TSC2 Access & R8 GPS – Site Calibration
IaRTN

Overview: An existing survey that is not tied into GPS can be surveyed with GPS if a site calibration is done. An existing job needs to have the coordinates of the control points being used for the site calibration or, a coordinate text file needs to have been uploaded to the TSC2 of the control points, or the points need to be keyed in manually. These instructions are based on a *Stakeout.txt* file already having been uploaded to the survey controller.

Make a note of the *Point Names* of any Control Points that you will need .

Setting up & Stakeout

Start a New Job

1. Click on *General Survey…Jobs… New Job*
2. Input the new *Job name*,
3. Click into Coordinate System, Select coord system = ***Scale factor only***, Next
4. *Scale Factor* = 0.9996, Click Store
5. *Units* = ***International Feet***, *Linked Files* = ***Stakeout.txt***, & *Cogo* = ***Ground***. Note that the settings from the most recent job are used in the new job.
6. Tab down to type in the *operator name* & any other *notes*
7. Click Accept.

Begin IaRTN Survey

8. Click on *Measure… Iowa RTN… Start Survey…*
9. Select the ***RTCM3_IMAX*** Identifier. ., Click Enter
10. The Controller will initialize the GPS survey. Watch for the Vertical precision to get down to around 0.10 ft.

Survey Points that match the Control Points previously surveyed

11. Click *Survey… Measure Points*.
12. Input the *Point Name* for the TBM 1 (e.g. 500), *Code* = tbm 1
13. *Method* = ***Topo Point***
14. *Antenna Height* = 2m
15. *Measured to* = ***Bottom of antenna mount***
16. Set up bipod on benchmark and Click Measure
17. Once the 5 seconds of data collection has occurred click Store.
18. Repeat for the control points that you want to use.

Compute Site Calibration

19. Click on *Measure… Iowa RTN… Site Calibration…*
20. Click Add
21. Right Arrow *Grid Point Name… List…*Select the Point name
    (or Key in the control point coordinates, marking it as a Control Point.)
22. Right Arrow *GPS Point Name… List…*Select the GPS Point name that corresponds to the Grid point
23. *Use* = ***Horizontal*** or *Use* = ***Horizontal & Vertical.*** Typically use only 1 for Vertical.
24. Click Accept
25. Repeat for the control points surveyed.
26. Click Results. Review the quality of the calibration.

Continue with a Topo Survey or with Stakeout Points

Quit out of Survey

27. When survey is completed, Escape to main menu, & click *Survey… End GNSS Survey*
28. Click Yes to Powerdown Recevier. Click Ok & Disconnect the power.
29. Click Exit. Click Yes to Power Off.