ANDE-2 satellite deployed from Space Shuttle Endeavour

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The ANDE-2 Pollux spherical spacecraft is deployed from Space Shuttle Endeavour on July 30, 2009, by the Internal Cargo Unit. Credit: NASA

The Naval Research Laboratory's satellite suite, the Atmospheric Neutral Density Experiment 2 (ANDE-2), was deployed from NASA's Space Shuttle Endeavour on July 30, 2009.

The ANDE-2 satellite suite consists of two nearly perfectly spherical micro-satellites with instrumentation to perform two interrelated mission objectives. The first objective is to monitor the total atmospheric density along the orbit for improved orbit determination of resident space objects. The second is to provide a test object for both radar and optical U.S. Space Surveillance Network sensors.

The ANDE-2 spacecraft, Castor and Pollux, shortly after deployment from Space Shuttle Endeavour on July 30, 2009, as photographed by the crew of STS-127 from the flight deck. Credit: NASA

ANDE-2 is a low-cost mission designed to study the atmosphere of the Earth from low-Earth orbit by monitoring total atmospheric density between 300 and 400 km altitude. ANDE-2 data will be used to improve methods for the precision orbit determination of space objects and to calibrate the Space Fence, a radar space surveillance system belonging to the Air Force 20th Space Control Squadron, a principal resource for tracking low-Earth orbiting space satellites.

Source: Naval Research Laboratory (news : web)