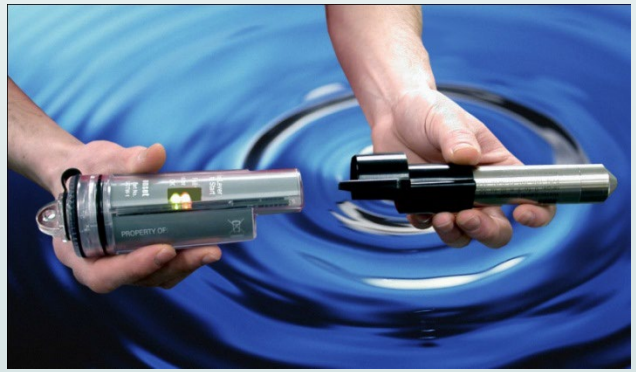
Download & relaunch with HOBO sensors

Scenario 1

Laptop (with HOBOware)

Scenario 2



Waterproof shuttle

Scenario 1 – laptop in the field

Workflow

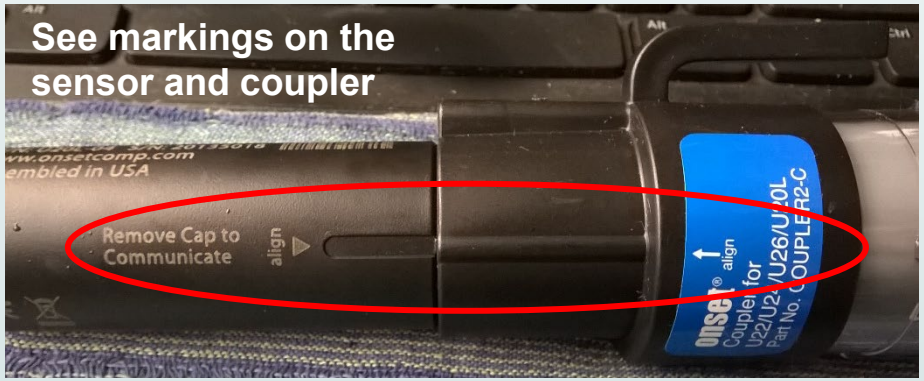
1. Obtain sensor
2. Connect sensor to the coupler/base station or shuttle/computer
3. Open HOBOware
4. Select ‘Readout’
5. Choose option to stop logger (important!)
6. Save the file on the computer
7. Relaunch the sensor
8. Put sensor back into position

