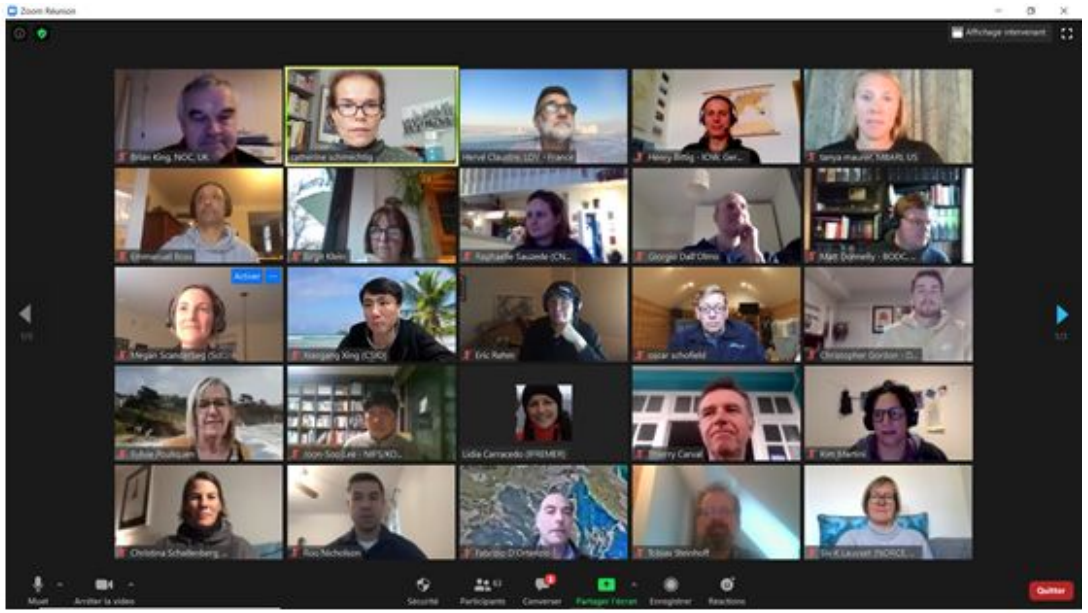
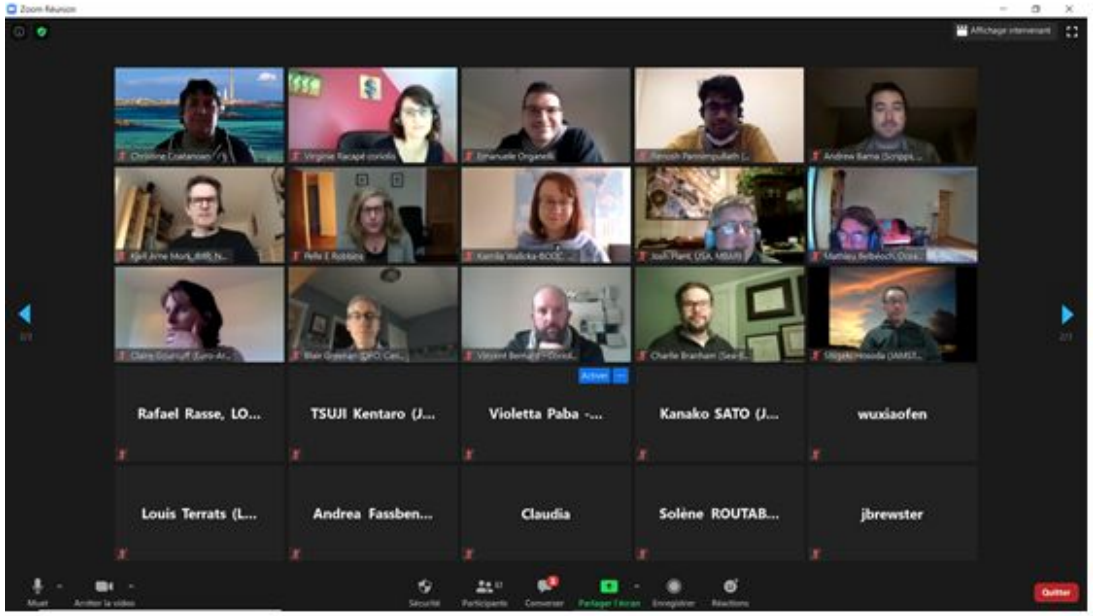
