

## **RESEARCH VESSEL WEATHERBIRD II – CTD WATER SAMPLING SYSTEM**

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[MUSIC PLAYING] We are now on the main deck of the research vessel, Weatherbird II. The gear that we have here on deck-- this is a CTD carousel system, which is a water sampling system we use on board the vessel.

The bottom unit is called the CTD. It's a conductivity temperature and depth sensor. It records different parameters of seawater, including salinity, temperature, depth, dissolved oxygen concentration, chlorophyll concentration. There's a list of different parameters and instruments that we can add to this carousel, as well.

The unit can be deployed as far down as 7,000 meters. It's depth rated to 7,000 meters. Most of the work that we do with this is between the surface and 3,000 meters of water.

There's a series of instruments down below. And then we have the water bottles up top-- which, as we're deploying this instrument, the data is recorded real time, so our scientists can see it and record it.

If they see something interesting in the water column, that they would like to take a water sample, we can close these bottles independently. So we could take a whole series of water samples, as it's deployed. Once the unit is recovered and back on deck, our scientists have these little petcock assemblies that they can draw water from the CTD system.