Connect sensor to the coupler/base station or shuttle/computer

1. Remove the end cap

2. Make sure the optics aren't fouled

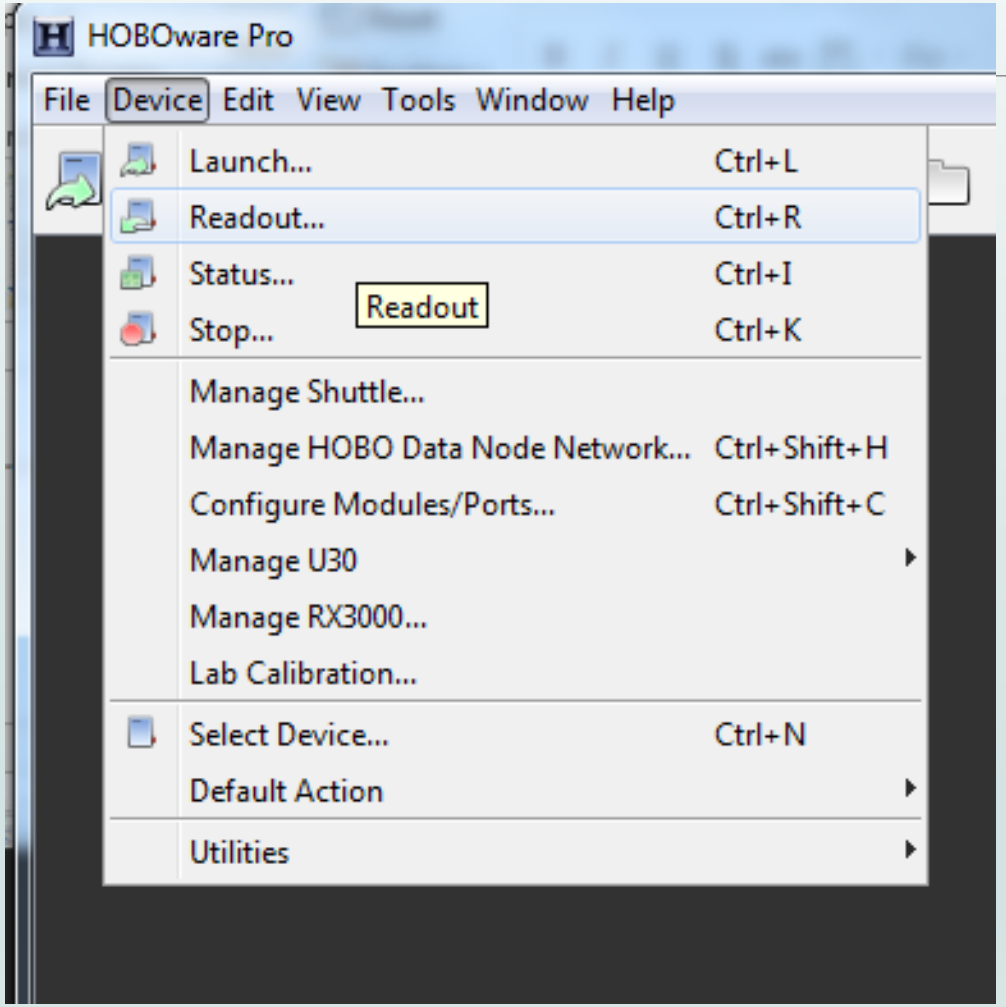
3. Attach the coupler (need to make sure the lines are aligned!)



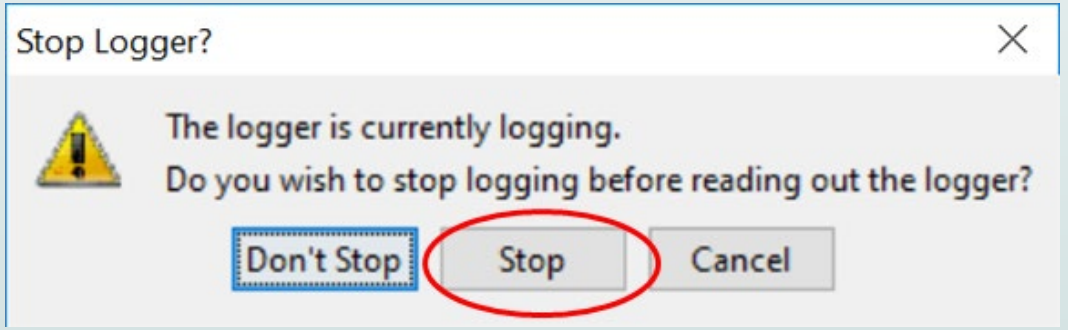
4. Attach the base station or shuttle

5. Plug the USB cable into the computer with HOBOware

Stop sensor, then readout



- Device
  - Readout
  - When prompted, select ‘stop’ logging before reading out logger

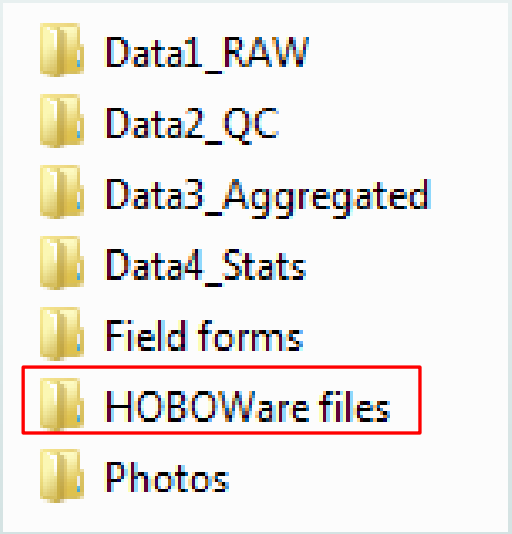


Important: by stopping and then restarting the logger, you start the next deployment with memory cleared and avoid data overlap. This also corrects the time to the laptop time.

