



Dawn mission progress: Mars flyby and Vesta plans

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The Dawn mission, launched on September 7th 2007, is the ninth project in the Discovery series. On Feb 18th 2009, the Dawn spacecraft flew by Mars at an altitude of ~ 570 km to achieve a gravity assist on its way to the main asteroid belt, where it will rendezvous with and orbit the two largest minor planets 4 Vesta and 1 Ceres. The Mars flyby provided a unique opportunity to collect data with the scientific payload for characterization and calibration purposes. There were no specific science objectives for the flyby. The Dawn Framing Camera (FC), Visible and Infrared mapping spectrometer (VIR) and Gamma Ray and Neutron Detector (GRaND) all collected data during the closest approach phase of the flyby. Comparisons to data from the High-Resolution Stereo Camera and OMEGA on Mars Express, VIRTIS data from the Rosetta flyby of Mars, and Mars Odyssey GRS data allow a high-fidelity in-flight calibration of the instruments. Planning for Vesta exploration is now well underway and the latest plans will be presented.