



MARSHALL STAR

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July 5, 2007

Atlantis back at Kennedy after 'ferry-flight' from California

From combined reports

Space Shuttle Atlantis landed at the Kennedy Space Center, Fla., on Tuesday, July 3, mounted atop a modified 747 jetliner called the Shuttle Carrier Aircraft, officially ending its STS-117 mission.

Atlantis began its journey back to Florida on July 1. After refueling and overnight stops in Nebraska and Kentucky, Atlantis departed Fort Campbell, Ky., enroute to the Kennedy Center.

Atlantis landed at Edwards Air Force Base, Calif., June 22, after a successful assembly mission to the International Space Station. The STS-117 mission astronauts returned to the Johnson Space Center in Houston on June 23.

The STS-117 crew began its mission with a June 8 launch from Kennedy and arrived at the space station June 10. The astronauts installed the Starboard 3 and 4 truss structure to the outpost and retracted a set of arrays on the Port 6 truss. The new truss contains a set of solar arrays that increases station power-generation capabilities. The Port 6 truss will be relocated during a future assembly mission.

Atlantis' landing marked the end of a record-setting spaceflight by mission specialist Suni Williams. She broke the record for the



The Shuttle Carrier Aircraft carrying Space Shuttle Atlantis lands at the Kennedy Space Center, Fla., Shuttle Landing Facility on July 3.

longest spaceflight by a woman and also became the record-holder for the most hours outside a spacecraft by a female, completing four spacewalks during Expedition 14.

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Special assistant to the center director

Baraka Truss provides technical support to Marshall's management

By Jessica Wallace

As the new special assistant to the center director, Baraka Truss is observing how to become a successful leader by following the examples of Marshall Center Director David King and his executive staff.

Truss comes to the Office of the Director from the Space Systems Department's Flight Software Branch in Marshall's Engineering Directorate. She succeeds Dennis Boccippio, now the team lead for strategic analysis in the Business Planning & Integration Office in the Office of Strategic Analysis & Communications.

Truss began her yearlong assistantship in April. The position is filled each year by a NASA Marshall GS-13 or GS-14 employee and provides the person an opportunity to work alongside King and

Marshall's management team, learning leadership responsibilities and providing technical support to center management by implementing new initiatives, and routing and coordinating special assignments.

"In this role, I help to provide Mr. King and his team with support and expertise they need to effectively focus on and perform the goals of the center," Truss said. "Through this experience, I hope to gain firsthand knowledge of what it means to be a successful leader, by following and learning from the examples of those who lead. I also hope to obtain an expanded view of how NASA and the Marshall Center collaborate to complete the mission."

See Truss on page 3

Marshall's Karen Owens named 2007 Shuttle Propulsion Office Employee of the Year

By Sanda Martel

Karen K. Owens has been chosen Shuttle Propulsion Office Employee of the Year for 2007, recognized for her outstanding performance, professionalism, dedication and team work at the Marshall Center.

Owens is a manager with United Space Alliance of Houston, working at the Marshall Center to support the Shuttle Propulsion Office's Propulsion Systems Engineering and Integration Office. In her position, she manages 26 USA and subcontractor employees whose duties include integration operations at the Huntsville Operations Support Center during simulations and shuttle flight

activity, imagery analysis and database applications of shuttle missions, and technical support for the shuttle environmental assurance program.

The Shuttle Propulsion Office began the Employee of the Year recognition program in 2004. Project managers recognize employees who exhibit exceptional performance and dedication each month. The Employee of the Year is chosen by co-workers from among the monthly honorees.

Owens was selected to receive the May 2006 Shuttle Employee of the Month Award for producing and integrating propulsion system engineering data for the Propulsion Systems Engineering and Integration Office Pre-Flight Readiness Reviews, which are required prior to each shuttle mission. Flight Readiness Reviews include a thorough assessment of launch preparations and products in accordance with Certificate of Flight Readiness requirements.

