

August 20, 2008

on-line
<http://www.lockheedmartin.com/michoud/>

Mission Success Bulletin

Employees rev up, move ET-129 out the door

***Two tanks delivered in 27 days
to support Hubble mission***

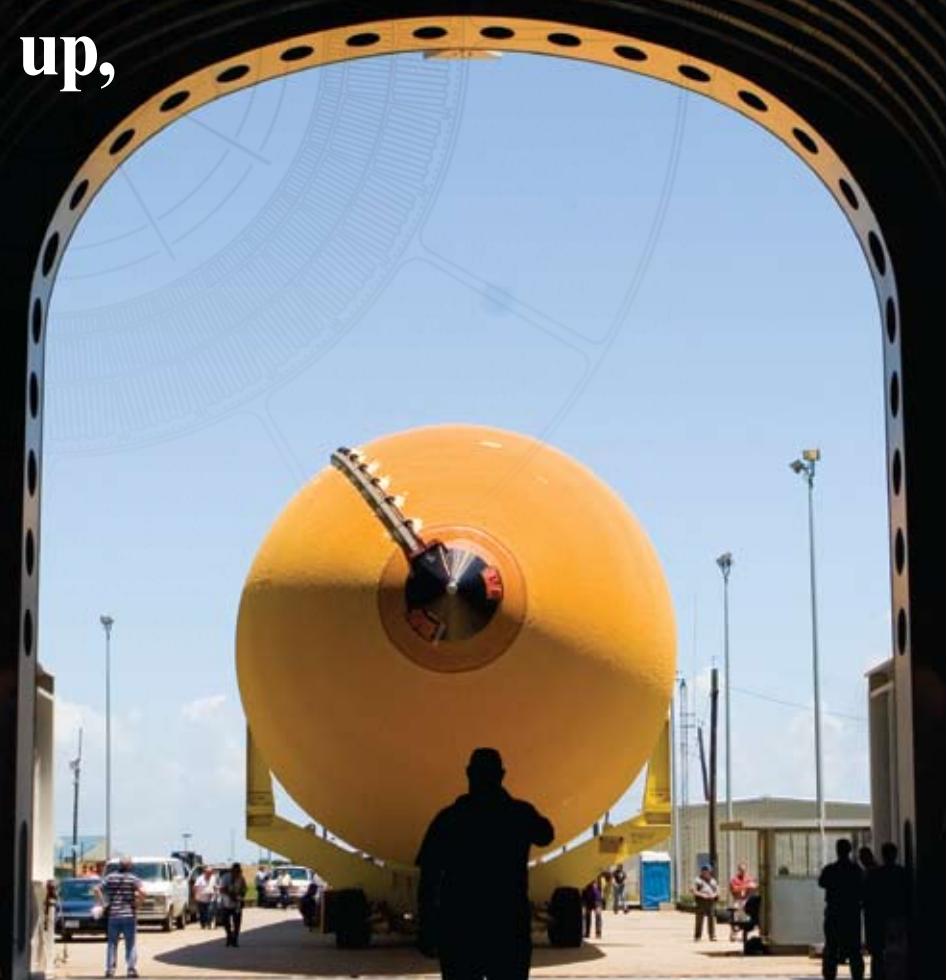
Just days before ET-129 was to be completed, many were predicting that Michoud would not be ready to deliver the tank until August 9-11. But the ET team who had already made great strides in improving the delivery schedule, refused to accept that forecast. They believed in themselves, worked hard and delivered the tank August 6.

"The ET-129 Michoud crew has done a fantastic job," said ET Program Manager **Wanda Sigur** on the day of delivery. "Certainly we rely a lot on these folks to complete the tank and get us ready to fly."

A lot was on the line with this tank. Employees had already delivered ET-127, the Hubble flight tank on July 10. But it was ET-129, the Hubble launch-on-need tank, that had the potential to be a show-stopper and delay the mission if not delivered promptly.

"This is important," Sigur stressed. "Remember, ET-129 is the pacing tank for the Hubble mission. So when we focused on getting ET-127 out the door, it was extremely important because we're going to fly that tank. But having this launch-on-need tank available to NASA is very important to make sure we do support this particular mission."

