

GOES-16 satellite sends first images of Earth

January 24 2017



Credit: NOAA Headquarters

Since the GOES-16 satellite lifted off from Cape Canaveral on November 19, scientists, meteorologists and ordinary weather enthusiasts have anxiously waited for the first photos from NOAA's newest weather satellite, GOES-16, formerly GOES-R.

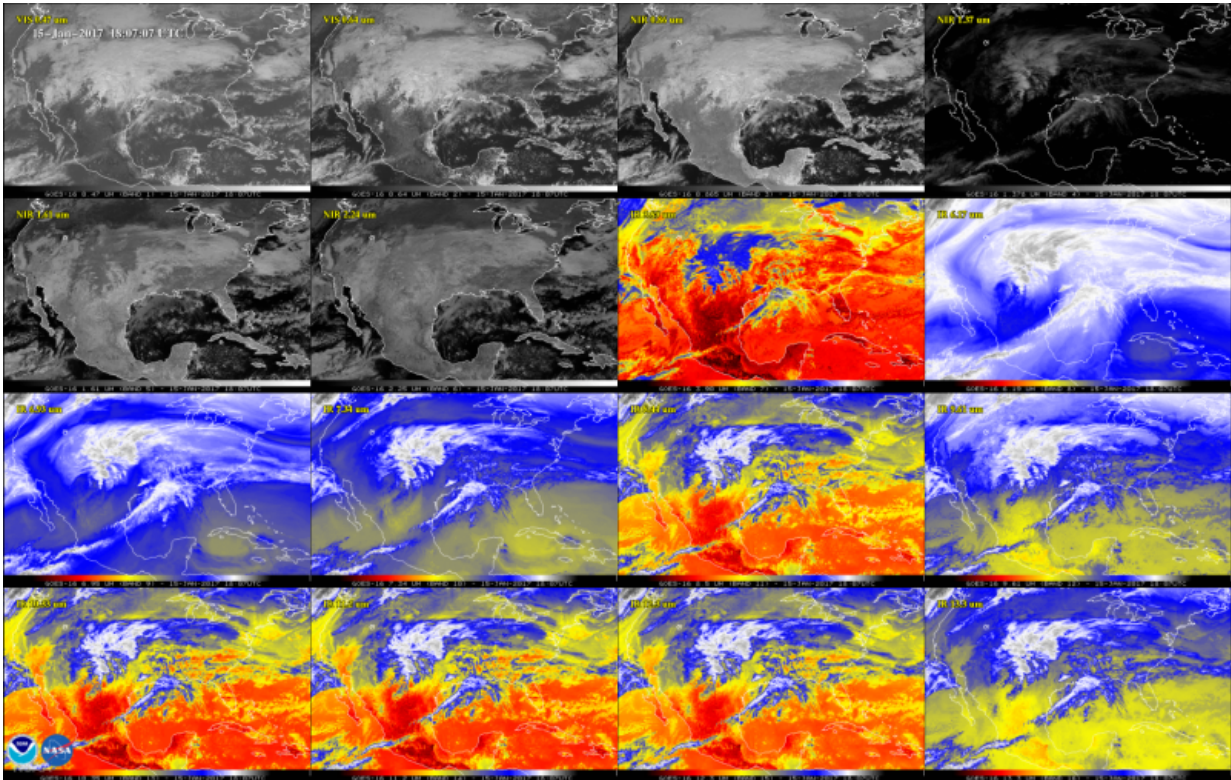
The release of the first images today is the latest step in a new age of [weather satellites](#). It will be like high-definition from the heavens.

The pictures from its Advanced Baseline Imager (ABI) instrument, built

by Harris Corporation, show a full-disc view of the Western Hemisphere in high detail—at four times the image resolution of existing GOES spacecraft. The higher resolution will allow forecasters to pinpoint the location of severe weather with greater accuracy. GOES-16 can provide a full image of Earth every 15 minutes and one of the continental U.S. every five minutes, and scans the Earth at five times the speed of NOAA's current GOES imagers.

NOAA's GOES-16, situated in geostationary orbit 22,300 miles above Earth, will boost the nation's weather observation network and NOAA's prediction capabilities, leading to more accurate and timely forecasts, watches and warnings.

"This is such an exciting day for NOAA! One of our GOES-16 scientists compared this to seeing a newborn baby's first pictures—it's that exciting for us," said Stephen Volz Ph.D. director of NOAA's Satellite and Information Service. "These images come from the most sophisticated technology ever flown in space to predict [severe weather](#) on Earth. The fantastically rich images provide us with our first glimpse of the impact GOES-16 will have on developing life-saving forecasts."

