MARSHALL STAR

Serving the Marshall Space Flight Center Community May 23, 2002

Marshall's Self-Study Learning Center 'E-volving' with online training services

by Denise McCaul

With a new name and new resources, the Employee Development Technology Center is evolving into a true learning resource available for all Marshall team members.

The new name is "Self-Study Learning Center."

"We were finding that many individuals didn't know that this facility even existed or that there was such a large library of learning resources available to them here," said Denise McCaul, training center coordinator. "The name change just reflects the ability of employees to come and study independently and at their own pace."

The Self-Study Learning Center is open from 8 a.m.-4:30 p.m. in Bldg. 4200, Room G-13. Both Marshall employees and contractors can use it to develop managerial, interpersonal and technical skills at their own pace, in their own time — onsite or at home. Many mandatory training programs such as electrostatic discharge training, program critical hardware and Kennedy Space Center certification are available in the learning

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'Science in a box'

New Microgravity Glovebox heads to Space Station

by Tracy McMahan

People talk about thinking "outside the box," but some science experiments aboard the International Space Station will be safer and easier when they are done inside a box.

A glovebox that is.

Until now, many of the Space Station experiments have been in enclosed containers, with few hands-on crew activities. That will change when Space Shuttle Endeavour delivers a new facility -- the Microgravity Science Glovebox -- to the Space Station in May during the STS-111 mission.

"Without the glovebox, many types of hands-on experiments would be impossible or severely restricted on the Space Station," said Charles Baugher, project scientist for the glovebox at the Marshall Center.

The glovebox -- a sealed container with built in gloves on its sides and front — will enhance the Space Station's science capabilities by providing a facility where the crew can work safely with experiments that involve fluids, flames, particles and fumes that need to be safely contained. In an Earth-

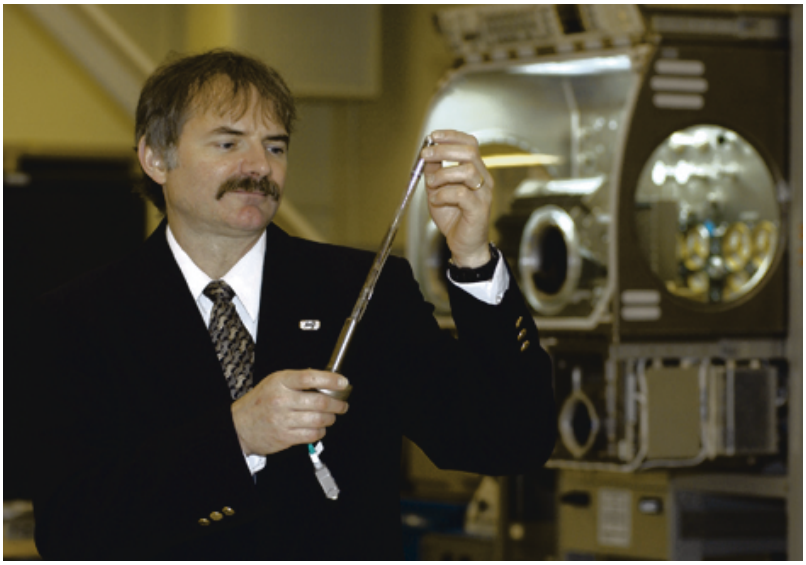

Photo by Emmett Given, NASA/Marshall Center

Marshall's Dr. Richard Grugel examines a small glass ampoule for containing experiment samples like the ones inserted in the furnace inside the Microgravity Science Glovebox going to the International Space Station. He is studying materials processes similar to those used to make components used in jet engines. While on the ground, he will see video of the samples melting inside the glovebox furnace during flight.

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Glovebox

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based laboratory, liquids stay in beakers or test tubes. In the near-weightlessness, or microgravity, created as the Station orbits Earth, they float.

Contaminants could get into the cabin air and irritate a crewmember's skin or eyes — or even make them ill. These contaminants also could damage the Station's sensitive computer and electrical systems or ruin other experiments.

