

SUPPLEMENTARY ONLINE MATERIAL

Cassini Imaging Science: Initial Results on Phoebe and Iapetus

C. C. Porco¹, E. Baker¹, J. Barbara², K. Beurle³, A. Brahic⁴, J. A. Burns⁵, S. Charnoz⁴, N. Cooper³, D. D. Dawson⁶, A. D. Del Genio², T. Denk⁷, L. Dones⁸, U. Dyudina⁹, M. W. Evans³, B. Giese¹⁰, K. Grazier¹¹, P. Helfenstein⁵, A. P. Ingersoll⁹, R. A. Jacobson¹¹, T. V. Johnson¹¹, A. McEwen⁶, C. D. Murray³, G. Neukum⁷, W. M. Owen¹¹, J. Perry⁶, T. Roatsch¹⁰, J. Spitale¹, S. Squyres⁵, P. C. Thomas⁵, M. Tiscareno⁵, E. Turtle⁶, A. R. Vasavada¹¹, J. Veverka⁵, R. Wagner¹⁰, R. West¹¹

¹ Space Science Institute, 4750 Walnut Street, Suite 205, Boulder, CO 80301.

² Goddard Institute for Space Studies, NASA, 2880 Broadway, New York, NY 10025.

³ Astronomy Unit, Queen Mary, London, E1 4NS, England

⁴ C.E. de Saclay, University of Paris, L'Orme des Merisiers, 91191 GIF SUR Yvette Cedex, France.

⁵ Department of Astronomy, Cornell University, Space Sciences Bldg, Ithaca, NY 14853.

⁶ Department of Planetary Sciences, University of Arizona, 1629 E. University Blvd, Tucson, AZ 85721.

⁷ Department of Earth Sciences, Freie Universitaet, 12249 Berlin, Germany.

⁸ Department of Space Sciences, Southwest Research Institute, 1050 Walnut Street, Suite 400, Boulder, CO 80302.

⁹ Division of Geological and Planetary Sciences, California Institute of Technology, 150-21, Pasadena, CA 91125.

¹⁰ Institute of Planetary Research, German Aerospace Center, Rutherfordstrasse 2, 12489 Berlin, Germany.

¹¹ Jet Propulsion Laboratory, California Institute of Technology, 4800 Oak Grove Drive, Pasadena, CA 91109.

