

## A16N leg 2. Week 2 update

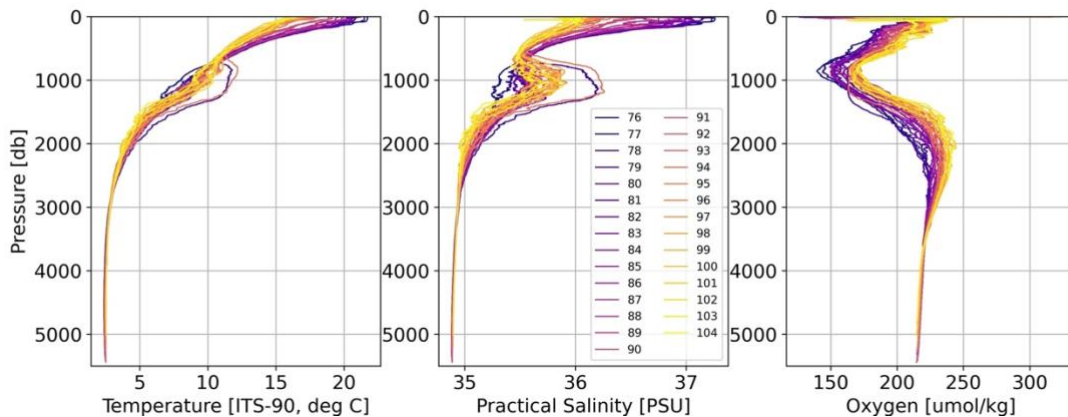
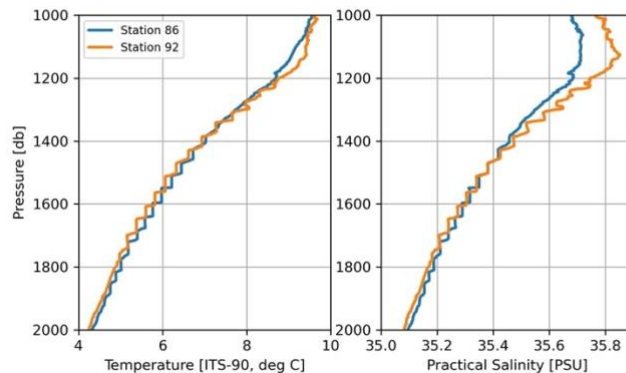
Ahoy land dwellers!

Time flies when you're having fun and without even noticing we find ourselves at the equator of our cruise.

This week went fast for us as we started occupying our stations and got into the routine of CTD operations. We celebrated a couple of milestones this week: we finally reached 20W and made our turn north for a straight up line to Iceland, we hit station 100, and we have completed our deepest stations on the line. We have one last 5K station that we will complete in the next 24 hours and then it's on to shallower and faster CTD casts.

We have also had a number of hiccups, no show-stoppers, but things that delayed us a bit more than we would have liked. We temporarily had to move back to the forward winch when an oil leak on the aft winch started causing problems. The forward winch needs to go at slower speeds to counteract strong vibrations at regular descent speeds. That, combined with slower transit speeds the first two weeks, unfortunately forced us to decrease the number of bio-casts. We are mitigating that somewhat by adapting some of the depths on the main cast to fit the bio-depths and giving our bio team as much water from those niskins as we can.

Changing the subject to more upbeat items: Have you ever had this experience where you learned something in school, and then you actually see it happening right before your very eyes? Well, wonder no more: behold the temperature and salinity staircases of Mediterranean water in our profiles! There may or may not have been some scientists giddily excited at the sight of these perfect examples of double diffusion that we learned about in college (Figure 1). We also captured a couple of meddies on stations 89 and 94, which hopefully will get our physical oceanographers excited to work with this dataset (Figure 2).



On the fun side of things: we were able to enjoy last week's meteor shower thanks to a couple of nights of clear starry skies, quite the treat for those awake! And we had a few dolphins play next to us as we were doing a night cast. The last couple of days we have transitioned from waters of cerulean blue to gray skies and steel-gray waters as we push north and cross into the 40's (degrees N latitude). A different kind of ocean beauty but still just as mesmerizing a view.

What's ahead of us? More drifter deployments! A few more BGC-floats to send on their way. And many more CTDs! Keep them coming, we're ready. We'll report back in a week with more exciting science findings.

From station 105,  
The crew of GO-SHIP A16N, leg 2.



*Hard to see, but there are many stars in this picture taken on a beautiful starry night! Can you find Scorpio? Photo by Vic Dina*