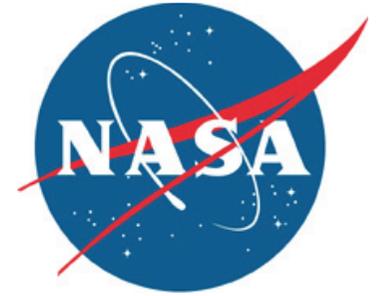


Spaceport News

John F. Kennedy Space Center - America's gateway to the universe

www.nasa.gov/centers/kennedy/news/snews/spnews_toc.html



Air traffic specialists bring STS-124 home

Tower workers tackle multiple tasks to return crew safely

By Linda Herridge
Spaceport News

A trio of Space Gateway Support air traffic controllers quietly cheered as they watched Discovery touch down at 11:15 a.m. EDT, June 14 and glide by NASA's Air Traffic Control Tower at the Shuttle Landing Facility's midfield, where the three were stationed.



NASA/Kim Shiflett

Traffic specialists helped land the STS-124 mission crew, from left, Pilot Ken Ham, Mission Specialists Karen Nyberg and Akihiko Hoshide, Commander Mark Kelly, and Mission Specialists Mike Fossum and Ron Garan after a successful 14-day mission to the International Space Station on June 14.

Up to six hours before landing, Ron Feile, Larry Parker and Donnie Linton, all FAA-licensed air traffic control specialists, were monitoring activities in the air and on the ground around

the landing facility and beyond.

They communicated with the Landing Aids Control Building, the Air Force 45th Space Wing at the Morrell Operations Control

Center at Cape Canaveral Air Force Station, other FAA agencies, and Chief Astronaut Steve Lindsay, who was flying a T-38 and serving as weather officer.

For this shuttle landing,

Linton served as the tower controller, responsible for clearing the runway area for takeoff and landing, updating weather conditions and monitoring bird activity on the runway. Parker monitored the Military Radar Unit for the 45th Space Wing, Eastern Range, including long range and Kennedy radar assets, and communicated with the SGS security flights and other airports. Feile assisted Parker and served as coordinator.

Linton also communicated with the United Space Alliance team and NASA's landing recovery director and convoy commander. He

See STS-124 Page 8

GLAST launch perfect despite complexities

By Kate Frakes
Spaceport News

A tight schedule wasn't the only difficulty Bruce Reid faced before NASA's Gamma-ray Large Area Space Telescope liftoff from Cape Canaveral Air Force Station. The Launch Services Program Mission Manager and his mission integration team also triumphed over a battery malfunction when GLAST safely arrived in orbit June 11.

Reid served as the primary interface for NASA's Goddard Space Flight Center and coordinated spacecraft and launch vehicle integration activities. Reid's responsibilities began several years before the launch.

"You have to manage risks to the schedule, budget and overall mission," Reid said. "The team had to think ahead and anticipate problems before they arose."

Reid said the unique quality of each NASA mission presents its own set of challenges for the team.

"The team had to accommodate GLAST's requirements for cleanliness, low humidity levels, battery temperature and sensitivity to helium among other things," Reid said. "It also was the first flight of a Delta II heavy-lift launch vehicle with a composite fairing, which dictated we perform additional launch vehicle controls, loads and strength analyses."

One of the challenges Reid and his team faced was a battery at the bottom of the spacecraft that needed to be kept cool to preserve its health and power margin.

Through a system of ducts routed from the base of the launch complex to the launch vehicle, the system blew cool air on the GLAST battery until the moment of launch.

Reid said that future missions launched from Complex 17-B also will benefit from the cooling system.

"This mission is important to Kennedy because we are NASA's gateway to space and the success of GLAST highlights our technical expertise in spacecraft integration and launch activities," Reid said. "I believe this type of space exploration inspires us all."

The space observatory will obtain data of celestial gamma-ray sources, within the broadest energy band coverage ever provided by a single-spacecraft for gamma-ray studies. GLAST will probe energetic phenomena like black-hole particle jets and dark matter.

"It will be gratifying that all the hard work and dedication by so many people will result in the kind of science that may one day change textbooks," Reid said.



NASA

A Delta II rocket with NASA's Gamma-ray Large Area Space Telescope, or GLAST, launched June 11 from Cape Canaveral Air Force Station's Launch Pad 17-B.