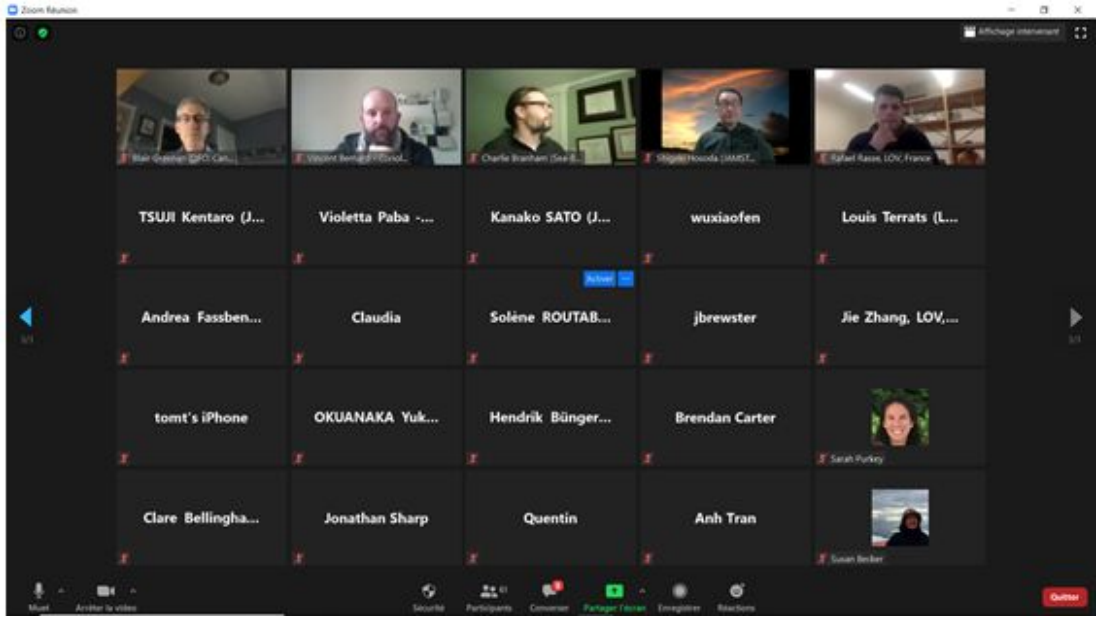
9th BGC Meeting report

