National Aeronautics and Space Administration

The Launch Services Program Presents **OSTM**...

The Ocean Surface Topography Mission on Jason-2 (OSTM/Jason-2) is designed to help scientists better understand the ocean dynamics and make crucial steps toward learning more about its effects on weather and climate and their impact on us. This will be accomplished by measuring global sea surface height every ten days with high precision and accuracy. The measurements will continue the climate data record of the sea surface height previously started with the TOPEX/Poseidon and Jason missions.

OSTM/Jason-2 science objectives will enable scientists to:

- Measure global sea-height change
- Increase understanding of ocean circulation and seasonal changes
- Provide estimates of wave height and wind speed
- Improve knowledge of ocean tides
- Improve forecasting of El Nino and La Nina climate cycles
- Monitor the variation of global sea level and its relation to global climate change

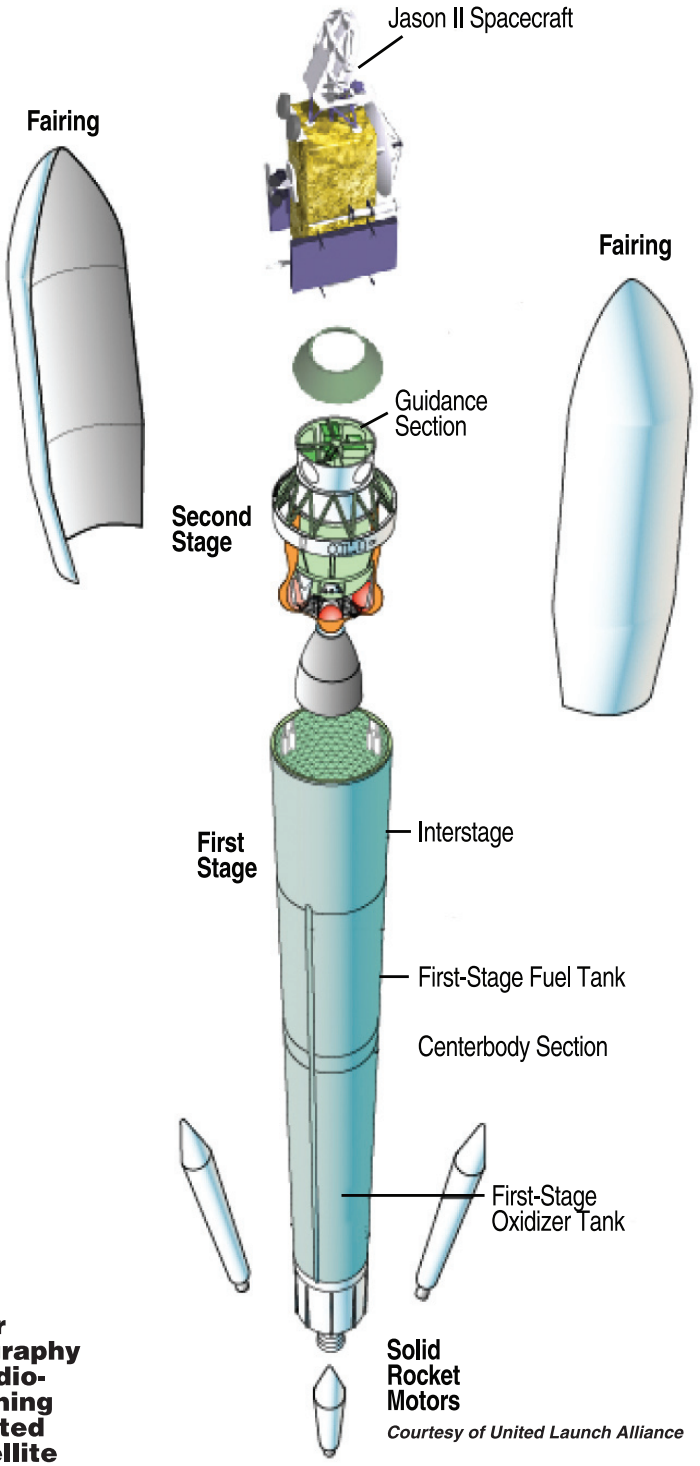
Launch Vehicle: Delta II 7320-10
Launch Location: Vandenberg Air Force Base, CA
Launch Date: 2008

launch services program

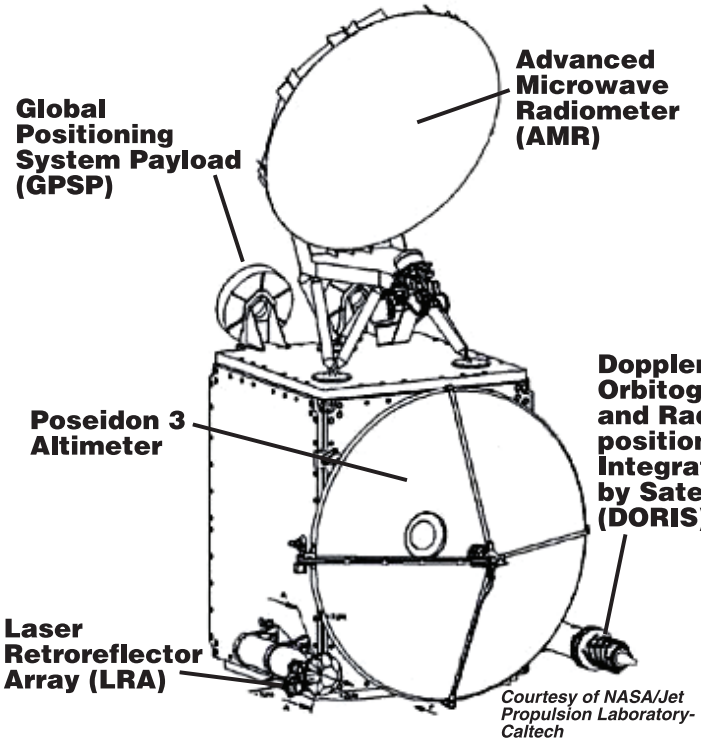
www.nasa.gov

OSTM

The Ocean Surface Topography Mission on the Jason-2 satellite (OSTM/Jason-2) will be launched from the Western Range Space Launch Complex-2 at Vandenberg Air Force Base, California by using a Delta II 7320-10 rocket. The OSTM/Jason-2 weighing approximately 1115 pounds (506 kilograms) will be protected by the Delta II 10-foot (3-meter)-diameter payload fairing during its ascent through the Earth's atmosphere. The launch vehicle will place the OSTM/Jason-2 into the same orbit as its predecessor satellite, Jason-1, at an altitude of 1336 kilometers (830 miles) and inclination of 66 degrees. The OSTM/Jason-2 providing complete coverage of the Earth's ice-free oceans will extend the time of the topography measurements to two decades of observation, providing measurements of ocean circulation, sea level changes, and ocean tide models. The OSTM/Jason-2 mission is designed to last 5 years.



Courtesy of United Launch Alliance



Courtesy of NASA/Jet Propulsion Laboratory-Caltech

Global Positioning System Payload (GPSP) – Provides precise orbit location data for satellite tracking.
Advanced Microwave Radiometer (AMR) – Measures signal delay due to water vapor.
Poseidon 3 Altimeter – Measures sea level.
Laser Retroreflector Array (LRA) – Tracks the satellite, calibrates and validates the measurement system.
Doppler Orbitography and Radio-positioning Integrated by Satellite (DORIS) – Determines precise orbit and tracks the satellite.

National Aeronautics and Space Administration
Kennedy Space Center
Kennedy Space Center, FL 32899

www.nasa.gov

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