

'Caring is sharing' at Marshall

Center employees contribute more than \$441,000 to charities

by Joy Carter
Media Relations Office

Marshall Center employees took to heart the theme of this year's federal gift-giving program by demonstrating that "Caring is Sharing."

Civil servants, retirees and on-site contractors of Marshall pledged to donate

\$441,224 during the Combined Federal Campaign to benefit charitable organizations at home and abroad.

"Generous contributions given by Marshall employees will greatly help those in our community who are less fortunate," said Cathy Nichelson, chairwoman of Marshall's Combined Federal

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Center Director Stephenson to recognize honorees at anniversary celebration

Center Director Art Stephenson, along with Huntsville Mayor Loretta Spencer and Anniversary Chairperson Wanda Reece, will welcome guests to a joint anniversary celebration Monday, Dec. 14 at the Holiday Inn, Madison Square.

The American Institute of Aeronautics and Astronautics (AIAA) will celebrate its 35th anniversary, and NASA its 40th, at the event. Stephenson and Reece will honor individuals who have made major contributions to AIAA, NASA and the aerospace field. AIAA also will recognize its fellows, past chairs, charter members and honorary members. The Marshall Center will recognize the Dr. Wernher von Braun team, past Marshall directors and charter and retired employees.

Also, a blue ribbon panel of aerospace leaders will discuss their favorite career memories and hopes for the future of the space program. Panelists include Marshall's Bob Schwinghammer, associate director, technical.

A social will begin at 5:30 p.m., followed by dinner at 6:30 p.m., and the program at 7 p.m. The event is open to the public and ticket cost is \$20 per person. For reservations, contact Mary Rutledge at 544-5252 by 4:30 p.m. Thursday.

All-hands meeting scheduled for Tuesday Dec. 15

An all-hands meeting will be held at 8:30 a.m. Tuesday, Dec. 15, in Morris Auditorium. The meeting also will be shown on closed-circuit television Centerwide.

"Work safe, play safe"

Safety slogan submitted by
Bob Linner, EB44



NASA photo by Adeline Byford

Auburn students present design concepts

Above, Jarrod Allen of Birmingham, Ala., and Michael Ward of North Caldwell, N.J., and at right, Katie McCleary of Mobile, Ala., were among 36 juniors in the Industrial Design Department at Auburn University who presented "Space Station tool kit" design concepts and full scale mock-ups to Marshall managers and engineers Dec. 4. One design or a combination of several designs may be used on the Space Station to help crew members keep track of their tools and handle experiments efficiently while operating a furnace in the Materials Science Research Facility.



Center's tree lighting and Holiday Reception today

The Marshall Center's Christmas tree lighting and annual Holiday Reception is today.



The tree lighting will be at 9 a.m. on the front lawn of Bldg. 4200, followed by

the "Holiday Memories" reception from 9:30-11:30 a.m. in Bldg. 4752. Bus shuttle service for the reception will be provided. The bus shuttle schedule may be found on page 4. All Center employees, retirees and contractors are invited to participate. Dress is holiday casual.

Three Alabama firms selected

Small Business Technology Transfer contracts awarded

NASA has selected 12 research proposals for negotiation of Phase 2 contract awards for NASA's 1997 Small Business Technology Transfer Program, including three from Alabama.

The Alabama firms and their research institution partners are:

- United Applied Technologies Inc. of Huntsville; and the University of Alabama in Huntsville
- Nanotek Instruments Inc. of Opelika, Ala.; and Auburn University
- International Space Systems Inc. of Huntsville; and Georgia Institute of Technology, School of Aerospace Engineering in Atlanta, Ga.

The technology transfer program is designed to stimulate technological innovation, help small businesses become better qualified to assist NASA in its research and development, and increase private commercialization of federally funded research.

The program also requires small businesses to conduct cooperative research and development by partnering with a research institution.

A total of 45 Phase II proposals were submitted by contractors completing Phase 1 projects. All proposals were peer reviewed for both technical merit and commercial potential. The combined award total for the 12 Phase 2 contracts is expected to be \$6 million.

