

Data Management Plan, Feb., 2020

The data produced from the project proposed here consists of observations from 42 profiling floats. The float data include float trajectories and engineering information in addition to temperature, salinity, pressure, and dissolved oxygen from all floats and, dissolved nitrate and pH profiles from six equatorial Pacific floats. All of these data will be transmitted from the floats to the UW float laboratory via the Iridium satellite system. In addition, the data are transmitted to the US Argo Data Assembly Center at NOAA/AOML in Miami. From there they are transmitted to the Argo Global Data Assembly Center (the Coriolis Center) located at IFREMER in Brest, France. This all happens in less than 24 hours so all data are available online from the Coriolis server in less than one day. This system has been in place as part of the international Argo program for over a decade and is well-known in the scientific community for its reliability and general ease of use.

At intervals of about six months, the CTD and trajectory data from each of the floats are examined for evidence of sensor drift or faulty GPS positions. This is the so-called *delayed-mode* analysis that is carried out by each Argo group. To insure uniformity, a standard set of analysis tools and a standard reference data base is used by all the groups involved. Corrections to the data are made as necessary, and the corrections are stored as a separate vector in the Coriolis server. Thus, both the raw data and the corrected data are publically available to all potential users.

Dissolved oxygen, nitrate, and pH raw data are available publically in near-real time with the T and S data. However, the state of quality control analysis and uploading to the Argo website is presently in development. This is largely because factory and in situ calibration of the biogeochemical measurements has proven to be complicated because they are newer technology and calibration and drift are only now becoming fully understood. Currently, all raw and calibrated oxygen measurements from the floats deployed by the Emerson lab are uploaded to a website (<http://sites.google/a/uw.edu/sosargo/home>), and all nitrate and pH data determined by the MBARI-ISUS and pH sensors are uploaded to their website (<http://www.mbari.org/science/upper-ocean-systems/chemical-sensor-group/floatviz/>). The oxygen and nitrate data determined in this project will be stored at both of these sites and transferred to the Argo servers when they are prepared to receive it.