SOP: Pinpoint GPS logger data retrieval and programming

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Data retrieval - Swift GPS fixes on Lotek PinPoint 8/10 units

1. Open Lotek PinPoint Host software.
2. Connect DLC-1 to computer via USB.
3. Ensure PinPoint GPS logger's electrical connections are clear of mud/debris and connect to the DLC-1. A good connection will be indicated by a green `COM` light on the DLC-1 unit.
4. If necessary, select the correct communications (COM) port to connect to the DLC-1. A dropdown menu is located in the upper left of the screen below the `System` menu.
5. Click `<Show Tag Parameters>` button (also available under the `Commands` menu).
6. Click `<Deactivate Tag>` button (also available under the `Commands` menu).
7. If tag has been deployed for more than a couple of months, allow it to charge completely prior to data retrieval. A full charge will be indicated by a green `CHRG` light on the DLC-1 unit.
8. Click `<Get GPS Data>` button (also available under the `Data` menu).
9. When prompted, save the `*.psr` file and, subsequently, enter the coordinates and altitude (m) of the initial Swift fix. Adam will provide this information for each tag.
10. Send the resultant `*.psr` and `*.obs` files to Adam. The `*.obs` file will be located in the same directory, and share the same name, as the `*.psr` file.
11. Confirm receipt of these files prior to reprogramming the tag for another deployment.

Tag programming - Swift GPS fixes on Lotek PinPoint 8/10 units

1. Open Lotek PinPoint Host software.
2. Connect DLC-1 to computer via USB.
3. Ensure PinPoint GPS logger's electrical connections are clear of mud/debris and connect to the DLC-1. A good connection will be indicated by a green `COM` light on the DLC-1 unit.
4. If necessary, select the correct communications (COM) port to connect to the DLC-1. A dropdown menu is located in the upper left of the screen below the `System` menu.
5. Click `<Show Tag Parameters>` button (also available under the `Commands` menu).
6. If tag is activated, click `<Deactivate Tag>` button (also available under the `Commands` menu).
7. Synchronize your computer's system time with official US time, available at time.gov.
8. Synchonize the tag time with your system time by clicking `<Set Tag Time>` button (also available under the `Commands` menu) and following the default prompts.
9. Click `<Send GPS Schedule>` button (also available under the `Schedule` menu) and browse to the location of the desired schedule file (`*.ASF`). These files are available from Adam. Follow the default prompts after selecting this file. Note: an initial GPS fix at a known location is necessary to get accurate Swift fixes. This initial fix is a part of the schedule, so pick a time and date that is convenient for you and let Adam know.
10. Allow the tag to charge completely prior to activation. A full charge will be indicated by a green `CHRG` light on the DLC-1 unit.
11. Click `<Activate Tag>` button (also available under the `Commands` menu) and follow default prompts (e.g., erase tag data).
12. Just prior to the initial fix time (see above), place the tag at least 1 m above the ground in a spot that (a) is easily located with high accuracy on, e.g., Google Maps, and (b) has a clear view of the sky. The fix is acquired in $\leq$ 10 s, but ensure that you've given the tag(s) time to acquire the fix prior to removal. Checking time.gov on a mobile device is a good way to confirm the fix time has passed.