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Raven drones scan area before Vandenberg rocket launches

The 5-pound drones equipped with high-powered video cameras fly around the launch site northwest of Santa Barbara, scouring the ground below to ensure that the area is clear for blastoff.

March 29, 2012 | By W.J. Hennigan, Los Angeles Times

Before the launch of a top-secret spy satellite from Vandenberg Air Force Base, a fleet of small drones will be doing some spying of their own.

In yet another use of robotic aircraft, RQ-11 Raven drones equipped with high-powered video cameras will fly around the craggy launch site northwest of Santa Barbara, scouring the ground below to ensure that the area is clear for blastoff.

"Public safety is our first priority during launch operations, " said Staff Sgt. Brandon Johnson, who is a Raven operator and crime prevention officer.

"Raven operations contribute to the overall safety of our mission by ensuring the area is clear of personnel while minimizing the number of people necessary to patrol the area."

The Vandenberg crew will be using the drones to scan the launch safety zone before the liftoff, now scheduled for Friday at 3:38 p.m. They'll be looking for intruders, including those who might be unaware of the pending launch or seeking a good vantage point from which to watch.

The 21-story rocket is set to lift a satellite — classified as a "national security payload," according to Vandenberg officials — into orbit for the National Reconnaissance Office. The agency is in charge of designing, building, launching and maintaining nation's spy satellites.

The Air Force has found that the 5-pound Raven drone, which resembles a hobby aircraft, is far better suited to do a quick survey of the 99,099-acre base than trucks or ATVs. Not only is the area large, much of it is covered by thick brush and unfriendly landscapes.

Before the crew started using Raven drones, Vandenberg relied more heavily on its ATVs, security checkpoints and mounted ground patrol for security. Vandenberg has the only military working horse unit in the Air Force.

Now security personnel can simply grab a Raven drone by its fuselage and then toss it into the sky like a football, much as hobbyists fly airborne toys on the weekend. The drone is equipped with an electro-optical color camera. For night missions it has an infrared camera.

If drone crew members spot something of concern, they can report it to ground security patrols.

Vandenberg officials said using the Ravens saves time and money. The drones also may have saved lives because they have spotted base personnel within the safety zone during past launches.

Whereas Cape Canaveral, Fla., is the launch site for NASA's civilian space program, Vandenberg has been the primary site of military and intelligence space launches for more than half a century because of its ideal location for putting satellites into a north-to-south orbit.

The remote-controlled Raven drones, made by AeroVironment Inc. in Simi Valley, have played a crucial role in providing a bird's-eye view of what's happening over a ridge or around a bend to soldiers on the ground in Iraq and Afghanistan. The tiny spy plane can fly to an elevation of 500 feet and transmit video images to operators several miles away.

Executives at Monrovia-based AeroVironment, the Pentagon's largest supplier of small drones, weren't previously aware that Vandenberg used Ravens to help with launches.

"Even with thousands of our systems in the field, military and non-military operators continue to find valuable new ways to use them," said Tom Herring, a company vice president.

"Raven's eyes in the sky can scope out dangerous or difficult-to-reach areas, such as chemical leaks or rough terrain, without putting people at risk."

Drone makers such as AeroVironment are hoping that the technology can take on a larger role in the commercial world once the Federal Aviation Administration eases restrictions that bar unmanned aircraft from entering national airspace without a special certificate.

The FAA has said that remotely piloted aircraft currently don't have adequate "detect, sense and avoid" technology to prevent midair collisions. The agency aims for drones to be fully integrated into national airspace by 2015.

That's not a concern at Vandenberg, which as a military base controls its own skies.

The base's Friday launch is slated to be webcast on http://www.ulalaunch.com.

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