

# **GOES-O satellite arrives at KSC for final pre-launch testing**

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(PhysOrg.com) -- The latest Geostationary Operational Environmental Satellite (GOES) developed by NASA for the National Oceanic and Atmospheric Administration (NOAA), called GOES-O, arrived this morning by a C17 military cargo aircraft at the Kennedy Space Center's Shuttle Landing Facility from the manufacturing plant in El Segundo, Calif.

The GOES-O satellite is targeted to launch April 28 onboard a United Launch Alliance expendable launch vehicle Delta IV. Once in orbit GOES-O will be designated GOES-14 and NASA will provide on-orbit checkout and then transfer operational responsibility to NOAA. GOES-O will be placed in on-orbit storage as a replacement for an older GOES satellite.

After arriving yesterday, the satellite was transported to Astrotech in Titusville, Fla., where final testing of the imaging system, instrumentation, communications and power systems will be performed. These tests will take approximately six weeks to complete. Then the spacecraft will be fueled with propellant for the attitude control system, encapsulated in the nose fairing and prepared for transport to the launch pad.

GOES-O is the second spacecraft to be launched in the GOES N-P series of geostationary environmental weather satellites. The GOES satellites continuously provide observations of 60% of the Earth including the continental United States, providing weather monitoring

and forecast operations as well as a continuous and reliable stream of environmental information and severe weather warnings.

GOES-O carries an advanced attitude control system using star trackers with spacecraft optical bench Imager and Sounder mountings that provide enhanced instrument pointing performance for improved image navigation and registration to better locate severe storms and other events important to the NOAA National Weather Service. The Imager on GOES-O has improved resolution in the 13 micron channel from 8 km to 4 km. The finer spatial resolution allows improved estimates of horizontal distribution of cloud-top, height of atmospheric motion vectors, and volcanic ash detection. In addition, the GOES-O image navigation accuracy of about 2 km from an orbit altitude of about 35,700 km (22,300 miles) is superior compared to the previous series of GOES satellites.

The multi-mission GOES N-P Series of satellites are vital contributors to weather, solar, and space operations and future science improvements with weather prediction and remote sensing. These satellites aid in severe storm warnings, resource management, search and rescue, emergency managers, and likely lead to additional advances in environmental sciences and multifaceted data applications of remotely sensed phenomena. GOES-O data will add to the global climate change databases of knowledge, embracing many civil and government environmental forecasting organizations that work to benefit people everywhere and help save lives.

A United Launch Alliance Delta IV Expendable Launch Vehicle was erected February 25 at Space Launch Complex (SLC-37B), Cape Canaveral Air Force Station, Fla. NOAA manages the operational environmental satellite program and establishes requirements, provides all funding and distributes operational environmental satellite data for the United States. NASA's Goddard Space Flight Center in Greenbelt,

Md., procures and manages the development and launch of the satellites for NOAA on a cost reimbursable basis.

United Launch Alliance will conduct the commercial launch with a Federal Aviation Administration (FAA) launch license. They will also oversee launch service duties that include oversight of the launch vehicle processing activities, integration of the GOES-O spacecraft with the United Launch Alliance Delta IV and the launch countdown activities.

Source: NASA's Goddard Space Flight Center

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