



MARSHALL STAR

Serving the Marshall Space Flight Center Community

April 15, 2010

Lightfoot discusses proposed program work assignments for Marshall at all-hands

By Jessica Wallace Eagan

Marshall Space Flight Center Director Robert Lightfoot met with team members April 8 to discuss NASA's announcement of new program assignments for Marshall and other NASA centers.

Lightfoot's all-hands followed a NASA Update at Headquarters by Administrator Charles Bolden and Deputy Administrator Lori Garver, during which they announced the

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Center Director Robert Lightfoot meets with Marshall team members to discuss new program assignments for Marshall.

NASA announces future work assignments for field centers



NASA Administrator Charles Bolden and Deputy Administrator Lori Garver presented an outline for new and extended program assignments across the agency in support of the president's fiscal year 2011 budget request.

NASA news release

NASA Administrator Charles Bolden and Deputy Administrator Lori Garver presented an outline for new and extended program assignments across the agency April 8 in support of the president's fiscal year 2011 budget request.

Pending congressional approval, NASA will create new program offices that include activities in exploration technology and development, heavy lift rockets and rocket propulsion technology, exploration precursor robotic missions, human research and commercial spaceflight opportunities.

In addition, the new budget has increases for NASA's Science and Aeronautics directorates that will

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agency's new center program assignments that will be implemented upon Congress approving and the president signing the FY 2011 NASA budget.

"The multiple center work assignments announced include meaningful and challenging work for Marshall that will ensure our continuing role as a key player in the future of space exploration," said Lightfoot. "These tasks are a clear demonstration of confidence by NASA and the nation in the unique capabilities that exist here."

Marshall's new assignments will include the establishment and management of four offices: the Heavy Lift and Propulsion Research and Development Program, the Exploration Precursor Robotic Program, Space Technology Demonstrations and Centennial Challenges.

The Heavy Lift and Propulsion Research and Development Program will investigate a broad scope of research and development activities to support next-generation space launch propulsion technologies to both reduce costs and shorten development timeframes for future heavy-lift and in-space systems. Activities include new approaches to first-stage launch propulsion; in-space advanced engine technology development and demonstrations; and foundational propulsion research. Marshall will

coordinate programmatic activities with NASA's Exploration Systems Mission Directorate, and provide management oversight and integration across the technology project elements. The 2011 budget for this program will be \$559 million and \$3.1 billion over five years.

The Exploration Precursor Robotic Program will send robotic precursor missions to the moon, Mars and its moons, Lagrange points – the five positions in an orbital configuration where a small object affected only by gravity can theoretically be stationary relative to two larger objects – and nearby asteroids. The program will prove technologies and test operational concepts to benefit future human exploration. Marshall will coordinate programmatic activities and provide management oversight and integration across mission elements. The 2011 budget will be approximately \$105 million and \$2.6 billion over five years.

Technology Demonstrations Missions will support crosscutting technologies, performing flight demonstrations. This includes designing the flight test program, building the flight hardware and performing/operating the missions, preparing the NASA and industry work force to handle future space missions. Marshall will coordinate and manage these activities across the nation in collaboration with NASA's Office of the Chief Technologist. The proposed 2011

budget will be \$75 million and \$1.4 billion over the next five years.

Centennial Challenges seeks innovative solutions to technical problems that can drive progress in aerospace technology and be of value to NASA's missions in space operations, science, exploration and aeronautics. Marshall will manage this effort in collaboration with the Office of the Chief Technologist to benefit all of NASA and the private sector. The proposed 2011 budget will be \$10 million and \$50 million over the next five years.

"Nothing is official until Congress approves and the president signs," emphasized Lightfoot. "If approved, when fiscal year 2011 arrives, we can begin immediately working these programs. I have confidence in this center because we have such a wide mix of skills and we can put the right folks in the right spots. I'm proud of the work we've done in the past and enthusiastic about beginning the new work that lies ahead."

For details on Marshall's work assignments, visit http://www.nasa.gov/pdf/441800main_MSFC_Roll_Out_Final.pdf.

For more information about the 2011 proposed budget, visit <http://www.nasa.gov/news/budget/>.

