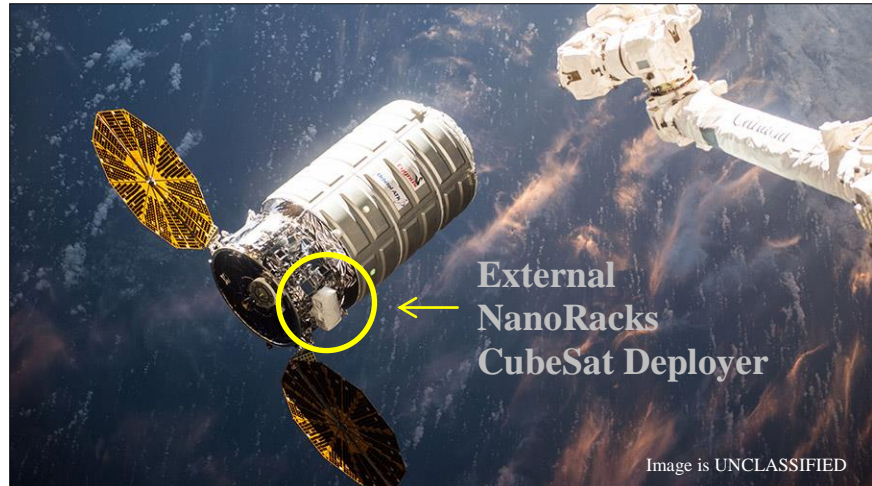




Astronauts Support NRO CubeSat Deployment Aboard Space Station

By Tom Knowles, NRO Office of Public Affairs
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CHANTILLY, Va. — Two National Reconnaissance Office (NRO) CubeSats were successfully deployed into low-Earth orbit from the International Space Station (ISS), Dec. 6, 2017. The payloads will deliver weather observation capabilities to support a variety of mission requirements.



The satellites were previously launched into space aboard an Orbital ATK Antares rocket (OA-8) as auxiliary rideshare payloads on a Cygnus re-supply vehicle bound for the International Space Station (ISS) from NASA's Wallops Island Flight Facility, Virginia on Nov 12, 2017

A robotic arm prepares to grapple an Orbital ATK Cygnus commercial re-supply spacecraft upon arrival at the International Space Station. The National Reconnaissance Office's OA-8 CubeSats were launched and deployed from an external NanoRacks CubeSat deployer, attached to the exterior of a Cygnus spacecraft.

According to the NRO's OA-8 mission manager, Capt. Natasha Rosario, launch rideshare achieves a variety of efficiencies and benefits.

"Rideshare aboard regularly scheduled ISS re-supply missions provides a cost-effective means to quickly launch and operate smaller satellites to support the NRO's mission needs," said Rosario.

Most CubeSats can be held in one's hand, making them ideal rideshare candidates. Utilizing excess space aboard Orbital ATK's Cygnus commercial re-supply spacecraft, the NRO achieves an alternative pathway to space. The NRO's OA-8 CubeSats were attached to the exterior of the Cygnus spacecraft within a NanoRacks CubeSat deployer. Modular CubeSat deployment cases support the storage and deployment of multiple payloads.

“Multi-manifest represents a great opportunity to launch myriad payloads aboard a single rocket, accelerating the NRO’s ability to deliver on-orbit capabilities,” said Rosario.

The Cygnus spacecraft, carrying more than seven thousand pounds of supplies, scientific equipment and CubeSat payloads, arrived at the ISS on Nov. 14. Upon completing its primary re-supply mission, a robotic arm aboard the ISS placed the CubeSat deployer into the required position before releasing the payloads into low-Earth orbit.

NRO anticipates that rapid CubeSat development timelines and access to future ISS re-supply missions will continue to benefit the NRO’s research and development initiatives, providing greater on-orbit opportunities to demonstrate, apply and mature emerging technologies.

“Now, it becomes a question of ‘how fast can you build a satellite?’ as opposed to ‘when will the next launch opportunity become available?’” said Rosario.

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