Marshall Star, September 28, 2011 Edition

MARSHALL STAR

In This Week's Star ⊟ (Click to Expand)

NASA Deputy Administrator Lori Garver to Hold All-Hands Meeting Sept. 29

While visiting Huntsville Sept. 29 for the Space Launch System Industry Day, NASA Deputy Administrator Lori Garver will meet with Marshall team members during an all- hands meeting scheduled for 1 p.m. in Morris Auditorium in Building 4200. The all- hands will be available for viewing on center-wide TV and Desktop TV at http://desktoptv.msfc.nasa.gov. It will also be recorded and archived on Desktop TV following the meeting.

NASA Deputy Administrator Lori Garver (NASA)

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NASA to Brief Industry on Space Launch System Procurement

NASA news release

NASA Deputy Administrator Lori Garver, agency procurement officials, and Space Launch System Program managers will meet with contractors and small-business entrepreneurs Sept. 29 for the Space Launch System Industry Day at the Davidson Center for Space Exploration in Huntsville.

NASA will brief industry representatives on the agency's acquisition strategy for the Space Launch System program and provide an overview of the program, its organization and specific vehicle requirements.

The event takes place from 7:55 a.m. to 12:15 p.m. CDT during the Marshall Space Flight Center's quarterly Small Business Alliance Meeting. It will provide small business leaders a forum to discuss opportunities with representatives of NASA and large prime contractors.

Marshall is leading design and development of the Space Launch System for NASA. The new heavy-lift launch vehicle will take astronauts beyond low-Earth orbit and enable new exploration missions across the solar system. The first full-scale SLS test flight is targeted for 2017.

NASA Industry Day speakers will include Garver; Marshall Center Director Robert Lightfoot; Glenn Delgado, associate administrator of NASA's Office of Small Business Programs in Washington; Todd May, director of NASA's Space Launch System Program Office; Kim Whitson, deputy director of Marshall's Office of Procurement; and Earl Pendley, manager of the Space Transportation Support Office in Marshall's Office of Procurement. To view Industry Day live on NASA TV's education channel visit:

http://www.nasa.gov/multimedia/nasatv/index.html

For information about NASA's Space Launch System development effort, visit:

http://www.nasa.gov/sls

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Director's Corner: September is Emergency Preparedness Month

Robert Lightfoot, Marshall Center Director (NASA/MSFC)

Would you be ready in the event of an emergency? September is National Preparedness Month. It’s the eighth annual event sponsored by the U.S. Department of Homeland Security.

The focus this year is on home and family preparedness, including pets, older Americans, and people with disabilities and special needs. The goal is to educate the public about how to prepare for emergencies such as natural disasters, mass casualties, biological and chemical threats, radiation emergencies and terrorist attacks.

The campaign asks everyone to make an emergency plan for your family, assemble an emergency supply kit, prepare to stay informed, and get involved through training and volunteering.

More than 3,000 public and private organizations nationwide are supporting emergency preparedness efforts, including NASA, which has created a NASA Family/Personal Preparedness website that includes several helpful resources. You can find it at: http://www.nasa.gov/centers/hq/emergency/personalPreparedness/index.html

NASA Administrator Charlie Bolden and I both agree that NASA’s most important resource is its people. We’ve made extensive plans at the agency and center levels to protect and prepare our workforce, but we can’t do it without you.

Here in North Alabama, we have to be prepared for tornadoes, winter storms, hurricanes, industrial accidents, and anything

else that could affect our employees and our ability to meet our commitments to the agency, to flight programs like the International Space Station, and to our other customers.

If we ever needed a reminder of the threat we face, the wave of tornadoes that hit the southeast last spring was a harsh reminder. Most of our employees were without power. Many had damaged or destroyed homes. It brought home to me the importance of communications and personal responsibility.

We were just getting ready to test NASA's new Emergency Notification System when Mother Nature turned our test into a trial by fire. We used the notification system to:

- keep our employees informed on center status
- recruit volunteers
- alert the Center Management Team and the Accountability Team
- determine the health and welfare of employees
- and communicate back-to-work status.