The STTR program management office is located at NASA's Goddard Space Flight Center, Greenbelt, Md., with executive oversight by NASA's Office of Aero-Space Technology, NASA Headquarters, Washington, D.C. Individual STTR projects are managed by NASA's nine field centers. A listing of the selected companies and their research institution partners may be found on the internet at: URL: <http://sbir.nasa.gov>

'Caring is sharing'

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Campaign. "We're proud to report that we exceeded our goal of \$432,420."

During the six-week campaign, 78 percent of Marshall's civil service employees signed up to participate in the program. "The average gift per participant was approximately \$209," said Nichelson. "Marshall employees really do care about their community."

The Combined Federal Campaign brings all federal fundraising efforts under one umbrella through a single campaign conducted once a year on behalf of all authorized charitable organizations.

Locally, the campaign benefits United Way agencies of Madison and Marshall counties and the Shoals, the National Voluntary Health Agencies of Alabama, Inc. and local unaffiliated agencies.

"Generous contributions given by Marshall employees will greatly help those in our community who are less fortunate."

— Cathy Nichelson,
chairwoman of Marshall's
Combined Federal Campaign

In addition to financial contributions, Marshall employees also have volunteered at Care Assurance System for the Aging and Homebound, Christmas Charities Year-Round Inc., Habitat for Humanity, the Salvation Army and the Hospital Hospitality House.

"We held a Community Service Day in September for Marshall employees to work at some of the recipient organiza-

tions," said Nichelson. More than 50 Center employees participated in activities such as building wheelchair ramps, yard work and housework, restoring used toys and preparing and serving food. "It gave us an opportunity to learn more about the organizations and families we are helping," Nichelson said, "and it was fun."

A number of guest speakers also familiarized Center employees with recipient agencies. Presentations were made by representatives of four organizations — AGAPE, Children's Hospital, Technology Assistance for Special Customers and the Hospital Hospitality House.

Bus tours gave Marshall employees a first-hand look at several area charities — the Alzheimer's Association North Alabama Chapter, Children's Hospital of Alabama, Family Services Center Inc., Harris Home for Children, Hope Place Inc., the Hospital Hospitality House, Operation Home in Decatur, Huntsville Rehabilitation Center, Sterrs Day Care in Decatur and Technology Assistance for Special Customers.

"This was a great year for the campaign," said Nichelson. "The Marshall Center always stands out in the Tennessee Valley campaign in the generous way we give and show our support."

The Dec. 16 edition of the Marshall Star will be the last issue of 1998.

Contributions for this issue should be submitted to the Internal Relations and Communication Office, CO40; or e-mailed to ann.bryk no later than noon Friday, Dec. 11.

NASA announces research grants in microgravity biotechnology

Team from Marshall reviews engineering feasibility

NASA has selected 48 researchers to receive grants totaling approximately \$33 million to conduct microgravity biotechnology research.

Forty of the grants are to conduct ground-based research, while the remaining eight are flight definition efforts. Fourteen of these grants are for continuation of work currently being funded by NASA, but the majority 34, represent new research efforts.

The 165 proposals received by NASA were peer-reviewed by scientific and technical experts from academia, government and industry. Those proposals selected for flight definition were reviewed in terms of engineering feasibility by a team from the Marshall Center.

Sponsored by NASA's Office of Life and Microgravity Science and Applica-

tions, this research allows investigators to take advantage of a low-gravity environment to improve understanding of fundamental physical and chemical processes associated with biotechnology. The research support by NASA under this announcement includes protein crystallization, cell science studies, and new technology development. This research may affect such important areas as structure-based drug design, tissue engineering, and biosensor development.

The investigators will have NASA's microgravity research facilities such as aircraft flying parabolic trajectories and sounding rockets at their disposal; the flight-definition investigators will work toward experiments on the Space Station.

A list of award recipients by state, their institutions and research titles may be found on the Internet at:
<ftp://ftp.hq.nasa.gov/pub/pao/pressrel/1998/98-217a.txt>

Launch of one Mars mission and results from another featured this week on NASA TV

The first of two upcoming launches of NASA's 1998 Mars Surveyor missions, and exciting scientific findings from NASA's current Mars mission will be featured this week on NASA Television.

NASA's Mars Climate Orbiter spacecraft is scheduled for launch aboard a Boeing Delta 2 launch vehicle on Thursday.

