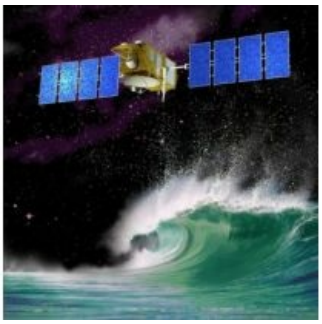
Jason-2 Satellite



NOAA (Washington DC, USA) has announced the launch of a new satellite. The satellite will monitor the rate of sea-level rise and help measure the strength of hurricanes. NOAA will use data from the Jason-2/Ocean Surface Topography Mission (OSTM) to extend a 15-year record from two earlier altimeter missions that currently show sea level is rising at a rate of 3.2 mm/year - nearly twice as fast as the previous 100 years.

The Jason-2/OSTM is scheduled for lift off June 15 at 1:47 a.m. from Vandenberg Air Force Base, California. The spacecraft is a joint, international effort between NOAA, NASA, France's Centre National d'Etudes Spatiales (CNES), and the European Organisation for the Exploitation of Meteorological Satellites (Eumetsat).

Like its predecessor missions TOPEX/Poseidon and Jason-1, Jason-2/OSTM is designed to extend the climate data record by providing a long-term survey of Earth's oceans, tracking ocean circulation patterns and measuring sea-surface heights and the rate of sea-level rise. These are all key factors in understanding climate change. The satellite will use a radar altimeter instrument attached to it and fly in a low Earth orbit allowing it to monitor 95 percent of Earth's ice-free oceans every 10 days.

In addition to detecting climate change factors, Jason-2/OSTM will also be used in the prediction of short-term, severe weather events, such as hurricanes and tropical storms. NOAA will use the altimeter measurements to monitor ocean conditions that trigger changes in the strength of tropical cyclones, as they move over the ocean towards the land. The technique involves mapping the ocean heat content - the fuel that feeds a storm's intensity - along the storm's predicted track.

During the Jason-2/OSTM lifespan, NOAA will work with CNES to handle the complete ground system support. This includes commanding all the satellite's manoeuvres, downloading all the data the satellite captures, and distributing it to weather and climate forecasters, who are monitoring ocean-born storms and phenomena such as El Niño/La Niña and global sea-level rise. Additionally, Jason-2/OSTM will be the first, newly launched satellite in which NOAA provides ground support from its NOAA Satellite Operations Facility in Suitland, Maryland. The facility opened in 2007 and houses $50 million worth of high-tech equipment and controls nearly $5 billion in satellites.

Through the emerging Global Earth Observation System of Systems (GEOSS), NOAA is working with its federal partners, more than 70 countries and the European Commission to develop a global monitoring network that is as integrated as the planet it observes, predicts and protects.

http://www.noaanews.noaa.gov/stories2008/20080520_jason.html

Caption: Jason-2/Ocean Surface Topography Mission (OSTM).