



MEASURING THE EARTH

THE SCIENCE OF GEODESY

SEA LEVEL AND TIDES Measuring global sea level requires monitoring both tides and the vertical motion of landmasses. Shorelines subside under the weight of new sediments, raising sea level locally. Melting glaciers cause land to rebound, lowering local sea level. Modern tide gauges include GPS, providing more accurate timing and height of tides, as well as their long-term trends. Accurate measurements are invaluable for fishing and shipping industries, and for long-term planning of coastal infrastructure.

Photo: Eastern Greenland by Annie Zaino, UNAVCO



a monthly series on the how and why of geodesy