Today, the lead scientist for the camera aboard the NASA spacecraft currently in orbit around the red planet, Mars Global Surveyor, will discuss the top 10 images returned to Earth so far by that mission, including several new releases.

The Mars Climate Orbiter has two launch opportunities on Thursday. The target is the first opportunity at 12:56:38 p.m. CST. A second opportunity at 2:02:23 p.m. CST is available if necessary. Liftoff will occur from Pad A at Launch Complex 17 at Cape Canaveral Air Station, Fla.

When it first arrives at the red planet,

the Mars Climate Orbiter will be used primarily to support its companion Mars Polar Lander spacecraft, planned for launch on Jan. 3, 1999.

After that, the Climate Orbiter's instruments will monitor the Martian atmosphere and image the planet's surface on a daily basis for one Martian year, the equivalent of two Earth years. During this time, the spacecraft will observe the circulation of atmospheric dust and water vapor, as well as characterize seasonal changes on the surface.

A prelaunch news conference is scheduled for today at 10 a.m. CST in the Kennedy Space Center News Center auditorium and will be carried live on NASA TV.

Following this briefing, the NASA TV Video File at 11 a.m. CST will feature animation and video footage of the Mars Climate Orbiter mission and the images from the press briefing.

Katie and NASA beating cancer

by Bob Thompson

Media Relations Office

Katie Pedersen is a freshman at the University of Wisconsin and a straight-A student — a remarkable achievement considering she has endured six brain surgeries. For 10 years surgeons tried but could not remove her aggressive cancer. Katie and her family then turned to a NASA-sponsored research team at the Medical College of Wisconsin in Milwaukee for help.

Through an innovative treatment called photodynamic therapy — a form of chemotherapy — NASA-sponsored researchers used a laser to activate light-sensitive anti-cancer drugs to destroy Katie's brain tumor tissue.

Once out of options, Katie is now a cancer survivor. Building on this success, the cancer research team soon will test a new light source, light-emitting diodes, originally developed for NASA Space Shuttle plant growth experiments.

NASA's Biotechnology Program is managed by the Microgravity Research Program at Marshall.

Marshall's biotechnology research has contributed information to the better understanding of many diseases, including AIDS, heart disease, diabetes, respiratory syncytial virus, sickle cell anemia, hepatitis and rheumatoid arthritis. More information about Marshall's Microgravity Research Program experiments may be found at the following Web site:
<http://microgravity.msfc.nasa.gov/MICROGRAVITY/>

Marshall Stars at Work

Marshall Center employees featured in "Marshall Stars at Work" in the Marshall Star have made significant contributions to NASA and the Marshall Center by taking significant strides in leadership and dedication to their professional and/or educational development. Marshall Center employees may nominate themselves or another employee. Submit your nominations for consideration to Angela Storey, CO40, or call 544-0030.

U.S. Lab Module, built at Marshall, named "Destiny"

The U.S. Laboratory module, considered the centerpiece of the International Space Station, has been named "Destiny" in honor of its prominent role in the world's largest international science and technology effort.

The announcement was made Dec. 1 in a brief ceremony in front of the module at the Kennedy Space Center's Space Station Processing Facility, Fla.

The Boeing Company built the world-class, state-of-the-art research facility at the Marshall Center. The module was shipped to the Kennedy Center on Nov. 17. It is now undergoing launch processing.

The U.S. Laboratory — the primary workstation for the U.S. involvement in the Space Station — is planned for launch aboard Space Shuttle Endeavour on the sixth International Space Station construction flight currently targeted for Feb. 3, 2000. It will be attached to the U.S. Node 1 Unity, also built by Boeing at Marshall.



NASA photo

'Destiny,' built by The Boeing Company at Marshall, is slated for launch Feb. 3, 2000.

Participating in the ceremony at the Kennedy Space Center were Roy D. Bridges, director of the Kennedy Space Center; and Randy Brinkley, program manager for International Space Station at

the Johnson Space Center in Houston, Texas. Also participating were astronauts Ken Cockrell, Mark Polansky and Marsha Ivins from the STS-98 crew who will take the lab to orbit.

