



MARSHALL STAR

Serving the Marshall Space Flight Center Community

Oct. 25, 2007

STS-120 crew bound for International Space Station

Space shuttle Discovery successfully launched Oct. 23

Space shuttle Discovery and its seven-member crew lifted off at 10:38 a.m. CDT, Oct. 23, from NASA's Kennedy Space Center, Fla., to continue construction of the International Space Station.

During the 14-day STS-120 mission, Discovery's crew will continue construction of the space station with the installation of the Harmony connecting module, also known as Node 2. The crew, led by Commander Pam Melroy, will conduct five spacewalks during the mission, four by shuttle crew members and one by the station's Expedition 16 crew.

Discovery is scheduled to dock with the station Oct. 25.

The addition of the Harmony module sets the stage for the

See Launch on page 6



Space shuttle Discovery lifts off from Kennedy Space Center, starting the STS-120 mission to the International Space Station.

An interview with Dan Dumbacher, director of the Engineering Directorate

'Everywhere I look in engineering, I see strengths'



Dan Dumbacher, left, director of Marshall's Engineering Directorate, gets a hands-on lesson about the directorate's newest piece of equipment. Bob Carter, a welding engineer in the Materials and Processes Laboratory, demonstrates a robotic weld tool — the largest friction stir weld tool in the country. It will be used during assembly of Ares I full-scale developmental hardware at Marshall.

How do you define success as the director of the Engineering Directorate at the Marshall Center?

Success for engineering is defined as meeting our program commitments by executing the jobs we have to do in a way that is technically successful the first time around. It means flying the space shuttle safely now through 2010. It means making sure we support all of our International Space Station and science missions. It also means getting Ares designed, developed and into its flight phase. We have a lot of opportunities ahead of us to execute the missions of the agency, through shuttle, station, science and exploration. We get to see it all.

What do you want the people of the Engineering Directorate to know about your philosophy of management and leadership?

First, I want them to know we're all on the team and it takes everybody on the team to be successful. Our technical experts,

See Dumbacher on page 4

Marshall to tackle new teaming challenge for CFC campaign

Oct. 25 rally to kick off next phase of annual fundraiser

To spur friendly competition among Marshall Center organizations, the Combined Federal Campaign rally, to be held Oct. 25 in Morris Auditorium in Building 4200, will launch a new teaming challenge – one with a significant outcome for Center Director David King.

Marshall personnel, who in the first two weeks of the campaign raised \$180,192.54 toward their ultimate goal of \$600,000, have been divided into five teams by the CFC organizing committee. The first team to reach last year's combined "Gold Level" giving statistics – 65.3 percent participation and an average gift of \$394.43 – can choose where King will "sweat for a day," supporting the winning team's local charity of choice.

Teams include:

- Red Team: Office of the Deputy Director, Office of the Michoud Assembly Facility Transition Director, Engineering Directorate, Test Laboratory, Office of Diversity & Equal Opportunity, Office of the Chief Financial Officer, Science & Mission



Systems Office

- Blue Team: Office of the Chief Engineer, Instrument & Payload Systems Dept., Ares Project Office, Safety & Mission Assurance Directorate
- Green Team: Office of the Associate Director, Propulsion Systems Dept., Office of the Chief Information

Officer, Space Shuttle Propulsion Office

- Orange Team: Office of Center Operations, Materials & Processes Laboratory, Mission Operations Laboratory, Office of Procurement
- Yellow Team: Office of the Director, Office of Strategic Analysis & Communication, Spacecraft & Vehicle Systems Dept., Office of Human Capital, Office of the Chief Counsel

The rally, a yearly mainstay of the center's fundraising campaign, starts at 10 a.m. on Oct. 25. Amy George, director of special projects for the Huntsville Hospital Foundation and a former WHNT-TV anchor, is the keynote speaker.

Door prizes will be given away, and refreshments will follow in the 4200 lobby.

