



What is it?

GPS on Bench Marks Campaign

NOAA's National Geodetic Survey encourages anyone with survey-grade Global Positioning System (GPS) receivers to join the **2015 GPS on Bench Marks Campaign**, a National Surveyors Week (March 15–21, 2015) event to raise awareness about professional surveying while improving the National Spatial Reference System (NSRS).

Why Participate?

The nation's height system, the **North American Datum of 1988 (NAVD 88)**, is founded on historic geodetic leveling surveys that use thousands of bench marks, many of which have not been positioned with GPS. Adding GPS coordinates to these marks allows them to be used in NGS' modern height reference-surface modeling. For instance, NGS' latest hybrid geoid model, **GEOID12A**, includes "GPS on bench mark" observations, but would greatly benefit from additional GPS data collection in many areas.

How to do it? It's 1-2-3:

Find Collect Share

- 1. Find local bench marks.** Visit our website at Geodesy.noaa.gov for a priority listing of marks to occupy and maps to help you find them. Contact your **NGS geodetic advisor** for more details, or email us at ngs.GPSonBM@noaa.gov.
- 2. Collect GPS** on your selected bench mark following careful field procedures.
 - If time permits, complete reconnaissance at your selected mark to ensure its usability and/or to identify alternative marks.
 - Collect a 4+ hour GPS data file.
 - Verify antenna type, height, and plumb.
 - Use a fixed-height tripod (recommended), and brace the legs with sandbags or chain.
 - Take two photos of the mark, and note any changes to the existing mark description. (Optional: use observer field log with this step.)
- 3. Share your data** by uploading to our **Online Positioning User Service (OPUS)** on the NGS website Geodesy.noaa.gov.

Contribute!

NGS will use data collected during this campaign to improve the next hybrid geoid model, increasing access to **NAVD 88** and enabling conversions to the **new vertical datum in 2022**.