

# South Florida/Caribbean Network

National Park Service  
Inventory and Monitoring Division



## Standard Operating Procedure WT06

### *Entering Data into the Excel Field Log—Version 2.1*

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## Purpose

This SOP describes the procedures for entering data into the “Field Log” Excel spreadsheet to keep track of deployed loggers. This was previously maintained in the “Field Log” within a Microsoft Access database. The Access database is no longer used because the water temperature data are now stored in Aquarius. An Excel spreadsheet is now used to keep track of deployed field loggers and documents the details of the sensor number, serial number, date of issue, date of deployment, replacement schedule, last download, logger status, and any relevant notes. The Field Log documents sensor problems such as lost sensors or when sensors are removed from water to the boat. This provides a useful record during QA/QC procedures and a history of sensor deployment.

## Revision Log

| Revision Date | Author      | Changes Made                                                      | Reason for Change                 | New Version # |
|---------------|-------------|-------------------------------------------------------------------|-----------------------------------|---------------|
| 4/15/20       | Lee Richter | Rewrote to utilize Microsoft Excel                                | MS Access database no longer used | 2.0           |
| 9/28/22       | Lee Richter | Color coding to track logger expiration<br>Added “Logger Actions” | Better tracking of logger status  | 2.1           |

## Procedures

1. Scan the field logbook and place the copies in the following location:  
*X:\Files\Vital\_Signs\Coral\_Reef\_Water\_Temperature\data\field\_logbook*
2. This occurs before the next field trip to avoid loss of data in case a logbook is misplaced or lost in the field. Files are named as: TripStartDate(YYYYMMDD)\_TempLogBook\_Pages (e.g., 20120130\_TempLogbook\_p31\_33)
3. Append the most recently scanned pages to the master field log book pdf using Adobe Acrobat Professional:  
*X:\Files\Vital\_Signs\Coral\_Reef\_Water\_Temperature\data\field\_logbook\FieldLogBook.pdf*
4. Open the Excel spreadsheet, 'HOBO\_Temperature\_Field\_Log' The location of the file is:  
*X:\Files\Vital\_Signs\Marine\_Benthic\_communities\Water\_Temperature\data*
5. Whenever a logger is downloaded, removed, or changed in any way, this file is updated. There are three sheets within this file labeled “VI loggers”, “FL loggers”, and “Logger Actions” (Figure 1).

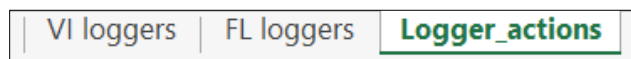


**Figure 1.** Tabs in the Excel worksheet for loggers located in the Virgin Islands and in Florida.

6. The following fields exist in the “VI loggers” and “FL loggers” sheets (Figure 2):
  - a. Site – Describes location of logger (e.g. VIIS\_HA\_1)
  - b. Serial Number (e.g. 20224114) – The serial number of the logger itself. Can be found printed on the side of the logger.
  - c. Date of Issue (e.g. 9/21/2017) – This is when the logger was made at the factory and can be found in HOBOWare Pro (see steps 6 and 7)
  - d. Date of Deployment (e.g. 12/2/2017) – This is the date that the logger was deployed at a site.
  - e. 5-year from issue (e.g. 9/21/2022) – This is 5 years from the *date of issue* of a logger. Loggers exceeding this date should be replaced. Onset Corporation suggests that under typical use, battery life for a HOBO Pro v2 Temperature Logger is 6 years with a 1-minute or greater logging interval. A 5-year replacement schedule gives a buffer in case a logger is not replaced during a given year due to unforeseen circumstances and is conservative to prevent loss of data. Cells are conditionally formatted to auto update to Yellow = Logger will expire within the next year (within 5 years of date of issue); or to Red = Logger expired. Replace immediately (>5 years since date of issue).

