



MARSHALL STAR

Serving the Marshall Space Flight Center Community

March 16, 2006



Cindy McArthur watches her husband Bill, far right, on the large television screen in Marshall's Payload Operations Center. The astronaut and his cosmonaut crewmate, Valery Tokarev, center, were conducting an interview from the International Space Station during a public affairs event for the Johnson Space Center.

Astronaut and wife work together to educate children about living in space

By Lori Meggs

There may never have been more pressure on one astronaut to complete a science activity in space than right now for Expedition 12 Commander Bill McArthur on the International Space Station.

McArthur's wife is in charge of the activity.

"It's not easy relying on your husband to do chores when he's 240 miles up in space," says Cindy McArthur, principal investigator for Educational Payload

See McArthur on page 5

Marshall scientists head to Ghana, Greece to study total solar eclipse March 29

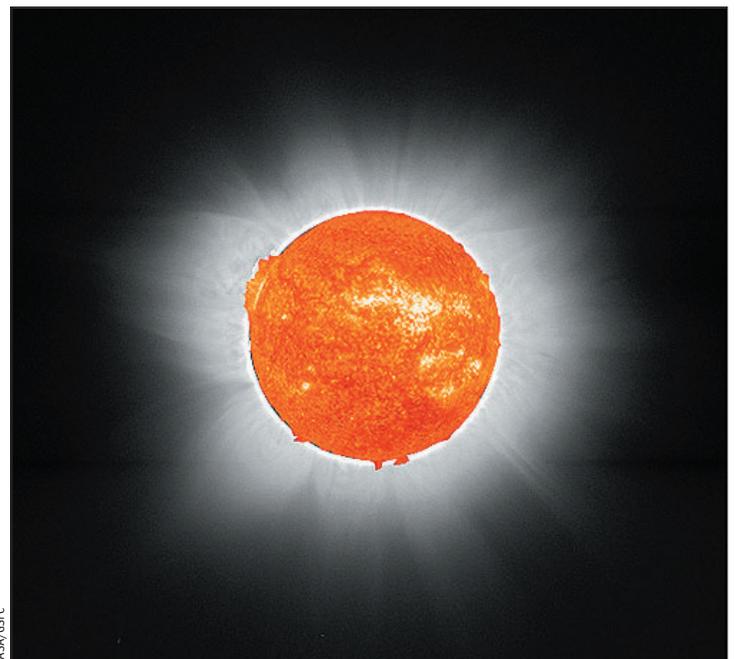
By Rick Smith

Three minutes. That's all the time a team from the National Space Science and Technology Center in Huntsville will have to scramble into action March 29, when the sun goes out.

But solar researchers Dr. Alphonse Sterling and Dr. David Hathaway of the Marshall Center and Dr. Hakeem Oluseyi of the University of Alabama in Huntsville are unfazed at the prospect of witnessing an event that once plunged whole civilizations into chaos and despair. They're eager to see it for themselves.

The trio will join dozens of their international colleagues — and probably hundreds of thousands of fascinated onlookers in Africa and Asia — to witness a total solar eclipse, the rare, natural phenomenon that occurs when Earth's moon completely blocks out

See Solar Eclipse on page 6



A composite image of the sun during the total solar eclipse of June 2001.

5 years and counting . . .

Payload Operations Center marks anniversary

By Lori Meggs

For Lamar Stacy, five years seems like a long time ago. But for Stacy and his colleagues in the Payload Operations Center at the Marshall Center, it's been time well spent.

March 19 marks the fifth anniversary of round-the-clock operations of NASA's Payload Operations Center, supporting NASA research on board the International Space Station.

Stacy has been there from the start. The 25-year NASA veteran is a payload operations director — the leader of the operations center flight control team.

Since March 19, 2001, flight control teams at Marshall have worked with 11 station crews, including 27 astronauts and cosmonauts, totaling more than 5,000 shifts. The team has supported the completion of nearly 200 scientific experiments on the station.

