



# MARSHALL STAR

Serving the Marshall Space Flight Center Community

April 10, 2008

## ATV Jules Verne docks with International Space Station

*NASA Headquarters*

The Jules Verne, the first European Space Agency Automated Transfer Vehicle, docked to the aft port of the International Space Station's Zvezda Service Module at 9:45 a.m. CDT April 3.

The ATV launched from Kourou, French Guiana, on an Ariane 5 rocket March 9. Weighing almost 22 tons, the ATV was the largest payload ever launched by the Ariane 5. Solar arrays deployed as planned after two engine firings more than an hour and a half after launch. That placed the ATV in a parking orbit about 1,200 miles from the station.

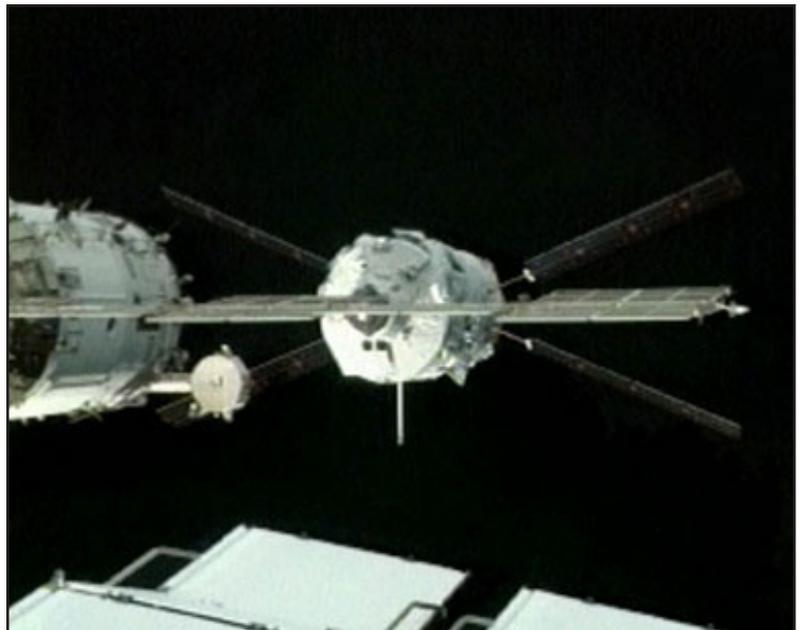
The Jules Verne docked smoothly to the space station using its automated, laser guided rendezvous system.

The uncrewed cargo spacecraft carries more than 7,500 pounds of equipment, supplies, water, fuel and gases for the station. It also carries hopes and aspirations of the European Space Agency. The ATV and its advanced rendezvous system could play an important role in future space exploration.

The ATV can carry about three times the cargo weight carried by the Progress, the reliable Russian uncrewed cargo carrier.

The Jules Verne initially was placed in an orbit a safe distance from the station, where a series of tests were performed. Among the last of the tests were two approaches to the station.

Those approaches ended in "escape" maneuvers, to verify a collision avoidance system. It would be used if the ATV automated



The Jules Verne Automated Transfer Vehicle approaches the aft port of the International Space Station's Zvezda Service Module for docking.

docking system should fail.

The spacecraft is scheduled to remain at the station until August, for unloading and to reboost the orbiting laboratory. Subsequently it will be filled with station garbage and discards. Then it will be deorbited for destruction on re-entry over the Pacific.

## Kansas, Indiana students clinch victory in Great Moonbuggy Race

*By Rick Smith*

Student racers from Erie High School Team II in Erie, Kan., and the University of Evansville in Evansville, Ind., won first place in the high school and college divisions, respectively, of NASA's 15th annual Great Moonbuggy Race, held April 4-5 at the U.S. Space & Rocket Center in Huntsville.

Forty-six high school, college and university teams from around the United States, Puerto Rico, Canada, India and Germany fielded moonbuggies of their own design. The buggies are inspired by the original lunar rover used during the Apollo moon missions in the early 1970s. The race honors the engineering legacy of the original rover designers at the Marshall

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*See page 4 for winners' photos*

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Center, which organizes the race each year.