Sigur said she was proud to see this tank go out because it represented achievements across a wide range of



areas both from a technical and a producibility standpoint.

"ET-129 saw us not only implement all the improvements and changes that were effective on ET-128, but we also were able to implement a series of producibility enhancements that showed a real attention to detail and focus on getting the job done, and doing it in a productive, effective and efficient manner."

"We're challenged with the extra scope we've implemented post-Return to Flight because we want to make sure all these tanks perform effectively."

But as we get smarter and people get engaged in the process, you see tons of commitment and the great job these folks are doing."

One example of this commitment is the employees who – when it's time to deliver a tank – volunteer to join the third shift to perform sprays, according to **Mike McGehee**, senior manager, Final Assembly & Test. He believes this change in work shifts definitely moves the tank to the barge earlier.

"On third shift we don't have to evacuate the cell with all of the first or

Continued on Page 8

Transition meetings provide valuable information

In the first monthly Transition mini-sessions following the August 1 announcement of upcoming workforce reductions, ET Program Manager **Wanda Sigur** and Human Resources Director **Cheryl Alexander** met with employees to discuss a variety of topics.

Sigur reported on the delivery of ET-129 on August 6 and praised employees for making up schedule on the tank. She displayed a slide showing the amount of time gained in the past month on future ET production.

Tank	Status July 2	Status Aug. 6
ET-130	37 days down	6 days down
ET-131	23 days down	1 day ahead
ET-132	23 days down	3 days ahead
ET-133	41 days down	28 days down

"We've been taking advantage of producibility improvements, enhancement initiatives, not doing unnecessary work – and the Collaborative Work Cells have helped out too," Sigur said.

Alexander followed with a calendar of events leading up to the first planned workforce reduction and committed to review the following career options with all employees: Lockheed Martin employment in New Orleans, Lockheed Martin employment outside New Orleans, non-Lockheed Martin employment, retirement and other options.

- Sept. 15** – Employees receive ET Completion Dates
- Sept. 18** – Layoff notices for salaried/ NES employees
- Sept. 22** – Career Transition Center opens
- Sept. TBD** – Lockheed Martin Job Fair
- Oct. 1** – Layoff notices for represented employees

"When we open the transition center, it will stay open five days a week through September 30, 2010, assuming there is enough traffic to justify it," Alexander said. The center will offer job development, resume writing, job search strategies, interviewing techniques, skills assessment, career change strategies, financial planning and more.

"Our goal is to get you as an employee to where you need to be," she told the group. "For example, if you're

a TPS (Thermal Protection Systems) sprayer – when the ET program ends, there won't be a need for your skills. So maybe you'll choose to look at training to become a welder or electrician."

mini-sessions included the following:

Q. How often will there be layoffs?

A. (Sigur) We'd like to have them as infrequently as possible. We're trying to tie funding profiles to tank deliveries.

"Our goal is to get you as an employee to where you need to be."

Cheryl Alexander, Human Resources Director

Alexander said Lockheed Martin is working with the state to obtain vocational training reimbursements for represented employees. She also emphasized the off-hours training schedule at Michoud, advising that computer classes and career development workshops are being offered.

The first job fair will focus on other Lockheed Martin business areas. Alexander also urged employees to attend the monthly retirement briefings early on, due to feedback from employees advising her that they had to attend several times to digest all the information.

She also recommended the Transition Website on Gumbo as another valuable resource for information. This site will include the HR transition timeline along with information about the ET Retention Plan, Career Transition Center, Training & Development resources, career path options, layoffs and severance.

A sampling of questions from the

Every six months seems good to me, but that's probably too long between layoffs as the program winds down. We will try to minimize impacts to morale and productivity.

Q. How many people will be laid off in the first layoff?

A. (Sigur) We're still gathering information from the departments.

Q. What happens to employees if they receive a layoff notice September 18?

A. (Alexander) After employees talk with their supervisors, they will be invited to a meeting that day where they will receive information about their medical and dental benefits, about the Career Transition Center, and other relevant information. September 18 is a Thursday; the following day is an off-Friday. So on Monday, September 22, employees will report to the Career Transition Center and sign in. They will go there for the next two weeks and take advantage of



ET Program Manager Wanda Sigur talks with employees at one of her Transition mini-sessions.

everything the center offers. And they can keep coming to the center for as long as their job search takes because it will stay open until September 30, 2010.

