Space Systems Company–Michoud Operations

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Mission Success Bulletin

April 28, 2008

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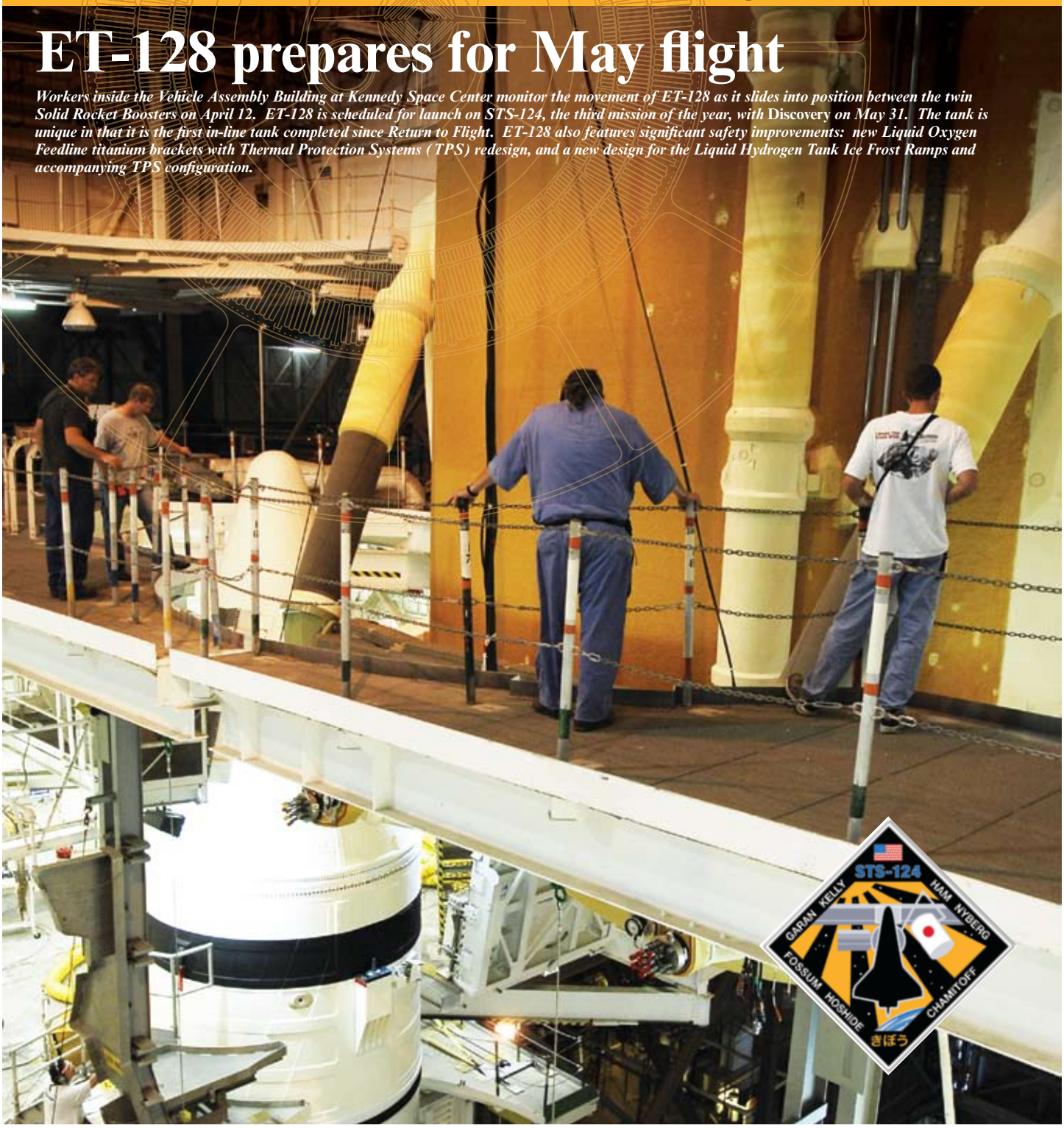
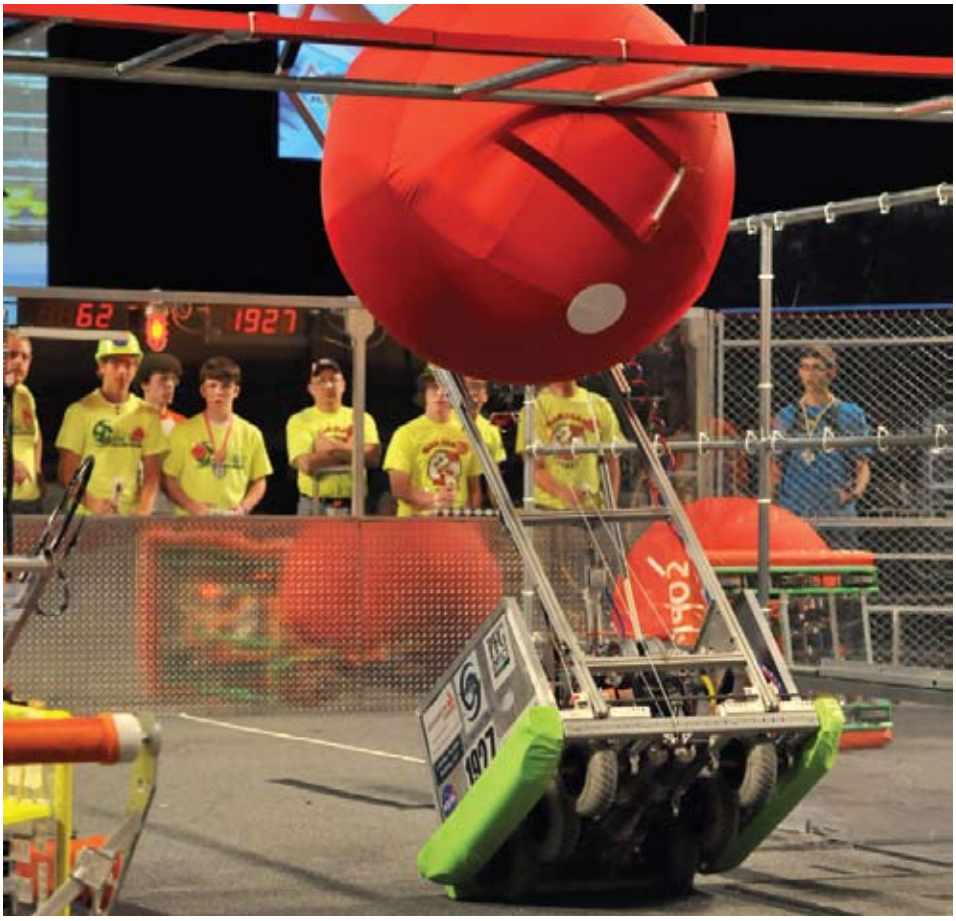
ET-128 prepares for May flight

