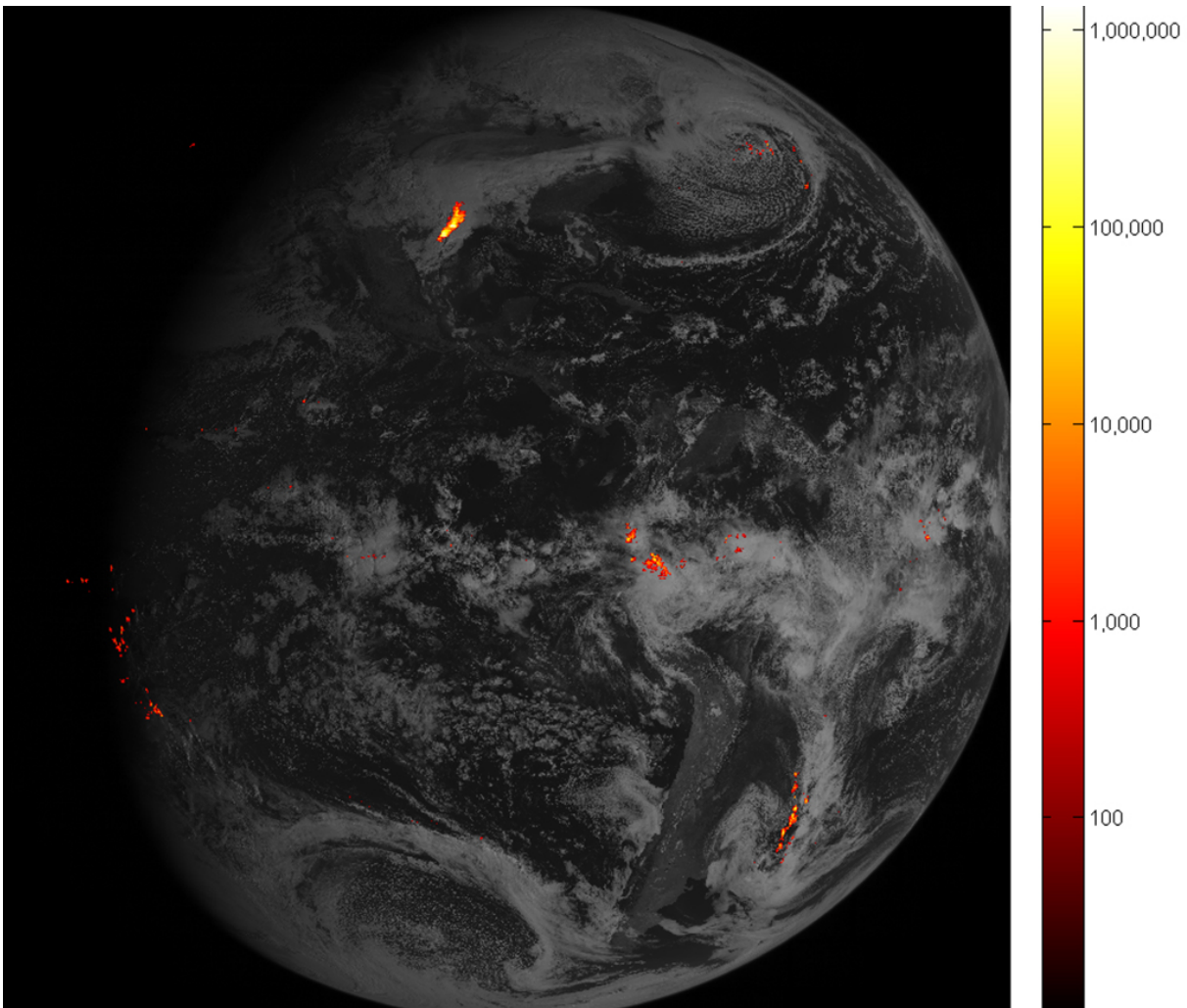


Flashy first images arrive from NOAA's GOES-16 lightning mapper

March 6 2017



One hour of GOES-16's Geostationary Lightning Mapper (GLM) lightning data from Feb. 14, when GLM acquired 1.8 million images of the Earth. It is displayed over GOES-16 ABI full disk Band 2 imagery. Brighter colors indicate more lightning energy was recorded; color bar units are the calculated kilowatt-

hours of total optical emissions from lightning. The brightest storm system is located over the Gulf Coast of Texas, the same storm system in the accompanying video. This is preliminary, non-operational data. Credit: NOAA/NASA

Detecting and predicting lightning just got a lot easier. The first images from a new instrument onboard NOAA's GOES-16 satellite are giving NOAA National Weather Service forecasters richer information about lightning that will help them alert the public to dangerous weather.

The first [lightning](#) detector in a [geostationary orbit](#), the Geostationary Lightning Mapper (GLM), is transmitting data never before available to [forecasters](#). The mapper continually looks for [lightning flashes](#) in the Western Hemisphere, so forecasters know when a storm is forming, intensifying and becoming more dangerous. Rapid increases of lightning are a signal that a storm is strengthening quickly and could produce [severe weather](#).

During heavy rain, GLM data will show when thunderstorms are stalled or if they are gathering strength. When combined with radar and other satellite data, GLM data may help forecasters anticipate severe [weather](#) and issue flood and flash flood warnings sooner. In dry areas, especially in the western United States, information from the instrument will help forecasters, and ultimately firefighters, identify areas prone to wildfires sparked by lightning.

Accurate tracking of lightning and thunderstorms over the oceans, too distant for land-based radar and sometimes difficult to see with satellites, will support safe navigation for aviators and mariners.

The new mapper also detects in-cloud lightning, which often occurs five

to 10 minutes or more before potentially deadly cloud-to-ground strikes. This means more precious time for forecasters to alert those involved in outdoor activities of the developing threat.

NASA successfully launched GOES-R at 6:42 p.m. EST on November 19, 2016 from Cape Canaveral Air Force Station in Florida and it was renamed GOES-16 when it achieved orbit. GOES-16 is now observing the planet from an equatorial view approximately 22,300 miles above the surface of the Earth.

NOAA's satellites are the backbone of its life-saving weather forecasts. GOES-16 will build upon and extend the more than 40-year legacy of satellite observations from NOAA that the American public has come to rely upon.

Learn more about GOES-16 and all its exciting possibilities for weather forecasting improvements by visiting the GOES-16 website.

For more information about GOES-16, visit: <http://www.goes-r.gov/> or <http://www.nasa.gov/goes>

Provided by NASA's Goddard Space Flight Center

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