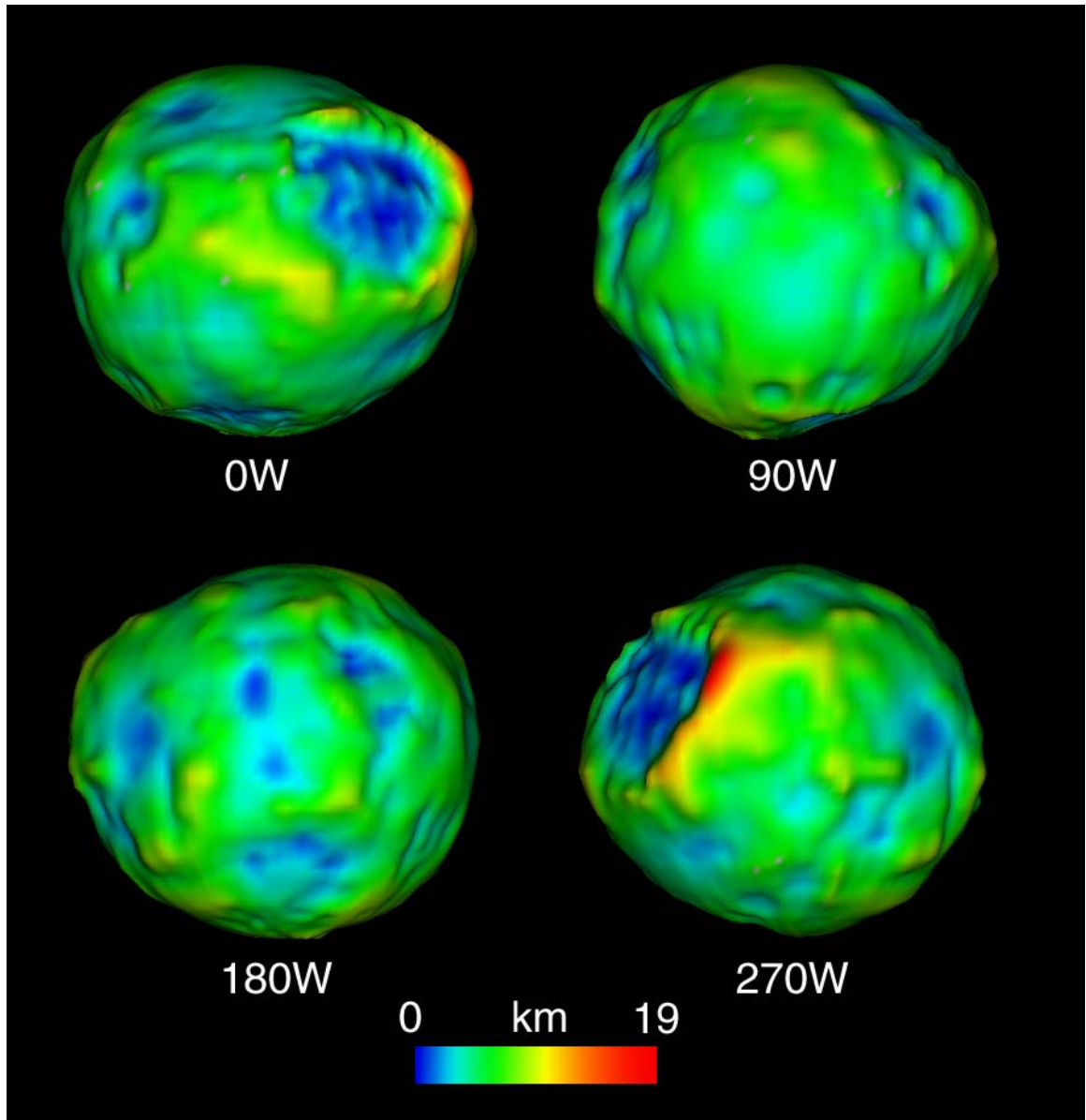


Fig. S1. Shape model of Phoebe with relative color-coded heights relative to an equipotential surface. The calculation assumes homogeneous mass distribution, and accounts for rotational accelerations. Derived from stereo images and from limb and terminator positions. Viewed from the equator with north at the top. Viewpoint longitudes are noted.

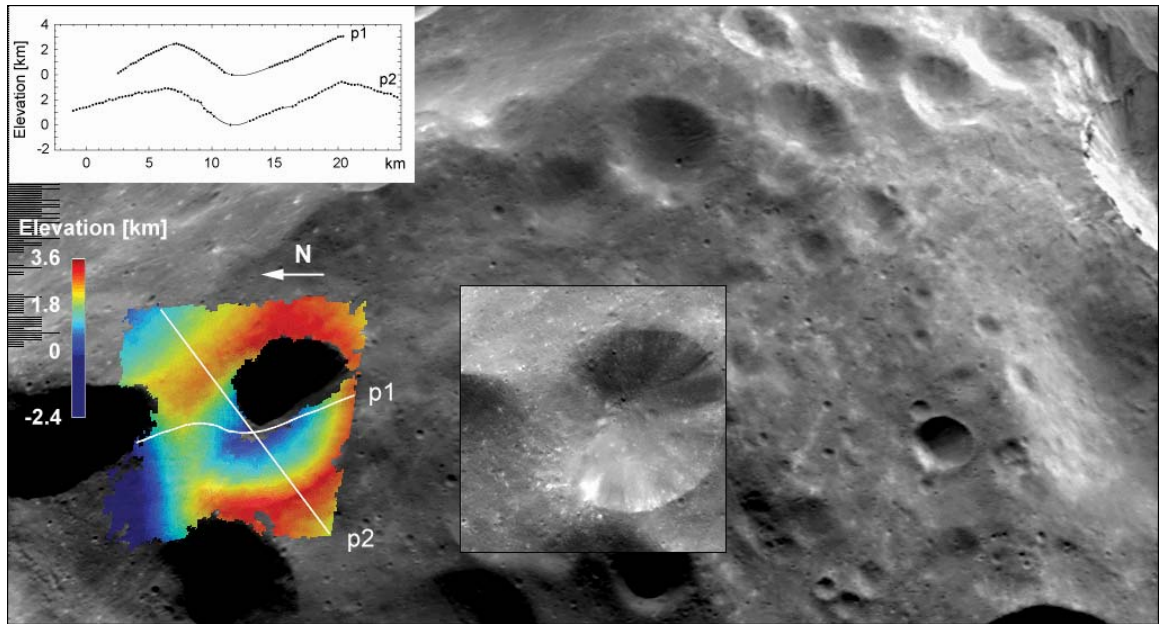


Fig. S2. Color-coded elevations of a conical crater (1.7° S, 7.7° E). Topographic model derived from stereo images: N1465673021, 78m/pxl (image in the background) and N1465674693, 19m/pxl (inset). Model horizontal resolution is 0.5 km, vertical accuracy ~ 50 m. The reference for elevations is a local plane defined by the southern part of the crater rim. The crater bottom is put at zero elevation. The most striking features of the crater are its conical shape and a depth-to-diameter ratio of 1:3.8, which is significantly higher than the lunar value of $\sim 1:5$ for bowl-shaped craters. The crater walls are almost straight and tapered (see profile). The rim is not elevated against the local surroundings.