

## SOP 3: CON Calibration Files (OC\_A Creation)

### Version 1

#### Revision History Log:

| Prev. Version # | Revision Date | Author                                                                   | Changes Made    | New Version # |
|-----------------|---------------|--------------------------------------------------------------------------|-----------------|---------------|
| [none]          | Oct. 2010     | S. Danielson,<br>W. Johnson,<br>L. Sharman,<br>G. Eckert,<br>B. Moynahan | Initial version | 1             |

#### Summary

OC\_A is built in one of two ways, depending on circumstances. Case 1 occurs when the Project Leader receives a vendor-supplied CD containing a CON file, typically after the annual recalibration. In this case, the CON file is submitted to the Data Manager for the validation / quality assurance process and is eventually certified.

Case 2 occurs when a single sensor undergoes calibration (or initial installation). The sensor is shipped with paper documentation that must be used along with vendor software to create a new CON file. The new file undergoes standard validation and certification.

SOP 3 requires users to work in the internal NPS network under valid Active Directory accounts. Access questions should be directed to the Data Manager.

#### Detailed steps

##### 1. Case 1: Full calibration file set is received

###### 1. Project Leader tasks

1. Receive CD supplied by vendor with recalibrated CTD.
2. Verify that the CON file calibration coefficients exactly match those given on the paper or .pdf file versions. If discrepancies are found, follow the instructions to use the SBEDataProcessing.exe file under “Case 2” below to correct the CON file.
3. Copy the CON file from CD to  
\\nps\akrdfs\GLBA\Science\Data\Oceanography\Data\yyyy\CON\_calibration, where yyyy is the year of calibration, e.g., 2009. The file will be named on the CD using the format YYMM.CON, where Y stands for year and M is month. In order to distinguish this calibration from those of any other CTDs employed, the filename must be changed. Rename the local copy to the form C\_YYMM.CON, where C stands for CTD number. For example, a calibration file from March 2005 for CTD #1 would be called 1\_0503.CON.
4. Submit the file via email attachment to the Data Manager for validation, specifying in the message body it is deliverable OC\_A, as defined in protocol OC-2010.1.

## **2. Data Manager tasks**

1. On receipt of the submission, assign the next formal Submission Number to this file, as found in the master Submission\_Log table.
  1. Use the “Update Submission Log” web tool at [http://165.83.57.239/0\\_submission\\_update.aspx](http://165.83.57.239/0_submission_update.aspx).
  2. Complete Submission\_Log details up through the Submission\_Date column.
    1. Due to the nature of this deliverable, there is no submission unit scope. The filename is sufficient to distinguish it.
2. Save the file in the staging area for validation, ensuring its name meets the standards defined in Appendix J.
3. Validate the submission according to current criteria.
  1. Criteria are minimal because this deliverable’s form is proprietary to the CTD vendor.
  2. Record validation summary data in the Submission\_Log using the web tool.
4. If submission fails mandatory criteria, reply to the original submission with a “failure email” that includes:
  1. The submission number assigned
  2. The deliverable ID
  3. The protocol ID
  4. Documentation listing all the specific mandatory criteria failed
5. If submission passes mandatory criteria, reply to the original submission with a “success email” that includes:
  1. The submission number assigned
  2. The deliverable ID
  3. The protocol ID
  4. Documentation listing any specific optional criteria failed
  5. Request to certify deliverable as complete

## **3. Project Leader tasks**

1. On receipt of failure email:
  1. Contact the vendor to obtain a valid con file.
  2. Restart the process from the beginning.
2. On receipt of a success email, review any failed optional criteria:
  1. If these are acceptable, reply with a “certification email” stating the deliverable is certified and may be disseminated.
  2. If these are unacceptable:
    1. Reply with a “withdrawal email” stating the deliverable is withdrawn.
    2. Take remedial action to obtain a corrected deliverable.
    3. Restart the process from the beginning.

## **4. Data Manager tasks**

1. On receipt of a withdrawal email:
  1. Mark the withdrawal in the Submission\_Log’s Status column using the web tool.
  2. Terminate the process.
2. On receipt of a certification email:
  1. Verify no sensitive information is in the deliverable. Products containing sensitive information cannot be disseminated.
  2. Copy the submitted file to test environment as AUXREP\OC\OC\_A\yyyy\ where yyyy is the numeric year the vendor created the file.
  3. Propagate from test to production environment

4. *Verify deliverable is accessible from production web site.*
5. *Mark the certification in the Status column in Submission\_Log using the web tool.*
6. *Update the deliverable tracking spreadsheet with the date of completion for OC\_A.*
7. *Terminate the process.*
3. Update the scope of the formal metadata so it includes this addition.