Despite driving rain, 22 high school teams turned out to compete April 4. Erie Team II posted the fastest course completion time among high school racers — just 3 minutes

***See Moonbuggy on page 4***

## STS-122 shuttle astronauts to visit Marshall on April 15

Space shuttle astronauts who flew the STS-122 mission Feb. 7-20 to the International Space Station will visit the Marshall Center April 15 to present highlights of their 13-day mission.

The event will be at 10 a.m. in Morris Auditorium, Building

4200. An autograph session will follow at 11 a.m.

The STS-122 mission delivered the European Space Agency's Columbus module, which expanded the size and research capabilities of the space station. The mission featured three spacewalks.

## Marshall employees 'Buckle Up' to kick off seat belt campaign

Statistics show that being thrown from a moving vehicle is the No. 1 cause of death in car crashes. To remind Marshall employees of the importance of wearing seat belts, a seat belt campaign will officially kick off across Marshall on April 10.

Sponsored by the Safety, Health and Environmental Communications Team, part of the SHE Committee, and the Protective Services Office in the Office of Center Operations, the campaign is the result of a recent Marshall 2007 assessment that showed out of approximately 700 surveyed, only 40 percent of Marshall employees use seat belts in service vehicles. Although 80 percent use seat belts in private vehicles, the SHE team is working to achieve complete participation among employees operating private and service vehicles.

To help promote awareness for the seat belt campaign, SHE team members and Protective Services personnel will distribute vehicle stickers to service cars and key chains inscribed with "Buckle Up," and informational flyers to employees across the center. Protective Services also will provide stickers with pertinent safety information for all government service vehicles, and will conduct safety meetings with onsite contractors this month and throughout the summer to distribute stickers and discuss the campaign.



David Higginbotham/MSFC

SHE Communications Subcommittee members brief Marshall Associate Director Robin Henderson, center, on the seat belt campaign. From left are Todd MacLeod, Judy Milburn, Chris McCain, Bruce Askins, Glenda Morton and Kathy Brown.

During April, Protective Services will monitor and enforce onsite seat belt compliance in all vehicles. Noncompliance could result in a warning. On May 1, in conjunction with the national "Click It or Ticket" campaign, Protective Services will enforce seat belt compliance by issuing tickets to employees not wearing their seatbelt in both private and service vehicles.

For more information about SHE, go to <http://she.msfc.nasa.gov/>.

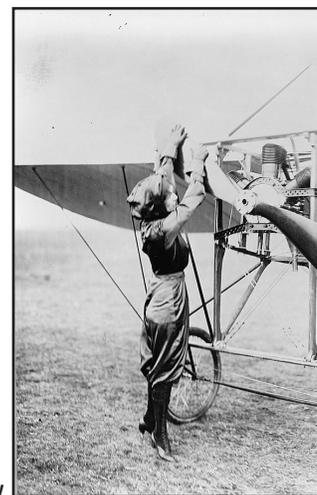
## This month in history ...



Oct. 1 will mark NASA's 50th anniversary. However, there were many pioneers that made advances and sacrifices in aviation and space that prepared the foundation for the creation of the new space agency.

This should make April 14 noteworthy since it was on that date in 1912 that American aviator Harriet Quimby became the first woman to fly across the English Channel.

Although Quimby's Channel crossing would propel her to fame, she would not be so lucky during her flight at the Third Annual Boston Aviation Meet in Squantum, Mass., a few months later. Like so many early exhibition pilots, Quimby crashed and died at an early age in front of thousands.



Harriet Quimby

# Clinton, Parker, Rodriguez reassigned to new positions at Marshall Center

Raymond "Corky" Clinton Jr. is assigned to the previously vacant position of deputy manager in Marshall's Science & Mission Systems Office. Nelson Parker, currently deputy manager of the Space Systems Department in the Engineering Directorate, is reassigned to Clinton's previous position of deputy director for program assurance in the Safety & Mission Assurance Directorate. Pete Rodriguez is reassigned from the position of deputy manager of the Spacecraft & Vehicle Systems Department in the Engineering Directorate, to the position of assistant to the chief engineer in Engineering Directorate.



Corky Clinton

Immediately prior to this assignment, Clinton served as deputy director for program assurance, Safety & Mission Assurance Directorate. In his new role, he will assist the S&MS manager in leading the activities of a multi-disciplined organization performing advanced, complex scientific research in support of science and human spaceflight systems and developing new systems, solutions and technologies for exploration.