BGC-Argo data management task team

The virtual turnout!
Day 1: 100 participants
Day 2: 97 participants

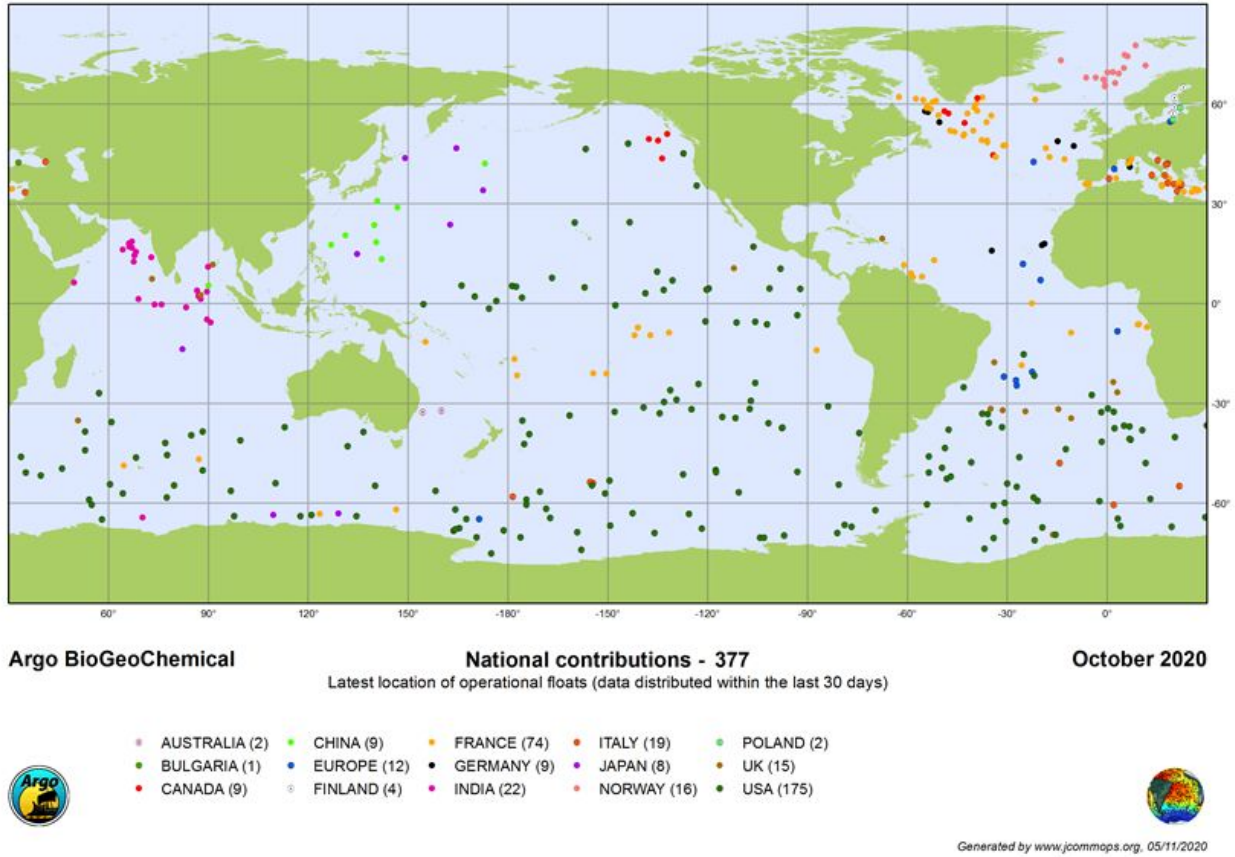




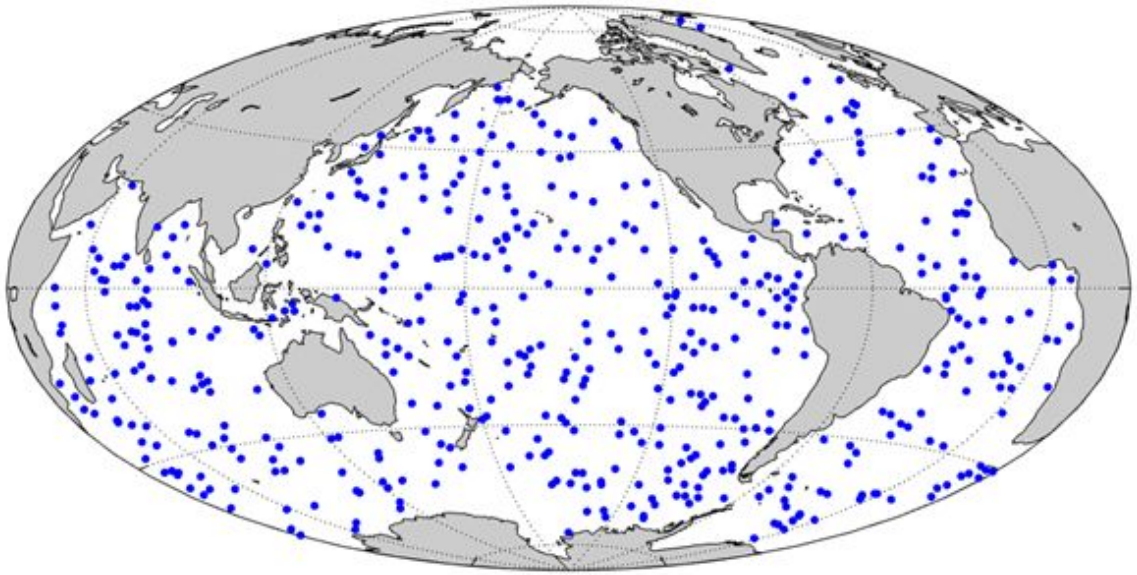


BGC-Argo array is growing

