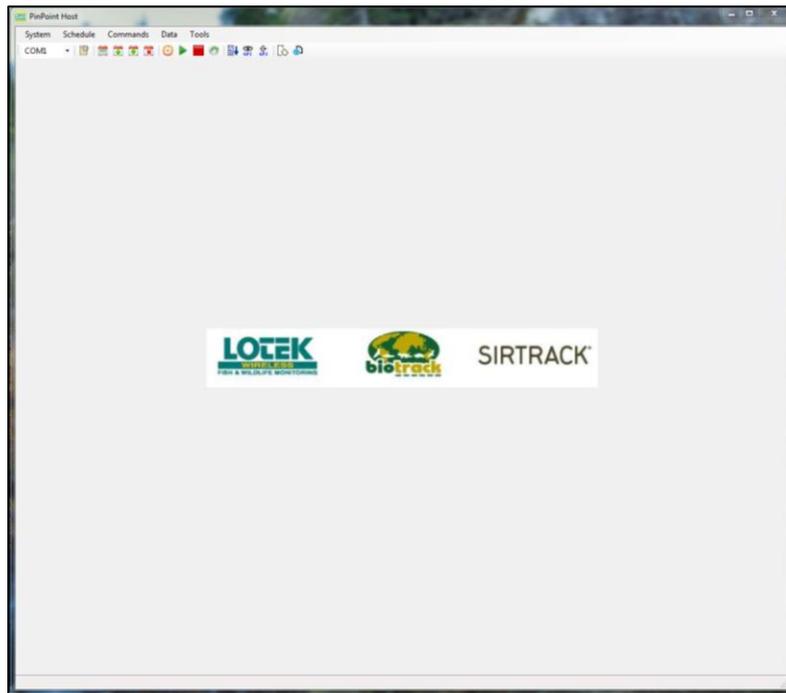




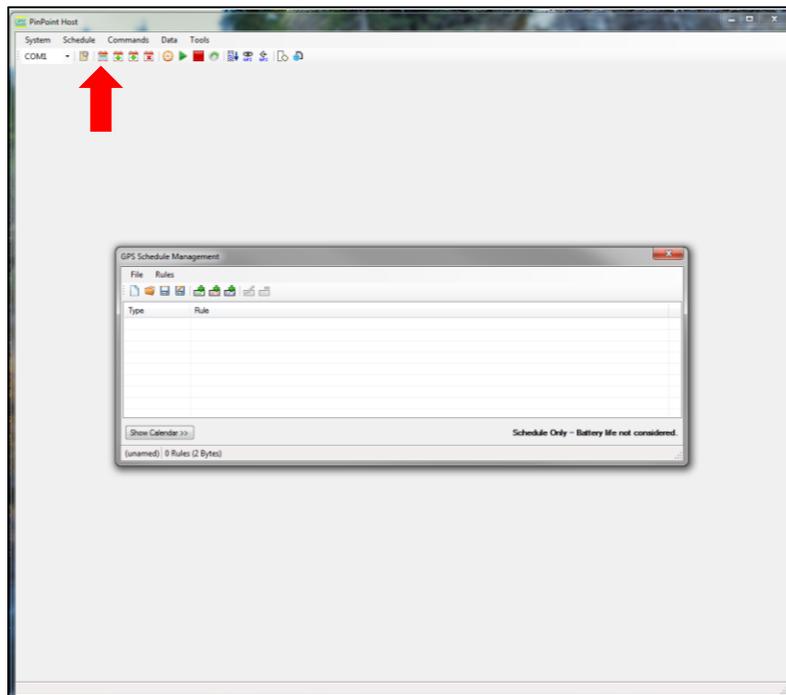




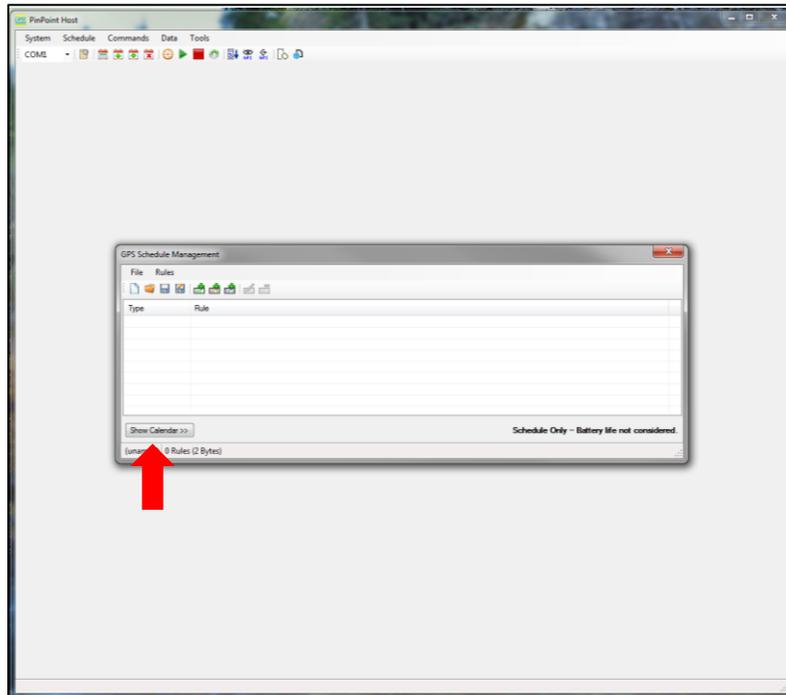
1. Open Lotek PinPoint Host software



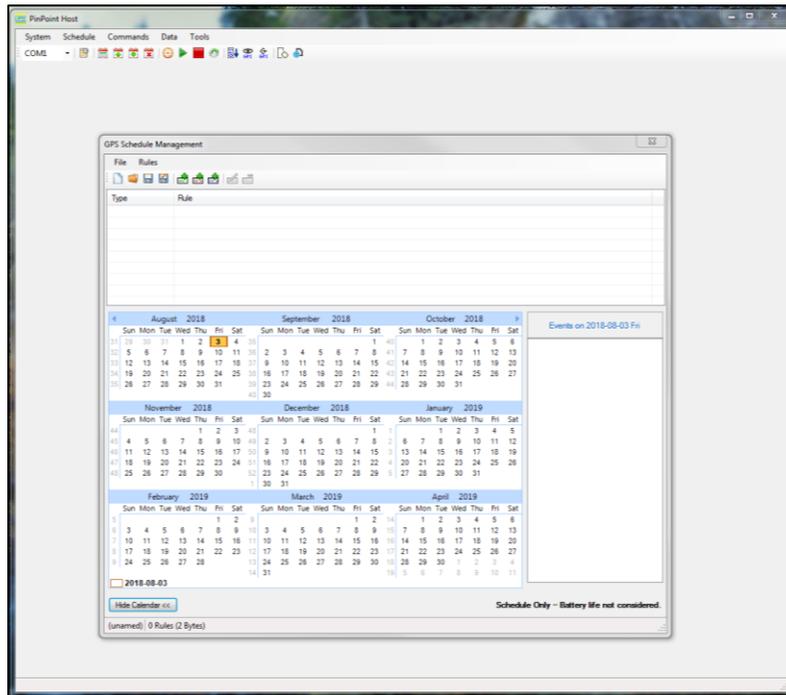
2. Click on the calendar symbol to create your schedule.