Since joining Marshall in 1984, Clinton has served in a wide variety of leadership positions, including chief of the Ceramics and Coatings Branch; chief of the Nonmetallic and Materials Processes Branch; chief of the Nonmetallic Materials and Processes Division; manager of the Exploration Science and Technology Division; and manager of the Microgravity Science and Applications Department. He led the External Tank Composite Nose Cone Team, served as NASA co-chair on the joint Department of Defense/NASA Integrated High Payoff Rocket Propulsion Technologies Materials Working Group, and more recently, led the STS-114 ET-121 In-Flight Anomaly Investigation.

Parker has served as deputy manager of the Engineering Directorate's Space Systems Department — formerly the Instrument

and Payload Systems Department — since December 2004. As deputy director for Program Assurance in the Safety & Mission Assurance Directorate, he will be responsible for ensuring that S&MA Directorate activities for the shuttle propulsion and Ares are technically appropriate, meet program technical performance needs and are timely without sacrificing human safety. Since joining Marshall in 1975, Parker has held numerous leadership positions, including lead systems engineer for the International Space Station U.S. Laboratory; team leader and branch chief of the Design Integration Branch; deputy chief of the Systems Integration Division; chief of the Technical Staff Office in the Systems Analysis and Integration Laboratory; assistant to the director in the Engineering Directorate; and deputy manager and, subsequently, manager of the Engineering Systems Department.



Nelson Parker

As assistant to the chief engineer, Rodriguez will provide expert technical leadership in planning, directing and executing research, design and development production engineering, and integration and sustaining engineering for NASA's shuttle propulsion elements, exploration launch systems, and science and mission systems. He has served as deputy manager of the Spacecraft & Vehicle Systems Department since August 2007. Prior to that assignment, he served as director of Marshall's Test Laboratory for three years.



Pete Rodriguez

Rodriguez began his NASA career in 1976 as a structural design engineer, designing special test equipment at the Marshall Center. Since then, he has served in positions, including manager of the Test Laboratory, deputy manager of the Structures, Mechanics and Thermal Department; chief of the Structural Development Branch; and chief of the Structural Design Division. He managed NASA's Meteoroid and Orbital Debris Technology Program and was lead systems engineer for the X-34 Experimental Launch Vehicle program. Rodriguez also served as the leader of the Solid Rocket Booster accident investigation team following the space shuttle Columbia accident in February 2003, and was a project manager for the Space Launch Initiative Program.

## Obituaries

**Thomas Johnston**, 77, of Athens died March 15. He retired from the Marshall Center in 1979 as an engineer. He is survived by his wife, Mildred Schrimsher Johnston.

**Edward Wade Ball Jr.**, 77, of Athens died March 7. He retired from the Marshall Center in 1987 as an engineer. He is survived by his wife, Mary Ann Meadows Ball.

**Jay Alan Medley**, 52, of Huntsville died March 31. He was an engineer at the Marshall Center in the Engineering Directorate. He is survived by his wife, Pamela Medley.

**Anne M. Magee**, 72, of Madison died April 2. She retired from the Marshall Center in 1994 as a secretary.

# Moonbuggy

*Continued from page 1*

and 17 seconds — edging out second- and third-place winners, both hometown teams from the 2007 high school moonbuggy champion Huntsville Center for Technology.

The rain departed April 5, leaving a damp course and chilly conditions for 24 college and university teams. Evansville finished their winning run in 4 minutes and 25 seconds, edging out second-place finishers from Murray State University in Murray, Ky., and third-place racers representing Canada's Carleton University in Ottawa, Ontario.

Marshall engineer Mike Selby, race timekeeper and a former University of Alabama in Huntsville moonbuggy racer himself, said Erie High's 3:17 completion time is the fastest-ever for the current moonbuggy course. No small feat, considering the course is a half-mile of steep slopes, craters and ridges fashioned to mimic lunar ground conditions.

The winning teams received trophies, cash prizes and other awards from NASA and the event's corporate sponsors.

"Once again, we're amazed and inspired by the ingenuity and energy of our participating teams," said Tammy Rowan, manager of the Marshall Center's Academic Affairs Office, which organizes the moonbuggy race. "This race is a great example of how NASA inspires and motivates new generations to carry on the nation's journey of discovery, to the moon and onward into the solar system."

