

31.90°S, 178.31°E

10:30pm, Monday, 24 July 2017 (local time and day)

air: 16.1°C, water: 17.9°C, winds: 8 kn from SW

on station 80

During the past week, our daily routine of one CTD station after another was interrupted by a couple of delays. Weather protection by New Zealand was, unfortunately, not as good as we were hoping. A big storm that started in the Tasman Sea wrapped around New Zealand, basically following our cruise track. Operations were put on hold Thursday afternoon while seas were building and wind gusts were up to 50-60 knots. We managed one CTD station (#77) on Friday afternoon. But with the weather forecast worse for Saturday, CTD operations were stopped again throughout the night. On Saturday morning, we also received notice that a medevac was necessary for one of the crew members. What followed was a bumpy ride toward New Zealand, with wave heights at 6-8m and some even bigger rollers, and a speedy evacuation of the ill seaman by helicopter about 100 miles north of New Zealand. We are glad that he could make it to the hospital safely and wish him well for his recovery back home.

By 10am (local) on Sunday, we were back on our way to station 78 (South Fiji Basin) that was moved several times to increase station spacing and to make up for some of the lost time, amounting to a total of ~3.5 days due to weather and medevac. Other stations along the planned cruise track are being adjusted as well. CTD station work resumed this morning (Monday) at 6am. We are looking forward to finally reaching the dateline and the Kermadec Trench (KT), including the deep western boundary current flow along the adjacent Tonga Kermadec Ridge (TKR), all in the New Zealand EEZ, in the next few days!

Measurement groups used the unexpected break to catch up on samples, to fix some problems with their systems (CFCs and alkalinity), and to get a little bit of rest before the next 3 weeks of (hopefully) non-stop stations. While the weather was rough, nobody got seriously sea sick, and some of the students outright enjoyed the big rollers because it made their first sea-going experience feel more "real". During this time, we also had the chance to celebrate the only leg 1 science party birthday (Manuel Belmonte, alkalinity analyst extraordinaire) with cake, gifts, and songs in >5 languages.

Preliminary comparison of profiles of various properties between stations and with previous P6 occupations suggests that the quality of most data is very good. The CTD rosette also continues to function well. The biggest problem/danger last week was a lanyard that snapped when the bottom end cap of one of the old Niskin bottles was being set, with the result of the spring flying out at the top. As a precaution, all of the seven old bottles that had been mounted to test for CFC contamination (a false alarm) were exchanged back against the new Niskin bottles.

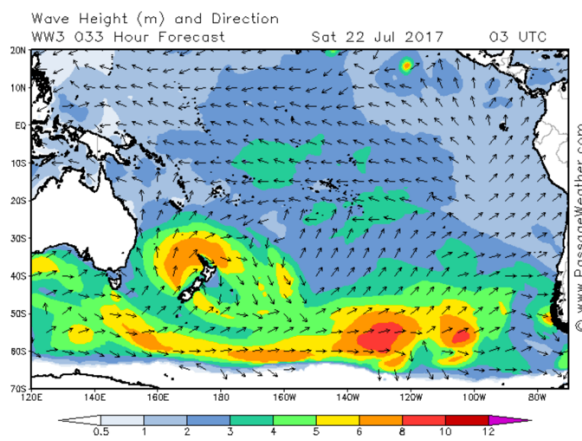
As we continue to occupy stations and examine data over the next few weeks, wish us luck that operations go smooth so that we do not experience any further delays. Danke schön!

- Sabine Mecking and Isa Rosso

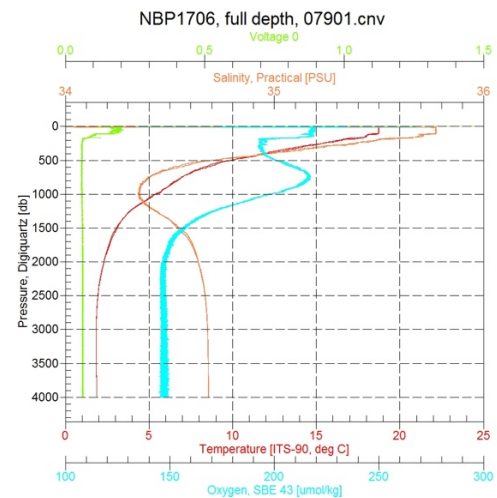
<http://usgoship-p062017.blogspot.com>



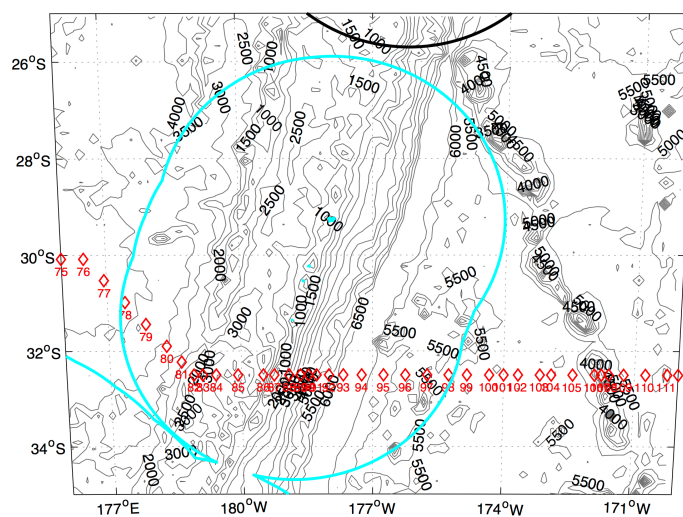
Building seas during the storm (photos by R. Lele)



Weather forecast from Saturday, July 22



Most recent T, S, O₂, and fluorescence (as voltage) profiles at 31.4°S and 177.9°E



Planned and already occupied stations (up to #79) on jog from 30.08°S to 32.5°S and across TKR and KT along 32.5°S (cyan = NZ EEZ)