

Introduction to Lagrangian Floats Transcription

We deployed this thing called a Lagrangian float, or a mixed layer float. A float is in general different from a drifter in that a drifter stays at the surface, or near the surface, but a float bobs up and down. It's not powered in anyway so it just goes where the water takes it. It's got a baffle on it which allows it to move up and down in the water column. This particular float was deployed by the Applied Physics lab at the University of Washington. You can see some of the sensors on it. There's a surface salinity sensor. There's a really interesting ambient sound sensor. They're trying to use the sounds that the rain and the wind make on the surface of the ocean. They're trying to measure that sound and use that to determine how much wind and rain are falling. It's really a unique technology; it's a very innovative technology.

The other thing here is they have a camera mounted on their instrument so they can see what's going on with it, and maybe how much fouling is on the instrument and so forth. There's flexible drogues and another conductivity instrument on the bottom. It's really quite heavily instrumented.

This is a picture of the instrument on day 1 on the left and on day 120 on the right. Instruments out on the ocean like this tend to take a real beating over time. The ocean is a very difficult environment. There's a lot of mechanical stress on the instrument, and there's a lot of stuff in the water which tends to wear away the sides of the instrument. You can see it ablates the paint; it takes the paint right off the instrument; it's like sandpaper on the instrument. The people who designed this instrument actually have to take into account over time the loss of mass due to the loss of paint, because the instrument is so delicately weighted; they need to take these things into account.

Also the [?camera] hosts fish gathering around the instrument. Whenever you put something in the water way out in the middle of the ocean like a mooring or an instrument, fish tend to gather around it kind of like moths to a flame. I'm not a biologist, I'm a physical oceanographer. I don't know why they do this, but it's really fascinating behavior to see these fish gathering around the instrument. We saw some of those around the moorings too.