

NASA, SpaceX launch NOAA's latest weather satellite

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A SpaceX Falcon Heavy rocket carrying the National Oceanic and Atmospheric Administration (NOAA) GOES-U (Geostationary Operational Environmental Satellite U) lifts off from Launch Complex 39A at NASA's Kennedy Space Center in Florida on Tuesday, June 25, 2024. The GOES-U satellite is the final satellite in the GOES-R series, which serves a critical role in providing continuous coverage of the Western Hemisphere, including monitoring tropical systems in the eastern Pacific and Atlantic oceans. Credit: SpaceX

NASA successfully launched the fourth and final satellite in a series of advanced weather satellites for NOAA (National Oceanic and Atmospheric Administration) at 5:26 p.m. EDT Tuesday. The GOES-U (Geostationary Operational Environmental Satellite) will benefit the nation by providing continuous coverage of weather and hazardous environmental conditions across much of the Western Hemisphere.

The [satellite](#) launched on a SpaceX Falcon Heavy rocket from Launch Complex 39A at NASA's Kennedy Space Center in Florida. Mission managers confirmed at 10:18 p.m. the spacecraft's solar arrays successfully deployed, and the spacecraft was operating on its own power.

"As communities across the country and the world feel the effects of extreme weather, satellites like GOES-U keep a close watch to monitor weather in real time," said NASA Administrator Bill Nelson.

"NASA and NOAA have worked together for several decades to bring critical data back down to Earth to prepare for severe storms, fire detection, and much more. This fleet of advanced satellites is strengthening resilience to our changing climate, and protecting humanity from weather hazards on Earth, and in space."

In addition to its critical role in terrestrial weather prediction, the GOES constellation of satellites helps forecasters predict space weather near Earth that can interfere with satellite electronics, GPS, and radio communications. The GOES-U satellite goes beyond the capabilities of its predecessors with a new space weather instrument, the Compact Coronagraph-1, which blocks the sun's bright light so scientists can observe the relatively fainter solar atmosphere.

"There are so many applications for GOES data—many of which directly impact our everyday lives here on Earth," said Nicky Fox,

associate administrator, Science Mission Directorate at NASA Headquarters in Washington.

"GOES-U will add to the global data record, allowing NASA and NOAA to track changes in our climate and also provide critical information before severe weather and natural disasters strike. NASA looks forward to teaming up with NOAA again as we enter the next generation of Earth-observing satellites."

Once GOES-U is in a [geostationary orbit](#), about 22,200 miles above Earth, it will be renamed GOES-19. Following a successful orbital checkout of its instruments and systems, GOES-19 will go into service, keeping watch of the [weather](#) over most of North America, including the contiguous United States and Mexico, as well as Central and South America, the Caribbean, and the Atlantic Ocean to the west coast of Africa.

"The data that GOES-U will provide is critical to protecting the safety of people in the Western Hemisphere," said John Gagosian, director, NASA's Joint Agency Satellite Division. "With this successful launch, forecasters will have a resource to better inform and educate the public."

NASA's Goddard Space Flight Center in Greenbelt, Maryland, oversaw the acquisition of the GOES-R series spacecraft and instruments and built the magnetometer for GOES-U and its predecessor, GOES-T. NASA's Launch Services Program, based at Kennedy, provided launch management for the mission.

The GOES-R Series Program is overseen by NOAA, through an integrated NOAA-NASA office that manages the ground system, operates the satellites, and distributes data to users worldwide. Lockheed Martin designs, builds, and tests the GOES-R series satellites. L3Harris Technologies provides the main instrument payload, the Advanced

Baseline Imager and the ground system, which includes the antenna system for data reception.

Provided by NASA

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