## A Note from Mike Stringer, Acting GOES-R System Program Director:

Coming off a successful GOES-16 launch last quarter, the momentum continues with the release of the first data and imagery from the satellite and preparing GOES-16 to become operational in November. Scientists and engineers are hard at work to validate the entire system and make sure everything is working properly and able to deliver data products to users. The enthusiastic response to the initial data and imagery from GOES-16 has been remarkable. Significant progress also continues on GOES-S in preparation for launch next year. It won't be long until we have two next-generation geostationary satellites watching over the Western Hemisphere!
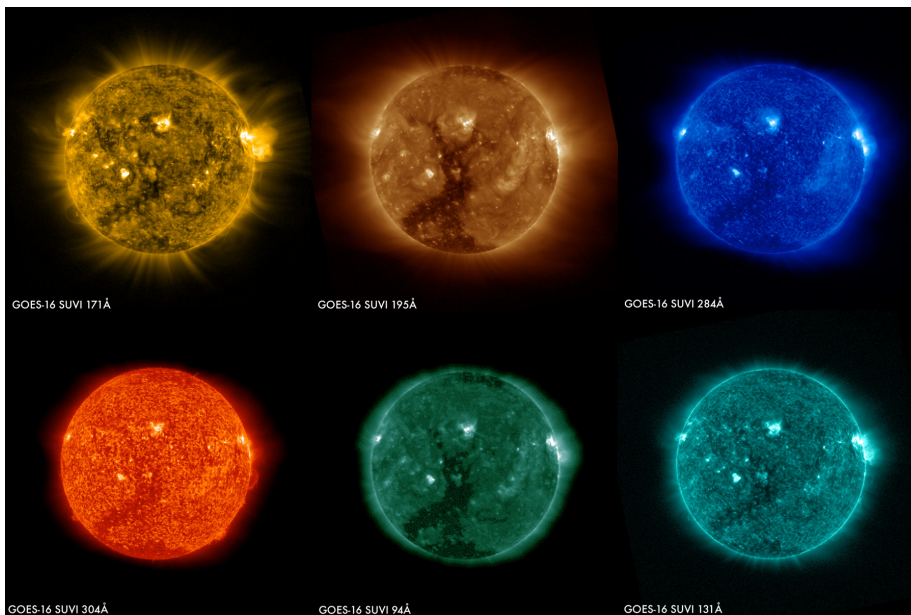
HIGHLIGHTS
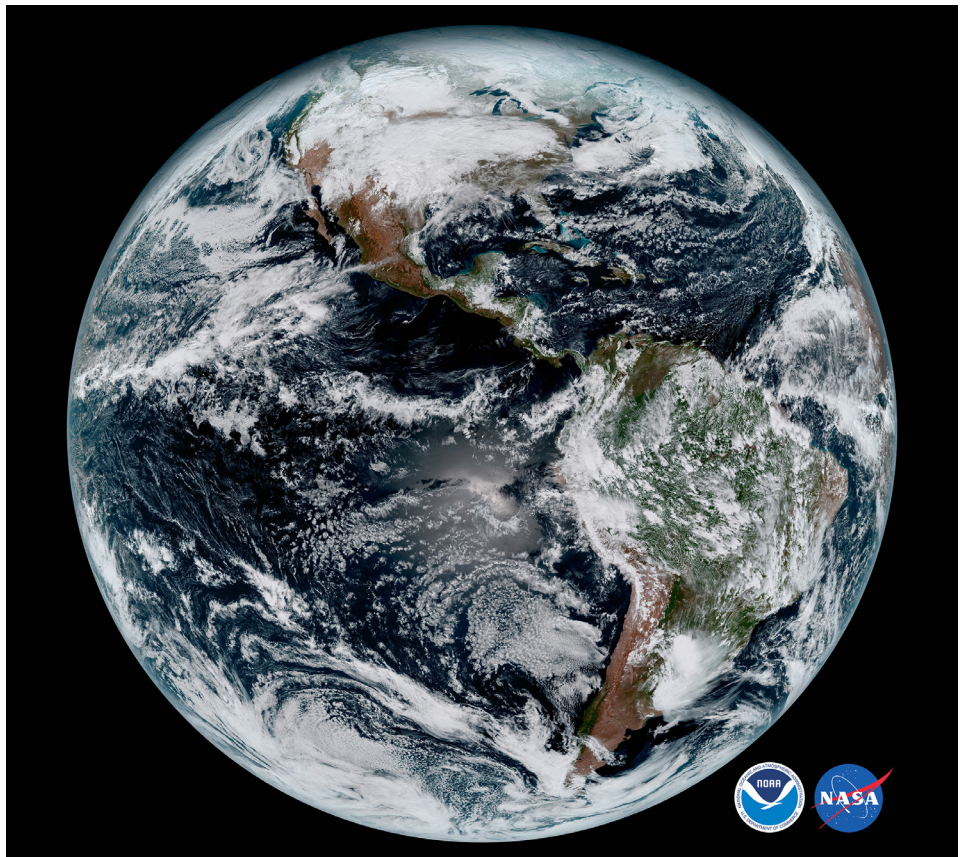
Composite color full disk visible image from January 15, showing North and South America and the surrounding oceans. The image was created using several of the 16 spectral channels available from the GOES-16 Advanced Baseline Imager (ABI). Credit: NOAA/NASA. Read the press release on the first ABI images.

