

Oregon Real Time GNSS Network

The Oregon Department of Transportation owns and operates the Oregon Real-time GNSS Network - a network of continuously operating GNSS reference stations.

<https://www.oregon.gov/ODOT/ORGN>

Engineering Automation Section

ODOT's Engineering Automation Section is responsible for enhancing and maintaining the vertical and horizontal geodetic control infrastructure across the state of Oregon.

The ORGN consists of GNSS continuously operating reference stations that provide **real-time kinematic correctors** to field GNSS users over the internet. GNSS users, who are properly equipped to take advantage of these correctors, can survey in the field to the one centimeter horizontal accuracy level in real time.

RINEX files are also available for use in post-processing.

Partnership

The ORGN was developed in partnership with other state and local agencies, educational institutions and private industry. ORGN partners have contributed some facilities and GNSS equipment. In turn, ODOT purchased and operates the GNSS network software that controls the network of continuously operating reference stations. Central and regional ODOT offices have provided many station sites and GNSS sensors for the system.

Scope of Network

Currently GNSS corrector coverage by the ORGN consists of several sub-networks, or clusters of stations in Oregon. Each sub-network consists of GNSS stations spaced roughly 70 km apart.

The ORGN uses specialized software, Leica GNSS Spider, to configure and monitor the quality of data from the reference stations, and compute and provide correctors to field GNSS users. Correctors are provided in real-time, via the internet. Station data is archived and available online in RINEX file format for users that need to post-process their field GNSS data.

Datum Realization

The ORG has transitioned to a new datum realization: NAD 83(2011) epoch 2010.00. Please visit our [ORGN Coordinates page](#) for more in depth information on this transition.

User Fee

Currently the ORGN is free to use, but does require a login and password. Please submit the online [Rover Account Request Form](#) to request a rover account that will authorize you to receive corrections from the ORGN.

Administration and Costs

The ORGN is staffed by two FTE's to maintain nearly continuous operation. Software licensing costs approximately \$65,000 per year. Installation of new GNSS stations costs between \$18,000 and \$25,000 per site.

Contact Info

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