- Click on the gray box “Show Calendar >>”

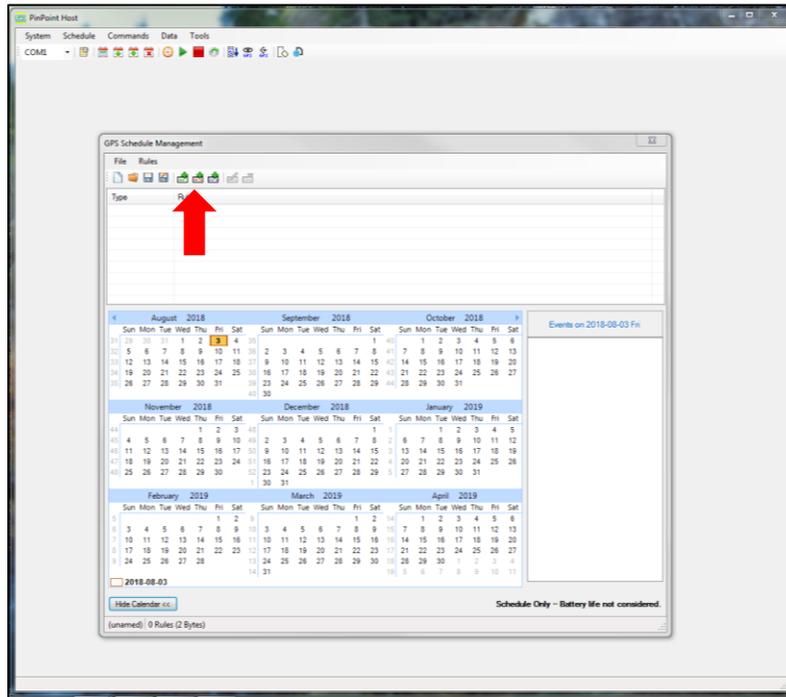


Your browser should appear similar to below.

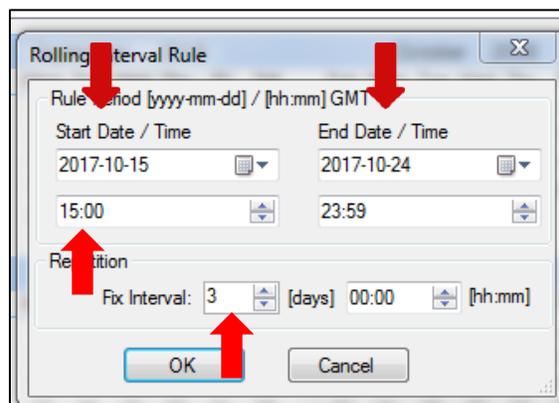


- To add dates and time to your schedule, you will click on either “Add Rollover Rule”, “Add Discrete Rule”, or “Add Cyclic Rule”. Programed locations must be at a minimum of 20 minutes apart between collections. When programming transmitters

for the Eastern Woodcock Migratory Research Collaborative (EWMRC), we will not use the “Cyclic Rule”.

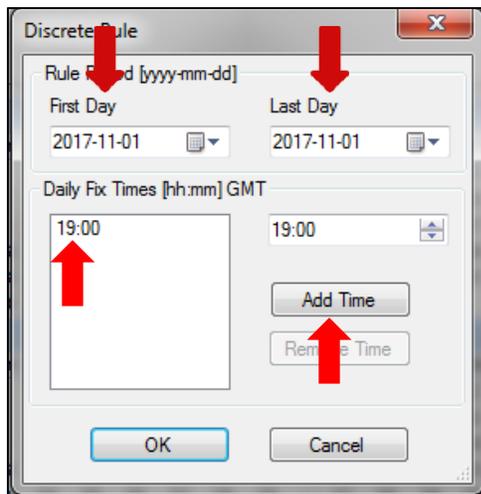


- a. “Add Rollover Rule” – Allows the user to program locations that are collected on a set interval. By specifying multiple days between location fixes, we can program a location to be collected at a specific time every three days. The user will need to specify the start and end dates for the rollover period. Example: The transmitter will collect locations at 15:00:00 on 10/15/2017, 10/18/2017, 10/21/2017, and 10/24/2017.

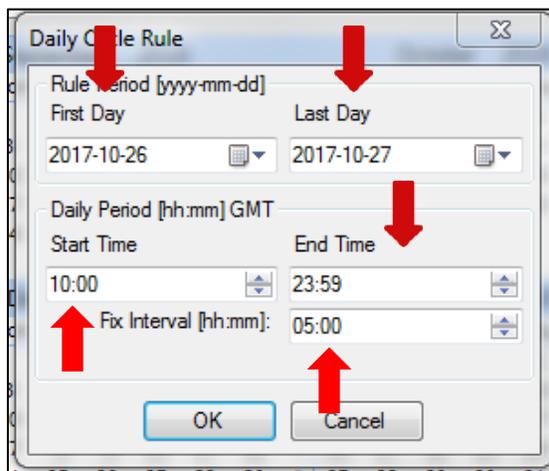


- b. “Add Discrete Rule” – Allows the user to collect a location at a single date and time. If collecting a location at the same time for multiple days, you can specify a span of days to collect GPS locations. However, the “Discrete Rule” will primarily be used when referring to a specific date and time for the

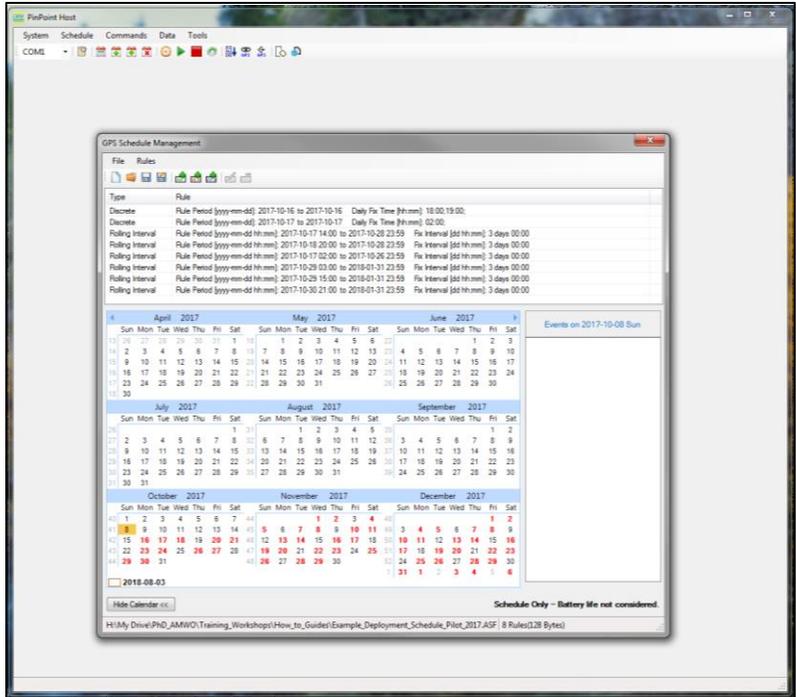
EWMRC. You will need to click the “Add Time” button for the time to appear in the box on the left. Example: The transmitter will collect a locations at 19:00:00 on 11/1/2017.



- c. “Add Cyclic Rule” – Allows the user to collect locations on a rolling time period, over a specified span of days. The user specifies the number of hours or minutes between locations collection. The collection period will reset every day. Example: The transmitter will collect locations at 10:00:00, 15:00:00, and 20:00:00 on 10/26/2017, and 10:00:00, 15:00:00, and 20:00:00 on 10/27/2017.

