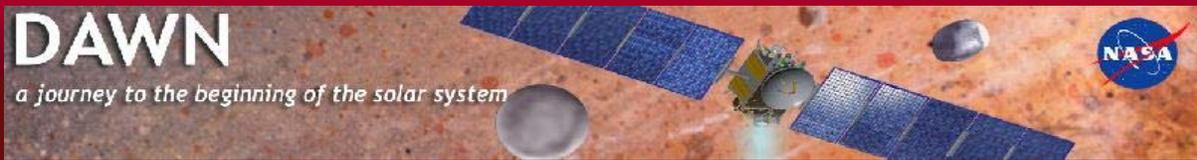


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Dawn Mission Outreach E-News,

24th Edition December 2009

DAWN ENTERS THE MAIN ASTEROID BELT

JUST HOW BIG IS SPACE...IN SPACE?

From Dawn's Chief Engineer, Marc Rayman:

Dawn entered the main asteroid belt on November 13. As it ventures ever deeper into this vast space between Mars and Jupiter, it may be tempting to think of the spacecraft constantly dodging asteroids. In some science fiction movies, the huge rocky bodies are so close together that highly skilled piloting is required to avoid catastrophes. Now Dawn is guided by some of the most proficient interplanetary fliers this side of Pluto, but the reality is that accidental impacts are exceedingly unlikely. Space is huge, and as plentiful as asteroids are, the distances between them are tremendous.

- Excerpted from Chief Engineer Marc Rayman's Dawn Journal, November 27, 2009.



To learn more about how the how big space really is in Space, go to:

http://dawn.jpl.nasa.gov/mission/journal_11_27_09.asp

DAWN MISSION HIGHLIGHTS

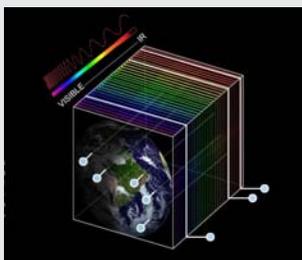
November 30, 2009:

Dawn spacecraft thrust with its ion propulsion system for most of November, pausing for less than half a day each week to point its main antenna to Earth to both send data to and receive it from Earth. The mission control team completed preparations for some special activities the spacecraft will execute in December (so check back next month to learn more!).

To see previous mission status updates, click here: <http://dawn.jpl.nasa.gov/mission/status.asp>

VIR: OUR LATEST MARVELOUS INTERACTIVE

(WE'RE NOT SHY)



We are excited! For the Visible and Infrared Spectrometer (VIR) interactive, the Dawn E/PO team worked with Italy's National Institute of Astrophysics' public outreach team member, Livia Giacomini, and Bloom Animation to create an interactive that delicately draws out the complex happenings within that elegant instrument. First we watch the light travel through the telescope and into the spectrometer, where the light is split into its respective wavelengths. From there a gorgeous and colorful data cube of the Earth (thumbnail left - there is far lovelier detail in the actual interactive!) was developed that offers a 3-D representation of how those data are read and understood. It is a beauty.

Trust us - you have to see the VIR interactive in action for yourself!

http://dawn.jpl.nasa.gov/technology/VIR_inter.asp

DAWN'S IN THE MAIN ASTEROID BELT -

SHOULD WE BE WORRIED?

OK, Dawn's arrived in the main asteroid belt - should we be worried? Is Dawn likely to get smacked by, you know, an asteroid? The short answer is "NO!"



Now that your worries are calmed, why don't you visit Dawn's Frequently Asked Questions (FAQ) section to find out why we don't have to be worried for our intrepid spacecraft's safety, as well as answers to other questions your fellow space enthusiasts have had.

Visit: <http://dawn.jpl.nasa.gov/mission/faqs.asp>

We even urge you to ask your own questions!

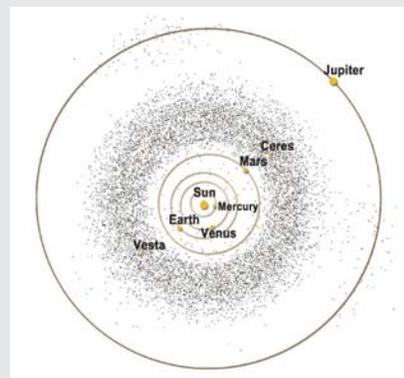
http://dawn.jpl.nasa.gov/ask_scientist/mailToDawnScientist.asp

Further, Chief Engineer Marc Rayman has a beautiful explanation full of analogies to help us understand just how safe Dawn is, even whizzing through an asteroid belt. Here's another plug for this month's compelling Dawn Journal:

http://dawn.jpl.nasa.gov/mission/journal_11_27_09.asp

THE MAIN ASTEROID BELT: THE REAL SCOOP

Just what is the main asteroid belt? Why is it located where it is? Why is it structured the way it is? What bodies reside in it? How do we study them? Answers to these questions help us understand what compelled scientists and engineers to send Dawn speeding through the inner solar system on its trajectory to the main asteroid belt to visit two of the largest protoplanets, Vesta and Ceres.



Here's an article that offers a clear, intriguing and accessible foundation to answer those fundamental questions. Author Carolyn Crow is a doctoral student who works with Dawn Education and Public Outreach Director and co-investigator, Dr. Lucy McFadden at the University of Maryland.

Visit: <http://dawn.jpl.nasa.gov/science/pdfs/asterbelt.pdf>

CAREER CONNECTIONS - VESTA DEVELOPMENT MANAGER, STACY WEINSTEIN-WIESS

"Everything Vesta!" That's how Stacy Weinstein-Weiss describes her role managing Vesta's mission development. Making it to Vesta is a really big deal - it's taking Dawn three years to get to the asteroid, after all. But the work to get ready for Vesta? Yikes! Preparation entails designing and testing plans for every detail of the science and engineering at Vesta. "We are constantly balancing workload between flying the spacecraft and planning for Vesta. It's easy to get caught up in flying the spacecraft, so it's my job is to make Vesta a priority. Fortunately, the team cares a great deal about the Vesta mission, and so there has been a lot of good participation."



Stacy reports that her love of space science started early: "I was 3 years old when Apollo landed

humans on the Moon, and my father sat me on my 'blanky' in front of the TV and said, 'Watch this. You'll remember this someday.' I was hooked. I used to write stories about being a rocket designer in fifth grade. I've had other ambitions-architect, yacht designer, author, archaeologist, catcher for the Chicago Cubs-but I always floated back to space exploration."

Stacy describes her unique career path and her work for Dawn in her full interview:

<http://dawn.jpl.nasa.gov/people/Weiss/interview.asp>

For links to other intriguing Dawn mission interviews, go to:

http://dawn.jpl.nasa.gov/people/interviews_archive.asp

AU REVOIR, COLLEAGUE



Valerie McKay was the Dawn Mission Program Secretary at JPL for three years; Chief Engineer Marc Rayman reported, "She lets me get my job done!" Valerie has moved on to new adventures working on the Europa Jupiter system mission. We thank her for her service on behalf of Dawn and wish her the best!

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

Please feel free to forward this e-mail to others interested in NASA missions. We welcome new subscribers! Visit our Web site and join the Dawn mission e-news mailing list at http://dawn.jpl.nasa.gov/DawnMedia/e_news.asp.

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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