GOES-16 post-launch testing continues will all instruments generating science data. Post-launch testing validates the capability of the GOES-16 satellite and ground system to perform its mission of providing critical data for forecasts and warnings. This is conducted through a series of tests and demonstrations performed by the key elements of the system. Learn more about post-launch testing in this feature story. Though the satellite is not yet operational, preliminary data and imagery from all six instruments has been released to the excitement of the forecasting community. See the GOES-16 data and imagery gallery for more breathtaking views from GOES-16!

DID YOU KNOW?

The GOES-R Geostationary Lightning Mapper (GLM) doesn't just detect lightning. It can also spot meteors! On February 14, a fireball was observed in the sky over Wisconsin. GLM picked up the light signature and ground-based video confirmed the event.

GOES-16 SUVI 171Å   GOES-16 SUVI 195Å   GOES-16 SUVI 284Å

GOES-16 SUVI 304Å   GOES-16 SUVI 94Å   GOES-16 SUVI 131Å

The first images from the GOES-16 Solar Ultraviolet Imager (SUVI) captured a large coronal hole on the sun's southern hemisphere on January 29. These images show the sun in the six extreme ultraviolet wavelength bands on the instrument, which allow scientists to detect a wide range of solar phenomena important for space weather forecasting. Credit: NOAA/NASA. Read the feature story on the first solar images from GOES-16 to learn more.
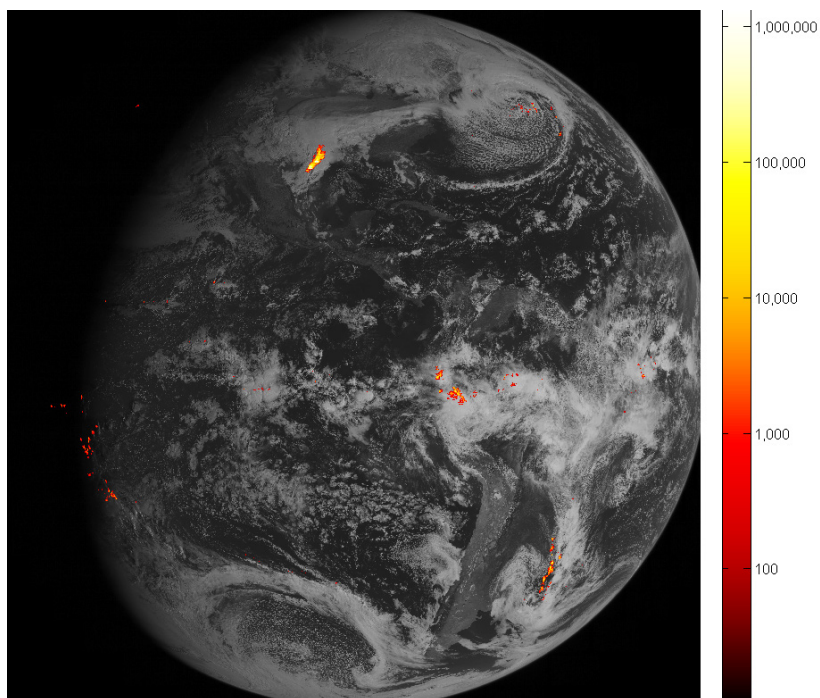
GOES-16 GLM data accumulated over one hour on February 14, during which GLM acquired 1.8 million images, is displayed over ABI full disk Band 2 imagery. Brighter colors indicate more lightning energy was recorded; color bar units are the calculated kilowatt-hours of total optical emissions from lightning. The brightest storm system is located over the Gulf Coast of Texas. Credit: NOAA/NASA. Learn more in this feature story.