Q. Will employees receive their Retention Plan money before the ET program ends on September 30, 2010?

A. (Sigur) Yes, employees will receive their money after they complete their ET assignments. For example, if their ET Completion Date is June 1, 2009, they will receive their retention funds within 45 days if they met their commitments to the program.

Q. Will employees in the Career Transition Center have their Lockheed Martin e-mail accounts closed?

A. (Alexander) Yes, but they can still get into LMPeople to access training and other services.

Q. Will second-shift employees be accommodated in the upcoming training programs?

A. (Alexander) Yes. We will be adding classes during the day for second- and third-shift employees to attend.

Q. How will I know the amount of my unemployment check if I am in the next layoff and cannot find subsequent employment?

A. (Alexander) We will have experts from the State in the Transition Center to work with employees to determine the specific impacts based on individual circumstances.

Q. What is the status of ET-122?

A. (Sigur) Hurricane Katrina damaged ET-122 in Cell A when concrete fell from the roof and hit some areas of the tank. We've been asked to put together a proposal about ET-122 to determine how and when the tank could be returned to the fleet for NASA to evaluate. We are working on that. ET-122 could be used possibly as a launch-on-need tank or for other NASA objectives in the future.

For other questions regarding ET transition, contact Human Resources or go to Frequently Asked Questions on the Transition website at http://maflm509.maf.nasa.gov/303x/Transition/FAQ_ToolChest.html ■

New system links employees to jobs



Implementation of a virtual new tool is under way, which could shape the future of many Michoud employees.

The Employee Staffing & Forecasting System (ESF), a secure web-based tool, was created in Sunnyvale in the late 1990's to enhance visibility of Space Systems employees' current assignments, availability for next assignment and the forecasting of new resource requirements. Since that time, ESF was successfully implemented at all Space Systems locations except Michoud.

In 2007, Michoud began transitioning to a multi-program workforce seeking diverse new business and WorkShare opportunities. The time for a systematic process for managing employee skills and forecasting had arrived.

"The ESF system merges employee data from LMPeople with managers' inputs on each individual employee including their current assignment end date," explains **Karen Gares**, ESF administrative representative. "The system helps identify similar new Space Systems job opportunities for employees before they are entered into the LM Careers system. This provides management the opportunity to work Space

Systems employee placement as a top priority."

Data on Michoud's current 2,443 employees is now loaded into the ESF system. Manager training is complete, and leaders are in the process of determining employee assignment end dates as part of the External Tank Completion Plan.

Soon the system will begin to identify job opportunities for employees internal to Michoud, those willing to relocate to other Space Systems sites, and for others who would prefer to stay in the New Orleans area, but may be interested in a potential WorkShare or temporary duty assignment. The company is also assessing the wishes of Michoud employees related to TDY assignments and full-time employment opportunities throughout the corporation.

Represented employees may not see the full advantages of the ESF system due to limitations and restrictions of their union contract.

"I am thrilled with the opportunity to help implement ESF at Michoud," Gares adds. "The system has already proven to be a useful tool at other SSC locations, and we're confident that Michoud will also benefit from the utility of ESF." ■

2008-2009 Michoud United Way Campaign Incentives

Five (5) \$100 Gift Cards Awarded Monthly

October 2008 through July 2009

Qualification:

- 2008-2009 Sustaining Michoud UW Contributors
- \$4 per week minimum pledge
- VPs/Directors not eligible
- Winners announced on third Monday of each month

One (1) \$100 Gift Card Awarded Monthly

October 2008 through July 2009

Qualification:

- 2008-2009 Sustaining Michoud UW Contributors
- \$500 per year minimum pledge
- Winner announced on third Monday of each month

New Honda Automobile

Qualification:

- 2008-2009 Supportive Level Contributors
- (1% of annual salary) in the Greater New Orleans Area

\$100 in Gasoline

Qualification:

- 2008-2009 Supportive Level Contributors
- (1% of annual salary) in the Greater New Orleans Area

Michoud Operations kicks off early 2008 United Way Campaign

Even three years after Hurricane Katrina's devastating blow to Louisiana and Mississippi, hardship remains a daily companion for many across the local area.

