



FCC 30 Meter Terrain Data

Key Advantages

- High resolution 1-arc-second terrain data coverage Canada, Mexico, and the United States
- Optimized for performance allowing terrain retrieval speeds that are close to using a 3 arc-second resolution dataset (while accessing data that is three times the resolution).

Data Description

This dataset matches the elevation values that used by the FCC's TVStudy program when operating in a “1 arc-second” terrain resolution mode. That program uses a fallback mechanism where data from various sources (going from highest to lowest resolution) will be considered based on what is available. The source data used consists of:

CDED: 0.75-second Canada
CEM: 1-second Mexico
NED: 1- and 2-second U.S.
USGS: 3-second U.S.
SRTM: 3-second Canada and Mexico
GTOPO: 30-second global

Coverage Area

The complete data available covers all of Canada, Mexico, and the United States. Subsets of the data are available that only cover each country area. For each subset area data extends a short distance beyond the border.

Speed Comparison

Time required to calculate a Longley-Rice coverage study using 1 km cell size, 30 meter profile spacing, and 150 km circle calculation area for various terrain databases:

FCC 30 Meter Terrain: 30 s
NED 30 Meter Terrain: 108 s
Globe 30 Second Terrain: 25 s
SRTM 3 Second Terrain: 26 s
Older USGS 3 Second Terrain: 25 s
NED 3 Second Terrain: 33 s

The new FCC 30 meter terrain data is 3.6 times faster than the older 30 meter NED data that we offer. It was also about 10% faster than the older NED 3 second data.

Graphical Resolution Comparison at 1:25,000 Scale

