

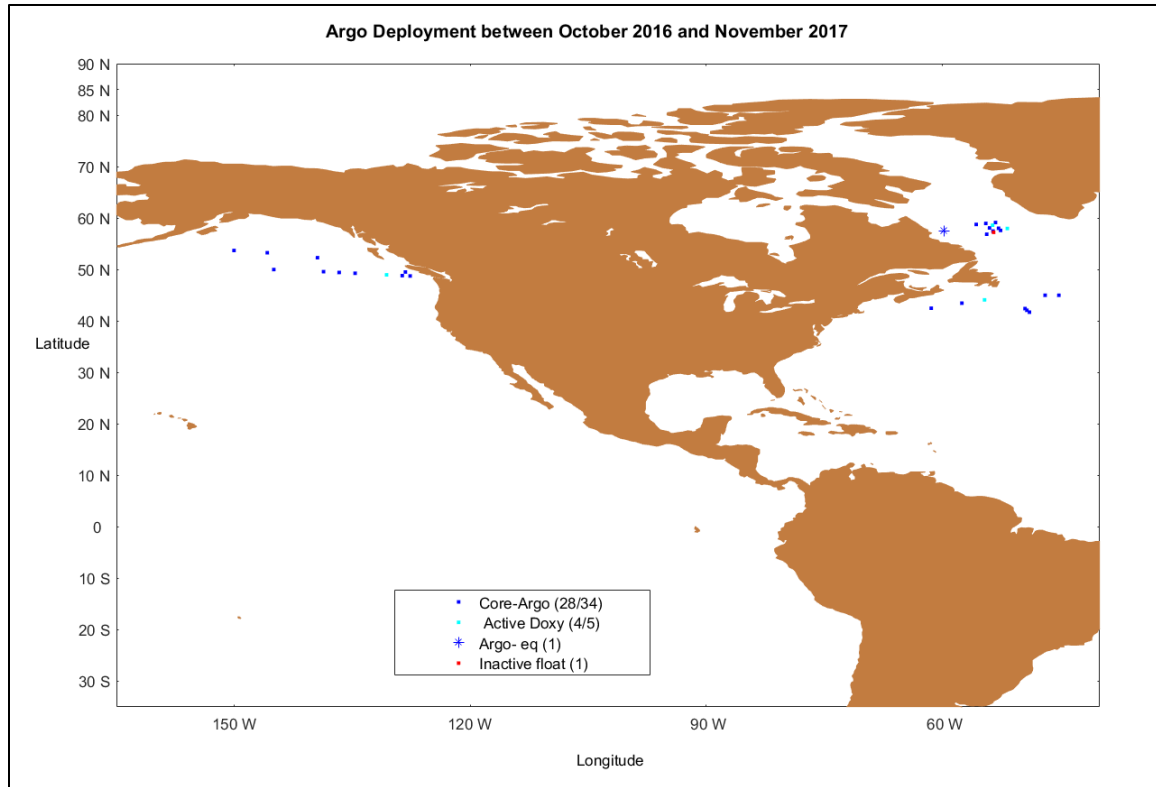
Argo Canada National Data Management Report

ADMT18

Hamburg, Germany, Nov 27 – Dec 1, 2017

1. Status

Canadian deployments in 2016-2017



Data acquired from floats: We are currently tracking 94 floats of which 5 might have failed to report within the last 6 months. Since October 2016, we deployed 33 Argo floats acquired from MetOcean Data Systems Ltd. which report on the Iridium satellite system. We also deployed one Argo equivalent float on the Labrador Shelf which reports daily and has a maximum profile pressure of 200 dbar.

Data issued to GTS: All data are issued to the GTS in TESAC and BUFR formats. Since September 2016, on average, 96.67% and 94.61% of data were issued on the GTS within 24 hours in TESAC and BUFR formats respectively with exception of August 2017 due to server breaking down.

