

# The National Geodetic Survey Strategic Plan (Draft)



## NGS Mission

*To define, maintain, and provide access to the National Spatial Reference System to meet our nation's economic, social, and environmental needs, and to be a world leader in geospatial activities, including the development and promotion of standards, specifications, and guidelines.*

## Strategic Goals and Objectives

### Modernize the 3-D Geometric Reference System\*

*Promote the capability for users to easily obtain accurate values for latitude, longitude, ellipsoid height, and other related geometric coordinates.*

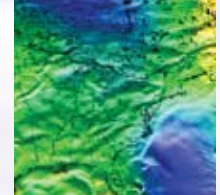
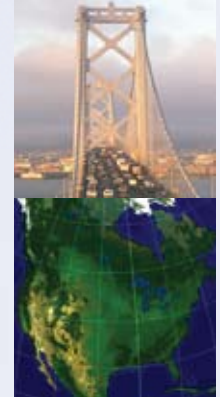
- Determine and disseminate a consistent set of 3-D coordinates and velocities on Continuously Operating Reference Systems (CORS) in a global reference frame.
- Complete a plan for the definition of a new geometric reference system for the United States and its territories.
- Implement the foundation CORS system.
- Provide users with tools and education to obtain accurate geometric positional coordinates in all three dimensions.
- Provide low-latency access to Global Navigation Satellite Systems (GNSS) data from selected CORS via the Internet.
- Develop guidelines for both the administration and use of real-time GNSS networks.
- Create models to predict the 3-D crustal velocity at any location in the United States.
- Develop the capability to process all types of GNSS data.
- Generate predicted GPS orbits once every few hours.

### Modernize the Geopotential ("Vertical") Datum

*Provide easier access to accurate elevation data.*

- Complete two-fifths of all GRAV-D (Gravity for the Redefinition of the American Vertical Datum) areas, including flights, data processing, and storage.
- Establish and publish the geoid theory necessary to achieve <1 cm absolute accuracy, with "perfect data" for all non-mountainous regions of the United States, allowing for rock density unknowns in the mountains, and with unknowns not exceeding 1 cm at the coast.
- Provide a fully functional new gravity interpolation Web-based tool to allow users to receive gravity acceleration, geopotential value, geoid undulation, or deflection of the vertical at any point in the United States or above the surface (using upward continuation).

\*The geometric reference system is a new terminology being adopted by NGS and replaces the former term "horizontal datum".



**Migrate the Coastal Mapping Program toward Integrated Ocean and Coastal Mapping (IOCM)**

- Prepare the user community before, during, and after implementation of the new vertical datum, through a coordinated National Height Modernization Program, providing outreach and education, tools, specifications, and guidelines.
- Finalize and announce the definition of new datum in preparation for re-definition in 2018.

*Serve a wider range of coastal customers and geospatial data needs by implementing the IOCM vision and leveraging collaborative partnerships and technological innovation.*

- Continue to develop and support the vertical datum in the continental United States.
- Test and evaluate remote sensing platforms, sensors, and data products.
- Develop and enhance collaborative partnerships with Federal and state agencies, academia, and the private sector to streamline operations, improve efficiencies, develop common standards, and stimulate innovation in ocean and coastal mapping.
- Complete and evaluate IOCM demonstration projects and transition results to operations.
- Develop and test standards, specifications, and workflows for new coastal geospatial products, including orthomosaics and lidar data.

**Evolve Core Capabilities**

*Anticipate changing customer needs, leverage emerging science and technology, and address other opportunities or threats.*

- Implement a system to define and adjust NGS' core capabilities.
- Formalize a system and a process for understanding evolving customer requirements, and align products and services to suit their needs.
- Retain an adaptable and ready-to-respond workforce.
- Fully implement a knowledge transfer system linked to strategic training and development.

**Increase Agency Visibility**

*Expand our customer base to reach all those who may benefit from NGS products and services.*

- Develop an NGS culture that embodies and demonstrates a customer focus, with a broadened definition of "customer."
- Fully implement strategic training and outreach programs to anticipate and satisfy customer and partner needs.
- Leverage internal NOAA partnerships to reach a broader customer base, and adjust our suite of products and services to ensure a customer focus and product usability.
- Become a recognized global leader in the geospatial community.