

Juno spacecraft images 'Big Dipper'

May 11 2012, By DC Agle



NASA's Jupiter-bound Juno spacecraft tested its JunoCam instrument on one of the icons of the night sky - the Big Dipper. Credit: NASA/JPL-Caltech/SWRI/MSSS

(Phys.org) -- In England it is known as the "Plough," in Germany the "Great Cart," and in Malaysia the "Seven Ploughs." Since humanity first turned its eyes skyward, the seven northern hemisphere stars that compose the "Big Dipper" have been a welcome and familiar introduction to the heavens.

"I can recall as a kid making an imaginary line from the two stars that make up the right side of the Big Dipper's bowl and extending it upward

to find the North Star," said Scott Bolton, principal investigator of NASA's Juno [mission](#) to [Jupiter](#) from the Southwest Research Institute in San Antonio. "Now, the Big Dipper is helping me make sure the camera aboard Juno is ready to do its job."

Launched on Aug. 5, 2011, the solar-powered Juno spacecraft is 279 days and 380 million miles (612 million kilometers) into its five-year, 1,905-million-mile (3,065-million-kilometer) journey to Jupiter. Once there, the spacecraft will orbit the planet's poles 33 times and use its nine instruments to image and probe beneath the gas giant's obscuring cloud cover to learn more about Jupiter's origins, structure, atmosphere and magnetosphere, and look for a potential solid planetary core.

One of those instruments, JunoCam, is tasked with taking closeups of the gas giant's atmosphere. But, with four-and-a-half years to go before photons of light from Jupiter first fill its CCD (charge-coupled device), and a desire to certify the camera in flight, Juno's mission planners took a page from their childhood and on March 21, aimed their camera at a familiar celestial landmark.

"I don't know if it's the first space-based image of the Big Dipper but, as it was taken when we were well beyond Mars orbit, it's probably from the farthest out," said Bolton. "But much more important than that is the simple fact that JunoCam, like the rest of this mission, works as advertised and is ready for its day in the sun - around Jupiter."

The JunoCam test image of the Big Dipper is online at: [nasa.gov/catalog/PIA15653">nasa.gov/catalog/PIA15653](#) target="_blank">photojournal.jpl.[nasa.gov/catalog/PIA15653](#) .

Juno's name comes from Greek and Roman mythology. The god Jupiter drew a veil of clouds around himself to hide his mischief, and his wife, the goddess Juno, was able to peer through the clouds and reveal

Jupiter's true nature.

NASA's Jet Propulsion Laboratory, Pasadena, Calif., manages the Juno mission for the principal investigator, Scott Bolton, of Southwest Research Institute in San Antonio. The [Juno mission](#) is part of the New Frontiers Program managed at NASA's Marshall Space Flight Center in Huntsville, Ala. JunoCam was developed and is operated by Malin Space Science Systems in San Diego. Lockheed Martin Space Systems, Denver, built the [spacecraft](#). JPL is a division of the California Institute of Technology in Pasadena.

More information: More information about Juno is online at www.nasa.gov/juno and missionjuno.swri.edu/ .

Provided by JPL/NASA

Citation: Juno spacecraft images 'Big Dipper' (2012, May 11) retrieved 18 April 2024 from <https://phys.org/news/2012-05-juno-spacecraft-images-big-dipper.html>

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