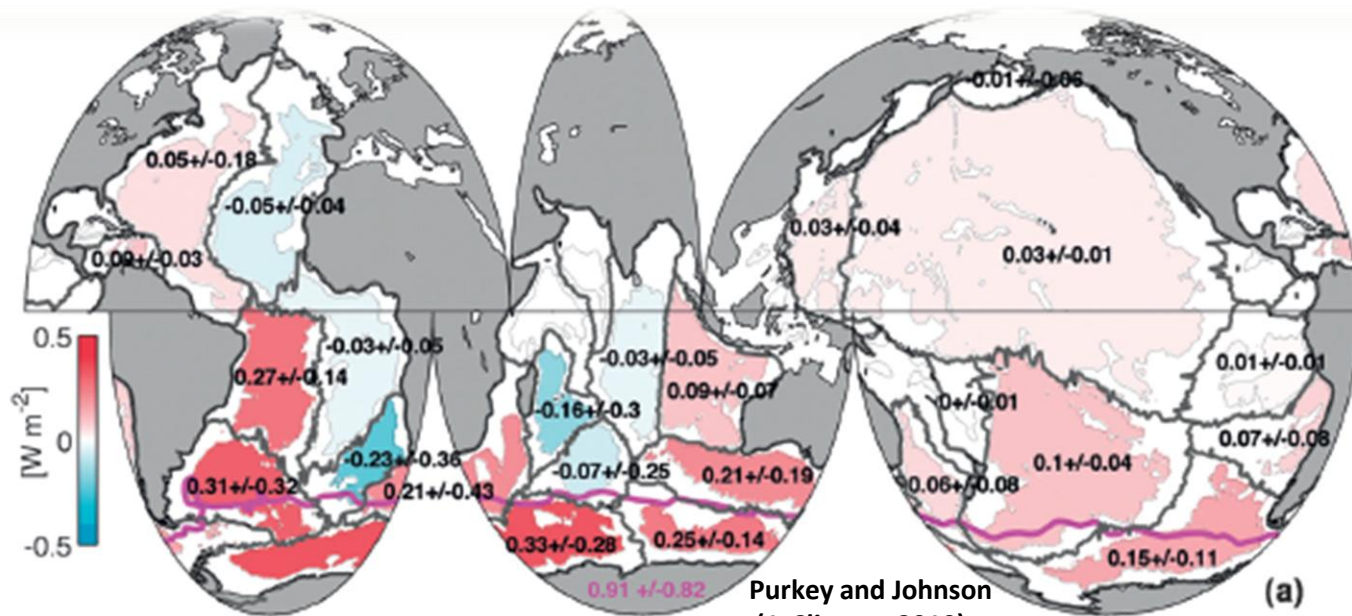


Initial Float Plans for Deep Argo

Stephen C. Riser
Argo Steering Team Meeting
Halifax, NS