Fortunately, it worked very well. But it's important that you understand communications is a two-way process. You have a responsibility to keep your emergency contact information updated in Employee Express for civil servants, or IDMAX for contractors. To update their contact information civil servants should go to http://www.employeeexpress.gov. Contractors should go to http://idmax.nasa.gov.

You need to keep our information number handy, watch your email, and remember to call your supervisor in the event of an emergency.

And, if you haven't already, please take some time during this awareness effort to prepare yourself and your family for emergencies.

Robert Lightfoot
Marshall Center Director

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Shuttle-Ares Transition Office is Closing Out Shuttle, Ares Projects at Marshall
By Sanda Martel

The Shuttle-Ares Transition Office, a new program office established as part of the Marshall Space Flight Center's reorganization, is helping NASA achieve its bold and ambitious mission for a sustainable program of exploration and innovation.


Malone (NASA/MSFC)

The office, which became operational Aug. 28, is responsible for all transition activities associated with the Space Shuttle Program closeout, Constellation Ares Project cancellation and other transition and retirement activities at Marshall. That encompasses identification and disposition of requirements and issues associated with facilities, property, records and associated workforce.

Roy Malone, previously the director of Marshall Safety & Mission Assurance, has been assigned to lead the office. He is assisted by two deputies, Mike Allen and Mike Vanhooser.

Hardware
Transition office team leaders for shuttle propulsion elements -- space shuttle main engine, external tank and reusable solid

rocket booster -- are working with prime contractors on hardware disposition. Hardware may be reused by a NASA program, educational institutions, museums, another federal or state agency, sold, or scrapped.


Allen (NASA/MSFC)

The number of pieces of shuttle hardware the Transition Office is dealing with is tremendous: some 108,589 space shuttle main engine line items; about 200,000 line items of solid rocket motor hardware; just over 100,000 line items of solid rocket booster hardware; 126,164 line items of external tank tooling; and several thousand orbiter parts stored at the Michoud Assembly Facility in New Orleans.

The solid rocket motor hardware is located at prime contractor facilities of Alliant Techsystems Inc. in Utah; solid rocket booster hardware is at Kennedy Space Center; space shuttle main engine parts are at nine NASA and contractor sites; and external tank tooling is located at Michoud.

"We're working closely with the Space Launch System organization to ensure we are fully aware of that program's plans and requirements and determine which shuttle and Ares assets can be transferred to that program," said Vanhooser.

Facilities

Facilities that supported the Marshall Center during the shuttle program include the Santa Susanna Field Laboratory in Simi Valley, Calif., where space shuttle main engines were tested in the 1970s; two buildings in Utah associated with the space shuttle solid rocket motor; solid rocket booster processing facilities at Kennedy and Cape Canaveral Air Force Station, Fla.; Michoud, where external tanks were manufactured; and various facilities at the Marshall Center.

Efforts have been under way for several years to retain the facilities needed for future programs without keeping and maintaining unneeded ones. The 410-acre Santa Susanna facility has been excessed and NASA is partnering with the General Services Administration and the state of California to complete site cleanup by 2017.


VanHooser (NASA/MSFC)

Of the other facilities, two storage buildings in Utah will be excessed. Twenty-nine buildings used by Marshall at Kennedy and Cape Canaveral for solid rocket booster processing are not owned by Marshall, but the transition office is actively working to ensure certain buildings at Kennedy are available when needed for future programs. Some buildings devoted to shuttle use at Marshall and Michoud may be closed or mothballed depending upon future needs.

Artifacts Preservation

For several years, NASA has worked with the Government Services Administration to identify items coming out of the shuttle program that decades from now can stand as proof of the program’s 30 years of discoveries and technology accomplishments.

Public and private institutions are keenly interested in receiving shuttle hardware to excite students and inform the public. Shuttle property is being identified for education and public outreach purposes and for donation to NASA education programs and visitor centers, public museums and libraries. To date, more than 30,000 items have been evaluated as potential artifacts and of those, approximately 10 percent have been allocated.

