New NASA Satellite to Begin Sun-Watching Mission

Associated Press

Vandenberg Air Force Base, CA(AP) — From its perch in low-Earth orbit, NASA's newest satellite will soon get a close-up look at a little-explored region of the sun that's thought to drive space weather that can affect Earth.

The Iris satellite was boosted into orbit about 400 miles above Earth by a Pegasus rocket Thursday evening after a sunset launch. Engineers will test the satellite first before turning on its telescope to stare at the sun.

"We're thrilled," NASA launch director Tim Dunn said in a NASA TV interview after orbit was achieved.

Unlike a typical launch, an airplane carrying the rocket and satellite flew from Vandenberg Air Force Base to a drop point over the Pacific some 100 miles off California's central coast. At an altitude of 39,000 feet, the plane released the rocket, which ignited its engine and streaked skyward.

Mission controllers anxiously waited as the rocket made the 13-minute climb into space and cheered after learning that Iris had separated from the rocket as planned.

There were some issues. At one point, communications signals were lost and ground controllers had to track Iris using other satellites orbiting Earth. When it came time for Iris to unfurl its solar panels after entering orbit, there was a lag before NASA confirmed the satellite was generating power.

Previous sun-observing spacecraft have yielded a wealth of information about our nearest star and beamed back brilliant pictures of solar flares.

The 7-foot-long Iris, weighing 400 pounds, carries an ultraviolet telescope that can

take high-resolution images every few seconds.

Unlike NASA's Solar Dynamics Observatory, which observes the entire sun, Iris will focus on a little-explored region that lies between the surface and the corona, the glowing white ring that's visible during eclipses.

The goal is to learn more about how this mysterious region drives solar wind — a stream of charged particles spewing from the sun — and to better predict space weather that can disrupt communications signals on Earth.

"This is a very difficult region to understand and observe. We haven't had the technical capabilities before now to really zoom in" and peer at it up close, NASA program scientist Jeffrey Newmark said before the launch.

The mission is cheap by NASA standards, costing $182 million, and is managed by the space agency's Goddard Space Flight Center.

Iris will gaze at the sun for two years. Before observations can begin, engineers will spend two months conducting health checkups.

Thursday's launch was delayed by a day so that technicians at the Air Force base could restore power to launch range equipment after a weekend outage cut electricity to a swath of the central coast.

The Pegasus, from Orbital Sciences Corp. of Dulles, Va., is a winged rocket designed for launching small satellites. First flown in 1990, Pegasus rockets have also been used to accelerate vehicles in hypersonic flight programs.

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