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July 12, 2007

NASA's Dawn spacecraft rescheduled for September launch

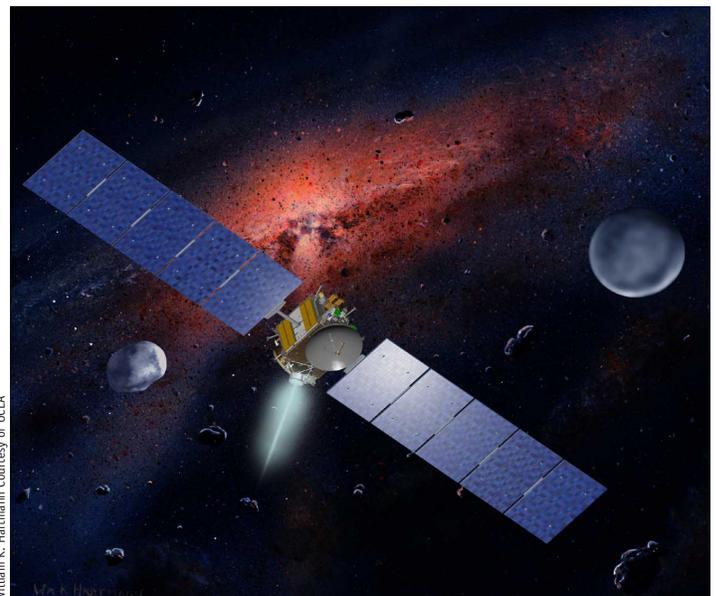
NASA Headquarters

The launch of NASA's Dawn spacecraft has been rescheduled for September. This mission will explore Ceres and Vesta — the two largest objects in the asteroid belt — in an effort to answer questions about the formation of our solar system.

The decision was made to move the launch after careful review by NASA's Science Mission Directorate officials, working with Dawn mission managers and the Dawn principal investigator, and with the concurrence of the NASA Administrator.

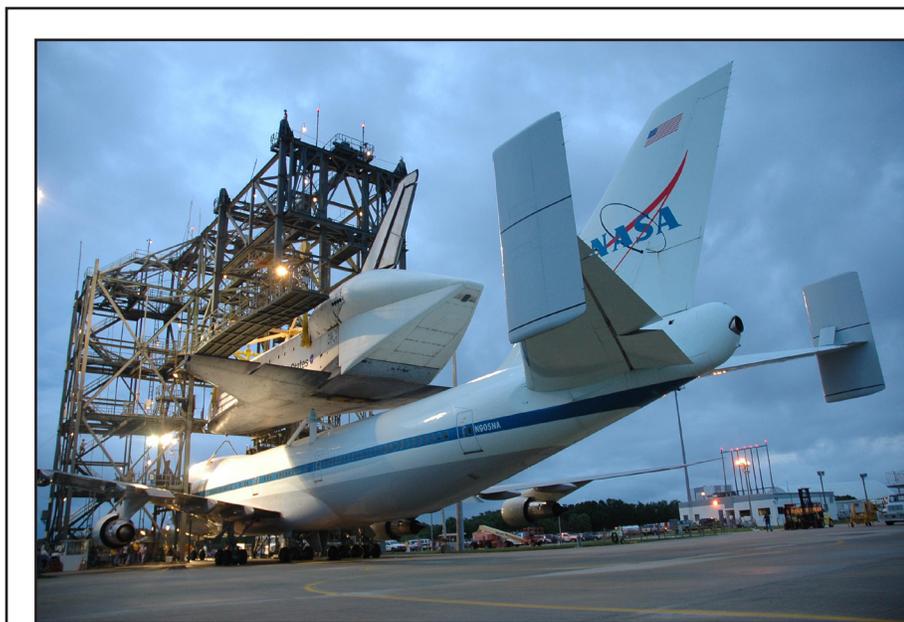
Primary reasons for the move were a combination of limited launch opportunities for Dawn in July and the potential impact to launch preparations for the upcoming Phoenix Mars Lander mission, set for early August. A September launch for Dawn maintains all of the science mission goals a July launch would have provided.

The Phoenix mission, scheduled for liftoff in early August from Cape Canaveral Air Force Station, Fla., will examine whether the icy soil on Mars could have been a habitable environment for microbial life.



Artist concept showing the Dawn spacecraft with Ceres and Vesta.

