Trimble GPS Protocol 🔗

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ABSTRACT

Here we describe the standardised protocol used by the Canadian Airborne Biodiversity Observatory (CABO) to use the Trimble GPS with the NTRIP centimeter-level precision subscription from Cansel to record the precise location of a plot (corner or center) or a plant.

EXTERNAL LINK

http://caboscience.org/

MATERIALS TEXT

Trimble Catalyst GPS, NTRIP precision subscription   -
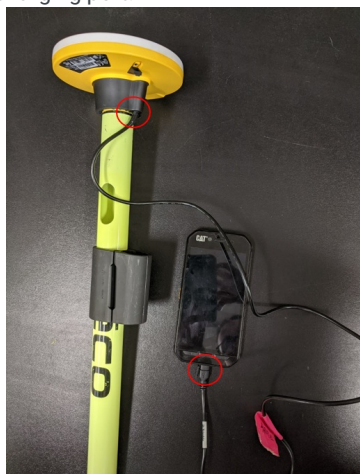
CAT S41 Field cellphone - 🔗

BEFORE STARTING

Ensure you are subscribed to a centimeter-level correction service (e.g.: Cansel).

1   Connect the Trimble antenna to your field cellphone, by plugging the cable coming out of the antenna into your cellphone charging port.
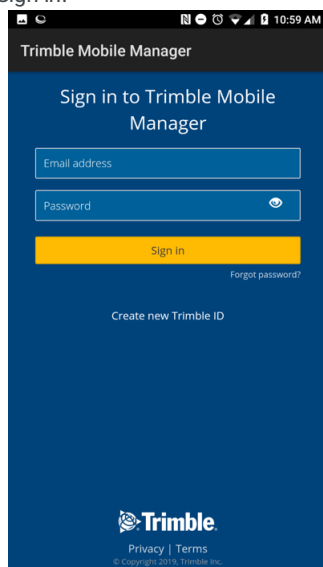
2 Connect the external battery to the Trimble antenna, by plugging the USB port into the battery and the micro USB port into the antenna. Place the battery in its mount.

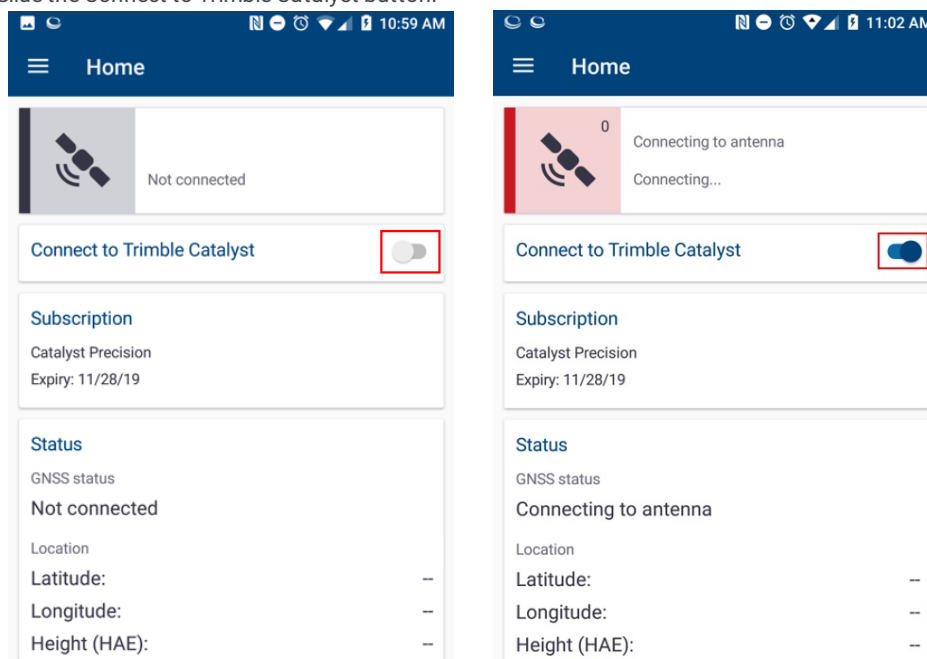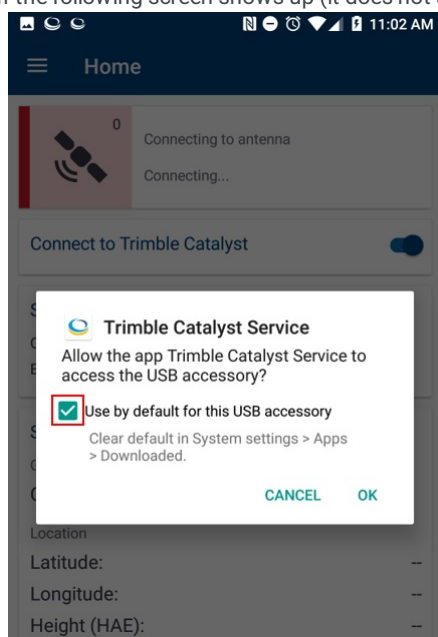3   Open the *Trimble Mobile Manager* app on your fieldwork cellphone.
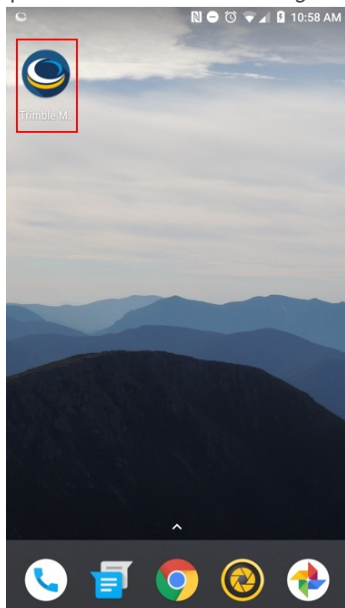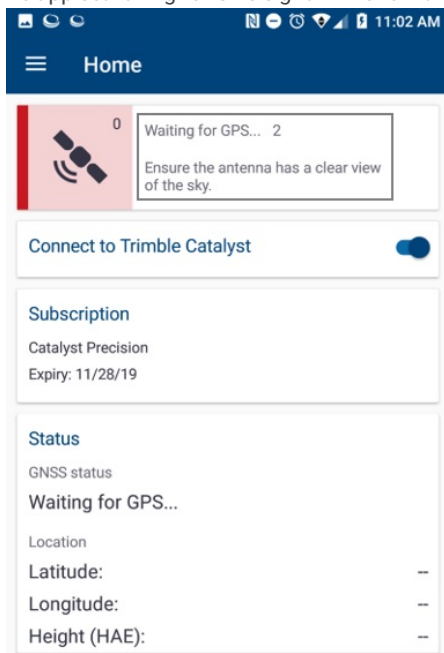