Center director shares NASA's vision with students

By Jennifer Wolfinger
Spaceport News

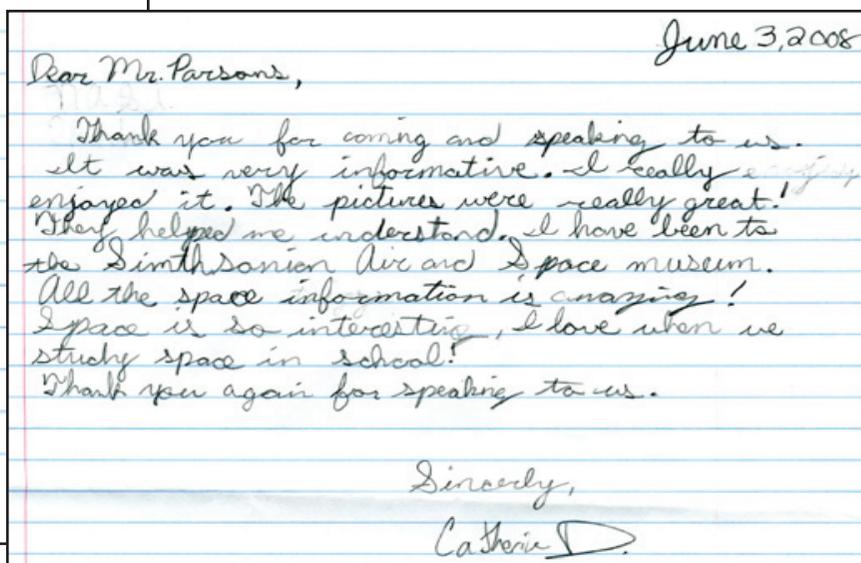
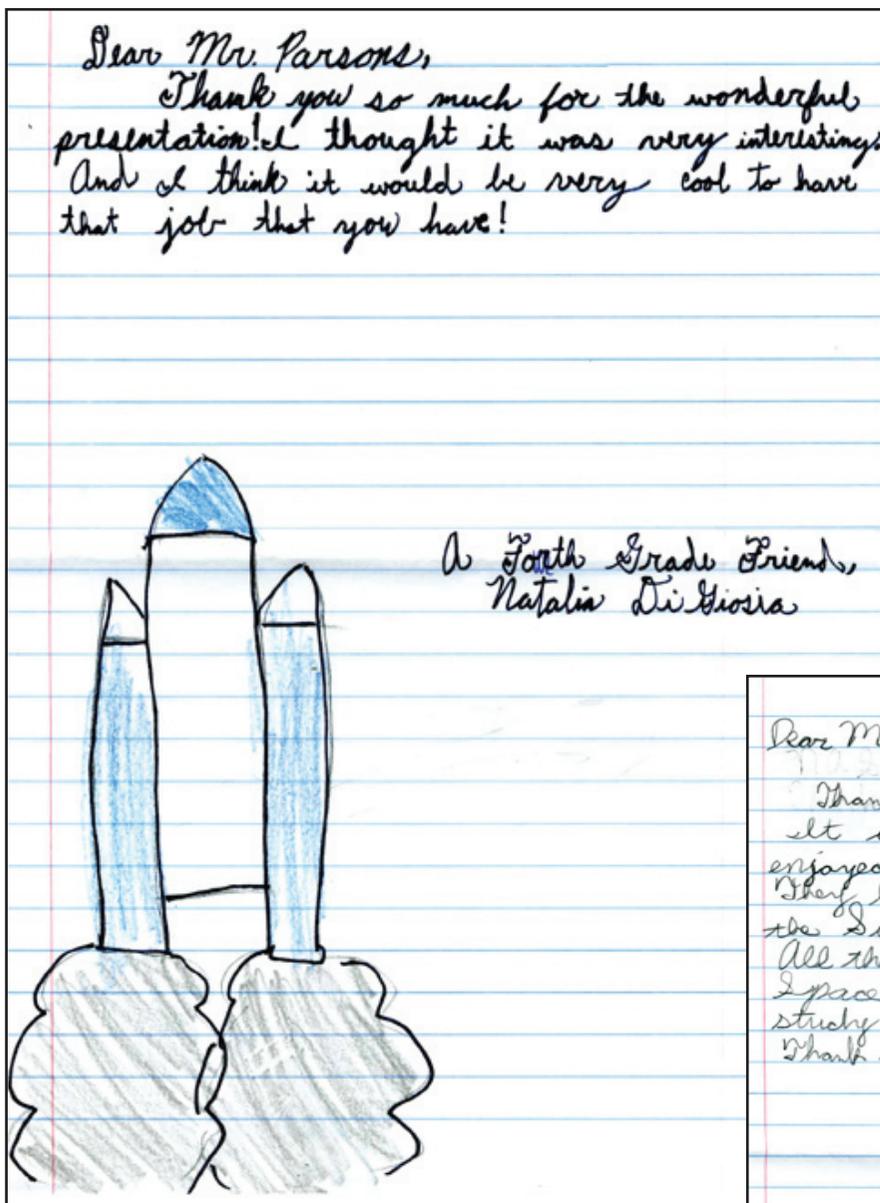
Oshkosh, Wis., may not be home to spacecraft launches, but after a recent visit by Kennedy Center Director Bill Parsons, many of the area's students gained a better understanding of the agency's exciting goals and missions.

"Sharing the excitement of NASA's mission with students is an important part of our outreach effort. We will need today's students to be the future of space exploration as we go back to the moon, journey on to Mars and beyond," Parsons said.

Parsons visited three middle schools in the city on June 2 and 3 to share NASA's story, inspire future leaders and describe the agency's programs and future.