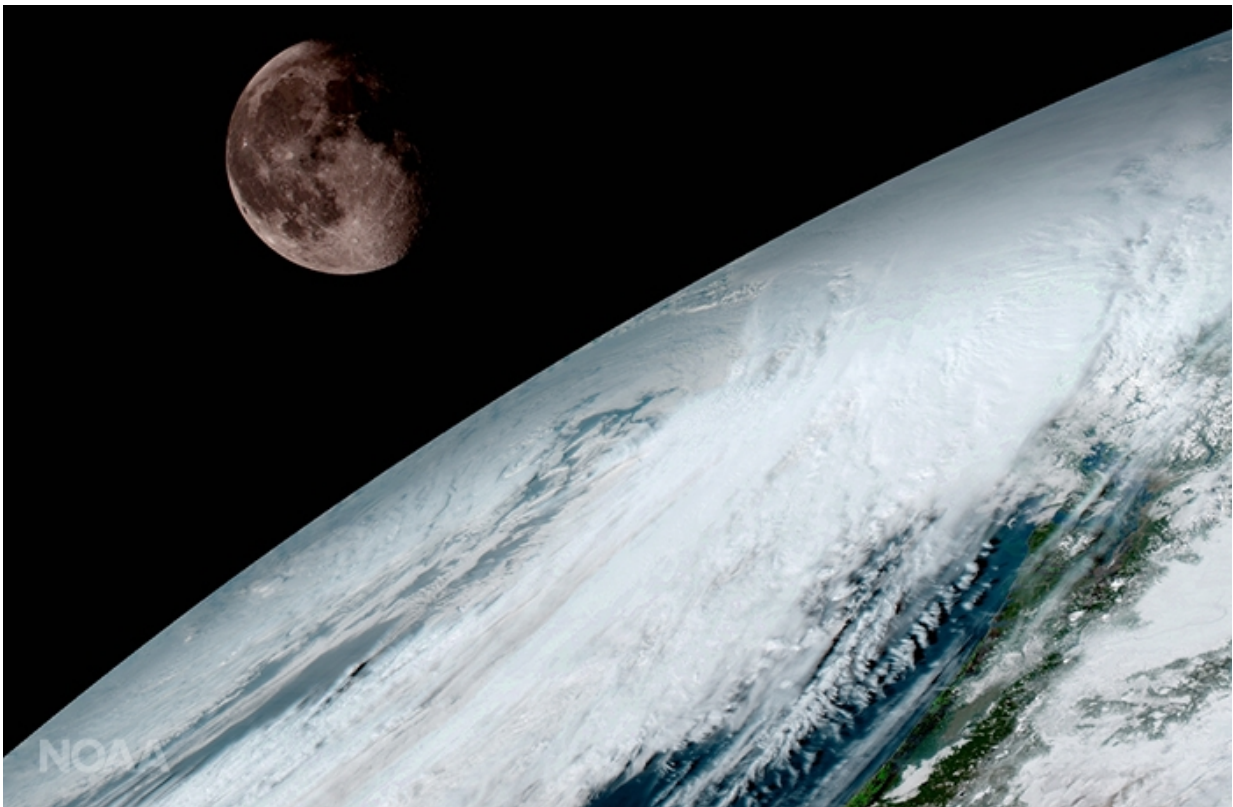


This 16-panel image shows the continental United States in the two visible, four near-infrared and 10 infrared channels on the Advanced Baseline Imager (ABI). These channels help forecasters distinguish between differences in the atmosphere like clouds, water vapor, smoke, ice and volcanic ash. Credit: NOAA/NASA

In May, NOAA will announce the planned location for GOES-16. By November 2017, GOES-16 will be operational as either GOES-East or GOES-West. Once operational, NOAA will use the [satellite](#)'s six new instruments to generate new or improved meteorological, solar, and space [weather](#) products.

Second satellite in GOES series already in development

Following on the heels of GOES-R will be, GOES-S, the second of four spacecraft in the series. GOES-S is undergoing environmental testing at Lockheed Martin's Corporation facility in Littleton, Colorado, where it was built. A full set of environmental, mechanical and electromagnetic testing will take about one year to complete. The GOES-S satellite will be moved into the other operational position as GOES-17 immediately after launch and initial checkout of the satellite, approximately nine months after GOES-16.



GOES-16 captured this view of the moon as it looked across the surface of the Earth on January 15. Like earlier GOES satellites, GOES-16 will use the moon for calibration. Credit: NOAA/NASA

More information: Learn more about the GOES series of satellites:
www.nesdis.noaa.gov/

GOES-16 image gallery: www.nesdis.noaa.gov/content/goes-16-image-gallery

Provided by NOAA Headquarters

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