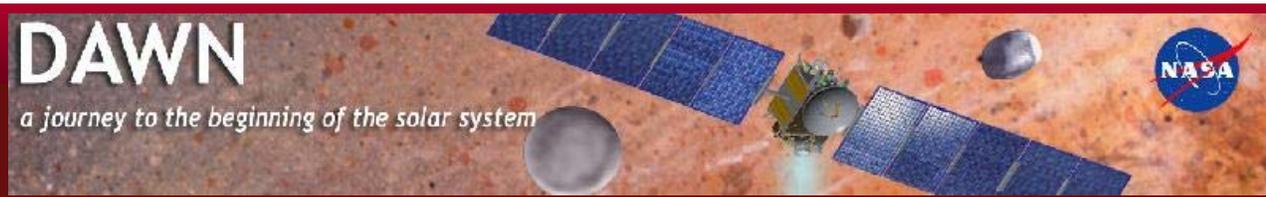


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Dawn Mission Outreach E-Bulletin, February 2009

NASA SPACECRAFT FALLING FOR MARS

Launched in September of 2007, and propelled by any one of a trio of hyper-efficient ion engines, NASA's Dawn spacecraft passed the orbit of Mars last summer. At that time, the asteroid belt (where Dawn's two targets, asteroid Vesta and the dwarf planet Ceres reside), had never been closer. In early July the spacecraft began to lose altitude, falling back towards the inner solar system. Then on October 31, 2008, after 270 days of almost continuous thrusting, the ion drive turned off.

"Not only are our thrusters off and are we dropping in altitude, we are plunging toward Mars," said Marc Rayman, the Dawn project's chief engineer from NASA's Jet Propulsion Laboratory in Pasadena, Calif. "And everybody here on Dawn could not be happier."

By flying a spacecraft close by a large planet and its large gravity field, some of the planet's speed as it orbits the sun is transferred to the spacecraft. In Dawn's case, it is using the Red Planet's tremendous angular momentum (the speed at which Mars orbits the sun) to give it a little extra oomph.

"A big oomph actually," said Rayman.

To read NASA's Dawn Mission News Release in full, go to:

http://www.nasa.gov/mission_pages/dawn/news/dawnf-20090212.html

To participate actively in Dawn's Mars Flyby, join the Dawn Challenge:

http://dawn.jpl.nasa.gov/feature_stories/mars_challenge.asp

Read Marc Rayman's February 12, 2009, Dawn Journal:

http://dawn.jpl.nasa.gov/mission/journal_2_12_09.asp

TELL US WHAT YOU THINK

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://vovici.com/wsb.dll/s/13d56g382d7?paction=resume>.

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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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