Workers inside the Vehicle Assembly Building at Kennedy Space Center monitor the movement of ET-128 as it slides into position between the twin Solid Rocket Boosters on April 12. ET-128 is scheduled for launch on STS-124, the third mission of the year, with* Discovery *on May 31. The tank is unique in that it is the first in-line tank completed since Return to Flight. ET-128 also features significant safety improvements: new Liquid Oxygen Feedline titanium brackets with Thermal Protection Systems (TPS) redesign, and a new design for the Liquid Hydrogen Tank Ice Frost Ramps and accompanying TPS configuration.



Orion tooling arrives

Crane operator Ronnie Rome carefully positions the new* Orion *tool while Craig Jenkins (left) and Robert Singelmann carefully guide it to the factory floor. All three work in Transportation & Handling. The new tooling will be used on the Universal Weld System machine in the National Center for Advanced Manufacturing (NCAM) for production builds of the Orion Crew Module ground test articles. The first Crew Module weld on the tool is planned for July.



Lockheed Martin sponsors students in robotics competition

Using joy sticks to operate their robot, high school team members pass a 40-inch inflated ball atop an overpass at the FIRST Robotics regional competition at the Morial Convention Center on March 28. Forty-six teams also scored points for knocking balls off a ladder and for scooting their robot around the track. Teams came from as far away as Michigan, New Jersey and Florida to compete. Lockheed Martin mentors assisted nine area high school teams in building their robots. Slidell High led by mentors Keith Joiner and Darren Kearney finished 5th in the competition, and Edna Karr High finished 11th.