Three of the GOES-16 instruments – ABI, Extreme Ultraviolet and X-ray Irradiance Sensors (EXIS), and Space Environment In-Situ Suite (SEISS) have completed Beta Validation Maturity Peer Stakeholder-Product Validation Reviews. Panels of NOAA scientists and user representatives determined the data quality to be validated to "beta" maturity and the data was released to users via GOES Rebroadcast.

The GOES-16 field campaign began March 21 and will run through May 19. During the campaign, a team of instrument scientists, meteorologists, engineers and specialized pilots will use a variety of well-characterized reference data from high-altitude planes, ground-based sensors, unmanned aircraft systems (or drones), the International Space Station, and the NOAA/NASA Suomi NPP polar-orbiting satellite to collect measurements across the United States. Desert, vegetation, ocean, clouds and lightning measurements will be used to support post-launch validation of the GOES-16 ABI and GLM. Learn more about the field campaign in this feature story.

NASA's ER-2 takes off from its base of operations at NASA's Armstrong Flight Research Center, in Palmdale, California, to test instruments in support of the GOES-16 field campaign. Credit: NASA

The GOES-S satellite began thermal vacuum testing in March. GOES-S is currently in a large thermal vacuum chamber at Lockheed Martin in Littleton, Colorado, which simulates the extreme temperatures the satellite will encounter
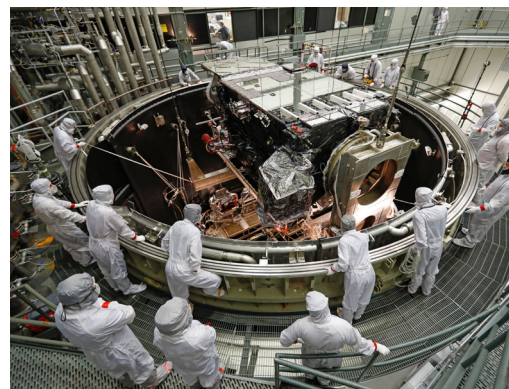
The GOES-S satellite is lowered into the 29' by 65' thermal vacuum chamber for testing. Credit: Lockheed Martin

during launch and in the space environment. During the testing, GOES-S is experiencing a vast range of temperatures, with some parts reaching as high as 87 degrees Celsius and others dropping as low as -55 degrees Celsius. The satellite is scheduled to join GOES-16 in geostationary orbit next year.

Progress continues on the development of the GOES-T satellite. The SUVI instrument completed its Pre-Shipment Review in February and was the first instrument delivered for integration with the spacecraft. GLM completed its Pre-Environmental Review in February and is now undergoing environmental testing. The SUVI telescope was integrated with the solar-pointing platform of the satellite in March. Also in March, the system module was powered on for the first time.