When the Payload Operations Center opened for business at Marshall, many processes were still being developed. Yet the team's prior experiences supporting Spacelab — science missions carried out in the space shuttle's payload bay in the 1990s — helped them transition into support of the space station.

"We had all supported Spacelab missions, and our experiences with that really led to our success," says Stacy. "Spacelab was our roadmap to the future. We tried new things, but we always seemed to go back to the things that worked with Spacelab."

The job of coordinating space station research is critical because the team is managing all U.S. science assets and calculating the time and space required to accommodate experiments and programs. The Payload Operations Center links Earth-bound researchers with their experiments — or payloads — in orbit. By serving as a virtual space station crew member, the team of ground-based flight controllers helps increase experiment efficiency which saves precious crew time for operations that require a human touch.

Because of the time spent together in this very long-distance professional relationship, the flight controllers sometimes develop more personal relationships with the crews they support during the six-month station expeditions. Astronauts often ask for photos and phone numbers from those in the payload center cadre. It helps to put names with faces. Many of the astronauts even call the people they deal with every day to add a personal touch.

"I was on console one day during

Expedition 6 in 2003, and the phone rang," recalls Stacy. "It was Don Pettit, the expedition's science officer calling from the station just to chat. After the initial shock, I kept grinning from ear to ear with pride that he thought enough to call me."

The Payload Operations Center at Marshall is one of three flight control centers around the world that monitors all station activities. The Huntsville cadre, along with their peers at the Johnson Space Center in Houston and the Russian Mission Control Center in Moscow, work as one team.

The team is now planning for the March 22 launch of Expedition 13, and the Space Shuttle Discovery's second Return to Flight mission, STS-121, scheduled in May. Stacy will be the payload operations manager for this expedition, a position he also held during two other expeditions. As payload operations manager, Stacy will be the primary contact for management in the Space Station Program Office and the Mission Operations Directorate at the Johnson Space Center.

"This next expedition is going to be exciting because we are preparing for a third crew member," says Stacy. Since the Columbia accident in 2001, the station has had a two-member crew to save on supplies and resources. "With three crew members again, the science hours will increase and we'll be busier than ever," Stacy adds.

The payload cadre is preparing for the arrival of new scientific hardware on STS-121 such as the Minus Eighty-degree Laboratory Freezer for ISS, or MELFI — a cold storage unit that will maintain samples at ultra-cold temperatures throughout a mission. The

See Anniversary on page 8



David Higginbotham/MSEFC

Lamar Stacy

After 50 years, Marshall's wind tunnel still performs critical role in space program

By Jessica Wallace

Described by Dr. Wernher von Braun, Marshall Center's first director, as "our backyard facility where we get our hands dirty," Marshall's trisonic wind tunnel recently celebrated its 50th anniversary.

In the 1950s, the demand for larger, more advanced aerodynamic testing equipment by the Army in Huntsville triggered the installation of a new wind tunnel engineers described as "trisonic." The wind tunnel went from 7-by-7 inches with wind velocities of about 4,000 mph to 14-by-14 inches with wind velocities in the subsonic, transonic and supersonic range.

The tunnel has made a significant contribution to the U.S. missile and space program. The Army's Redstone, Jupiter, Pershing and NASA's Saturn rockets were tested in the chamber. The Jupiter C, the launch vehicle that lifted America's first satellite, Explorer I, was tested using the tunnel. In addition, it performed a critical role in the development of the Saturn V, the rocket that put the first humans on the moon, and the current space shuttle.

Werner Dahm, chief aerodynamics engineer in Marshall's Spacecraft and Vehicle Systems Department, has witnessed many of these tests over the past 50 years, and continues to do so. He stated that the wind tunnel is very valuable to Marshall's development activities, allowing engineers to rapidly test



Courtesy photo

Marshall's 14-inch trisonic wind tunnel in the Aerodynamic Research Facility.

and develop aerodynamic predictions for their designs, and assess the aerodynamic impact of vehicle trade studies and configuration changes.

