

Executive Summary

U.S. National Grid Supporting Public Safety, Commerce, and the General Public

Background. The Federal Geographic Data Committee's U.S. National Grid (USNG) standard provides a nationally consistent *language of location* that has been optimized for local applications.

- All street maps use a standard set of street names and addresses to locate places. The USNG does not replace this practice; it supplements it. The USNG expands the utility of street, and other, maps by adding several powerful features: It provides a grid reference system that is seamless across jurisdictional boundaries; it provides the foundation for a universal map index; it describes point-locations on appropriately gridded paper and digital maps; it allows geopositioning using Global Positioning System (GPS) receivers; and it supports Worldwide Web map portals that link digital maps and GPS data.
- USNG may be the only unambiguous way to describe locations when the end-user is operating either in an area away from an established road network, or in an area impacted by a natural disaster where road signs have been destroyed.
- Private citizens, public agencies, and commercial enterprises can use USNG. It has obvious applications in navigation, public safety response (e.g., police, fire, rescue, National Guard), and web-enabled directions to businesses and other public/private facilities.
- USNG is a Presentation Standard. It does not replace data storage formats for either Geographic Information Systems (GIS) or the State Plane Coordinate System (SPCS) for engineering and survey applications.
- USNG is an alpha-numeric point reference system that has been overlaid on the Universal Transverse Mercator (UTM) numerical grid. Every modest size home in a discrete area can be described using 8-digits (e.g., 1234 5678). By adding a two-letter prefix (e.g., XX 1234 5678), the location is identified regionally (state-wide). This alpha-numeric designator can be used today with many consumer GPS receivers costing less than \$100.
- The Army National Guard has been trained to use the USNG format. Additionally, USNG and the Military Grid Reference (MGRS) values are identical when referenced to WGS 84 or NAD 83 datum; therefore, state National Guard units can integrate seamlessly with their federal counterparts when joint responses are warranted.
- Additional information: www.fgdc.gov/usng