

# ERS-1: Europe's laboratory in space

The satellite, to be launched by the Ariane 4 rocket on May 3, will provide scientists with data to help understand how the world's oceans effect climate

## ERS-1

**Altitude:** 780km  
**Weight:** 2,380kg  
**Cost:** \$600 million

### SAR Antenna

'Synthetic-aperture' radar provides sharpest images of sea, coast and land. Can detect objects as small as 30m wide

### Ocean temperature probe

Antenna measures wind speed

Radar altimeter reads waveheight

Data downlink antenna

Solar panels provide power

### What ERS-1 can detect

Movement of ocean currents

Wind speed accurate to 2m/sec

Wind direction accurate to 20°

Pollution and movement of oil slicks

Distribution of icebergs

Land use

Mapping sea-bed in shallow waters

Heights of waves accurate to 10cm. Temperature accurate to 0.3°C