To make laboratory-style investigations inside the Station possible, engineers and scientists at Marshall collaborated with the European Space Agency to build the glovebox.

During the upcoming four-month Expedition Five on the Station, the glovebox will support the first two materials science experiments to be conducted on the Space Station. These experiments will study materials processes similar to those used to make semiconductors for electronic devices and components used in jet engines.

High-temperature furnaces and toxic materials required for the experiments will be safely contained inside the sealed glovebox work area. Yet by inserting their hands in the gloves, the crew will still be able to change out samples and adjust video of the experiment -- two critical hands-on activities crucial to the success of both investigations. The glovebox is hooked up to Station resources like power and computers, so investigators on the ground can still send commands to their experiments and receive data, such as video of samples being melted.

Photo by Emmett Given, NASA/Marshall Center

Dr. Aleksandar Ostrogorsky, a materials scientist from the Rensselaer Polytechnic Institute in Troy, N.Y., with an ampoule inside the Microgravity Science Glovebox. He is the principal investigator for one of the first materials science experiments on the International Space Station -- the Solidification Using a Baffle in Sealed Ampoules. The experiment is managed by the Marshall Center. The sealed environment inside the glovebox makes it an ideal place for the furnace used to melt semiconductor crystals.

The glovebox facility occupies a floor-to-ceiling rack inside the Destiny laboratory module. It is more than twice as large as gloveboxes flown on the Space Shuttle, and its work volume can hold larger investigations that are about the size of an airline carry-on bag.

The Microgravity Science Glovebox is designed to be a fixture of the Station's Destiny laboratory for the next 10 years. Scientists are developing a steady stream of investigations that take advantage of the glovebox's capabilities. The glovebox supports relatively low-cost, small investigations from many disciplines including biotechnology, combustion science, fluid physics, fundamental physics and materials science.

"The glovebox allows scientists to test small parts of larger investigations in a microgravity environment, try out equipment on the Station, and do experiments more like they would do them in a laboratory on the ground," Baugher said.

In exchange for building the glovebox, the European Space Agency will be able to use other facilities inside Destiny until that agency's Space Station laboratory - the Columbus Orbital Facility -- is attached to the Station in a couple of years. The glovebox was built by Bradford Engineering B.V. in The Netherlands.

"We have a long history of working with the Europeans on the glovebox concept," said Mary Etta Wright, one of Marshall's lead glovebox engineers. "We built on our successful flights of gloveboxes on the Space Shuttle and the Russian space station Mir."

Wright does her work in the Microgravity Development Laboratory -- a unique Marshall Center facility that helps scientists and engineers prepare investigations from conception to implementation in space. The laboratory has an identical engineering model of the glovebox that was used to test and prepare the first experiments for this flight, and will continue to be used to prepare future investigations.

During the mission, scientists will command and monitor glovebox investigations from a telescience center located at Marshall's Microgravity Development Laboratory.

"People at the Marshall Center developed gloveboxes to increase the types of experiments we could conduct in space," Wright said. "We can't wait to see this facility became a mainstay of laboratory equipment on the Space Station."

The writer, employed by ASRI, supports the Media Relations Department.

Jody Singer named deputy manager of Marshall's Space Shuttle Project

Marshall news release

Jody A. Singer has been named deputy manager of the Space Shuttle Projects Office at the Marshall Center.

In her new position, Singer will oversee the work of several hundred engineers and technicians who are responsible for the flight safety, performance and hardware integrity of the Space Shuttle's propulsion elements — including the Main Engines, Solid Rocket Boosters, Reusable Solid Rocket Motors and External Tank.

As deputy manager, Singer joins the elite Senior Executive Service, a corps of men and women who administer public programs at the top levels of federal government.

Photo by Terry Leibold, NASA/Marshall Center

Singer

Singer was previously assistant manager of the Space Shuttle Project Office.