3/19/2014

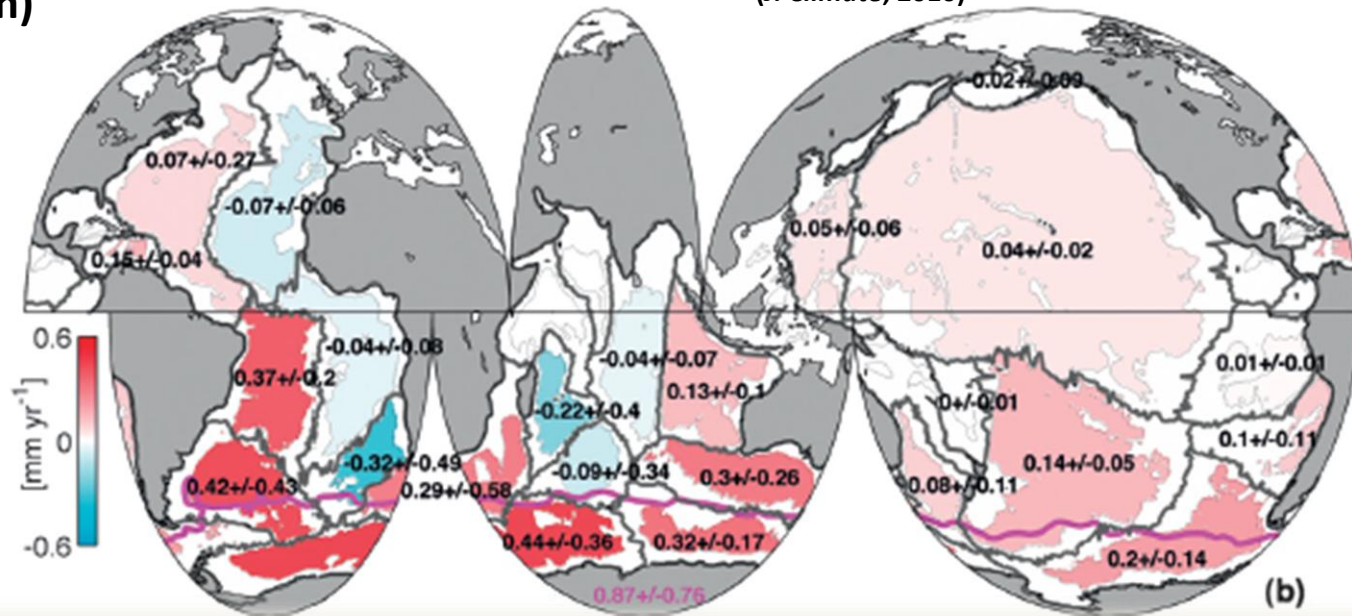




Purkey and Johnson
(*J. Climate*, 2010)

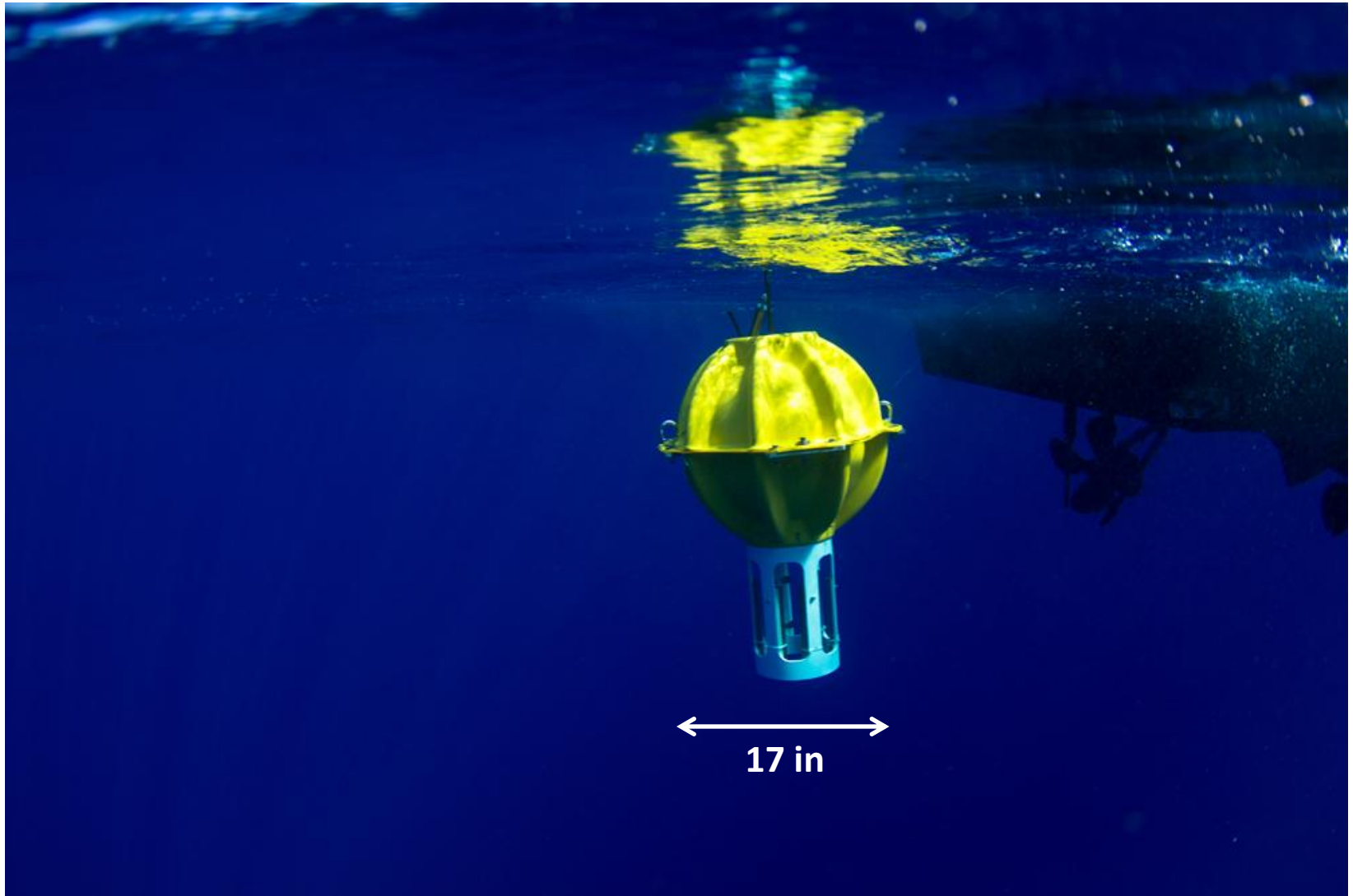
(a)

