ELEVATION - DIGITAL ELEVATION MODEL (DEMs)

Data Layer: ELEVATION - DEM
Primary Layer Name: DEMnnn
Layer Content: DIGITAL ELEVATION MODEL
Data Structure: ASCII FILE
Layer Type: N/A
Source: US GEOLOGICAL SURVEY
Source Scale: 1:24,000,1:25,000
Source Media: DIGITAL
Automated By: US GEOLOGICAL SURVEY
Coordinate Reference: UTM Meters
Horizontal Datum: 1927
Tile: 7.5-MINUTE QUADRANGLE
Status: IN PROGRESS
Last Revision: March, 1999
Available From: Complex Systems Research Center, UNH
Associated Coverages: HYPSOGRAPHY (HYPso), TAGGED VECTOR CONTOURS (TVC)

GENERAL DESCRIPTION

The USGS 7.5-minute digital elevation models (DEMs) contain regular arrays of surface elevations at a spacing of 30 meters in both the x and y directions. DEM data may be used to generate a number of products, including contour maps, slope and aspect maps and terrain models.

GRANIT is presently acquiring revised DEMs from the USGS site, and processing them to generate data sets that comply with GRANIT georeferencing standards (e.g. NH State Plane feet, NAD83). In addition, each DEM is being visually screened for consistency of content, missing data values, etc., and appropriate adjustments are being made.

The GRANIT data base presently contains the core elevation files. Derivative products, such as the inset above, are generated as warranted by specific applications. The inset displays a terrain model generated from a point in Crawford Notch, and looking towards Mount Washington. The same data set could be used to produce topographic contours, but users should be aware that contours derived from DEMs may differ significantly from the contour lines displayed on the corresponding USGS topographic quadrangle.

A statewide mosaic from the National Elevation Database (http://gisdata.usgs.gov/ned) is also available from GRANIT as an exported Arc/Info GRID. As above, it has been re-processed to reference NH State Plane feet, NAD83.

Digital elevation models are also available from 1:250,000-scale source data. These files contain regular arrays of surface elevations at a spacing of 3 arc-seconds, or approximately 80-90 meters at the New Hampshire latitude. This data may be used for large, regional projects that require only coarse topographic information. All of the 1:250,000-scale DEMs necessary to provide statewide coverage are available from GRANIT.

March, 2000