She began her NASA career in 1985 in Marshall's Program Development Office. She joined the Space Shuttle Projects Office in 1987, where she was responsible for tracking and evaluating contractor hardware deliveries on the Space Shuttle Main Engine Project. She was appointed program business manager for the Space Shuttle's External Tank Project in 1990, and became the project's assistant manager in 1996. She was appointed deputy of the External Tank Project in 1998, and served in that capacity until assigned as assistant manager of the Space Shuttle Project Office in 2000.

Engineering Directorate, Equal Opportunity Office win 'Golden Shoes' at annual 'Walk for Health'

Marshall's Engineering Directorate took top honors and a "Golden Shoe" trophy for having the most people participating in the Walk for Health.

Photos by Doug Stoffer, NASA/Marshall Center

The Equal Opportunity Office at Marshall won for having the highest percentage of team members participating.

Marshall team members warming up for the walk first leaned this way ...

... then leaned that way.

31 Marshall team members to view STS-111 launch

When seven astronauts climb aboard Endeavour May 30 to embark on the 12-day STS-111 mission to the International Space Station, 31 Marshall employees will be there to watch. The 31 Space Flight Awareness honorees are being cited for their contributions to the space program.

Roger Anderson, EG&G

Janice Barger, RS40

Carl Benson, SD22

Ken Cavender,
R.W. Beck

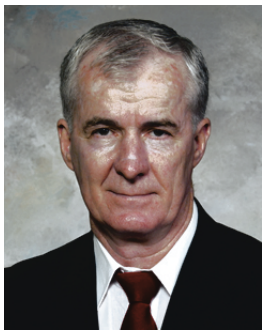
Dawn Christian, SD01

Janet Crawford, TD20

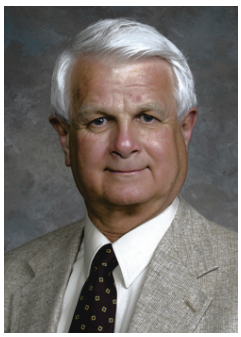
Harry Dean, QS30

Greg Duke,
Sverdrup Technology

Kenn Dunn,
AJT & Associates, Inc.


Jerry Gray, CSC

Young Lee, TD63


Jim Lindsay, ED20

Kathy Lutz,
Pace & Waite, Inc.

Johnney Mason,
Hernandez Engineering,
Inc.

Ola Metcalfe, CD03

Donald Monell, UP10

Dennis Moore, MP51

Gustav Mordan, FD40

Steve Newton, VS10

Sandra Presnell, PS20

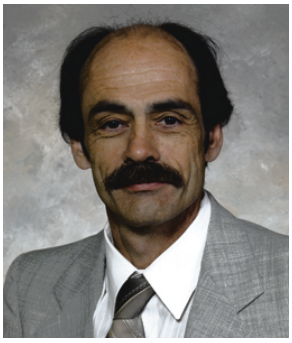
Phyllis Ragland, ED10

Gail Ralls, DA01

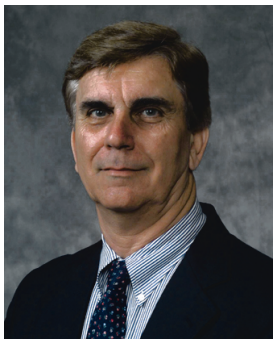
Ronald Rigney, MP21

Carolyn Russell, ED33

Philip Sommers,
Morgan Research


Howard Stetson, TBE

Charlotte Talley, SD02


Jim Throop Jr.,
Pratt & Whitney

Wanda Towry, ED02

Deborah Wills, AD33

Gregory Wright, FD30

Learning

Continued from page 1

center, which also contains a resource library, full media learning carrels and training rooms with large screen projection systems for team training.

"The Customer & Employee Relations Directorate's Employee and Organizational Development Department has made a real commitment to expand the learning opportunities for Marshall team members," McCaul said. "They have recently made a huge increase in resources for the Self-Study Learning Center's library, including new material formats and topics of particular interest to Marshall's team."