(>4000 m)



(b)

Using CTD data from WOCE and CLIVAR-repeated sections, Purkey and Johnson have shown that many of the deep basins of the world ocean are warming at a significant and measurable rate.



A prototype of a Teledyne/Webb 6000 m float, deployed in the Puerto Rico Trench in 2013 and at Bermuda in 2014

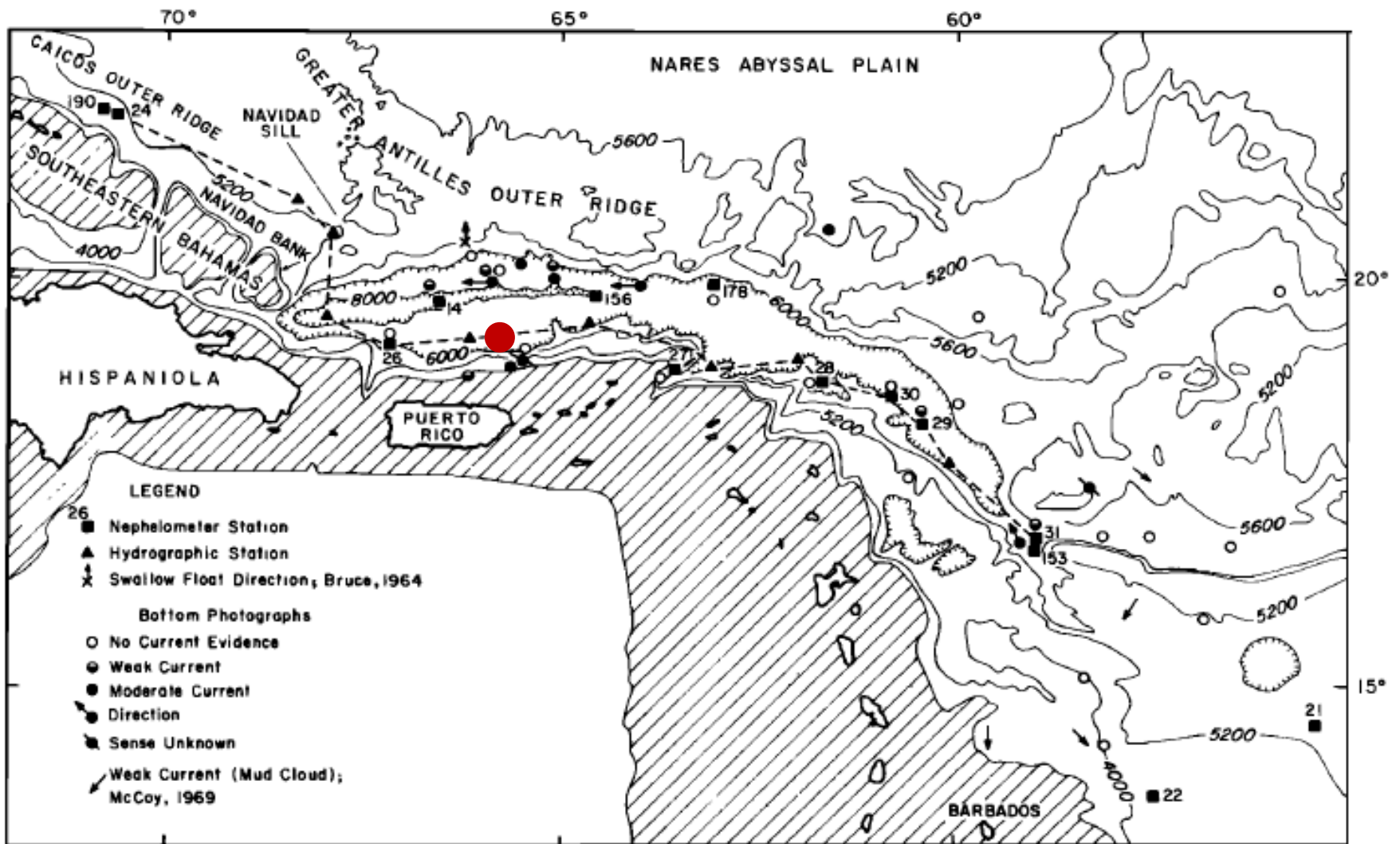
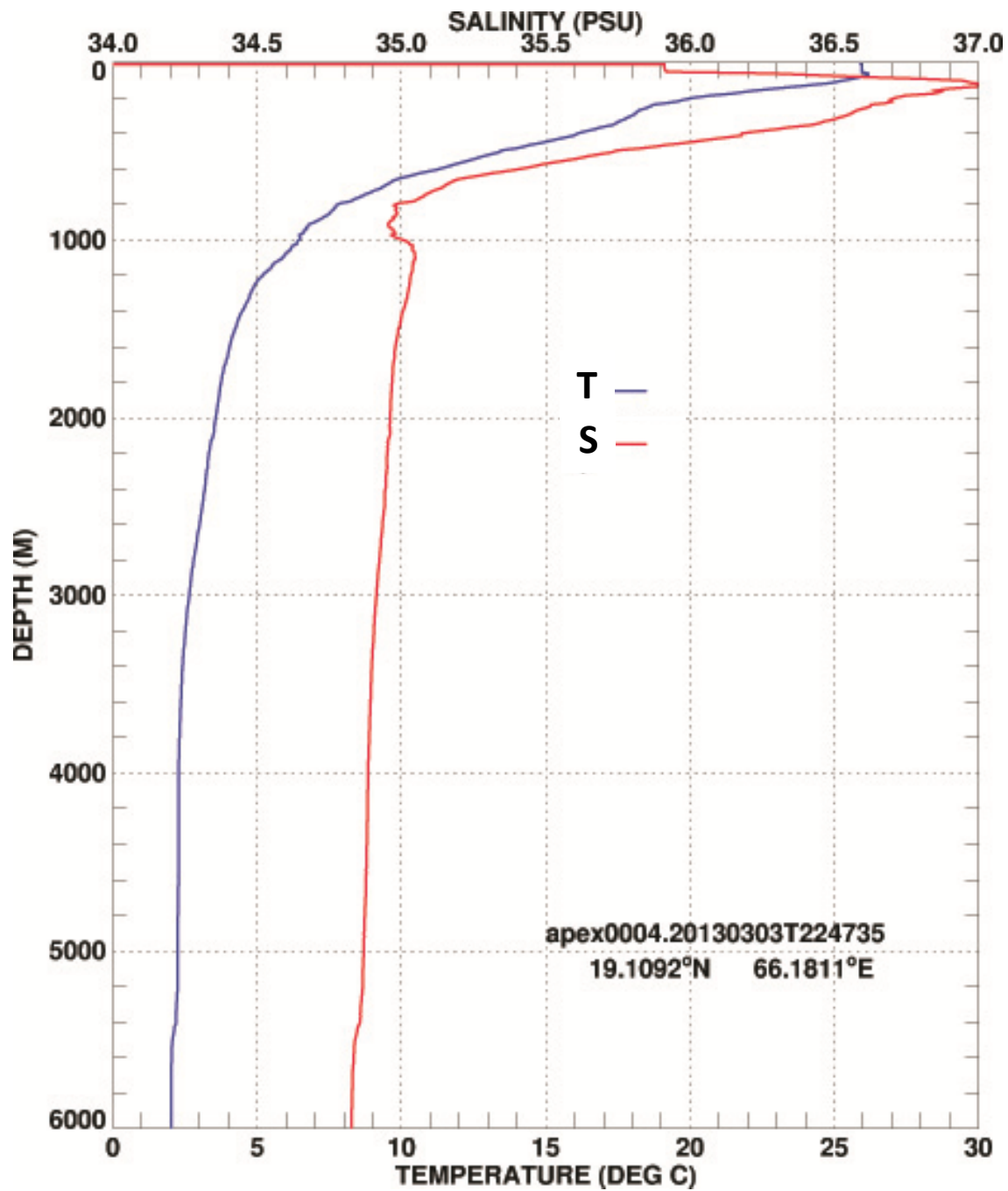