Job Fair aims to retain Lockheed Martin talent

The Michoud Operations Human Resources Department held the first of several on-site invitational job fairs on March 6. Of the 49 employees interviewed for positions, 19 accepted job offers with others still pending.

"Talent retention within Lockheed Martin remains a top priority of Michoud's leadership team and Human Resources," said **Danielle Frank**, H.R. business partner manager. "With offers extended to nearly 60% of the participants – and some receiving multiple offers – we believe this was a successful event for our employees."

The fair showcased over 200 potential job opportunities in the Human Space Flight line of business both at Michoud and in Houston. The candidates came primarily from the Facility Operations & Services organization with others from Business Operations, Production Operations, and Program Management & Technical Operations (PM&TO).

Job fairs provide a convenient forum for employees to obtain continued employment with Lockheed Martin in advance of the Michoud Operations & Maintenance (MOM) contract expiration in December and when work scope on the External Tank program begins to decline.

Keith Domingue, a structural designer on the MOM contract, applied for several positions at the fair to ensure his chances of remaining with the company. "I'm dedicated to Lockheed Martin; I know this facility, and I feel very valued here," he explained confidently. "The job fair was a wonderful experience – it was private, comfortable and I had the ability to have several interviews with familiar people without having to travel."

After the fair, Domingue accepted a position in the PM&TO Structures & TPS group.

Feedback from job fair participants will be instrumental in planning additional fairs this year. Information on upcoming job fairs will be available as events are planned. ■

Systems Engineering Managers Diane Lowe and Son Nguyen of Program Management & Technical Operations interview a candidate at the initial on-site invitational job fair.

Lockheed Martin wins Large Business/Product award

NASA has selected Lockheed Martin as the winner of the 2007 Marshall Space Flight Center Contractor Excellence Award in the Large Business/Product category. Recipients of this award are automatically considered for nomination by Marshall for NASA's George M. Low Award.

"This selection recognizes your leadership and commitment to achieving high standards of quality, as well as your commitment to the continuous improvement process," noted **Dave King**, director, Marshall Space Flight Center in a congratulatory letter to **Manny Zulueta**.

Michoud hosted a NASA evaluation team this past fall. "The team members examined us thoroughly to see if we measured up during their evaluation," said **Paula Hartley**, Lockheed Martin team lead. "They acknowledged our strengths in the competitive area and rewarded us with this esteemed recognition. I continue to be proud to be part of this team!"

Winners will receive their awards at the MSFC Director's Breakfast in Huntsville on May 6. Lockheed Martin also captured the award in 2002 and 2001. ■

Two tanks for Hubble latest challenge

Once Space Shuttle *Discovery* and ET-128 launch on May 31 carrying the main element of the Japanese research module, *Kibo*, to the International Space Station, NASA then will direct its attention to the next mission, the final Hubble Space Telescope reservicing flight.

The shuttle will have flown ten consecutive missions to the space station, so the Hubble flight will be a definite departure from the routine and probably the last shuttle flight to a destination other than the space station.

Space Shuttle *Discovery* first lifted off with the Hubble telescope on April 24, 1990. Commander **Loren Schriver** led the five-day mission to place Hubble into orbit. Since that time, four shuttle missions have reserviced Hubble – STS-61 in 1993, STS-82 in 1997, STS-103 in 1999 and STS-109 in 2002. Hubble's extremely sharp images have led to, among other things, discoveies in astrophysics such as accurately determining the rate of expansion of the universe.

Hubble's final reservicing mission almost didn't happen as then NASA Administrator **Sean O'Keefe** canceled the flight post-*Columbia* due to safety concerns. However, in 2006, current Administrator **Michael Griffin** reinstated the fifth reservicing mission, extending Hubble's life and allowing mankind to peer into the universe until at least 2013 when its successor, the James Webb Space Telescope, is due for launch.

Because Orbiter *Atlantis* is bound for Hubble and not the space station, it has no safe haven. If a problem develops, *Atlantis* will be in a different orbit and will not be able to rendezvous with the space station. So for the final reservicing mission, NASA requires that a second shuttle be ready to fly.

