

## **New Zealand National Report April 2020**

NIWA is the New Zealand participant in Argo. NIWA has purchased 2 floats per year since 2001, with no floats being purchased in 2003 because of float availability. We have also deployed floats for other providers and are collaborating on large deployments by contributing towards vessel costs.

### **New Zealand's floats**

NIWA has purchased and deployed 37 floats to date. A funding application has been made for a further two floats in 2020/2021. There is growing interest in BGC Argo, and funding for one BGC float has been applied for.

### **Deep Argo Development Voyage**

A Deep Argo development voyage focusing on SBE-61 sensor performance is planned for October 2020. This R/V Tangaroa is primarily funded by NIWA, with cofunding from NOAA. It is planned to mount several SBE-61s on a 911plus rosette to provide simultaneous measurements. It is also hoped that dual pressure sensor floats developed by SIO will be deployed.

The timing and nature of this voyage have come into question because of COVID-19. The dual sensor floats are now unlikely to be completed by the October voyage date, and New Zealand currently has border restrictions that would prevent foreign participation.

### **Providing deployment opportunities**

NIWA has provided deployment opportunities for other nation's floats in the southwest Pacific and Southern Ocean. This is a very important contribution to Argo, given that these regions had poor float coverage and limited deployment opportunities from commercial vessels.

In an ongoing collaboration, NIWA is funding 15% of the vessel costs of R/V Kaharoa deploying floats for University of Washington (USA), Scripps Institution of Oceanography (USA) and CSIRO (Australia).

NIWA's larger research vessel, R/V Tangaroa has also deployed floats in the Southern Ocean, both as part of the same collaboration and opportunistically when other research takes place in the Southern Ocean. An Antarctic (Ross Sea) voyage in February 2019 deployed 12 SOLO IIs and 5 DEEP SOLOs floats. The next Tangaroa Antarctic voyage is planned for February 2021.

An R/V Kaharoa deployment voyage from New Zealand to Mauritius is planned for July 2019,, but may be impacted by COVID-19.

### **Other logistics**

NIWA is available to facilitate any Argo-related work in the New Zealand region- recent examples include recovering floats and returning beached floats to manufacturers.

**Vessel replacement**

R/V Kaharoa is nearing replacement. Argo needs and requirements are being considered in the replacement process, but any input is welcome.