

Image: NASA's Lucy high gain antenna up close

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Credit: Lockheed Martin

Lucy's epic journey to observe Jupiter's Trojan asteroids requires a reliable communications link back to Earth, and so the spacecraft is outfitted with a 6.5-ft. (2-meter)-wide high gain antenna for this task.

Designed and built by Lockheed Martin, this same style antenna has been used to return science data from Mars and transfer back photos of asteroid Bennu. Lucy's antenna will send back the first-ever close up images and spectra of Trojan asteroids.

The signal from the antenna will also help determine the mass of these never-before-visited space objects revealed by tiny changes in frequency caused by the Doppler effect.

Provided by NASA's Goddard Space Flight Center

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