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Dawn Mission Outreach E-News, 13th Edition  
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April 2007

**DAWN MISSION UPDATE: NEW LAUNCH DATE AND COMPLETION OF ADDITIONAL TESTING**

To accommodate a change in the schedule for assembling the components of Dawn's Delta II launch vehicle, the launch date is shifted 10 days to June 30. The change will have no effect on mission objectives or science. An acoustic test, in which powerful sound was directed at the spacecraft (similar to the noise of launch), was completed at the Naval Research Laboratory. This verified that the work to remove and reinstall the high voltage electronics assembly did not harm the spacecraft.

As the Dawn mission progresses toward launch, we invite you to stay up-to-date by visiting:  
<http://dawn.jpl.nasa.gov/mission/status.asp>

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**DAWN ARRIVES IN FLORIDA**

The Dawn spacecraft arrived at Astrotech Space Operations near NASA's Kennedy Space Center on April 10<sup>th</sup>. This marked the beginning of the final prelaunch process. For more details, go to:  
<http://dawn.jpl.nasa.gov>

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**DAWN SCIENTISTS TO USE THE HUBBLE SPACE TELESCOPE**

The Dawn Science team is pleased to announce that they have been awarded time on the Hubble Space Telescope. Jian-Yang Li and Lucy McFadden will be using Hubble to observe the UV-absorption band on Ceres. Principal Investigator Chris Russell, assisted by graduate student Britney Schmidt, will study 2 Pallas with Hubble. More information about the recently accepted proposals and the benefits to the mission is available at: <http://dawn.jpl.nasa.gov/science/index.asp>

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**CHECK OUT THE DAWN AMATEUR OBSERVERS' PROGRAM**

Visit the newly developed Dawn Amateur Observers' Program pages. Elizabeth Warner has adapted her Amateur Observers' Program from the Deep Impact mission and extended it to include asteroids. From beginners to experienced observers, all levels of space enthusiasts can find helpful guides at:  
<http://dawn-aop.astro.umd.edu>

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**MEET DAWN'S PROJECT SYSTEM ENGINEER**

Describing himself as "the conductor for this symphony," Dr. Marc Rayman explains his role in the Dawn mission: "My primary concern is: How does everything fit together to make the mission work and to get our science data back from Vesta and Ceres?" Discover more about how Marc bridges the fields of science and engineering by reading his interview at:  
<http://dawn.jpl.nasa.gov/people/raymanMarc/interview.asp>

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**ALL ABOARD THE DAWN SPACECRAFT**

More than 360,000 people signed up to participate in a virtual voyage to the asteroid belt. The computer chip holding all the participants' names has been installed on the Dawn spacecraft in preparation for flight in June. To see an image of this chip, visit: <http://dawn.jpl.nasa.gov/DawnCommunity/index.asp>

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### **DAWN'S ION PROPULSION MODULE RECEIVES RAVE REVIEWS**

NASA's educational product review panel described the recently released Dawn module *Structure and Properties of Matter: Ion Propulsion* as "one of the best we've seen recently" with activities that are "fun and original."

Teacher guides and accompanying student handouts for the module can be accessed from:

[http://dawn.jpl.nasa.gov/DawnClassrooms/2\\_ion\\_prop/index.asp](http://dawn.jpl.nasa.gov/DawnClassrooms/2_ion_prop/index.asp)

Learn how ion engines work and then challenge yourself to design your own ion engine with this engaging, interactive learning tool: [http://dawn.jpl.nasa.gov/mission/ion\\_engine\\_interactive/index.html](http://dawn.jpl.nasa.gov/mission/ion_engine_interactive/index.html)

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### **SPACE DAY ACTIVITIES WITH DAWN KIDS**

Friday, May 4<sup>th</sup> is Space Day! Encourage the next generation of space explorers with a host of fun activities available through Dawn Kids including a story, spacecraft model, puzzles, an iron-on decal, and more. To access Dawn Kids, go to: <http://dawn.jpl.nasa.gov/DawnKids/index.asp>

For more information about Space Day, visit: [www.spaceday.org](http://www.spaceday.org)

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### **PLAN TO JOIN US IN FLORIDA THIS JUNE FOR THE DAWN LAUNCH EDUCATOR CONFERENCE**

Stay tuned for more information about the exciting launch conference for educators that will be held in Cape Canaveral, Florida now scheduled for the end of June. More information will be posted at: <http://www.dawn-mission.org/education/index.asp>

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### **UPCOMING EDUCATION AND PUBLIC OUTREACH (E/PO) EVENTS**

Dawn E/PO team member Donna Bogner will demonstrate activities from the highly praised ion propulsion module in a seminar entitled *Take off with Ion Jet Propulsion!* at the Kansas Association of Teachers of Science (KATS) Kamp in Junction City, Kansas on April 21<sup>st</sup>.

Dawn Co-Investigator and E/PO Director Lucy McFadden will present *NASA's Dawn Mission: Opening the Asteroid Frontier* on April 21<sup>st</sup> during Astronomy Day at NASA's Glenn Research Center in Cleveland, Ohio.

NASA's Dawn Science Academy will be hosted by the Denver Museum of Nature and Science on April 28<sup>th</sup>. Interested educators must register for this full-day workshop.

Mark your calendars for the Jet Propulsion Laboratory's (JPL) Open House in Pasadena, California on May 19<sup>th</sup> and 20<sup>th</sup>! Learn about Dawn's cutting-edge science and technology from mission team members who will be on hand to share information about this exciting journey to the asteroid belt. For more information about the JPL Open House, go to: <http://www.jpl.nasa.gov/psd/oh.cfm>

To find out more about these events, visit: <http://dawn.jpl.nasa.gov/education/index.asp>

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### **HOST YOUR OWN DAWN LAUNCH EVENT**

Are you planning a summer science event? Join a number of informal science facilities—a public library and a summer university program for high school students—who are hosting Dawn Launch Events this summer. To design your own Launch Event, choose from any of the Dawn educational materials available on the mission Web site including *Find a Meteorite*, *Career Connections*, *Dawn Kids* activities, *Clickworkers*, the content modules *The History and Discovery of Asteroids* and *Structure and Properties of Matter: Ion Propulsion*, and materials from the Amateur Observers' Program. If you provide feedback, you will receive a special thank you gift! To sign up, contact Lisa Maxfield at: [lmaxfield@mcrel.org](mailto:lmaxfield@mcrel.org)

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**ASK A SCIENTIST**

Have a question about the Dawn mission and want to communicate directly with a member of the Dawn mission team? Click on the "Ask a Scientist" link located at the bottom of the Dawn Web site or simply go to: [http://www.dawn-mission.org/ask\\_scientist/mailToDawnScientist.asp](http://www.dawn-mission.org/ask_scientist/mailToDawnScientist.asp)

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**TELL US WHAT YOU THINK**

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

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**SUBSCRIPTION INFORMATION**

Please forward this e-mail to others interested in NASA missions. New subscribers may join the Dawn mission e-news mailing list on our Web site at: [http://dawn.jpl.nasa.gov/DawnMedia/e\\_news.asp](http://dawn.jpl.nasa.gov/DawnMedia/e_news.asp)

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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.