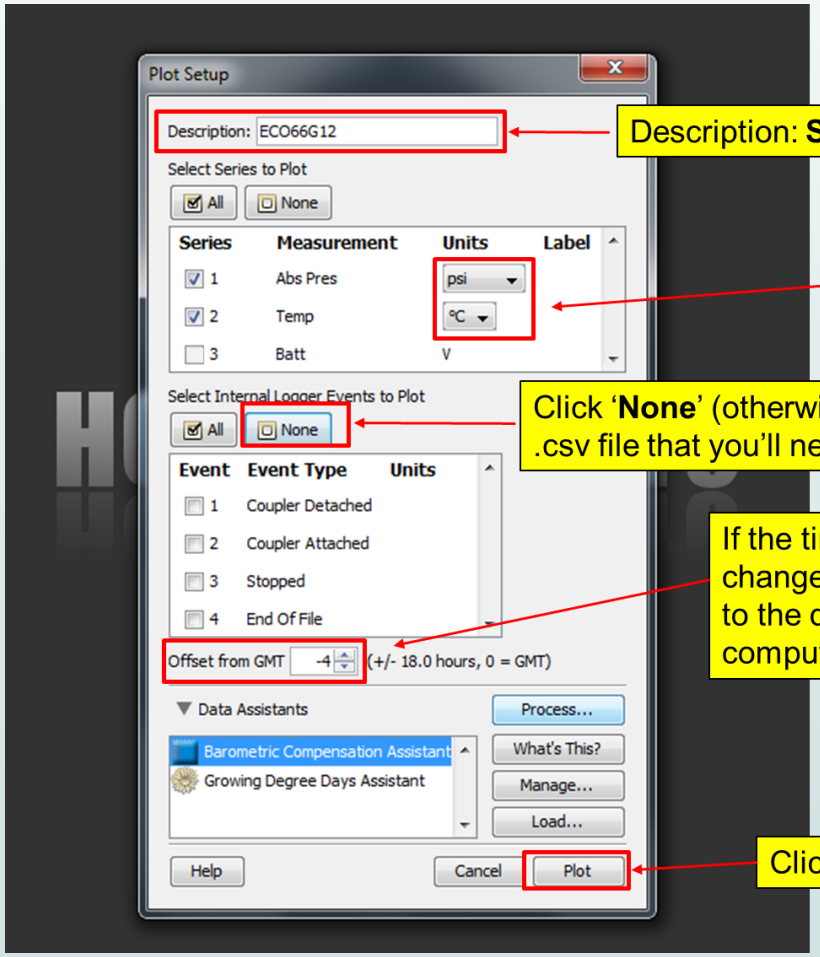
Save file

ECO66E09 - Clark

Consider setting up a folder for each site



Plot data



Description: **StationID**

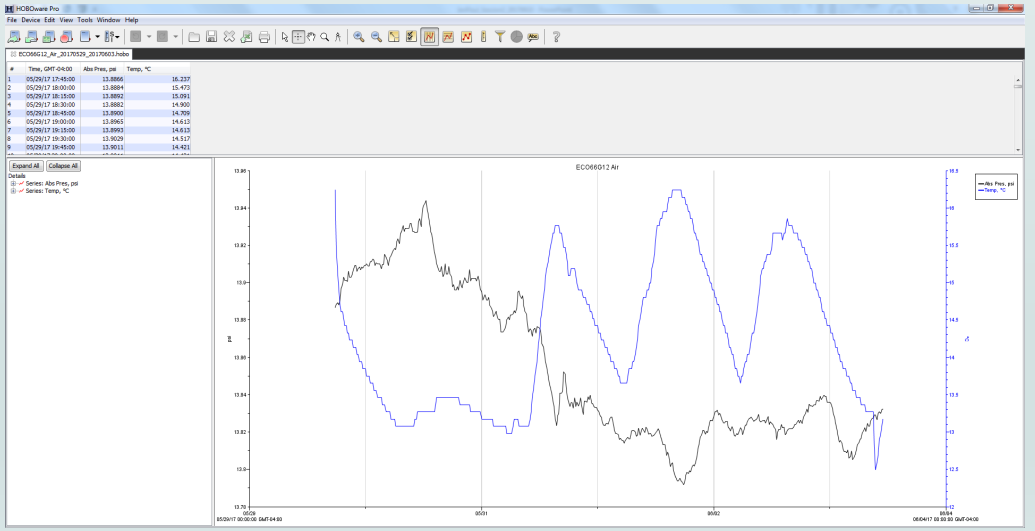
Units
- Abs Pres - psi
- Temp - °C

Click '**None**' (otherwise you'll get unwanted 'logged' entries