"The challenges we face as a team and working together to resolve them is what I enjoy most about my job," said Owens. "We all share an incredible feeling of pride and accomplishment each time a shuttle launches," she added.

Owens began her career with USA in 1999, after working for several other shuttle support contractors. During her career, she has been awarded numerous NASA and related industry awards, including the Space Flight Awareness award in 1987 for dedication to quality work and flight safety and a Silver Snoopy Award from the Astronaut Corps in 1987 for contributions to the success of human space flight. She received NASA's Exceptional Public Service Medal at the Marshall Center Annual Honor Awards Ceremony on June 28.

Owens is originally from Fort Walton Beach, Fla., and worked as a summer intern at Eglin Air Force Base. She earned a bachelor's degree in industrial engineering from Auburn University in Auburn, Ala., in 1983.

The writer, an ASRI employee, supports the Office of Strategic Analysis and Communications.



Karen Owens

David Higinbotham/MSFC

Obituaries

James S. Dickinson, 86, of Huntsville died June 15. He retired from the Marshall Center in 1982 as an engineer. He is survived by his wife, Nancy Carrol Dickinson.

Ima B. Youngkin, 91, of Lacey's Spring died June 23. She retired from the Marshall Center in 1976 as a supervisor general supply specialist.

Thomas Henry Smith Jr., 85, of Fayetteville, Tenn., died June 26. He retired from the Marshall Center in 1975 as a supervisory cost accountant. He is survived by his wife, Delma B. Smith.

Alex Priskos appointed to SES, manager of First Stage Office

Alex S. Priskos has been appointed to the Senior Executive Service position of manager of Marshall's First Stage Office in the Exploration Launch Projects Office. In this position, he will be responsible for leading the design, development, testing and evaluation of the first stage propulsion element for NASA's Ares I crew launch vehicle.



Alex Priskos

The Senior Executive Service is the personnel system covering top managerial positions in approximately 75 federal agencies.

Priskos joined the center in 2005 as the associate director of Marshall's Engineering Directorate where he was responsible for leading the directorate's strategic and institutional planning efforts. In 2006, he was assigned the responsibility for leading the Ares launch vehicle development efforts within the Engineering Directorate.

Prior to joining NASA, Priskos held numerous executive-level positions in the private sector, including vice president of field marketing for the Alliant Techsystems Aerospace Group in Huntsville; president and general manager of ATK's Alliant Missile Products Company in Rocket Center, W.Va.; program director of Medium Launch Vehicles at Hercules Aerospace Company in Magna, Utah; and business manager of Expendable Launch Vehicles, also at Hercules Aerospace Company. He led financial and business management planning for the Delta II program, as well as the Pegasus and Taurus programs, part of industry efforts in the 1980s and early 1990s to design and develop a family of launch vehicles to reduce the cost of putting small satellites into low Earth orbit.

A native of Salt Lake City, Utah, Priskos graduated in 1982 with a bachelor's degree in mining engineering from the University of Utah in Salt Lake City. In 1984, he received a master's degree in business administration from Utah State University in Logan.

Truss

Continued from page 1

In addition, the special assistant performs fact-finding studies and reviews engineering literature, scientific research and industry studies.

"There are many aspects of science and engineering that are invisible when you are working in the trenches," Truss said. "The daily task of delivering on time, within budget and defect free, can sometimes encompass you, preventing you from seeing the big picture. In this position, I hope to gain a clear view of how I can help better position Marshall and the agency for future space exploration, by being one who produces quality work."

Truss joined the Flight Software Branch at Marshall in 2000, serving as project lead for software process improvement. She helped the branch achieve an unprecedented commendation from the Software Engineering Institute for well-defined, well-documented standards and practices. The institute is a federal research center that works to advance software engineering practices.

From 1996 to 2000, Truss worked in software engineering at Sparta Inc. and Madison Research Corp., both in Huntsville.

She earned her bachelor's and master's degrees in computer science from Alabama A&M University in Huntsville in



Doug Steffer/MSFC

Baraka Truss

1996 and 2000, respectively. She recently began a doctoral program in computing technology at Nova Southeastern University in Fort Lauderdale, Fla.

