

Real-time GPS streaming at UNAVCO

UNAVCO streams data from a subset of Plate Boundary Observatory (PBO) GPS stations as part of regular data operations. Real-time 1Hz streams from selected PBO stations are openly available in BINEX, RTCM 2.3 and RTCM 3.1 formats via the NTRIP protocol. A map and list of current real-time stations are available on PBO's real-time GPS web page at <http://pbo.unavco.org/data/gps/realtime>.

A username and password are required to access UNAVCO's streaming data. Prospective users should email rtgps@unavco.org to obtain the hostname and port of our NTRIP caster, along with the necessary authentication information. Connecting to our NTRIP caster indicates your agreement to abide by UNAVCO's streaming data usage policy (see link at <http://pbo.unavco.org/data/gps/realtime>) and to acknowledge the use of these data streams in presentations, reports, and publications with the statement:

"The material presented here is based on data streams and services provided by the Plate Boundary Observatory, operated by UNAVCO for EarthScope (www.earthscope.org) under National Science Foundation Grant No. EAR-0732947."

You will need an NTRIP client to access UNAVCO's data streams. Both commercial and non-commercial NTRIP clients are widely available. A free client that works on most computer platforms is BNC, available from the BKG web site at http://igs.bkg.bund.de/index_ntrip.htm.

Once an NTRIP client is properly configured, it will return a list of mountpoints for UNAVCO's streaming stations. Mountpoints are labeled as shown below (where P225 is the station 4-character identifier):

BINEX: P225_BINEX
RTCM 2.3: P225_RTCM
RTCM 3.1: P225_RTCM3

Nominal data latencies range from 0.2~2.0 sec, depending on station telemetry. The PBO real-time web page shows data latency and completeness for each station over the past hour and the past day.

UNAVCO cannot guarantee the availability, quality, or reliability of its GPS data streams. Access to and use of UNAVCO's data streams may be monitored for reporting and other purposes.

Please send questions to rtgps@unavco.org.