William K. Hartmann, Courtesy of UCLA



NASA/KSC

Space Shuttle Atlantis lifted from carrier aircraft

At the Shuttle Landing Facility at Kennedy Space Center, Fla., a mate/demate device lifts Space Shuttle Atlantis up from the Shuttle Carrier Aircraft, a modified 747 jetliner that traveled cross-country to bring Atlantis home from California. Visible on Atlantis is the tail cone that covers and protects the main engines during the ferry flight. Atlantis was lifted from the aircraft, lowered to the ground and towed to the Orbiter Processing Facility to begin processing for its next mission, STS-122, in December. Atlantis landed at Edwards Air Force Base, Calif., June 22, after a successful STS-117 assembly mission to the International Space Station.

Astronauts present 14 Silver Snoopy Awards

Silver Snoopy Awards were recently given to 14 Marshall team members. Presenting were astronauts Eric Boe, James Dutton and Robert Satcher. The Silver Snoopy is the astronauts' personal award to members of the workforce for outstanding work.

The Snoopy emblem reflects NASA's and the industry's sense of responsibility and continuing concern for astronaut flight safety. Less than one percent of the space program workforce receives the award annually.



Adeline Byford

From left, astronaut Dutton, Jon B. Holladay of the Exploration Launch Projects Office, and astronaut Satcher.



Doug Stoffer/MSFC

From left, John Guarin of R.W. Beck, Junice Fletcher of SEI Group Inc., astronaut Boe, and Kenneth Cavender of R.W. Beck.



Adeline Byford

Samuel Clark of the Engineering Directorate and astronaut Dutton.



Adeline Byford

Bill Baker of the Engineering Directorate and astronaut Dutton.



Doug Stoffer/MSFC

From left, Catherine Miller, astronaut Boe and Sharon Scroggins. The recipients are from the Office of Center Operations.



Dennis Olive

From left, Reggie Cobb, Barry Roberts, Brian Steeve, astronaut Satcher, Stephen Miller, Lynn Mayo and Richard Schunk. The recipients are from the Engineering Directorate.

Marshall participating in conflict management pilot program

NASA's Office of Diversity and Equal Opportunity is launching a new pilot program to address workplace conflicts — and the Marshall Center is helping lead the effort.

The agency's new Conflict Management Initiative is designed to train managers, supervisors and employees to quickly and efficiently resolve disputes and reduce the need for formal procedures, such as the Equal Employment Opportunity complaints process. The initiative also promotes the use of NASA's Alternative Dispute Resolution Program, when third-party intervention is needed.

"This program seeks to establish an enhanced model for how we confront and address workplace conflict, both individually and as an organization," wrote Marshall Center Director David King in a recent letter to employees announcing the pilot program. King anticipates that the program will help NASA manage "overall institutional risk to mission success ... [and] may also help reduce Agency and Center-level administrative costs and loss of productivity associated with formal complaint processes."

The pilot program is scheduled to begin in September. Marshall is one of three NASA field centers, along with Glenn Research Center in Cleveland and Johnson Space Center in Houston, that will take part.

Preparations for the program begin this month. On July 17-18, specialists from Washington-based Curtis Lewis and Associates, the contract firm leading the training effort for NASA, will visit Marshall to conduct a preparatory assessment. They will interview senior managers, Employee Assistance Program personnel and union representatives for the American Federal Government Employees and the Marshall Engineers and Scientists Association.

They also will lead a series of focus groups with randomly selected Marshall engineers, scientists, technicians, administrative aides and support personnel. The sessions will help trainers identify specific needs of the center and tailor conflict management training modules accordingly, said Audrey Robinson, manager of the Office of Diversity and Equal Opportunity at Marshall.

In September, the training team will return to Marshall, Glenn and Johnson to train much larger groups of managers, supervisors and employees in conflict management skills. At Marshall, these eight-hour, classroom-style training sessions will begin with some 200 members of the Safety and Mission Assurance Directorate and the Office of the Chief Information Officer.

Training then is expected to continue periodically between 2008 and 2010, addressing additional center organizations at the three initial field centers and expanding to all other NASA centers.

The Office of Diversity and Equal Opportunity also intends to develop a Web-based version of the training program.

To read more about the initiative, visit the Office of Diversity and Equal Opportunity online at <http://www.hq.nasa.gov/office/codee>.

For more information about the July 17-18 assessment session, call Phyllis Olinger at 544-0022.