Still, monetary contributions come in and volunteer groups arrive to gut and repair homes.

An organization that continues to help residents before, during and after the storm is the United Way.

The non-profit contributes to the stability of the region by gathering resources, providing volunteers and delivering financial assistance and human resources.

Chances are you or someone you know has been helped by the United Way recently.

The American Red Cross, a United Way-supported agency, has provided assistance to thousands who were flooded following Katrina's rampage.

"The Red Cross came to our subdivision in Gentilly distributing food, drinks and cleaning supplies," said **Brian Peterson**, Communications.

Catholic Charities, another local United Way agency, went from operating more than 30 programs before Katrina to currently operating 51 programs, several of which are geared

directly toward hurricane recovery.

The United Way works to improve the community by supporting dozens of health and human service programs administered by 112 grant-funded agencies.

Last year, Michoud Operations employees raised over \$340,000 for the United Way. This year, the call is out to meet the need again. Now through August 29, department coordinators will visit with employees and hand out the United Way donation kit.

The kit explains all the reasons to give, who receives your contribution and how your contribution is used. In the back of the kit is a form to complete to receive a charitable tax deduction on your federal tax return.

Employees may direct their contributions to a specific agency of their choice; just note your designation on the receipt as well.

Your contributions make the good works of United Way agencies possible. The American Red Cross and Catholic Charities receive no government funding. Lockheed Martin employees can help make certain that these and other vital resources remain available in our community. ■

LIVE UNITED

Food Drive to benefit Second Harvest

Food for families is the most basic of needs. Join fellow Lockheed Martin employees in collecting canned goods and non-perishable food items in support of Second Harvest Food Bank of Greater New Orleans and Acadiana. The food drive runs through Thursday, August 28. See your United Way department coordinator to participate. ■



Processing continues for Hubble repair mission

What once was months away is now only six weeks from launch – the final servicing mission to the Hubble Space Telescope on October 8.

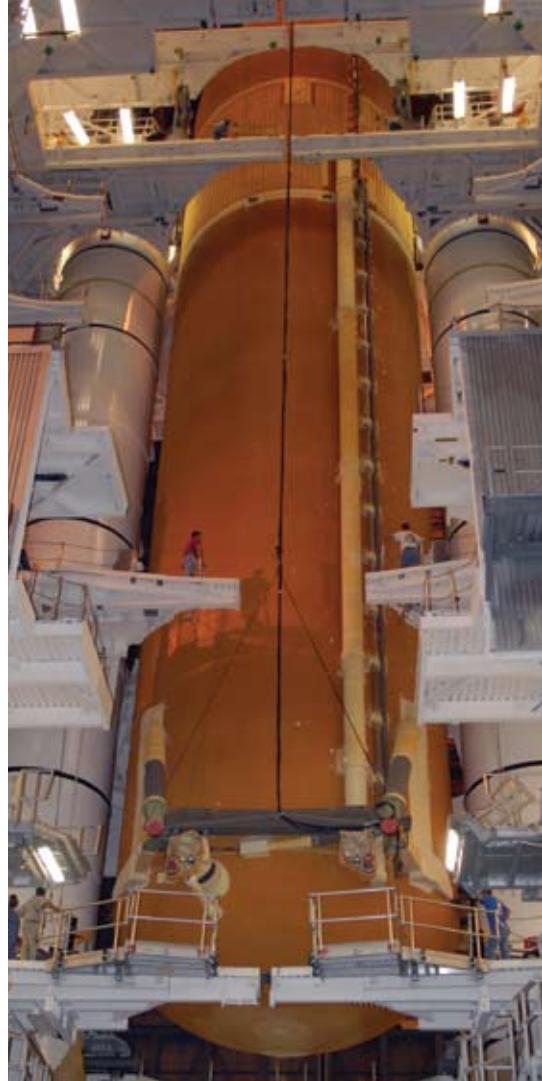
ET-127 will help propel STS-125 crew members into orbit for their Hubble trip. The tank mated earlier this month with the Solid Rocket Boosters and at press time was scheduled for an Orbiter mate with *Atlantis* on August 18 with a roll to the pad on August 25. If necessary, several days of contingency remain in the processing schedule.