Marshall property, history and public outreach personnel are working with NASA Headquarters' Logistics Management Division and Communications Office, and the Government Services Administration to allocate selected shuttle hardware to

qualified U.S. institutions in the best position to preserve these items as artifacts and tell the shuttle story.

Shuttle Records

The first studies to define the general characteristics of the space shuttle began in 1969. Over the course of 40 years and 135 flights, the volume of records generated was tremendous. The Transition Office is charged with collecting, reviewing, screening, classifying and dispositioning more than 200,000 cubic feet of hard copy. If lined up single file, boxes containing the data would span 39 miles -- more than the distance from downtown Huntsville to Athens!

Between 10 to15 terabytes of electronic data located at Marshall, Michoud, Kennedy and at propulsion element contractor facilities also must be dispositioned. Some sources have estimated that one terabyte equals 50,000 trees, and 10 terabytes would equal all the printed collections of the Library of Congress in Washington!

Some records will be retained permanently, others will be stored for one to 30 years and others can be disposed. The transition team is working with other NASA centers and contractors to assure that the records disposition effort is done in the most cost-effective manner possible. Records transition is a challenge not only because of the diversity of physical locations, but also because of the sensitivity of the data and the demands for data from new NASA programs.

Workforce transition

"And, of course, we're working with Marshall institutional offices, including the Office of Human Capital, to take care of one our most important assets -- our people," said Vanhooser.

Employees formerly assigned to the shuttle, Ares or Constellation Level 2 program or project office who haven't been assigned to a new position have been detailed to the Shuttle-Ares Transition Office until their final position is determined, Malone said. Other transition initiatives include environmental assurance, information technology systems transition, configuration management and risk management.

Transition work supports center, agency goals

"We've been preparing for this for more than five years and although not a popular undertaking, a necessary one," said Allen. "It provides a 'leg up' to new programs by assuring assets and needed information are available, while not placing an undue burden on our center to manage and pay for the effort.

"We've been working since the beginning of the transition and retirement effort to set up procedures, refine our existing processes and develop new collaborations with programs across the agency," Allen said. "We have worked to identify the scope of the effort and have refined it from an impossible effort with an agency budget of more than $2.5 billion, to the manageable effort we have today worth approximately $580 million," he added.

"In a larger sense, we're here to support the agency's transition goals, which are to enable more efficient and cost-effective human spaceflight capabilities in pursuit of space exploration by maximizing the leverage of shuttle assets," Vanhooser added. "We've been given the challenge by NASA Headquarters and Level 2 -- Johnson Space Center -- to complete our work in two years and we're working toward that end," he added.

The Shuttle-Ares Transition Office, formerly the Shuttle Transition Office, was established in 2008 as the shuttle program began to wind down.

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

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Roy Malone Leading the Shuttle-Ares Transition Office at Marshall

The Marshall Star recently spoke with Roy Malone about his new leadership responsibility as manager of the Shuttle-Ares

Transition Office -- one of the new offices established during the recent Marshall Space Flight Center reorganization.

Image left: Roy Malone, manager of the Shuttle-Ares Transition Office (NASA/MSFC)

The Shuttle-Ares Transition Office at the Marshall Center is responsible for the overall planning, coordination and execution of all transition and retirement activities associated with the Shuttle Propulsion Office, Marshall institutional organizations and the Ares Projects Offices. That includes identification and disposition of all requirements and issues associated with strategic facilities, information technology assets and databases, and the associated workforce. That's a long list. Can you provide details on the scope of these activities?

It really boils down to two main areas of effort – records and property. Property includes real property -- buildings and permanent structures; and personnel property -- hardware, tools, equipment, parts, materials, IT equipment, software, etc. Records include documentation associated with the development, manufacturing, qualification and operation of the hardware. Our efforts with records include coordinating the destruction, on-site storage, transfer to other projects and/or permanent archiving of the records.