Team Redstone, Marshall win Great American Clean Up cell phone contest



In a joint effort, Redstone Arsenal and the Marshall Center won the Keep America Beautiful's Great American Clean Up contest, a part of Huntsville's cell phone recycling contest in May. Redstone and Marshall collected 800 of 2,000 donated cell phones from the Huntsville community. On June 27, Huntsville Mayor Loretta Spencer presented \$500 checks to both the Army Emergency Relief and NASA. From left are Ben Morrow of Marshall's Office of Center Operations; Spencer; Sharon Scroggins of the Office of Center Operations; Bennie Jacks of the Safety & Mission Assurance Directorate; Joy McKee of Operation Green Team; and Bob Devlin of the Office of Center Operations. Spencer nominated McKee, director of the Operation Green Team, for a national contest with the winner to be inducted into the Energizer Keep Going Hall of Fame. Operation Green Team is a city-funded organization that works to improve waste handling. For more information about the contest and to vote, go to www.energizer.com/halloffame.

NASA readies Mars lander for August launch to icy site

NASA Headquarters

NASA's next Mars mission will look beneath a frigid arctic landscape for conditions favorable to past or present life.

Instead of roving to hills or craters, NASA's Phoenix Mars Lander will claw down into the icy soil of the Red Planet's northern plains. The robot will investigate whether frozen water near the Martian surface might periodically melt enough to sustain a livable environment for microbes. To accomplish that and other key goals, Phoenix will carry a set of advanced research tools never before used on Mars.

First, however, it must launch from Florida sometime during a three-week period beginning Aug. 3, and then survive a risky descent and landing on Mars next spring.

"Our 'follow the water' strategy for exploring Mars has yielded a string of dramatic discoveries in recent years about the history of water on a planet where similarities with Earth were much greater in the past than they are today," said Doug McCuistion, director of the Mars Exploration Program at NASA Headquarters, Washington. "Phoenix will complement our strategic exploration of Mars by being our first attempt to actually touch and analyze Martian water — water in the form of buried ice."

NASA's Mars Odyssey orbiter found evidence in 2002 to support theories that large areas of Mars, including the arctic plains, have water ice within an arm's reach of the surface.

"Phoenix has been designed to examine the history of the ice by measuring how liquid water has modified the chemistry and mineralogy of the soil," said Peter Smith, the Phoenix principal investigator at the University of Arizona, Tucson.

"In addition, our instruments can assess whether this polar environment is a habitable zone for primitive microbes. To complete the scientific characterization of the site, Phoenix will monitor polar weather and the interaction of the atmosphere with the surface."

With its flanking solar panels unfurled, the lander is about 18 feet wide and 5 feet long. A robotic arm 7.7 feet long will dig to the icy layer, which is expected to lie within a few inches of the surface. A camera and conductivity probe on the arm will examine soil and any ice there. The arm will lift samples to two instruments on the lander's deck. One will use heating to check for volatile substances, such as water and carbon-based chemicals that are essential building blocks for life. The other will analyze the chemistry of the soil.

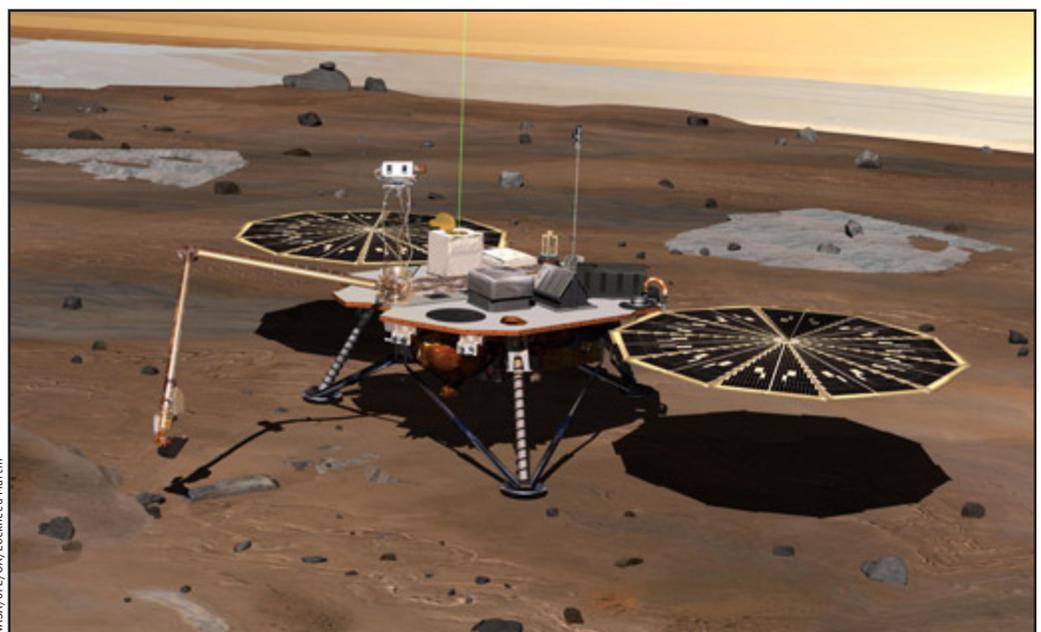
A meteorology station, with a laser for assessing water and dust in the atmosphere, will monitor weather throughout the planned three-month mission during Martian spring and summer. The robot's toolkit also includes a mast-mounted stereo camera to survey the landing site, a descent camera to see the site in broader context and two microscopes.

