



## FPRN News

January 6, 2020

### Coordinate Updates

The National Geodetic Survey (NGS) has reprocessed the Continuously Operating Reference Stations (CORS) to be in alignment with the International Terrestrial Reference Frame (ITRF) 2014 instead of International GNSS Service (IGS 08). The new coordinates will remain referenced to the NAD83 2011 realization.

As part of our goal to stay in alignment with the NGS we will be adjusting the coordinates of the Florida Permanent Reference Network (FPRN) every six months.

The adjustment was scheduled to take place on January 6, 2020. At 10:40 am, today, we completed this adjustment. Along with the **new broadcast coordinates** for each of the reference stations within the FPRN, we have produced a Datasheet for each station that shows the current broadcast coordinates, the ITRF 2014 coordinates, and any superceded coordinates dating back to August, 2014. A link to the datasheets can be found on our Home Page <https://www.fdot.gov/geospatial/fprn.shtm>. The updated datasheets will be available beginning January 7, 2020.

### ITRF 2014

The NGS's proposed changes to our Geodetic Datums in 2022 will have a great impact on precise positioning systems. On January 6, 2020, we will start broadcasting a secondary set of corrections. These corrections will be in alignment with the ITRF 2014 datum which is virtually the same as the North American Reference Frame of 2022 (with the exception of velocities).

This secondary datum will allow academic and governmental agencies to start updating the coordinates in their local databases. This secondary datum may also become useful for projects that will extend past the National Spatial Reference System (NSRS) 2022 implementation date.

If you wish to receive this broadcast, please contact Ron Hanson to express your need.

## Hybrid Geoid

The NGS released a statement regarding Geoid18. The statement explains that the Geoid 18 file, released in September, contained errors. Due to the errors we are releasing a revised Geoid model. The new Geoid will be named Geoid 18B. The revised Geoid files are hosted on the FPRN Home Page <https://www.fdot.gov/geospatial/fprn.shtm>

This will be the last release of a hybrid Geoid model before moving to the North American-Pacific Geopotential Datum of 2022.

## Custom Geoid

In a continuing effort to improve the elevations derived from GNSS readings when using the FPRN, we will be releasing another custom Geoid file. The new custom geoid file will be named "FPRN18". We will once again supply the geoid files in multiple vendor formats.

Please watch for upcoming Newsletters announcing its availability. A link to the Geoid files will be available on the FPRN Home Page <https://www.fdot.gov/geospatial/fprn.shtm>.

We will also provide a link on the User Portal (at the bottom of the screen), titled FPRN Geoid 18.

We will continue to offer the old Florida Custom Geoid, titled FPRN Geoid 16B.