For Ares, we have very little property and all of their records are electronic so we are almost done with the Ares portion of the effort. Shuttle has the bulk of property and records. The Marshall Shuttle-Ares Transition Office will need all of the next two years to disposition the shuttle hardware.

With regard to our efforts to disposition the hardware, we have two main avenues. We can either transition the hardware directly to another NASA project, for example Space Launch System, or excess the property. When property goes into excess, it could end up in a museum, another NASA facility, another government facility, sold to a commercial vendor or sold as scrap.

Can you explain the organization's structure; how it's organized and how it operates?

The Marshall Shuttle-Ares Transition Office, with the new org code TP01, is a direct report office to the Marshall Center director. Programmatically, we act as a Level 3 project to the Shuttle Transition and Retirement program office at the Johnson Space Center. We receive our funding directly from the program. Within the organization itself, I am the manager of the Shuttle-Ares Transition Office and also serve as the project manager reporting to the Level 2 Shuttle Transition Office at Johnson. Our office also has two deputies, Mike Allen and Mike Vanhooser, and the entire organization operates under the TP01 organizational code.

The final organizational structure for the office will be determined based on need once a final architecture decision has been made for Space Launch System and it can be determined which shuttle and Ares resources need to be transitioned versus closed out.

As everyone is probably aware, the Space Launch System architecture was announced Sept. 14, which helps us to further clarify what hardware will be transitioned and what hardware will be excessed. Last week we presented a revised budget to

take into consideration this new architecture.

How long will it take to complete these tasks? How many government and contractor employees are working transition?

The transition and retirement effort will end at the end of fiscal year 2013, so we must complete all of our efforts by Sept. 30, 2013. Our Marshall team is made up of 20 civil servants and 24 support contractors. We also fund 12 civil servant positions in other Marshall organizations that will provide direct support to our office in fiscal year 2012.

What kind of collaboration with other Marshall Center organizations do you anticipate?

One of the keys to the success of the transition and retirement effort will rest on how well we collaborate with other Marshall Center organizations we support or need support from. For example, our primary customer is Space Launch System and we work with that group on a daily basis to make sure we transition to them what they need to be successful. We also have close ties to the Office of the Chief Information Officer, for IT and records; Office of Center Operations for disposal; Engineering Directorate for records and property; and Safety and Mission Assurance Directorate for records. We also collaborate closely with the Michoud Assembly Facility, helping with the disposition of hardware located there.

If all transition activities must be completed in two years, what happens to the Shuttle-Ares Transition Office after that?

At the end of two years, the Shuttle-Ares Transition Office will have completed its responsibilities. The office will go away and our team members will transition to other Marshall organizations.

What is your management philosophy?

There are three key areas I focus on from an organizational and personal perspective: 1) treat others with dignity and respect; 2) make sure the team has the tools -- people, skills, tools, training, etc. -- it needs to be successful; and 3) make sure that our team members are recognized for their outstanding efforts. If we are successful in these three areas, then we will be successful in the execution of our processes and procedures.

What is your vision and what do you see as your biggest challenge to realize it?

My vision for the organization has six elements: 1) that applicable NASA projects and Space Launch System receive the hardware and records needed to be successful; 2) that transition and retirement efforts are completed on budget and on schedule; 3) that no residual transition and retirement costs are left remaining after the end of fiscal year 2013 that would impact the center or Space Launch System; 4) the successful collaboration with Michoud to transition external tank hardware in a manner that helps to free up space for new tenants, which will ultimately drive down Michoud and Space Launch System operating costs; 5) that all civil servants in TP01 have identified new organizational homes to transition to prior to the end of fiscal year 2013; 6) and last but not least, our team has fun during our two-year effort.

Our biggest challenge will be to complete all of our efforts by the end of fiscal year 2013. The delays of the last shuttle mission and the Space Launch System architecture decision have eroded our entire schedule margin. Our team will continue to work very hard to identify efficiencies and innovations that can help us gain back some schedule margin and increase our probability of success.

