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Dawn Mission Outreach E-News

33rd Edition July 28, 2011

## VESTA REVEALED DON'T MISS DAWN'S PRESS CONFERENCE

**August 1, 2011, 2:00 p.m. EDT**

NASA Television and the agency's website will broadcast the event. It also will be carried live on Ustream, with a live chat box available, at: <http://www.ustream.tv/nasajpl2>.

NASA will host a news conference on Monday, August 1, at 2 p.m. EDT, to discuss the Dawn spacecraft's successful orbit insertion around Vesta on July 15 and unveil the first full-frame images from Dawn's framing camera.

For complete information, [visit the Dawn website!](#)



Artist rendition of Dawn orbiting Vesta  
Image credit: NASA/JPL-Caltech/UCLA/McREL

## VESTA FIESTA AROUND THE GLOBE! AROUND THE CORNER!



Italy, India, Ireland, England, Mexico, Canada, Hawaii and all over the continental United States - Vesta Fiestas are everywhere! Whether they be big fiestas, like Dawn mission's flagship event at the Pasadena Convention Center, or little fiestas through local amateur astronomy groups, Vesta Fiestas are rockin' in celebration of Dawn's getting up close and personal to Vesta.

Hosts are choosing the date that fits their location the best during the **August 5-7, 2011** window when [Vesta is visible in the night sky](#) to the south in the constellation of Capricorn.

- Check out the [full schedule](#) of events for the flagship Vesta Fiesta at the Pasadena Convention Center in Pasadena, CA.

✓ Dawn mission science presentations will be streamed live!

- Find a party near you on our [interactive map](#).
- Or, better yet, it's not too late to plan your own [Vesta Fiesta!](#)

- ✓ [Host](#)
- ✓ [Register](#)
- ✓ [Resources](#)
  - [Speaker's Kit](#)
  - [Audio Clips](#)
  - [Dawn Information for Hosts](#)



## DAWN MISSION UPDATES

### A WEEK IN THE LIFE OF DAWN!

#### MISSION STATUS

##### **Dawn in Orbit Around Vesta**

*July 17, 2011*

As Dawn continued thrusting, it was gently captured in orbit by Vesta around 10:00 PM PDT on July 15. Navigational analysis will be required to determine the exact time of capture. On July 16 it observed Vesta again.



The light and dark sides of Vesta. Image credit: NASA/JPL/UCLA

##### **Dawn Spiraling Around Vesta**

*July 19, 2011*

Even as it orbits around Vesta, Dawn is continuing to thrust with its ion propulsion system just as it did during its years of interplanetary cruise around the sun. The spacecraft is gradually spiraling down toward its survey orbit. As it began arcing over the south pole and heading toward the dark side of Vesta Dawn acquired another set of images on July 18.

##### **Dawn Flying Over Dark Side of Vesta**

*July 21, 2011*

During its arc over the night side of Vesta, Dawn passed over the equator on July 20, still thrusting with its ion propulsion system. The angle of its orbit prevents the spacecraft from entering the shadow of Vesta.

During a communications session on July 20, engineers powered on the control unit that stopped operating valves on June 27. It had been off since then, with a different unit controlling the flow of xenon to the ion thruster. As they anticipated, the unit is now perfectly healthy, and it flawlessly completed all the tests they gave it. All evidence points to its temporary inability to control the valves as having been a result of a high energy particle of space radiation striking it. By turning it off and on again, the glitch was cleared.

Dawn is about 6000 kilometers (3700 miles) from Vesta today and approaching it at 10 meters per second (22 mph).

- ✓ Trace Dawn's journey since launch through its monthly (now weekly!) [mission updates](#).
- ✓ Get a close look at Dawn's fascinating [images of Vesta](#).
- ✓ [Where is Dawn now?](#)

✓ Peruse [NASA's June 23, 2011 press release](#) for more context about Dawn's first destination in the main asteroid belt, Vesta.

## RESIDAWNTS! DAWN HAS ARRIVED!! July 18, 2011

*From Dawn's Chief Engineer, Dr. Marc Rayman:*



Dawn has arrived!!

After covering 2.8 billion kilometers (1.7 billion miles) on its own, after traveling for nearly four years through the lonely emptiness of interplanetary space, after being bound by the gravity only of the sun, Dawn is finally in orbit around Vesta. To get here, it **gently propelled itself with its ion propulsion system** for 70% of its journey, or more than 2.6 years. Deep in the asteroid belt, far from its planet of origin, well beyond Mars (which it visited ever so briefly more than two years ago), where no spacecraft has ever been before, Dawn now resides with a **giant** [asteroid that is!].

*-Excerpted from Dawn Journal, July 18, 2011*

- How fast are Dawn and Vesta traveling (Dawn around Vesta, Vesta around the sun)? Read Marc's complete [July 18 Dawn Journal](#).
- [Dawn Journal archives](#)

## EDUCATION SPOTLIGHT ON VESTA FIESTA GET READY, GET SET, GO!!

### What's a party without great games?

And if it's a party celebrating Vesta - what fun to have them unpack the cool science of the Dawn mission at the same time.

- Model the formation of Vesta and the main asteroid belt while burning off steam in [Active Accretion](#).
- Create your own [Asteroid Belt Pizza!](#)
- Make your own model of [Vesta in 3-D](#), along with a [fun flip book](#) - and compare to our [latest images from Dawn](#).
- Get ready for your own asteroid (protoplanet!) gazing by looking at the star maps that helped astronomers pick out Vesta in the night sky with [In Search Of...](#)



Students exploring Comet and Asteroid Mystery Boxes  
Image credit: NASA/JPL/UCLA/McREL

And much more! We've developed leader guides for the party planner in your community - the big sister, or camp counselor, or game parent.

Check out all of Vesta Fiesta's [fun and games!](#)

Come on, it's not too late, consider having your own [Vesta Fiesta](#) - and put it on our map!

✓ Remember, it can be a private event.

**FOLLOW DAWN!**

Get on-the-minute mission and science updates during this exciting year as Dawn zips along in its trajectory to Vesta in the main asteroid belt! Follow the Dawn Mission on [Facebook](#), [Twitter](#), and our [RSS Feed](#).



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

The Dawn Education and Public Outreach team is continually seeking ways to improve the mission website and is eager to receive your feedback. Please share your thoughts by completing [a brief survey](#).

Please feel free to forward this e-mail to others interested in NASA missions. We welcome new subscribers! Visit the [Dawn E-News](#) page to sign up for the [Dawn E-News RSS feed](#) or to join the Dawn mission E-News mailing list.

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