SBC LTER Monthly Water Sampling
Physical Oceanographic Field Sampling Protocol

Contact Salazar@msi.ucsb.edu with questions regarding this protocol.

SBC LTER Monthly Water Sampling is typically conducted during the first week of the month depending on weather, boat and staff availability.

Supplies Checklist (current on January 2012):

- CTD package consisting of: CTD (SBE19plus serial number 4326) with flow through chlorophyll fluorometer (WET Labs WetStar serial number WS3S-537P), pump (SBE 5T serial number 053530), open 25 cm path length transmissometer (WET Labs C-Star serial number XXXXXX), all mounted in a stainless steel cage with an attached 5 lb weight hung from the bottom
- General Oceanic Rosette (customized by D. Menzies)
- (4) General Oceanic GoFlo 5 L Water Sampling Bottles modified to have quick connect fittings
- Scuba Tank
- Regulator
- High pressure hoses with quick connect fittings
- DI water
- Ethanol
- Small box of Kimwipes
- 4 Lines: 1 each for CTD, 1m, 5m, and 10 m
- (4) Messenger weights
- Field Notebook
- Pen or Pencil
- Spare Bolts for attaching Bottles to a line
- Spare mini-regulator
- Spare quick connect fittings
- Spare o-rings for the bottles
- Spare Velcro labels
- Yellow Tape
- Zip ties
- Diagonal cutting pliers
- Large Wrench
- Small Wrench
- Large Needle Nose Pliers
- Small Needle Nose Pliers

Quick Start Check List

Be sure you are familiar with the full protocol before using this quick list.

Day Before Sampling

1. Connect to CTD using Seaterm
-capture file name:
- check vbatt above 12.0
- check vlith
-data downloaded?
-initialize logger
-dummy plug back on CTD
2. Gather supplies into a pile for easy identification and make sure you have everything on the materials list

Water Sampling Day

1. Meet at lab 7:30 am
2. Lay down mats on deck of boat
3. Strap in CTD rosette
4. Load rest of supplies on boat – Use checklist to make sure you have everything.
5. Hook up trailer to vehicle.
6. Assist with launch from Goleta Pier or Harbor- Do as the captain instructs.
7. Set up for CTD cast
    a. Tie bowline and half-hitch to secure CTD line to CTD cage
    b. Remove soaking tube from CTD conductivity cell and place in bucket
    c. Connect Y-tube to from pump to conductivity cell
    d. Clean transmissometer lenses with DI water and kimwipes (1 kimwipe per lens)
    e. Clean transmissometer lenses with ethanol and kimwipes (1 kimwipe per lens)
    f. Clean transmissometer lenses again with DI water and kimwipes (1 kimwipe per lens)
    g. Check that others have set up the GoFlo bottles correctly. Instruct as necessary.
8. CTD cast
    a. Check with captain that you can put CTD in for 2 minute soaking, followed by cast
    b. Once captain gives permission, move CTD switch to ON position and yell out “CTD ON” so everyone can hear.
    c. Remove diver door
    d. Put CTD in water and lower to a depth of 6-10 ft to start the soak.
    e. Start stop watch, at 1min 30 seconds, yell out “30 seconds” loud enough for all to hear.
    f. Raise CTD to just below the water surface.
    g. At 2 minutes yell “Start of Cast” and begin controlled lowering of CTD (~1 m per second). Go faster if weather is rough. Tell captain to adjust boat position if you notice that the line is not going straight down.

h. When you feel bottom, immediately raise the CTD back on to the deck of the boat.
i. Move the CTD switch to OFF position and yell “CTD OFF” loud enough for all to hear.
j. Rinse transmissometer lenses with liberal amount of DI water.
k. Move CTD and line crate to position that is out of the way for filtering.