Commander **Scott Altman**, a veteran of the most recent mission to the Hubble telescope, will again lead this one. **Greg C. Johnson** will serve as pilot on a crew that includes Hubble veterans – astronomer **John Grunsfeld** and mission specialist **Mike Massimino**. This will be Grunsfeld's third visit to Hubble and Massimino's second. Between them, they have seven Hubble-servicing spacewalks. And another five spacewalks are on tap for this mission. **Andrew Feustel**, **Mike Good** and **Megan McArthur** round out the STS-125 crew.

The astronauts will replace worn gyroscopes and batteries, and also service other equipment enabling the telescope to keep peering into the universe through 2013 or longer. Hubble is credited for vast contributions to astronomy, from studying the solar system and the formation of planets to imaging distant galaxies.

Lockheed Martin built the spacecraft in which the telescope was housed. The Space Shuttle placed the telescope into orbit in 1990. Hubble is now about 370 miles above Earth, higher than the space station that is orbiting at about 210 miles.

ET-129 also arrived at Kennedy Space Center last week, available in the event a Hubble rescue launch is needed. Scheduled to fly to the International Space Station on November 10, ET-129 is already undergoing processing for that mission. The tank will fly with *Endeavour* and should roll to the pad around September 20. ■



Six receive Snoopies

STS-124 mission specialists (m.s.) **Mike Fossum** (back row, from left) and **Ron Garan**, Commander **Mark Kelly**, m.s. **Karen Nyberg** and pilot **Ken Ham** presented Silver Snoopy Awards to four employees on July 24. First row from left:

- **Dennis Spencer**, ITS, for ET contributions and successfully implementing new ITS initiatives and upgrades
- **Don Pollitz**, Facility Ops & Services, for leading Facilities Project Engineering and for his commitment to NASA
- **Lance Spiers**, Program Management & Tech Ops, for helping resolve complex technical TPS problems
- **Phil Therrien**, Prod Ops, for leadership on ET & *Orion*



Then on July 30, STS-126 crew members came to Michoud to see their tank, ET-129. M.S. **Stephen Bowen** (photo at left), Commander **Chris Ferguson**, pilot **Eric Boe** and m.s. **Shane Kimbrough** presented Snoopies to:

- **Dawn Karchner**, Safety & Product Assurance, for reviewing and closing ET documents supporting DD-250 delivery
- **Floyd Jolivette**, Prod Ops, for electrical test performance and for schedule recovery of ET-129's SRB cable ■

Technicians team up to pack SLA on Mars spacecraft

Next year, the Mars Science Lab will launch on a mission to determine if the red planet ever sustained an environment capable of supporting microbial life. Inside the 15-foot diameter spacecraft is a rover the size of a small car equipped with cameras, environmental sensors, collection tools, and lab-quality geochemical instruments designed to explore the Martian surface for two years.

And a dozen Michoud lab technicians will be able to say they played a role in preparing the spacecraft. For two weeks the team of Michoud technicians worked in Denver with 25 other Space Systems technicians to pack super light ablator (SLA) on the spacecraft's aeroshell.

It isn't the first time that Michoud has participated in such a project. Previously, technicians applied SLA to *Pathfinder*, *Stardust*, *Mars 98*, *Genesis*, *Phoenix*, and the two Mars exploration rovers – *Spirit* and *Opportunity* – in projects dating back to 1995.

The aeroshell, with the rover inside, consists of a heat shield and backshell. On some previous spacecraft technicians applied SLA to the heat shield; on others the backshell, as was the case on the Mars Science Lab.

After several training sessions with Colorado technicians, the first Michoud contingent arrived in late July. "First we prepared for the job and made our mixes – about 240 pounds of SLA – then oriented everyone to their task and their location on the backshell," explained

Spence Luebe, the technical lead. The SLA used on the aeroshell differs from External Tank SLA, but is similar to that used on the *Viking* Landers in the 1970s.

"get it done and to get it done right," said Ron Reightler, team member and senior research engineer. "Lockheed Martin threw a lot of people at this project, rotating them in and out. Each person



Mike Porter (left foreground) and Walt Glaudi (center) pack SLA on aeroshell.