Christmas Reception Bus shuttle schedule

One bus will be available at 9 a.m., following the tree lighting ceremony, to shuttle reception hosts and hostesses from Bldg. 4200 to the Holiday Reception in Bldg. 4752. The shuttle schedule for employees attending the reception is:

| Bus # | If you work at | Catch bus at |
|-------|--|--|
| 1 | 4200 area | 4203S, 4200 |
| 2 | 4250, 4249, 4481, 4471, 4485, 4723, 4728, 4727, 4712, 4705, 4707, 4708, | 4250, 4481, 4471, 4485, 4728, 4705, 4708 |
| 3 | 4663, 4655, 4650, 4610, 4619, 4487 | 4663, 4650, 4610, 4619, 4487 |

Bus shuttle service is scheduled to begin at 9:15 a.m., with service being provided at 15-20 minute intervals. The last bus service from the Holiday Reception, Bldg. 4752, will be at noon. Taxi service also will be available for employees not on a direct bus route.

Microsoft Office courses available

The Employee Development Technology Center (EDTeC) at Marshall has a variety of Microsoft Office '97 and '98 computer training courses available.

The courses offered are Access '97, Excel '97 and '98, Outlook '97, PowerPoint '97 and '98, and Word '97 and '98. The EDTeC, located in Bldg. 4203, room B-303, is open from 8 a.m.-4:30 p.m. Monday-Friday. The Center also offers a library and 12 multimedia work-stations.

For more information, visit the EDTeC's new Web site at: <http://inside.msfc.nasa.gov/EDTeC> or contact Kimberly Davis at 544-8291 or Sandra LaMar at 544-1737.

Obituary

Patrick B. Wayne, 43, Harvest, Ala., died Dec. 3. Wayne worked in the Property Management Division at the Marshall Center. He is survived by his wife, Nancy Wayne; and two sons.



Patrick Wayne



NASA photo

QualTech representatives visit Marshall

Representatives from QualTech, a member of Huntsville's BizTech small business incubator, visited Marshall's Technology Transfer Office to demonstrate their video and electronic presentation integration technology. The Technology Transfer Office partners with the incubator to encourage the growth of small companies that focus on technology development. From the Technology Transfer Office are, from left, Benita Hayes, BizTech project manager; and Sally Little, office director. QualTech representatives include Angie Baker, 3rd from left; Cindy Branham, seated; and Dr. Jeff Schneider, far right. Also shown is BizTech's Executive Director Kirk Wiles.

Communicating science

NASA and Vanderbilt University team to sponsor scholarships designed to train future science, engineering and technology communicators

NASA and Vanderbilt University in Nashville, Tenn., have joined to sponsor a "Chroniclers of Discovery" Scholarship Program to help inspire and train students to become effective communicators of science, engineering and technology to the public.

The two-tier scholarship — combining the practical scientific and engineering experience of NASA with the hands-on experience of the U.S. Space & Rocket Center — also includes the academic expertise of Vanderbilt; the Discovery Channel, Bethesda, Md.; and the resources of the Tennessee Space Grant Consortium, and the National Space Grant College & Fellowship Program.

Between 20 and 40 ninth and 10th grade winners will receive a scholarship to a special Science Communications Space Academy at the U.S. Space & Rocket Center in Huntsville. These scholarships

are funded by several state members of NASA's Space Grant Consortium National Network. Students will spend a week learning about science, astronauts and space, and will take part in a simulated space flight. In addition, the student astronauts will participate in a simulated press conference once they've "landed" back on Earth, where they will communicate their science results and space flight experience in clear and interesting terms.

"NASA is committed to communicating to the American public what we learn through our mission of scientific research, space exploration and technology development, to benefit the quality of life on Earth," said Frank Owens, director of NASA's Education Division, NASA Headquarters in Washington, D.C.

At the high school senior level, one student will win a full-tuition scholarship to attend Vanderbilt University, funded by

NASA aircraft sets new world altitude record

A NASA ER-2 aircraft set a new world altitude record for medium weight aircraft Nov. 19, reaching 68,700 feet, almost twice the cruising altitude of most airliners.