Eagan, an AI Signal Research Inc. employee and the Marshall Star editor, supports the Office of Strategic Analysis & Communications.

Future work *Continued from page 1*

improve the agency's Earth observation capabilities and help create a Next Generation air transportation system that is safe, efficient and friendlier to the environment. The work assignments expand on the strengths of NASA's 10 centers while allowing the agency to safely fly out the space shuttle manifest and establish a firm foothold in space by extending the International Space Station, likely to 2020 or beyond.

"These assignments build on the deep knowledge and expertise that NASA has developed during five decades," Bolden said. "They recognize our work force's wealth of experience and commitment, and the specialties already existing at the NASA field centers."

Bolden said the work assignments represent a bold new approach to exploring space that will enable NASA to get beyond low-Earth orbit and create robust near-Earth spaceflight capabilities. In addition, several of the technology development efforts will focus on innovative approaches to spaceflight and other technologies.

For details on the Marshall Space Flight Center's work assignments, visit http://www.nasa.gov/pdf/441800main_MSFC_Roll_Out_Final.pdf.

For details on the other NASA center work assignments and more information about the agency's fiscal year 2011 budget, visit <http://www.nasa.gov/budget>.

'How big is your footprint?'

Marshall celebrates 40th anniversary of Earth Day on April 22

Festivities to include ribbon cutting of Marshall's new half-mile walking trail

By Jessica Wallace Eagan

It was 40 years ago, on April 22, 1970, when the United States first celebrated Earth Day. Founded on that date by former U.S. Sen. Gaylord Nelson of Wisconsin, Earth Day – Nelson hoped – would inspire awareness and appreciation for the Earth's environment.

On this April 22, Marshall Space Flight Center's Environmental Excellence Team will sponsor Earth Day festivities, beginning with the opening ceremony at 10 a.m. behind the Wellness Center. At 10:20 a.m., Marshall Deputy Director Gene Goldman will lead a ribbon-cutting ceremony for the center's new half-mile paved walking trail, which opened for use earlier this month behind the Wellness Center, facing Morris Road.

An "environmental expo" will follow from 10:30 a.m. to 12:30 p.m., with representatives from more than 35 local vendors and organizations who will demonstrate environmental practices and products to Marshall team members.

The event's theme this year is "Reducing Our Carbon Footprint." A carbon footprint is a measure of the impact human activities have on the environment. It relates to the amount of greenhouse gases produced in day-to-day lives through burning fossil fuels for electricity, heating and transportation.

The featured speaker will be Robby Jones, regional manager of energy efficiency and demand response for the Tennessee Valley Authority in Huntsville. He will talk about simple things people can do in their homes to save energy, and in return, reduce their carbon footprints.

"In order for Marshall to meet the requirements of Executive Order 13514, Federal Leadership in Environmental, Energy and Economic Performance, we

need to do anything practical to cut down on our carbon footprint," said Roger Bunnell, Marshall's recycling and green purchasing coordinator in the Environmental Engineering & Occupational Health Office. "Federal agencies are required to purchase goods that are water/energy efficient, contain recycled content, contain biobased content, less toxic and/or otherwise environmentally friendly."

"Please help us by making an effort to turn off your lights, computers and other equipment at the end of the workday

and when not in use, and please

try to save paper when work can be accomplished electronically," he added.

"All these little steps will really help Marshall out in the long run."

During the ceremony, the Environmental Excellence Team will present Environmental Hero Awards to Marshall team members, recognizing excellence in environmental stewardship through efforts to preserve and protect the environment.