Based on feedback from surveys and other Center directives, new titles by popular motivational, quality control and leadership authors such as Tom Peters, John Maxwell and Daniel Goleman are among those available. Some of the programs offered include benchmarking, team development and information technology courseware such as Java, MS Office 2000 and Adobe Photoshop.

"If we don't have a resource that would be vitally useful for an employee's growth, we'll try to get it," McCaul said. "In fact, most of my recent purchases were the result of high demands for a particular item from an engineer or a manager. I'd rather hear what Marshall's employees could really use than order blind from a catalog."

Team leads, supervisors and individuals desiring to advance their overall potential are encouraged to check out this learning resource. New course catalogs will be available in June. Until then, requests and queries can be made to Denise McCaul or Gloria Turner at 544-8291 or e-mail edtec@msfc.nasa.gov.

The writer is the coordinator of the Self-Study Learning Center.

Silver Snoopy award

Foster Anthony, left, was presented a Silver Snoopy award recently by astronaut Douglas Hurley. The presentation took place at Marshall's Resident Office at Kennedy Space Center.

Obituaries

Bailey, Calvin V., 77, of Madison, died May 11. He retired from Marshall in 1983 where he worked as an aerospace engineering technician. He is survived by his wife, Mary Dean Bailey.

Job announcements

MS02D0056, AST, Technical Resources Management. GS-801-07/09/11, Space Shuttle Projects Office. No closing date.

MS02D0099, AST, Liquid Propulsion Systems. GS-0861-13, Space Transportation Directorate, Subsystem and Component Development Department, Functional Design Group. Closes May 23.

MS02D0100, AST, Propulsion Flow Dynamics. GS-0861-13, Space Transportation Directorate, Subsystem and Component Development Department, Functional Design Group. Closes May 23.

MS02D0105, Program Analyst. GS-0343-12, Space Transportation Directorate, Business and Administrative Office. Closes May 28.

MS02C0107, AST, Liquid Propulsion Systems. GS-0861-14, Space Shuttle Projects Office, Shuttle Main Engine Project. Closes May 24.

MS02D0108, Program Analyst. GS-0343-12, Second Generation RLV Program Office, Program Planning and Control Office. Closes May 28.

MS02C0112, Information Technology Specialist. GS-2210-12, Engineering Directorate, Structures Mechanics, and Thermal Department, Structural Design Group. Closes June 5.

Factors that affect the R-value of a window

ENERGY TIP

The R-value of a window is affected by several factors. The type of glazing material — for example, glass, plastic or treated glass — and the number of layers of glass. If the glass is layered, the R-value is affected by the amount of air space between the layers.

The thermal resistance, or conductance, of frame and spacer materials, as well as the "tightness" of the installation, also are factors in R-value.

If you have an energy tip that you would like to share with the Marshall Star readers, send it to:

cedreck.davis@msfc.nasa.gov or juergen.haukohl@msfc.nasa.gov

Center Announcements

Official badge notification

All Marshall Center team members wearing an "I Think Safe Because" badge must not display it in front of their official employee badge.

University scholarships available

Two university scholarships sponsored by the Marshall Association are available for incoming freshmen in September. Both technical and non-technical scholarships will be awarded. The Association will accept applications for the scholarships until July 31. Completed applications should be submitted to Cliff Bailey in CD20 or call 544-5482.

Thrift Savings Plan for Marshall employees open

Marshall employees can change their contributions to Thrift Savings Plan accounts until July 31. Employees also may begin contributions to their accounts during this period. Those electing to enroll or increase funds in the plan can obtain a TSP-1 Form from www.tsp.gov. There are five different funds to choose from. For more information, call Ginger Martin at 544-5654 or Debbie Allen at 544-7536.

Six Sigma executive session open May 30-31

Participant registration is open for a two-day course in Six Sigma. The course is designed for NASA managers and leaders interested in learning how Six Sigma can be applied to their work. Six Sigma is a process for improving quality in reliability and system functionality. This session hopes to attract managers and leaders willing to explore a new way of doing business. To get an application, go to http://appl.nasa.gov/managers/schoollhouse/registration.htm. For more information, call Tina Smith at 544-7834.