At home, Truss enjoys spending time with her husband, Sylvester, and their 5-month-old son, Silas. She is also a national award-winning wedding floral designer.

The writer, an ASRI employee and Marshall Star editor, supports the Office of Strategic Analysis and Communications.

Neutron stars join the black hole jet set

NASA's Chandra X-ray Observatory has revealed an X-ray jet blasting away from a neutron star in a binary system. This discovery may help astronomers understand how neutron stars as well as black holes can generate powerful beams of relativistic particles.

The jet was found in Circinus X-1, a system where a neutron star is in orbit around a star several times the mass of the sun, about 20,000 light years from Earth. A neutron star is an extremely dense remnant of an exploded star consisting of tightly packed neutrons.

Many jets have been found originating near black holes — both the supermassive and stellar-mass variety — but the Circinus X-1 jet is the first extended X-ray jet associated with a neutron star in a binary system. This detection shows that the unusual properties of black holes — such as presence of an event horizon and the lack of an actual surface — may not be required to form powerful jets.

"Gravity appears to be the key to creating these jets, not some trick of the event horizon," said Sebastian Heinz of the University of Wisconsin at Madison, who led the study.

The discovery of this jet with Chandra also reveals how efficient neutron stars can be as cosmic power factories. Heinz and his colleagues estimate that a surprisingly high percentage of the energy available from material falling onto the neutron star is converted into powering the jet.

"In terms of energy efficiency across the universe, this result shows that neutron stars are near the top of the list," said Norbert Schulz, a coauthor of the study, from the Massachusetts Institute of Technology in Cambridge. "This jet is almost as efficient as one from a black hole."

The Chandra results also help to explain the origin of diffuse lobes of radio emission previously detected around Circinus X-1. The team found the X-ray jets of high-energy particles are powerful enough to create and maintain these balloons of radio-emitting gas.

"We've seen enormous radio clouds around supermassive black holes at the centers of galaxies," said Heinz. "What's unusual here is that this pocket-sized version, relatively speaking, is being powered by a neutron star, not a black hole."

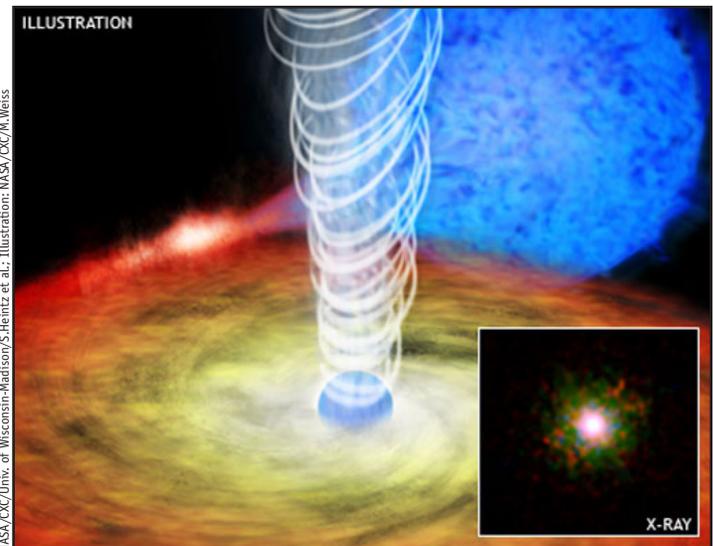
The main evidence for the newly found jet comes in two extended features in the Chandra data. These two fingers of X-ray emission

are separated by about 30 degrees and may represent the outer walls of a wide jet. When overlapped with radio images, these X-ray features, which are at least five light years from the neutron star, closely trace the outline of the radio jet.

Another interpretation is that these two features represent two separate, highly collimated jets produced at different times by a precessing neutron star. That is, the neutron star wobbles like a top as it spins and the jet fires at different angles at different times.