The 2008 race is sponsored by NASA's Space Operations Mission Directorate, and by Northrop Grumman Corp., The Boeing Company and Teledyne Brown Engineering, all of Huntsville. Additional contributors include the American Institute of Aeronautics and Astronautics; ATK Launch Systems, Inc.; CBS-TV affiliate WHNT (Ch. 19); Jacobs Engineering Science Technical Service Group; Stanley Associates; Science Applications International Corp.; the Tennessee Valley chapter of the System Safety Society Inc.; the United Space Alliance, LLC; and the U.S. Space & Rocket Center.

Complete lists of 2008 winners and photos of the winning racers can be found at <http://www.nasa.gov/centers/marshall/news>.

For information about past winners, the course and race sponsors, plus NASA's official fact sheet, visit <http://www.nasa.gov/centers/marshall/news/moonbuggy.html>.

*Smith, an ASRI employee, supports the Office of Strategic Analysis & Communications.*



Emmett Given/MSFC

Student racers from Erie High School Team II in Erie, Kan., speed into first place April 4 in the high school division of NASA's Great Moonbuggy Race



David Higginbotham/MSFC

The team from the University of Evansville in Evansville, Ind., takes the top prize in the college division of the Great Moonbuggy Race on April 5.



Emmett Given/MSFC

Students from Puerto Rico High School in Fajardo endure a buggy-toppling wreck early in the high school race. But the duo, uninjured, jumped back into competition to post the fastest race time among race newcomers, earning their team the 2008 high school "Rookie Award" from race sponsor Northrop Grumman Corp. of Huntsville.

## Yuri's Night Party

# Huntsville to celebrate first man in space and first space shuttle orbit – exactly 20 years apart

By Jessica Wallace

"Circling the Earth in my orbital spaceship, I marveled at the beauty of our planet. People of the world, let us safeguard and enhance this beauty — not destroy it!" said Yuri Gagarin, the first human in space.

On April 12, 1961, Gagarin made his way to space from Baikonur Cosmodrome, Republic of Kazakhstan, on board the Vostok 1 spacecraft. Exactly 20 years later, on April 12, 1981, space shuttle Columbia became the first shuttle to orbit the Earth, launching from Kennedy Space Center, Fla.

In commemoration of Gagarin's 108-minute flight and the space shuttle's debut into space, LeeAnn's restaurant in Huntsville will host a Yuri's Night Party at 7:30 p.m. April 12 at 415 East Church Street, Suite 13. The party is an international celebration held annually to honor these successes that have led to years of space exploration.

Key event sponsors also include the nonprofit Huntsville Alabama L5 Society, the local chapter of the National Space Society whose members share their enthusiasm for space development; and Huntsville Alive, a social networking organization for professionals.

The evening will feature live music from a local band, special guests, space-themed door prizes and the debut of the "Yuritini," a special drink created for the celebration.

For more information about the Yuri's Night Party, go to <http://www.yurisnight.net/2008/> or <http://www.HAL5.org/yuri>.

For more information on the Huntsville Alabama L5 Society, go to <http://www.HAL5.org>. For more information on Huntsville Alive, go to <http://www.huntsvillealive.com/dotnetnuke/>.

Wallace, an ASRI employee and Marshall Star editor, supports the Office of Strategic Analysis & Communications.

## Classified Ads

*To submit a classified ad to the Marshall Star, go to Inside Marshall, to "Employee Resources," and click on "Employee Ads — Submit Ad." Ads are limited to 15 words, including contact numbers. No sales pitches. Deadline for the next issue, April 17, is 4:30 p.m. Thursday, April 10.*

### Miscellaneous

Acuity Voltage RH junior golf set, extra balls, putts, gloves, \$100. 431-1556

Yamaha organ, console model, dual keyboard, many features, \$950. 881-7283

Coffee table, two matching end tables, \$100; 52-inch RCA TV, \$500. 337-4476

Two Poolguard inground pool alarms, \$100 each, \$150 for both. 776-2263

Washer, \$75. 975-6122

17-inch Lexani rims, tires, \$300. 975-6122

Wire dog crate, fold-and-carry pan, 36"x24"x28", folds down to 6 inches in height, \$40. 777-1810

