

Journal #3

1. 112200Z January 05
 2. Position: Lat: 18-31.3S, LONG: 150-00.0W
 3. Course: 180 T
 4. Speed: 11.4 kts
 5. Distance: 120.1 NM
 6. Steaming Time: 10H 30M
 7. Station Time: 13H 30M
 8. Fuel: 2,953 gals
 9. Sky: Cu, 2
 10. Wind: 055-T, 12 kts
 11. Sea: 055-T, 1-2 Ft
 12. Swell: 100-T, 3-4 Ft
 13. Barometer: 1012.5 Mb
 14. Temperature: Air: 32.0 C, Sea: 28.3 C
 15. Equipment Status: Normal
 16. Comments: None
- MASTER, R/V ROGER REVELLE

We are doing about 3 CTD casts per day at 30 miles apart. The weather is really warm, more than 80°F during the day and the water feels pretty close to that. Today they are going to train me to take some of the water samples. Its nice now with warm weather in calm seas, probably won't be half as much fun when the weather gets colder and the seas get rougher. I am on the midnight to noon watch so I eat lunch and go to sleep about 12:30 and get up about 5pm for a while and then take a nap for a couple of hours before going back on watch. We did the first broadcast yesterday at 10:30 our time and 12:30pm PST. It was a good broadcast , we did it from the main lab and I was able to introduce my class to members of the sampling group from UCSB. Chantal Swan, a grad student from UCSB introduced herself and explained what her group are doing here. I will do an interview with her group later and go into more detail about their project. They are taking carbon samples from the water as well as some optical sampling. She spoke about how she started being interested in oceanography and what motivated her to pursue a career in science.

I was also able to show the students one of the Argo floats that are being deployed on this cruise. Marine Technician Scott Hiller and Dr. Jergen Thiess were preparing the float. 12 Argo floats will be deployed in all. **Some 18 countries are participating in the ARGO program with participation varying by one float per country to the US with 50% of the floats.**

I would like my students to go to the NOAA website and look at the description of the project. In their journals they should answer the question:

www.argo.ucsd.edu

What are Argo floats ?

[www.argo.ucsd.edu/FrHow Argo floats.html](http://www.argo.ucsd.edu/FrHow_Argo_floats.html)

How do they work and what data do they collect?

www.argo.ucsd.edu/FrNovel_Argo.html

Go to the bottom of the page and note the poor coverage in the Southern Hemisphere, that is one of the reasons we are deploying 12 Argo floats on this cruise.

What is the purpose of the Argo project and who runs it?

My students should have questions prepared for the next broadcast related to the ARGO floats as well as some questions from the CLIVAR website.

www.clivar.org or www.usclivar.org

The CLIVAR website can also be accessed from our website on the page for this cruise.

I was also able to introduce 2 of the crew members on the Revelle; Able-bodied seaman Heather Galihier and Boatswain Jim Pearson. They spoke briefly about their duties on the ship. I will be doing interviews with several of the crew members later.

Our next broadcast will be on Thursday, January 13 or Friday, January 14 depending on the tech schedule. In the next broadcast I will introduce more members of the science party and the students will tour the equipment in the main lab. Future broadcasts will be from other locations on the ship and introduce crew members as well as scientists while touring various parts of the ship.

We were able to see the Southern Cross from the bow in the night sky tonight, it was dark and clear as yesterday was a New Moon.

Where did this project (P16S) come from?

I asked Dr. Robert Knox, Associate Director of Scripps Institution of Oceanography for a brief overview and some websites to look at:

WOCE (World Ocean Circulation Experiment) and JGOFS (Joint Global Ocean Flux Study) were two of the major international oceanographic programs of (approximately) the 90's. Roughly speaking, the emphasis of WOCE was on the large-scale circulation of the ocean and its role in the climate system, mainly from a physical standpoint - the ocean as a mechanical system that transports water, heat, etc. around the globe and thereby interacts with the atmosphere, particularly on long time scale. **JGOFS** had more emphasis on biogeochemistry - the workings of the **carbon cycle**, especially in the ocean, as a part of the overall climate questions surrounding the buildup of CO₂ in the atmosphere.

Websites:

WOCE: <http://www.soc.soton.ac.uk/OTHERS/woceipo/ipo.html>

JGOFS: Google "jgofs" and get a lot of links. The international office is at:

<http://www.uib.no/jgofs/jgofs.html>

Both WOCE and JGOFS are nominally over, though some wrapup work continues and, of course, people will be mining the data for various purposes and insights for years to come.

CLIVAR:
www.clivar.org

is indeed in many ways a successor to WOCE and JGOFS (is it surprising that not all the relevant questions were fully answered by WOCE and JGOFS, leaving nothing more to do?!). But as you'll see in the "overview" and "objectives" there are shifts of emphasis toward forecasts, and in particular toward forecasts of how the climate system will respond to rising levels (manmade) of greenhouse gases.

Again, since **CLIVAR** is a successor, some people/ideas/questions remain from **WOCE/JGOFS** and I will ask Drs. Sloyan and Swift to talk about some of these in their interviews. My students will be looking at these websites and coming up with some questions of their own for Dr. Sloyan and Swift about the research.

Dr. Knox is a physical oceanographer who has not only visited and shared his expertise and enthusiasm for oceanographic research with my students, but has also led all of the ship tours that my students took before my cruise.

We had a wonderful sunset this evening, with very calm , glassy seas and a wonderful Green Flash. I will post some pictures in the photo album section of the website.