How will the Shuttle-Ares Transition Office support and strengthen the Marshall Center's mission? Contribute to the overall NASA mission?

As mentioned above, the successful execution of the transition and retirement effort will support Space Launch System by getting the hardware and records needed to be successful; minimizing the financial risk to the center by making sure that we

leave no residual work that the center will have to pickup; and helping Michoud free up the space they need to bring in new tenants to reduce operating costs.

How has your previous experience prepared you to be successful in this position? What "lesson learned" in your career do you bring to this new position?

Certainly my tour of duty as the manager of Marshall's Logistics Services Department, in the Office of Center Operations, has given me some excellent background on the property excess front. Also, my time in a leadership role in the Safety and Mission Assurance Office and my experience with space shuttle hardware will help me in this new role.

From a lessons learned perspective, I think what I have learned over the last three years with regard to the importance and power of collaboration is my biggest and most important lesson. As one of Robert's (Marshall Space Flight Center Director Robert Lightfoot) center culture change initiatives, collaboration seems to be one of the most important areas of focus for transition and retirement success. Our efforts to team with Space Launch System will ensure that the program gets the hardware it needs to be successful. Sharing hardware information, working together to determine what needs to be transferred and teeing up Space Launch System and transition and retirement decisions to move forward are proving to be critical to success. Without Space Launch System being successful and without Michoud getting the floor space needed, completing transition and retirement on schedule and on budget would be meaningless.

On another subject, TP01 will also be supporting center personnel during a period of transition this year. As everyone is aware, as a result of the center reorganization, employees who were assigned to the Shuttle Propulsion Office, Ares Projects or a Constellation Level 2 program or project office who have not been assigned to a new position will become part of the Shuttle-Ares Transition Office until their final position is determined. Transition of personnel is a part of any reorganization and I look forward to working with the center team members who are transitioning and helping them during this transitional time.

Sanda Martel, an AI Signal Research Inc. employee supporting the Office of Strategic Analysis and Communications, compiled this report.

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NASA's James Webb Space Telescope Completes Second Round of Cryogenic Mirror Testing
By Kim Newton

The Marshall Space Flight Center has completed final cryogenic testing on 12 of the 18 mirror segments that will form NASA's James Webb Space Telescope's primary mirror. The eight-week test includes two test cycles in which the mirrors were chilled down to -379 Fahrenheit, then back to ambient temperature to ensure the mirrors respond as expected in the extreme temperatures of space.

Image right: NASA completes final cryogenic testing on 12 of the 18 mirror segments that will form NASA's James Webb Space Telescope's primary mirror. (NASA/MSFC/Emmett Given)

During the recent round of cryogenic testing, a second set of six primary mirror segments was subjected to extreme temperatures in the 7,600 cubic-foot helium-cooled vacuum chamber, which permits engineers and scientists from Ball Aerospace and Technologies Corp., in Boulder, Colo., and the University of Alabama in Huntsville to measure in extreme detail how the shape of the mirrors change as they cool -- just as each mirror will change shape when exposed to a range of operational temperatures in space.

The X-ray and Cryogenic Facility at the Marshall Center provides the space-like environment to help engineers and scientists measure the mirror segments to see how well the telescope will image infrared sources once in orbit. The cryogenic test series will help NASA predict how well the telescope will read infrared sources in those conditions.

The final cryogenic test will confirm the exacting processes that have resulted in flight mirrors manufactured to tolerances as tight as 20 nanometers or less than a millionth of an inch. The final six mirror assemblies will arrive at Marshall in late fall to begin testing, and be completed by the end of the calendar year.

Each mirror segment measures approximately 4.3 feet in diameter to form the 21.3-foot hexagonal telescope mirror assembly critical for infrared observations. Each of the 18 hexagonal-shaped mirror assemblies weighs approximately 88 pounds. The mirrors are made of a light and strong metal called beryllium, and coated with a microscopically thin coat of gold, enabling the mirror to efficiently collect light.

