



# Mission Success Bulletin

January 18, 2006

*On-line*

## Katrina ride-out crew receives medal for bravery *"Not on My Watch" – motto of team who saved factory from flooding*



Paramedic Joan Savoy receives the Exceptional Bravery Medal from NASA Administrator Michael Griffin and Deputy Administrator Shana Dale.

"We are gathered here today at the Michoud Assembly Facility to honor members of the NASA family who exhibited tremendous courage and devotion to duty when – at risk to their personal safety – they protected this valuable national facility, and the property on it, from Hurricane Katrina."

Thus NASA Administrator Michael Griffin began his remarks on January 5 to



1,000 guests and employees at a General Assembly where he presented NASA Exceptional Bravery Awards to the 38 members of the ride-out crew who remained at Michoud before, during and after the most destructive storm in U.S. history.

"Their courage reminds us that not all of NASA's heroes fly in space."

Lavish in his praise,

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## Lockheed Martin to submit CEV design in March

NASA will select a prime contractor this year to design, develop and build the Crew Exploration Vehicle (CEV) – a selection that could impact Michoud Operations positively if Lockheed Martin wins CEV.

Last week NASA issued Phase II of a Request for Proposals – a "Call for Improvements" that adds detailed design, development and production requirements.

The spacecraft will have an improved, blunt-body crew

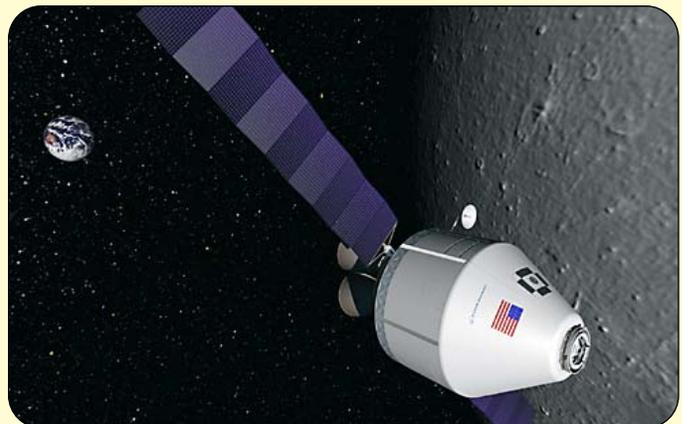
capsule shape and be able to transport up to six astronauts to and from the International Space Station and up to four to and from the moon.

Requirements are based on future exploration mission needs and the desire to fly the first CEV mission as close as possible to 2010, when the Space Shuttle will be retired.

The CEV will also support future Mars missions.

Competing Lockheed

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This graphic shows what a future CEV might look like in space.

## Bravery awards

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the administrator stated the crew “did nothing less than save America’s space program from, quite literally, being grounded for years.”

With the tattered flag that flew over Michoud during Katrina hanging as a backdrop, Griffin told the crowd that had Michoud been lost, NASA’s ability to conduct future Space Shuttle missions and to carry vital supplies and equipment to the International Space Station would have been lost as well.

“And in the worst case, our ability to develop the External Tanks for our next generation of spacecraft and heavy lift launch vehicles would also be at risk,” he suggested.

During the aftermath of the storm, determined crew members adopted the motto, “Not on My Watch,” as a rallying cry to keep the factory from flooding.

One by one the ride-out crew walked across the stage to receive their medal from Griffin and congratulations from Deputy Administrator **Shana Dale**, Vice President & General Manager **Marshall Byrd**, Marshall Space Flight Center Director **Dave King**, Associate Administrator for Space Flight **Bill Gerstenmaier** and Associate Administrator **Rex Geveden**.

The crowd rose as the final member of the crew, a beaming **Malcolm Wood**, received his award.

Crew member **Vickie Schmersahl** called it “an awesome, emotional” ceremony.

“I’m overwhelmed and for the most part I’m proud because there definitely was an uncommon valor displayed out there, and I’ll always remember the hurricane

crew,” said **Michael Parquet**, a systems control mechanic on the ride-out crew from Slidell who lost everything in the storm.

NASA Michoud Chief Operating Officer **Patrick Scheuermann** who served as Master of Ceremonies for the event zeroed in on that point. “The ride-out crew risked their lives to save the facility,

anticipation – hoping that your home would be fine but knowing that it wasn’t.” Katrina filled her St. Bernard house with nine feet of water.

Because of the crew’s efforts in keeping the back-up generators on line and the pumps going, the factory did not flood and delays in External Tank processing were held to a minimum.

