

**Thursday, March 22, 2012**  
**POSTER SESSION II: DAWN OVER VESTA: GLOBAL MAPPING**  
**6:00 p.m. Town Center Exhibit Area**

Roatsch T. Kersten E. Matz K.-D. Preusker F. Scholten F. Jaumann R. Raymond C. A. Russell C. T.

[High Resolution Vesta HAMO Atlas Derived from Dawn FC Images](#) [#1765]

Dawn FC-images from the high-altitude mapping orbit were used to calculate a global mosaic of Vesta and a high-resolution atlas.

Tricarico P. Asmar S. W. Ermakov A. Gaskell R. Jaumann R. Konopliv A. S. Marchi S. Palmer E. Park R. S. Raymond C. A. Russell C. T. Schenk P. M. Smith D. E. Sykes M. V. Toplis M. J. Zuber M. T.

[Geoid and Terrain Slope of Vesta from Dawn](#) [#1746]

The data collected by the Dawn spacecraft at Vesta allows the study of its geophysical characteristics. We derive the shape of the geoid, and then use it estimate the elevation and slope of the terrain.

Preusker F. Scholten F. Matz K.-D. Jaumann R. Roatsch T. Raymond C. A. Russell C. T.

[Topography of Vesta from Dawn FC Stereo Images](#) [#2012]

The Dawn spacecraft has entered Vesta orbit and collects a few thousand stereo images following a stereo observation scheme planned in the previous years, from which we have produced digital terrain models (DTMs).

Becker K. J. Anderson J. A. Barrett J. M. Sides S. C. Titus T. N.

[ISIS Support for Dawn Instruments](#) [#2892]

The USGS ISIS system now includes support for the Dawn FC and VIR instruments with ingestion and camera/sensor model software. This provides the scientific community with the means to process Dawn image data into geologic maps.

Yingst R. A. Mest S. Garry W. B. Williams D. A. Berman D. C. Jaumann R. Pieters C. M. Ammannito E. Buczkowski D. L. De Sanctis M. C. Frigeri A. Le Corre L. Preusker F. Raymond C. A. Reddy V. Russell C. T. Roatsch T. Schenk P. M. Dawn Team

[A Preliminary Global Geologic Map of Vesta Based on High-Altitude Mapping Orbit Data](#) [#1359]

We here report on a 1:500,000-scale preliminary global map of Vesta, based on data from Dawn's high-altitude mapping orbit (HAMO). This map is part of an iterative mapping effort; the geologic map is refined with each improvement in resolution.

Ruesch O. Hiesinger H. Schmedemann N. Kneissl T. Blewett D. T. Williams D. A. Russell C. T. Raymond C. A.

[Geologic Mapping of the Av-2 Bellicia Quadrangle of 4 Vesta](#) [#2160]

We present the geologic mapping of the Bellicia (Av-2) quadrangle on asteroid 4 Vesta. The map is primarily based on morphologic observations in clear filter Dawn Framing Camera images.

Young B. L. Blewett D. T. Williams D. A. O'Brien D. P. Gaskell R. Yingst R. A. Garry W. B. Buczkowski D. L. Hiesinger H. McCord T. B. Combe J.-Ph. Schenk P. M. Jaumann R. Pieters C. M. Nathues A. Le Corre L. Hoffmann M. Reddy V. Roatsch T. Preusker F. Marchi S. Scully J. Russell C. T. Raymond C. A. De Sanctis M. C.

[Geologic Mapping of the Av-3 Caparronia Quadrangle of Asteroid 4 Vesta](#) [#1245]

We present a preliminary geological map of Vesta's northern hemisphere quadrangle Av-3 (Caparronia), based on data returned by the Dawn spacecraft.

Scully J. E. C. Russell C. T. Yin A. Williams D. A. Blewett D. T. Buczkowski D. L.  
 Ammannito E. Roatsch T. Preusker F. Le Corre L. Yingst R. A. Garry W. B. Jaumann R.  
 Pieters C. M. Raymond C. A.

[Geologic Mapping of the Av-4 Domitia Quadrangle of Asteroid 4 Vesta](#) [#2368]

This presentation describes the geologic mapping and interpretations of Vesta's Domitia quadrangle, which have been derived from Dawn spacecraft data. The trough and ridge system, varieties of craters, dark material, and composition are discussed.

