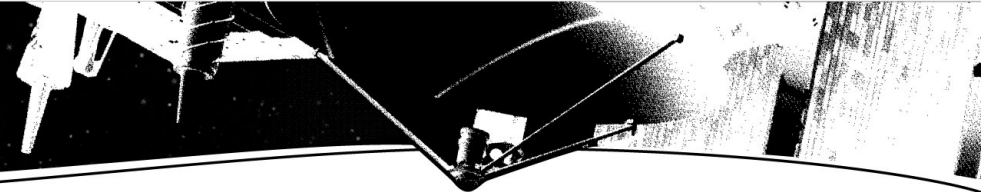
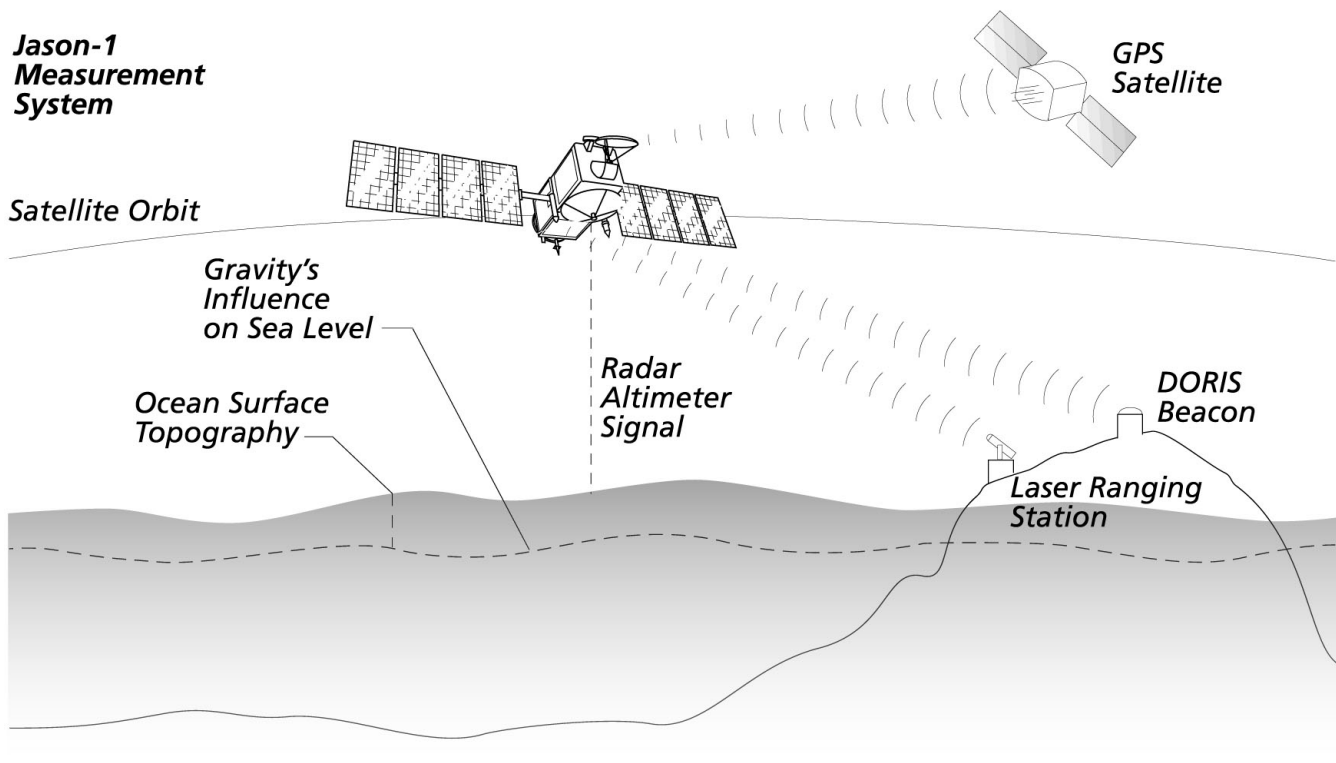


# How Altimeters Work



## Jason-1 Measurement System



Jason-1 is a follow-on to the highly successful Topex/Poseidon mission that measures ocean-surface topography to an accuracy of 4.2 cm. Topex/Poseidon enabled scientists to forecast the 1997–1998 El Niño and has improved our understanding of ocean circulation and its effect on global climate. Jason-1 altimeter data is part of a suite of data provided by other JPL-managed ocean missions: the GRACE mission uses two satellites to accurately measure the Earth's mass distribution and the QuikSCAT scatterometer mission measures ocean-surface winds. It is a joint mission between the space programs of the United States (NASA) and France (Centre National d'Etudes Spatiales) that is managed by the Jet Propulsion Laboratory/California Institute of Technology in Pasadena, California.

### 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

### 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 was launched from Vandenberg Air Force Base in California on December 7, 2001. After initial check-out by CNES in France, operations were transferred to NASA/JPL. Data products are available through NASA/JPL and from CNES. Research using the data is being undertaken at JPL and by scientists worldwide.

1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006