Winners of the Earth Day logo and photo contests also will

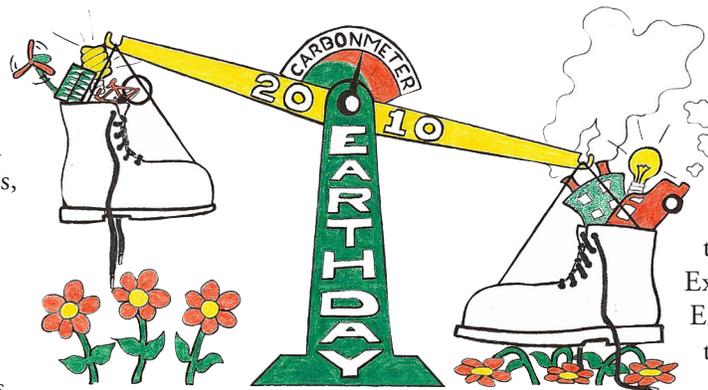
be presented with certificates. This year's logo winner is Chris Riley, a systems engineer for United Space Alliance, supporting Marshall's Shuttle Propulsion Office. Riley's logo, selected in a vote by team members, will be used in Earth Day promotional materials. Photo winners will be announced at the event.

To mark Earth Day's 40th anniversary, 40 trees will be planted along Marshall's new walking trail, as well as near the center's softball field on Pioneer Street.

Complimentary hot dogs, soft drinks and ice cream will be available during the event, along with door prizes and giveaways for attendees. Recycling stations will be set up at the expo for cell phones and eyeglasses.

For more information of the day's events, contact Bunnell at 544-0608 or roger.e.bunnell@nasa.gov.

Eagan, an AI Signal Research Inc. employee and the Marshall Star editor, supports the Office of Strategic Analysis & Communications.



HOW BIG IS YOUR FOOTPRINT?

The winning logo design for this year's Earth Day logo contest was submitted by Chris Riley, a systems engineer for United Space Alliance, supporting Marshall's Shuttle Propulsion Office.

Space shuttle STS-131 mission extended one day; landing scheduled April 19 at Kennedy

By Sanda Martel

NASA managers have extended space shuttle Discovery's STS-131 mission by one day to allow for an inspection of the shuttle's thermal protection system while the shuttle is docked to the International Space Station.

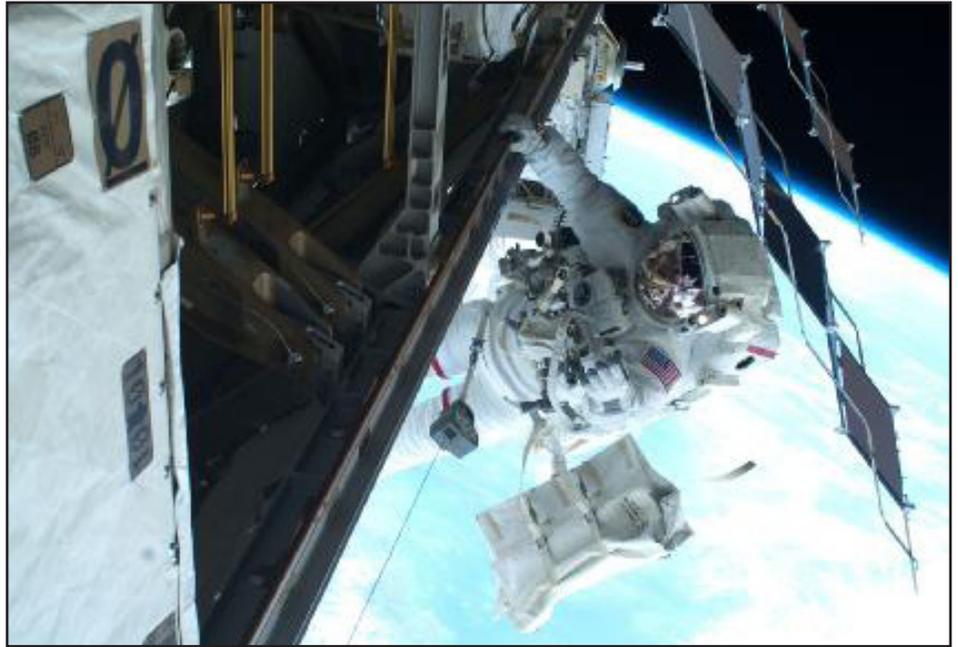
One of Discovery's communications systems – the Ku-Band – is not functioning correctly. After the inspection, the space station's Ku system will transmit the heat shield video and laser scan to Mission Control at the Johnson Space Center in Houston for imagery experts to analyze.