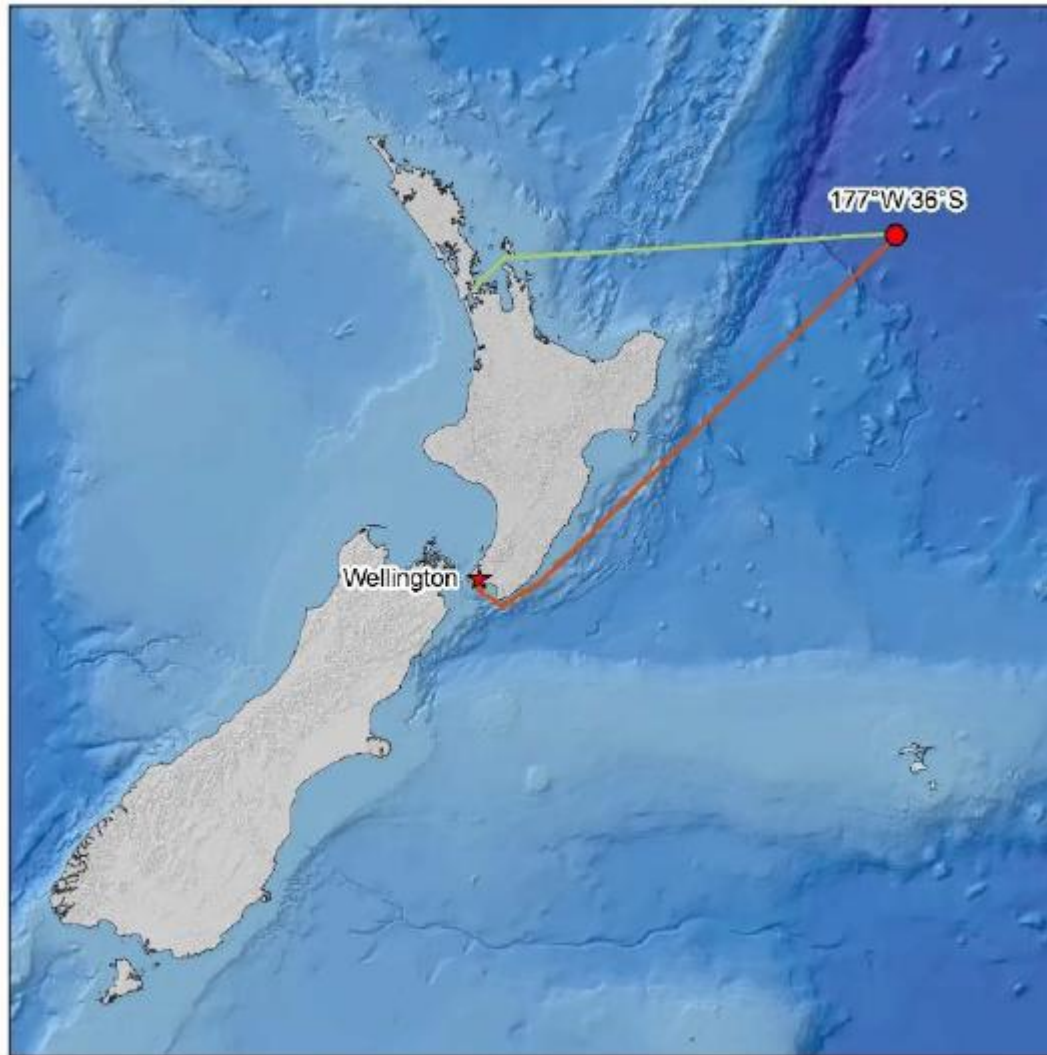
Fig. 1. Simplified bathymetry (in corrected meters) of the Puerto Rico trench and vicinity [Tucholke et al., 1973; E. Uchupi, unpublished manuscript, 1971] showing positions of nephelometer, hydrographic, and bottom photograph stations. Areas shallower than 3000 m are shaded. The dashed line gives the location of the potential temperature/turbidity section in Figure 3. Bottom photograph data are from the photograph libraries of Lamont-Doherty Geological Observatory and Woods Hole Oceanographic Institution.

(Tucholke and Eittreim, *JGR*, 1974)



	Range (dbar)	<i>T</i> (°C)	<i>S</i> (PSU) (eq)	<i>P</i> (dbar)
SBE 41	0-2000	0.002	0.002	2
SBE 61	0-6000	0.002	0.003	3

A comparison of the SBE stated accuracies of the SBE 41, presently used on standard Argo floats, and the SBE 61 that is designed to be used on deep floats. The SBE 61 will be tested and deployed for the first time in June 2014.



Deep float and CTD test cruise, RV *Tangaroa*, June 2014