in the .csv file that you'll need to delete later)

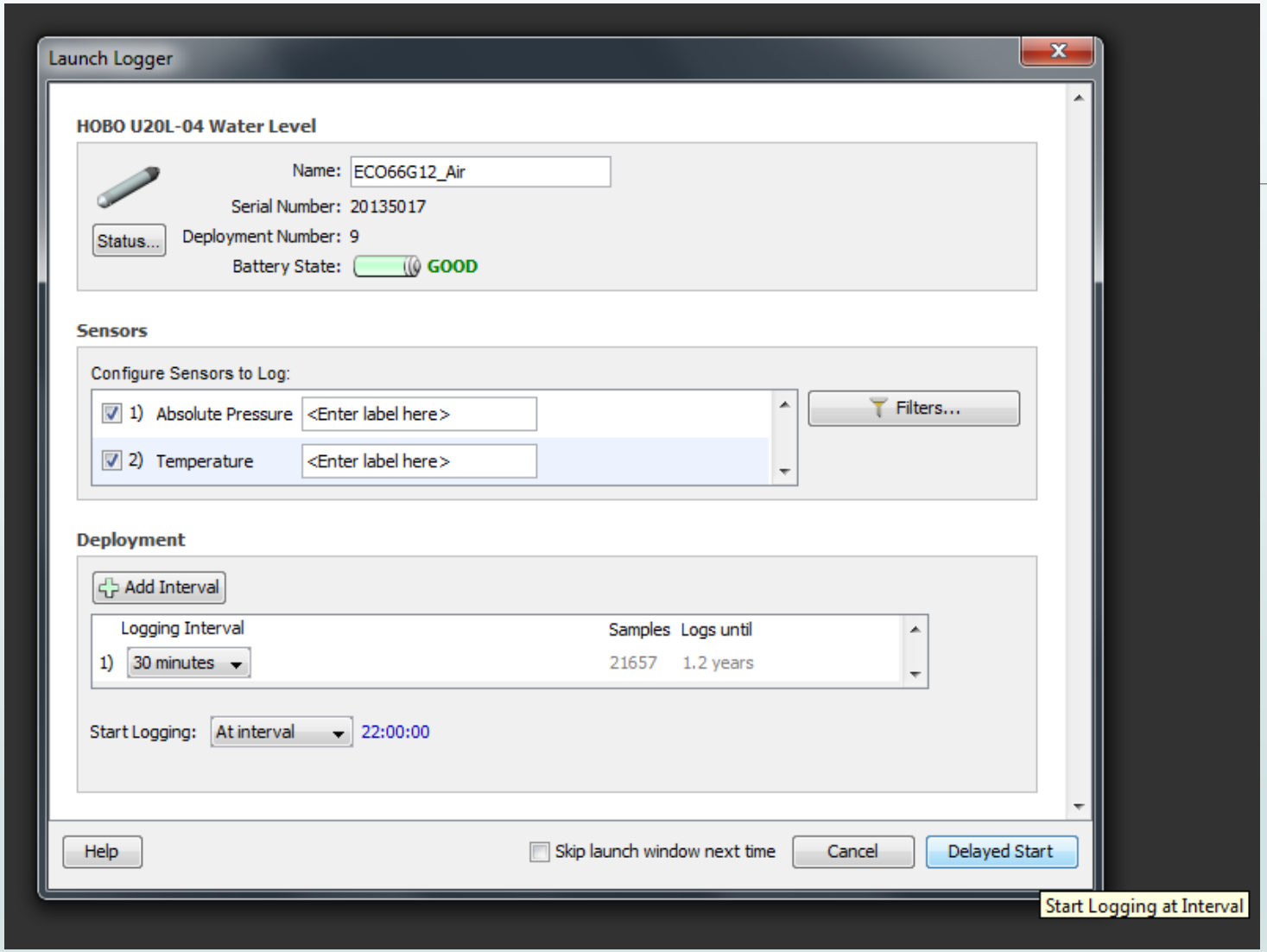
If the time zone for the site is incorrect, you can change that here (when you open the file, it goes to the default, which is the time zone of the computer at the time the sensor was launched)