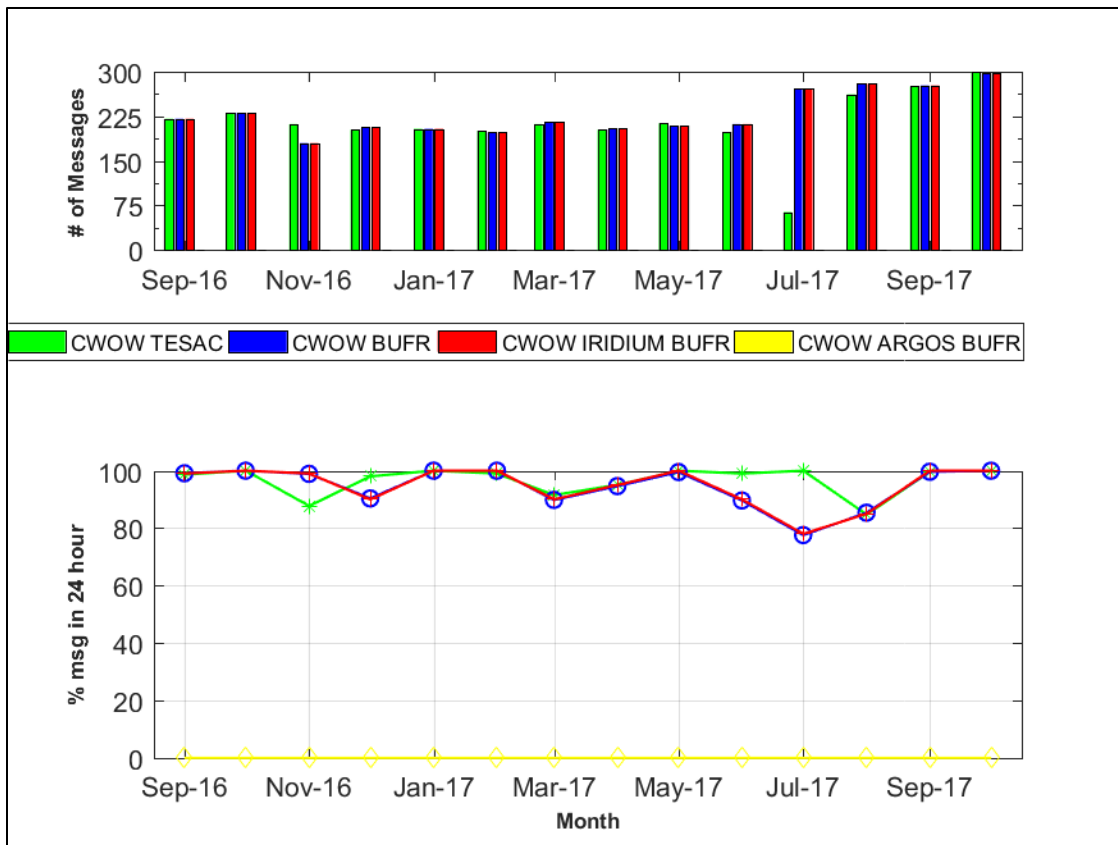


Figure 1: Performance of TESAC and BUFR transmission on the GTS under bulletin CWOW between September 2016 and October 2017

Data issued to GDACs after real-time QC: The profile, technical, trajectory and meta files are transmitted to the GDACs in netCDF format version 3.1 on an operational basis with some additional delay compared to the data sent on the GTS, because the two processes run on different servers. There is still a small back-log of profile, trajectory netCDF files that are not in format version 3.1 at the GDACs.

Data issued for delayed QC: Data are available for delayed mode QC as soon as they are sent to the GDACs, but only for floats deployed for at least 6 months.

Delayed mode data sent to GDACs: The DMQC eligible files from 42 floats (~4900 cycles) were quality-controlled or re-quality controlled for salinity or pressure since September 2016.

Web pages: <http://www.meds-sdmm.dfo-mpo.gc.ca/isdm-gdsi/argo/index-eng.html>

We maintain web pages that show float tracks and all data collected by Canadian floats. Links to both real-time and delayed mode data are also available for download directly from GDAC. The pages are updated daily.

We also show some information about the global programme including the position of floats over the previous months, the success rate of meeting the 24 hours target for getting data to the GTS at various GTS insertion points, the number of messages transmitted, reports of floats which distributed more than one TESAC within 18 hours and Canadian float performance statistics.

Another website section describes the Line-P products and other uses of Argo to monitor the N.E. Pacific:

<http://www.meds-sdmm.dfo-mpo.gc.ca/isdm-gdsi/argo/canadian-products/index-eng.html>

Statistics of Argo data usage: Argo data have been used to generate monthly maps and anomaly maps of temperature and salinity along line P in the Gulf of Alaska. Line P has been sampled for 50 years and has a reliable monthly climatology. For more information on the Line-P products and other uses of Argo to monitor the N.E. Pacific go to:

<http://www.meds-sdmm.dfo-mpo.gc.ca/isdm-gdsi/argo/canadian-products/index-eng.html>

The Canadian Meteorological Centre (Dorval, Québec) of Environment Canada is assimilating real-time Argo data in operational mode.

2. Delayed Mode QC

As of November 2017, 41% of all eligible floats, active and inactive, had their profiles QCed visually and adjusted for pressure according to the latest delayed-mode procedures at least once. The salinity component of DMQC had been performed at least once on 65% of eligible cycles. In addition to DMQC of new profiles, 16 previously-processed floats received either updates to the visual QC or new adjustments in response to feedbacks (e.g., reports of density inversions). Routines were developed to visually QC dissolved oxygen profiles and, in the case of Aanderaa dissolved oxygen sensors, apply calibration factors. As of November 2017, 12% of B-files had been visually QC'd, and 4% were fully DMQC'd.

3. GDAC functions

Canada forwards TESAC data to the GDACs in Ifremer (France) and USGODAE (USA) three times a week. Canada also monitors the timeliness of Argo data on the GTS in BUFR and TESAC formats.

4. Region Centre Functions

Canada has no regional centre function.