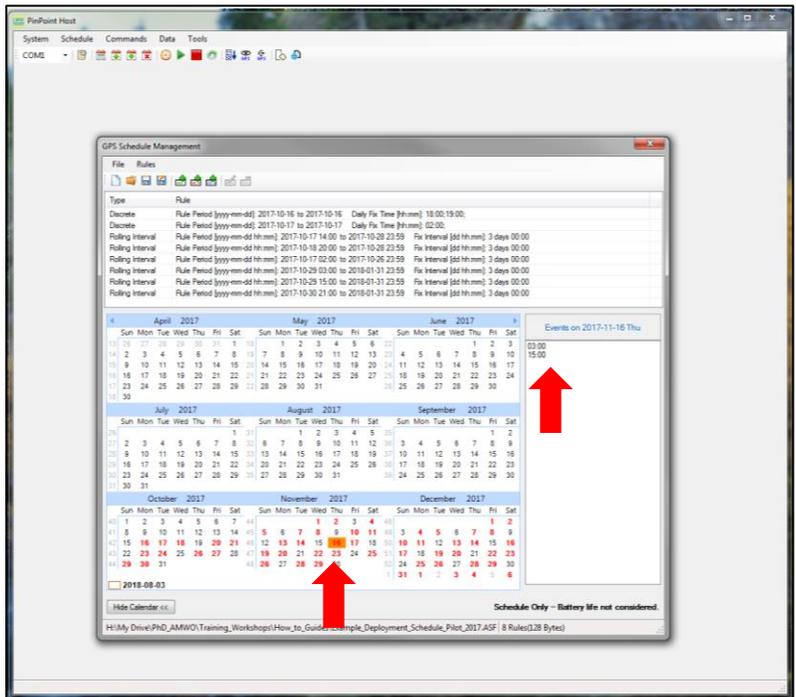


5. Add series of “Discrete Rules” and “Rollover Rules” to program your PinPoint Transmitter. Note, pay attention to DLS start and end dates, as you will need to add separate “Rollover Rules” before and after DLS change. Please see “Example\_Deployment\_Schedule\_Pilot\_2017” for reference (pictured below). Note: We added 3 GPS locations (minimum for data upload) to ensure the woodcock left the release location the day following capture.



6. Save your newly created schedule. You can continue to edit saved schedules as needed.

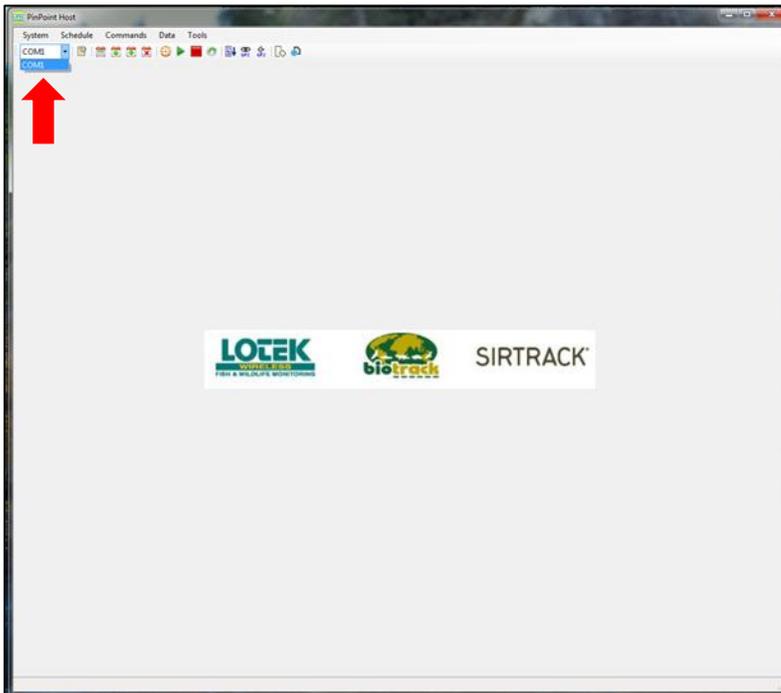
7. Use the calendar view to double check you schedule. As you click on various dates, the time associated with GPS location collection will be displayed.



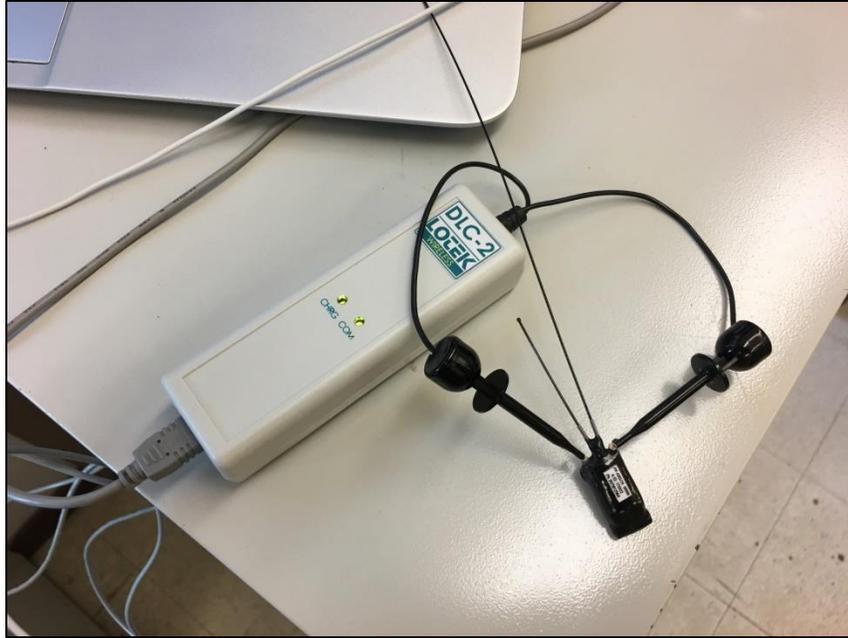
8. After saving and double checking your newly created file, you can close the “GPS Schedule Management” Window and proceed to Part III.