Since the wind tunnel chamber is small, flexible and efficient, it provides a swift response during conceptual design phases and when anomalies occur during flight testing. "We don't have to wait for months to get into a test facility and perform the actual test. We can do it here at the center since we have a facility to test in," said Dahm.

Many studies have been done to solve problems from design to flight abnormalities. When the Space Shuttle Challenger accident occurred, the tunnel was instantly put into service to examine why the explosion occurred 73 seconds after liftoff.

Although the wind tunnel is smaller when compared to other NASA tunnels, it has provided over 10,000 hours of space shuttle

tests, mainly in the area of launch vehicle design and rocket and fuel tank separation. It was the only tunnel to test proposed launch vehicle configurations such as the Shuttle-C, National Launch System configurations and the heavy lift launch vehicle. According to the book "Wind Tunnels of NASA," it may have been the largest single contributor to the space shuttle effort.

Marshall's trisonic wind tunnel has witnessed the beginning and continuous advancement of the space program. It has observed numerous years of rocket and launch vehicle research and development.

"The tunnel will remain a key contributor and be an avenue for future space development as the center moves forward with the agency's Vision for Space Exploration," said Davy Haynes, Marshall Aerosciences Branch chief.

The writer, an ASRI employee, supports the Public and Employee Communications Office.

Phone scam advisory is issued

The Protective Services Office has been advised of a possible phone scam that could be affecting Marshall employees. To guard against phone or e-mail scams, never give personal information, verify information that the individual may have or be rushed into making a decision.

An employee who receives a call or e-mail that sounds like a scam should contact the Protective Services Office at 544-4568.

Marshall Protective Services Office to rebadge NASA employees, contractors

To comply with the new federal identification policy, the Marshall Protective Services Office has initiated a rebadging project to issue all civil service and contractor employees new NASA photo identification. The office will rebadge by organization and contract. Employees will be notified through their administrative officer or company security officer. For more information, see Inside Marshall.

Dr. Dennis Boccippio selected as special assistant to Marshall Center director

By Jessica Wallace

Coming from the National Space Science and Technology Center where he worked as an atmospheric scientist, Dr. Dennis Boccippio has relocated to Building 4200 as special assistant to Marshall Center Director David King.

In February, Boccippio began his appointment to the yearlong assistantship. He replaced Vann Jones, who is now the Business Process and Operations manager for the Contract Management Module Project at Marshall. The assistantship, which was opened to all NASA employees, provides an employee the opportunity to interact with Marshall's management team, learning leadership responsibilities.

"I'm here to provide on-demand support," said Boccippio, "such as doing additional research or finding background information for the center director. While doing so, I have the opportunity to observe the Marshall governing bodies in action, working as a team across organizational boundaries.

"I get to experience constructive dialogue and see angles on

problems that aren't always obvious. This has expanded my operational knowledge of how the center and agency function, and has given me a lot of optimism about our future. I get a front seat in witnessing how Marshall coordinates with Headquarters and the other centers in a healthy manner."

Boccippio was accepted into the Cooperative Education Program at Marshall in 1995. Two years later, he became a full-time NASA employee, conducting research with the Optical Transient Detector and Lightning Imaging Sensors, and the Tropical Rainfall Measuring Mission.

Boccippio earned his Bachelor of Science in Engineering degree in civil engineering and operations research from Princeton University in Princeton, N.J., in 1990. He holds a doctorate in atmospheric science from the Massachusetts Institute of Technology in Cambridge, Mass.

During his leisure time, Boccippio enjoys renovating his 1899 home in the Huntsville historical district of Five Points. "In addition to driving nails in my home, if there's a hockey game within a 100-mile radius, I'm there," he said.

Boccippio will complete his assistantship in February 2007.