- f. 5-year from deployment (e.g. 12/2/2022) – This is five years from the *deployment date* of a logger. Loggers exceeding this date should be replaced.
- g. Last Download (e.g. 2/6/2019) – This is the date the logger was most recently downloaded
- h. Logger Status (e.g. Active) – This designates the status of the logger. Appropriate values in this field are “Active”, “Removed”, “Lost”, “Needs Replacement”, etc.
- i. Latitude (coordinates for logger location)
- j. Longitude (coordinates for logger location)
- k. Location detail (e.g. B1 in seagrass) – This field describes any specific information at the site to help find the loggers
- l. Notes

| 4  | Site       | serial number | date of issue | date of deployment | 5-yr from issue | 5-yr from deployment | Last download | Logger status | Latitude | Longitude | Location detail                              | notes |
|----|------------|---------------|---------------|--------------------|-----------------|----------------------|---------------|---------------|----------|-----------|----------------------------------------------|-------|
| 5  | VIIIS_HA_1 | 20224114      | 9/21/2017     | 12/2/2017          | 9/21/2022       | 12/2/2022            | 2/6/2019      | Active        | 18.35135 | 64.67932  | Separate pin near T11 with large MCAV nearby |       |
| 6  | VIIIS_HA_2 | 20224115      | 9/21/2017     | 12/2/2017          | 9/21/2022       | 12/2/2022            | 2/6/2019      | Active        | 18.35135 | 64.67932  | Separate pin near T11 with large MCAV nearby |       |
| 7  | VIIIS_MB_1 | 10745121      | 6/1/2015      | 7/31/2015          | 5/31/2020       | 7/30/2020            | 10/9/2019     | Active        | 18.35421 | 64.68443  | B1 in seagrass                               |       |
| 8  | VIIIS_MB_2 | 10745122      | 6/1/2015      | 7/31/2015          | 5/31/2020       | 7/30/2020            | 10/9/2019     | Active        | 18.35421 | 64.68443  | B1 in seagrass                               |       |
| 9  | VIIIS_NF_1 | 10745123      | 6/1/2015      | 12/2/2017          | 5/31/2020       | 12/2/2022            | 10/11/2019    | Active        | 18.34919 | 64.66807  | Isolated, separate pin NNE of T20            |       |
| 10 | VIIIS_NF_2 | 10745124      | 6/1/2015      | 12/2/2017          | 5/31/2020       | 12/2/2022            | 10/11/2019    | Active        | 18.34919 | 64.66807  | Isolated, separate pin NNE of T20            |       |

**Figure 2.** An example of logger information fields in the Excel Field Log.

7. In order to find the Date of Issue of a logger, open the \*.hobo file for the logger in question using HOBOWare Pro. Once the data are plotted, click the “Expand All” button on the left-hand panel of the window (Figure 3).