Landing now is targeted for April 19 at 7:54 a.m. CDT.

This will be the second time a thermal protection system inspection has been performed while the orbiter is docked to the space station. The first was during STS-123 in March 2008.

The current mission has included three spacewalks, all by Mission Specialists Clayton Anderson and Rick Mastracchio. During the first spacewalk April 9, the duo removed a depleted, 1,700-pound ammonia coolant tank from the station's solar power truss. The tank will be returned to Earth to be refilled and subsequently returned to the space station.

They also replaced a failed gyroscope unit on one of the truss segments and retrieved a science experiment from the station's porch, the Japanese Kibo Laboratory's exposed facility. The gyro unit is an electronics box that helps the



Astronaut Rick Mastracchio works on the International Space Station truss section during the mission's second spacewalk April 11.

space station determine and maintain its flight attitude in space.

Mastracchio and Anderson completed the second spacewalk of the mission April 11 to install a replacement ammonia tank. The mission's third spacewalk April 13 included replacing a camera light on the Destiny laboratory; installing two more radiator grapple fixture stowage beams; installing a new light on a camera assembly on the Destiny laboratory; installing a camera pan and tilt assembly on the Dextre robot; and relocating the depleted ammonia tank to Discovery's payload bay for return home.

The Dextre, developed by the Canadian Space Agency, is a two-armed robot capable of handling delicate assembly tasks previously handled by astronauts during spacewalks. It was launched to the station in 2005.

Shuttle Discovery will undock from the space station April 16. Launch was from Kennedy on April 5.

For the latest information about the STS-131 mission, visit http://www.nasa.gov/mission_pages/shuttle/main/index.html.

Martel, an AI Signal Research Inc. employee, supports the Office of Strategic Analysis & Communications.

Huntsville to host international Space Operations conference

Experts and innovators in the global space operations community will "deliver on the dream" at the SpaceOps 2010 conference April 25-30 at the Von Braun Center in Huntsville.

The conference will serve as a forum on best practices for the international space operations community to discuss a wide spectrum of topics on space operations methods and systems – including advanced communication and navigation technologies, flight control systems, international interoperability, space internetworking and more. Special this year are new tracks on Launch

Operations and Commercial Space Operations.

The event – themed "Delivering on the Dream" – is hosted by the Marshall Space Flight Center and organized by the American Institute of Aeronautics and Astronautics. Space is still available, but civil servants who want to attend the conference should register in SATERN after approval from their supervisors.

Attendance is limited, and registration requests must be submitted in SATERN by April 16. For more information about the conference and the complete agenda, please visit: www.SpaceOps2010.org.

Student rocketeers to display, launch rockets April 16-18

Marshall TV to stream live coverage of annual challenge via Ustream

Marshall Space Flight Center team members are invited to meet hundreds of student rocketeers from all over the country and cheer them on – in person or online – as they launch their sophisticated rockets during NASA's annual Student Launch Projects on April 16-18.

The annual rocket fair will be held April 16 from 11 a.m. to 1 p.m. in Activities Building 4316. College and university students will launch their rockets April 17. Middle and high school teams will launch April 18. Both events begin at 10 a.m. at Bragg Farms in Toney, Ala., approximately 20 miles north of Huntsville in Madison County.

For the first time, Marshall Television Services will stream the launch challenge live via the interactive

broadcast platform Ustream. Watch at <http://www.ustream.tv/channel/marshall-space-flight-center>.

Each year, NASA's Student Launch Projects challenge students to blend practical engineering practices with sky-high creativity – and to pursue technical careers in fields involving science, technology, engineering and mathematics.

For more information and directions to the launch site, visit http://www.nasa.gov/pdf/436692main_SLI_Brochure.pdf.

Great Moonbuggy Race brings crashes, smiles, new victors



Among the highlights of the 17th annual NASA Great Moonbuggy Race, held April 9-10 at the U.S. Space & Rocket Center, was the first-place upset victory by German moonbuggy drivers Steffi Fleischer, left, and Stefan Martini. Representing the International Space Education Institute in Leipzig, Germany, the duo unseated 2008-09 high school champions from Kansas and Alabama with a final race time of 3:37. "Team Germany," which this year included two Russian students, has competed in the race since 2007.