The writer, an ASRI employee, supports the Public and Employee Communications Office.



Dennis Boccippio

Dr. Lewis-Alim named one of three winners in Black History Month essay contest

By Jonathan Baggs

The Marshall Center's Dr. Marilyn Lewis-Alim won second place in a recent Black History Month essay contest focusing on this year's national theme for the observance, "Celebrating Community: A Tribute to Black Fraternal, Social and Civic Institutions."

Several Department of Defense organizations on Redstone Arsenal joined with the Marshall Center in Morris Auditorium on Feb. 23 to host this year's celebration. The speaker was Dr. Robert

R. Jennings, president of Alabama A&M University in Huntsville.

A panel of three judges from across Redstone Arsenal scored the essays, which commemorated more than 100 years of service by black organizations and civic institutions.

Lewis-Alim is the education programs coordinator for higher education in the Marshall Center's Academic Affairs Office. For her essay, she drew on her 30 years of experience as an educator, focusing on the need for traditionally black organizations to band together with "sustained involvement" to help students get a step ahead.

"The point of my essay is that professional African Americans have a responsibility to provide greater leadership and service — that our

organizations are a viable tool through which we can foster change, provide leadership, and empower those less fortunate than ourselves," she said.

Lewis-Alim knows that NASA is going to need the mind-power of young black engineers and scientists to achieve its goals for the Vision for Space Exploration.

"I believe in NASA's education programs and I know that they are having a positive effect on American education as a whole," Lewis-Alim said. "NASA's education programs are the most innovative programs around. We are committed to inspiring the next generation of explorers, and we see success on the horizon."

As the second-place winner in the contest, Lewis-Alim won a Redstone Arsenal Morale, Welfare and Recreation gift certificate and a plaque. First-place winner was Army Spc. Maria Schofield, and Pvt. E-2 Jamie Blankenship took third place. Both also won gift certificates and plaques.

In 1967, Lewis-Alim was the first black, and the first woman, to work for the



Dr. Marilyn Lewis-Alim

Emmett Given/MSFC

See Lewis-Alim on page 8



Space shuttle solid rocket motor test successful

A two-minute static firing of a space shuttle technical evaluation motor was successfully completed March 9 at ATK Thiokol, a unit of Alliant Techsystems Inc., in Promontory, Utah, north of Salt Lake City. The test included 26 specific objectives and used 89 instrumentation channels to collect and evaluate motor performance. Results will be published in a final report later this year.

McArthur

Continued from page 1

Operations. "I told him if he didn't complete the activities, he'd be in trouble when he got home," she adds with a laugh.

A former kindergarten teacher, Cindy McArthur is an education specialist in the Teaching from Space Office at the Johnson Space Center in Houston. From her position as a contractor with Oklahoma State University, she sees firsthand how the unique environment of the space station opens a wealth of educational opportunities for students on Earth.

"We want to bring the science on board the station to the classroom," she says.

McArthur works with Payload Operations Center planners at Marshall to help schedule her husband's education payload activities. He works with the flight controllers in the Payload Operations Center when conducting the activities. It's a team, she says, both she and her husband have come to love and rely on.

The Marshall Center is helping the arrangement run smoothly for the Houston-based couple. Planners in the Payload Operations Center set up the timelines for science activities on the station to ensure the astronaut starts and finishes on time. "He's

not on my schedule. I'm on his," she adds.

Cindy McArthur recently visited Marshall to participate in meetings to plan space station science and her educational activities for upcoming crews. During the Educational Payload Operations activity, station crewmembers perform curriculum-based activities in space to demonstrate basic principles of science, math, physics, engineering and geography. The demonstrations are videotaped and used in classrooms and NASA educational products. The activities help students discover how familiar objects may perform differently in the microgravity environment on board the space station, and help them see how their classroom lessons apply to space exploration.