About 900 students and science teachers from Carl Traeger, South Park and Perry Tipler middle schools participated along with fourth- and fifth-graders from Washington and Oakwood elementary schools.

To encourage future studies, the instructors were given teacher packets provided by Kennedy's Education Programs and University Research Division, including resources from the Launch Services Program.



BEST Barbecue welcomes summer interns with 'chat and chew'

By Kate Frakes
Spaceport News

The appetizing breeze that made employees' stomachs rumble signified the start of Kennedy Space Center's 7th Annual Black Employee Strategy Team Barbeque. More than 400 employees gathered June 20 at Kars Park I to welcome summer interns and faculty and to enjoy a home-made meal.

Stacie Turner, a technical assistant to the IT Information Systems Division, has coordinated the event every year since its 2002 start. "The purpose of the BEST Barbeque is to foster positive employee relations

at Kennedy," Turner said. "It also serves as a networking opportunity for employees and students to 'chat and chew.'"

As part of the 40 employee volunteers, Logistics Engineer Bruce Lockley, served as head cook of the barbeque. "When the event started in 2002, about 200 people attended," Lockley said. "We more than doubled that this year and I hope to see the numbers grow even more before I retire." He attributed the event's success to their enormous team effort.

Preparations for the barbeque spanned two full days. "We have to work a little harder every year because of the growing numbers,"

said Lockley, "But seeing everyone come together and enjoy themselves, that's my favorite part." As a founding participant in the barbeque himself, Lockley explained that he has reaped the positive benefits that the multicultural event was founded to achieve.

Student attendees shared in the community involvement. Dexter Westbrook, a student intern from Brevard Community College, began interning as a sophomore in high school. "I've assisted on both the entertainment and dessert contest committees," Westbrook said. "After completing school, I hope to one day join the NASA team at Kennedy."

Brittani Sims, a co-op student from Morgan State University in Baltimore, headed this year's entertainment committee. "I'm honored to work with such inspiring people," Sims said. She shares Westbrook's desire to work for NASA after finishing her degree.

The celebration didn't end there. Attendees enjoyed the traditional dessert contest lead by chair of the committee, Engineering Technician Janice Everett.

"They put me in charge of the contest because I've always entered and never won," Everett said. "I know my desserts are good, just like I know the barbeque benefits the KSC community."

Protection for Launch Pad 39A to go up another level

By *Steven Siceloff*
Spaceport News

With its protective bricks torn away by the recent space shuttle launch, the flame trench at Launch Pad 39A will be given a new layer of protection in time for the next space shuttle liftoff.

The flame trench channels the flames and smoke exhaust of the shuttle's solid rocket boosters away from the launching spacecraft.

A swath of about 3,500 protective bricks tore away from the walls of the structure when space shuttle Discovery lifted off May 31 to begin its STS-124 mission. None of the bricks bounced back in the area of the shuttle. Preliminary computer models of the exhaust pattern suggest no likelihood of loose bricks coming back to the mobile launcher platform or the shuttle.

Just as a swimming pool is coated with a protective layer before it is soaked, the flame trench will be sprayed with Fondue Fyre, a fire-resistant concrete, to shield it from fire and smoke. Sections of the flame trench already protected by Fondue Fyre. A shuttle program meeting was held Thursday to



NASA/Kim Shifflett

Workers test the stability of the wall of the flame trench on Launch Pad 39A at Kennedy Space Center where damage occurred during the May 31 launch of space shuttle Discovery. Repairs are expected to be completed in time for space shuttle Atlantis' STS-125 mission to NASA's Hubble Space Telescope targeted for Oct. 8

solidify many of the details of the repairs.

Atlantis is targeted to lift off from pad 39A Oct. 8 on the STS-125 mission to service NASA's Hubble Space Telescope.

"We are very confident we will get it fixed before the Hubble mission," said Ed Mango, deputy director of the shuttle's launch processing team and the launch director for STS-125.

The damaged portion of the flame trench directs exhaust from the space shuttle's solid rocket

boosters. Another part of the trench deflects the exhaust from the shuttle's three main engines.

The bricks protect the reinforced concrete structure of the flame trench from 7 million pounds of thrust generated from the SRBs and temperatures of 2,600 degrees.

NASA's Perry Becker, who is leading the engineer investigation and repair effort, said it is too early to tell why the wall came apart during liftoff.

The wall was built in 1965 and has endured 82 launches, including

12 liftoffs of the Saturn V rocket.

Each of the bricks weighs about 19 pounds each and the tongue & groove design allows them to interlock with each other for additional support. The force of the shuttle's solid rocket boosters carried some of the bricks approximately 1,800 feet from the launch pad.

Engineers will remove brick from the wall with the damage and also may remove some sections of the opposite wall.

Becker said the walls are inspected after each launch. The only similar damage came during a launch in the mid-1980s when about 800 bricks were stripped off the floor of the flame trench on Launch Pad 39B.

"Historically, we've not had this kind of damage to repair," Becker said.

