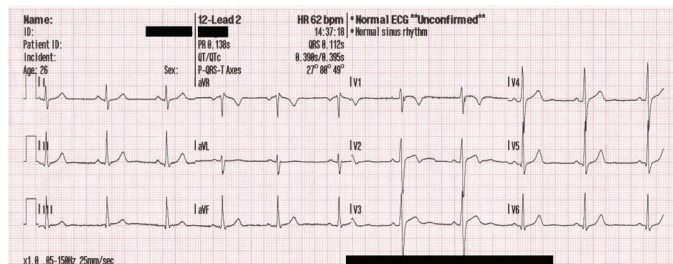


Electrocardiogram

An electrocardiogram (ECG) is a medical test that detects and records the strength of the heart. Small, sticky patches called electrodes are attached to the chest and limbs to read the signals from the heart. All the information is recorded on a graph to show each phase of the electrical activity in the heart. This graph is a continuous non-linear relation; it goes up and down as the heart beats and repeats in a pattern. The peaks and valleys represent different measures of the heart's functions.

A medical professional can determine whether the heart of a patient has abnormal activities by reading an electrocardiogram. ECGs make it possible to diagnose heart diseases, such as abnormal heart rhythm and blocked arteries.



ECG of a patient

Tide Table

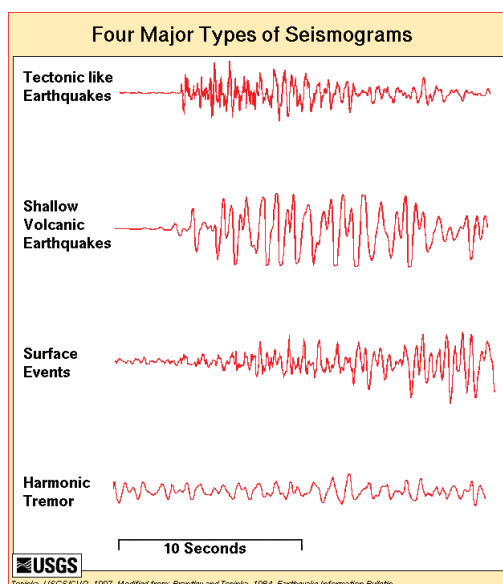
A tide table is a record of tide heights over time for a particular location. Tides are the rise and fall of water levels in seas and occur in a cyclical fashion throughout the day. Tide gauges are used to measure water levels and tide heights are recorded periodically, usually every hour. This information is used to produce a graph that represents the tidal activity – a non-linear tidal curve. It shows the gradual rise and fall of the tides throughout the day. Due to Earth's orbit and changes in seasons, the tidal curves change day to day, but they are generally consistent year-to-year.

Tide tables are a great tool for tidal prediction, sailing, fishery, and climate monitoring. Most ports have their own tide charts with a time range of one year that can be used for future predictions.

Seismogram

A seismograph is an instrument that records the force and direction of earthquakes. It can detect the energy released from earthquakes and records the movements in a seismogram. A flat line appears when no movements are detected. When movement is detected, a seismic wave is shown. By analyzing the seismic waves, we can determine the strength, magnitude, and reach of an earthquake.

Modern seismographs record data digitally. This allows for more precision and deployment. They can be deployed in an array to help pinpoint the origin of an earthquake. Seismographs make it possible to give early warnings to officials so they can determine whether evacuations are needed.



types of seismograms