On August 4, technicians sprayed an adhesion promoter to the backshell. Early the next morning, technicians applied an adhesive base coat to the promoter. Then workers, draped all over the backshell, packed SLA into a honeycomb mesh by hand, then used tools for proper compression.

"We had a window of 16 hours to

had a five- or six-foot square area. Our hands did get tired from the packing."

When the packing was complete, the backshell rolled to a large oven for a 48-hour cure. After curing, technicians removed the backshell and machined and trimmed the excess SLA, a job that took several days.

Luebe called it the best packing project he's been associated with, and he's been working with SLA at Michoud since 1980. "Well choreographed, well organized, good coordination between Michoud and Denver."

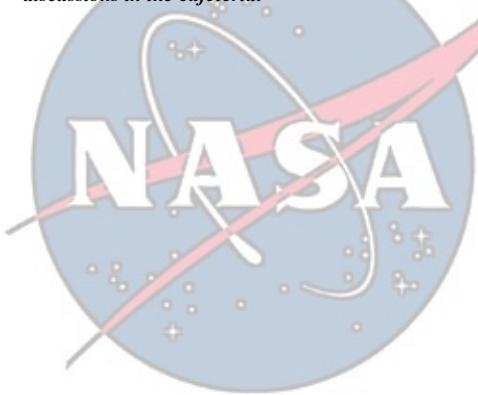
He noted this spacecraft is three times bigger than any previous one Michoud has worked on. ■



The Michoud crew after a 16-hour SLA-packing gig on the Mars Science Lab aeroshell, from left: Ricky Knight, Daniel Croney, Sean Mitchell, Mike Porter, Noah Bourdeau, Ron Reightler, Preston Landry, Spence Luebe, Billie Hill, Zachary Jennings, Jason Rieben and Walt Glaudi.

NASA walks the talk

Pilot George Zamka who flew on STS-120 in October visits with Alvin Lewis of Materiel Sourcing on August 12 during an informal walk-around. Several groups of NASA astronauts and managers came to Michoud, reminding employees that the agency is committed to building future Constellation projects here. Zamka thanked employees for their ET work, answered questions and handed out lunch tickets where the NASA group joined workers for further discussions in the cafeteria.



Engineering Development Center opens for *Orion*

Through the hard work and dedication of Lockheed Martin employees, the new Engineering Development Center (EDC) on Old Gentilly Road is serving the needs of the *Orion* Program.

"The new EDC houses our *Orion* Crew Module, TPS Heat Shield, and LAS (Launch Abort System) Fairing Assembly engineering teams," according to **Jim Bray**, *Orion* program manager. "The space alleviates overcrowding in the on-site *Orion* office facilities and allows our teams direct electronic access to large CAD models and program files."

The build-out of the facility began in mid-March after Lockheed Martin negotiated the lease. **Alfred Donaldson**, Facilities planner, gathered a team of employees from *Orion*, Facilities Design, Site Services, ITS, Security, Safety, Materiel Sourcing, Contracts, external contractors and movers.

"We put out a plan and worked to our deadlines," Donaldson said. "Delegation was the key, and my role was to make sure every team had what they needed."

Lockheed Martin chose the location

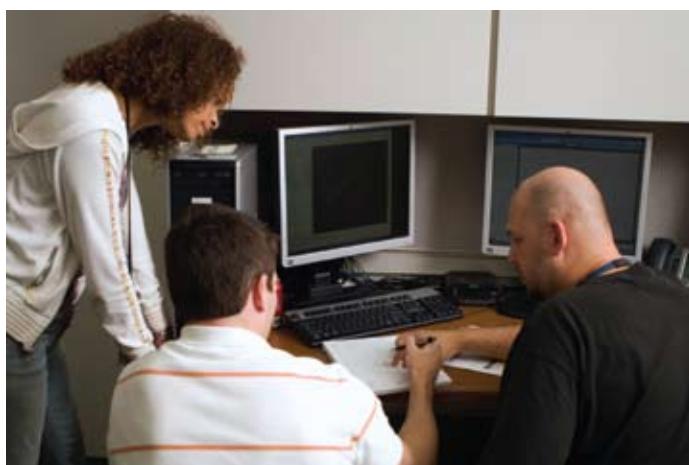
due to its proximity to Michoud and began renovations to convert the existing warehouse into office space. The work included adding walls and partitions, leveling floors, installing electrical cabling, upgrading air conditioning, and

installed new servers, routers and switches to accommodate the high bandwidth needed to transfer CAD designs from workstations. Security included an Electronic Access Control System that adhered to the LM corporate badging policy and the use of closed-circuit cameras and improved outdoor lighting.