CONFERENCES AND EVENTS

GOES-R Acting System Program Director Mike Stringer showcases newly-released GOES-16 imagery on the NASA Hyperwall at the AMS annual meeting in January. Credit: GOES-R Series Program

The 97th American Meteorological Society (AMS) Annual Meeting was held January 22-26 in Seattle, Washington. The theme of the 2017 meeting was "Observations Lead the Way." There were more than 60 GOES-R series-related oral presentations and posters at the meeting, highlighting the launch, checkout status and initial data. The first public images from GOES-16 were released in conjunction with the conference via NBC's Today Show and The Washington Post. The imagery was highlighted throughout the AMS meeting and at the NOAA and NASA booths in the exhibit hall. In addition, a GOES-R short course was offered to highlight the new capabilities the next-generation geostationary satellites will provide for improved environmental observations, forecasts and warnings. The GOES-R Series Program Office also participated in WeatherFest, a public weather fair associated with the AMS meeting. View photos from the meeting.

The sixth annual Rocket City WeatherFest was held February 25 at the University of Alabama, Huntsville. This free festival was open to weather enthusiasts of all ages and included guest speakers, a weather balloon launch, real storm chasing vehicles, hands-on demonstrations, and kids' crafts. GOES-R Series Program Chief Scientist, Steve Goodman, Ph.D., and doctoral student Jason Apke staffed the GOES-16 booth, providing information and educational materials to attendees.

Jason Apke (left) and Steve Goodman (right) at Rocket City WeatherFest in February. Credit: NOAA

MEET THE TEAM

In this issue, we welcome Lauren Gaches, who has joined the GOES-R Series Program Office to take on the duties of Chief of Staff. Lauren is very familiar with the program, as she has been the GOES-R communications liaison to NOAA's Satellite and Information Service (NESDIS) for more than four years. Lauren was a key part of the successful execution of media activities in the lead up to launch, during launch, and the months that followed as we successfully rolled out the first public imagery and data from GOES-16.

In her new role, Lauren is supporting front office leadership and facilitating communications between the GOES-R Series Program Office and NESDIS. She thinks the people in the GOES-R program are our greatest asset, given the depth of experience here, and she looks forward to learning from the NASA and NOAA team at GOES-R.

Lauren's favorite part of her job is also the most challenging. She loves learning new things and pushing herself to professionally explore new roles and topics. She also enjoys working for a program that impacts people across the country and around the world every day.

Prior to her work with the GOES-R Series Program, Lauren was the Strategic Communications Manager and Spokesperson for the Transportation Security Administration. She has ten years of experience as a federal employee. Lauren majored in Art History in college and is an avid equestrian, mom of two kids under five, and a self-admitted crazy cat lady.

AWARDS AND ACCOLADES

Dan Lindsey received the NOAA-David Johnson Award on March 10. Photo courtesy of Dan Lindsey.

Daniel T. Lindsey, Ph.D., research scientist at NOAA's Satellite and Information Service's Center for Satellite Applications and Research, received the prestigious NOAA-David Johnson Award on March 10. The David Johnson Award recognizes innovative use of satellite data for environmental applications by young professionals. Lindsey was honored for his work utilizing NOAA's geostationary satellite data in applications ranging from super rapid-scan imaging to the visualization of simulated cloud and moisture imagery of high-impact environmental phenomena. He has been instrumental in preparing users for GOES-16 data and creating meaningful products for the forecasting community. Learn more about Dan's work in this press release.

Upcoming Events

8th NOAA Testbeds and Proving Ground Workshop and GOES-16 First Results Workshop
April 25-27, 2017
Kansas City, Missouri

GOES-16 Post-Launch Assessment Review
May 9, 2017

GOES-16 Handover Readiness Review
June 20, 2017

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