

California Land Surveyors Association

GPS on Benchmarks Initiative 2018

Dear California Surveying Community,

The CLSA is proud to support the National Geodetic Survey's "2018 - GPS on Benchmarks" program. The program is simply a crowdsourcing call to citizen surveyors to collect GPS observations on NGS NAVD88 benchmarks and share these data with NGS. These collected data will be used to first to create the next hybrid-Geoid 18, then be the basis for the future conversion tool(s) to the upcoming 2022 datum and gravimetric geoid. This effort is an essential component in tying recent GPS observations and solutions to the current national vertical datum - NAVD88.

CLSA recognizes the importance of this program, is tracking progress and actively mobilizing our community. With your help, we can contribute to better heights for years to come. Our goal is to densify the data, hopefully avoid NGS extrapolating geoid data over very large distances uncontrolled. We can git-R-Done!

For more detailed overview see: <http://www.xyht.com/surveying/gpsonbm2018/> and <https://geodesy.noaa.gov/GPSonBM/>

CLSA is making every effort to avoid duplication of observations and track our success. Please communicate plans and forward your OPUS solutions to the email **GPSonBMs@californiasurveyors.org**

CLSA Sign-up list: [Google Docs Link](#)

CLSA Map: https://www.google.com/maps/d/u/0/edit?mid=10tnRrbU7EvXJYsrq7BkloZM6_rftGI2D&ll=34.5196390477211%2C-118.68925129771208&z=9

Thank you,

CLSA, GPS on BM committee

Deadline is August 30, 2018



Important Reference Links

- **Benchmarks to Observe** - NGS has created a priority map of all the NGS benchmarks that need to be observed in order to create an “ideal” Geoid18.
 - * NGS Priority Map: <https://www.ngs.noaa.gov/GPSonBM/webmap/>
 - * NGS Priority list: <https://geodesy.noaa.gov/GPSonBM/prioritize.shtml>
 - * Alternative Benchmarks: <https://www.ngs.noaa.gov/NGSDataExplorer/>
- **Observation data** - NGS needs survey grade GPS observation data on a NGS benchmark for at least 4 hours of time. Additionally, a description of the point, a photo of the bench mark and a horizon view of the set-up with surroundings in the background are required.
 - * NGS Best Observation Practices: <https://www.youtube.com/watch?v=KLCDQ8yafY0>
 - * Understanding OPUS Webinar: https://geodesy.noaa.gov/web/science_edu/webinar_series/understanding-opus.shtml
- **Submissions** - Submit the observation, description and two photos at NGS OPUS - <https://geodesy.noaa.gov/OPUS/index.jsp> , under Options - “Share My Solution” select “Yes, Share”. (For help, visit: <https://geodesy.noaa.gov/OPUS/about.jsp#sharing>)
- **Tracking** - To help better mobilize and track California’s progress please forward your OPUS solutions to the email GPSonBMs@californiasurveyors.org
- **Tracking Tools** - CLSA has created tracking tools to help the initiative be successful and to maximize every observation’s impact.
 - * Map by County: https://www.google.com/maps/d/u/0/edit?mid=10tnRrbU7EvXJYsrq7BkIoZM6_rftGI2D&ll=34.5196390477211%2C-118.68925129771208&z=9
 - * CA GPS on BM Master list: https://docs.google.com/spreadsheets/d/1q1_SQuKplqg1UPxgyW0IzZQihgZrpsibTU-x3fBU1w/edit?ts=5ace8dbc#gid=1379604972
- **Additional Info:**
 - * NGS GPS on BMs Webinar: https://www.ngs.noaa.gov/web/science_edu/webinar_series/gps-on-bench-marks-models-tools.shtml
 - * NGS GPS on BMs PowerPoint: <https://drive.google.com/file/d/1xwRFgMI19an-zQD7NgIZksmvDzXNotXA/view?ts=5acfa626>
 - * XYHT Article - *GEOID18: Make Your Mark and Improve Your Heights* by Dana J. Caccamise II, NOAA's National Geodetic Survey Pacific Southwest Regional Geodetic Advisor (California and Nevada). <http://www.xyht.com/surveying/gpsonbm2018/>

