GOES-10 @ 60 West – A Wisconsin Perspective

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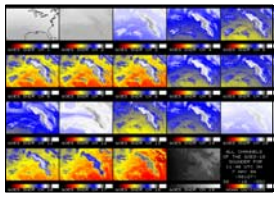
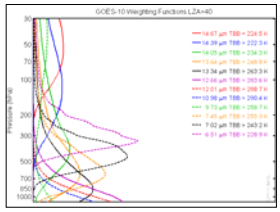




A Short History of GOES-10:

25 April 1997 – Launched

27 July 1998 – Began as the operational Western satellite

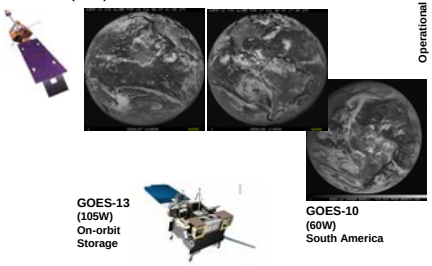
21 July 2006 - Replaced by GOES-11

Summer/Fall 2006 - Transition to South America

December 2006 - Arrived at 60° West

5 - 17 December 2007 – Operational GOES-East

GOES Constellation



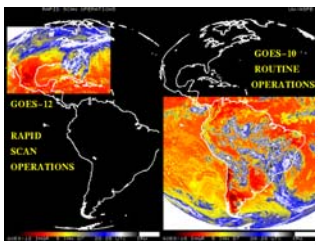
NOAA Goals

Protect, restore, and manage the use of coastal and ocean resources through ecosystem-based management

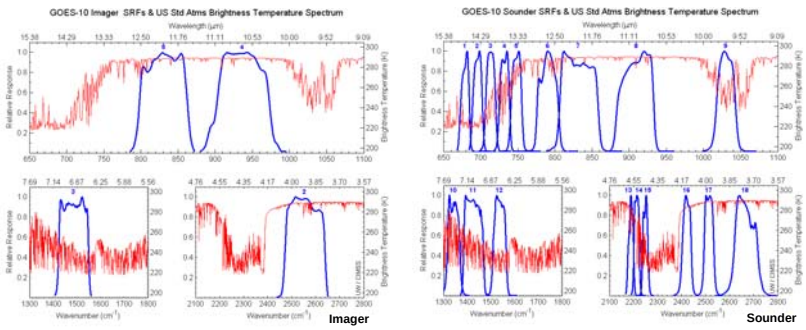
Serve society's needs for weather and water information

Understand climate variability and change to enhance society's ability to plan and respond

Support the Nation's commerce with information for safe, efficient, and environmentally sound transportation

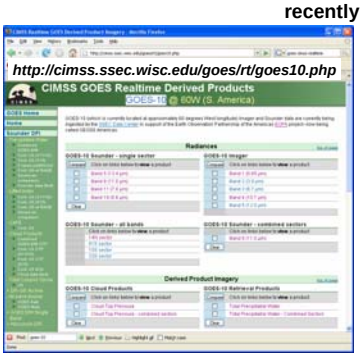


Representative GOES-12 and GOES-10 Imager infrared window coverage during GOES-12 Rapid Scan Operations on January 5, 2007.

