
NGAC

Update on new geometric and geopotential (vertical) datums

Gary Thompson
NGAC Meeting
March 18, 2015

NGS Webinar

- Presenters:
 - Juliana Blackwell, Director
 - Dru Smith, Chief Geodesist

- Presentation can be found at this link:
 - http://www.ngs.noaa.gov/web/science_edu/presentations_library/
 - The following four slides are from the NGS presentation

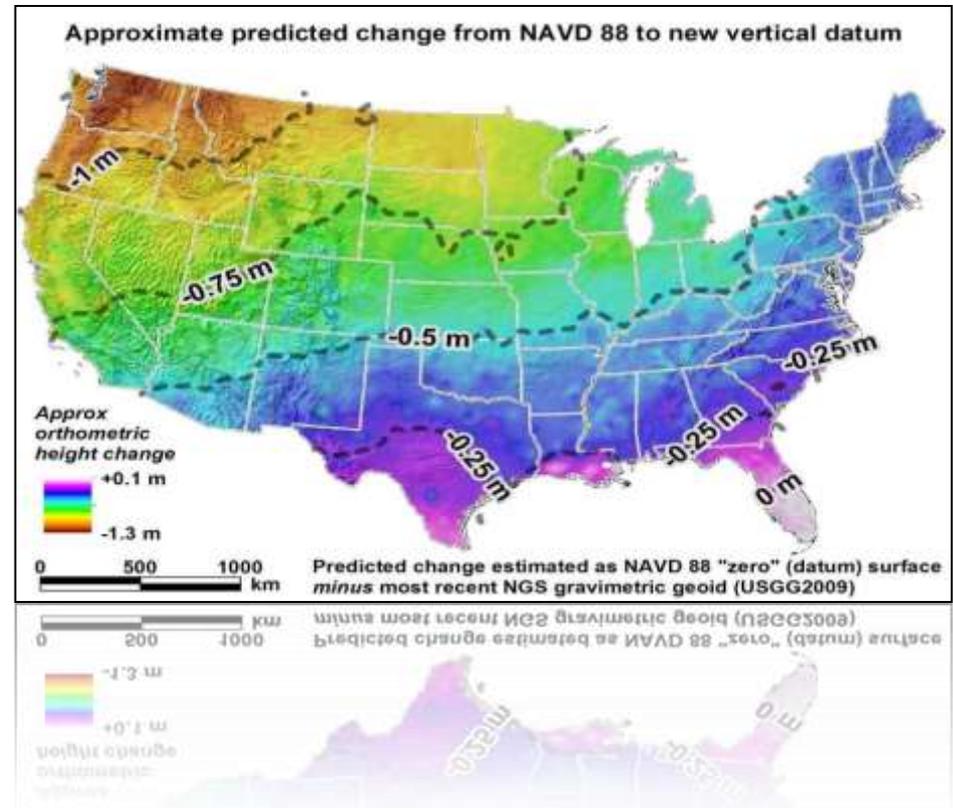
New Datums are Coming in 2022!

- Both a new geometric and a new geopotential (vertical) datum will be released in 2022.
- The realization of the new datums will be through GNSS receivers.
- NGS will provide the tools to easily transform between the new and old datums.



How will the new datums affect you?

- The new geometric datum will change latitude, longitude, and ellipsoid height by between 1 and 2 meters.
- The new vertical (geopotential) datum will change heights on average 50 cm (20"), with a 1 meter (39") tilt towards the Pacific Northwest.