Bill McArthur certainly sees the importance of educating students about space flight. An astronaut since 1991 and a veteran of three space shuttle missions — STS-58 in 1993, STS-74 in 1995 and STS-92 in 2000 — he received a bachelor's degree in applied science and engineering from the U.S. Military Academy at West Point, N.Y., in 1973, and a master's degree in aerospace engineering in 1983 from the Georgia Institute of Technology in Atlanta.

He performed his first Educational Payload Operations early in his six-month stay on

board the station, which began in October 2005. McArthur recorded a lecture about the solar panels of the station, showing how the power systems work on board. He also has demonstrated the importance of safety while working in the Destiny laboratory, shown how supplies are delivered to the station by the Russian Progress vehicle and detailed how U.S. and Russian spacesuits compare to each other.

McArthur often calls his wife for feedback when performing the education activities. "I think he felt some pressure for obvious reasons," she says. "I sweat a little bit too, but I knew he'd handle it well. I just think he's adorable, especially when he asks me what to wear."

Comments like that make it easy to recognize the love the McArthurs share. "He was my first date," she says grinning. That was 38 years ago. They've been married 30 years, and have two daughters.

So what would the former teacher give her astronaut husband on his report card for these educational activities?

"All A's," she says with a smile. "He's definitely passing. He can come home anytime."

The writer, an ASRI employee, supports the Public and Employee Communications Office.

Solar Eclipse

Continued from page 1

the sun.

Sterling and Oluseyi will travel to the African nation of Ghana to observe the eclipse. Hathaway will watch from the tiny Greek island of Kastellorizo in the Aegean Sea. They're all part of a network of international astronomers who will set up equipment in Ghana, Turkey and other sites, to capture as much solar information during the eclipse as possible.

Alas, for space enthusiasts in the western hemisphere, the phenomenon will be visible



Alphonse Sterling

only in coastal Brazil. But even viewers along the corridor of visibility in Africa and Asia will have just three short minutes to see the real thrill — a total eclipse that will noticeably lower temperatures and, for a brief moment, turn the day to darkness.

Three minutes of totality

When totality occurs, the NASA team will spring into action.

Once complete occultation — the passage by the moon directly over the sun — is achieved, and barring interference from local weather systems, what will remain is an eerie black disk surrounded by a glowing ring of light.

That ring is the sun's corona, a gauzy, translucent halo normally overwhelmed by the brightness of the star's surface. Capturing the maximum high-quality images of the corona is one of the NASA team's primary goals, says Hathaway, who will be snapping away and recording data even though technically he'll be on vacation.

His enthusiasm may spring from the fact that this 22-year NASA veteran, who closely studies the cycle of solar activity and its impact on the solar system (see sidebar on page 7), has yet to see a total eclipse. On March 7, 1970, Hathaway's father, a private pilot, tried to fly the family to Nantucket

Island, Mass., from their home in Lunenburg, Mass., for a perfect front-row seat.

"Every other pilot had the same idea," Hathaway recalls ruefully. "The island's



David Hathaway

airport overloaded before we got there." Now he's glad to have another chance. "This is one of nature's most amazing spectacles," he says. "I just want to take the best pictures I can, and enjoy the experience itself, as well as its value to my work."

Sterling and Oluseyi agree. A veteran total-eclipse hunter — he's seen three since 1979 — Sterling conducts theoretical and practical research into solar activity. He studies solar flares and other violent outbursts, including fascinating jets of material called "spicules," bits of electrified gas the sun occasionally flings thousands of miles into its outer atmosphere. Finding and understanding the source of these eruptions may help answer questions about how the sun produces more dangerous expulsions of energy, including coronal mass ejections that can disrupt satellites in Earth orbit.

Oluseyi, who teaches physics at UAH and routinely travels to Africa to support K-12 education initiatives, will concentrate during the eclipse on solar "plumes," sporadic plasma jets expelled near the sun's poles. Recent studies suggest these plumes may slow down the fast-moving "solar wind" that streams continuously from the corona in all directions, even when the speed of the solar wind from areas around the plumes remains unchanged.