The Webb telescope is predicted to be the most scientifically powerful telescope NASA has ever built -- 100 times more powerful than the Hubble Space Telescope. The Webb telescope will find the first galaxies that formed in the early universe, connecting the Big Bang to our own Milky Way Galaxy. It will also peer through dusty clouds to see stars and planets being born, connecting star formation in our own galaxy with the solar system.

The telescope is a combined project of NASA, the European Space Agency and the Canadian Space Agency. Northrop Grumman is the prime contractor under NASA's Goddard Space Flight Center. Ball Aerospace & Technologies Corp. in Boulder, Colo., is responsible for mirror development. L-3- Tinsley Laboratories Inc. in Richmond, Calif., is responsible for mirror grinding and polishing.

Newton is a public affairs officer in the Office of Strategic Analysis & Communications.

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Growing an Interest in Science: Students Participate in Plant Investigation with Space Station Crew
By Jessica Eagan

An investigation is stemming out of this world, planting an interest in students in more than a hundred schools across the nation. In the Plants in Space project, students are studying root growth in their classrooms and comparing their results with those of plants grown in space onboard the International Space Station. Findings from this experiment will help determine the best ways astronauts can grow their own food during long-distance flights.


Japanese astronaut Satoshi Furukawa plants Brassica rapa seeds Sept. 20 aboard the International Space Station. (NASA)

On Sept. 20, Japanese astronaut Satoshi Furukawa planted Brassica rapa seeds -- commonly known as a turnip mustard -- in a clear, nutrient-filled gelatin in the Commercial Generic Bioprocessing Apparatus, located in the EXpedite the PRocessing of Experiments to Space Station -- or EXPRESS -- rack. Photographic images of root growth of the space station plants will be taken for five days and archived online so students can see the progress.

"From experience with seed germination studies, we have found that some seeds are more difficult to grow than others in space," said Stefanie

Countryman, a principal investigator for this experiment at BioServe Space Technologies at the University of Colorado in Boulder. "We tested several seeds before settling on the Brassica seed, also known as the Wisconsin Fast Plant. We chose this because they have been grown in space previously so we know that germination should quickly occur, and teachers have easy access to the seeds and information about them."

The planting is the first of four scheduled five-day trials. "For each planting, there will be 18 seeds planted -- three to a container, six containers planted each time," said Countryman. "The plantings will be done about one week apart. The experiment only examines the early stage of seed germination, so this should be sufficient time to examine this stage of growth. After five days in ground tests, the plant has basically outgrown its pot. This is OK because we are only examining early growth, specifically the direction of root/shoot growth," she said.

Here on Earth, roots grow in the direction of gravitational pull, while light affects the direction in which leaves grow. However, in space plant roots can grow in any direction because of the absence of gravity. This project aims to determine if light alone, without gravity, can influence the direction of root growth in microgravity. Using similar growing conditions, students will make daily observations to compare plants in normal gravity with those in space.

"Plants have a significant gravitropic response -- growth movement in response to gravity," said Countryman. "If humans were ever to live for extended periods of time in space, it is possible they would need to grow some of their food supply. Understanding mechanisms of seed germination without gravity is key to growing plants successfully in a low- or limited-gravity environment."

"The greatest value of this set of experiments could be its impact on young minds and the direction those students may take in the future," said Dr. Nancy Moreno, principal investigator for the National Space Biomedical Research Institute Education and Outreach Program in Houston. "This project provides an opportunity for students, particularly in middle and high school, to use some of the life sciences knowledge they have already learned."

The National Space Biomedical Research Institute is funding the project, conducted in cooperation with Baylor College of Medicine in Houston, BioServe Space Technologies and NASA. The teacher's guide, project information, a "how-to" video and project imagery can be accessed at http://www.nsbri.org/Plants-in-Space/.

For more information about this investigation, visit http://www.nasa.gov/mission_pages/station/research/experiments/CSI-05.html.

