SuomiNet - GPS Antenna Monument

599 Beth Bartel December 30, 2009 SuomiNet Equipment 2190

Note - content is provided for historical continuity and may be out of date. The UNAVCO SuomiNet pages are not actively maintained, and up-to-date SuomiNet information should be obtained from UCAR's COSMIC program at: www.cosmic.ucar.edu/suominet.html

Monumentation

The top of the antenna monument must have a 5/8-11NC-2A male thread that the antenna housing (5/8 inch female thread) screws onto. 1/2 inch of exposed thread is required for the antenna. The monument must also allow the antenna to be oriented to true north. A simple back nut accomplishes this.

Atmospheric: The GPS antenna must be level (+/1 degree) and aligned to true north (as indicated on the antenna). The antenna location should be selected to maximize sky visibility, and the mount must be stable to prevent movement of the antenna.

Geodetic: For atmospheric and geodetic sites, the antenna monument must also be directly coupled to the underlying solid earth so the geodetic data accurately reflects any crustal deformation.

Detailed monumentation examples and information may be found at the following locations:

Rock

- SCIGN Style Short Braced Monument
- USGS Fixed Mount Rock Pin
- Pinon Flats Observatory Rock Surface Elevated Monument

Soil

- CORS Monument for Soil
- Pinon Flats Observatory Drilled and Braced Monument
- Pinon Flats Observatory Driven Rod Monument

Building

- Pinon Flats Observatory Wall Mount Monument

Several additional examples of GPS monumentation are available from UNAVCO on our Monumentation Examples page.

Online URL: https://kb.unavco.org/article/suominet-gps-antenna-monument-599.html