

Geodesy Prioritization in 2026 Highway Bill

The surveying profession plays an important part in the U.S. economy. Everyday government and free enterprise rely upon surveying, mapping, and geospatial data for the creation, management, and enhancement of transportation and infrastructure of the United States, among other vital uses. *Geodesy* is the science that studies the Earth's shape, orientation, and position and geodesists are scientists that can determine where things are and where they are going with extreme accuracy. This is the science that underpins national defense, infrastructure, space, and commerce, among many other sectors. Per the U.S. Constitution, geodesy is under the authority and responsibility of the Federal Government. Article 1, Section 8, Clause 5 [states](#), "...To coin Money, regulate the Value thereof, and of foreign Coin, and fix the Standard of Weights and Measures..."



Decades ago, the U.S. government invested heavily in research and development, training, and employing the best and brightest scientists, engineers, and researchers to develop the world's first satellite-based global positional systems (GPS). By 2000, private-sector innovators started building location, navigation, and timing functionality into [literally everything](#). Since then, the U.S. government has continuously *reduced* funding for maintenance, expansion, protection, staff, research, and education. Meanwhile, our adversaries have been pouring resources into developing their own satellite systems. GPS is now joined by satellite systems from several other countries, forming the Global Navigation Satellite System (GNSS). Foreign academic programs training geodesists are graduating hundreds to thousands each year; the U.S. is averaging a couple of dozen, and its remaining education programs, and thus, its knowledge capacity to support GPS and related capabilities are going extinct, and now in "[crisis mode](#)". The continued breakdown of GPS leaves the U.S. vulnerable from both a geopolitical and an economic standpoint. This ongoing trend runs *counter* to the purpose of the December 2025 [Executive Order on Ensuring American Space Superiority](#) which states, "Superiority in space is a measure of national vision and willpower, and the technologies Americans develop to achieve it contribute substantially to the Nation's strength, security, and prosperity."



As connected to geodesy and the surveying profession, the U.S. Department of Transportation (USDOT) defines [Digital Infrastructure](#) as "*collective public and private technology assets that create, exchange, or use data or information to improve the transportation system by the provision of existing and new services for travelers, businesses, and agencies.*" For the 2026 Highway Bill, there is a need by USDOT's Bureau of Transportation Statistics (BTS) to leverage the surveying profession and geodesy for the creation of survey grade data as part of BTS plans for the creation, management, and dissemination of Roadway Electronic Navigational Charts (Road-ENCs). Just as waterborne vessels use Electronic Navigational Charts (ENCs) and aircraft use aeronautical charts, a [National HD Map employing Road-ENCs](#) will be vital for road safety and increased economy for road users. This newer technology and emerging applications, such as autonomous vehicles (AVs), will be reliant on the positional accuracy of GPS and geodesy-- both connected to the surveying profession.

The 119th Congress is well-positioned to assist the stabilization of geodesy nationwide while also making sure USDOT achieves safer roads and increased economy for roadway users. The National Society of Professional Surveyors ([NSPS](#)) supports draft legislation known as the "Measures for HD Mapping Act" for inclusion in the 2026 Highway Bill. This important legislation will:

- Authorize BTS to create, maintain, and disseminate the National HD Map, and related activities, consistent with and leveraging the current official National Spatial Reference System (NSRS) as defined by the National Geodetic Survey; and
- Provide for an interagency budget crosscut and coordination report to federal government agencies benefiting from GPS, federal government agencies responsible for operating or maintaining GPS, and investments in education and research in geodesy and related fields to strengthen and expand GPS and fill the talent pipeline.

ACTION REQUESTED:

NSPS respectfully urges Members of Congress to add a provision to the 2026 Highway Bill authorizing the National High-Definition (HD) Map in the Bureau of Transportation Statistics (BTS) which will improve highway safety, increase economy for road users, and prioritize geodesy and GPS in the future. For more information, contact John "JB" Byrd, NSPS Federal Lobbyist, at jbyrd@millerwenhold.com or 703-383-1330.