E-learning launch

Demonstrations, speakers and give-aways will be at the E-learning launch May 29. The event is from 9 a.m.-1:30 p.m. in Bldg. 4200, Room G13.

Blood pressure screenings available

Free blood pressure screenings for Marshall team members are available at the Medical Center, Bldg. 4349, any workday afternoon between noon and 3 p.m.

Federal Blue Cross/Blue Shield rep at Marshall on Wednesday

The Federal Blue Cross/Blue Shield representative will be the Marshall Center on Wednesday from 9-11 a.m. in Bldg. 4200, Room 329.

Marshall Retirees Association offering university scholarship

Students who are descendants of a Marshall Center retiree can apply for the NASA-MSFC Retirees Association Scholarship at the University of Alabama in Huntsville. The $1,000 scholarship will be awarded for the academic year beginning in the fall. To be eligible, the student must be a direct descendant of a Marshall retiree or a direct descendant of a member of the NASA-MSFC Retirees Association. Qualifying students also must be an entering freshman enrolling full-time at UAH and majoring in engineering or the physical sciences. The award is based on academic merit, citizenship, leadership and a demonstrated interest in space-related engineering or science. For more information, call UAH Student Financial Services at 824-2755.

Information Technology Security conference set June 5-6

The U.S. Army Aviation and Missile Command and the Marshall Center are sponsoring an Information Technology Security and Assurance Conference and Exposition on June 5-6. The event will be from 7:30 a.m.-4:30 p.m. at the John J. Sparkman Center, Bldg. 5304. The conference theme is "The New World of Security: All Information is at Risk." Speakers will include those from the military, federal government and corporate leaders in the computer security industry. There also will be an exposition of more than 30 vendors demonstrating the latest in computer and information security hardware and software. Admission is free. For more information or to register, visit http://www.TechnologyForums.com/redstone-nasa.htm or call Sue Comer at 448-3976.

Clubs and Meetings

Shuttle Buddies meet

The Shuttle Buddies will meet for breakfast at 9 a.m. Monday at Mullins Restaurant on Andrew Jackson Way. For more information, call Deemer Self at 881-7757 or Gail Wynn at 852-8189.

Huntsville Philatelic Club show honors anniversary of Pioneer 10

The 35th annual stamp show sponsored by the Huntsville Philatelic Club will be June 1-2. The event begins at 10 a.m. on both days at the Tom Bevill Center at the University of Alabama in Huntsville. This year's show will honor the Pioneer 10 spacecraft launched in 1972 -- the first spacecraft to travel through the asteroid belt and take close-up photos of Jupiter. A special philatelic cover and postal cancellation featuring Pioneer 10 will be available at the show. Admission is free. For more information, call Kathy Campbell at 881-0941.

MARS Tennis Club Mixed Doubles Tournament set June 1

The MARS Tennis Club will hold a Mixed Doubles Open Tournament on June 1. Warm-up starts at 8 a.m. with the tournament at 8:30 a.m. Guests of members are welcome and there is a $3 charge per guest. For more information, call Bill Boglio at 544-3806.

NASA STARS resume briefing

The NASA STARS employee resume building briefing, originally scheduled for Tuesday, has been rescheduled for Friday from 1-3 p.m. in Bldg. 4200, Room G13D.