## **2. Case 2: Paper addendum to calibration is received**

### **1. Project Leader tasks**

1. Receive revised calibration parameters on paper or email.
2. Make a new copy of the CON file that directly preceded this recalibration effort.  
Calibration files are located on  
\\nps\akrdfs\GLBA\Science\Data\Oceanography\Data\yyyy\CON\_calibration\ where  
yyyy is the year of calibration, e.g., 2009. Name the file C\_YYMMx.CON where 'x'  
is a letter used to distinguish this latest update from its predecessor. Begin the  
sequence with 'a' and use sequential letters for additional updates. For example, the  
first revision to calibration file 1\_0903.CON would be 1\_0903a.CON. The next  
revision (which must be based on 1\_0903a.CON) would be 1\_0903b.CON.
3. Using the Sea-Bird program SBEDDataProc.exe, revise the calibration parameters in  
the new CON file. Be careful to exactly enter the new information, while not  
changing items that define other aspects of the CTD. Errors in the CON file will  
produce erroneous results in the other deliverables; and the fact that results are  
defective may not be obvious.
  1. *Start the SBEDDataProc.exe program. It should be on the Project Leader's  
computer under the "Start" button.*
  2. *Select Configure from the top menu. On the dropdown menu, click on "SBE 19  
Seacat CTD." A Windows form will appear on screen.*
  3. *Press the OPEN button on the form. Navigate to the new copy of the CON file  
made in the preceding step. Open it. The Windows form will now list the sensors  
defined in the latest CON file.*
  4. *Double click the name of the first sensor to adjust. A dialog box will be displayed  
showing the latest calibration entry for that particular sensor. Each sensor takes  
different types of values. The calibration document should have values that match  
the dialog box entries for a particular sensor.*
  5. *Revise the screen entries so they match the document.*
  6. *Press the OK button when the sensor has been fully defined.*
  7. *Back on the Windows form, press the SAVE button to permanently write the new  
information to the CON file.*
  8. *If there are additional sensor calibrations to enter, go back to the section on  
double-clicking the sensor name on the form.*
  9. *When done, press the EXIT button and then close the SBEDataproce.exe  
application.*
4. Submit the new file via email attachment to the Data Manager for validation,  
specifying in the message body it is deliverable OC\_A, as defined in protocol OC-  
2010.1.

## **2. Data Manager tasks**

1. On receipt of the submission, assign the next formal Submission Number to this file, as found in the master Submission\_Log table.
  1. Use the “Update Submission Log” web tool at [http://165.83.57.239/0\\_submission\\_update.aspx](http://165.83.57.239/0_submission_update.aspx).
  2. Complete Submission\_Log details up through the Submission\_Date column.
    1. Due to the nature of this deliverable, there is no submission unit scope. The filename is sufficient to distinguish it.
2. Save the file in the staging area for validation, ensuring its name meets the standards defined in Appendix J.
3. Validate the submission according to current criteria.
  1. Criteria are minimal because this deliverable’s form is proprietary to the CTD vendor.
  2. Record validation summary data in the Submission\_Log using the web tool.
    1. Set status code to V if mandatory validation passed.
    2. Set status code to F if mandatory validation failed
4. If submission fails mandatory criteria, reply with a “failure email” that includes:
  1. The submission number assigned
  2. The deliverable ID
  3. The protocol ID
  4. Documentation listing all the specific mandatory criteria failed
5. If submission passes mandatory criteria, reply with a “success email” that includes:
  1. The submission number assigned
  2. The deliverable ID
  3. The protocol ID
  4. Documentation listing any specific optional criteria failed
  5. Request to certify deliverable as complete

## **3. Project Leader tasks**

1. On receipt of a failure email:
  1. Re-edit the file so it is correct OR contact the vendor to obtain proper parameters.
  2. Restart the process from the beginning.
2. On receipt of a success email, review any failed optional criteria:
  1. If these are acceptable:
    1. Reply with a “certification email” stating the deliverable is certified and may be disseminated.
    2. Remember to generate a PDF of the CTD document and build a new deliverable OC\_G – CTD Calibration Certificates.
  2. If these are unacceptable:
    1. Reply with a “withdrawal email”, stating the deliverable is withdrawn.
    2. Take remedial action to obtain a corrected deliverable.
    3. Restart the process from the beginning.

## **4. Data Manager tasks**

1. On receipt of a withdrawal email:
  1. Mark the withdrawal in the Submission\_Log’s Status column using [http://165.83.57.239/0\\_submission\\_update.aspx](http://165.83.57.239/0_submission_update.aspx).
  2. Terminate the process.
2. On receipt of a certification email:

1. *Verify no sensitive information is in the deliverable. Products containing sensitive information cannot be disseminated.*
  2. *Copy the submitted file to test environment as AUXREP\OC\OC\_A\.*
  3. *Propagate from test to production environment.*
  4. *Verify deliverable is accessible from production web site.*
  5. *Mark the certification in the Status column in Submission\_Log using [http://165.83.57.239/0\\_submission\\_update.aspx](http://165.83.57.239/0_submission_update.aspx).*
  6. *Update the deliverable tracking spreadsheet with the date of completion for OC\_A.*
3. Update the scope of the formal metadata so it includes this new date range.