



GO-MARIE 2023 –

APEX Float Re-Deployment

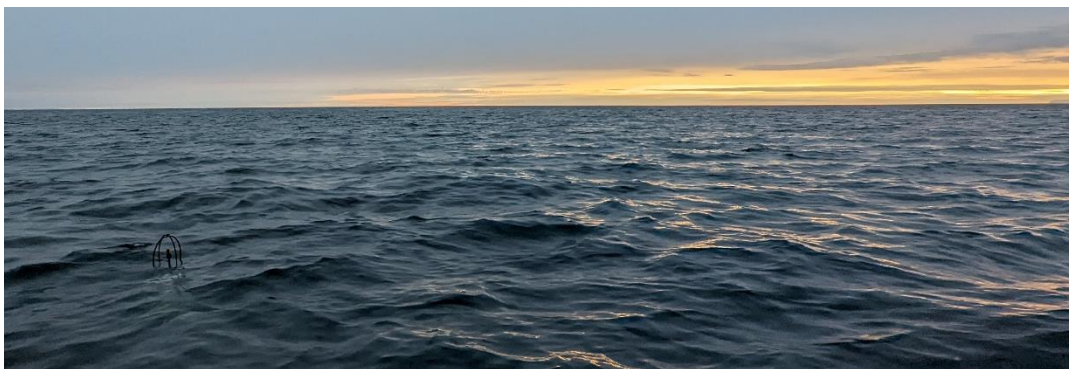
During the GO-MARIE 2023 campaign, operations were led by Ocean Research Project (ORP) Inc. 501c3, under the supervision of Field Operations Scientist, Nicole Trenholm and Captain Matthew Rutherford aboard the SRV Marie Tharp within Disko Bay.



The APEX float re-deployment activities were coordinated with Dr. Joshua Willis of JPL NASA. An RBR CTD water column profile was also acquired at the deployment site. Two RBR Concerto CTDs were deployed on the same cage to 420 m just prior to APEX float re-deployment.



Recovery



Deployment then Dive

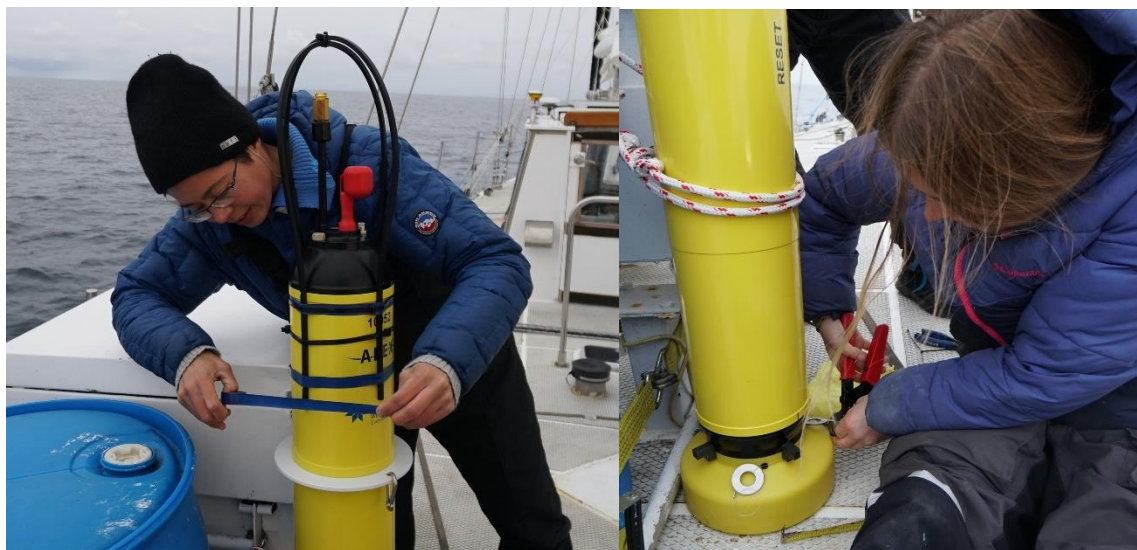
CTD S/N 060671 was calibrated in May 2023 and S/N 204223 was calibrated in June 2022. CTD S/N 060671 has additional sensors of turbidity (NTU) whereas, S/N 204223 has Chl a ($\mu\text{g/L}$) and they both have Dissolved Oxygen Concentration ($\mu\text{mol/L}$).

The APEX float was inspected upon recovery for any debris potentially causing the floats drift behavior since it was deployed earlier this summer. No debris, markings or damage appeared on any part of the float.

The ice guard plastic pieces that are affixed to the APEX float with zip ties to best protect the integrity of the exposed sensors were reinforced in a manner that would remain clear of disrupting sensor performance. 66 grams of stainless steel (washers) were affixed to the bottom of the float with fishing line.



Crew SRV Marie Tharp with M/V Iceberg Dundee



The APEX float was recovered quickly and carefully with a kayak assist in bringing the float easily to the swim platform where a shackle was attached and a halyard line. An electric winch on the vessel's aft mast easily pulled up the float for inspection.



At the requested site the float was re-deployed from the SRV Marie Tharp (22m) stern via the swim platform at the waterline to ensure a controlled entry into the water. The float was released after it could self-adjust to the vertical position after the float bottom compartment filled with water ensuring a proper ballast orientation before release. The seas were flat calm and there were limited icebergs in the far distance at buoy recovery and deployment. The float can be tracked at [ARGO Float 6990591 - Argo Fleet Monitoring \(euro-argo.eu\)](https://euro-argo.eu).

| APEX Float Re-Deployment | |
|--------------------------|--|
| Date | 08/30/2023 |
| APEX Float S/N | 10052 |
| Geographic Location | Recover: 69 15. 2495 N 52 36.3968 W Deployment: 69 05. 58 N 51 59.4 W |
| CTD Profile | |
| Date | 08/30/2023 |
| Geographic Location | 69 05. 791 N 51 59.304 W |
| Time (UTC) | 23:26 |
| CTD Depth (m) | 420 |
| Baffin Bay depth (m) | 469 |
| Filename(s) | 204223_20230830_2246.rsk and 060671_20230830_2344.rsk |

Deliverables: Including this report both CTD .rsk files, .txt, and Excel files will be shared within hours of the deployment with Dr. Wood and Dr. Willis.