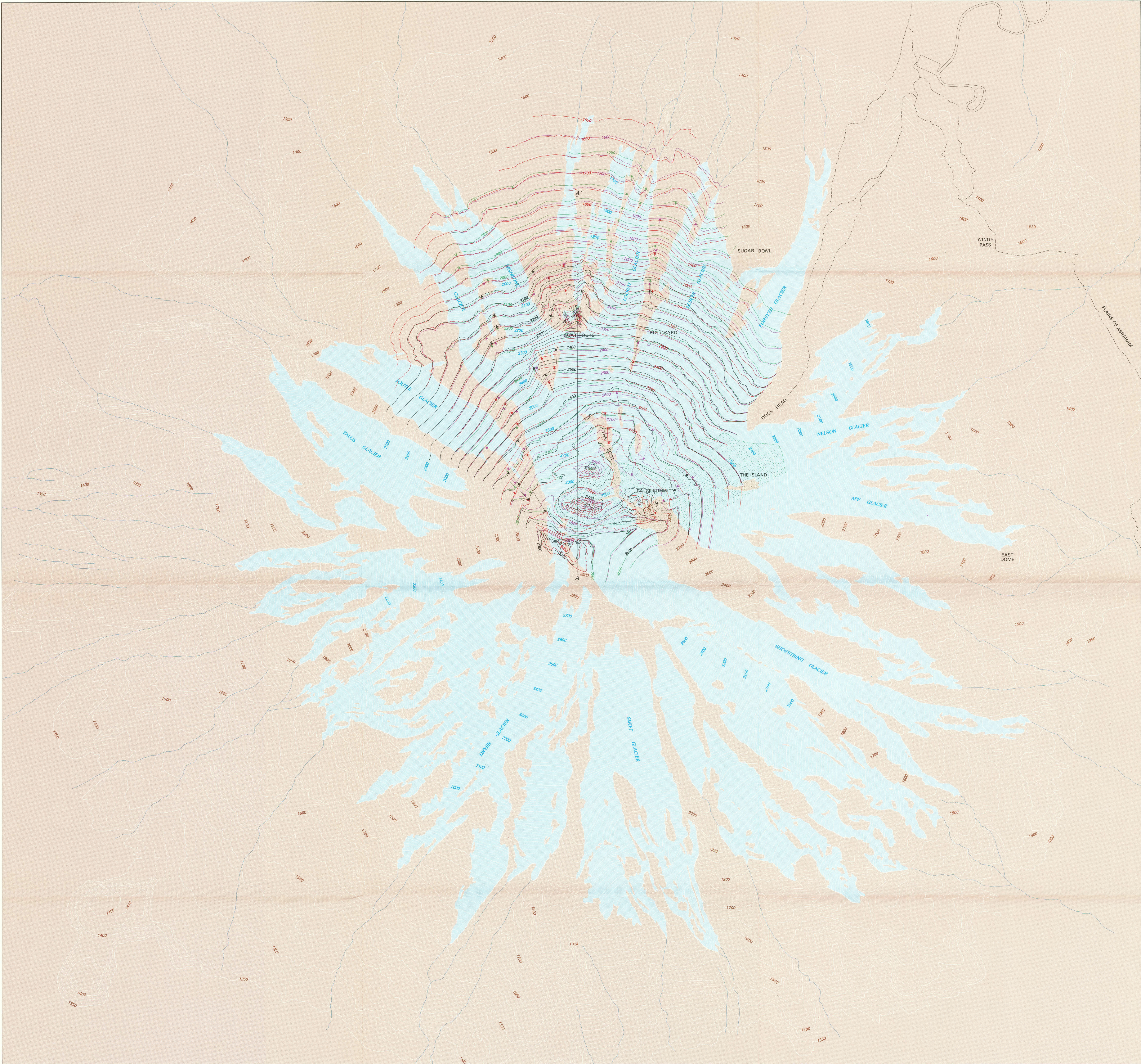




Base photogrammetrically prepared by U.S. Geological Survey staff from U.S. Forest Service August 5, 1972 photograph and F-43088-172 frames 45 and 46.

Topographic contours of 1980 compiled using Washington State Department of Transportation photographs 47 and 53 (April 11, 1980) and 54 (May 11, 1980) and 62 (May 12, 1980) and 63 (May 16, 1980).

NT5039--GEOLOGICAL SURVEY, RESTON, VIRGINIA--1980--60-380

TOPOGRAPHIC MAP OF MOUNT ST. HELENS, WASHINGTON, SHOWING CHANGES BETWEEN APRIL 11 AND MAY 16, 1980

By
Raymond Jordan and Hugh H. Kieffer
1982

EXPLANATION

TOPOGRAPHIC CONTOURS—Hachures indicate a closed depression. Plus sign indicates a local topographic high or low.

