



The tide is composed of multiple waves, the largest of which is denoted M2, shown here as determined by TOPEX/Poseidon measurements. This M2 wave cycles once in half a lunar day, or about every 12.4 hours. Colors show maximum elevation at M2 high tide, in cm. White lines connect places that experience high tide simultaneously. To predict the full tide at any place, a dozen or more such waves must be added together.