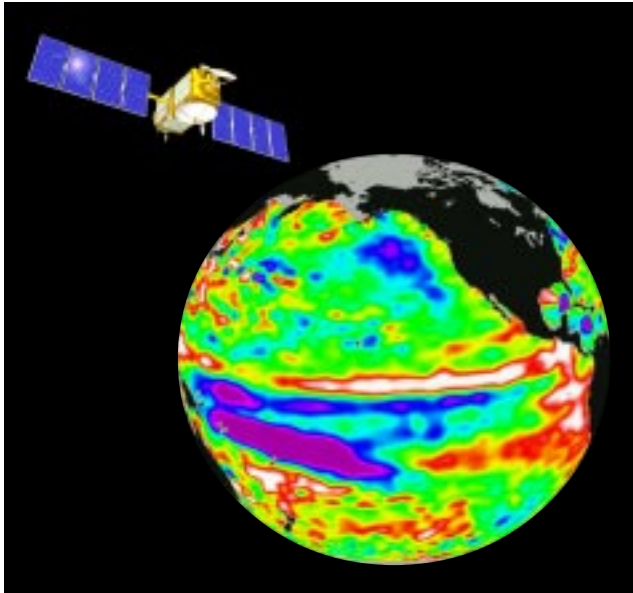
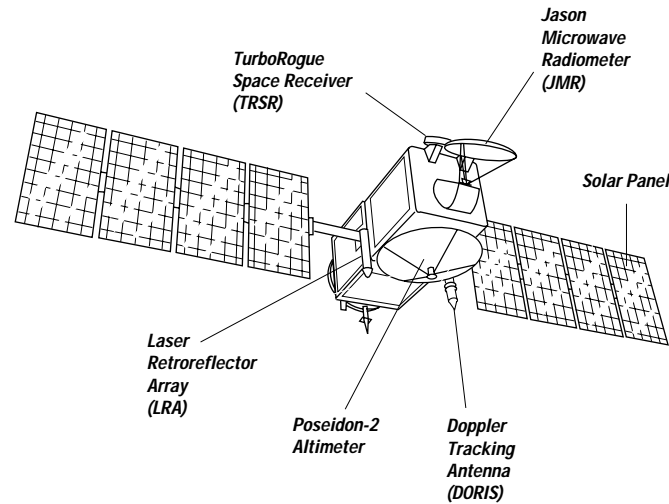


# Jason-1

An Ocean Odyssey — Ocean Data from Space



Ocean surface topography data



Jason-1 is a follow-on to the highly successful TOPEX/POSEIDON mission that measured ocean-surface topography to an accuracy of 4.2 cm. TOPEX/POSEIDON enabled scientists to forecast the 1997–1998 El Niño and has improved understanding of ocean circulation and its effect on global climate. Jason-1 altimeter data will be part of a suite of data provided by other JPL-managed ocean missions — the GRACE mission will use two satellites to accurately measure Earth's mass distribution, and the QuikSCAT scatterometer mission measures ocean-surface winds. Jason is a joint program of the National Aeronautics and Space Administration (NASA)/U.S. and the Centre National d'Études Spatiales (CNES)/France.

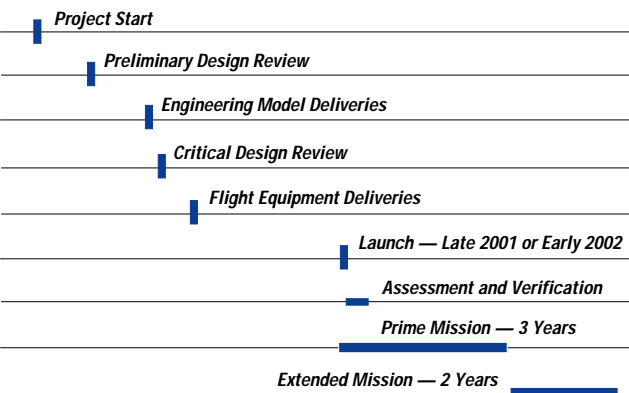
## Objectives

- Extend ocean surface topography measurements into the 21st century
- Provide a 5-year view of global ocean surface topography
- Increase understanding of ocean circulation
- Improve forecasting of climate events
- Measure global sea-level change

## Sensors and Primary Functions

- Poseidon-2 Altimeter – Measures sea level (CNES)
- Jason Microwave Radiometer (JMR) – Measures water vapor (NASA)
- DORIS – Satellite tracking (CNES)
- TRSR – Global Positioning System receiver (NASA)
- Laser Retroreflector Array (LRA) – Satellite positioning (NASA)

1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006



## The Jason-1 Mission

Sea-level measurement accuracy	< 4.2 cm (requirement); < 2.5 cm (goal)
Satellite to data user delay	3-hour data product within 1 hour of satellite download
Satellite mass	500 kg
Launch vehicle	Delta II
Satellite altitude	1336 km
Latitude of coverage	66 deg N to 66 deg S
Orbit type	Circular

Jason-1 will be launched from Vandenberg Air Force Base in California in late 2001 or early 2002. After initial check-out by CNES in France, operations will be transferred to NASA/JPL. Data products will be available through NASA/JPL and from CNES. Research using the data will be undertaken at JPL and by scientists worldwide.



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