Sterling and Oluseyi will be accompanied in their research by two student scientists from Huntsville universities: Samaiyah Farid, a graduate student in physics at Alabama

A&M University, and Jessica Williamson, an undergraduate student in mechanical engineering at UAH.

Rare opportunity for unimpeded study

The corona and solar surface processes are not complete mysteries. NASA obtains images of the sun every day, thanks to satellites such as the Solar and Heliospheric Observatory, or SOHO, launched in 1995 by the European Space Agency and NASA.

But there's a hitch. Because the constant hammering of solar radiation can damage ultra-high-resolution optical systems, most satellites rely on hardier but less visually acute equipment than can be used on the ground. Even powerful sungazers like the U.S. Naval Research Laboratory's Large Angle and Spectrometric Coronagraph, aboard SOHO, must simulate occultation to shoot images of the corona — and still can't achieve the clarity afforded during a natural eclipse.

As a result, scientists are eager to augment their space-based findings with imaging opportunities on the ground — such as the window that opens during a total solar eclipse.

Just as stargazers shielding their eyes during partial occultation are free to put down their protective gear and look directly at the sun during the period of totality, ultra-high-powered NASA cameras are likewise briefly free to snap away, unimpeded by the overpowering glare of the main solar disk. Even from a distance of 93 million miles, "that three-minute window will enable NASA to capture literally thousands of detailed, high-resolution solar images," Hathaway says. "A treasure trove of information."

Can we expect any shocking discoveries? Probably not, Hathaway says. "But all new data represents progress," he adds. "The wealth of pictures we'll take, and the insight they may provide, will be invaluable as we continue to study the behavior of the vast engine that powers the solar system."

The writer, an ASRI employee, supports the Public and Employee Communications Office.



Hakeem Oluseyi

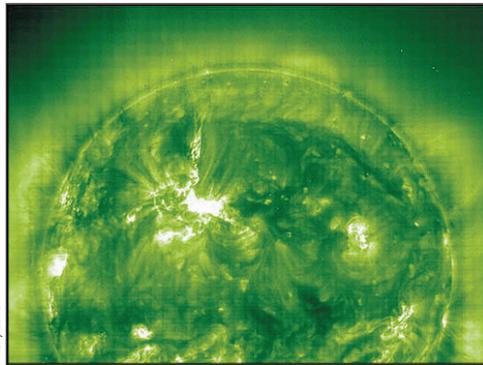
NASA's Hathaway: Solar cycle to intensify

Marshall Center solar scientist David Hathaway doesn't believe the March 29 solar eclipse is the kind of cosmic harbinger humans once believed signified impending chaos and destruction — but he does think we're approaching a period of heightened solar activity.

Hathaway and fellow researcher Dr. Robert M. Wilson, who conduct solar cycle studies at the National Space Science and Technology Center in Huntsville, believe we've reached solar minimum, the period when the sun's turbulent surface falls unnaturally quiet.

Scientists track the roughly 11-year solar cycle by the frequency of sunspots, dark areas of the surface that are slightly cooler than the surrounding inferno, thanks to fluctuations in the sun's powerful magnetic fields. At solar maximum, the sun is freckled with spots, some as big as planets. At the other end of the cycle, months can pass with few or none at all.

In February, the sun was an almost blank disk — the first quiet month of its kind in nearly 10 years. That would indicate solar



Solar scientists predict an increase in solar flares and other turbulent activity on the sun, as seen in this image taken by the Solar and Heliospheric Observatory in Earth orbit.

minimum is 12-18 months early, according to Hathaway, who says the solar cycle record indicates the strongest, most active periods run ahead of schedule. If the next cycle follows suit as it ramps back up to solar maximum around 2010, solar observers could see increased sunspot activity as soon as fall 2006.

