



Satellite altimetry is a relatively new tool for measuring global sea surface heights over the ocean. It is important to check that satellite altimetry provides an accurate measurement, and comparisons with the data from tide gauges are used to study this. Shown here are time series of sea level height from Christmas Island in the tropical Pacific Ocean. The large drop in late 1997 is associated with the large El Niño event that occurred that year. The close correspondence of the tide gauge and TOPEX/Poseidon measurements of sea level demonstrates that the altimeter is highly precise and allows us to use the satellite data to estimate sea level rise rates much better than in the past when only the tide gauge data were available. (Data from TOPEX/Poseidon altimeter.)