

Issue 22 October 2020

NSRS Modernization News

For all issues of **NSRS Modernization News**, visit:

geodesy.noaa.gov/datums/newdatums/TrackOurProgress.shtml

New Technical Papers Released

Three new papers relating to the modernized NSRS were released recently. They are:

- [NOAA Technical Report NOS NGS 74 \(Rotation of the Mariana Plate\)](#)
- [NOAA Technical Memorandum NOS NGS 84 \(Biquadratic Interpolation\)](#)
- [NOAA Technical Memorandum NOS NGS 85 \(On the Propagation of Formal Error Estimates of Euler Pole Parameters into Modernized NSRS Coordinates\)](#)

Updates to Blueprint Documents

All three previously released “Blueprint for 2022” documents have been updated. Each revision has significant new information, corrections and updates from their previously released versions. They will all be released in Fall 2020 or Winter 2021.

Progress in Ongoing Projects

There are currently **20 ongoing projects** directly related to NSRS modernization around NGS. Here are highlights from a select few:

Multi-GNSS replacement of PAGES (Project Manager: Dr. Mark Schenewerk)

Progress continues on the new GNSS software. Comparisons of float, GPS-only results to PAGES are very good. A preliminary multi-GNSS float solution was recently completed and is promising. Release for beta testing in activities such as OPUS should begin in spring, 2021.

Standardized Data Formats (Project Manager: Dr. Dan Gillins)

This project will develop a single file format for each type of geodetic observable which NGS will support in the modernized OPUS (raw GNSS, GNSS-based vectors, leveling, relative gravity and total stations). Some of these formats are likely to be XML-based, sharing commonalities with the forthcoming [GNSS Vectors Exchange \(GVX\)](#) format.

GPS on BM (Project Manager: Galen Scott)

As of October 1, only 15 months remain to add data to the GPS on Bench Marks 2022 Transformation Tool Campaign. We have recently passed 10,000 completed 10km hexagons around the country, but this data is concentrated in specific areas. Large data gaps remain in significant regions of the country. Without new data, NGS will be forced to interpolate over these gaps creating larger uncertainties when transforming between NAVD 88 and NAPGD2022.

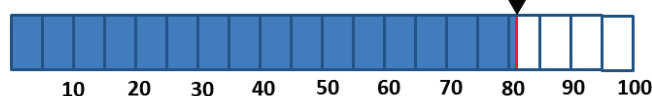
GRAV-D (Project Manager: Jeffery Johnson)

GRAV-D was able to resume field work in late August 2020 for 3 weeks. NOAA has established a robust COVID-19 mitigation strategy that has allowed us to get back to work.

GRAV-D progress last quarter: **up 0.3% to 81.9%**

Behind Schedule!

Recently: Grand Junction, CO



Schedule: **87.0%**