### III. Programming your Lotek PinPoint Transmitter

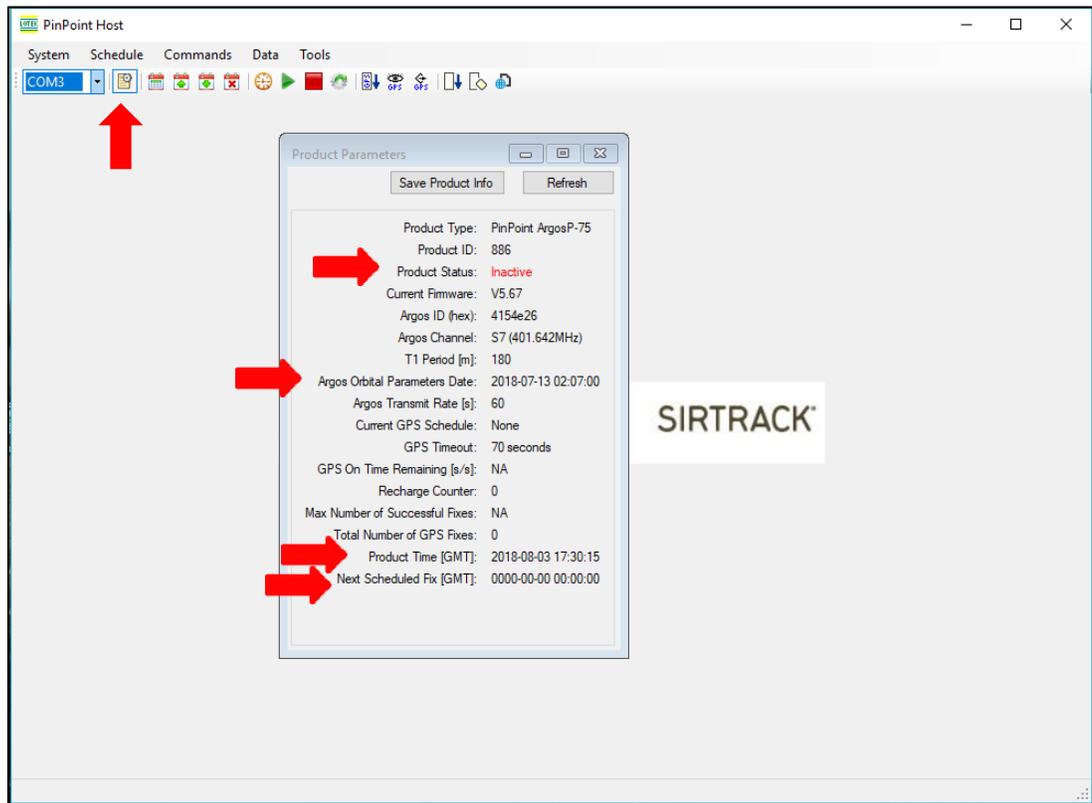
1. Plug the DCL-2 Lotek Interface to into your computer’s USB port.
2. In the Lotek PinPoint Host program, use the drop down box in the upper left to select the computer port associated with your selected USB port. It may take a few minutes for the COM port to recognize the DLC-2 interface. You may also need to restart the PinPoint Host software for the COM port to be recognized.



3. Attached the PinPoint transmitter using the 2 black clams. The clamps connect the transmitter to the PinPoint Host program.
  - a. On the DCL-2 interface, a green light will indicate you are connected to the transmitter and a second green or red light will indicate whether your transmitter is charged or requires additional charging.
  - b. If the indicator lights are not ‘on’, you will need to troubleshoot connection issues using the PinPoint User Manual. Through trial and error, we found some computers can recognize the DLC-2 unit, while others cannot. We have had more success with laptops, rather than agency/university computers.

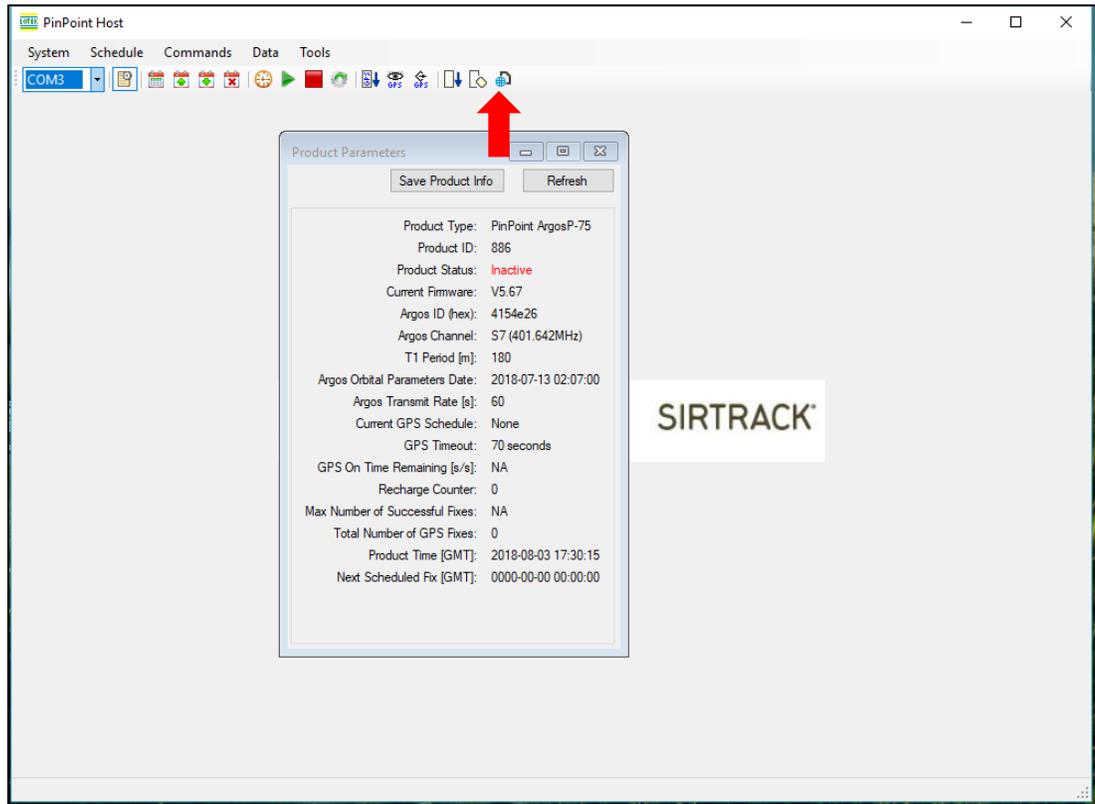


- Once the transmitter is connected, click on the box “Show Product Parameters”. A pop-up box will appear detailing the capabilities and programming of PinPoint transmitter. The 4 categories we are most interested in are “Product Status”, “Argos Orbital Parameters Date”, “Product Time [GMT]”, and “Next Scheduled Fix [GMT]”. All 4 categories will need to be updated prior to transmitter deployment.