Jet precession is also consistent with radio observations taken at different times, which show varying orientation angles of the jet. If the precession scenario is correct, Circinus X-1 would possess one of the longest, narrowest jets found in X-ray binary systems to date, representing yet another way in which neutron stars can rival and even outdo their larger black hole relatives.

These results will appear in an upcoming issue of *The Astrophysical Journal Letters*. The Marshall Center manages the Chandra program for the agency's Science Mission Directorate. The Smithsonian Astrophysical Observatory controls science and flight operations from the Chandra X-ray Center in Cambridge, Mass.



Artist's illustration depicts the jet of relativistic particles blasting out of Circinus X-1.

Atlantis

Continued from page 1

Williams' journey began in December with the launch of STS-116. She lived on the space station for six months before switching places on the STS-117 crew with Clayton Anderson, who is now a flight engineer on the station. When Atlantis landed, she had accumulated 194 days, 18 hours and 58 minutes during her spaceflight.

Meanwhile, processing for the next mission, STS-118, continues at Kennedy. Orbiter Endeavour is inside the Vehicle Assembly Building after a short roll from the nearby Orbiter Processing Facility. In the assembly building's transfer aisle, Endeavour will be lifted vertically, transferred to a high bay and attached to its external tank and solid rocket boosters.

The STS-118 mission will deliver the S5 truss to the International Space Station. Launch is targeted for Aug. 7.

ODIN computer lab now available

Marshall's OCIO announces grand opening of new information technology testing facility

The Office of the Chief Information Officer announces the grand opening of a new on-site ODIN computer lab that will enable its Marshall customers to perform information technology testing. The lab is managed in partnership with the ODIN team.

The facility is the first computer lab at Marshall available especially for ODIN customers. It offers leading-edge information technology capability to serve the growing technology needs of Marshall in a realistic environment for developers and integration teams to test applications prior to deployment to the Marshall community.

Located in Building 4646, Room 203, the lab enables customers

to install, test and validate software functionality, including developed applications such as the Marshall Asset Management System and capabilities within an isolated network environment. The lab is equipped with multiple ODIN desktop systems with current standard software configurations, along with network and printing capabilities.

The ODIN lab is available for customers every Tuesday and Thursday from 9 a.m. to 4 p.m. Visit the ODIN Web site at <https://www.odin.lmit.com/msfc> for scheduling and availability. For questions about the lab, contact Kenyetta Sanders at 319-4293.

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

Pistol Crossbow, bolts, \$20; Legends of Zelda for Wii, \$25. 325-6000

Stainless potato ricer from Lawren's, \$15. 837-6776

Golf club set, irons, woods, putters, driver, bag, cart, \$95. 379-3606

New-in-box bathroom vanity, American Classics white, 24 feet by 19 feet, fully assembled, \$100. 534-2368

Motorcycle helmet, Shoei RF700, large, black, \$75; Aerostich riding suit, black, 44, \$225. 882-2654

1800s china cabinet, \$1,100; server \$650; two Eastlake lamp tables, \$295/\$425; several modern lamps. 852-1726

Ashley coffee table, sunburst top, \$100; Toshiba stereo 36-inch TV, \$100. 828-9651

White metal bunk bed, converts to two twin mattresses or one full, \$125. 881-2583

Antique poplar bead board, truck load, reclaimed from 1920s home, \$200 obo. (931) 438-2625

Mahogany queen bed frame, head/base board, paid \$250 new, asking \$90. 652-5902

Northwestern Hubert Green qualifier golf clubs, bag, \$100. (931) 703-6230

52-inch Sony big-screen TV, \$650 obo. 509-2536

Frigidaire Flair refrigerator, white, \$125. 551-1124

Poplar T&G flooring, 150 square feet, unfinished, sanded,

from 1920s home, \$125. (931) 438-2625

Briggs single-seat go-cart, 5hp, \$200. 527-1738

Computer desk, desktop shelves, keyboard drawer, light oak, slightly banged up, \$25. 656-8601

Contemporary pedestal dining table, semisquare, glass top, no chairs, \$200. 536-5132

Mens white Turntec golf shoes, size 10 1/2, never worn, \$15. 851-7406.