The flame trench at pad B also is being tested for signs of weakness. That pad, which is a twin of the other launch pad, will be used in case a shuttle has to be launched to aid the STS-125 crew.

Mango said he has no doubt both pads will be ready for the October mission.

"I'm not too worried about it getting fixed," Mango said.

NASA, educators seek to spread word about mission to moon

By *Elaine M. Marconi*
Spaceport News

Plans are under way by NASA centers and educators to spread the word about the upcoming mission to the moon.

The Lunar Reconnaissance Orbiter and the Lunar Crater Observation and Sensing Satellite will be launched together aboard an Atlas V rocket with liftoff scheduled no earlier than Nov. 23.

LRO/LCROSS is the first launch for NASA's new Explorations Systems Mission Directorate.

The LRO/LCROSS mission hopes to discover what the moon has to offer future lunar explorers.

For instance, finding safe landing sites, life sustaining elements, developing new technology and understanding the impact radiation could have on the humans that will

someday inhabit the bleak moon-scape.

The spacecraft are not twins, but companions that have a mutual objective according to LCROSS Program Executive Victoria Friedensen.

"We are the precursor, the pathfinder, the leader. We are the first step in returning to the moon," Friedensen said.

Just after launch from Kennedy, LRO will separate from LCROSS and orbit the lunar poles for up to five years.

About two months after launch, LCROSS will impact the moon twice providing key information about the moon's composition and the presence of water, ice or hydrated minerals.

The public already is gaining interest in the mission. Names are being collected on the LRO "Send Your Name to the Moon" Web site. Those names will be placed on a microchip

that will be inside the LRO spacecraft.

Throughout the first week alone there was a flurry of activity, as more than 150,000 names were submitted -- and that number continues to grow.

Gregg Buckingham, chief of educational programs at NASA's Kennedy Space Center, brought together education and communication specialists, outreach coordinators and public affairs officers to help educate, alert and inform students and the public about this new and exciting mission.

One afternoon during the two-day session, the group was treated to a tour of the United Launch Alliance Atlas Spacecraft Operations Building, the Vertical Lift Facility and the launch pad LRO and LCROSS will lift off from.

The group also participated in classroom activities that can be per-

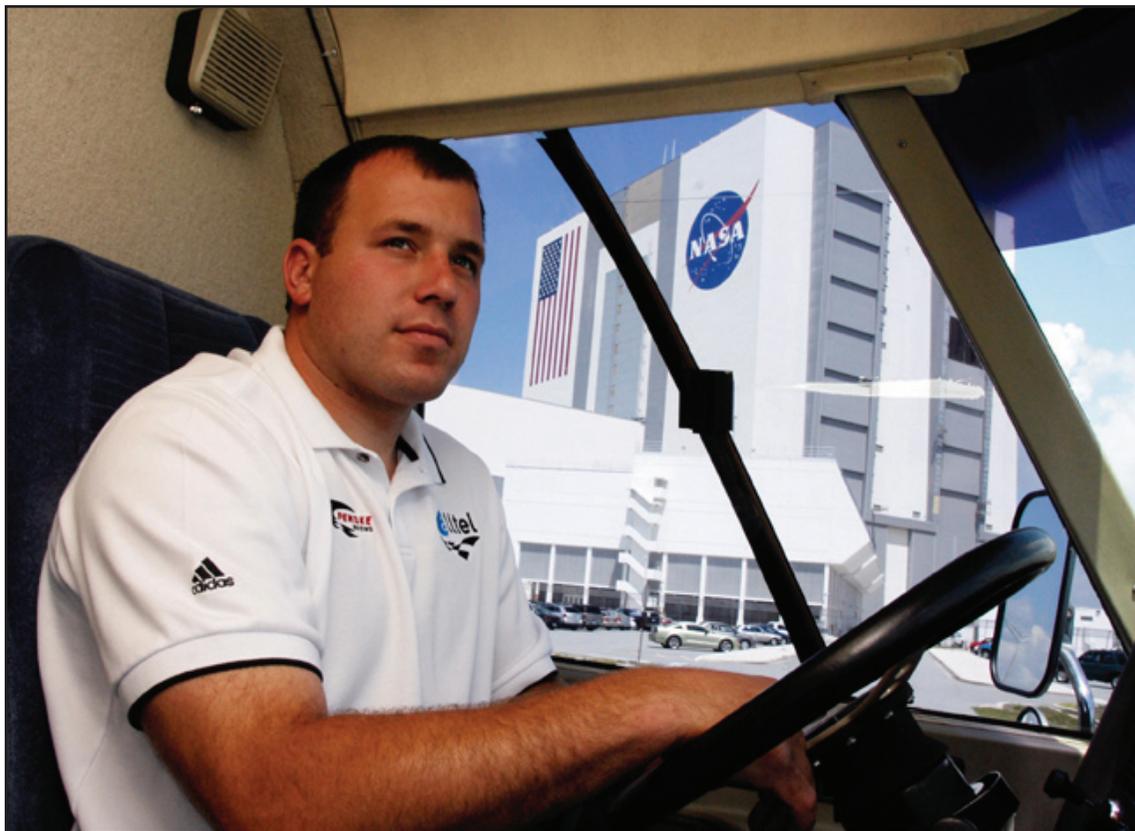
formed with students. These included exercises such as, cutting and pasting moon sections together by matching lunar facts, building a spectrometer out of cardboard, plastic and tape and deciding the best place to land on the moon by gathering known information about its surface and properties.

