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# New Lookout for Solar Storms Lifts Off on SpaceX Rocket

By KENNETH CHANG FEB. 11, 2015



A Falcon 9 rocket made by SpaceX taking off from Cape Canaveral, Fla., on Wednesday, carrying an observatory that will watch for waves of energetic solar particles heading toward Earth.

John Raoux/Associated Press

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On the third try, the [Deep Space Climate Observatory](#) rose into the sky above Cape Canaveral, Fla., on Wednesday night atop a Falcon 9 rocket built by the Space Exploration Technologies Corporation, or [SpaceX](#).

A launch attempt on Sunday was

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called off with less than three minutes left in the countdown because of a malfunction with a ground radar system for tracking the rocket's flight, and high-altitude winds forced the postponement of another attempt on Tuesday.

In about 110 days, the observatory, abbreviated as Dscovr and pronounced "discover," is to reach a point where the gravitational pull of the [Earth](#) and that of the sun cancel each other out and the spacecraft can easily hold its position, almost a million miles from the day side of [Earth](#).

From that location, Dscovr will be able to give 15 to 60 minutes' warning if a wave of energetic solar particles known as a coronal mass ejection is about to slam into Earth. A gigantic solar storm, while rare, could disrupt communications satellites and knock out power grids.

Dscovr dates to 1998, when Vice President Al Gore imagined a distant spacecraft that would send back educational and inspirational images of Earth. [NASA](#) built the refrigerator-size spacecraft, then named Triana, adding instruments to observe the sun and the Earth. But the mission was canceled, and the spacecraft was put into storage.

The sun-observing instruments were found to meet the needs of the National Oceanic and Atmospheric Administration, which financed the refurbishment of the spacecraft. The total cost, including the original Triana mission and the Falcon 9 rocket, is \$340 million, split among NOAA, [NASA](#) and the Air Force, which is evaluating SpaceX for future launches of military satellites.

SpaceX had planned to use the launch as a second opportunity to try to



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land the first stage of the rocket on a platform in the Atlantic, part of the company's efforts to develop a reusable rocket. But with rough seas, including waves more than 25 feet high, it decided not to try.

The booster still went through the motions of landing, but it did so over the water instead of onto the platform. That exercise, the company said, still provided useful data for refining future landing attempts.

During the first attempt last month, after the rocket sent cargo to the International Space Station, the first stage of the Falcon 9 landed hard on the platform and exploded.

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









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