*“We are counting on you to continue providing the shuttle External Tanks that will enable us to complete the space station and prepare for the next great era of space exploration.”*

*– Michael Griffin, NASA Administrator*



**After receiving the Exceptional Bravery Medal, engine mechanic Steve Francis is congratulated by MSFC Director Dave King, Assoc. Admin. for Space Flight Bill Gerstenmaier and Assoc. Admin. Rex Geveden.**

and many of them lost everything they owned outside our gates.” For his efforts in coordinating the crew’s efforts, Scheuermann received the NASA Outstanding Leadership Medal.

Paramedic **Joan Savoy** remembered doing her work while thinking about her family and home. “The

“We’ve gotten a lot of recognition and that’s nice, but when an employee comes up and thanks me, that means a lot – because people lost their homes,” said ride-out crew member and pump operator **Joe Barrett**.

“One has only to look at this area from the air, where Michoud appears as an island

of green in a sea of brown mud, to understand what this place would look like if that flooding had occurred,” Griffin said.

Griffin also thanked other employees who, after taking care of their own families, quickly returned to help get the facility back on-line as soon as possible. He reminded everyone that “Michoud’s unique manufacturing facilities figure prominently in America’s Vision for Space Exploration.

“We are counting on you to continue providing the shuttle External Tanks that will enable us to complete the space station and prepare for the next great era of space exploration. And we will rely on you to be at the forefront of this epic era, producing the tanks that will enable our Crew Exploration Vehicles and Heavy Lift Launch Vehicles to send our astronauts to the Moon, Mars and beyond.” ■

## CEV design

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Martin and Northrop Grumman-Boeing teams received Phase I contract awards this past July for CEV systems requirements definition.

Michoud Operations is part of the Lockheed Martin team executing the Phase I contract and preparing its bid for the next phase of the program that will include design, development and test as well as production and support until 2019, explained Dan Ferrari, director, Business Development.

Phase II proposals are due March 20. NASA will evaluate the proposals and select a single CEV contractor later this year.

The CEV is part of the Vision for Space Exploration. ■

# Work moves ahead on PAL ramp removal and bipod

ET retrofitting continues to progress since NASA made the decision in December to fly without protuberance airload (PAL) ramps.

“Right now, we’re finalizing the design of ice frost ramp extensions where we’ve removed the PAL ramp,” External Tank Project Vice President **Wanda Sigur** said. “We’re in the process of validating that design on ET-94.”

Engineers and technicians are also developing test programs that will verify an ET design without PAL ramps. Testing should begin in a few weeks and take several months, Sigur added.

“What’s unique about this is that we are working with our NASA customer to proceed with production and delivery in advance of a Critical Design Review (CDR).”

In lieu of a CDR, a number of integrated reviews will be held to assure that the hardware is appropriately designed and in process control, she explained.

On the bipod, work is focused on stopping the leak paths in and around the bipod wiring. Sigur said the team has progressed from design to real hardware production.

“We’ve completed validation of the bipod harness sealing process, and production has started on ET-119, the next tank to fly.”

The team is also working to validate the wire bonding process, which glues the wires to the tank.

Sigur said the team has also successfully worked some bipod insert issues at the fitting.

The plan now is to deliver ET-119 by March 3. ET-118 has moved up and now is the second tank scheduled to fly so ET-120 can be used for further data gathering.

After ET-120’s return to Michoud in October, workers found cracks in the PAL ramps. The tank experienced two cryoload-ing cycles at Kennedy Space Center last spring. ■



## Hartley tapped for NOVA Award

Paula Hartley, director, Safety & Product Assurance, has received the NOVA Award, the corporation’s highest honor for technical excellence. With Hartley is Bob Stevens, Lockheed Martin chairman, president & CEO. Hartley was selected for developing an enhanced-strength motor fuel for hybrid propulsion rockets as well as a low-cost manufacturing facility to produce the fuel. Both achievements took just five and six months, respectively, to complete, and significantly enhanced the corporation’s Falcon space launch vehicle proposal efforts. She received the award at a ceremony at the Smithsonian National Air and Space Museum in Washington D.C. ■

## Milestones

*Employee anniversaries in January*

| 30 years        | 20 years         | 15 years        |
|-----------------|------------------|-----------------|
| Joseph Carbo    | Robert Carroll   | Tammy Bourgeois |
| Stephen Robbins | Eugene Flores    | Paul McKean     |
|                 | Lamar Lavergne   |                 |
| 25 years        | Mohammad Masoodi | 5 years         |
| Thomas Davis    | Michael McBain   | Jerri Cavett    |
| Tim Knowles     | Tom Mott         | Kevin Mars      |
| Jim McAllister  | Brian Scott      | Kwok Tsang      |
|                 | John Windham     | Veronica Vilen  |

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A technician works on bonding the bipod wire on a mock-up panel.