To further support understanding of the space program in the classroom, NASA's Digital Learning Network allows the next generation of explorers to connect with scientists, engineers and researchers without ever leaving their seats.

NASA's Digital Learning Network will be used during the LRO/LCROSS mission to allow students access to the progress of the spacecraft through the eyes and ears of scientists and researchers.

"This mission represents a new era, not only for NASA but for the rest of the world," Friedensen said.

Scene Around Kenn



NASA/Kim Shiflett

Daytona 500 winner Ryan Newman paid a visit to Kennedy on June 17. While here, Newman drove the Astrovan that takes shuttle crews to Launch Pad 39A. Newman visited Kennedy in honor of NASA's 50th anniversary and the 50th running of NASCAR's Daytona 500 in February. NASA presented Newman with a green racing flag that was flown in February aboard space shuttle Atlantis' STS-122 mission to the International Space Station. One flag was given to Newman, a second was presented to Daytona 500 Experience General Manager Kim Isemann and a third flag will be kept by NASA for public display.



NASA/Kim Shiflett

Technicians install an auxiliary power unit 3, or APU3, on space shuttle Endeavour for the STS-126 mission to the International Space Station in the Orbiter Processing Facility bay No. 2. Launch is targeted for Nov. 10.



NASA/Kim Shiflett

One of the three main engines for space shuttle Atlantis' STS-125 mission to service the Hubble Telescope is poised for installation in Orbiter Processing Facility bay No. 1. Launch is targeted for Oct. 8.



The second stage for the GOES-O Delta IV rocket is suspended and moved into a work cell for processing. GOES-O is one of a series of multimission GOES series N-P will be a vital contributor to weather forecasting. The National Oceanic and Atmospheric Administration, or NOAA, are upgrading an existing GOES system with the launch of the GOES N-P satellite.

Kennedy Space Center



NASA/Kim Shifflett

vertically at Cape Canaveral Air Force Station. It will be es of Geostationary Operational Environmental Satellites. The ether, solar, and space operations and science. NASA and the e actively engaged in a cooperative program to expand the es.



NASA/Kim Shifflett

The Kennedy Space Center Transition Working Group works toward preparing Brevard County's highly skilled workforce for the transition from the Space Shuttle Program to the Constellation Program. The group ultimately hopes to retain, strengthen and expand the county's diverse and available workforce, and help to keep Brevard County and its skilled workforce in the forefront of the aerospace industry.



for NASA

Approximately 375 people attended the 2008 Small Business Innovation Research and Small Business Technology Transfer Programs' National Spring Conference to celebrate the Silver anniversary of the SBIR Program and 50 Years of NASA space exploration.

Spaceport News wants your photos

Send photos of yourself and/or your co-workers in action for possible publication.

Photos should include a short caption describing what's going on, with names and job titles, from left to right. KSC-Spaceport-News@mail.nasa.gov

'Go' not always so for launch director

By *Steven Sicheloff*
Spaceport News

Many people think the launch director's job is to get the space shuttle off the ground. It isn't.

"The launch director's job is to not launch the space shuttle," Mike Leinbach said. He would know. Leinbach has been the Shuttle Launch Director at NASA's Kennedy Space Center for the past eight years.

As the last decision-maker before the space shuttle engines and boosters ignite, it is the launch director's responsibility to say "no" if everything doesn't look and feel exactly right. Even if the rest of the launch team says "go."

"It's my job to stay on the ground if we're not ready to go," Leinbach explained.

Former launch director Bob Sieck made that decision a couple of times during the course of overseeing more than 50 space shuttle launches.

Weather prompted one of those decisions, even though the forecast was "green."

"I went outside and I saw the clouds pop up here and there," he

said. "My training said, nope, it's not good enough. You could hear the moan go up in the control room. Nobody keyed their mikes, but you could hear it."

Leinbach calls the trait "calm assuredness" and says it is essential to anyone who wants to lead the shuttle launch team. Part of it is confidence and the other is a natural reserve that keeps a launch director from getting excited, even during times that would send many managers into fits.

"The calm assuredness is really key because if we're working something late and we're bumping against the clock, the last thing a launch director should do is have any kind of immediacy in his voice," Leinbach said. "You have to let the process play out. You can help the process along, but you don't want to come across as being rushed."

Adding to the pressure is the enormity of the stage. The launch director is a focal point during countdown and his words often are transmitted live and played over and over.

"You have to be able to approach the problem as if the world

wasn't watching," Sieck said.