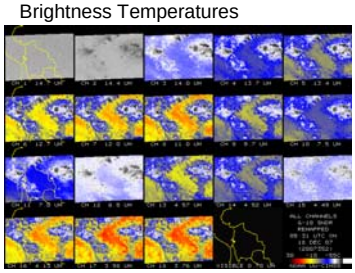


GOES-10 Antenna at SSEC
Credit: Maciek Smuga-Otto, CIMSS

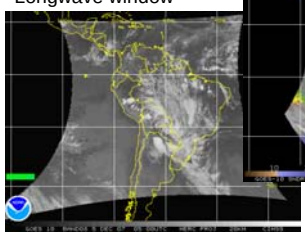
NOAA/NESDIS operates the Geostationary Operational Environmental Satellite (GOES)-10, which is routinely scanning the southern hemisphere with both the Imager and Sounder instruments. This effort is part of the Global Earth Observation System of Systems (GEOSS) project, which is a collaborative effort between NOAA and partners in the Americas and the Caribbean. GOES-10 provides the first operational geostationary Sounder to routinely gather data over South America. The Imager scans a full disk image every three hours and scans an "extended Southern Hemisphere" sector every 15 minutes, while the Sounder (with 19 spectral bands) scans South America and its surrounding regions in four sectors over four hours. To overcome the high satellite inclination, NOAA has recently switched to remapping the GOES-10 Imager data before the radiance data are re-broadcast.



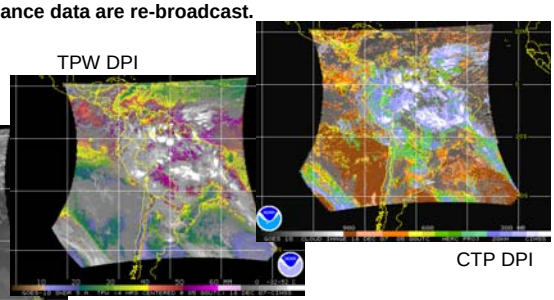
GOES-10 Sounder
Brightness Temperatures



Longwave window

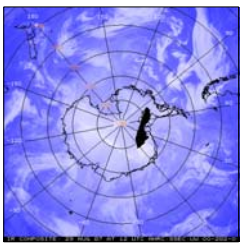


TPW DPI



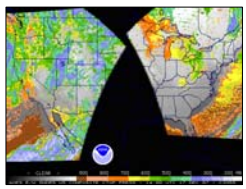
CTP DPI

The Cooperative Institute for Meteorological Satellite Studies (CIMSS) at University of Wisconsin-Madison is producing experimental Sounder products and posting them on a near-real time Web page (*http://cimss.ssec.wisc.edu/goes/rt/goes10.php*). The Sounder products include Derived Product Images (DPI) of Cloud Top Pressure (CTP), Total Precipitable Water (TPW), and Lifted Index (LI). Animations of these DPIs, as well as select Sounder and Imager spectral bands, are also available. Brazil's GOES-10 web page is: *http://satelite.cptec.inpe.br/home/index_ing.jsp*

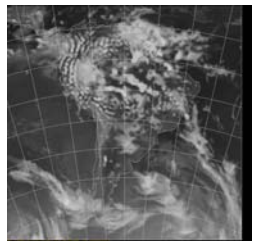


Credit: M. Lazzara, SSEC

GEOSS Remote Sensing Workshop Credit: A. Huang, CIMSS



GOES-11 and -10



Forecast image Credit: R. Aune, ASPB

The GOES-10 Imager is improving satellite composite imagery used for aviation concerns over Antarctica by the Antarctic Meteorological Research Center (AMRC). The GOES-10 data are also being provided to the Washington D.C. VAAC (Volcanic Ash Advisory Center), by the Space Science and Engineering Center (SSEC), so that volcanic ash plumes can be monitored. CIMSS provided a remote sensing workshop, that was held in Brazil in November of 2007. There were 33 participants from 12 countries including Argentina, Bolívia, Brazil, Chile, Colombia, Costa Rica, Ecuador, México, Paraguay, Peru, Uruguay and Venezuela. More information on the workshop can be found at: *http://www.ssec.wisc.edu/rss/SaoPaulo2007*. GOES-10 Sounder cloud information is being used to initialize a regional NWP (Numerical Weather Prediction) model. The above mentioned activities are in addition to uses of the GOES-10 Imager and Sounder data in Central and South America. In addition, while an anomaly on GOES-12 was being investigated, GOES-10 was the operational Eastern GOES.

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