



INTERIOR—GEOLOGICAL SURVEY, RESTON, VIRGINIA—1983

SHADED RELIEF, OBLIQUE VIEW MAP, VICINITY OF GOING-TO-THE-SUN ROAD, GLACIER NATIONAL PARK, MONTANA

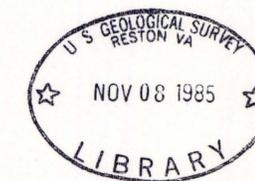
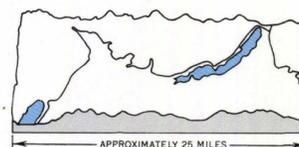
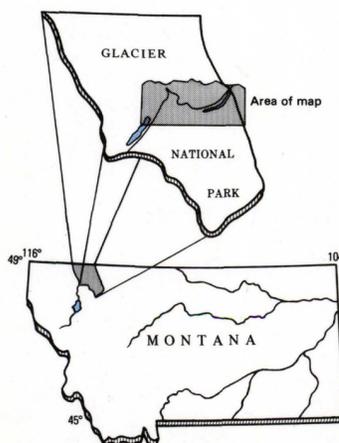
By
Arthur L. Isom, Omer B. Raup,
Drexel A. Brumley, and Stafford G. Binder

1983

NOTE

The production of this map began with aerial photography taken from an elevation of 40,000 feet. The photography allowed the area to be viewed stereoscopically (in three dimensions), and made possible the horizontal and vertical measurements of the geographic features. Eight stereomodels were scanned on a digital photogrammetric instrument attached to a magnetic tape drive. Elevations were collected and recorded onto tape every 50 meters along profiles 100 meters apart, resulting in a total of 570,000 data points. These data were reduced to 36,000 location and elevation points by a computer program which compiled a three-dimensional contour perspective model in the computer's memory. The model was oriented so that the resulting map would be viewed from the south, would have a 30-degree tilt, and have a 2.6-times vertical exaggeration. These conditions were selected to give maximum visibility of Going-to-the-Sun Road, minimum concealment of terrain, and realism of geographic features. The model was transferred to magnetic tape from the computer's memory, entered into and drawn by a plotter.

This air-brush, shaded-relief version of the map was made using the three-dimensional oblique contour map as a base, along with oblique aerial photographs, and standard topographic maps.



I-1508-A

M(209)
I-1508-A
u

For sale by Branch of Distribution, U.S. Geological Survey,
Box 25286, Federal Center, Denver, CO 80225

M(281)5
G452i
c.1