Although he is the leader of the launch team, the director also knows the value of a highly skilled and thoroughly trained group of test directors, test conductors and system engineers, as well as safety and quality professionals.

"The team is outstanding. They'll never allow me to feel like I'm in over my head," Leinbach said.

That doesn't mean there are not some anxious or nervous feelings, especially at first, but training usually takes care of those long before launch day.

The Kennedy launch team typically goes through two simulated countdowns before launch day. The whole group of test directors, controllers and engineers work through the same processes as launch day, but there's 25 to 30 manufactured problems thrown into the mix.

"You've got to let the team make some mistakes," Leinbach said. "In any walk of life, the best way to learn something is to make a mistake, correct it, and move on. On training days, I'll let the team make some pretty significant mistakes."

The confidence trait is part

personality, but mostly the result of years of intensely studying how spacecraft systems operate and how they impact other systems.

"I tell everybody I am not a system expert in any particular system, but I do know all the systems well enough to know how they behave and how they interrelate," Leinbach said.

Chris Kraft, who oversaw NASA's earliest crewed launches, said that skill always has been essential to a launch director's resume.

"You have to understand orbital mechanics, at least as far as what it's going to do if you miss the prime launch time," Kraft said. "And at the same time understand the parameters necessary for proper photography, the necessary winds and the abort requirements."

Kraft believes focus on safety is the common thread that runs through all past and present launch directors and everyone on the launch team.

"I think they're pretty dedicated people making sure it's going to be a damn safe ride for the crew," he said. "You always wanted to make sure it was as perfect a vehicle as you could make it."

Space Coast Jr./Sr. High student wins NASA-KSC internship award

By *Rebecca Sprague*
Spaceport News

From Legos to robotics, a local teen is building his way to a successful future at NASA's Kennedy Space Center. Mathew Burdett, a senior at Space Coast Jr./Sr. High School in Port St. John recently won the 2008 NASA-KSC Summer Internship Award at the 53rd State Science & Engineering Fair of Florida.

Burdett entered his project into the Earth and Space Sciences category. His project's hypothesis: "Can Stabilization Be Used to Reduce Fin Size and Improve Rocket Performance?"

Burdett's fascinating project got him the necessary consideration for Kennedy's 10-week, paid internship opportunity at the Prototype Development Laboratory, under the direction of Russ McAmis.

"Being selected for state science fair has been an unbelievable opportunity," Burdett said. "Being able to work at NASA allows me to accomplish my career goals. Working with people in my career field is great and a chance to further my education."

Burdett, along with six other applicants, was interviewed and selected by three NASA representatives.

"He conducted his inter-

view with grace and humility," said Kennedy's Education Specialist Helen Kane.

Burdett devoted many after-school hours to assisting his middle school's Lego League and also was involved in robotics for four years.

"I always referred to him as 'Rocketboy' simply because every project he chose had something to do with space or rockets," said Chace Johnson, Burdett's high school science teacher.

Burdett's next step: college. He plans to attend Brevard Community College and then major in engineering at the University of Central Florida.



Helen Kane presents the 2008 NASA-KSC Summer Internship Award to Mathew Burdett at the 53rd State Science & Engineering Fair of Florida.

for NASA

Final days at hand for durable Ulysses space probe

By Kay Grinter
Reference Librarian

After more than 17 years of pioneering solar science, the Ulysses mission is coming to a close.

This joint study of the sun, solar wind and interstellar space by NASA and the European Space Agency (ESA) will end on or about July 1 because of a decline in the power produced by the spacecraft's on-board generators. It has endured more than three times its planned five-year lifespan.