For the final stage of landing, Phoenix is equipped with a pulsed thruster method of deceleration. The system uses an ultra-lightweight landing system that allows the spacecraft to carry a heavier scientific payload. Like past Mars missions, Phoenix uses a heat shield to slow its high-speed entry, followed by a supersonic parachute that further reduces its speed to about 135 mph. The lander then separates from the parachute and fires pulsed descent rocket engines to slow to about 5.5 mph before landing on its three legs.

"Landing safely on Mars is difficult no matter what method you use," said Barry Goldstein, the project manager for Phoenix at NASA's Jet Propulsion Laboratory, Pasadena, Calif. "Our team has been testing the system relentlessly since 2003 to identify and address whatever vulnerabilities may exist."

Researchers evaluating possible landing sites have used observations from Mars orbiters to find the safest places where the mission's goals can be met. The leading candidate site is a broad valley with few boulders at a latitude equivalent to northern Alaska.

Smith leads the Phoenix mission, with project management at the Jet Propulsion Laboratory and the development partnership located at Lockheed Martin, Denver. International contributions are provided by the Canadian Space Agency; the University of Neuchatel, Switzerland; the University of Copenhagen, Denmark; the Max Planck Institute, Germany; and the Finnish Meteorological Institute.



Artist concept of Phoenix lander on Mars.

Catch 'Focus on Marshall' at the Propulsion Research Development Laboratory, Nondestructive Evaluation labs

By Jessica Wallace

At the Marshall Center's Propulsion Research Development Laboratory in Building 4205, engineers perform propulsion research in support of future moon and Mars missions.

On the July episode of "Focus on Marshall," you'll see how Marshall is using the state-of-the-art research facility's unique capabilities to improve the propulsion elements NASA uses through

various environmental and impact tests.

The program also features the most popular and effective methods used by NASA and Marshall to test flight hardware for possible flaws or defects — Nondestructive Evaluation. Nondestructive Evaluation refers to noninvasive lab methods that can be used to examine the material integrity of an object, material or system without impairing its future usefulness. From thermography to ultrasonic testing, viewers will see several Marshall laboratories used to test aerospace materials.

"Focus on Marshall" airs on Marshall TV and Desktop TV on Thursday, July 12, and Tuesday and Thursday, July 17 and 19, at 11 a.m., noon and 1 p.m. The program also will be posted on "Inside Marshall" and the Marshall home page within the NASA portal Web site on July 12.

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

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

Craftsman Leafwacker, good working order. 837-6776

HDTV Samsung 32-inch CRT, universal remote, \$391; 512MB RAM, \$31. 655-1986

Two ball-and-claw end tables, beveled glass inset, \$40; two crystal lamps, \$15. 682-5418

Longaberger Housekeeper Basket, liner and protector, \$200 obo. 509-2536

Ski Exerciser, \$100. 772-1870

Tail lens/cover for 1999 and up Chevy or GMC pickup; Black&Decker foldable workmate, \$10. 881-5642

Canon ultrasonic lenses, EF100-300, \$100; EF28-80, EOS Elan 35mm camera body, \$175. 882-2654

American Drew solid cherry queen bedroom set, dresser, bureau, two end tables, mirror, \$800. 895-0602

Hodgeman wader 1200gr boots, size 10, used twice; waterproof Remington jacket and Columbia bibs. 508-6840

New wedding ring set, appraisal available, platinum, quality diamonds, .75 carats, \$6,000. 205-382-7270

Two formal armchairs, middle table, \$300; RYOBI 9-inch Bandsaw/Stand, \$50. 503-6773

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

Eleven boxes of black HVAC ducting, 6x25, R6 insulation, \$18/box. 325-2919

Solid oak corner entertainment center, \$450; wood futon, mattress, \$70; five-drawer chest, \$75. 655-2548

Sears-brand car top carrier, lockable, black, \$100. 655-2548

Executive desk, five-drawer pedestal, wood laminate, \$50. 931-425-0163

Two Lexington twin beds, solid cherry, mattresses, box springs, custom comforters, one nightstand, \$1,000. 881-0551