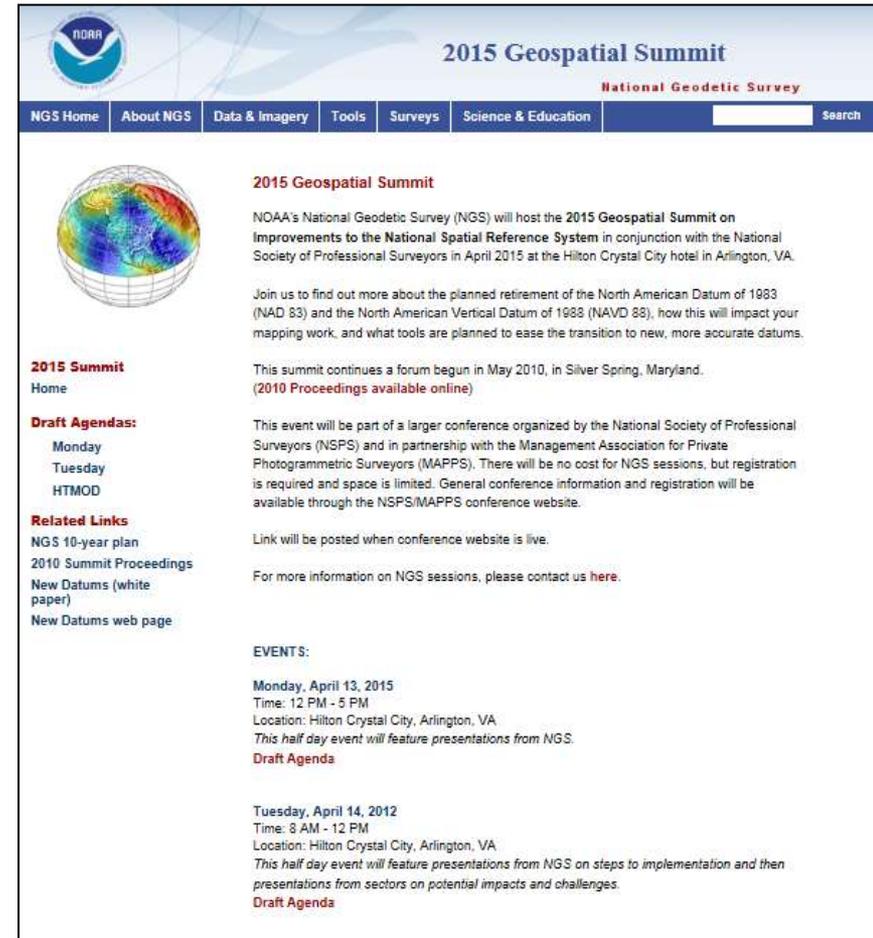
Adoption: Legal / Feds

- The datums will be official once the FGCS approves them
- OMB A-16 then requires all federal, civil agencies to transition to the new datums
- Other groups may adopt at their own speed and need

2015 Geospatial Summit

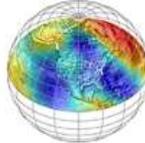
- April 13-14, 2015, in the Washington, DC Area
- As part of a broader “conference of conferences” with National Society of Professional Surveyors and Management Association for Private Photogrammetric Surveyors (MAPPS)
- Follows the successful 2010 Geospatial Summit. More info at the 2015 Geospatial Summit website.

<http://www.geodesy.noaa.gov/2015GeospatialSummit/>



2015 Geospatial Summit
National Geodetic Survey

NGS Home About NGS Data & Imagery Tools Surveys Science & Education Search



2015 Geospatial Summit

NOAA's National Geodetic Survey (NGS) will host the **2015 Geospatial Summit on Improvements to the National Spatial Reference System** in conjunction with the National Society of Professional Surveyors in April 2015 at the Hilton Crystal City hotel in Arlington, VA.

Join us to find out more about the planned retirement of the North American Datum of 1983 (NAD 83) and the North American Vertical Datum of 1988 (NAVD 88), how this will impact your mapping work, and what tools are planned to ease the transition to new, more accurate datums.

This summit continues a forum begun in May 2010, in Silver Spring, Maryland. ([2010 Proceedings available online](#))

This event will be part of a larger conference organized by the National Society of Professional Surveyors (NSPS) and in partnership with the Management Association for Private Photogrammetric Surveyors (MAPPS). There will be no cost for NGS sessions, but registration is required and space is limited. General conference information and registration will be available through the NSPS/MAPPS conference website.

Link will be posted when conference website is live.

For more information on NGS sessions, please contact us [here](#).

EVENTS:

Monday, April 13, 2015
Time: 12 PM - 5 PM
Location: Hilton Crystal City, Arlington, VA
This half day event will feature presentations from NGS.
[Draft Agenda](#)

Tuesday, April 14, 2012
Time: 8 AM - 12 PM
Location: Hilton Crystal City, Arlington, VA
This half day event will feature presentations from NGS on steps to implementation and then presentations from sectors on potential impacts and challenges.
[Draft Agenda](#)

2015 Summit Home

Draft Agendas:
Monday
Tuesday
HTMOD

Related Links
[NGS 10-year plan](#)
[2010 Summit Proceedings](#)
[New Datums \(white paper\)](#)
[New Datums web page](#)



GPS on Bench Marks

National Geodetic Survey

- NGS Home
- About NGS
- Data & Imagery
- Tools
- Surveys
- Science & Education
-
- Search

March 16, 2015



What is GPS on Bench Marks?

Improve the National Spatial Reference System (NSRS):

Recover: Look up the description of an existing bench mark and visit the bench mark of your choice.

Observe: Record field notes, take digital photos, and collect GPS observations or coordinates for the bench mark you visit.

Report: Use online tools to send the information to NGS.

Recover, Observe, Report

More information on Recover, Observe, Report we will be recording a webinar for people to learn more. Click on the image below to register for the webinar.

GPS on BM Links

- Home
- Recover
- Observe
- Report
- Web Map
- Webinar Information
- GPS on BM FAQ

Related Links

- NGS Data Explorer
- DSWorld
- OPUS Upload
- Mark Recovery Form
- Photo Submission
- GEOID12A
- 2014 Campaign

For geocachers:

- Hunt for marks!
- Bench Mark Hunting

Where?

Currently there are over 400,000 bench marks across the Conterminous United States (CONUS), Alaska, Hawaii and all U.S. territories. Tidal marks and bench marks are used for determining heights. Use the maps to prioritize which bench marks to observe.

Who can participate?

Anyone with Global Positioning System (GPS) enabled phones, hand held devices or survey-grade GPS receivers, but recommended procedures vary depending on the type of equipment used.

When should I start?

You can collect and share information any time. Join volunteer efforts across the United States in celebration National Surveyors Week beginning March 15, 2015. Contact your local **National Society of Professional Surveyors** chapter or your nearest **NGS geodetic advisor** to learn about projects being planned in your local area.

How?

For specific information on how to help please visit



The maps below show the distance to nearest bench mark used in GEOID12A as well as the estimated accuracy. The accuracy is highly correlated to the distance to nearest bench mark. You can help improve the next geoid by helping to fill these gaps and limit the distance between observed bench marks.

GEOID12A Distance to Nearest Bench Mark Map

