

US Topo – The Next Generation of Topographic Maps. The United States Geological Survey (USGS) has introduced the next generation of topographic maps coined the US Topo. The US Topo is an electronic map that follows the National Aerial Imagery Program 3 year revision cycle and includes an image background, roads, names, contours and hydrography within a 1:24,000-scale layout.

In the second half of the 20<sup>th</sup> century, the foundation of the U.S. Geological Survey's (USGS) national map series was 7.5-minute topographic maps. This map series was declared complete in 1992. In the 1990s and early 2000s the USGS mapping program focused its attention on digital data to support geographic information systems (GIS). In late 2008, the USGS began defining a new general purpose, digital, quadrangle map series in the US Topo.

The cost of the old USGS 7.5-minute map series for the 48 conterminous States is estimated at about \$3 billion, more than \$50,000 per map (in 2007 dollars). The elapsed time from project planning to map printing was about 5 years, and it took more than 45 years to complete the series. At its peak in the 1960s and 1970s, the National Mapping Program employed more than 2,000 people. It is unlikely Congress would fund such a program today, or that today's map users would consider these cycle times acceptable.

US Topo represents a new type of national map series. The layout of the original 7.5-minute map series is iconic, and US Topo was deliberately modeled on the older maps in the belief that users would be comfortable with this design. The US Topo program is a test of the hypothesis that a standard, general purpose map series relevant to the early 21<sup>st</sup> century can be created and maintained by newer technology and other means.

The decision to revive the USGS quadrangle mapping program in a digital form was made in November 2008. Production of relatively simple image maps began in June 2009. Contour and hydrography layers were added in October 2009. By May 2011, the USGS produced nearly 40,000 maps, more than 80 maps per work day and most recently 3000 plus maps over the state of Montana.

The speed of this ramp-up is impressive and the quick distribution of US Topo maps reflects the USGS commitment to a modern national map series, and a belief that making an up-to-date standard map widely available cannot wait for complete consensus on design or total availability of local data. Although a majority of the data used for this first run of US Topo product comes from federal and private partnerships, the long term plan remains to produce maps using local data providers that push data up to a national database through continued partnerships and coordination.

US Topo maps are free and available for download at the USGS Store at: <http://store.usgs.gov>

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