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R/V Revelle STRATUS CRUISE

The Revelle arrives in Manta, Ecuador November 7, 2003. She leaves from Manta for our cruise to Arica, Chile on November 10, 2003. The Revelle arrives in Arica on the morning of November 26, 2003. She sails on the next science leg on November 30.

This ship time will be used to recover in November 2003 the surface mooring deployed in October 2002 and the set a new surface mooring at that site. The R/V Revelle will sail from Manta, Ecuador to the mooring site. Underway, standard oceanographic and meteorological observations will be made. Surface drifters and ARGO profiling floats will be deployed. Air-sea flux, aerosol, and cloud radar observations will be made. At the mooring site, an intercomparison between meteorological sensors on the buoy now deployed and both the standard meteorological and oceanographic sensors on the Revelle and flux sensors deployed by Chris Fairall (NOAA ETL) will be conducted. That mooring will be recovered, the condition of the instrumentation documented, the data in them extracted, and the instruments and buoy cleaned. The new buoy and mooring will be deployed. A second intercomparison, between the ship's sensors and those on the new buoy will be conducted. In addition to the WHOI mooring recovery and deployment, the NOAA ETL meteorological sensors will document air-sea coupling under the stratus clouds and a tsunami warning buoy will be deployed near 20°S, 85°W in a collaborative effort between NOAA PMEL, NOAA NDBC (National Data Buoy Center) and the Chilean Navy Hydrographic and Oceanographic Service (SHOA). After finishing work at the mooring site, Revelle will steam east along 20°S, doing underway sampling and shallow CTD stations as time permits, and go into Arica, Chile.

Planned measurements (in addition to mooring deployment):

- Surface meteorology, underway and on station, using the ship's IMET system.
- Turbulent air-sea fluxes (momentum, sensible heat) using fast-response system
- Surface sea temperature and salinity, underway and on station, starting and stopping in using the ship's thermosalinograph system.
- Mapping the seafloor as needed for the mooring work using the ship's Seabeam system.
- CTD stations, taking temperature, salinity, depth profiles using WHOI internally recording CTD on ship's winch with hydro wire if needed.
Stations at mooring (4) and then spaced along ship's track as time permits.
- Upper ocean currents, underway and on station using the ship's ADCP system.
- Sampling atmospheric aerosols while underway and at mooring site.
- Cloud radar observations while underway and at mooring site.

Note: sampling to be consistent with clearance conditions from Ecuador and Chile,