That also could mean an upsurge in solar flares and other eruptions that pummel the inner solar system with little warning. The most powerful of these can knock out communications satellites and interfere with airborne and ground-based electrical systems.

"The years leading up to 2010 could rival the strongest solar cycles on record," Hathaway says. That includes a peak season in 1957 that remains the most violent period of solar activity on record.

But in 1957, Hathaway notes, there were no satellites to worry about.

"This cycle could be even bigger," he says. "And there's a lot more at stake up there now."

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 is 4:30 p.m. Thursday.

Miscellaneous

Kenmore washer, 1 yr. old, \$200; Kenmore dryer, \$100; freezer, 20 cu. ft., \$150. 883-4276

Craft aluminum boat, many extras. 828-5246

Oak entertainment center, custom made, fits big screen TV, drawers and doors, \$990. 256-415-2558

GE TV, 31"; shelf for 150 lb. TV; Sony Progressive Scan DVD player. 461-6337

Graco baby stroller, \$30. 603-3558

Mini bike: Murray Track 2 Mini Racer, 3.5HP, \$350. 256-355-1542

Pitbull pups, Jeep & Razor's edge mix, 9 weeks, \$150. 990-1626

Full-size Delta toolbox for pickup truck, any reasonable offer. 534-8186

2003 Epiphone Casino, sunburst finish w/hardshell case, rarely played, \$570. 684-0910

Two TV stands w/two shelves on rollers, simulated Walnut, 19.5"Hx16"Wx29"L & 17"Hx17"Wx28"L, \$30 each. 881-0457

SWR Super Redhead professional bass guitar amplifier, 350/450 watts, tube preamp, must sell, \$600. 303-3702

Med-Lift lift chair, \$600; Troy-Bilt trimmer, \$200; John

Deere S/P electric mower, rear bagger, \$200. 256-776-9506

Lots of maternity clothes, casual & dressy, sizes small and medium. 527-4552

Byrd Springs pool membership, \$150. 256-527-1027

Indoor cage, outdoor hutch and run for rabbit or small animal, all for \$50. 837-0303

Garden tiller, front tine, adjusts 13" to 24", 5.5HP YardMachine MTD, \$100. 508-0691

Berkley Lightning fishing rod w/Abu Garcia 704 Cardinal spinning reel, all new, \$30. 883-1003

Boat, 17', 115 Mercury, 2 live wells, trolling motor, many extras, \$1,750. 426-0223

Oak entertainment center, holds 27-36" TV, matching side pier, modern, paid \$1,200, make offer. 829-0285

U-Haul wide pickup truck hitch for 1991-2005, gross wt. 8,000 lbs., maximum tongue, 800 lbs., \$100. 256-653-9137

Wicker/Rattan pedestal glass top table w/4 chairs, blush, \$300. 772-7262

Hammond L100 organ, sounds very much like B-3, \$200. 256-232-0246

Squirrel dog, Curr/Fiest mix, training started, \$150. 509-7907

Vehicles

1999 Ford Expedition XLT, black, V8, auto, 2WD, 139K miles, third seat, \$8,500. 679-9895

2001 VW Beetle, loaded, green automatic heated leather seats, multi-CD, sunroof, 84K miles, \$9,000. 256-335-5896

2000 Volkswagen Jetta GL, 5 speed, 101K miles, alloy wheels, 6-disc CD, \$5,800. 350-7461

2004 Ford Explorer XLT, white, factory changer, leather, 31K miles, \$19,500. 797-1730

1991 Nissan 300ZX, coupe, 2 door, Pearl, 109K miles, \$7,000. 656-2557

2004 Chrysler Sebring convertible, gold w/tan top, warranty, \$15,700. 652-5177

1990 Alfa Romeo Graduate, 90K miles, \$5,000. 256-880-5870/leave message

2005 Nissan Frontier extended cab, loaded, garaged, V6, automatic, \$17,400. 837-1774

Classic 1993 Mazda RX7, original paint/interior, Alpine stereo JL, subwoofer, new Nitto tires, 5 speed, \$10,000. 883-5543