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

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Annual Hispanic Youth Council Holds Design, Build and Test Day to Engage, Inspire Local Students and Teachers

Dr. Pedro Capo-Lugo, center, explains a thermo protection experiment to local students and teachers during Design, Build and Test Day Sept. 23 at the Marshall Space Flight Center. The event was one of many activities celebrating Hispanic Heritage Month at Marshall. A Hispanic food tasting was held Sept. 28 in the lobby of Building 4203 for Marshall team members to sample traditional Hispanic dishes. Marshall Center Director Robert Lightfoot and the Hispanic Planning Committee will host a "lunch and learn" seminar Sept. 29 at 11 a.m. in Building 4200, Room P-110, featuring Ray Lugo, director of NASA's Glenn Research Center. All Marshall team members are invited. (MSFC/Fred Deaton)

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Marshall Heavy Lifts Twice the Poundage for Feds Feed Families

By Sherrie Super

Marshall Space Flight Center team members donated 15,547 pounds of non-perishable food for the Feds Feed Families Campaign -- more than doubling the goal of 6,985 pounds.

Image left: Competition within the Propulsion Systems Department led to towers of food cropping up outside conference rooms and elevators in Building 4203. Feed Me, the collection-bin mascot of this year's campaign, was on hand to survey the results. (Dawn Mercer)

Along with numerous contributions by individual employees, several team competitions fueled the success of this year's campaign. One such competition was a challenge issued by the Office of Human Capital to the Office of Chief Financial Officer and the Office of Strategic Analysis & Communications to donate the most pounds, organization-wide, to this effort. This competition alone resulted in 9,710 pounds of food collected.

A similar group-wide effort occurred within the Propulsion Systems Department, where team members "engineered" towers of non-perishables, totaling 1,956 pounds.

"So many individuals and groups throughout Marshall gave generously to this worthy cause," said Kerri Davis of the Workforce Strategy & Planning Office, who championed this year's campaign. "It would be impossible to recognize them all, but each contribution will definitely make a difference to families right here in our area."

All donations went directly to the North Alabama Food Bank, where they'll be distributed to feed hungry people in Huntsville and surrounding areas.

Super is a technical analyst in the Office of Human Capital.

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Obituaries

Arthur John "A.J." Schwaniger Jr., 77, of Louisville, Ky., died Aug. 27. He retired from the Marshall Center in 1988 as a navigation, guidance and control systems aerospace engineer.

Winston J. Turan, 85, of Huntsville died Sept. 2. He retired from the Marshall Center in 1985 as a communications specialist. He is survived by his wife, Margaret Turan.

Robert W. Loggins, 79, of Huntsville died Sept. 3. He retired from the Marshall Center in 1988 as an electrical engineering

technician.

Dan Ray Blenis, 78, of Huntsville died Sept. 11. He retired from the Marshall Center in 1988 as a liquid propulsion systems engineer supervisor. He is survived by his wife, Elizabeth Earlene Blenis.

George C. Duve, 70, of Huntsville died Sept. 11. He retired from the Marshall Center in 2004 as an aerospace flight systems engineer. He is survived by his wife, Carol Ann Duve.

Ralph Gilbert Adams, 80, of Huntsville died Sept. 13. He retired from the Marshall Center in 1981 as an aerospace engineering technician. He is survived by his wife, Freddie Graham Adams.

William L. Brien, 87, of Huntsville died Sept. 14. He retired from the Marshall Center in 1973 as a quality engineering division chief. He is survived by his wife, Jane G. Brien.

Curtis Leon Robinson, 81, of Ardmore died Sept. 14. He retired from the Marshall Center in 1990 as an electronics engineer supervisor. He is survived by his wife, Addie Robinson.

Truman Eugene McClard, 85, of Pulaski, Tenn., died Sept. 15. He retired from the Marshall Center in 1981 as a flight systems test engineer. He is survived by his wife, Carolyn Bullington McClard.

Frederick J. Beyerle, 93, of Port Charlotte, Fla., died Sept. 21. He retired from the Marshall Center in 1973 as an aerospace engineer supervisor.

Find this article at:

http://www.nasa.gov/centers/marshall/about/star/index.html