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Dawn Mission Outreach E-News,

22nd Edition April 2009

DAWN MISSION HIGHLIGHTS

Mission Status: Dawn Continues in Quiet Cruise

March 30, 2009: Dawn coasted quietly in its new orbit around the Sun this month. Controllers conducted some routine maintenance but devoted most of March to preparing for future special activities. Learn about previous mission status updates at <http://www.dawn-mission.org/mission/status.asp>.

Live Shots: Where is Dawn?

Take a look at exactly where Dawn is in its trajectory to the asteroid belt, and note whether the ion propulsion system is thrusting and the orientation of the spacecraft in near "real-time." http://dawn.jpl.nasa.gov/mission/live_shots.asp.

DAWN MARS GRAVITY ASSIST:

AN ARROW THAT MET ITS MARK



From Dawn's Chief Engineer, Marc Rayman:

The Dawn spacecraft plunged to within 542 kilometers (337 miles) of Mars, reaching that lowest altitude at 4:27:58 pm PST on February 17, 2009. As the probe succumbed to the gravitational pull of the red planet, its trajectory gradually began to change. Flying true to the plan, Dawn swooped close to Mars and then left it behind on a new course to the asteroid belt, having taken advantage of Mars' gravity.

Now boosted into a new solar orbit, courtesy of Mars' gravity, Dawn continues its interplanetary journey.

- Excerpted from Marc Rayman's Dawn Journal, March 8, 2009.

Learn more about how Dawn's Science and Engineering teams planned, predicted and executed Dawn's Mars Gravity Assist: http://dawn.jpl.nasa.gov/mission/journal_3_08_09.asp.

ASTEROID 21459 NAMED CHRISRUSSELL

BY THE INTERNATIONAL ASTRONOMICAL UNION

In late 2008, the International Astronomical Union (IAU) announced the naming of [Asteroid 21459 Chrisrussell](#) in honor of Dawn's Principal Investigator of the [Dawn mission](#), Christopher T. Russell.

Professor Russell is a member of the faculties of both the Institute of Geophysics and



Planetary Physics and the Department of Earth and Space Sciences at the University of California, Los Angeles (UCLA).

Learn more about the naming of asteroids and asteroid Chrisrussell:

<http://dawn.jpl.nasa.gov/science/index.asp>.

THE GRaND SPLAT!

INTRODUCING A NEW DAWN INTERACTIVE



SPLAT! The interaction of galactic cosmic rays with planetary surfaces produces gamma rays and neutrons. Among its highly sophisticated instruments, the Dawn spacecraft carries a Gamma Ray and Neutron Detector (GRaND). Most simply, GRaND will map the abundance of major rock-forming elements, radioactive elements, and volatiles - hydrogen and carbon - on Vesta and Ceres by measuring the gamma rays and neutrons released after the cosmic rays "splat" the surface of the asteroids. Our new interactive for GRaND illustrates how scientists learn about the composition of the elements of an asteroid millions of kilometers away by studying the energy and neutrons that emanate from it.

Dawn's Education and Public Outreach team thanks Tom Prettyman, GRaND team leader and Dawn Co-Investigator at the Planetary Science Institute, Tuscon, Arizona, for his expertise in developing GRaND's compelling new interactive.

Interact with GRaND! http://dawn.jpl.nasa.gov/technology/GRaND_inter.asp

KEEP UP WITH DAWN'S LATEST MISSION HIGHLIGHTS

WITH DAWN'S RSS FEEDS

What is RSS?

RSS (Really Simple Syndication or Rich Site Summary) is a popular technology used to obtain fast updates from news sources such as JPL or NASA. It provides a convenient way for users to keep up with the latest headlines from their favorite sites. When you sign up, you receive breaking news as soon as it is released.

Intrigued? Learn more at: <http://dawn.jpl.nasa.gov/RSS/index.asp>

JOIN US AT KATS AND JPL'S OPEN HOUSE

Kansas Association of Teachers of Science (KATS), April 24-25, Junction City, Kansas

Dawn's education and public outreach team will participate in the KATS annual conference. We will be offering the latest presentation highlighting Dawn's instrumentation to teachers as well as sharing mission-related educational materials.

Jet Propulsion Laboratory (JPL) Open House, May 2-3, Pasadena, California

Join Dawn scientists, engineers, and educators in a celebration of JPL's diverse accomplishments with exhibits and demonstrations about the Laboratory's ongoing research and space exploration. Dawn mission staff will be on hand to answer questions about how spacecraft are sent to other planets, how scientists utilize space technologies to explore Earth, and how researchers are searching for planets beyond the solar system.

Find out more at: <http://dawn.jpl.nasa.gov/education/index.asp> and <http://www.jpl.nasa.gov/events/open-house.cfm>.

TELL US WHAT YOU THINK, FORWARD OUR NEWS, SUBSCRIBE!!

The Dawn Education and Public Outreach team is continually seeking ways to improve the mission Web site and is eager to receive your feedback. Please share your thoughts by completing a brief [survey](http://survey.mcrel.org/scripts/qweb.cgi?4CFEF46) at <http://survey.mcrel.org/scripts/qweb.cgi?4CFEF46>.

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Dawn Mission Outreach E-News features information about the mission, its outreach Web site, and products, services, and materials available from the Dawn Education and Public Outreach (E/PO) team. Dawn is the ninth Discovery mission in NASA's Science Mission Directorate and is a collaborative partnership made up of the University of California, Los Angeles; Jet Propulsion Laboratory; Orbital Sciences Corporation; Los Alamos National Laboratory; German Aerospace Center; Max Planck Institute for Solar System Research; Italian Space Agency; and Italian National Institute of Astrophysics. Dawn outreach materials are developed under contract by Mid-continent Research for Education and Learning (McREL), Denver, CO.

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