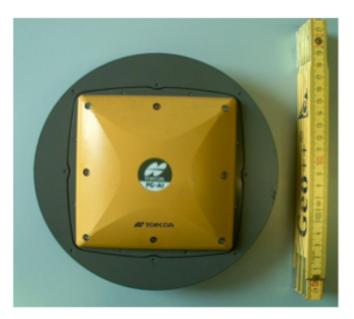
Topcon PG-A1 w/Ground Plane Antenna Phase Center Calibrations

709 Freddy Blume April 28, 2011 <u>Topcon PG-A1</u> 1972

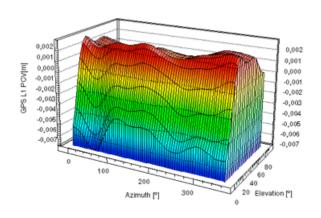
The Topcon PG-A1 with Ground Plane is the standard antenna distributed with UNAVCO's EarthScope Topcon GB-1000 campaign systems (IGS designation: TPSPG_A1+GP)

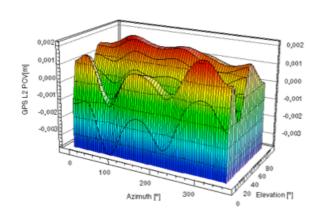




The <u>original calibration published by the National Geodetic Survey in 2004</u> were found to introduce large errors in processed positions; these values should <u>not</u> be used. A recalibration of the same individual antennas and four additional newer units was done at the NGS in 2009 and <u>new results published using the designation TPSPG_A1_6+GP</u> (referring specifically to part number 01-840201-06). All users of UNAVCO's PG-A1 antennas should use the newer NGS results if relative phase center calibrations are desired.

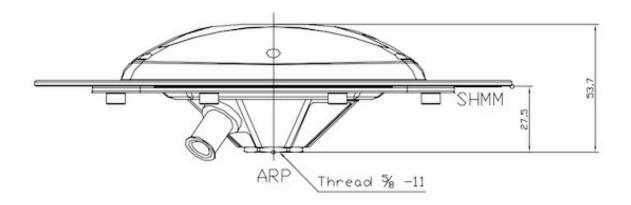
In 2010 Absolute Phase Center Calibrations for both GPS and GLONASS were performed at the <u>Geo++</u> <u>robot facility</u> in Hanover, Germany, and the type-mean results have been made available to the public by Topcon. These are the preferred PCV's for use in the majority of high-precision GPS and GNSS.



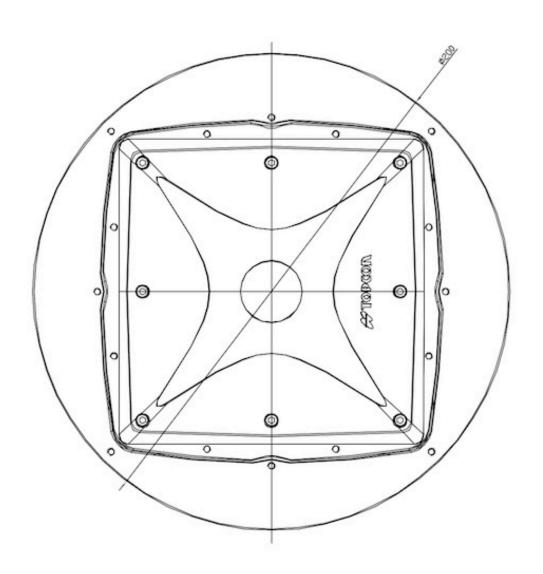


The values will be included in an upcoming revision of the igs08.atx file. Users may download the attached <u>detailed calibration report from this link</u>, and the <u>Antex format azimuth- and elevation-dependent PCV file from this link</u>. Values in <u>.ant</u> and <u>.ane</u> formats are also available.

The <u>Topcon specification sheet is available from their website</u>, and the detailed dimensions of the antenna are shown below.



Dimensions are in mm ARP - Antenna Reference Point SHMM - Slant Height Measure Mark



Online URL:

 $\underline{https://kb.unavco.org/article/topcon-pg-a1-w-ground-plane-antenna-phase-center-calibrations-709.html}$