

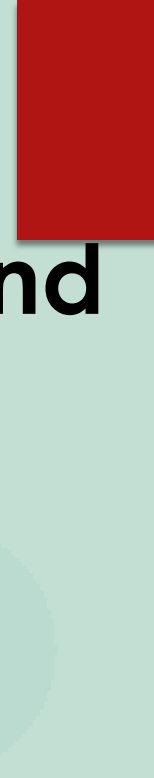


# Proposal on how to include RBR data in the Argo data system

*~Annie Wong, Hamburg, November 2017 ~*

**Limited field data suggest that the newly re-engineered RBRargo CTD has the potential to meet Argo accuracy and stability requirements.**

**Several Argo groups will be using the RBRargo CTD in Argo floats as pilot studies. These will either come as dual CTD floats in test deployments, or as single CTD floats deployed across several ocean regimes.**



These pilot data need to be identified and analysed to assess their quality and to determine applicable delayed-mode procedures.

This proposal is to prepare a pathway for **the real-time DACs** to distribute RBR data from the test/pilot deployments in the Argo data system.

## Interim rtqc flag scheme for float data from RBR CTD

Real-time qc tests 1 to 19 should be applied to vertical profiles from the RBR CTD. RBR float data that have passed all real-time qc tests should be flagged with:

- **PRES\_QC = '3'**
- **TEMP\_QC = '3'**
- **PSAL\_QC = '3'**
- **Keep DATA\_MODE = 'R'**
- **No distribution on the GTS**

## For dual CTD floats (RBR + SBE)

**RBR data: store in PRES, TEMP, PSAL.**

**SBE data: store in PRES2, TEMP2, PSAL2.**

**The interim rtqc flag scheme for RBR data should then be applied to PRES, TEMP, PSAL.**

**Normal rtqc procedures apply to PRES2, TEMP2, PSAL2. DATA\_MODE = 'R'.**

**Meta data for RBR CTD -**

**need to coordinate with the AIC and the GDACs**

**PLATFORM\_TYPE = 'APEX\_RBR', 'SOLO\_RBR', etc ??**

**WMO\_INST\_TYPE = ??**

**These 2 variables are used to identify RBR data in the profile files.**

## Meta data for RBR CTD -

need to coordinate with the AIC and the GDACs

SENSOR (N\_SENSOR, STRING32)  
= 'CTD\_PRES', 'CTD\_TEMP', 'CTD\_CNDC'

SENSOR\_MAKER (N\_SENSOR, STRING256)  
= 'RBR', 'RBR', 'RBR'

SENSOR\_MODEL (N\_SENSOR, STRING256)  
= '~~RBR~~', 'RBRoem\_V1.16' ??  
= 'RBRargo', 'RBRargo', 'RBRargo'

# PARAMETER ACCURACY and RESOLUTION (obtained from RBRargo datasheet)

**PRES**      **accuracy = +/- 0.05% FS**  
**resolution = 0.001% FS**

**TEMP**      **accuracy = +/- 0.002°C**  
**resolution = 0.00005°C**

**CNDC**      **accuracy = +/- 0.003 mS/cm**  
**resolution = 0.001 mS/cm**





**What existing RBR float data should be distributed?**

**ALAMO in the Atlantic?**

**What else??**



**Issues will arise as DACs start to distribute RBR data.**

**Please email [apsw@uw.edu](mailto:apsw@uw.edu) to coordinate.**

**Thank you.**



**What are the concerns from the ADMT about including this new sensor in the Argo data stream?**