Angel Cepeda, front, and Stella Delgado pilot the moonbuggy for the University of Puerto Rico in Humacao to a first-place win in the college division. They finished the grueling course, which simulates the rough, cratered surface of the moon, with a best time of 4:18. The university has been represented in every moonbuggy competition since it began in 1994. After 17 years, the team goes home with a first-place trophy.

A teammate congratulates Cassie Maurer, driver for the rookie team from the Rhode Island School of Design in Providence, after Maurer and fellow driver Eric Peloquin raced their innovative, three-wheeled buggy to a third-place win in the college division. The team's win was unprecedented – not one member studies engineering. They're all industrial design majors. Nearly half of the 70 teams this year were race newcomers.



Revvng up the moonbuggy crowd at the Space & Rocket Center were fans of the Lima Senior High School team from Lima, Ohio. Hundreds of spectators came out to root for their teams. Complete race results are available at http://www.nasa.gov/topics/moonmars/moonbuggy2010/moonbuggy_2010.html. To watch the complete race on Ustream, visit http://www.nasa.gov/topics/moonmars/moonbuggy2010/winning_teams_2010.html.

National 'Take Our Children to Work Day' is April 22

Team members' children invited to center to learn about recycling in space, how plants help NASA's mission

By Jessica Wallace Eagan

Children of Marshall Space Flight Center team members in grades 3-12 are invited to participate in special activities at the center during the national "Take Our Children to Work Day" on April 22.

This event will be in addition to Marshall's annual Take Our Children to Work Day to be held June 10. More details about this traditional activity will be provided, as they become available, on Inside Marshall and the Marshall Star.

Audrey Robinson, director of the Office of Diversity and Equal Opportunity, will kick off the event at 8:25 a.m. in Morris Auditorium, welcoming children and parents, and outlining the day's activities.

Held in conjunction with the center's Earth Day celebration, Take Our Children to Work Day gives kids the opportunity to spend the day learning about recycling in space; how climate and weather change affect our daily lives; and how growing plants helps NASA's mission. Children also will hear from Earth Day speaker Robby Jones, regional manager of the energy efficiency and demand response for the Tennessee Valley Authority in Huntsville. He will discuss simple things people can do at home to save energy.

(See Earth Day story on page 3 for details about the center's celebration.)

To register your child, visit http://toctwd.msfc.nasa.gov/index_ed.cfm. The deadline is April 21.

Complimentary hot dogs, soft drinks

Schedule of the day's events

Morris Auditorium

8:25-8:30 a.m.

Opening remarks by Audrey Robinson, director of the Office of Diversity & Equal Opportunity.

8:30-9 a.m.

"Climate, Weather and How it Affects You"

Interactive discussion on what weather and climate are, with examples of NASA activities dealing with weather and climate issues, and how they affect daily lives.



9-9:30 a.m.

"Recycling in Space"

Interactive discussion on how water and air are recycled in space.



Building 4316

10:30-10:45 a.m.

Children's Tennessee Valley Authority energy game

10:45 a.m.-12:30 p.m.

Visit booths at Earth Day's environmental expo, including "What Do Plants Need to Grow." Learn how growing plants helps NASA's mission.



Parents' workplaces

12:30-4:30 p.m.

Spend time with parents at their offices.

and ice cream will be available at Activities Building 4316 throughout the day.

For questions, contact Abbie Johnson, affirmative employment program manager in the Office of Diversity &

Equal Opportunity, at 544-0014.

Eagan, an AI Signal Research Inc. employee and the Marshall Star editor, supports the Office of Strategic Analysis & Communications.

This month at Marshall 50 years ago...

Fifty years ago this month, the Marshall Space Flight Center was moving toward opening its doors for official business July 1, 1960. On April 26, 1960, the Huntsville Times published an article focusing on Delmar M. Morris, NASA's key representative in Huntsville responsible for the detailed planning of the new NASA center.