9. Assist with filtering water samples as needed.
10. After the trip
    a. Assist with boat retrieval
    b. Unload all supplies from the boat.
    c. Remove straps and unload the rosette.
    d. Use the hoses at the back of the boatyard to rinse the GoFlo bottles by filling them up and draining 3 times.
    e. Use the hoses at the back of the boatyard to spray rinse all the other gear that got seawater on it.
11. CTD instrument maintenance (Lab)
    a. Rinse with DI water
        i. place CTD on the left hand side of the sink
        ii. Connect DI water hose to the CTD conductivity cell nipple using the soaking tube.
        iii. Turn on DI water until flow pushes out all air bubbles in the tygon tubing. Keep the DI water running.
        iv. After 1 minute minimum, rotate the CTD 90 degrees.
        v. Repeat rotate + risne until all four sides have been soaked for at least one minute each. Turn off DI water
        vi. Stand up CTD with soaking tube on the bottom of the conductivity cell. Fill the cell and tube with DI water, put soaking on the conductivity cell creating a closed loop.
    b. Clean and dry tranmissometer lenses.
        i. Clean transmissometer lenses with DI water and dry with kimwipes (1 kimwipe per lens)
        ii. Clean transmissometer lenses with ethanol and dry with kimwipes (1 kimwipe per lens)
        iii. Clean transmissometer lenses again with DI water and dry with kimwipes (1 kimwipe per lens)
12. Download CTD Data

    a. Dry the data I/O bulkhead connector on the CTD.
    b. Remove the locking sleeve, then dummy plug.
    c. Spray with Deoxit pin cleaner and dry with kimwipes.
    d. Spray with silicone.
    e. Connect data communications cable and make sure it is connected to the computer serial port cable too.
    f. Using SeaTerm software
        i. Click on the Capture button and name the capture file. (Download_YYMMDD_sn####.cap)

ii. Save to the appropriate folder. (sn4326_new_config)
iii. Click on the Connect button.
iv. Click on the Headers button.
v. Click on the Status button while noting the time on the GMT web page.
vi. In the instrument notebook, write down the time from the GMT website, the CTD time and the difference.
vii. Click on the capture button.
viii. Restart the SeaTerm program.
ix. Click on the Connect button.
x. Click on the Upload button.
xi. Input the cast range for uploading.
xii. Create new folder "wxYYMMDD" and name the file "cast0" and click on open.
xiii. When downloading is complete, type "QS" and close the program.

g. Disconnect the communications cable from the CTD and put the dummy plug and locking sleeve back on the CTD.
h. Disconnect the CTD communications cable from the computer and put away in the cable cabinet.
i. Put the CTD away under the computer desk until next month.

13. Upload data to server

a. Log on to the server using the mapped drive on the computer.
b. Create a folder named (MM.DD.YYYY) in the correct path (data-entry/moorings/) and then copy the folder (wxYYMMDD) with all the water sampling data to this location.
c. Email Chris Gotschalk to let him know it's there and what it is called.

Protocol for SBC LTER Physical Oceanography Monthly Water Sampling

Day Before of Water Sampling (ideally a few days before)
Using SeaTerm, the terminal program provided by Sea-Bird Electronics (SBE) and a SBE communications cable, you will prepare the CTD (see Figure 1) for data collection on the SBC LTER Monthly Water Sampling. This will involve connecting to the CTD and making sure the battery levels are acceptable, double-checking that the data from last month has been downloaded and check that the memory is cleared and initialized.

Connect the communications cable to CTD: The Connector on the CTD has a plastic locking sleeve (see Figure 2) that you will unscrew to remove. The rubber dummy plug (see Figure 3) needs to be pulled STRAIGHT OUT. DO NOT TWIST THE DUMMY PLUG!!!! Twisting will break the pins (see Figure 4). Once the dummy plug is removed, connect the communications cable (see Figure 5). Most SBE communications cables look alike at first glance. You need to make sure that the number of pins and holes match up (see Figure 6). 4 pin and 3 pin are the most common SBE communications cables in our lab. You will need the 4 pin to connect to the SBE19plus. One of the CTD pins is bigger than the others; line up the CTD's big pin with the small bumps on the cable connector.. Push the connector just to the raised ring on the CTD bulkhead (see Figure 4 again). If the pins are lined up correctly, you will feel a little resistance as you try to go past the ring (but not before). If the pins are misaligned, you will feel strong resistance as you reach the ring and try to go past it. If you are misaligned, pull straight back and then twist to re-orient when you are clear of the pins and try again. AGAIN, DO NOT TWIST WHILE TRYING TO CONNECT!!. Once connected, check that you don't have an air bubble. Squeeze the connector on its sides, and if you have an air bubble, it will feel squishy. Push and squeeze the connector in further to remove the air bubble. Attach the other end of the cable to the serial port of your computer.