Lockheed Martin will deliver ET-127 to NASA this summer to fly with *Atlantis* on the Hubble flight, launching from Pad 39A at Kennedy Space Center. The launch-on-need tank, ET-129, will mate with Orbiter *Endeavour* and occupy Pad 39B, the shuttle site that is being converted into the *Orion* launch platform. Should *Endeavour* be needed for a rescue mission, NASA would launch from Pad 39B. If everything goes smoothly as expected, *Endeavour* will remain at Pad 39B until the Hubble flight ends, and then roll over to Pad 39A for its launch later in the year.

The Hubble reservicing mission, STS-125, will be the fourth shuttle launch of the year; its current August 28th launch date is under review. ■

On the Hubble Space Telescope's first servicing mission in 1993, astronaut Story Musgrave anchors Space Shuttle* Endeavour's *robotic arm while waiting to be hoisted to the top of the telescope.

"Hey, don't eat the wheels"

Lockheed Martin's Ross Kaplan anointed these Jefferson Elementary 2nd & 3rd graders "Honorary Mechanical Engineers" during Space Week as he and teacher Barbara Lewis helped the students build "race cars". The cars consisted of a chassis made of cardboard, axels and a mast made of drinking straws, LifeSavers for wheels and a piece of paper as a sail. "We discussed different ways to power or make our cars move and solved some design problems because the wheels kept falling off – we added tape – and the sail wouldn't stand still – more tape," explained Kaplan. "We also talked about the importance of following directions carefully to build within spec and how our diligence affects the astronauts." Oh, and one more thing – the kids kept eating the LifeSavers, which slowed the assembly line.

STS-122 crew praises Michoud workforce

Members of the STS-122 crew – Commander **Steve Frick**, pilot **Alan Poindexter** and mission specialists **Rex Walheim** and **Stanley Love** – expressed their appreciation to employees for a job well done on ET-125 in an April 8th General Assembly. "We launched with a great sense of confidence, knowing that the tank was going to do a great job and sure enough – it did!" Frick emphasized.

"As pilot, I'm responsible for the propulsion systems during ascent," stated Poindexter. "It's really something when you do not have to think at all about how the tank will perform because you know it was built with care and the hard work of all you folks here."

Mission Specialist Walheim added his perspective. "The stuff this plant has done is part of NASA's legend. It's amazing what you guys have done and how you have enabled us to fly in space, and we want you to know that we really appreciate everything that you've done."

The STS-122 mission delivered the European Space Agency's *Columbus* module to the International Space Station. Three spacewalks linked *Columbus* to the station's *Harmony* Node, replaced a Nitrogen Tank Assembly and installed a SOLAR Telescope and the European Exposure Technology Facility. The crew also removed a gyroscope from the station for refurbishment back on Earth.

During a question and answer period following the presentation, Frick reflected on a shuttle program with 11 missions left to complete. "I know it's going to be a tough couple of years, and most of us don't know what the transition is going to be like from shuttle to *Constellation*. But what we really appreciate is the fact that the last tank built for shuttle is just as critical as the tremendous tank you built for us. We really appreciate your doing it for us, and we appreciate all the work you'll do for successive crews that will finish out the program." ■

Commander Steve Frick and three other members of the STS-122 crew who flew in February recently addressed employees on April 8 and showed video highlights of their mission.

Launch Honorees selected for STS-124

Liftoff – May 31

Cora Arcement-Buffone – *Human Resources*
Alan Arthur – *Production Operations*
Mike Balch – *Business Operations, Huntsville*
Mike Berger – *Safety & Product Assurance*
Dameon Bickham – *Production Operations*
Dilip Dudgaonkar – *Program Management & Technical Operations*
Judy Hill – *Production Operations*
Oba Ladnier – *Program Management & Technical Operations*
Tim Livingston – *Production Operations*
Herman Lockhart – *Production Operations*
Paula Mones – *Information Technology Systems*
Mike Murphy – *Safety & Product Assurance*
Richard Steadman – *Facility Operations & Services*
Johnny Vitrano – *Facility Operations & Services*
Glen Wadge – *Program Management & Technical Operations*

Emergency Information

To find out work status during hurricane season at Michoud, go to www.mafstatus.com or call 257-1MAF or 1-800-611-3116, check ETV or listen to WWL-870 radio or visit wwl.com or watch WWL-TV, Channel 4 or go to wwltv.com

WorkShare experience expands at Michoud

The WorkShare Program is a Lockheed Martin initiative to balance manpower requirements from site to site. "WorkShare tries to match a surplus in one area with needs at another site," explains **Ralph LeBoeuf**, WorkShare senior manager. "The basic goal is to retain Lockheed Martin employees within the corporation."

