



News Release

Defense Advanced Research Projects Agency

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IMMEDIATE RELEASE

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ORBITAL EXPRESS SATELLITES SUCCESSFULLY SEPARATE, REMATE

The two Defense Advanced Research Projects Agency (DARPA) Orbital Express spacecraft, launched March 8 in a mated configuration, yesterday successfully separated for the first time.

The two spacecraft, known as the Autonomous Space Transfer and Robotic Orbiter (ASTRO) and the Next Generation Satellite (NextSat) were separated with use of the ASTRO's robotic arm, and the launch ring between them was safely ejected yesterday at 1:54 p.m. EDT. The two spacecraft remated later that evening.

As yesterday's ring ejection sequence began, the ASTRO's robotic arm moved NextSat to a safe position out of the projected departure path for the launch ring, which had been needed during launch to divert potentially damaging structural loads away from the ASTRO spacecraft's capture mechanism. As observed from a wide-field optical camera and an infrared camera onboard the ASTRO spacecraft, the ring slowly tumbled away from the ASTRO and NextSat, remaining visible in both cameras' field of view for a number of minutes.

Following the ring ejection, the robotic arm placed the NextSat close by the ASTRO. The NextSat was then grasped by the capture mechanism on the ASTRO and the two spacecraft returned to a mated configuration for characterization and calibration of the ASTRO's rendezvous and capture sensors.

Video and still pictures of the ring ejection are available on the DARPA website (www.darpa.mil/orbitalexpress).

The Orbital Express spacecraft are in the midst of a three-month mission to demonstrate for the first time fully autonomous rendezvous and capture of client spacecraft, satellite-to-satellite refueling, and replacement of battery and flight-computer orbital replacement units. The technologies developed by DARPA's Orbital Express program are intended to support a broad range of future U.S. national security, civil, and commercial space activities.

Boeing Phantom Works, Huntington Beach, Calif., is DARPA's prime integrator for the Orbital Express program. They fabricated, assembled, and tested the ASTRO servicing spacecraft. Ball Aerospace constructed the NextSat client satellite. Other members of the Orbital Express team include NASA; Northrop Grumman Space Technology; MacDonald, Dettwiler and Associates; Charles Stark Draper Laboratory; and Starsys Research.

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