

Week 1 Situation Report RVIB Nathaniel Palmer, Admiralty Bay, King George Island, Antarctica



and the Desert Research Institute.

The US AMLR Program deployed to Punta Arenas 6 Aug, 2013 to begin a 30 day mid-winter cruise to occupy the historical US AMLR sampled grid around the South Shetland Islands. The RVIB Palmer was fitted out and gear loaded and the ship departed 1030 local time Saturday, 10 August. In addition to US AMLR Personnel, the ship departed with colleagues from the Peruvian Fisheries Agency INARPE and Chilean collaborators from the Catholic University in Valparaiso, as well as US colleagues from The Scripps Institution of Oceanography,

The crossing of the Drake was uneventful, although progress was slowed by a storm with winds exceeding 45 knots and gusts exceeding 55 knots. During the crossing, south of 58 degrees latitude, XBTs were dropped to continue a long term study of the surface thermal properties in the Drake Passage. Six drifters, provided by NOAA's Global Drifter Program in Miami, were also deployed at three hour intervals, to provide data on sea surface temperature and sea level air pressure, continuing a seven year collaboration responsible for deploying more than 100 drifters so far.

In contrast to the pack-ice conditions encountered during last year's shakedown cruise, ice conditions this year are much more expansive, and comprised of grease, and pancake, and first year ice floes found as far north as 60.5 South. This suggests that much more of the US AMLR study area is ice covered. The RVIB Palmer arrived at Admiralty Bay at 0345 Aug, 14. At daylight the ship anchored off the Commandante Ferrez Base of Brazil to calibrate the echosounders used for acoustic estimation of krill biomass. Owing to large storm, (930millibar), that began to enter the Drake passage, we were unable to calibrate, but moved into the Bransfield Strait to begin operations. We were able to sample two stations for water and one for krill before the weather made conditions required us to stop operations.

Issues: At present we are awaiting the storm to clear from white out conditions. Additionally, the ship has had issues with the fuel injectors in two engines, and this has required the abandonment of sampling in ice areas requiring four engines. If additional fuel injectors can be acquired (through resupply at Frei Base) we will resume sampling in deeper ice. This may have major impact on science.



Photo from the starboard side of the ship, looking forward along the side of the ship.



Photo from the bridge of white-out conditions.