The 2007 Combined Federal Campaign runs through Dec. 7. For more information, call chairperson Irene Taylor at 544-2051.

Volunteers are being sought to participate in CFC Community Service Days activities through Nov. 16, and room is left on a number of CFC bus tours to local charities. Visit <http://cfc.msfc.nasa.gov> for details and online signup forms.

New NASA Exchange-MSFC Council member sought

Nominations are being accepted from NASA civil service employees for an election to fill one position on the NASA Exchange-MSFC Council.

Nominations will be accepted when accompanied by a petition signed by 20 or more civil service employees. Employees may make nominations at-large and there is no requirement that nominees and petitioners be from the same organization. Petitions must have the signature of the nominee with a statement indicating a willingness to serve the two-year term, if elected. Petitioners must provide their Marshall badge number.

Each candidate must have served as a civil service employee for no less than one year. No Marshall employee may serve concurrently as a member of the council and as an officer of any Exchange-sponsored club or activity.

Deadline for submitting nominations is close of business Nov. 8. Petitions should be mailed to: Exchange Council Election, HS01X, Building 4315.

A list of nominees and voting instructions will be printed in an upcoming issue of the Marshall Star. For more information, contact Bill Mayo at 544-7564.

NASA chief financial officer and deputy visit Marshall



Marshall Center Director David King, left, talks with NASA Chief Financial Officer Ronald Spoehel during his visit to the center Sept. 27. Spoehel and NASA Deputy Chief Financial Officer Terry Bowie came to Marshall as the first stop on their tour of NASA centers. They met with Marshall's financial management team to gain a better understanding of the team's functions and missions and what the NASA Office of the Chief Financial Officer could do to help fulfill those missions. They also discussed how the roles of Marshall's financial office vary from other center's. Spoehel and Bowie received a center overview briefing from Marshall Associate Director Robin Henderson and toured buildings 4200, 4205, 4707 and 4755.

David Higginbotham/MSFC

2007 fitness events

Marshall to host Health & Safety Expo on Oct. 30-31

To encourage team members to get fit and stay safe, the Marshall Center will host its fifth annual Health & Safety Expo on Oct. 30-31.

A variety of activities and events will be open to all employees and contractors.

The center's second annual "After the Traffic" bicycle ride will start at 4:30 p.m. Oct. 30, outside the Wellness Center, Building 4315. Helmets are mandatory, and bikers should carry their own water bottles. For more information, call Janie Miernik at 544-6534.

A five-kilometer "Run for the Health of It" run will be held starting at 9 a.m. Oct. 31, beginning at Building 4315. There is a \$5 entry fee, payable to the MARS Running Club. Participants can register the day of the race. For more information, call Sam Ortega at 544-9294, or Ryan Decker at 544-3068.

A "Health, Safety & Fitness" vendor fair will be held in Activities

Building 4316 from 10 a.m. to 2 p.m. Oct. 31. Approximately 80 vendors will have booths and displays focusing on medical, safety and fitness products and services. A drawing will be held for door prizes, and vendors will provide safety and health information and giveaways for attendees.

A 1-mile "Walk for the Health of It" fun walk will start at 11 a.m. Oct. 31 outside Building 4315. The annual "Golden Shoe" trophies will be awarded to two Marshall Center directorates — the one with the largest number of walkers and the one with the highest percentage of walkers. For more information, call David Thaxton at 544-8371.

Buses will be available Oct. 31 to shuttle participants and exhibit attendees back and forth to the event site. For a complete listing of pickup times and locations, visit "Inside Marshall."

Marshall employees advised to be cautious with unsolicited e-mail

Marshall employees are advised to be cautious with unsolicited e-mail. In all cases of unsolicited requests for information, be aware if the information is approved for public release. If not, do not respond.

To preserve the original properties of the e-mail, forward it as an attachment to the Marshall

Counterintelligence Office for evaluation at 4spys@nasa.gov. For specific instructions, go to "Inside Marshall" or http://inside.msfc.nasa.gov/announcements/UnsolicitedEmail_AS50.pdf.

