

Definitions for Buoy Observations

Air Temperature

Air temperature is an indicator of the heat energy in the atmosphere. Heat from the sun warms the air creating wind, which generates ocean waves.

Anemometer

Anemometers measure the speed of the wind on the ocean, and some can even measure direction of the current as well.



GPS

GPS stands for Global Positioning System which uses satellites to give a location and time from anywhere in the world. This is very useful for tracking storms and weather patterns as well as for navigation for the army and everyday people.

Hydrometer

Hydrometers measure the specific density of a liquid- that is the density of the liquid compared to pure water.

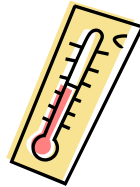
Salinity at Depth

Salinity is the total amount of salt dissolved in water. Salinity often changes with depth. Scientists measure salinity in practical salinity units (psu).



Salinity at the Surface

Salinity is the total amount of salt dissolved in water. Table salt or sodium chloride (NaCl) makes up 86% of salt in sea water. Scientists measure salinity in practical salinity units (psu).



Water Temperature at Depth

Water temperature is an indicator of the heat energy in the ocean. Temperature at depth is influenced by how deep sunlight extends into the water column and how often surface and deep waters are mixed.

Water Temperature at the Surface

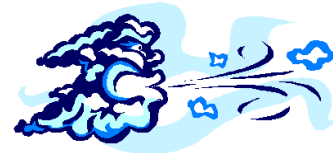
Water temperature is an indicator of the heat energy in the ocean. At the surface, heat from the sun warms the water.

Wind Gust

Wind gusts are quick bursts of fast wind followed by a calm period. They are a measurements of speed but are typically not long lasting high speeds.

Wave Height

Wave height is the vertical distance from the crest to the trough. Strong winds and storms produce large waves. Waves over 36 feet high have been recorded in the Gulf of Maine.



Wind Speed

Wind speed is a measure of how fast air moves over the Earth's surface. Wind direction describes from where the wind blows. As pockets of air move from warmer to cooler areas, winds are generated.