Check SeaTerm Settings: At your computer, start up the SBE program SeaTerm, click on the Capture button. Set the path to the appropriate folder (or create one). Currently the path is C:\ctd\Profile CTD 4326 new config. For SBC LTER, the monthly data folder is labeled wxYYMMDD for the date of the water sampling. Name the file "status_check_YYMMDD_snXXXX.cap" using today's date (check date) and the serial number of the CTD. For example: status_check_120127_sn4326.cap" for a status check of serial number 4326 on January 27, 2012. This will record the commands and responses sent to and from the CTD.

Click on the "Configure" menu. Make sure that "SBE19plus" is selected, or select it now.
SBC Default Settings:
Baud rate: 4800 baud
com port: 1
data bits: 8
No parity
RS-232 (Full Duplex)
upload "By cast number range"

upload baud: 4800
include default header form in the upload file: yes

Click the buttons for “Connect”, “Headers” , “Status”. We do this so that these responses are logged to the file.

Time check of the CTD: Open a web browser. Go to the URL: http://wwp.greenwichmeantime.com and make sure the computer is set to GMT (or UTC, standard time). While in the active SeaTerm window, type the command “DS” but only press the “enter” key when you know exactly what time it is from the GMT web page. In the instrument notebook, write down the given by the GMT website when you pressed enter and the CTD time that you got back, and note any difference between the two. If you have to reset the CTD time to GMT, use the commands “MMDDYY=######”, “enter” then “HHMMSS= ######” to set the clock. The DS command is a “Display Status” command. It lists the CTD’s current status as well as the time.

Now that you’ve set the time, you’ll want to make sure the data has been downloaded to a file using the Windows Explorer program, look for a folder labeled “wxYYMMDD” based on the date of the last sampling. Inside you will want to see the capture file, (download_YYMMDD_sn####.cap), from the download session and the data files. There should be 5 data files labeled cast0001.hex-cast0005.hex. The file sizes range from around 38 kb to 52 kb roughly. Any data files around 5 kb or less are bad data. The capture file will be around 4 kb.

Clear and initialize CTD memory: Once you’ve confirmed the data is on the computer or server, you can clear and initialize the memory of the CTD. Back in SeaTerm, if the CTD has timed out, hit enter a couple of times to get a prompt or click on the “Connect” button. Once you have a carrot, click on the “Init Log” button. The program will ask you to confirm and after you confirm, it will let you know when the instrument is ready. You can now click the “capture” button to stop the file capture.

Check CTD battery:. In the display status response, “vbatt=##.#” and “vlith=#.#” are the two values to look for. If vbatt is in the low 12.0-12.2 V, it’s a good time to change the alkaline batteries. The battery cutoff is 7.5 V but with the external optical sensors, the voltage can drop dramatically from 12.0V during the course of a cast. The vlith will actually report when the voltage is too low but by monitoring, it won’t be a surprise when it does. The lithium battery on the circuit board can be replaced, so it’s better to keep an eye on the level and do preventative maintenance when possible. At this point, you are ready to close the program and disconnect the CTD communications cable and then put the dummy plug and locking sleeve back on.

Day of Water Sampling

Typically the day starts at 7:30 am. At the lab we start loading everything on to the boat. All the materials listed should have been gathered into a pile the day before so that any undergraduate volunteers can easily identify what needs to go on the boat.

1. In general, rubber anti-fatigue mats need to be laid down on the deck of the boat first, to protect the deck.
2. Load the CTD rosette which is used as a water sample bottle holder (see Figure 7). Strap it to the deck with tie-downs attached to the permanent D-rings on the boat for this purpose. Pass the straps through the lifting bale and be careful to avoid putting any tension on the water sampling bottles. Next, load the rest of the gear, including the three coolers containing the sample bottles, filters and gloves.

We typically launch from the Goleta Pier, but on rougher days or if it is closed, we will launch from the Santa Barbara Harbor. Sites are visited in this order: Arroyo Quemado, Naples, Arroyo Burro, Mohawk, and Carpinteria

Once on site, the boat is stopped and the captain notes where the boat is in relation to the mooring surface marker, a spar buoy. Now is when you start getting everything ready for sampling and once done, the captain will note where the spar is again. This gives the captain an indication of how the currents and wind are affecting the boat drift. The CTD will need to soak for two minutes and the boat is adrift during this time. The captain wants to make sure to drift as close to the mooring site for the cast and sample collection as possible.

