

RVIB N. B. Palmer, NBP17-06/P06 Leg 1: Weekly Scientific Report 02

32.08°S, 172.80°E

11:30pm, Monday, 17 July 2017 (local time and day)

air: 16.4°C, water: 19.2°C, winds: 17 kt from NNE

on station 66

Two weeks into the cruise, we are currently occupying station 66 on a ridge on the west side of the South Fiji Basin. Over the last week, we have passed the Lord Howe Rise, the New Caledonia Trough, and a couple of other ridges and troughs with station depths ranging from 500-3200m and close station spacing. Everyone is looking forward to deeper waters and more regular (seemingly large) 30nm station spacing that we will encounter in a week or so, during the second half of leg 1. After a few rocky days on the NBP earlier in the week, the seas have been relatively calm again thanks to our position north of New Zealand, that is protected somewhat from Southern Ocean swells.

We have a great group of students (7 total) onboard who have been responsible for running the CTD console, operating the LADCP and Chipod, and helping the CFC group. In addition, the students have been assisting with the collection of various samples, including alkalinity, pH, salts, DOP, and d15N (plus filtering). They have also started having a first look at the many types of data collected from the CTD rosette and the underway systems on this cruise. Favorite past times after/before work hours include ping pong and movies, plus social time during the additional midnight meal ("midnight rats" from 23:30-0:30), that is kindly provided by the awesome cooks of the NBP.

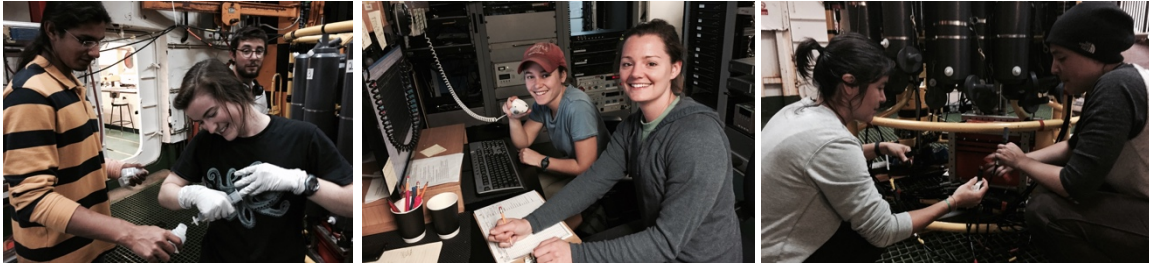
CTD operations have been going well. As soon as the swells picked up, we started adjusting wire speeds in the upper 1000m or so during the downcasts, to make sure that tensions did not drop below 500lbs. Bottle salts and CTD salinities agree well, and calibrations by ODF are in progress. The not-so-good news is that the CFC system is currently down because water entered the wrong parts of the system. Jim Happell has been up for the last 16 hours trying to dry things out via baking and to get the gas chromatography baseline back to normal. There are signs of hope, and we are all crossing our fingers. The alkalinity system had a few issues last night too, but is back in operation now.

We just left the Australian EEZ for the second time (Norfolk Island's 200nm zone provides an additional offshore EEZ for Australia). One SIO Solo float and one drifter were launched on July 12 between the two Australian EEZs. In the next few days, two more floats, one UW Argo and one SIO SOLO, will follow.

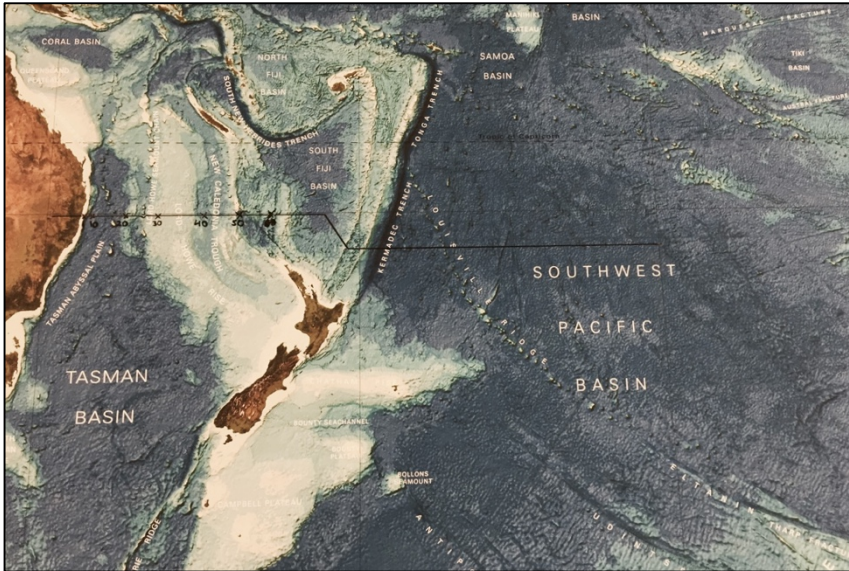
We continue to meet with the Captain and MPC of the NBP on the bridge every day after lunch, to discuss weather and wave outlook, CTD operations and any other issue that may have come up. We continue to be grateful for ECO's and ASC's support and the long hours that everyone in the science party has been putting in. Grazie!

- Sabine Mecking and Isa Rosso

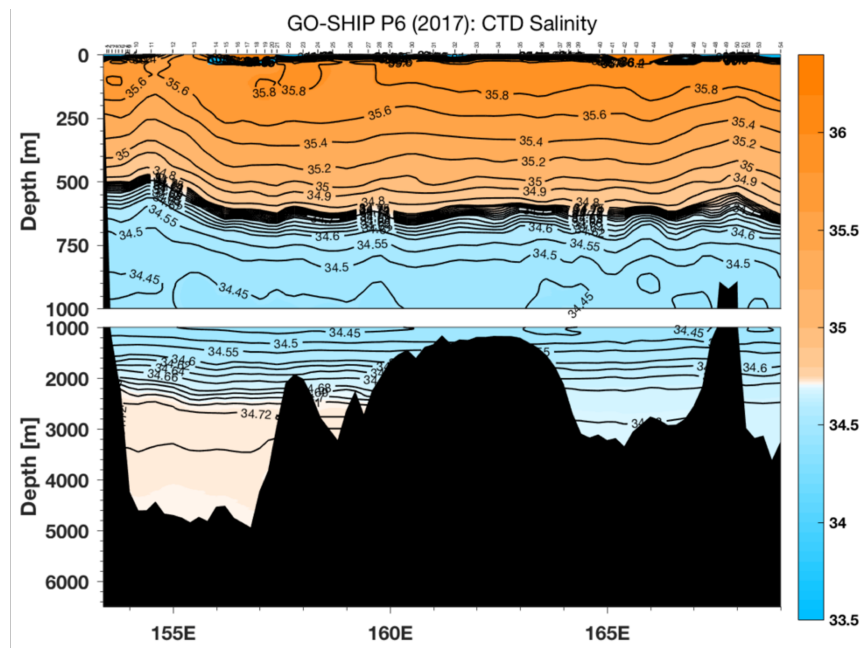
<http://usgoship-p062017.blogspot.com>



Students collecting and filtering samples, operating the CTD console, and preparing the LADCP



Topography of western South Pacific showing completed stations along the cruise track



Preliminary CTD salinity data for first 54 stations of P06 2017 repeat