Antique Duncan Phyfe mahogany dining table, 60"x40"x29", \$200. 506-5900

Three German Dirndls, purchased in Germany, sizes 36-38, good condition, \$200 obo. 509-2536 or 379-3398

10-inch Black and Decker table saw, on legs, table extension, rip fence, miter guide, \$85. 325-2919

Valhalla Masonic Garden, four plots, \$4,400 plus transfer. 881-9421

Kenmore 15 cubic-foot chest freezer, lockable, \$150. 858-5552

Six lengths of 84x62 sheer curtains, white, \$4 per length, other sizes available. 881-8879

Bench press/leg curl, 45-pound bar, 240-pound weight set, \$175 obo. 762-1434

Bird houses, \$20 each; dryer, \$90. 837-0327

Wedding dress, creme, veil, size 8-10, \$100. 880-9025

Maple Hill cemetery, city section, one burial space, \$1,500. 551-0522

1/2-carat diamond band, yellow gold, \$225; wedding dress, white, veil, size 16-18, preserved, \$200. 426-7862

Samsung 32-inch 720p LCD HDTV, three HDMI inputs, remote, owner's manual, \$650. 503-9464

John Deere commercial lawn equipment. 859-9940

Dell Computer, 5600 CPU, 1Gb RAM, DVD/-RW, GeForce 8300 graphics, warranty, \$350. 417-4828

Two black bar stools with backs, counter height, \$35 each. 837-8433 or 206-0582

Baby Trend sit or stand stroller, extra seat for toddler, \$75. 931-993-1992

Oak entertainment center, two large doors on bottom, holds a 36-inch TV, \$250 obo. 423-3259

### Vehicles

2007 Honda Accord EX-L, V6-3L engine, auto, two-year warranty, gold/beige, 10,500 miles, \$22,000 obo. 464-7074

2007 Toyota 4Runner SR5, 4WD, 10-inch roof-mount DVD, 12k miles, \$25,700. 881-7000

2006 Chevy Cobalt, automatic, new tires, 50k miles, \$9,500. 337-1868

2003 Tahoe LS, 2/4WD, loaded, third row seating, new tires, 121k miles, \$11,500. 865-384-4616

2002 Honda Shadow VT600, purple, chromed out, new tires, 43k miles, \$3,000 firm. 759-3009

2002 Dodge RAM pickup, 4.7 V8 engine, auto transmission, A/C, gray, 89k miles, \$7,995. 244-0682

2001 Mazda Miata LX, loaded, leather, keyless entry, black/tan, 61k miles, \$10,500. 883-6894 or 468-6894

2001 Ford Windstar van, numerous options/features, power wheelchair lift, 82k miles, \$9,300. 658-1662

2001 Grand Cherokee Limited, power sunroof, CD changer, 89k miles, \$9,900. 603-0741

2000 Mitsubishi Eclipse, red, moonroof, 81k miles, \$6,000. 931-438-1730

1999 Lexus SUV RX300, black, tan interior, 21mpg, 155k miles, \$8,300. 468-6261

1999 Toyota 4-Runner Limited Edition, white, brown interior, sunroof, CD, A/C, \$7,000. 694-1260

1996 Chrysler Town/Country LXI van, new tires and paint, \$3,295. 890-0799 or 479-5953

1995 Dodge RAM 1500 Club Cab pickup, 5.9L V8, \$1,995. 797-9985

1995 Lexus LS400, beige, leather, automatic, multi-CD changer, 110k miles, \$4,500 obo. 544-1504

1992 Ford F-150, extra long bed, double cab, 90k miles, \$5,500. 859-9940

1992 Burgundy Mazda 929, V6, 150k miles, \$2,300 obo. 273-4419

1989 Mercedes 300TE wagon, 160k miles, \$3,200. 885-1640

1989 Mastercraft Tristar 220, wakeboard tower, 351 engine, new interior, \$10,000. 415-2558

19-foot Bayliner Capri Bowrider, 125 hp, trailer, covers, extras, \$3,000. 653-3647

34-foot Gulf Stream Scenic Cruiser Class A motorhome, back-up camera, Ford 460, \$20,000. 335-5896

