<center>Template for SeaBASS Instrument/Calibration Reports</center>

The calibration report should include enough information so that the reader can understand how raw instrument measurements were collected and processed into your reported values. The report should describe calibration equations and values, how the instruments were calibrated, and what types of corrections or data analysis were applied to create your reported values. Your report may also include references to standard protocols and techniques. All these details will allow for more accurate comparisons between datasets, error propagation and/or alternate analysis methods.

Scientific instruments come in many sizes and shapes and so will these reports. This template outlines information that should be included, although not all categories suggested here will be appropriate for every type of instrument.

Header information

- Document title
- Instrument name
- Instrument model and S/N
- Instrument purchase date
- Your contact info
- Document version and date

I. Introduction

- Briefly describe the instrument and what it measures.
- Photograph (optional)

II. Calibration / Maintenance

This section should describe the calibration(s) that were used to generate your reported values. If you already have your calibration methods or values described in a SOP or other document, you may also submit those documents and reference them here. Include any information on precision, accuracy and repeatability.

- Manufacturer calibration equations and coefficients
- Self calibration methods and results
- Blanks and/or dark readings
- Stability and/or baseline tests
- Example figures (optional)

III. Deployment / Sample collection

If the instrument was used in the field, describe relevant information about its package and setup. If possible, document the setup with a digital photo. For laboratory instruments, describe how samples were collected and measured.

Field instruments:
- Measurement methods (e.g. sampling rates and software settings)

- Package Design: Describe relevant information about package design and supporting hardware. Include data handlers, power supply, other instruments bundled on the same frame and any relevant information about the way they were deployed (e.g. if a separate pressure transducer was used to measure depth, quantify any height offset between instruments.) Including a photo is optional.

Laboratory instruments:
- Measurement methods: Describe sample handling and processing (e.g. filtering, storage, as well as relevant software settings.)

IV. Data processing

Explain the steps that went into any transformation/processing of the data from its raw form to how you submitted it. Describe the application of calibrations, data binning and/or quality control. Other examples might include explaining the exclusion of up-casts, application of temperature corrections, or correcting trends due to biofouling.

- Data analysis and equations used
- Describe any quality control
- Software: Describe software used for reading and analyzing data. Optionally, processing code (e.g. Matlab scripts) may be submitted here or in a separate file
- Example figures (optional)

V. Additional Information

- References
- Cautionary notes