# GLOBAL NAVIGATION SATELLITE SYSTEM (GNSS) SERVICE

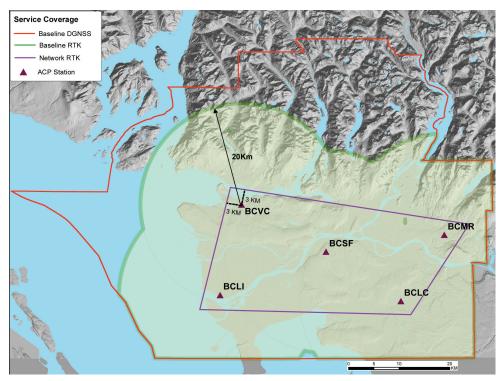
THE MODERNIZED METRO VANCOUVER GNSS
SERVICE NOW OFFERS GPS, GLONASS, GALILEO AND
BEIDOU REAL-TIME CORRECTION SERVICES

Surveyors, engineers, and others who require accurate, real-time GNSS positioning now have access to the state-of-the-art geospatial reference system for the Metro Vancouver region.

### SYSTEM FEATURES INCLUDE:

- Real-Time Kinematic (RTK) service
- Differential GNSS (DGNSS) service
- Multiple satellite systems (GPS, GLONASS, Galileo and BeiDou)
- Baseline or Network RTK operations

Potential applications include cadastral surveys, engineering layouts, topographic surveys, GIS mapping, hydrographic surveys and other similar activities.



# GNSS service area coverage (Note: the ability to access the system is subject to the availability of wireless coverage)

### SYSTEM DESCRIPTION

A network of five Active Control Point (ACP) stations continuously track America's GPS, Russia's GLONASS, Europe's Galileo and China's BeiDou satellite signals. The stations send signals to a central network server, which manages and distributes correction data to subscribers in real time over the Internet.

The service offers the flexibility of both RTK and DGNSS operations. While the RTK operations are typically limited to a range of 20 kilometres from an ACP site, DGNSS operations can extend farther. Both real-time operations require reliable Internet coverage. The ACP stations broadcast continuously, 24 hours a day, at 1 Hz frequency data sampling rate using NTRIP protocol.

## **USER TESTIMONIALS**

"Overall, we have seen significant time and cost savings using the Metro Vancouver GNSS Service and would highly recommend the system to any company who undertakes these types of projects."

Dennis Stock, Lead Surveyor, Survey Department, Engineering Design & Construction, City of Richmond

"The Metro Vancouver Service provides us benefits of reducing our expenditures on survey control by more than all expenditures for the Service, and of extending hydrographic surveys into areas where survey control was previously hard to establish. The increased accuracies reduce systematic differences between survey crews—for instance when external surveyors provide one or more surveys that are used to identify changes over time."

Gouin Barford, P.Eng., PMP, Regional Discipline Manager, Civil Engineering, Public Works and Government Services of Canada

### **BENEFITS**

Metro Vancouver's GNSS Service offers:

- The latest satellite positioning technology using America's GPS, Russia's GLONASS Europe's Galileo and China's BeiDou GNSS signals for increased satellite availability
- Real-time 3D positioning with two proven technologies, the centimetres-level RTK or the metre-level DGNSS operations
- 24/7 data service
- Traditional Baseline or the modelled Network RTK corrections
- A reduction in cost by eliminating the need to establish and secure user-owned reference systems
- Increased productivity with the highly portable GNSS
- Access to an advanced geospatial reference system
- Class A certified by GeoBC, which complies with the Survey and Plan Rules as established by the Association of BC Land Surveyors

## **FOR MORE INFORMATION**

Metro Vancouver Information Centre:

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# **VISIT US ONLINE**

For more information related to this regional geospatial infrastructure, please go to www.metrovancouver.org/gnss