Two formal armchairs and side table, \$300; solid oak corner entertainment center, \$300. 503-6773

Four plots in Tri-Cities Memorial Gardens, Florence, \$4,000. 436-1106

Baseball World, Tom Emanski, complete set of nine VHS training videos, \$50. 650-0456

2007 Acura TL S aluminum alloy wheels, Michelin 235/45R17 tires, \$1,950. 509-9765

Springfield 1911 full-size 45 ACP; Browning BAR 270 semi-auto. 412-3406

Two Broyhill chairs, \$185 each; computer desk, \$80; headboards, \$65 and \$25; 683-7015

Oval Kincaid dinette table, removable leaf, walnut finish, \$100. 508-3408

Gift certificate, \$100, White's Refrigeration, expires Oct. 1, \$80 firm. 895-6722

Scuba equipment; 3M Onell wet suit, never used. 508-6840

Exercise equipment, Weslo Quadra Force, eight stations, 40 workouts, \$125 obo. 337-0435

Large 72-by-42 almond-colored whirlpool bathtub, six jets, working pump, \$150. 655-6701

Washer and dryer, 10 years old, \$150 for both. 551-0276.

Vehicles

2007 Honda TRX450R Sport ATV/quad, electric start, plastics black/flames, red frame, \$5,800. 345-9555

2005 Harley Heritage Softail, FLSTCI/1450CC, garage kept, \$16,000. 232-4892

2004 Nissan Quest SL, DVD entertainment systems, 100k

miles, \$12,500. 520-6951

2003 Harley-Davidson Ultra Classic Electra Glide, 100th Anniversary Edition, loaded, extended warranty, \$13,500. 683-1846

2003 GMC Envoy, 55k miles, pewter, beige interior, CD player, cruise, power windows/locks. \$17,250. 658-1356

2002 Kia Sedona LX minivan, 212k miles, nonsmoker, luggage rack, new tires, \$4,500. 233-6197

2002 Nissan Pathfinder SE, automatic, V6, Bose system, bronze, 77k miles, new tires, \$13,500. (205) 317-9723

2001 Windstar LX, 4 door, quad chairs, a/c, power group, 125k miles, \$5,500. 880-9754

1999 Dodge Dakota XLT, extended cab, 87k miles, 4X4, V8, \$9,000 obo. 345-1331

1999 Nissan Frontier, extended cab, bed liner, silver, automatic transmission, 124k miles, \$5,900. 883-6894

1997 Jeep Grand Cherokee Laredo, leather, red, 6 cylinder, 23 mpg, 193k miles, \$3,700. 599-3094

1995 Buick Park Avenue, all amenities, 103k miles, \$3,950. 308-0049

1994 Lexus LS 400, black, leather, moon roof, new timing belt, 130k miles, \$6,999. 797-6173

1990 Toyota Camry LX, electric doors/windows, 4 cylinder, a/c, auto, silver, reliable, \$2,200. 355-4266

1986 Chevrolet Truck, 350hp, LWB, \$1,500 obo. 652-1495

1983 Chevy Caprice Estate station wagon, V8, 177k miles, \$700. 337-8930

Lost

Verizon flip phone, lost June 25, last seen ladies restroom, first floor, Bldg. 4200. 544-4680

Wanted

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

Dorm refrigerator. 883-2757

Junk BSA or Triumph Motorcycle for parts. 653-0800

Marshall honors employees at Annual Honor Awards ceremonies

The Marshall Center held its Annual Honor Awards ceremonies June 28, recognizing employees who have made significant contributions to America's space program over the past 12 months or longer. NASA Associate Deputy Administrator Charles Scales was the keynote speaker. At right, Deputy Director Robert Lightfoot thanks employees for their hard work and dedication to the center.



Emmett Given/MSFC



From left, Scales, Engineering Director Dan Dumbacher and Center Director David King meet in the lobby of Building 4200 after the ceremonies.

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