The program, which the Technical Operations Management Council chartered several years ago, is designed to enhance and retain critical technical skills and is geared toward a "virtual" sharing of resources. LeBoeuf describes it "as moving the work, not the people."

After overcoming initial pessimism about virtually sharing employees, the program has grown. As of last month, close to 50 assignments had been filled, and several had already been completed. Most of these 50 are Lockheed Martin employees working virtually to support Michoud needs – primarily in *Orion*.

"As a key skill retention tool, WorkShare will play an important role at Michoud as we change out the Michoud Operations & Maintenance contracts and fly out the shuttle," LeBoeuf says. "As we move through this process, we will have opportunities to share employees both with Space Systems Company and the remainder of the Lockheed Martin Corporation."

Facility Operations gets involved

Needing an engineer with heating, ventilation and air conditioning (HVAC) experience last year, Facility Operations & Services contacted the Workshare Program. LeBoeuf looked over the Statement of Work and together with Facility management selected **Eric Duch**, a mechanical engineer from Lockheed Martin Maritime Systems & Sensors in New York. The timing was perfect for both sites to "share" Duch as his New York program had encountered a delay.

The sharing wasn't a virtual fit by nature of the job, so Michoud brought Duch to New Orleans last September for a six-month assignment. "Eric hit the ground running," reported **Chris Packwood**, Maintenance Engineering supervisor. "He was still a new engineer with little practical hands-on experience, but he acclimated quickly."

Mike Campbell, Maintenance Engineering manager, said Duch's engineering background was in designing HVAC systems. "Here, Eric focused on repair of systems or equipment and maintainability, which were eye openers to him and added more tools to his tool chest."

When Eric Duch's WorkShare assignment ended at Michoud and it was time to return home to New York, the Plant Engineering group toasted him with a Space Shuttle model and a New Orleans theme luncheon.

Duch agrees, "Maintenance engineering is totally different from what I was doing in New York. I was able to see a lot of different systems and equipment and how they are actually put together and maintained in the field. I profited from being exposed to a lot of knowledgeable and diverse people who were willing to teach me."

Campbell sees a triple 'Win' for all involved. "Eric benefited from his time here, we gained the engineering support we needed and Eric's New York manager did not lose him permanently."

Prior to this assignment, Duch had never been to New Orleans. "New York and Louisiana are two very different states. This is a whole different culture of living. In Louisiana the weather is much warmer and more humid and when it rains, a whole lot more water falls. In New York there are no alligators, gnats don't bite, and trees lose their leaves in the fall. The food and the seasonings are different. Foods like jambalaya, gumbo and crawfish aren't common in New York. I went to a Saints game, the World War II Museum, Voodoo Festival, Mardi Gras, a crawfish boil, a shrimp boil, ran the Corporate Cup 5K race and took part in two LMents events – the volleyball tournament and holiday party." ■

Lockheed Martin – 35th Anniversary event
Saturday, June 21, 2008
Michoud Assembly Facility

Surfing web for pornography has consequences

Stop! Think! Do what's right!

The Michoud Office of Ethics and Business Conduct, in an effort to emphasize to all employees the importance of adhering to policies and procedures regarding inappropriate and misuse of company assets, offers the following excerpts from actual cases from around the corporation that involved surfing the web for pornography.

Case 1

Information Technology (IT) security personnel were alerted that network traffic from its Internet Protocol exhibited signs of a virus infection. The detected system was assigned to one employee. When the IT Incident Response Team arrived at the employee's computer to investigate, the computer screen was locked. The team asked the employee to unlock the screen. When unlocked, the monitor revealed a pornographic website as the active window. The employee frantically tried to close the images on the screen.

During an examination of the hard drive, investigators discovered over 6,000 sexually-explicit images on the employee's computer. The employee admitted viewing the material on his computer while at work.

The employee's manager described the individual as someone well respected and knowledgeable. The employee was apologetic, contrite and sorry about what had happened. The employee was terminated.