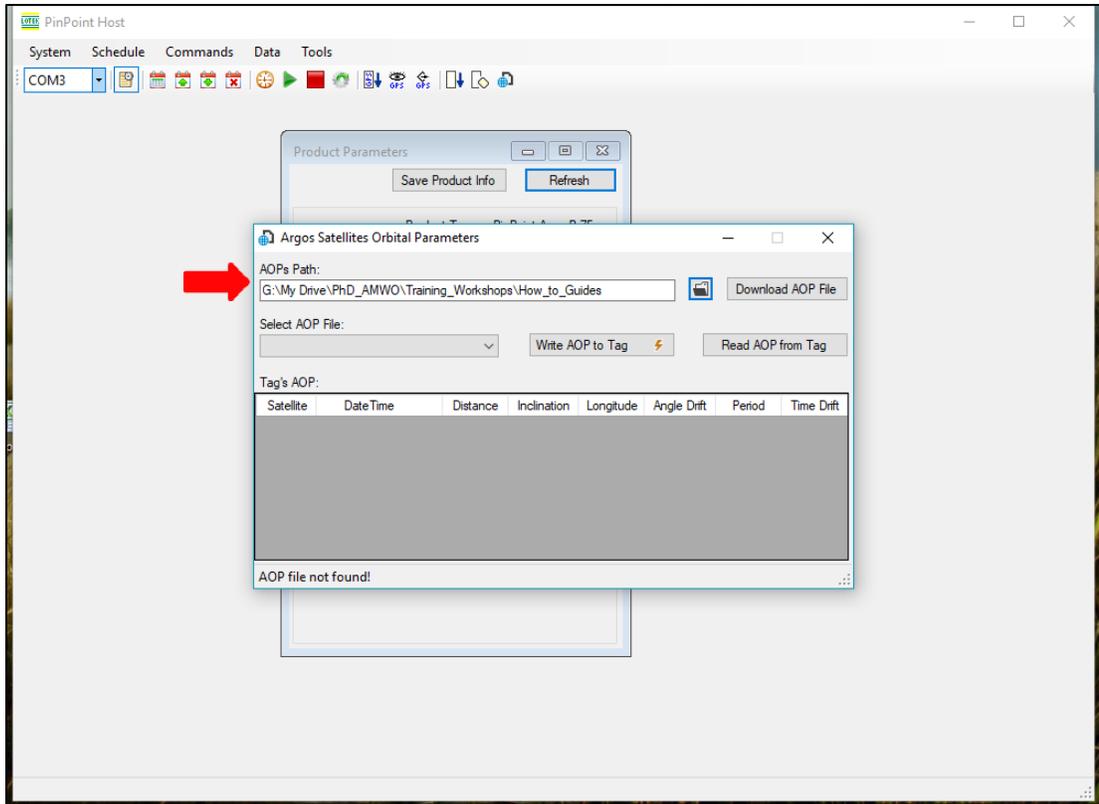


- a. “Argos Orbital Parameters Date” – You will need to download the current positions of the satellites, then upload the satellite locations into the PinPoint transmitter. The transmitter will use the known locations of satellites to predict the future locations of satellite during data collection using internal Pass Predict software.

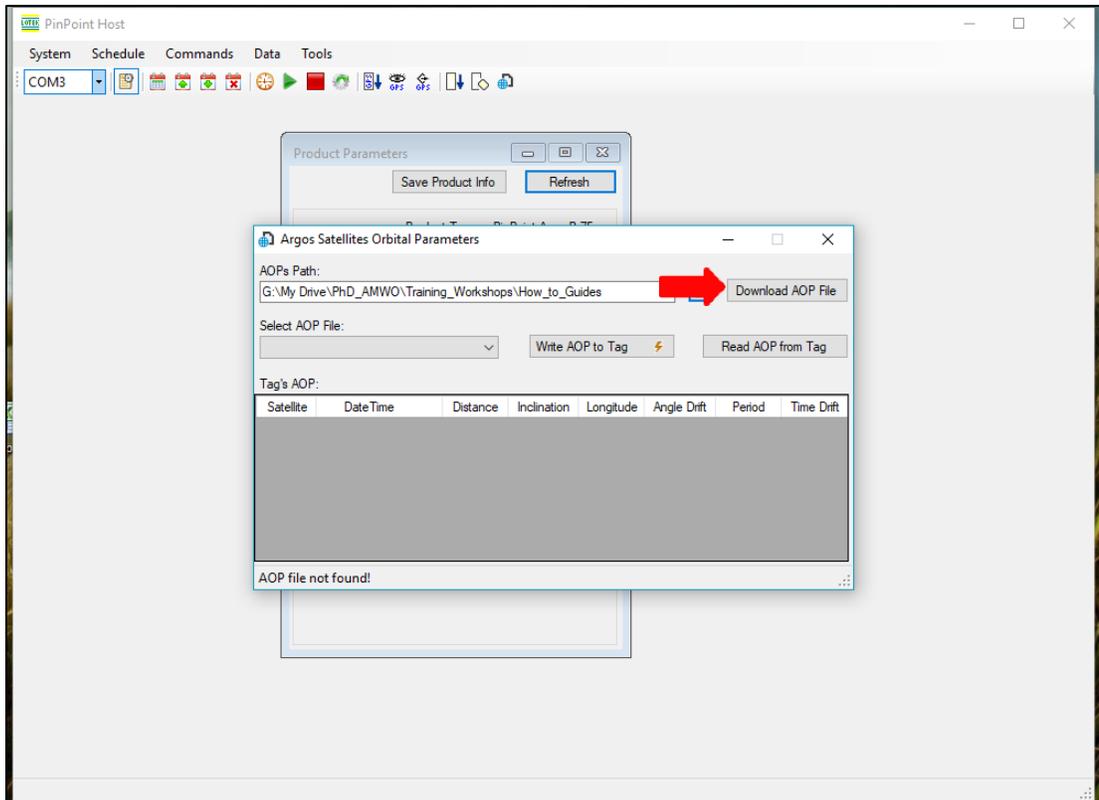
- i. Click on the “Manage Argos Orbital Parameters” button.



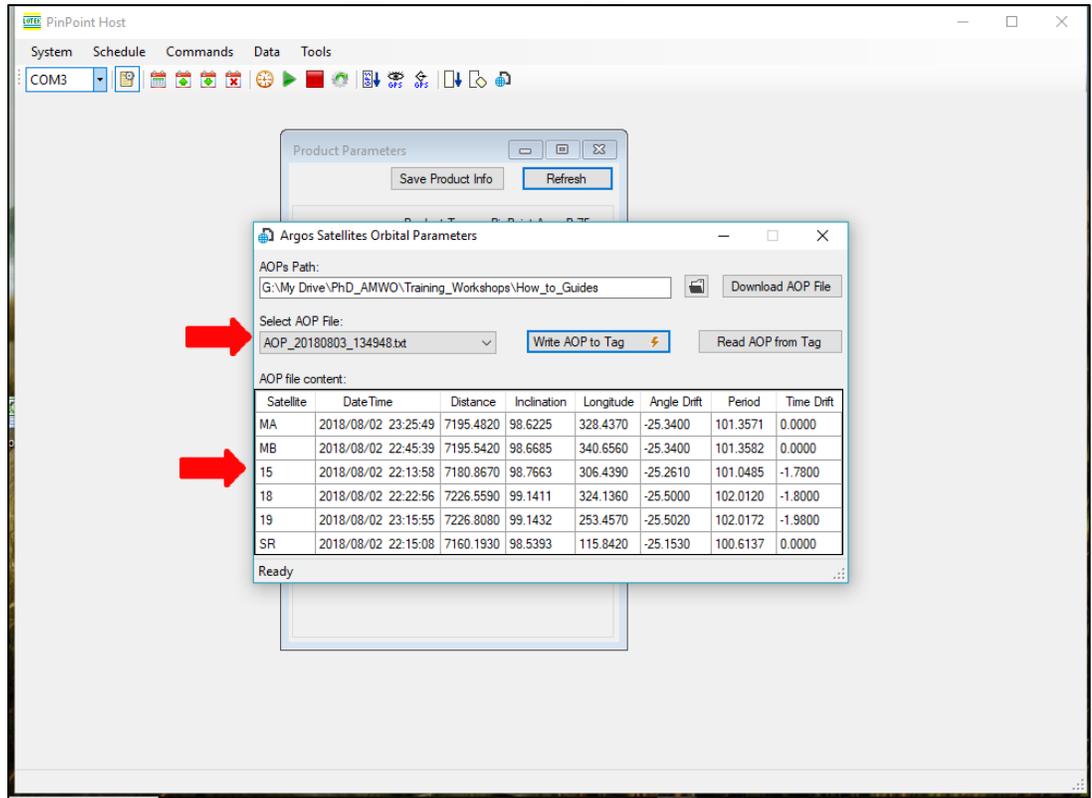
- ii. Change the file directory to specify where you want the AOP file to be saved. The AOP file is a coded file of known satellite locations.



