



# The Federal Base Network

The Federal Base Network (FBN) is a nationwide network of permanently monumented stations spaced 100 kilometers apart with higher density in crustal motion areas. The FBN provides spatial reference control that has some of the most precise accuracies available today.

The FBN is designed to provide the following local accuracies (with a 95% confidence level):

- 1 centimeter for latitudes and longitudes
- 2 centimeters for ellipsoidal heights
- 3 centimeters for orthometric heights
- 50 microgals for gravity
- 1 millimeter per year for crustal motion

By integrating horizontal and vertical networks, the FBN enhances the Nation's spatial framework for precise navigation, mapping, and resource management.

Through state-sponsored survey campaigns, NOAA's National Geodetic Survey coordinates observations to complete the horizontal and ellipsoidal components of the FBN. This observation will be completed in December 2003, and will support a nationwide coordinate readjustment.

**For more information, contact:**

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The U.S. Department of Commerce  
National Oceanic and Atmospheric Administration  
National Ocean Service  
National Geodetic Survey

The National Geodetic Survey (NGS) defines and manages the National Spatial Reference System, which determines position, height, distance, gravity, and shoreline throughout the United States. Since 1807, NGS and its predecessor agencies have led the world in precise positioning and developed emerging technologies for the public. NGS provides its expertise and a wealth of free information, including direct access to its data base on the World Wide Web at: [www.ngs.noaa.gov](http://www.ngs.noaa.gov).