Case 2

Information Technology Systems conducted a virus scan of an employee's hard drive and discovered approximately 400 pornographic images and 34 deleted movie files with inappropriate names. Also, investigators found bills for purchases of inappropriate web sites and subscriptions on the hard drive.

The employee admitted that he may have been to the web sites. He explained that he was browsing the Internet and apologized for his actions. He was terminated.

Case 3

During a randomly-selected IT observation period, surveillance discovered an employee who excessively accessed the Internet, visiting numerous obscene, sexually-explicit, pornographic sites. The visits ranged from 56 minutes to over three hours within a five-day period.

The employee acknowledged being aware of the policies regarding personal use of Lockheed Martin Computing and Information assets, but explained that he did not imagine that anyone would check so closely and know what he was doing.

The employee was terminated.

The corporation prohibits the use of company assets that are disruptive, obscene, degrading or offensive to others such as transmitting sexually-explicit messages and images.

Employees are individually responsible for appropriate personal use of Lockheed Martin assets and should view the personal use as a privilege that should not be abused. As an example, consistent with the Corporate Policy Statement, an employee can do the following:

a) Check the balance of his/her salaried savings plan and make periodic transactions (but no "Day Trading")
b) Use Map Quest to locate children's soccer games
c) Utilize his/her PC after hours in support of academic courses
d) Check children's school grades
e) Check bank balance

The applicable corporate policies for appropriate use of company assets are the following:

CPS-001 – Ethics and Business Conduct
CPS-007 – Personal Use of Lockheed Martin Assets
CPS-037 – Computing and Information Resources

Remember the guiding questions for "Do What's Right."

- How would I feel if my name appeared in news headlines because of my actions?
- How will my family feel when they learn about my actions? ■

Silver Snoopy Award winners

Astronaut Kay Hire presented Snoopy awards on March 26 to Frank O'Conner (from left), Safety & Product Assurance, for diligence in corrosion abatement on ET-131 and ET-132 Liquid Hydrogen tanks; Angelo Greconia, Program Management & Technical Operations, for invaluable contributions to the resolution of the External Tank Engine Cut-Off (ECO) system issues; and Guy Jackson, Facility Operations & Services, for outstanding leadership in ensuring Michoud remains in a state of site and ET production readiness.

Large Acreage – Gun Room wins BPT of Year

Congratulations to the Build Process Team of 2007, the Large Acreage – Gun Room team for outstanding team support and contribution to quality, safety and productivity on the Space Shuttle ET Project. Sitting from left: Peter Ferrell, Eric Matherne, Margaret Legnon, astronaut Kay Hire, Joan Miller, Robert Fowlkes and Jim Moring. Standing from left: Richard Boni, Operations Vice President Mike Javery, Rodney Spence, Team Lead Graf Weller, Dave Farin, Dan Morris, Clyde Hutton, Assistant Team Lead Bon Boudreaux, Herb Sires, Keith Bracey, Hassan Boroujerdi, Rick Roberts, Peter Vu, Curtis Dossett, Jeff Beck, Chau Luong, James Zeringue, Jeffrey Beale, Steve Lopez, Wesley Brown, Bob Goodwin, Reginald Williams, Mike McGehee and BPT Admin. Cheryl Iwanczyk. Not pictured: Andy Buell, Dave Buras, Jerry Cline, John Edwards, Andrew Garaudy, Richard McCullough, Wesley McMellon, Jason Meyers, Keith Philip, Cort Phillips, Tommy Rose, Raphael Russell, Dale Stiller and Lewis Turman.

Milestones *Employees celebrating anniversaries with Lockheed Martin in May 2008*

30 Years
Tommy Barrett
Craig Capdepon
Hank Knighton
Deborah Lauga
David Miles
Richard Roberts
Joseph Simon
David Speir
Bryan Tircuit

25 Years
Michael Arthur
Linda Bennett
Lisa Buller
Laura Chauffe
Craig Clauss
Keith Desselles
Dennis O'Brien
David Olson
James Quellmalz
Vickie Schmersahl

20 Years
William Abney
Dan Causky
Kair-Chuan Lim

15 Years
Betty Bennett
Terrance Johnson
Sheila Walker

10 Years
Alexander Cekala
Lloyd Demmons

5 Years
Alan Rovira
William Wilson

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