NASA Administrator T. Keith Glennan had already announced that Dr. Wernher von Braun would serve as the center's first director. Detailed plans for the new center, however, were assigned to Morris, a future Marshall deputy director for administration. Working in tandem with Army representatives, Morris oversaw the transfer of the Army Development Operations Division of the Army Ballistic Missile Agency, or ABMA, to NASA. Morris was an extremely influential figure in the creation of the center from 1958 when NASA was first organized until his death in September 1961.

In the Times article, Morris said that after NASA was created in 1958, the agency had hoped to transfer the ABMA group to NASA. Based on comments by Morris, however, the Times reported, "This inquiry was fruitless at the time." According to Morris, plans for the transfer moved closer to reality in the fall of 1959 when U.S. Secretary of Defense Neil McElroy "asked Glennan if he would be interested in the transfer." From that point, Morris said plans began to move forward and President Dwight Eisenhower signed the transfer order in early 1960. As a result, Morris worked the specific details for funding the center, its land and facilities acquisition, and personnel.



NASA Exchange Barbershop offering \$7 haircuts

The NASA Exchange Barbershop, located on the first floor of Building 4203, is offering \$7 haircuts for Marshall Space Flight Center team

members throughout the month of April.

The regular price is \$13. The shop is open Monday through Friday from

8 a.m. to 4:30 p.m. Appointments are encouraged, but drop-ins also are welcome. Please call 544-2140 to schedule an appointment.

Star ad online system experiencing technical problems

Due to technical problems with the online system, some Marshall Star ads may not have been received for publication in this week's edition. If you placed an ad through Inside

Marshall last week, please resubmit it for the April 22 Star. We apologize for any inconvenience due to this technical problem.

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 22, is 4:30 p.m. Thursday, April 15.

Miscellaneous

Nine aluminum storm windows, fit in outside window lip, 2-32"X39" and 7-32"X55," \$100 for all. 931-993-7768

Pooh & Tigger crib, Sealy mattress, mattress pad, Pooh bumper, sheet set, \$125. 880-3737

Panasonic inverter microwave, 1300W, \$50; Panasonic 27-inch CRT TV, \$30; HP DeskJet color printer, \$25. 881-4148

Set of Syracuse china, sterling flatware with tarnish-proof chest, \$1,000 for both. 883-1096

Vehicles

2007 32-foot Outback camper, two slides. 503-8000

Wanted

Small 1-2 person used fishing boat, jon or pontoon. 417-5334

Shuttle Buddies to meet April 26

The Shuttle Buddies will meet at 8:30 a.m. April 26 at Mullins Restaurant on Andrew Jackson Way.

For more information, call Deemer Self at 881-7757.

Administrator visits Marshall's X-ray and Cryogenic Facility



NASA Administrator Charles Bolden, second from right, listens as Dave Chaney, right, a principal optical engineer for Ball Aerospace Technologies Corp. in Boulder, Colo., explains how the James Webb Space Telescope mirror segments are tested in the Marshall Space Flight Center's X-ray and Cryogenic Facility in Building 4718. Accompanying Bolden are, from foreground, Helen Cole, Webb telescope activities project manager at Marshall; Charles Scales, NASA associate deputy administrator; and Robert Lightfoot, Marshall center director. During the administrator's visit to Huntsville on April 1, he toured ongoing projects at Marshall before speaking at an evening banquet of the United Negro College Fund at the Von Braun Center.

David Higginbotham/MSFC

2010 Software of the Year award entries due May 7

Marshall Space Flight Center team members can apply for the NASA Software of the Year award. The award recognizes developers of exceptional software created for or by and owned by NASA. The deadline for entries is May 7.

The award includes the NASA

Software Medal, a certificate signed by the NASA administrator and a cash prize of up to \$100,000.

For more eligibility and submission information, visit http://inside.msfc.nasa.gov/announcements/2010_soty.html.

Team members may submit to:

MSFC Award Liaison Officer, LS01
James McGroary
4200/149J

Presentations for accepted entries will be May 7 in Building 4200, Room P110. For questions, please call McGroary at 544-0013 or Caroline Wang at 544-3887.

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