbering system stayed the same, while military units (such as battalions and platoons) were named after Navajo clan systems. Code Talkers studied from early morning to midnight because one error could mean the lives of many.

Hosted by the KSC Native American Intertribal Council, the program also included the Southern Sun Singers and Drum, a southern plains-style drum group from North Carolina. Southern Sun consists of Native American college students who perform original songs written by group members.

The two groups of speakers were in awe of each other and formed a bond of admiration and respect.



ABOVE, Center Director Jim Kennedy (third from left), Navajo Code Talkers Sam Sandavol and Albert Smith (at table) honor Native American Heritage Month Nov. 18 at the Operations and Checkout Building.



Dennis Simpson (left) and Bill Hoppeter of the Cedar Lake Lodge participate in Native American Heritage Month in front of the O&C Building. Hosted by the KSC Native American Intertribal Council, the program also included the Southern Sun Singers and Drum, a southern plains-style drum group from North Carolina.

'Tis the season for the NASA Holiday Celebration



ALL NASA-KSC civil servants are invited to the annual Holiday Celebration from 11:30 a.m. to 3 p.m. on Dec. 7 at KARS 1 Park. The festive event, sponsored by the Change Leaders Network with assistance from the Combined Federal Campaign committee, includes a traditional holiday dinner, gifts and entertainment.

Health Services offers new test

The Occupational Health Service now offers INR/PT protime testing for employees who require anticoagulation monitoring for coumadin and warfarin therapy. This test is run on the CoaguChek S System and will be offered to employees who present a request from their treating doctor on a prescription. The employee's own physician will monitor the therapy and direct changes as needed. This service is offered during regular business hours, 7 a.m. to 5 p.m. Monday through Friday. Call 867-3346.



John F. Kennedy Space Center

Spaceport News

Spaceport News is an official publication of the Kennedy Space Center and is published on alternate Fridays by External Relations in the interest of KSC civil service and contractor employees.

Contributions are welcome and should be submitted two weeks before publication to the Media Services Branch, IDI-011. E-mail submissions can be sent to Jeffery.Stuckey@ksc.nasa.gov

Managing editor. Bruce Buckingham
Editor. Jeff Stuckey
Copy editor Corey Schubert

Editorial support provided by InDyne, Inc. Writers Group.
NASA at KSC is located on the Internet at <http://www.ksc.nasa.gov>
USGPO: 733-133/600070