Topcon Hiper+ Realtime Kinematic(RTK) GPS Data Collection System

TIPS provides customers with Topcon Hiper+ hardware running TopSurv software as a customer check-out system. The Topcon Hiper+ is designed as a centimeter accuracy GPS solution to enable georeferencing for GIS-building, accurate control for remote sensing, and precision navigation, among other uses. Topcon Hiper+ data is convertible to CAD and GIS formats, and offers the highest degree of accuracy relative to navigation/recreation GPS equipment.

GPS Overview

Global Positioning System technology allows digital capture of three-dimensional locations anywhere on or above the earth's surface with 24/7 availability. This free system is the same one used for vehicle navigation or hiking. GPS horizontal positional accuracy ranges from 10 feet for navigation/recreation equipment to around one inch for survey units. Elevation accuracy is generally one half or one third of the XY accuracy. GPS accuracies can be enhanced in real-time by use of commercial or WAAS satellite correction signals or by later post-processing using base station data posted on the Internet. Navigational /recreational GPS is biased towards yield of GPS signals irrespective of accuracy; GIS mapping GPS is biased toward collecting GPS positions of known accuracy.

Field to Survey

The Topcon Hiper+ is a survey-caliber system including a base and rover GPS with a radio to link the two units during data collection. The Topcon Hiper+ uses signals broadcast from the NAVSTAR and Glonass GPS systems. Topcon software is used to process the base and rover files to calculate individual GPS positions to several centimeter resolution. These files are then turned into GIS or CAD maps or used for GIS analysis.

Geospatial Data Portability

GPS data is automatically collected into standard "real-world" coordinate systems that can be easily translated into GIS coordinate systems. CAD system support is provided for geospatially-enabling CAD drawings. Using GPS data exported into standard GIS/CAD formats allows TIPS users to more effectively access and share geospatial data across organizational boundaries.

RTK Hardware:
Topcon Hiper+

SMCRA BENEFITS/USES:

- Capture digital field data for permitting and reclamation investigations.
- Collect data in standard coordinate systems and datums.
- Provide centimeter accuracy positions that spatially–enable AML and Title V analysis.

TIPS TRAINING CLASSES:
Topcon-certified vendor training.

NEED HELP????
http://www.tips.osmre.gov/tips_html/mobile_computing.asp

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