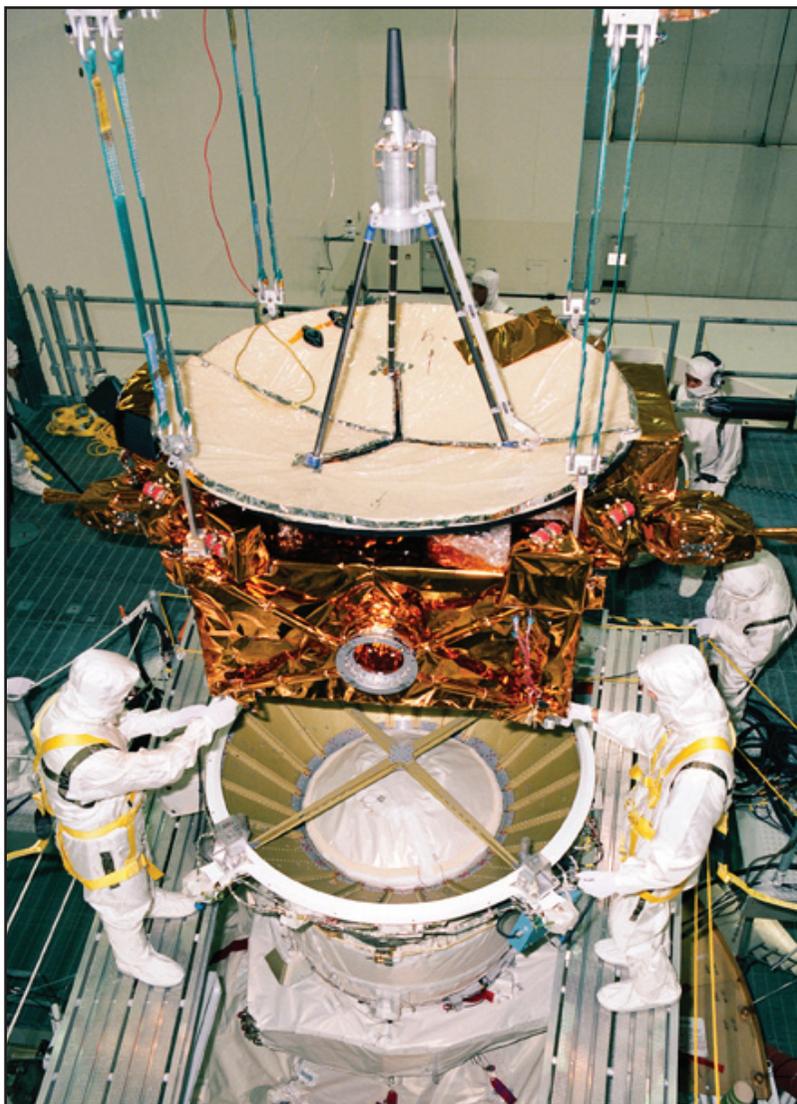
The European Dornier-built spacecraft arrived at Cape Canaveral Air Force Station on May 17, 1990, from Amsterdam, Netherlands.

NASA's Larry Kruse was the manager of Kennedy Space Center's resident office at Vandenberg Air Force Base in California at the time he retired, but was the launch site support manager for Ulysses at Kennedy.

From his home in Connestee Falls, N.C., Kruse said, "The Ulysses project manager for ESA was Derek Eaton from England, and Koos Leertouwer was the ground/launch operations manager from the Netherlands. The launch crew from ESA, although demanding at times, was wonderful to work with. They went out of their way to treat everyone, from the janitors to the center director, with respect and appreciated the support everyone gave them."

Processing for its launch aboard Discovery for the STS-41 mission began at the Cape in the Planetary Spacecraft Checkout Facility's Hangar AO. After fueling at Explosive Safe Area-60A several months later, it was transported to the Vertical Processing Facility at Kennedy. There it was mated with a dual upper stage: a payload assist module coupled to an inertial upper stage, or IUS.

NASA's John Graves is a test director in the Mission Operations Division of International Space Station and Spacecraft Processing and has been assigned to every mission utilizing an IUS since 1990. Ulysses was the first mission he worked from start to finish.



NASA file

Ulysses, a NASA/European Space Agency project, is a robotic space probe that was designed to study the sun at all latitudes. The mission is finally succumbing to the harsh environment of space and likely will end on or about July 1.

Remembering Our Heritage

"I hired on with McDonnell Douglas fresh out of college," Graves said. "And everything about the space program was new to me. The Ulysses spacecraft was smaller than I imagined it would be and had huge motors attached by contrast, a testament to how far it had to journey."

NASA's Julie Schneringer was the launch site support engineer for Ulysses in 1990.

"My responsibilities involved the documentation and scheduling of all support for processing of the spacecraft through the various facilities and its integration with the shuttle at the pad," Schneringer

measurements without touching the object under scrutiny. After the RTG, which was hot, was installed in the shuttle, cooling was provided through the orbiter."

"I was told to take readings of the temperature of the RTG to determine when it had cooled sufficiently, but not so much that the coolant might vaporize, damaging the coolant lines and causing them to rupture," Higginbotham said. "There I was, dressed in a bunny suit, standing about 20 feet away from the RTG. I was scared to death! No pressure! It was incredible to do something like that for a mission that was going on such a long, historic journey."

Still, no upper stage propulsion system could supply enough energy to lift the spacecraft directly from Earth over the sun's southern pole. Ulysses was launched on a trajectory for rendezvous with Jupiter in 1992, for a boost from that planet's gravity to leave the ecliptic plane.

Liftoff of Discovery came Oct. 6 at 7:47 a.m. eastern. The crew included Commander Dick Richards, Pilot Bob Cabana, and Mission Specialists Bill Shepherd, Tom Akers and Bruce Melnick.

Melnick, making his first spaceflight on STS-41, deployed Ulysses with an assist from Akers.

"Tom and I deployed Ulysses just hours after launch. When I read the checklist, he flipped the switches, and vice versa," Melnick, who retired last year from his post as vice president of Boeing's Florida Operations, said from his home on Florida's west coast. "It is amazing to me with as complicated as everything is, we did everything we planned. The launch went flawlessly, we deployed on time, and we landed just as we practiced. That's a tribute to the careful work of the Kennedy work force."

