Lockheed Martin-Built GOES-U Weather Satellite Successfully Launched

NOAA's newest satellite will complete the GOES-R series and provide critical weather and climate data

KENNEDY SPACE CENTER, Fla., June 25, 2024 /PRNewswire/ -- An advanced weather satellite built by Lockheed Martin [NYSE: LMT] for the National Oceanic and Atmospheric Administration (NOAA) launched today from NASA's Kennedy Space Center at 5:26 p.m. ET. Lifted to space aboard a Space X Falcon Heavy rocket, the GOES-U satellite successfully deployed its large solar array to generate electrical power and has established communications with mission operators.

GOES-U is the final satellite in NOAA's Geostationary Operational Environmental Satellites (GOES) - R series of four satellites. After it reaches geostationary orbit, approximately two weeks after launch, GOES-U will be renamed GOES-19. Once in operations over the East Coast of North America, the satellite be known as GOES East, and will provide advanced weather imagery, atmospheric measurements and real-time mapping of lightning activity, in addition to critical space weather observations.

"The launch of GOES-U is the culmination of more than 16 years of designing, building and launching four important weather satellites for our nation," said Jagdeep Shergill, GOES-U program manager and director of Geo Weather Programs at Lockheed Martin. "Since the launch of the first GOES-R satellite, our nation has had more accurate weather forecasts and more timely severe storm warnings, and this critical service has positively affected everyone in the U.S."

NOAA's GOES-R satellites, and soon GOES-U, provide crucial data for weather forecasting, severe storm tracking and climate monitoring. With their advanced instruments and rapid updates, they improve detection of atmospheric phenomena like hurricanes, wildfires and lighting. This real-time data aids the National Weather Service and meteorologist in early warnings, disaster preparedness and resource management, ultimately saving lives and mitigating economic losses.

The GOES-U spacecraft features two high-tech instruments built by Lockheed Martin's Advanced Technology Center in Palo Alto, California:

- Geostationary Lightning Mapper (GLM), which is a first-of-its-kind operational lightning mapper that tracks lightning across the U.S. in real-time. GLM allows meteorologists to quickly identify intensifying storms and take appropriate action. In 2020, GLM captured a lightning megaflash nearly 500 miles long that broke the world record for longest lightning flash.
- Solar Ultraviolet Imager (SUVI), focuses on space weather and measures the sun in extreme ultraviolet wavelength range. SUVI is essential to understanding active areas on the sun and predicting solar events that may disrupt power utilities, communication or navigation systems here on Earth.

GOES-U is the final satellite of the GOES-R series which will provide critical weather and climate date into the 2030s. Following GOES-U, Lockheed Martin was selected by NASA to develop the nation's next generation weather satellite constellation, Geostationary Extended Observations (GeoXO), for NOAA. GeoXO's new capabilities will deliver more accurate weather forecasting and address emerging environmental issues and challenges. GeoXO, the GOES-R series and the nation's weather satellites are vital infrastructure for national resilience.

NOAA funds, manages and will operate the GOES-R series satellites. NASA oversees the acquisition and development of the GOES-R spacecraft, instruments and launch vehicles. The program is co-located at NASA's Goddard Space Flight Center in Greenbelt, Maryland.

Check out additional GOES-U imagery here and b-roll video here.

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