Click 'Plot'

In the field, consider plotting the data and taking a quick look for potential problems (if the sensor needs to be replaced, now is a good time to find out…it could potentially save you a site visit)



Relaunch the sensor

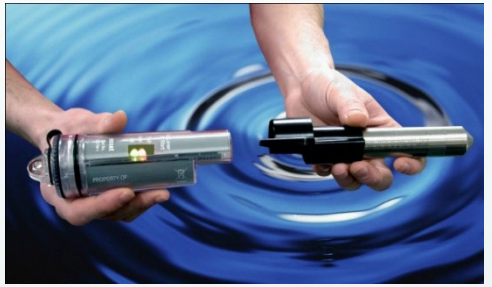


Check battery.

Check logging interval.

Start Logging “At Interval” so the logger will continue to take readings on the hour and half hour, if that is what it was doing (remember don’t use “Now”).

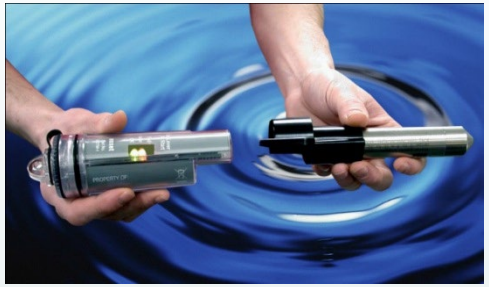
Scenario 2 – waterproof shuttle

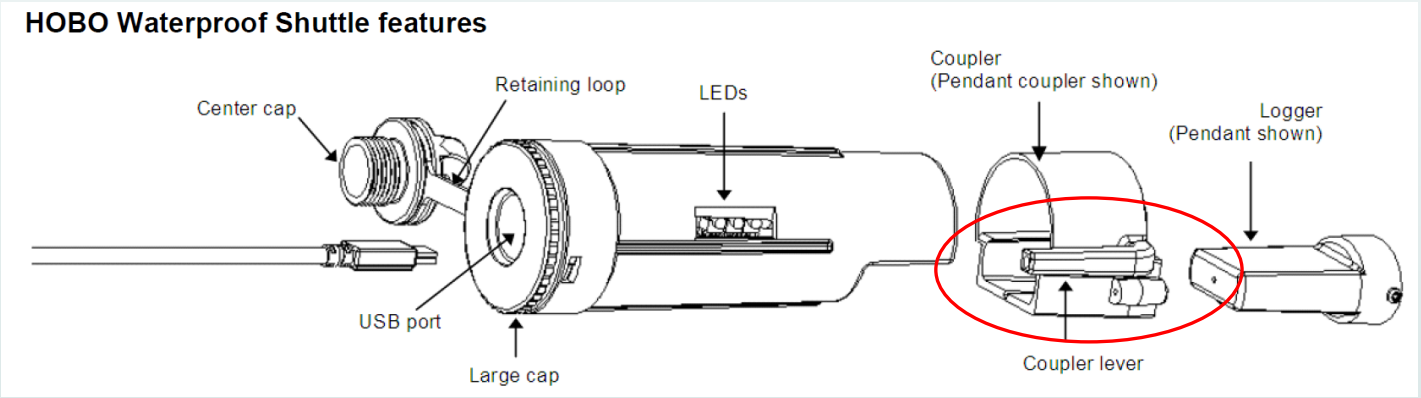


Workflow

1. Obtain sensor
2. Connect sensor to shuttle
3. Momentarily press coupler lever against shuttle
4. Release when you see the amber light come on
5. Amber light will blink during data transfer and relaunch
6. Will change to green blinking light when data transfer is complete