August 5, 1972 (glaciers and snowfields)

2000

2500

April 11, 1980

2300

May 1, 1980

2100

May 12, 1980

2200

May 16, 1980

AREA OBSCURED BY PLUME ON MAY 12 PHOTOS

VECTORS SHOWING DISPLACEMENT OF CONTOURS RELATIVE TO 1972 TOPOGRAPHY—Dashed where only connecting two contours of the same value

April 11, 1980

May 1, 1980

May 12, 1980

May 16, 1980

VECTORS SHOWING DISPLACEMENT OF TOPOGRAPHIC HIGH RELATIVE TO 1972 TOPOGRAPHY—In area of Goat Rocks only

April 11, 1980

May 1, 1980

May 16, 1980

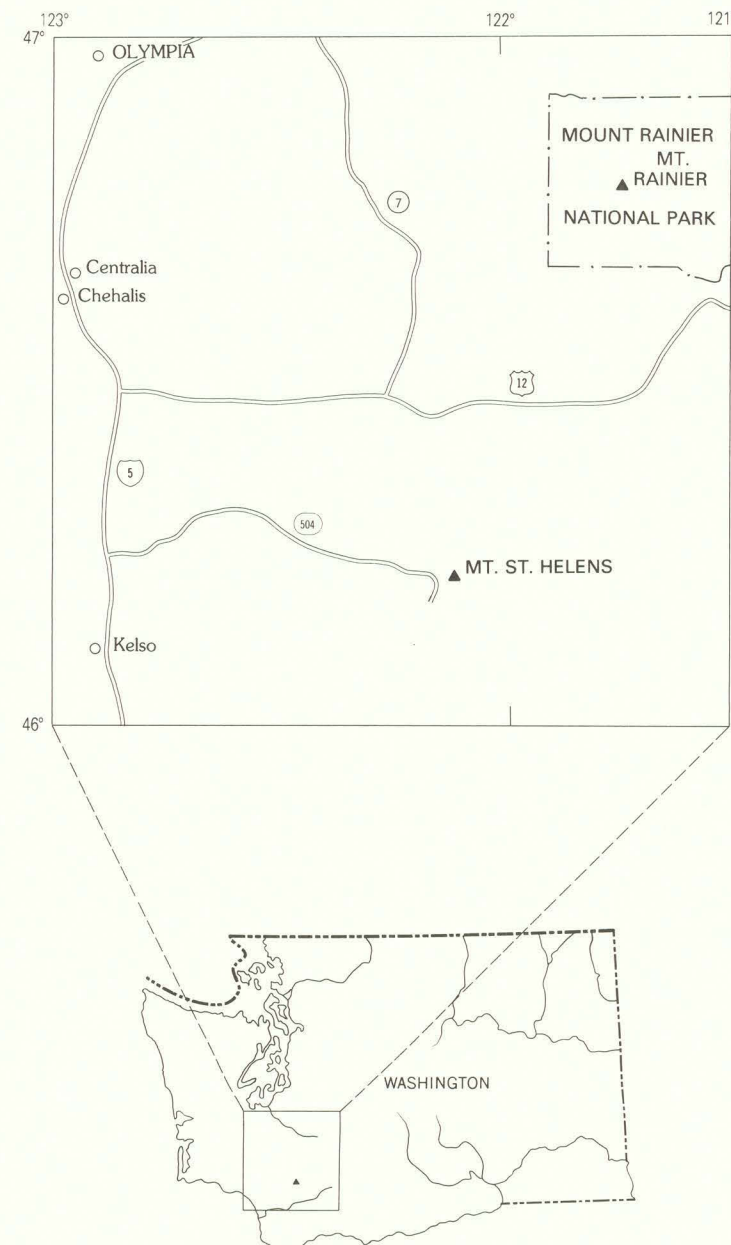
DISCUSSION

This map was prepared in a study to determine which parts of Mount St. Helens were undergoing major deformation during the 1980 eruption sequence. The base map was prepared using U.S. Forest Service 1:60,000-scale photographs taken August 5, 1972, and shows the snowfields at that time. The additional colored contours show topography as it appeared on 1:40,000-scale photographs taken at in-

REFERENCES

Jordan, Raymond, and Kieffer, H. H., 1982, Topographic changes at Mount St. Helens—Large scale photogrammetry and digital terrain models, U.S. Geological Survey Professional Paper 1250, p. 135-141.

Lipman, P. W., Moore, J. C., and Swenson, D. A., 1982, Bulging of the north flank before May 18 eruption—Geodetic data: U.S. Geological Survey Professional Paper 1250, p. 143-155.



INDEX MAP SHOWING LOCATION OF MOUNT ST. HELENS