Country French writing desk, glass top cover, \$350; Country French chair, light blue, \$75. 233-5819

Two Shih Tzu puppies, CKC, one male, one female, ready for sale Aug. 6. 498-5089

Double brass bed, new mattress, box springs, paid \$1,000, asking \$500. 337-9006

Solid oak oval coffee table, 45.5x27.5, \$65. 895-9589

Solid oak entertainment center with curios, lots of storage, \$500. 603-0608

Sears "X-Cargo" car top carrier, 48x22x34, \$50. 852-5394

Bassett golden oak bedroom suite, bed, dresser, mirror, chest, nightstand, \$300. 461-7833

Mapex Pro M drum set, five piece, professional quality, \$795. 656-4203

Coffee table, glass top, beveled edges, walnut finish base, ball and claw legs, \$100. 508-3408

Sleeper sofa, \$100; antique oak table/chairs \$150; oak bunk beds, \$200, dryer, \$125. 303-8305

Univega Alpina mountain bike, used only on road, 20-inch frame, \$100. 881-6909

Vehicles

2006 Honda CRF 230F dirt bike, \$2,500. 776-4741

2004 Nissan Quest SL minivan, DVD entertainment system, \$11,900. 520-6951

2004 R-Vision Motor home, Class-A, workhorse chassis, extended warranty, \$59,995. 883-7021

2003 Escalade, loaded, \$23,000; 1996 Windstar, \$2,200; 1994 Cougar, \$2,500; 520-2802

2003 Honda Accord EX, white, 4 door, good condition, \$12,000. 233-2689

2002 Elantra, 75k miles, crimson, 4-door sedan, cracked head, \$2,000. 652-8072

2002 Kia Sedona LX minivan, 112k miles, luggage rack, new tires, \$4,500. 233-6197

2001 BMW X5 SUV, automatic, black, 83k miles, moonroof, one owner, \$18,500. 536-8995

2000 Mazda MPV, green DX, great condition, 102k miles, AC/CD/cruise/rear AC, \$5,750. 539-0476

2000 Volkswagen Jetta, five speed, 77k miles, green, sunroof, six-disk CD changer, \$8,400. 508-8246

2000 GMC Sonoma, 4x4, 87k miles, off-road, fully loaded, green, beige interior, \$8,000. 931-967-7307

1998 Trouper, 6 cylinder, 4WD, nearly new tires, battery, brakes, 103k miles, \$4200 neg. 728-2460

Lost

Custom magnetic sunglasses, misplaced in 4200 area, possibly in or near P110. 527-1191

Wanted

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

Responsible female to care for daughters after school, driving required. 880-2290

Small dorm refrigerator. 883-2757

Space Shuttle Endeavour rolls to launch pad



Space Shuttle Endeavour rolled out to Launch Pad 39A at the Kennedy Space Center, Fla., on July 11. The fully assembled space shuttle — consisting of the orbiter, external tank and twin solid rocket boosters — was mounted on a mobile launcher platform atop a crawler transporter for the trip to the pad. The 3.4-mile journey took about six hours, traveling less than 1 mph. Endeavour will be launched on the STS-118 mission, targeted for Aug. 7, its first flight in more than four years. The shuttle has undergone extensive modifications, including the addition of safety upgrades already added to Discovery and Atlantis. Endeavour also features new hardware, such as the Station-to-Shuttle Power Transfer System that will allow the docked shuttle to draw electrical power from the station and extend its visits to the orbiting lab.

NASA/KSC

Marshall employees invited to participate in Apollo 'lessons learned' event

On July 20, the 38th anniversary of the first moon landing, NASA will host more than a dozen retired members of an engineering team that worked on the Apollo-era lunar module. Marshall Center employees will have the opportunity to participate by e-mail.

The engineers will share lessons learned with current NASA employees working on the Constellation Program, which will return humans to the moon by 2020. A panel discussion with the retired engineers will be broadcast live on NASA TV from 1:30-2:30 p.m. CDT in the NASA Headquarters auditorium.

Panelists will take questions from the audience. Those who

cannot attend may submit a question in advance by e-mail.

The retired engineers are former members of the Grumman Corporation's Lunar Module Reliability and Maintainability team. They are gathering in Washington to participate in technical discussions to address such issues as testing, failure analysis and corrective action.

To participate, Marshall Center employees may submit questions to Kim Newton at Marshall. She can be reached by e-mail at kimberly.d.newton@nasa.gov or by phone at 544-0371. The deadline for submissions is Friday, July 13.

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