The team completed the construction in 3½ months, and employees began re-locating their offices. But Murphy's Law struck. Within days of moving into the space, a water line burst overnight flooding 8,000 square feet of the facility. When employees showed up to work on a Thursday, six inches of water covered the floor.

The build-out team again leapt into action to remedy the situation over the weekend. By Monday morning no trace of the incident remained, and *Orion* employees went back to work, designing parts for the spacecraft.

Summing up the team's dedication, Donaldson said, "The *Orion* Program was depending upon us to get the building finished. The team performed so *Orion* can now fulfill its engineering and design commitments to NASA." ■



April McFarland (from left), J.D. Murray and Michael Overby collaborate on an Orion Crew Module Design.

adding parking spaces.

A large part of the job involved the installation of the IT network and related computer infrastructure. In order to create a direct link with Space Systems in Denver through the Lockheed Martin Intranet, the telephone company had to replace thousands of feet of fiber-optic cable damaged during Katrina. ITS in-

ET-129

Continued from Page 1

second shift workers when it's time for a spray," explained McGehee.

He gave a special shout-out to **Kyle Carambat, Mike Gallegos, Jason Holbrook, Joe Johnson and Troy Smith**. They joined **Aida Elsaed** already on the third shift to form a special "dream team" as McGehee describes them.

"Without the extraordinary effort and dedication of this select group, along with the focused efforts of the entire department, both timely ET deliveries would not have been possible," asserted McGehee. ■



Hubble launch-on-neck tank, ET-129, rolls to barge August 6.

The Gift of Life

Lockheed Martin's third and final Blood Drive of the year is September 15-19. In the second Blood Drive back in May, Michoud employees donated 369 units – a great comeback from 241 units collected in the first drive in January. Let's match those 369 units or do even better in next month's drive.

Monday, Sept. 15	8 a.m. – 3 p.m.	Bldg. 351 E. Cafeteria
Tuesday, Sept. 16	8 a.m. – 3 p.m.	Bldg. 351 E. Cafeteria
Wednesday, Sept. 17	8 a.m. – 3 p.m.	Bldg. 102 Special Events Room
Thursday, Sept. 18	5:30 a.m. – 5 p.m.	Bldg. 102 Special Events Room (includes times for 3rd shift and 2nd shift to donate)
Friday, Sept. 19	12 noon -- 3 p.m.	Bldg. 102 Special Events Room



Milestones

Employees celebrating anniversaries with Lockheed Martin in September 2008

35 Years

Randy Tassin

30 Years

Dexter Dennis

Karen Lewis

Geneva Robertson

David Rodrigue

Timothy Smith

Don Wallen

25 Years

Steve Enxing

Elvis Joseph

Richard Knight

Jimmy Miller

Don Offner

Mike Quiggle

Ronald Smallwood

Terry Spiehler

20 Years

Howard Cole

Teresa Dillon

Frank Duncan

Michael Mathes

10 Years

Morrice Voss

5 Years

Lyle Attebury

Christina Bain

Megan Fontenot

Gilberto Guzman

Bob Moser

Michael Overby

Christiane Pineda

Travis Smith

Melanie Spring

Roger Whetstone

Mission Success Bulletin *on-line*

LOCKHEED MARTIN

Lockheed Martin Space Systems Company – Michoud Operations

Director of Communications: Marion LaNasa

Editor: Harry Wadsworth

Graphics/Photographers: Eric Bordelon, André Bourdier, Chip Howat, Shannon Jurado, Ryan Martin, Adam Mattivi, Brian Peterson, Jack Pfaller, Steve Seipei

Contributors: Kevin Barré, Chip Howat, Brian Peterson

Mission Success Bulletin is published by the Communications Department.

Volume 27, Number 9 • August 20, 2008