National Geodetic Survey – Products and Services Update

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The National Oceanic and Atmospheric Administration's (NOAA) National Geodetic Survey (NGS) is involved in several efforts to improve the accuracy and accessibility of the National Spatial Reference System (NSRS) – the Nation's system of latitude, longitude, elevation, and related data, models and tools. These efforts include recently implemented changes, some ongoing developments, and preparations that are underway for a major NSRS modernization makeover, to be delivered in about 2022.

The NGS Web site provides a great deal of information about the aforementioned efforts, and it also facilitates access to a variety of geodetic data, software, publications, and information about NGS products and services. I recommend the following sites for information about some of these NGS activities, resources, and programmatic developments and other developments in geodesy:

1. National Geodetic Survey home page: http://geodesy.noaa.gov/;
Starting point for information about NGS and its products and services

2. Continuously Operating Reference Stations (CORS): http://geodesy.noaa.gov/CORS/;
Data access, metadata, and miscellaneous site information for the network of permanent GNSS sites

3. Online Positioning User Service (OPUS): http://geodesy.noaa.gov/OPUS/;
Automated processing of your GPS observations

4. Published CORS Coordinates: http://geodesy.noaa.gov/CORS/coords.shtml;
Detailed information about published CORS coordinates and reference frames, including the recent NAD83(2011) epoch 2010.00 and IGS08 epoch 2005.00 coordinates for all sites, along with the corresponding IGS08 GNSS antenna calibration models

5. Multiyear CORS Solution (MYCS): http://geodesy.noaa.gov/CORS/coord_info/myear_FAQ.shtml;
Questions/answers about the recent five-year effort to compute a new set of CORS coordinates, resulting in NAD83(2011) epoch 2010.00 for CORS and the passive (monumented) network

6. National Adjustment of 2011: http://geodesy.noaa.gov/web/surveys/NA2011/;
Detailed information, including FAQs, about the recent nationwide adjustment of the GPS-observed passive control network to the NAD83(2011) epoch 2010.00 framework established by CORS

7. *The (***NEW***) NGS Ten-Year Plan*: http://geodesy.noaa.gov/web/news/Ten_Year_Plan_2013-2023.pdf;
Presents the mission, vision, and goals for NGS and the evolution of the National Spatial Reference System over the 2013-2023 time period, including plans for future national datums

8. NGS Geoid Slope Validation Survey of 2011: http://geodesy.noaa.gov/GEOID/GSVS11/index.shtml;
Description of research survey methodology to assess the accuracy of differential geoid undulations between points using NGS gravimetric geoid models vs. GPS, leveling, and other technologies

9. NGS free software (e.g. DSWORLD): http://geodesy.noaa.gov/PC_PROD/pc_prod.shtml;
For easy access and searching of NGS horizontal and vertical control datasheets

10. NGS publications: http://geodesy.noaa.gov/PUBS_LIB/;
For various free geodesy-related publications

11. NGS Presentation Library: http://geodesy.noaa.gov/web/science_edu/presentations_library/;
Posting of various presentations by NGS personnel, including William Stone's 2013 UCLS presentation