

74th Annual Meeting of the Meteoritical Society, London, UK 8-12 August 2011

Special session: Space Missions

Abstract due 24 May, 11 pm BST

DOES VESTA HAVE MOONS?

L.A. McFadden¹, M. Sykes², S. Joy³, P. Tricarico², D. O'Brien², J.Y.Li⁴, M. Mutchler⁵, N. Memarsadeghi¹, H. Safavi¹, P. Gutierrez-Marques⁶, A. Nathues⁶, S. Mottola⁷, H. Sierks⁶, S. Schroder⁶, C. Polansky⁸, R. Jacobson⁸, C.T. Russell³, C.A. Raymond⁸, M. Rayman⁸, S. Weinstein-Weiss⁸, E. Palmer². ¹NASA, Goddard Space Flight Center. E-mail: lucy.mcfadden@nasa.gov. ²Planetary Science Institute, Tucson, ³IGPP, UCLA, ⁴U. Maryland, ⁵Space Telescope Science Institute, ⁶Max-Planck-Institut für Sonnensystemforschung, Lindau, Germany, ⁸California Inst. Technology, Jet Propulsion Lab.

Previous searches for moons around Vesta have found nothing to an upper limit of 22.5 magnitude, that corresponds to 44 +/-4 m diameter assuming the same albedo as Vesta. The Dawn mission's approach phase has dedicated satellite search observations consisting of two mosaic sequences bracketing the first observations of a complete rotation of Vesta scheduled for early July, 2011. In addition, we use the approach optical navigation image sequences for initial satellite searches. We will report any findings from these observations, and upper limits of magnitude and size.