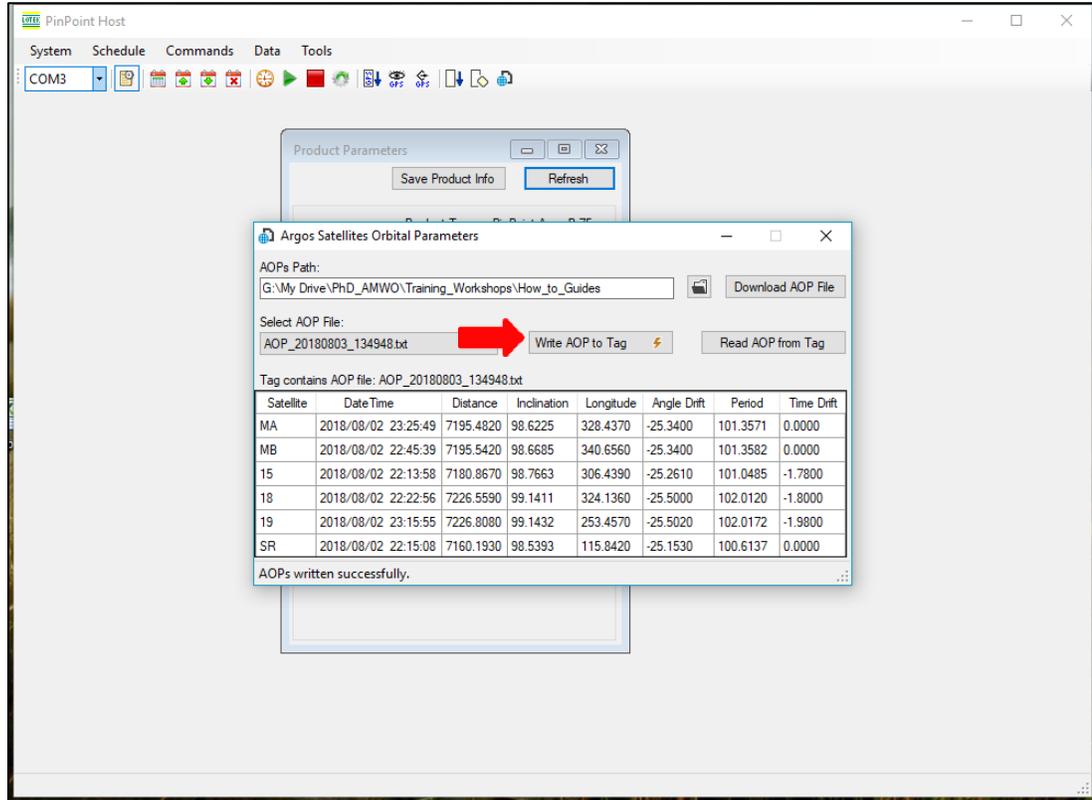
iii. Click on “Download AOP file”



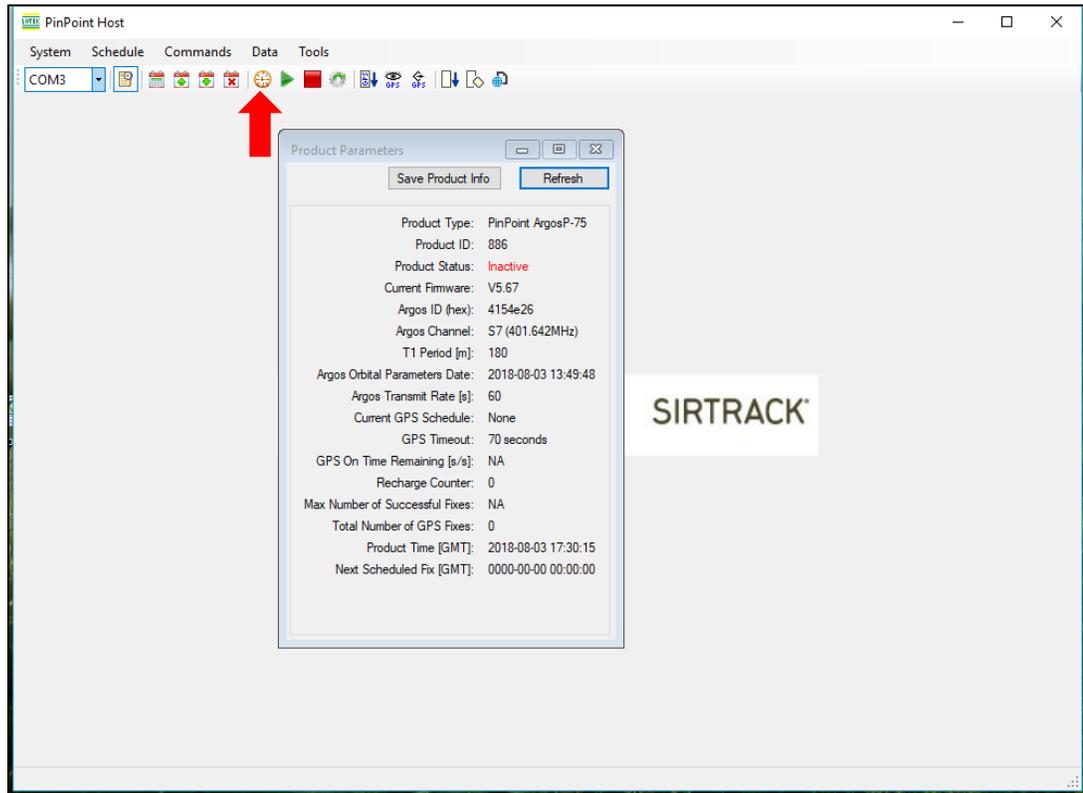
- iv. Select your downloaded AOP file using the dropdown menu. Once you select the recently downloaded AOP file, the satellite locations will be displayed.



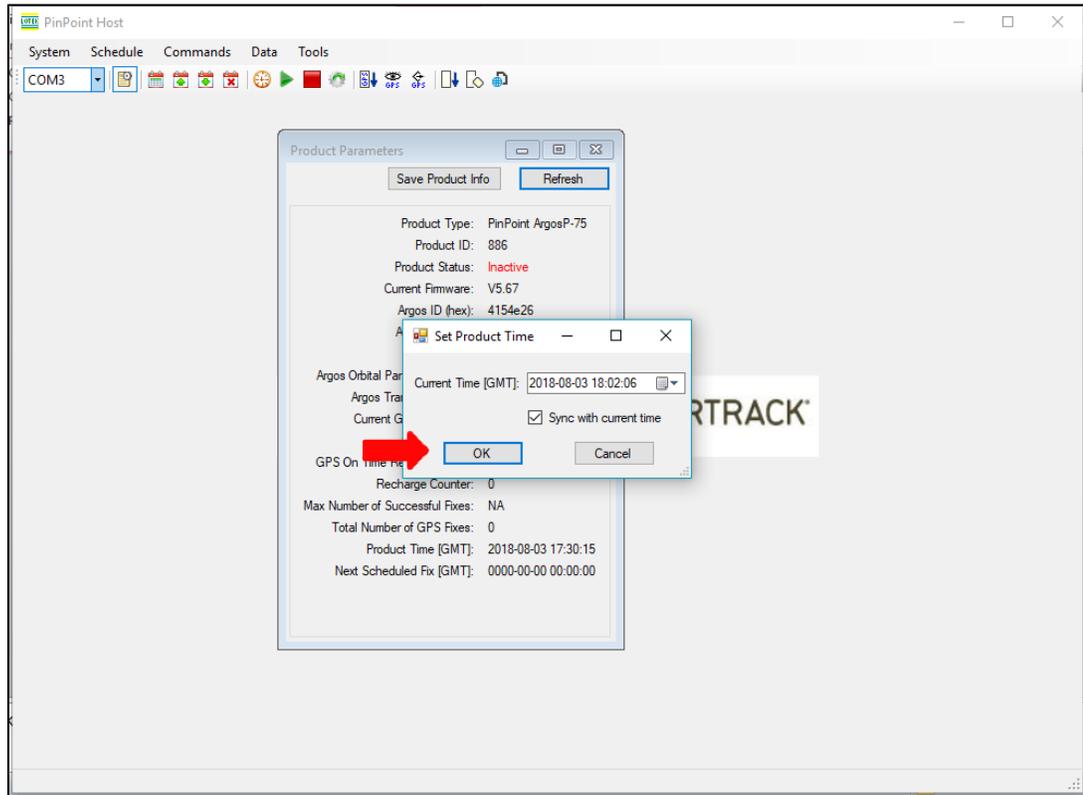
- v. Click “Write AOP to tag”. This will upload the satellite locations to your tag. You if close the “Argos Satellites Orbital Parameters” window, the “Argos Orbital Parameters Date” line in the Product Parameters window will be updated.