Mercer C. M. M. Williams D. A. Scully J. E. Blewett D. T. Buczkowski D. L. Jaumann R. Schenk P. M.  
 Yingst R. A. Garry W. B. Roatsch T. Preusker F. Pieters C. M. Russell C. T. Raymond C. A.  
 De Sanctis M. C. Dawn Science Team

[Geologic Mapping of the Av-5 Floronia Quadrangle of the Asteroid 4 Vesta](#) [#1716]

The Dawn spacecraft is characterizing the geology, surface composition, topography, and shape of the asteroid 4 Vesta during its one year of operations there. We present results from the geologic mapping of the Av-5 quadrangle, named Floronia.

Le Corre L. Reddy V. Nathues A. Williams D. A. Garry W. B. Yingst R. A. Jaumann R. Roatsch T.  
 Preusker F. Pieters C. M. Russell C. T. Raymond C. A.

[Geologic Mapping of the Av-6 \(Gegania\) Quadrangle of Asteroid 4 Vesta](#) [#1629]

This presentation concentrates on the geologic analysis and mapping of quadrangle Av-6 on Vesta using the latest data from the Dawn spacecraft. The prevailing feature observed is a set of equatorial troughs up to ~20 km wide parallel to the equator.

Reddy V. Le Corre L. Nathues A. Williams D. A. Gary W. B. Yingst R. A. Juamann R. Roatsch T.  
 Preusker F. Pieters C. M. Russell C. T. Raymond C. A.

[Geologic Mapping of the Av-7 \(Lucaria\) Quadrangle of Asteroid \(4\) Vesta](#) [#1616]

We present mapping results of the Av-7 quad on asteroid Vesta from the Dawn mission; this region includes the enigmatic Lucaria Tholus structure.

Williams D. A. Schenk P. M. Jaumann R. Buczkowski D. L. McCord T. B. Yingst R. A. Hiesinger H.  
 Garry W. B. Combe J.-Ph. Pieters C. M. Nathues A. Le Corre L. Hoffmann M. Reddy V.  
 Roatsch T. Preusker F. Marchi S. Russell C. T. Raymond C. A. Neukum G. Schmedemann N.  
 Ammannito E. De Sanctis M. C.

[Geologic Mapping of the Av-8 Marcia Quadrangle of Asteroid 4 Vesta](#) [#1534]

This presentation will discuss our Dawn mission-based geologic mapping of the Av-8 Marcia quadrangle, one of the equatorial quadrangles of asteroid 4 Vesta.

Buczkowski D. L. Wyrick D. Y. Capaccioni F. Scully J. E. C. Williams D. A. Hiesinger H.  
 Garry W. B. Yingst R. A. Le Corre L. Nathues A. Schenk P. M. Jaumann R. Raymond C. A.  
 Pieters C. M. Roatsch T. Preusker F. Russell C. T.

[Geologic Mapping of the Av-9 Numisia Quadrangle of Asteroid 4 Vesta](#) [#2263]

We present our geologic analysis and mapping of quadrangle Av-9 Numisia.

Garry W. B. Sykes M. V. Buczkowski D. L. Williams D. A. Yingst R. A. Mest S. C.  
 Jaumann R. Pieters C. M. Roatsch T. Preusker F. Russell C. T. Raymond C. A.  
 Filacchione G. Dawn Science Team

[Geologic Mapping of Av-10 Oppia Quadrangle of Asteroid 4 Vesta](#) [#2315]

Geologic mapping of Vesta is being conducted as series of 15 quadrangle maps. This work will present results from the geologic mapping of quadrangle Av-10 Oppia. Geologic features in this quad are Oppia Crater, Feralia Planitia, and Divalia Fossa.

Hoogenboom T. Schenk P. White O. L. Williams D. Heisinger H. Garry W. B. Yingst R. A. Buczkowski D. L. McCord T. B. Jaumann R. Pieters C. M. Gaskell R. W. Neukum G. Schmedemann N. Marchi S. Nathues A. LeCorre L. Roatsch T. Preusker F. De Sanctis M. C. Fillacchione G. Raymond C. A. Russell C. T.

[\*Geologic Mapping of the Av-11 Pinaria Quadrangle of Asteroid 4 Vesta\*](#) [#2179]

Dawn entered orbit of the asteroid 4 Vesta in 7/2011, to characterize its geology, elemental and mineralogical composition, topography, shape, and internal structure. This abstract describes the results from mapping quadrangle Av-11.

