

USGS Data Series 675 - Base Station Numbers for 2008 and 2009 Processing

All static GPS base station occupation sessions were submitted to the On-Line Positioning User Service (OPUS) maintained by the National Oceanic and Atmospheric Administration (NOAA) and the National Geodetic Survey (NGS). The OPUS results were entered into a spreadsheet for error analysis, averaging, and removal of outlier sessions. The results were considered sufficient and produced +/-3.3 cm in the vertical component. All latitude and longitude values are referenced to NAD83 (CORS96) and the Ellipsoid is WGS84. The average weighted ellipsoid is calculated so the longer occupation times hold more value than shorter ones. The GEOID03 utility was applied to the final averaged base position. This value was then used in the equation for orthometric height. The latitude and longitude error is in decimal seconds, and vertical error is the maximum difference an ellipsoid value had from the averaged ellipsoid. These base station positions, once finalized, were used for post-processing and are listed below.

	<b><u>BH08</u></b>	<b><u>FORT</u></b>	<b><u>WHRN</u></b>	<b><u>WPTB</u></b>	<b><u>MOSS</u></b>
<b><u>Latitude</u></b>					
Degrees	30	30	30	30	30
Minutes	23	12	14	12	24
Seconds	28.6831	43.69413	33.48079	35.05466	43.06153
<b>Error</b>					
<b>Minimum</b>	0.00004	0.00003	0.00002	0.00001	0.00001
<b>Maximum</b>	0.00025	0.00139	0.00031	0.00009	0.00014
<b><u>Longitude</u></b>					
Degrees	88	88	88	88	88
Minutes	51	58	46	29	32
Seconds	25.40584	19.47569	0.81143	37.36928	3.9285
<b>Error</b>					
<b>Minimum</b>	0.00045	0.00002	0.00002	0.00000	0.00001
<b>Maximum</b>	0.00064	0.00091	0.00063	0.00016	0.00033
<b><u>Weighted Ellipsoid</u></b>					
(WGS84)	-27.186	-17.46	-26.43	-25.602	-23.926
<b><u>Vertical Error (m)</u></b>	0.033	0.018	0.016	0.007	0.001
<b><u>GEOID03</u></b>	-28.275	-27.587	-27.841	-27.755	-28.35
<b><u>O=E-G</u></b>	1.089	10.127	1.411	2.153	4.424