We typically have a crew of four to five. This allows us to have one person taking care of the CTD cast, and one person for each bottle at all of our sampling depths. The plan is to take all the water samples from 1m, 5m, and 10m at the same time that the CTD cast is being done.

Go-Flo Water Bottle Sampling :
1. There are 3 lines, one for each of our sample depths: 1 m, 5 m, and 10 m (see Figure 8). Each line is labeled and measured for a specific depth with a weight on one end and the other end is free. Attach the free end of the line securely to the boat. I typically use a bowline knot with an added half hitch knot to a permanent D-ring or handle on the boat. This is done so that if we drop the bottle by accident, we will not lose it. It will still be attached to the boat.
2. Near the weighted end of the line, there is a knot (see Figure 9). This knot goes at the base of the bottle's attachment bracket. It needs to be placed just low enough that it can be moved out of the way when you put the bottle back onto the rosette (see Figure 10). You need to unscrew the wing nuts of the top and bottom capture bolts enough that the line can fit into the grooves of the bracket and the bolts (see Figure 11) then tighten the wing nuts to lock the line in place. You are correctly lined up if the yellow tape mark is at the center of the bottle (see Figure 9 again) and the line is not slipping. You may need to loosen or tighten the bottom wing nut so that it is oriented such that you can attach the bottle to the rosette again (see Figure 12).
3. Now that the line is secured. You need to set the bottle for water collection. Standing the bottle up on the deck, stabilize it by placing your hand on the top but DO NOT PRESS ON THE CENTER. Only put your weight on the edge (see Figure 13).

4. Grab the black rubber band near its top knot and pull up and over which will rotate the ball valve it is attached to. Flip the bottle and repeat this process with the other end of the rubber band OR you will need to tilt the bottle slightly and push the bottom end of the rubber band down and across to rotate the ball valve on the bottom of the bottle. The reason you need to flip or tilt is because the ball in the center top/bottom of the bottle may be touching the deck. If it is, this will cause extra friction that can make your job more difficult and it can also lead to contaminants entering the bottle sample. The same reasons apply to your hand when you stabilize the bottle. You don't want to fight yourself by having the stabilizing hand working to keep the ball valve in place and other hand trying to rotate it.
5. Rotating the ball valves creates slack on the Kevlar lanyard system. Using this slack, bring the loop to the center of the attachment bracket. Press down or move the white rod so that the stainless steel pin in the center of the attachment bracket moves such that you can now put the loop in so that when you release the white rod, the stainless steel pin will trap the loop in place (see Figure 14).
6. Now using the rubber bands, rotate the ball valves back. The pin locks the lanyard system in the correct length so that the top and bottom of the bottle will be open. If they are not, it probably means that the line is caught up somewhere. Two typical problems are 1) near the knot, the white ball gets caught under the lanyard (see Figure 15) and 2) the lanyard loops around the high-pressure nozzle (see Figure 16).
7. Now that the bottle is open on the top and bottom, check that the high-pressure nozzle is screwed all the way in.
8. Pull the spigot out and see that it can rotate freely. Having done these two steps, when the bottle closes, it will be water and airtight.
9. In order to close the bottle at depth, you need to attach a messenger weight to your line. Do this by lifting up on the integrated lever of the messenger weight. This opens up the slot for you to put the messenger onto the line. When you release the lever, it closes and secures the weight onto the line (see Figures 17-20). Orient the messenger weight on the line so that you can hold onto the messenger's lanyard and the line at the same time.
10. Wait on the CTD person to tell you to put your bottle in the water. When told to do so, lower your bottle over the side of the boat and into the water. Lower all the way until the correct tape mark on your line is at the water surface. Let the captain know if your line is not vertical. The captain may need to put the boat in reverse to straighten up your line. Now wait for the CTD person to tell you when to take your sample.
11. When the CTD person says, "Start of cast! Take your samples!" Release the lanyard and let the weight drop down the line ONLY if the line is vertical. If the line is not vertical, the weight will land on the side of the white rod and do nothing (see Figure 19). You will need to pull the bottle all way back up and try again. If you have the line vertical, the weight will land on top of the white rod, push it down causing the steel pin to move out of the way and release the lanyard system that closes the bottle (see Figure 20). You can usually feel it on the line when the bottle closes properly.
12. Pull the bottle up and if you see that the bottle is closed, yell out the depth that you took your sample at. The note taker will write down the time your sample was taken. If the bottle is still open, grab the messenger lanyard and lower the bottle back down to try again.