Continue to send other unsolicited e-mail such as SPAM to msfc-mailabuse@mail.nasa.gov.

Dumbacher

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our test experts, our administrative experts, our program control experts — it takes everybody working on a team and working with all their team members in an open and honest manner to get the work done as efficiently as we can.

Second, we need to do the best jobs we can everyday. We are given the opportunity by the taxpayers of this great country to extend the frontiers of human endeavor. We are privileged to have this opportunity and must return the best value possible to the citizen's investment.

And, we must have fun doing the work and balance our lives with family. We want to make sure everybody's contributions are appreciated, because everybody out here is trying to do the right thing. We just need to work together in having the open and honest discussions to make the programs and projects successful.

What do you see as the strengths of the Engineering Directorate?

Everywhere I look, I see strengths. Marshall's Engineering Directorate is one of the premier engineering organizations in the world. We have wonderful technical expertise; we have wonderful systems expertise; and we have administrative professionals who know how to do their job well. Everybody wants to do their absolute best.

We have some things we can improve on. We should always be striving for perfection. The strength we have is the motivation of the people and the desire of the people to support the programs and projects. It is just an honor to be working with this team.

What are the current functions being performed in support of the Space Shuttle Program?

We have all kinds of important functions there. From supporting the systems integration work to all the work for the shuttle main engines, external tank, solid rocket motors and boosters. We get to go do the real engineering work on all of the propulsion elements and help make sure each piece of hardware is ready to fly whenever we need to go fly. We are a key member of the shuttle team in making sure shuttles fly and they fly safely.

What functions is the directorate performing with the Constellation Program?

We have the job of supporting the Ares I element design. We're doing the in-house design on the upper stage, and we're doing the stack integration in-house, including all thermal, loads and aerodynamics analysis. We also are working with Pratt & Whitney



Enniett, Civeny/MSC

From left, Dan Dumbacher, director of Marshall's Engineering Directorate, checks out panels that make up the dome section of the external tank with Ralph Carruth, Tim Vaughn and Surendra Singhal of the Materials and Processes Laboratory.

Rocketdyne on the J-2X engine and ATK on the first stage to develop the J-2X rocket engine and the five-segment rocket motor.

And that's just the launch vehicle part.

We also have technical support to the Constellation Program Level 2 in some of their top-level systems engineering and integration work, in terms of working the interfaces, the supportability and operability efforts, and the integrated analyses.

It's all exciting work to get us back to the moon.

What functions do you support within the science mission?

We have a lot of space station work that has culminated with Node 2 being delivered. We perform the payload operations for station over in our Mission Operations Laboratory, where we're providing 24/7 support to the experiments on board the station. There's also the work we do in developing space station racks, such as the Materials Science Research Rack and the continued support of the Microgravity Science Glovebox.

The Environmental Control and Life Support System team has gotten that system operating on station — making oxygen on board. And we'll be delivering other parts of the system over the next year or so.

We also support the science missions and all of the various science payloads to support Dawn and the Lunar Lander work that's going on within Constellation. Just all kinds of fun work out there.

See Dumbacher on page 5

How does the Engineering Directorate balance all of the work it is responsible for?

The way you do it is know that you have good people who are trustworthy, motivated and of high integrity to go off and do the jobs. My job is to help them get their jobs done.

What are some of the most unique facilities and capabilities of engineering at Marshall?

We have major test facilities for rocket stages, launch vehicle dynamics, and vacuum chambers and facilities to test materials out in combined space environments. We have materials testing. We have software integration labs. There's also the Payload Operations and Integration Center for space station experiment operations and the Huntsville Operations Support Center for real-time shuttle

launch support. We just have a lot of unique capability here that's one-of-a-kind in the country.

Where do you see the directorate in one year?

A year from now, we will have completed six shuttle missions; will be deep into the preliminary design for Ares I; our Environmental Control and Life Support System will be up on station and operating; and we'll continue to operate the payloads on station.