- b. “Product Time [GMT]” – Most transmitters had their internal time clock synchronized at the factory but not all. It is recommended to synchronize the internal clock to your computer to increase accuracy when matching satellite location to ‘present time’.
  - i. Click on the “Set Product Time” to synchronize the transmitter’s internal clock to your computer’s.

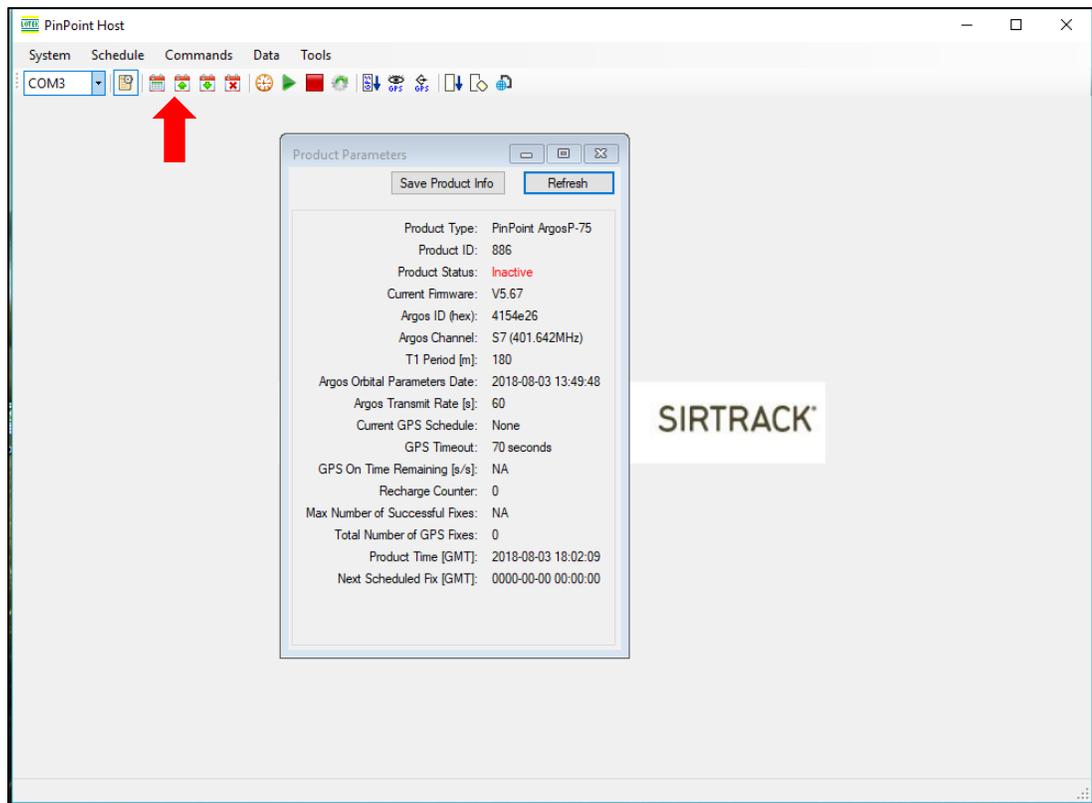


- ii. A pop-up window will appear, click “OK”. The transmitter time will now be synchronized to your computer.

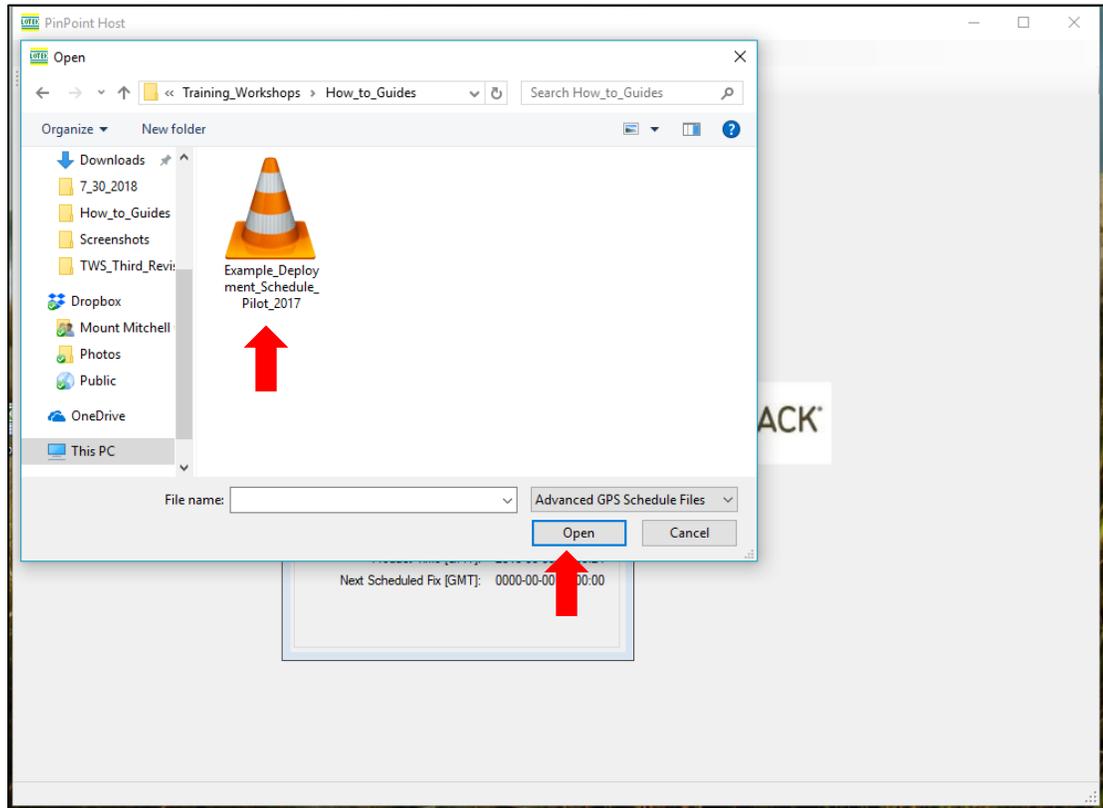


c. “Next Scheduled Fix [GMT]” – Next we will upload the GPS schedule we created in Part II.