13. Now that you have the sample, bring the bottle all the way back on board the boat. Be careful. Do not hit the side of the boat with the bottle.
14. Once back on deck, put the bottle back onto the rosette. Put the bottom end of the bracket on first and then move the white rod down as you put the top of the bottle into place. The spring loaded action of the white rod will lock the bottle in place (see Figure 7 again).

CTD CAST:
1.Use a bowline knot with a half-hitch knot to secure the CTD line to the CTD stainless steel frame ring (see Figure 21). The line itself is much longer than the depths we will be sampling in, so it's secured to its storage crate but not to the boat. DO NOT DROP the CTD.

2. Remove the soaking tube (see Figure 22).
3. Connect the Y-tube (see Figure 23).
4. Next, clean the optical lenses of the transmissometer (see Figure 24).
a. First thoroughly rinse both of the lenses with de-ionized or distilled water (a.k.a. DI water). Do this to remove any hydrophilic substances on the lenses. Then using a separate Kimwipe for each lens, gently wipe dry in one motion per Kimwipe. Do this so particles picked up by the Kimwipe will not scratch the lens. When getting the Kimwipe, make sure to grab it from one edge and fold it to the other with minimal contact with your hands to prevent adding body oils to the kimwipe and then the lenses.
b. Now use 100% ethanol to clean the lenses again. This will remove any hydrophobic materials. Again, wipe away with one kimwipe per lens.
c. A final rinse of DI water is next. Wipe dry with a kimwipe for each lens as before.
5. The CTD is ready to cast. Ask the captain if you can put the CTD in for soaking. Wait until the captain gives the go-ahead.
6. With the captain's approval, turn on the CTD and yell out loud so that the entire crew knows that, "The CTD is ON!" This is done to help ensure that the CTD is on while in the water.
7. Remove the diver door. Place the weight in the water first. Next, lower the CTD to a depth of about 2-3 m or 6-10 ft and keep it there for 2 minutes. I use a wrist watch stop watch to time this soaking period. This soaking is done to clear any air bubbles from the CTD conductivity cell and plumbing. This also gives the temperature probe a chance to equilibrate to ambient temperature. It can get heated up or cooled down depending on environmental factors such as sun exposure and wind chill.
8. At 1 minute 30 seconds of soaking, yell "30 seconds. Put your bottles in the water." This is done so that the rest of the crew can get the water bottles in position and let the captain know if any adjustments need to be made.
9. Just before two minutes are up, raise the CTD back up to just below the surface and then at 2 minutes, yell, "Start of cast; take your samples now." This is when the person taking notes will write down the start of cast time in the log.
10. Lower the CTD all the way down until the weight (hung at the bottom of the frame) touches the bottom. You will feel it. Quickly raise the CTD back up once bottom is felt. I usually have the crate of CTD line at my feet and feed the line right back into the crate

while I am raising the CTD. This keeps the line from being tangled on the deck and creating a trip hazard.
11. Once the CTD is on deck, turn off the CTD and yell, "CTD off!" This is to ensure that the CTD is off during the travel time between sites. Thoroughly rinse the transmissometer lenses with DI water to prevent hard water stains from developing.
12. If you had any issues with a CTD cast, write it down in your field notebook.

FILTERING:
Now that all the GO-Flo water sample bottles are on the rosette, the filtering begins. DOC is collected from the 1 m bottle ONLY, and this is done before collecting the samples for nutrients, chlorophyll and HCN. Assuming we have trained staff available, the bottles are worked on simultaneously. While someone is collecting the DOC sample from the 1 m bottle, the other staff are collecting the nutrient sample volume from the 5 m and 10 m bottles. After that is done, the remaining water is drained into labeled 5L carbuoys. A high pressure system is attached to the bottle to speed up the flow of the water. This helps greatly with the DOC collection and filling the carbuoys. The sample volume for nutrients is so small that the pressure system can actually make it a bit more difficult to collect the volume without over filling or over spray. Once filled, the carbuoys are placed in a cooler for storage during the trip. For travel to the next site, the filtering paraphernalia is placed back in its cooler and the bottles are left attached to the lines while on the rosette. The CTD is laid on its side so it won't fall down during travel. We do this for all the sites and sample depths listed in Table 1.