There's a lot of important activity ahead of us in one year. I would like to thank everyone across the center, and especially in engineering, who work so hard and dedicate their lives to the NASA mission. They give up precious family time to carry out the NASA mission. I just want to say thank-you for their tireless, dedicated effort and recognize the wonderful job everyone does.

Lori Meggs, an ASRI employee in the Office of Strategic Analysis and Communications, contributed to this article.

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, Nov. 1, is 4:30 p.m. Thursday, Oct. 25.

Miscellaneous

Two-year-old, side-by-side fridge, white, ice maker, filtered water in door, \$900. 783-1466

Body-Solid Ab & Back Machine, \$125. 520-4750

Wooden bunk beds, all hardware, needs paint, \$50. 351-1754

Australian Shepherd puppies, 7 weeks old, quickimages.org, \$325. 684-6401

Camper shells, fiberglass, long-wheel base full-size truck, long-wheel base small truck, \$150 each. 476-5836

AKC-registered Golden Retriever puppies, six females, one male, first shots, available Oct. 23. 882-6322

Golden Retriever pups, AKC, three males, three females, ready Nov. 3, \$300. 830-1011

AKC German Shepherd puppy, male, black/tan, champion bloodline, shots, \$400. 828-3373 or 694-5912

2003 L.A. Spa Esteem hot tub, \$3,500. 714-6609

Hoyt Tenacity RH compound bow, loaded, \$175; compound bow press, \$125. (931) 425-0205

Aluminum ladder rack for full-size van, \$85; engine stand, \$35; propane tanks, \$5 each. 325-2919

Two antique formal arm chairs, new fabric, matching

ottoman, \$100. 503-6773

Solid Cherry 1960s server, 43x30x30, \$425; complete kitchen appliances. 852-1726

Boss GT-8 guitar effects processor, \$375. 655-6293

Ryobi compound miter saw, \$60. 350-7471

Reel lawn mower, yellow, \$25. 653-1103

Sony 65-inch television, HDTV-ready, \$1,400 obo. 653-3957

Samsung 32-inch HD television, five years old, \$175. 971-0499

Dining table, pedestal base, square glass top, no chairs, \$100. 536-5132

Assorted collected action figures, Star Wars, Star trek, Transformers, \$1,000. 479-4345

Shoei RF700 motorcycle helmet, full face, extra visor, large, black, \$65. 882-2654

