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Topographic Maps

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TOPOGRAPHIC MAPS

Topographic maps show the general configuration of the land surface, including its relief and the position of natural and man-made features. The configuration is shown commonly by contour lines, imaginary lines connecting all points of equal elevation on the earth's surface above or below a datum plane such as mean sea level. When the land slope is steeper the contour lines are closer together. Topographic maps at scales of one inch to a mile or greater (shown as 1:63,360 on the map) are used in many ways. They are particularly important in preparation of various types of geologic maps and cross sections that can be used in locating, for example, mineral resources or aquifers.

Explorations of the geology and natural resources of the American West were initiated by the King, Wheeler, Hayden, and Powell Surveys from 1867 to 1879, but major topographic mapping efforts began only after 1881. In December 1885 John Wesley Powell, second director of the U.S. Geological Survey, testified before a joint committee of Congress about the national need for topographic maps of the country. He said that topographic mapping of the country could be completed in twenty-four years. By 1894 about one-fifth of the United States was depicted on topographic maps. Mapping of the U.S. Great Plains at a scale of 1:24,000 was completed in 1994 by the U.S. Geological Survey. Topographic maps of the Canadian Prairie Provinces have been completed at a scale of 1:50,000 by the Canada Map Office.

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