Table 1. SBC LTER Monthly Water Sampling Sites

SITE NAME	Depths where water samples are collected
Arroyo Quemado	10m, 5m, 1m
Naples	10m, 5m, 1m
Arroyo Burro	5m, 1m
Mohawk	5m, 1m
Carpinteria	5m, 1m

Cleanup and travel back: After completing the sampling at Carpinteria, we disassemble the equipment, putting away all lines and get ready for travel back to either Santa Barbara Harbor or Goleta Pier depending on weather. If the weather is good we go back to Goleta Pier, if not, we have someone bring the trailer to Santa Barbara Harbor and retrieve the boat there.

Once back at the boat yard, all of the gear is unloaded. Samples are handed off to the biological oceanography lab for further filtering and analysis. The boat and any gear exposed to seawater is rinsed thoroughly with fresh water.

1. While all bottles are on the rosette, fill each GoFlo sample bottle with fresh water and let drain out the spigot while the next bottle is being filled. Once all bottles have been filled, empty the first bottle out the bottom by opening it up manually. Do this until each bottle has been rinsed three times. Rinse the outside of the bottle before and after the fills. Work the top screw and spigot while rinsing. Remember to rinse the underside of the rosette and bottles.

2. Rinse the exterior of the CTD in the boatyard with fresh water.
3. Take the CTD inside and place on the left sink counter.
4. Connect the soaking tube to the bottom of the conductivity cell.
5. Connect the DI water hose to the soaking tube and turn on the DI water to flush the CTD's plumbing system for a **minimum** of 4 minutes: 1 minute on each side. Rotate the CTD 90 degrees after a minimum of 1minute of flushing so that all interior angles get rinsed and no hard water stains can develop on the fluorometer lenses.
6. Clean the transmissometer lenses in the same fashion as when getting prepared for a CTD cast.

DOWNLOADING THE CTD DATA:

After rinsing and cleaning the lenses, it's time to download the CTD's data.

1. Connect the CTD up to the computer taking special care to dry the CTD's bulkhead connector before connecting the SBE communications cable.
2. Using SeaTerm, create the capture file "download_YYMMDD_sn####.cap" in the appropriate folder path. Currently the path is C:\ctd\Profile CTD 4326 new config\wxYYMMDD (using the date of today's water sampling). Create the wxYYMMDD folder if it doesn't already exist. The capture file will record all commands sent to the CTD and its responses.
3. Click on "Connect," this wakes up the CTD.
4. Click "Status," Check the time and battery levels as when performing a status check.
5. Click "Headers" This is very important. This is the metadata we use to connect the generic ctd cast data to a specific site. Normally, there's only 5 casts in the memory: one cast for each site but sometimes we have false starts or other problems which results in more casts. Notes should have been made on the boat in the field notebook in such cases. Any additional casts should match up with your notes of false casts or other issues encountered during the day. This is also where you will find out if the cast was ended due to low battery levels.
6. Click "Coefficients"
7. Finally click on "Upload". The program will ask you to select the appropriate cast range. Select the appropriate cast range. When in doubt, select all and then you can delete bad casts later. You are now asked to name the ctd file. Make sure you are downloading to the appropriate folder then type in "cast0" and press "enter." This will cause each file to be numbered sequentially resulting in files cast0001.hex to cast0005.hex.
8. Once the download is complete, make sure all data and capture files exist in the correctly named folder.
9. Put the CTD to sleep with the "QS" command.
10. Disconnect the CTD communications cable and put the dummy plug back on.
11. Put the CTD away until next month. Currently it resides under my computer desk.
12. Place the data and metadata on the server. Our data processing technician, Chris Gotschalk, set up a transfer folder area on the server so that I/you can create a

folder named for the day it was created it. The current path is X:\data\data-entry\moorings

a. At the appropriate server location, create a folder using todays date in the format of MM.DD.YYYY
b. Copy all of today's data and metadata into the folder you just created. Sometimes there is other data from other projects that was downloaded today or within a few days or any specially requested data by Chris that will need to also be copied here. Do this as needed. Note: I keep some data on the desktop computer and on the server.

13. Email Chris to let him know the data is on the server and what folder to look for. Your part is now done until next month.