2000 Blazer ZR2, 4x4, 2 door, loaded, cruise, CD/cassette, towing package, 119K miles, \$5,900. 989-493-9893

2004 Lincoln Aviator, RWD, 25K miles, white, factory DVD entertainment system, \$27,500. 694-1112

2003 Mitsubishi Lancer, 45K miles, auto, CD, A/C, power windows, keyless entry, remote start, warranty, \$9,000. 489-3120

2000 Ford Explorer XLT, V8, 2WD, gold, 4 door, CD/cassette, Michelin tires, 89K miles, \$7,000. 721-1101

1995 Blazer 202 Bass boat, 20', Yamaha 150 Pro-V, hot foot, trim, \$6,500. 256-577-4002

Wanted

Large reptile terrarium w/screen venting. 468-4406

Children's gently used Little Tikes toys: Climb & Slide Castle, Water Play Table, Kitchen, etc. 881-8807

Troy-Built rear tine tiller. 256-656-2965

Cardio kick box and Tae Bo tapes/DVDs. 256-777-8229/leave message

Free

Composted horse manure for your spring garden; will load for free. 402-8101

Shuttle Buddies to meet March 27

The Shuttle Buddies will meet at 9 a.m. March 27 at Mullins Restaurant on Andrew Jackson Way. For more information, call Deemer Self at 881-7757.

Anniversary

Continued from page 2

European Modular Cultivation System — a large incubator that provides control over the atmosphere, lighting and humidity of chambers to study plant growth — is also scheduled for delivery on the STS-121 mission.

The Payload Operations Center team at Marshall is looking to the future and possible new work serving as a backup control center to Johnson’s Mission Control Center. That backup is needed in the event personnel would be forced to evacuate from Houston due to severe weather, such as a hurricane. The Johnson flight control team would then conduct mission operations from Huntsville.

The Marshall team last September demonstrated this capability, serving as an interim backup control center when employees evacuated Houston during Hurricane Rita. Marshall activated the data telemetry systems that enabled the Moscow Control Center in Russia to take over control of the station. The Marshall team also enabled Johnson employees to log in to space station computers and voice communications remotely, allowing them to continue normal station-to-ground control activities.



Employees at the Payload Operations Center at Marshall gather for a photo that will be flown to the International Space Station with the Expedition 13 crew this month. Crewmembers will use the photo to familiarize themselves with the people they work with on the ground.

“It’s just another way our team in the Payload Operations Center at Marshall continues to prove its value to the space program,” says Stacy. “I can’t wait to celebrate our 10th anniversary!”

The writer, an ASRI employee, supports the Public and Employee Communications Office.

Lewis-Alim

Continued from page 4

Columbia Record newspaper in Columbia, S.C. She also was the first black to work in the research department of Reader’s Digest in New York. She started teaching in 1969 after earning her bachelor’s degree in English and education at Spelman College in Atlanta. She completed her master’s

in teaching in 1970 at Smith College in Northampton, Mass., and earned her doctorate in education in 1981 at the University of Massachusetts in Amherst.

Lewis-Alim taught at universities, colleges and high schools in New Jersey, Georgia, Alabama and Massachusetts before coming to Redstone Arsenal in 1991. She is an ASRI employee supporting the Academic

Affairs Office.

Some of Lewis-Alim’s most important students through the years, however, are her five grown children — four are educators and one is a pediatrician. “I’m a real proud mom,” she said.

The writer, an ASRI employee, supports the Public and Employee Communications Office.

MARSHALL STAR

Vol. 46/No. 25

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), Bldg. 4200, Room 103. 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

GPO U.S. Government Printing Office 2006-523-050-20040

PSRRT STD
US POSTAGE PAID
HUNTSVILLE, AL
PERMIT NO. 298