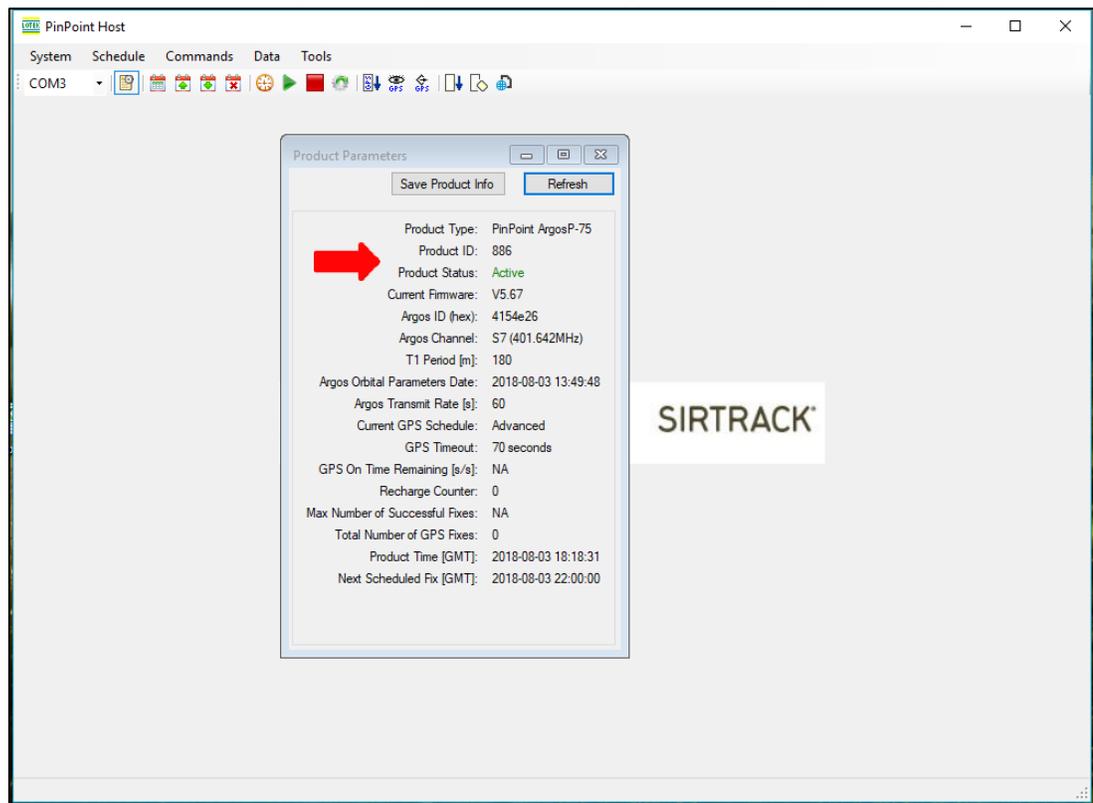
i. Click on the “Send GPS Schedule” button.



- ii. A pop-up window will appear. Navigate to the schedule you created, select the file and click “Open”. The file symbol on your computer will likely be different than my example below. My default is an orange cone. A second pop-up will appear indicating your upload was successful, click “OK”.



- d. “Product Status” – After you have uploaded/updated the 4a-4c, you are ready to activate the transmitter.
  - i. Click on the “Activate Product” button on the top of the screen. The Product Parameters box should reflect product activation. If you need to deactivate a transmitter, use the “Deactivate Product” button to the right of the “Active Product” button.
  - ii. A pop-up button will appear, requiring you to erase all current data on the transmitter prior to activation. Click “OK”. Note: If you are re-deploying a previously deployed tag, you will want to download the currently internally archived data prior to re-programming.

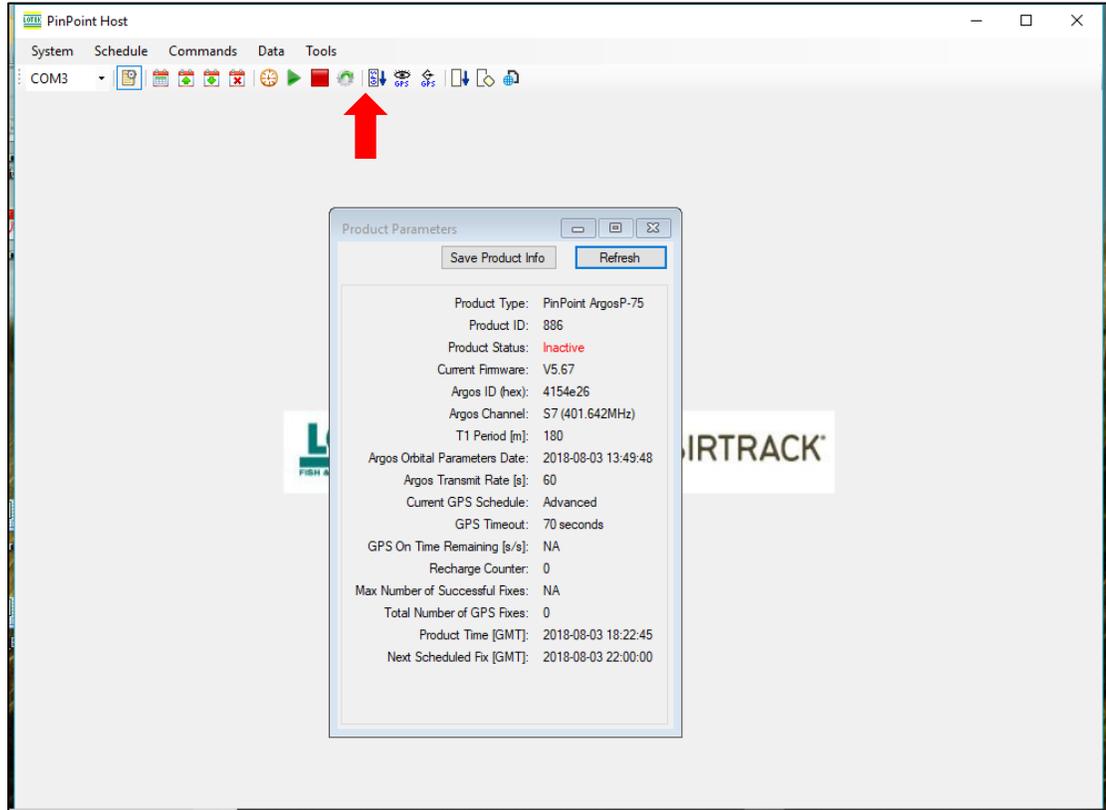


5. Once the transmitter has been activated, the transmitter is ready to be deployed.

Note: We recommend testing each tag prior to deployment. You can create a ‘test schedule’ and test that the tag is collecting location data. When testing a transmitter, transmitters must not be placed on/near metal objects and must be suspended above the ground due to signal attenuation. We recommend placing tags on tree branches, or on wooden stakes with antennas off of the ground. We learned picnic tables, car dashboards, and inside of buildings make poor testing sites the hard way.

IV. Manually Downloading GPS data from tags.

1. If you manually recover a tag or if you want to recover test GPS locations from your tag, you can open the PinPoint Host Software, connect the DCL-2 interface, and connect your PinPoint transmitter using the 2 clamps.
2. Click on the “Get GPS Data”



3. Save the GPS data. Note: My directions here are lacking as I do not currently have access to a transmitter with GPS data.