Current state of BGC operational floats

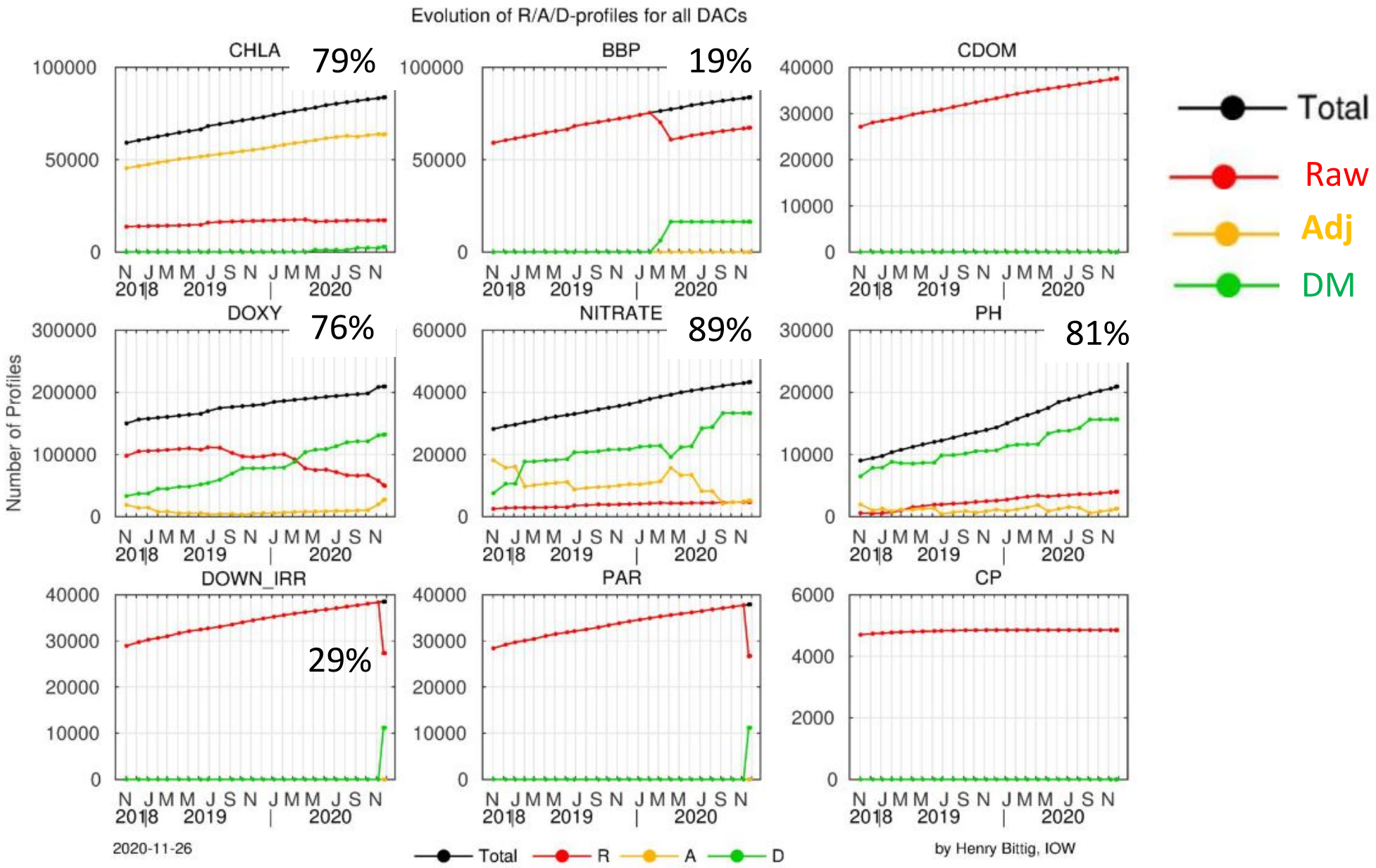


NSF-funding of GO-BGC array will result in 500 more BGC floats over the next 5 yrs!



QC'd data is increasing rapidly.