### Wanted

Exercise bicycle and treadmill in good working condition. 931-438-1730

Saddle bag supports, saddle bags, roll bag for Honda Shadow Aero 750. 777-8229

Houses/offices to clean, available evenings and weekends. 777-8595

### Free

Black/white indoor cat, male, fixed, all shots. 541-2049  
Wurlitzer piano, needs tuning, you pick up. 340-7342

### Lost

Sony Clie PEG-T665C handheld organizer, serial #3007792. 289-0800

# Marshall conducts Lean Six Sigma Green Belt Class

The Marshall Center held its seventh successful Lean Six Sigma Green Belt Class in March. Nineteen Marshall employees learned the requirements to become practitioners of Lean Six Sigma, a method for business and quality improvement.

As part of Marshall's continuous improvement efforts, the center has an initiative called Lean Six Sigma Operating Excellence. It is in support of NASA's goal of moving from producing products to producing solutions with unprecedented efficiency. For example, Lean Six Sigma methods and principles are being used by Marshall to enhance development of the Ares Projects, America's next generation space transportation systems. The central focus is to improve operating processes, become more efficient, eliminate waste, squeeze out costs and to become more responsive to customers' priorities.

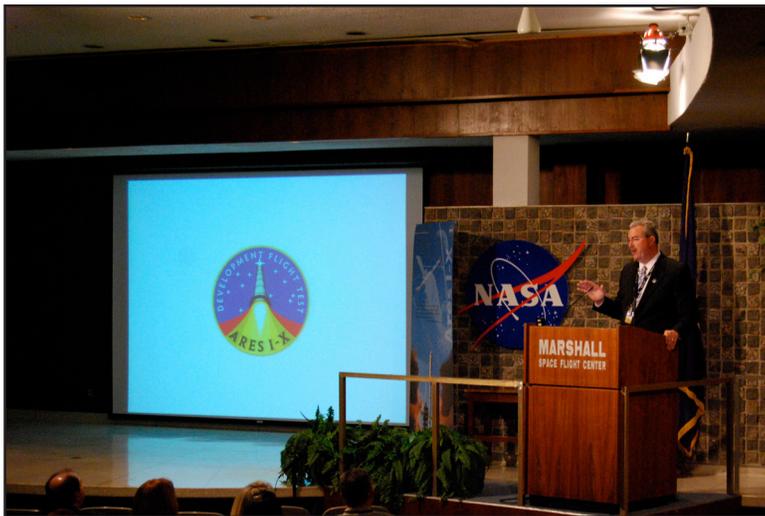
As practitioners, graduates of the green belt class will carry out improvement events such as effectiveness trainings, participate on Lean Six Sigma teams and apply lean principles and six sigma methodology in work areas.

Marshall civil service employees and contractors interested

in learning about Lean Six Sigma methods and principles are encouraged to take the green belt class — the first level of training and certification, providing the necessary tools to participate on Lean Six Sigma teams. Green belts can serve as facilitators and part-time leaders of process improvement activities while under the guidance of a black belt. Black belt training applies Lean Six Sigma methods to produce significant improvements in operational and financial performance. Once green belt certified, students may advance to the black belt course.

Marshall leaders interested in learning about the Lean Six Sigma principles are encouraged to take the Champion's Class. This course helps managers to understand what happens during an improvement event, what type of results to expect and how to identify event opportunities in their organizations.

Marshall's Lean Six Sigma Management Office is responsible for training, event management and project-specific efforts. For more information, contact Patty Fundum at 544-8436 or Mark Adrian at 544-0883.



Courtesy photo

## Steve Davis briefs Marshall team members on Ares I-X progress

Steve Davis, deputy manager of the Ares I-X Test Flight Project at the Marshall Center, updates team members at an all-hands meeting April 3 in Morris Auditorium. With the April 2009 launch of the Ares I-X rocket now just a year away, Davis covered details of the current hardware development and highlighted project milestones. Ares I-X is the first step in developing the Ares rocket fleet, which will be the centerpiece of the Constellation Program. This test flight is designed to test various aspects of the spacecraft prior to the first crewed Ares and Orion mission, currently scheduled for 2015. NASA's Constellation Program at the Johnson Space Flight Center in Houston manages the Ares I-X mission with several program managers located here at Marshall.

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