7. Momentarily press coupler lever to turn off the green light
8. Put sensor back into position
9. Download files onto the computer when able

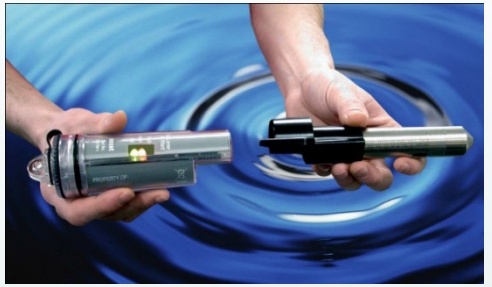
Waterproof shuttle



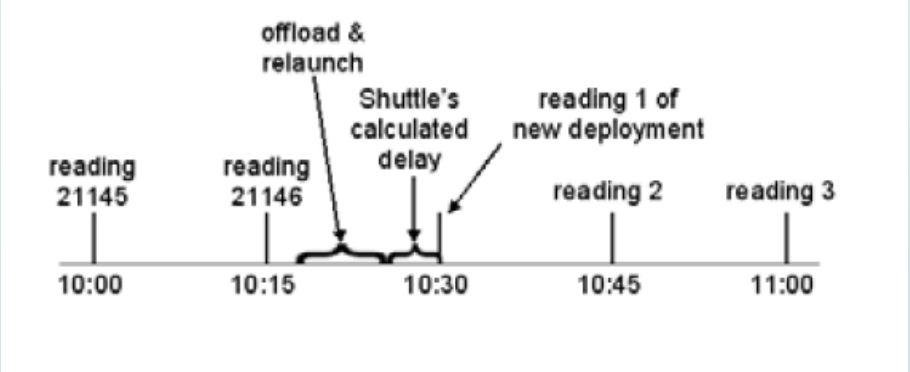


- Coupler lever contains a magnet
- Momentarily press coupler lever against shuttle
- Release when you see the amber light
- The amber light should blink during data transfer
- The green light should blink when data transfer is complete

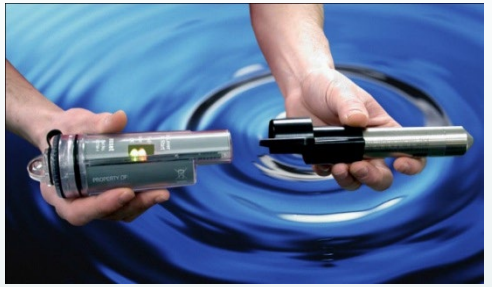
Waterproof shuttle relaunch



After reading out the logger, the shuttle synchronizes the logger's clock to the shuttle's internal clock and relaunches the logger, using the logging interval and other settings that are already in the logger from the previous deployment.



What if you see a red blinking light?