The new world record was made by an ER-2, tail number 806, based at Dryden Flight Research Center, Edwards, Calif., and occurred during an airborne science mission to measure different components in the atmosphere, such as water and ozone. The new record surpassed the old record of 62,500 feet, which was flown by a Canadian P-42 aircraft in 1988.

NASA owns and operates two ER-2 aircraft for its Airborne Science Program. Built by the Lockheed Martin Skunk Works, a division of Lockheed Martin in Palmdale, Calif., the aircraft collect information about our surroundings, including Earth resources, celestial observations, atmospheric chemistry and dynamics and oceanic processes. The aircraft also are used for electronic sensor research and development, satellite calibration and satellite data validation.

NASA through the Tennessee Space Grant Consortium. The scholarships will be awarded in national competitions open to all students accepted for admission to Vanderbilt. The winning student will receive a full-tuition scholarship to Vanderbilt, which offers an interdisciplinary major in science communication. The student will participate in a summer work-study program at the Discovery Channel to develop science communication skills in a practical setting.

Interested high school seniors should contact Vanderbilt University Admissions at (615) 322-2561 for more information on the Vanderbilt scholarship. Ninth and 10th grade students should contact the Space and Rocket Center at 1-800-894-2575 for information on the Science Communication Space Academy scholarships.

Employee Ads

Miscellaneous

- ★ Lumber, bandsaw-sawn, red/white oak, 1" x various widths, 50 cents per boardfoot. 880-2290
- ★ Camera, Nikon FG flash, 35-210mm close-up lens, carry case. 881-1335
- ★ Hay, fescue, orchard, round bales, fertilized this year, you haul, Ardmore area. \$18 each. 423-7126
- ★ Monet, 2'x3' frame, \$60; 26" Schwinn 10-spd. traveler bicycle, \$75. 881-8953
- ★ Pre-teen combination bunk bed/desk, red, \$150. 837-6041
- ★ Round dining table, wicker base/glass top, 4 fan-back chairs, removable cranberry print cushions, \$350. 772-1552
- ★ Calloway Great Big Bertha Driver, \$225; Ping Sedona 2-putter, \$45. 971-9710
- ★ King-size semi-waveless waterbed, free delivery available, \$300. 518-9020
- ★ Oak microwave stand w/butcher block cutting surface, \$50; Kenmore vacuum cleaner, \$30. 885-3767
- ★ Five NHL tickets, Nashville Predators vs. Boston Bruins, Dec. 30, section 319, row J, \$30 each. 430-2796
- ★ Lowery electric organ w/Genie chords, two manuals, one octave foot pedal, bench, \$350 obo. 539-6624
- ★ NordicTrack Walk Fit, complete instructions, care kit, \$250 obo. 883-5543
- ★ Saturn GT Continental Mavic Reynolds racing bike, \$250 obo. 859-2630

Vehicles

- ★ 1996 Pontiac Transport, 7/8 passenger, power door locks and windows, \$11,500. 772-7842
- ★ 1993 Coachman 5th-wheel travel trailer, 28' w/slideout; 1993 Ford F250 XLT, extended cab. 586-4236
- ★ 1991 Jeep Cherokee Laredo, 4-door, 2WD, 6-cylinder, 112K miles, \$5,950. 837-0085

Wanted

- ★ Used golf club set at reasonable price. 931-433-0004
- ★ Snow ski apparel, sized to fit male 5'10", 160 pounds. 881-1249

MARSHALL STAR

Marshall Space Flight Center, Alabama 35812
(256) 544-0030

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NASA at Marshall Space Flight Center may be found at the following Web site: <http://www.msfc.nasa.gov>

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Free

- ★ Two tennis rackets: Prince Thunderstick, wide, oversize graphite frame; Anelope, oversize graphite frame. 883-2298

Found

- ★ Eye glasses in Bldg. 4200 south parking area, near loading dock, clear lenses, wire frame. Call 544-0030.