Krohn K. Jaumann R. Stephan K. Pieters C. M. Wagner R. Yingst R. A. Williams D. A. Schenk P. Neukum G. Schmedemann N. Kneissl T. De Sanctis M. C. Nathues A. Buczkowski D. L. Roatsch T. Preusker F. Kersten E. Russell C. T. Raymond C. A.

[\*Geologic Mapping of the Av-12 Sextilia Quadrangle of Asteroid 4 Vesta\*](#) [#1901]

The geologic map of Quadrangle Av-12 Sextilia shows several different units: Rheasilvia material, including scarp wall material, slump deposits and ridge and groove terrain; dark material; slump material in impact craters; and old basin material.

Kneissl T. Schmedemann N. Neukum G. Williams D. A. Garry W. B. Yingst R. A. Ammannito E. Jaumann R. Pieters C. M. Russell C. T. Raymond C. A. Schenk P. Hiesinger H. McCord T. B. Buczkowski D. L. Nathues A. Reddy V. Büttner I. Krohn K. Preusker F.

[\*Geologic Mapping of the AV-13 Tuccia Quadrangle of Asteroid 4 Vesta\*](#) [#1899]

This abstract reports results from the geological mapping of quadrangle Av-13, named Tuccia. We used Framing Camera (FC) monochrome and color data, Visible and InfraRed (VIR) hyperspectral data, and DTMs derived from stereo image data.

Mest S. C. Yingst R. A. Williams D. A. Garry W. B. Pieters C. M. Jaumann R. Buczkowski D. L. Sykes M. V. Tricarico P. Wyrick D. Y. Schenk P. M. Russell C. T. Raymond C. A. Neukum G. Schmedemann N. Roatsch T. Preusker F. Ammannito E. Dawn Team

[\*Geologic Mapping of the Av-14 Urbinia Quadrangle of Asteroid 4 Vesta\*](#) [#2375]

The Av-14 Urbinia Quadrangle of 4Vesta is being mapped using high altitude mapping orbit (HAMO) clear filter Framing Camera (FC) images, a Survey orbit FC-derived DTM, FC color ratio images, and visible and infrared (FIR) hyperspectral images.

White O. L. Yingst R. A. Berman D. Frigeri A. Jaumann R. Le Corre L. Mest S. Pieters C. M. Preusker F. Raymond C. A. Reddy V. Roatsch T. Russell C. T. Schenk P. M. Schmedemann N.

[\*Geologic Mapping of the AV-15 Rheasilvia Quadrangle of Asteroid 4 Vesta\*](#) [#1264]

Mapping of the Rheasilvia quadrangle has characterized the Rheasilvia mound complex, slump material originating from the mound's scarp, and cratered terrain.

Palomba E. De Sanctis M. C. Nathues A. Stephan K. Ammannito E. Longobardo A. Frigeri A. Zambon F. Capaccioni F. Yingst R. A. Jaumann R. Tosi F. Pieters C. M. Raymonds C. A. Russell C. T.

[\*Compositional Mapping of Vesta Quadrangle V22\*](#) [#2243]

The results of the spectroscopic analysis achieved for the quadrangle V22, which covers Vesta's surface between 57°N–57°S and 0°–180°, are presented. In detail, band depths of the pyroxene bands are given for different terrains of the quadrangle.

Stephan K. Jaumann R. De Sanctis M. C. Ammannito E. Pieters C. M. Matz K.-D. Preusker F.  
Roatsch Th. Russell C. T. Raymond C. A.

[\*Compositional Mapping of Vesta Quadrangle V-23\*](#) [#2133]

We present the compositional mapping results for Vesta-Quadrangle V 23 derived from VIR data.

Tosi F. De Sanctis M. C. Nathues A. Ammannito E. Frigeri A. Zambon F. Palomba E.  
Capaccioni F. Yingst A. Jaumann R. Stephan K. Pieters C. M. Raymond C. A.  
Russell C. T. Dawn Team

[\*Compositional Mapping of Vesta Quadrangle V24\*](#) [#1966]

In this work we present the results of the spectroscopic analysis achieved on the basis of Dawn's Visible and InfraRed Imaging Spectrometer (VIR) for the quadrangle V-24, which covers Vesta's southern polar region 55°S–90°S and longitude 0°–360°.