

NRO CubeSats Launched Aboard NASA Space Station Resupply Mission

By Tom Knowles, NRO Office of Public Affairs December 2017

CHANTILLY, Va. -Riding along on a commercial resupply mission with more than 7.000 pounds of supplies bound for the International Space Station (ISS), three National Reconnaissance Office (NRO) and NRO interest CubeSats were successfully launched aboard an Orbital ATK Antares rocket from the National Aeronautics and Space Administration's (NASA) Wallops



An Orbital ATK Antares rocket (right), carrying three NRO and NRO interest CubeSat auxiliary payloads launched aboard Orbital's Cygnus resupply vehicle (top left) from NASA's Wallops Flight Facility, Virginia, on Nov. 12, 2017. The satellites are scheduled to be deployed from a NanoRacks CubeSat deployer (bottom left) on Dec. 4, 2017.

Flight Facility, Virginia at 7:19 a.m., EDT, on November 12, 2017.

The NRO's CubeSat payloads will deliver weather observation capabilities to support a variety of mission requirements.

The lower-cost and rapid development cycle of CubeSats represents another way the NRO is working to provide a wide range of customers with timely and relevant overhead intelligence data required to manage the full spectrum of threats and security challenges facing the nation.

"We need to find more innovative solutions to rapidly deliver capabilities," said Capt. Natasha Rosario, who served as the mission manager for Saturday's launch. "One way we're able to do this is through the use of CubeSats and small launch vehicles."

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Generally only measuring about 10 cm wide by 10 cm high, CubeSats are ideal ridesharing candidates, providing a low-cost pathway to field Overhead reconnaissance systems. Their small, standardized cube-shaped dimensions are easily accommodated within a NanoRacks CubeSat deployer, the device that will be used to support the delivery of NRO's payloads.

"That satellite deployer is full of satellites, some of which are sponsored by the NRO," said, Henry Martin, NanoRack's Cubesat Senior Mission Manager.

According to Martin, the satellite deployer is then attached to the side of ATK's Cygnus spacecraft where it can be launched aboard one of NASA's regularly scheduled ISS commercial resupply missions.

Their small, standardized cube-shaped size also supports the delivery of multiple payloads within a single launch, resulting in the accelerated delivery of on-orbit capabilities to enhance the NRO's existing space architecture performance.

Over the next several days, Cygnus will rendezvous and dock with the ISS where the NRO's payloads will be deployed into low-Earth orbit on December 4, 2017.

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