Center Announcements

- ☛ **MOO** — The Management Operations Office (MOO) retirees will meet for a Christmas dinner at 6 p.m., Thursday, Dec. 17 in the Mullins Restaurant private dining room. The reservation deadline is Saturday, Dec. 12. All present or former MOO employees and retirees are invited. **Contact:** 539-0042 for reservations and directions.
- ☛ **NARFE** — The National Association of Retired Federal Employees (NARFE), Chapter 443, will have a Christmas luncheon meeting at 11:30 a.m. Saturday, Dec. 12 at the Senior Center on Drake Avenue in Huntsville. Installation of the new NARFE officers also will be conducted. **Contact:** 837-0382 or 881-3168
- ☛ **NASA Alumni League** — The NASA Alumni League will sponsor a Christmas Party at 6:30 p.m. Thursday at the Valley Hill Country Club in Huntsville. **Contact:** Ed Buckbee at 881-9622 or Norm Schlemmer at 881-2938.
- ☛ **Toastmasters** — The NASA Lunar Nooners Toastmasters Club will meet at 11:30 a.m., Tuesday, Dec. 15 in the Bldg. 4610 cafeteria conference room. All Marshall employees, contractors and friends are invited. **Contact:** Lee Johns, 544-5241
- ☛ **Fire extinguisher training** — Redstone Fire Department personnel will offer fire extinguisher training at 2 p.m. today in front of Bldg. 4200, weather permitting. All 4200 complex employees are encouraged to attend.
- ☛ **Safety shoe van** — The mobile safety shoe van will be at the southwest end of Bldg. 4471 from 8 a.m.-2 p.m. today. Assistance with safety shoe needs will be available for Center civil service and contractor personnel.
- ☛ **U.S. Space & Rocket Center** — "Mysteries of Egypt" is the holiday-featured IMAX film being shown in the Spacedome Theater at the U.S. Space & Rocket Center. This National Geographic adventure film, featuring Omar

Sharif, explores the myths and legends of the Egyptian empire. Movie times are 5, 6, and 7 p.m. Dec. 26-30; with matinees at 3 p.m. daily through Jan. 3. Ticket cost is \$6 for adults and \$5 for children ages 3-12. **Contact:** The U.S. Space & Rocket Center, 837-3400

- ☛ **Annual Nut Sale** — Marshall is offering Center employees, on-site contractors and retirees the opportunity to purchase a variety of nuts during the annual Nut Sale from 8 a.m.-4 p.m. daily in the Activities Bldg. 4752. Available on a first-come-first-serve basis are pecans (fancy, mammoth halves) for \$5.25 per pound; chocolate-covered pecans for \$6.75 per pound; English walnuts for \$3.25 per pound; jumbo raw peanuts for \$1.75 per pound; roasted, salted (in shell) natural pistachios for \$3.25 per pound; dry-roasted cashews at \$5.25 per pound; hickory-smoked almonds at \$3 per 12 ounces; natural, whole almonds for \$3.25 per 12 ounces; and honey-roasted almonds at \$3 per 12 ounces.
- ☛ **The Red Planet** — The American Institute of Aeronautics and Astronautics is co-sponsoring the lecture "The Case for Mars" to be presented by Dr. Bob Zubrin at 7 p.m. Thursday at the City of Madison Municipal Complex, 100 Hughes Rd. Zubrin will autograph copies of his new book "The Case for Mars" from 5:30 p.m.-6:45 p.m. prior to presenting the one-hour lecture on his proposals for exploring and colonizing the Red planet. A question and answer session will follow the lecture. Cold cuts and hors d'oeuvres will be served. The event is open to the public and tickets may be purchased at the door for \$12 each. **Contact:** Dr. Wayne McCain, 233-6501 or email to: drwayne@athens.edu
- ☛ **Marshall Association** — The Marshall Association will meet at 11:30 a.m. Wednesday, Dec. 16, in the Bldg. 4203 cafeteria. Center Associate Director Sid Saucier will speak on the expectations for Marshall's future. The newly-elected Marshall Association officers also will be installed. The reservation deadline is noon Tuesday, Dec. 15. **Contact:** Jerry Williams, 544-0295 or e-mail T.Jerry.Williams@msfc.nasa.gov

Job Opportunities

CPP 99-8-JB, Contract Specialist, GS-1102-5, Procurement Office, Research and Development Support Division. Closes Dec. 11.
REASSIGNMENT BULLETIN 99-1-CV, GS-801-13, Office of the Director. Closes Dec. 21.

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