4   Sign in.

The following screen will show up.

5   Slide the Connect to Trimble Catalyst button.

6   If the following screen shows up (it does not systematically), tick the Use by default for this USB accessory box.

7   The app searching for GPS signal will show this screen.

8   Wait for the precision to go down.
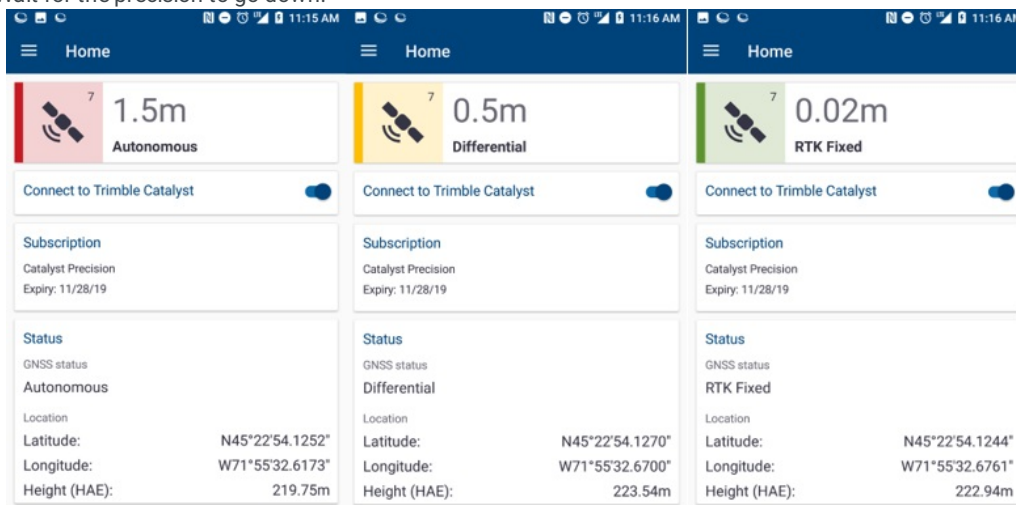
9   Open the *Fulcrum* app on your fieldwork cellphone.
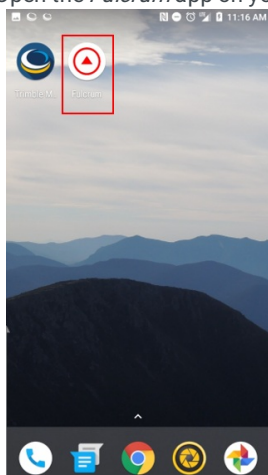
10   In *Fulcrum*, go to the plot or tree record you want to georeference precisely, then go under Location.

11   Watch the value of Horizontal Accuracy and wait for it to stabilize.

DEFINITION OF A GOOD PRECISION:
In forest environments, under a canopy with no leaves (i.e., after leaf fall), the precision can be under 30 cm.
In the best conditions in an open environment, the precision can get down to 2 cm.

12 Once the Horizontal Accuracy is stable at a good precision, click Update Location with GPS. You'll see the values next to Latitude, Longitude, Horizontal Accuracy and Altitude update.

13 Save your record.