

## Journal 20

### Saturday and Sunday

1. 292200Z January 05
2. Position: Lat: 49-30.0S, LONG: 150-00.0W
3. Course: On Station
4. Speed: 9.7 kts
5. Distance: 90.0 NM
6. Steaming Time: 09H 18M
7. Station Time: 14H 42M
8. Fuel: 2,953 gals
9. Sky: St, Sc 7
10. Wind: 210-T, 35-40 Kts
11. Sea: 210-T, 7-8 Ft
12. Swell: 220-T, 15-20 Ft
13. Barometer: 997.5 mb
14. Temperature: Air: 12.5 C, Sea: 11.7 C
15. Equipment Status: Normal
16. Comments: none

Saturday, more casts in rough weather...one of the boards near the Staging bay was split in two by a wave. These boards are about 3 inches thick! Gives you pause when you think about the power of the sea. Captain and Chief Scientist decided to keep the ship stopped during sampling to reduce some of the movement and waves and increase safety. It was pretty wet in the staging bay.

I have been busy filming the different parts of the ship, the weather, and talking to some of the scientists. I will be interviewing Dr. Chris Sabine of NOAA/PMEL and Dr. Chris Measures of the University of Hawaii for the next broadcast on Thursday, Feb 3rd.

I was able to call my family yesterday with a pretty good connection. We have a satellite phone out here and people try to call fairly regularly. The connection can be a little broken, but it's nice to hear those familiar voices from home. The Big News tomorrow is the growing Super Bowl pool!

### MASTER, R/V *ROGER REVELLE*

1. 302200Z January 05
2. Position: Lat: 50-35.2S, LONG: 150-00.0W
3. Course: 180T
4. Speed: 8.8 kts
5. Distance: 65.4 NM
6. Steaming Time: 07H 24M
7. Station Time: 16H 36M
8. Fuel: 2,954 gals
9. Sky: St, Ns 8
10. Wind: 260-T, 30-40 Kts
11. Sea: 260-T, 6-7 Ft
12. Swell: 240-T, 10-15 Ft
13. Barometer: 1007.4 mb
14. Temperature: Air: 11.0 C, Sea: 11.1 C
15. Equipment Status: Normal
16. Comments: none

MASTER, R/V *ROGER REVELLE*

Sunday and we are still working, today will be highlighted by our weekly fire drill at noon and, best of all, the BBQ steak for dinner by the Chief Engineer, Paul Mauricio. Even though we still have about 20° swells, they just tied down the BBQ and he went for it!



Chief Engineer Paul Mauricio BBQing in the wet and cold!

Weekly report from Chief Scientist, Dr. Bernadette Sloyan

Dear All,

We are currently at Station 71 - 51 S 150 W. Once again we have had a successful week completing 18 station and nearly 10 degrees of latitude. We got to 46°S (Station 61) before encountering any serious or sustained wind and swell. For the last few days we have been in 25 to 35 knot winds, with higher gusts, and confused seas and swell. Seas have been high enough that the main deck is usually off limits while we transit between stations as large waves have crashed over the rail and vans on the fantail. These conditions have slowed (but not stopped) our progress in the latter half of this week. Due to the confused seas, CTD casts have been slightly longer than normal. In the first 1000m of the CTD cast, both the CTD watchstander and winch operator have been diligently watching the wire tension and adjusting the package fall rate in an attempt to maintain reasonable tension on the wire. Nevertheless we did develop kinks in the wire that have required two mechanical terminations and one full termination of the wire. Unfortunately, the trace metals and bio-optics programs have had to abandon a number of stations due to the weather conditions. They are waiting for the conditions to improve before resuming their casts. ARGO floats that had limited or no satellite transmission on initial deployment have now resurfaced and are performing to normal expectations - very good news.

In the last few days we have seen a significant freshening of the upper water column and gradual cooling of sea-surface temperatures. The mixed layer is deepening as we move south; 80m at the last station. Deep density surfaces are now shoaling to the south. We expect to cross the Sub-antarctic Front and Antarctic Polar Front within the next few days. (Our water samplers can look forward to 36 bottles of cold water). We are now picking up detectable CFCs through much of the water column. The fluorometer and transmissometer profiles (part of our CTD package) show an increase in biological activity in the upper 100 meters over that seen at lower latitudes.

All on board are well and for the most part enjoying this summer cruise to the South Pacific and Southern Ocean. Southward we go - out of the roaring forties and into the furious fifties.

Regards  
Bernadette Sloyan

Below is the latest Quikscat image of the ice edge , we are presently at 52°S and 150°W

