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Dawn Mission Outreach E-News, 17th Edition	November 2007
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# MORE CHECKOUTS COMPLETED!

The operations team conducted tests of special modes of the attitude control system while the ion propulsion system is thrusting. All tests showed excellent performance. Two of the three ion thrusters have been fully checked out. Tests began with the third thruster this week, and all were completed successfully. The device that emits electrons to ionize xenon was heated to drive off contaminants, and then the thruster ionized xenon (but was not commanded to accelerate it). In addition, the gimbal system that points the thruster in the required direction was operated for the first time in flight. The first test of thrusting with this thruster is not scheduled to occur until after other spacecraft tests are completed.

Be sure to check the Mission Status for the latest reports and updates <u>http://dawn.jpl.nasa.gov/mission/status.asp</u>

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## 3...2...1...LAUNCH! CHECK OUT OUR NEW HOMEPAGE!

Like the Dawn spacecraft, the Dawn homepage is launching its new look at <a href="http://dawn.jpl.nasa.gov/">http://dawn.jpl.nasa.gov/</a>. In an effort to simplify navigation and provide readers with a user-friendly interface, frequently-used QUICK SEARCH links provide navigation to important Dawn and NASA information. A robust search function has also been incorporated into the site (link is located at the top right of each page), enabling users to narrow or broaden their search for pertinent information about the Dawn mission.

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# FIRST LIGHT

How good are Dawn's eyes? Take a look! The Dawn Framing Camera (FC) and the VIR (Visible and Infrared) Spectrometer were two of many systems tested during the checkout phase (detailed in Dr. Rayman's October 24, 2007 Dawn Journal entry). The FC image combines four 30-second exposures and reveals lots of stars. The VIR image shows an image spectrum of the calibration lamp that is part of the instrument and the more familiar trace spectrum below. Now we can't wait to see Vesta and Ceres!

http://dawn.jpl.nasa.gov/technology/fc.asp http://dawn.jpl.nasa.gov/technology/vir.asp http://dawn.jpl.nasa.gov/mission/journal\_10\_24\_07.asp#vir

# **OBSERVING CERES**

While we might have to wait a few years to see the up-close images that Dawn will get, you can see Vesta and Ceres yourself in the meantime. Although Vesta was best seen during the summer, Ceres is at opposition in November and will be a good target for observers with telescopes during the winter this year.

Visit and explore the Dawn AOP website to learn how to observe Ceres. While you're there, visit the Gallery where you'll find images of Vesta taken by fellow amateur observers and learn how to submit your own images of Ceres and Vesta.

http://dawn-aop.astro.umd.edu/

http://dawn-aop.astro.umd.edu/gallery/index.shtml

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## MEET CAROL POLANSKEY

"The most critical aspect of my job in the next few months is to conduct the series of instrument tests and calibrations scheduled for the first 80 days after launch and before Dawn begins thrusting to Vesta." Learn more about Carol's role as Science Operations System Engineer at: <u>http://dawn.jpl.nasa.gov/people/polanskey/interview.asp</u>

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## SOLAR SYSTEM AMBASSADORS BRING DAWN TO THE PUBLIC!

Dawn E/PO would like to thank the Solar System Ambassadors who have presented the Dawn mission to the public prior to and following launch. Their work is essential to spreading the word about the Dawn mission across the United States.

Would you like to have a Solar System Ambassador speak to your organization or group? If so, go to: <u>http://www2.jpl.nasa.gov/ambassador/</u> to arrange for a Solar System Ambassador event in your community. For more information visit: <u>http://dawn.jpl.nasa.gov/getInvolved/index.asp</u>

## DAWN PORTRAIT -- FROM 600,000 MILES AWAY!

Bill Dillon was able to get a glimpse of the Dawn spacecraft as it sped away from Earth on its way to the asteroid belt. Using the Sierra Stars Observatory telescope, Bill imaged the Dawn spacecraft early in October, 2007. The spacecraft, at a very faint 20th magnitude and moving fast, was crossing a fairly crowded star field at the time. Luckily, the spacecraft was not obscured by the brighter but more distant stars. To see animated stills of Dawn among the stars visit: <a href="http://dawn.jpl.nasa.gov/DawnCommunity/index.asp">http://dawn.jpl.nasa.gov/DawnCommunity/index.asp</a>

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## DAWN JOURNAL

Dawn's checkout phase continues to go very well. The spacecraft is healthy as it and Earth travel their separate ways, separating at almost 1 light-second (nearly 300,000 kilometers, or 186,000 miles) per day. In his latest entry, Dr Rayman details the status of the spacecraft and instruments that have been tested during the checkout phase.

http://dawn.jpl.nasa.gov/mission/journal\_10\_24\_07.asp

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# DAWN E/PO PRESENTING AT UPCOMING CONFERENCES

Joe Wise and John Ristvey will be presenting two sessions at the upcoming National Science Teacher Association (NSTA) Western Regional Conference in Denver, Colorado. *So, What is a Dwarf Planet?* will be presented at 5:00 p.m. on Friday, November 9. *Space Technology for the*  *Physical Science Classroom* will be presented at 11:00 a.m. on Saturday, November 10. Stop by the McREL booth for free Dawn educational materials.

*In Search of the Dwarf Planet* will be presented by Joe Wise and John Ristvey at the Conference for the Advancement of Science Teaching (CAST) in Austin, Texas at 1:00 p.m. on Saturday, November 17. For more information on both conferences visit: <u>http://dawn.jpl.nasa.gov/education/index.asp</u>

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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: <u>http://survey.mcrel.org/scripts/qweb.cgi?4CFEF46</u>

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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

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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.