Employee Ads

Miscellaneous

★ Table, 36”x47”, and 2 chairs, walnut color, $75. 256-796-6934
★ 1991 Skeeter 175SX bass boat w/ 150XR4 Mercury, refurbished trailer, all accessories & extras. $8,300. 519-2797
★ New large copper trellis for wall mounting, $80; two handmade oriental rugs. 882-6832
★ Lenox chip & dip platter; two Moser wine glasses; six amber Moser glasses. 882-6832
★ Pop-up camper, StarCraft, new canvas, windows & screens, cushions & covers, countertops, $1,695. 464-9232
★ Sears Proform treadmill, upper-body exerciser, adjustable grade & speed, emergency cutoff, digital readout, $225. 682-5181
★ Youth Adidas Adissage sandals, new/in box, size 2, $10; used sandals, size 1, $5. 533-5942
★ White voile wedding dress, size 8, hand-beaded bodice, pearl straps, $200; veil, $25. 830-1445
★ Matching white brocade loveseats, $200 each or $350 for both. 256-881-3322
★ Nintendo 64 Goldeneye 007, $20; The World is not Enough, $30; Girl’s 10-speed bicycle, $60. 895-9050/655-4596
★ Trailer hitch, fits several GM cars, $49. 881-6595
★ Peavey guitar amplifier, 160-Watt head, separate cabinet w/four 10” speakers, $500. 256-534-9780
★ Four solid pine swivel barstools/chairs, new, 24”, natural pine finish, $100. 828-7101
★ 2002 version of WebShop XL soft ware, $5. 721-0617
★ Lowe’s riding mower, 38”, 12.5HP, $450 obo; NordicTrack Pro skier, $250 obo. 464-5774
★ Power Wheels truck, 4x4, 3 yrs. old, two new tires, new stickers, $100. 256-890-0432
★ Bedroom w/adjoining private bath for rent, $285 per month, includes utilities, cable, South Huntsville. 256-520-6069
★ Wheel Horse riding mower, 12.5HP, 37” deck, hydrostatic transmission, 335 hrs., $850. 830-6584
★ Wedding gown w/train and veil, size 6, $250; red evening gown, halter, size 5, $75. 881-8674
★ “Anastasia” CD, soundtrack to the movie, $9. 895-0045
★ Single waterbed, honey maple w/brass trim; includes heater, comforter and bedding, $150. 859-0729
★ Playstation 2, 4 games, 2 controllers, DVD remote, $280 obo. 489-0136
★ Wedgewood American Clipper blue china, complete set including service pieces. 881-5756
★ Mottahedah coffee set, Peking rose, four cups & saucers, covered sugar and creamer, $580. 883-9906
★ Round solid Cherry table, 42” diam eter, $350; solid brass angle irons, $75. 837-0559
★ LP gas grill w/side burner and propane tank, $120. 539-4508

Vehicles

★ 1995 Camry, 6-cylinder, auto, PS/PB, a/c, 127K miles. 353-3229
★ 1990 Ford F150 XLT, red, 4.9L, a/c, cruise, auto, $4,950. 256-830-5292
★ 1993 Dodge Grand Caravan SE, one-owner, $2,995. 895-9520
★ 1987 Mercedes 190E, auto, 107K miles, sunroof, new tires, $2,990 firm. 961-9533
★ 1998 Dodge Grand Caravan, $8,900 obo. 233-6197/564-6225 beeper
★ 1998 Dodge Dakota, club cab w/Lear cap, V8, 7,7K miles, extended warranty 2005, $14,995. 883-5955
★ 2001 Cadillac STS, red, 18K miles, leather, sunroof, CD changer, chrome wheels, loaded, $39,000. 256-883-0282
★ 1996 Plymouth Neon Highline, approximately 93K miles 4-door, ac/at, RFCU, 42,800. 883-7039
★ 1999 Chevy Camaro, teal color, 55K miles, new tires, power locks/windows, CD player. 971-2243

Wanted

★ First day issue stamps. 881-6595
★ Off-road motorcycle/4-wheeler for child (age 6-10); Motocross gear, motocross boots, size 11, etc. 325-6000
★ Dog house in good condition. 722-0997
★ Firewood logs from lot clearing, you cut and haul. 656-0186
★ Double baby stroller. 837-2267

Found

★ Ring, on South Balcony of Bldg. 4200. Call 544-8992 to identify/claim
★ Brown purse strap in elevator of Bldg. 4200. Call 544-0514 to identify/claim
★ Frank Sinatra CD, in South Parking Lot, Bldg. 4200. Call 544-3037 to claim/identify.

Free

★ Kittens, 1 Calico, 1 Tabby, 1 Gray/ White. 881-3566 after 5 p.m.

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