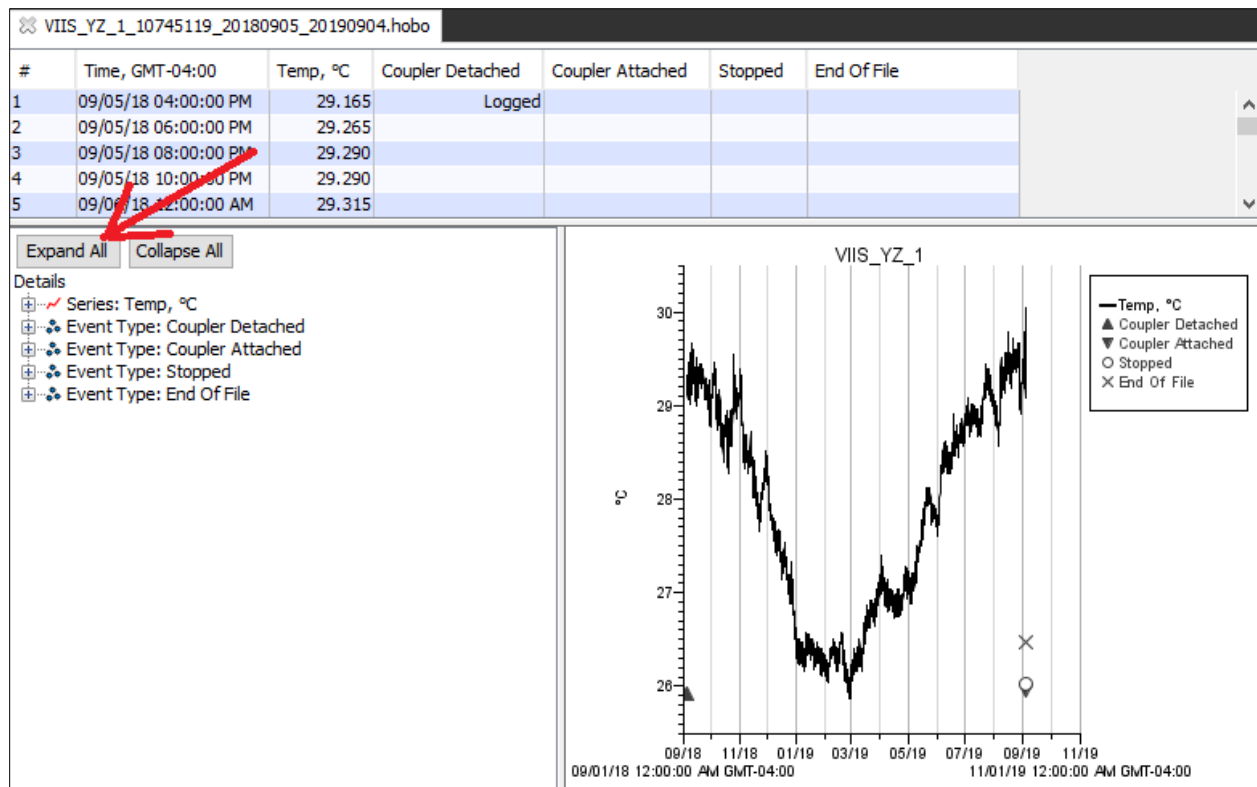


**Figure 3.** Click the “Expand All” button in the HOBOWare Pro window to find the Date of Issue for a logger.

- Under Series → Devices → Device Info, the bottom field is titled “Header Info” with a date and time (Figure 4). This date is when the logger was created and activated at the factory and is entered into the “Date of Issue” field for the appropriate logger in the Field Log.

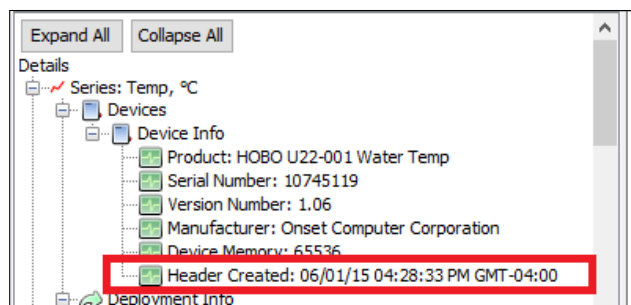


**Figure 4.** The “Header Created” field shows the time and date stamp when the logger was initially created. This is the Date of Issue.

- Any time a logger is manipulated (e.g., downloaded, replaced, etc.), the “Logger Actions” tab should be updated. This allows for tracking of individual loggers at the logger-level and site-level over time. Note that the table is filtered, so that individual logger names or serials can be tracked easily (Figure 5). The following fields are present:

- a. Logger name – this describes the site and location of logger (e.g., BISC\_AM\_2)
- b. Logger serial number – the serial number of the logger
- c. Action – describe what was done to the logger. Common entries are:
  - d. Downloaded successfully
  - e. Removed from site
  - f. Installed at site
  - g. Failed download
- h. Date – enter the date the action occurred
- i. Notes – may be left blank, but describe anything unusual. Examples could include: “Failed download. Sent to Onset. Data recovery successful” or “Logger launched improperly, data correction applied”

|    | A             | B               | C                 | D          |                   |
|----|---------------|-----------------|-------------------|------------|-------------------|
| 1  | Logger name ▾ | Logger serial ▾ | Action ▾          | Date ▾     | Notes             |
| 32 | DRTO_O84_2    | 10961629        | Removed from site | 6/24/2019  | Site discontinued |
| 33 | DRTO_O94_1    | 10767923        | Removed from site | 6/21/2019  | Site discontinued |
| 34 | DRTO_O94_2    | 10961636        | Removed from site | 6/21/2019  | Site discontinued |
| 35 | DRTO_LH1_1    | 10961393        | Removed from site | 6/22/2019  | Site discontinued |
| 36 | DRTO_LH1_2    | 10767924        | Removed from site | 6/22/2019  | Site discontinued |
| 37 | BISC_AM_1     | 20624964        | Deployed at site  | 8/27/2019  |                   |
| 38 | BISC_AM_2     | 20624963        | Deployed at site  | 8/28/2019  |                   |
| 39 | BISC_BB_1     | 10961627        | Deployed at site  | 11/16/2016 |                   |
| 40 | BISC_BB_2     | 20235590        | Deployed at site  | 11/6/2018  |                   |

**Figure 5.** An example of the data in the “Logger Actions” tab in the Excel Field Log.