Crosley heavy-duty large capacity dryer, \$75. 837-0327

L-shaped desk, solid oak, credenza, matching bookcase, \$300. 880-7305

DIRECWAY 6000 system for high-speed satellite Internet, \$65. 227-0339

Trampoline, \$125. 658-8645

Disney Cars: Springs Mountain Challenge Track Set, \$10. 489-8147

Small rear tine tiller, \$75. 722-5282

Vehicles

2007 Honda TRX450R Sport ATV/quad, electric start, plastics black/flames, red frame, \$5,400. 345-9555

2007 Honda Accord EX, V6, leather, sunroof, heated seats, dual climate, 7k miles, \$22,900. 232-4379

2006 Chevy Silverado 1500 Z71, silver birch metallic, crew cab, 4x4, 36k miles, \$26,000. 412-3406

2005 Suzuki Hayabusa motorcycle, extended warranty, jacket, helmet, extras, \$8,300. 658-3104

2004 Lincoln Aviator, 2WD, white, DVD entertainment system, 34k miles, \$19,000. 541-2049

2004 Pontiac Montana van, automatic, captain's seats, 76k miles, \$12,000. 232-4466

2003 Escalade, black, 77k miles, \$22,000 obo; 2007 Chrysler 300, 21k miles, \$18,500 obo. 520-2802

2003 Tahoe, leather, third-row seat, captain's chairs, rear air, 58k miles, \$18,000. 468-0854

2003 Ford Ranger Super Cab, gold, power locks/doors, 50k miles, \$10,200. 431-0582 or 810-8945

2001 Honda CRV LX, black/gray, power windows/locks, luggage rack, 95k miles, \$9,900. 883-6894

2000 Foreman 450S, 4X4, 1k miles, \$3,750 obo. 233-5032 or 431-7584

2000 Honda CR-V LX, four-door hatchback, forest green, \$5,000. 498-0506

1997 Ford Explorer Limited, leather, sunroof, V8, 155k miles, \$3,700 obo. 509-2725

1995 BMW, black, four door, leather interior, new tires, maintenance records. \$2,950 obo. 348-1178

1993 31-foot Hi-Lo Classic travel trailer, all amenities, \$8,500. 679-3025

1979 El Camino, restored, AC, V8, chrome wheels, new paint, \$5,000. 679-3565

19-foot Bayliner Capri Bowrider, 125 hp, trailer, covers, extras, \$4,000. 653-3647

Kasea 150cc two-person suspension go-kart, four cycle, automatic, reverse, disk brakes, \$799. 541-6471

Wanted

Portable shortwave radio, prefer Realistic, Sony or Eaton brand. 637-0633

Used youth ATV, prefer 50 to 90 cc, brand name, good condition. 755-2358

Old, no longer used surfboard. 351-1754

Suspended ceiling parts, 24-inch cross-tees, older style for 25- to 40-year-old grid system. 233-0705

Inexpensive golf cart, preferably with back seat. 683-8409

Marshall team members learn to put out the fire



Darren Reed, center, an engineer in the Engineering Directorate, uses a fire extinguisher to put out a practice blaze. Hal Meadows, left, an inspector with Redstone Arsenal Fire and Emergency Services, and other Marshall team members watch. The demonstration was part of the SHE 116 Fire Extinguisher Awareness Training activities Oct. 18 at Building 4600. Meadows taught participants how to use an extinguisher and provided other useful fire safety tips. Upcoming fire extinguisher training will be Oct. 25 at 1 p.m. in front of Building 4708 and Oct. 30 at 9:30 a.m. in the north parking lot of Building 4487. Each attendee receives a prize and credit for attending the training.

David Higginbotham/MSFC

Launch

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arrival of new research laboratories from the European Space Agency and the Japan Aerospace Exploration Agency in upcoming shuttle missions. During STS-120, the crew also will move the station's Port 6 segment and the solar arrays of the station's backbone, or truss, to a permanent position at the end of the truss' left side.

Joining Melroy on the STS-120 crew are pilot George Zamka, mission specialists Scott Parazynski, Doug Wheelock, Stephanie

Wilson, Daniel Tani and European Space Agency astronaut Paolo Nespoli. Tani will join Expedition 16 Commander Peggy Whitson and flight engineer Yuri Malenchenko, who arrived at the station on board a Russian Soyuz spacecraft Oct. 12.

Tani will rotate positions with station resident Clayton Anderson. After his five-month stay on the station, Anderson will return to Earth with Discovery's crew at the conclusion of the STS-120 mission. Discovery is scheduled to land at Kennedy Nov. 6.

For the latest information about the STS-120 mission and its crew, visit <http://www.nasa.gov/shuttle>.

MARSHALL STAR

Vol. 48/No. 6

Marshall Space Flight Center, Alabama 35812
(256) 544-0030
<http://www.nasa.gov/centers/marshall>

The Marshall Star is published every Thursday by the Public and Employee Communications Office at the George C. Marshall Space Flight Center, National Aeronautics and Space Administration. Classified ads must be submitted by 4:30 p.m. Thursday, and other submissions no later than 5 p.m. Friday to the Marshall Public and Employee Communications Office (CS20), Building 4200, Room 102. Submissions should be written legibly and include the originator's name. Send e-mail submissions to: intercom@msfc.nasa.gov. The Star does not publish commercial advertising of any kind.

Manager of Public and Employee Communications — Dom Amatore
Editor — Jessica Wallace



U.S. Government Printing Office 2008-723-022-20122

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