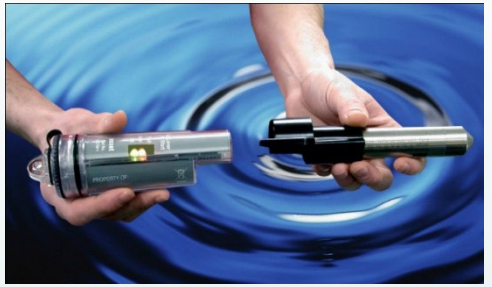


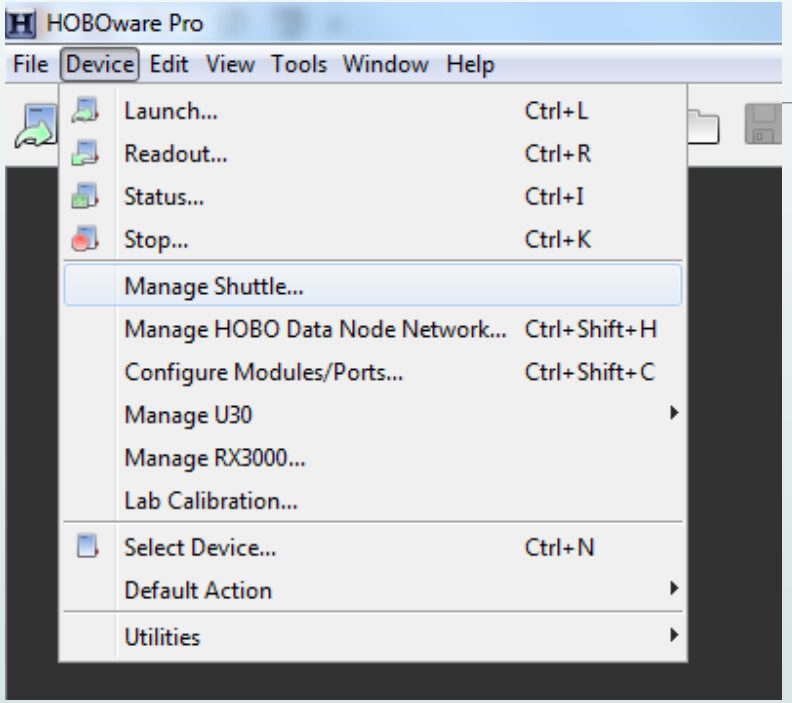
There was a communication error -

- Is the communication window clean?
- Did the logger move during download?
- Shuttle's batteries running low?
- All of the shuttle banks are full?
- Clock has not been set in the shuttle?