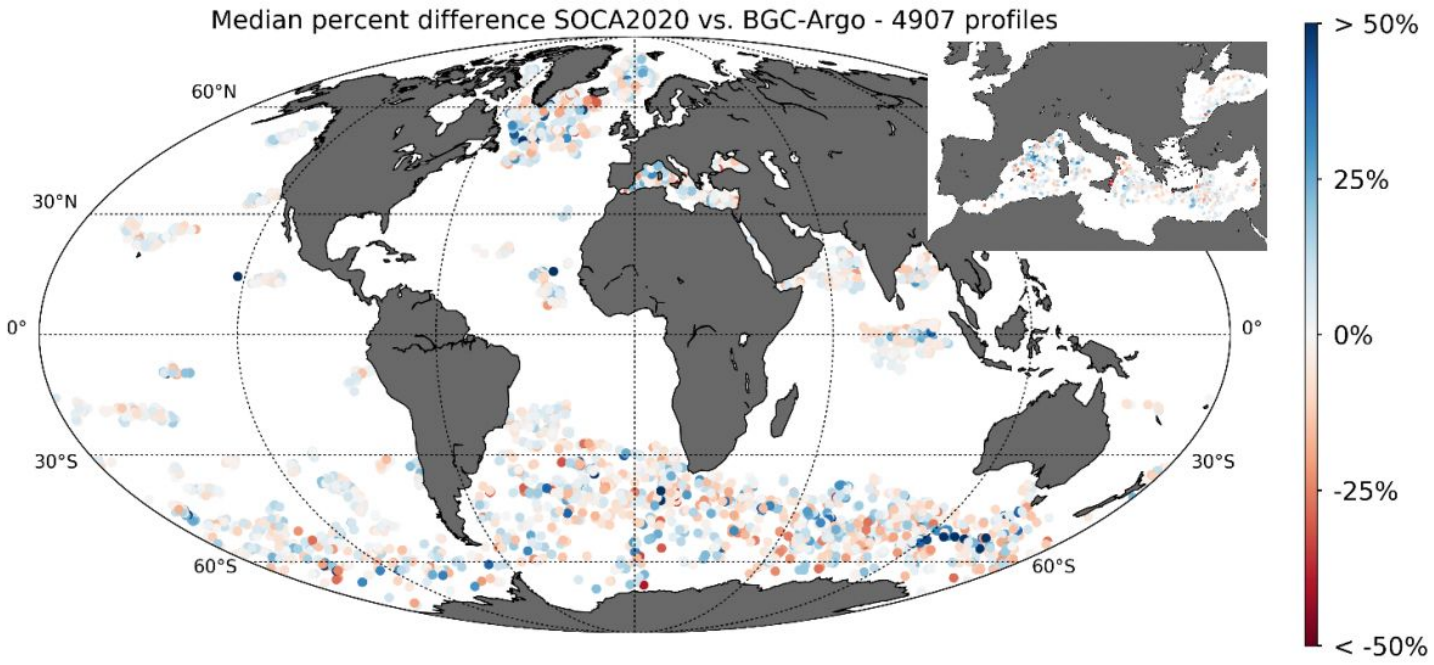
The GDAC BGC-Argo data set is becoming much more useful for global analyses.



H. Bittig, BGC-Argo data availability report Nov. 2020

DAC collaboration!

- Development of parameter-specific global audits (DOXY and BBP) are assisting DACs in identifying bad profiles and performing adjustments. Links to such audits will be centralized on the BGC-Argo website (and Argo documentation site). CHLA audit planned for next year.
- Code sharing for DMQC is ongoing, software tools are being utilized across DACs, enhanced and translated.



All Parameters

- On-going discussion of the development of a unified “BGC-Argo Reference Database”. A working-group was established for continued discussion on this topic..
- On going discussion on impact of core-parameter QC on the quality of computed BGC-parameters. A working group established to identify a flag propagation scheme.
  => Set up a workflow that balances traceability, workload, and getting the best data to the users

DOXY

- DOXY_ADJUSTED improved thanks to Josh’s audit, DAC’s initiative to perform RT Adjustment presented
- Documentation enhancements were agreed upon (i.e. a standardized adjustment equation and clarification to existing DOXY_ADJUSTED_ERROR specifications)
- Recent test data from the new Sea-Bird SBE83 oxygen sensor with in-air measurement capability was presented; preliminary performance assessment is very positive
- Oxygen time response correction - implementation questions remain, research is ongoing

pH

- Recommandation to add VK_PH as an Argo intermediate parameter -- ideally to be returned at every measurement level (spot sampling and CP mode)
- Recommended updates to PH_IN_SITU_TOTAL_ACCURACY and PH_IN_SITU_TOTAL_ADJUSTED_ERROR will be translated to the documentation
- pH “pump offset” issue was discussed, research ongoing
- Sensor development/improvements are ongoing (MBARI,SBE)

NITRATE

- Recommandation to use the new temperature correction, documentation updates near ready.
- Nitrate Quality Control manual will be submitted very soon
- Recommended updates to NITRATE_ACCURACY and NITRATE_ADJUSTED_ERROR to be translated to the documentation

RADIOMETRY

- DMQC method was presented to correct sensor drift and temperature effect (11000 profiles corrected)
- Documentation will be updated

BBP

- Suggestions of new RTQC procedure presented
- Suggestions for uncertainties estimations presented
- Survey RTQC **
- Documentation will be updated

CHLA

- Proposition of FLUORESCENCE_CHLA to become a B param to be voted on
- Suggestions of new RTQC procedure presented
- Survey RTQC **
- Documentation will be updated

** BGC-ADMT Task-Team follow-up meeting to be scheduled sometime in January or February to finalize decisions resulting from the surveys as well as to check the status of proposed documentation updates and any development from the working groups.