

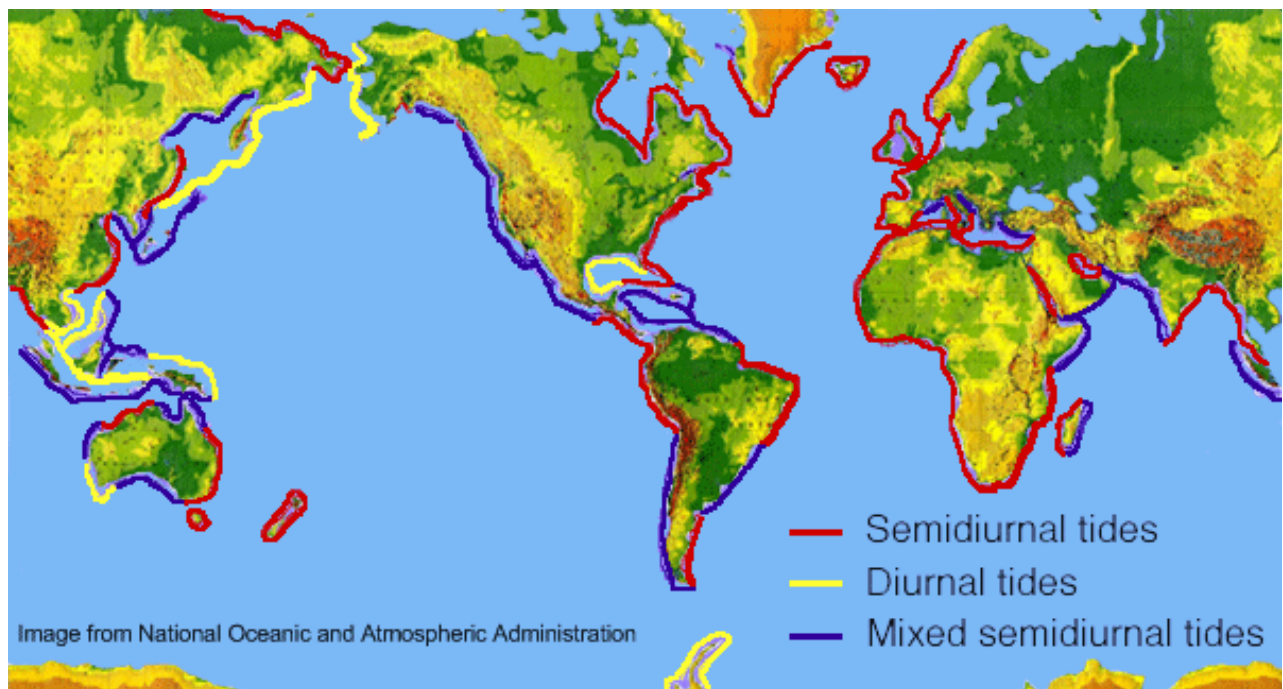
Where Tide Clocks Work - Tide Timers with Battery Operated Quartz Movements

Depending upon your location on the Earth you may experience Diurnal, Semidiurnal or Mixed Semidiurnal tidal cycles because of Continental Interferences. If the Earth were a perfect sphere without large continents, all areas on the planet would experience two equally proportioned high and low tides every lunar day. The large continents on the planet, however, block the westward passage of the tidal bulges as the Earth rotates. Unable to move freely around the globe, these tides establish complex patterns within each ocean basin that often differ greatly from tidal patterns of adjacent ocean basins or other regions of the same ocean basin.

Three basic tidal patterns occur along the Earth's major shorelines. In general, most areas have two high tides and two low tides each day. When the two highs and the two lows are about the same height, the pattern is called a semi-daily or semidiurnal tide. If the high and low tides differ in height, the pattern is called a mixed semidiurnal tide.

Some areas, such as the Gulf of Mexico, have only one high and one low tide each day. This is called a diurnal tide. The U.S. West Coast tends to have mixed semidiurnal tides, whereas a semidiurnal pattern is more typical of the East Coast.

Below is a NOAA chart showing different types of tidal zones for sections around the world.



Tide Timers are easier to understand and more readily accessible than printed tide tables. The Tide Timer hand shows how many hours until your next high or low tide because the Tide Timer runs on moon time, where each day has 24 hours and 50 1/2 minutes. This is especially true along the EAST COAST of the United States and Canada, where **Semidiurnal Tidal Cycles (Red Line Zones)** are regular and rhythmic having two high and two low tides during each lunar day. On most of the Atlantic waters they never need adjustment once set.

With a lot more effort from the user Tide Timers can be made to work on waters of the Pacific, including Hawaii, but they need to be calibrated for **Mixed Semidiurnal Tidal Cycles (Blue Line Zones)** to different coastal locations using setting tables and must be reset once a week to be accurate.

Tide clocks **WILL NOT WORK** for waters with **Diurnal Tidal Cycles (Yellow Line Zones)** like that in the GULF OF MEXICO.

We suggest that for hassle free use, Tide Timers be used in areas with **Semidiurnal Tidal Cycles (Red Line Zones)**.

For more information visit... https://oceanservice.noaa.gov/education/tutorial_tides/tides07_cycles.html#1