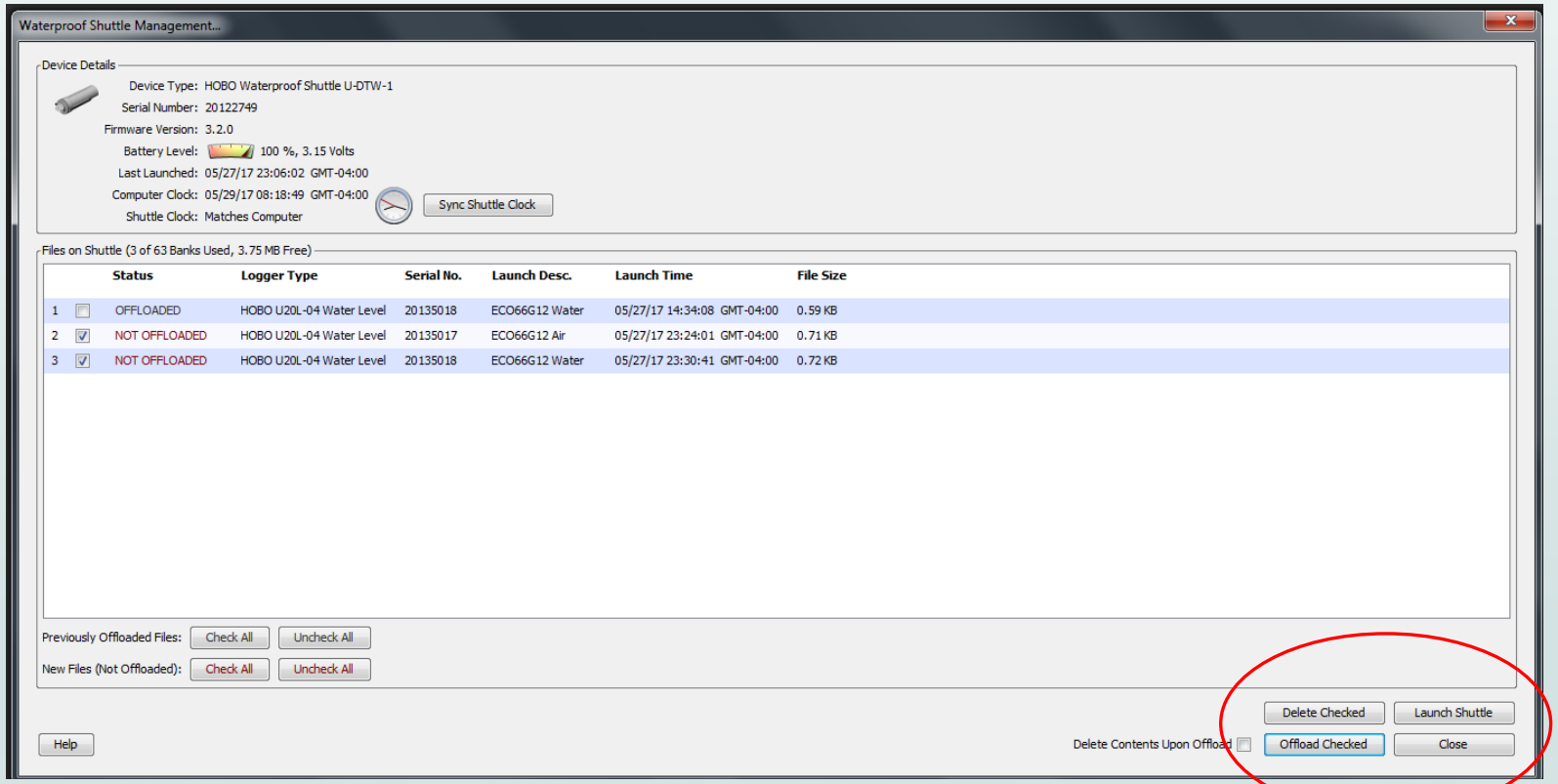
For more details, refer to the Troubleshooting section in the shuttle manual

Save files on computer





- Device
  - Manage shuttle



Note: if you click ‘Launch Shuttle’ it will clear the memory

Review: sequence of events during field visit

Before downloading the data –

- Check for anything that could cause the sensor to record questionable readings
- **Water temperature accuracy check**
- **Reference water level measurements**
  - Take the measurement **before you download** the data
  - You **can also take one after you download** the data and put the sensor back in position (but if you don't have the sensor out of position for long, it's probably not necessary)
  - Use an **average of multiple readings**
- **Elevation survey** (if possible)
- Enter all of this information into your **field notes/form(s)**
- Download
- Relaunch

Acknowledgements

Development of these instructional materials was funded by EPA ORD/NCEA (contact: Britta Bierwagen - Bierwagen.Britta@epa.gov), Red Lake Band of Chippewa Indians (contact: Shane Bowe - shane.bowe.redlake@gmail.com) and grants from the Bureau of Indian Affairs (BIA).

Tetra Tech developed the materials with assistance from David Gibbs (EPA ORISE fellow: gibbs.david@epa.gov), Paul Gannett (Onset: Paul_Gannett@onsetcomp.com), Michelle Craddock (MA RIFLS), Nick Murray (WV DEP) and other RMN partners.

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