Ulysses forever changed the way scientists view the sun and its effect on the surrounding space, and will end its career after revealing that the magnetic field emanating from the sun's poles is much weaker than previously observed. This could mean the upcoming solar maximum period will be less intense than in recent history.

said, from Kennedy's resident office at Vandenberg. "The number of organizations involved in the mission made it quite challenging. Since there was an RTG aboard, there were even representatives from the Department of Energy and the security that goes with that."

An RTG is a radioisotope thermoelectric generator, a nuclear propulsion device often used on interplanetary missions.

NASA's Scott Higginbotham is a space shuttle mission manager today, but in 1990, he was a newly graduated external tank mechanical systems engineer.

"I was responsible for a system of infrared imagers that allowed us to monitor temperatures at a distance," Higginbotham said. "Some were affixed at the pad, but we had a portable unit to take

Make plans for Camp Kennedy

Camp Kennedy Space Center offers children entering second- through ninth-grades an out-of-this-world experience to explore space like never before. Weekly Summer Camp sessions are available through Aug. 15.

Regular tuition is \$295 per child, per session. There is a 15 percent discount for badged employees and contractors of Kennedy Space Center, Cape Canaveral Air Force Station, Patrick Air Force Base and retired KSC personnel.

Camp KSC is based at the U.S. Astronaut Hall of Fame. Summer camp hours are from 9 a.m. to 4:30 p.m. with extended early drop-off and late pick-up hours available, free for badged employees.

Campers receive a complimentary Kennedy Space Center Visitor Complex Annual Pass, lunches and afternoon snacks, official Camp KSC T-shirt, four complimentary admission tickets to the U.S. Astronaut Hall of Fame, Camp KSC graduation ceremony and certificate of completion.

For more information and registration details, call 321-449-4444 or visit www.KennedySpaceCenter.com.

From **STS-124**, Page 1

also monitored support vehicles, gate controls and checked wind speed at the SLF midfield, north and south ends.

“We’re really blessed to be here in the tower and to know our part is a piece of the puzzle, and see it come to fruition,” Linton said.

Over at the Landing Aids Control Building, SGS Air Field Services Manager Bob Bryan and Air Traffic Controller Debbie Smith were dealing with a buzz of activity, including phone calls, flight planning, requests for gate entry and the arrival of several support aircraft.

“There are hundreds of prep items, and it all comes down to that one moment at shuttle touch down,” said Smith, who has an Air Force background and came to Kennedy in 2005.

As the hours passed, Feile, who is lead air traffic controller, monitored communications from Lindsay and Johnson Space Center to hear weather updates and the deorbit burn command relayed to the crew of Discovery.

“When we hear the ‘go’ for deorbit burn we know the shuttle is coming home in about 90 minutes,” said Feile, who is a Vietnam veteran and has worked at Kennedy for 25 years. “The air traffic control tower really becomes a busy place about two hours before landing.”

In the tower, Linton used binoculars to observe vehicles and bird activity near the runway and check for any debris. He communicated with bird watchers on the ground to coordinate the firing of radio-con-

trolled special propane gas cannons along the runway to scare away the birds.

About 40 minutes before landing, he acknowledged the request from the Air Force 920th Rescue Unit to land three H60 helicopters at the SLF ramp to support any contingencies, emergencies or evacuations associated with the event.

Kurt Asche, an SGS air control servicer, said the day before landing a crew of two walked the entire runway and completed a thorough inspection for any debris or animals. Though plenty of alligators inhabit the moats surrounding the runway, Asche said there have been occasional wild pigs, otters or raccoons finding their way inside the fence. This particular morning they found one alligator.

Back at the tower Parker said it was one of the prettiest landings he’d ever seen. “It’s really special to be part of it.”

Feile said it was glorious to see the landing. “It’s good to have a routine landing with no issues. No surprises is really good.”

Even after shuttle landing, the tower team and Control Aids SLF Operations Team remain in contact with the Landing Recovery Team, the chief astronaut and all of the aircraft as they wait for the astronaut crew to safely disembark and the orbiter to roll to the Orbiter Processing Facility, to begin the launch process all over again.

“There’s a sense of pride to see the shuttle land,” Smith said. “There’s a history of military service in my family so I feel very patriotic.”

WORD ON THE STREET

What is your most memorable launch since you’ve been at Kennedy Space Center?



“Definitely Endeavour and mission STS-123. I received a Spaceflight Award for it.”

Veronica Taylor, facility planner with United Space Alliance



“STS-29 in March of 1989. It was my first launch. I could feel it in my bones.”

Pat Farmer, training administrator with Launch and Recovery



“STS-116. It was nice to see a night launch after not having one for more than four years.”

Hung Nguyen, Orbiter Electrical Systems lead with NASA



“STS-1. Because it was my first launch and I was working it.”

Carolyn Williams, Technical Op Staff II with Operation Maintenance Documentation Support



Rocket Scientists Web site

For information on NASA’s Rocket Scientists education program, visit their Web site at www.nasa.gov/education/lsp



John F. Kennedy Space Center

Spaceport News

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