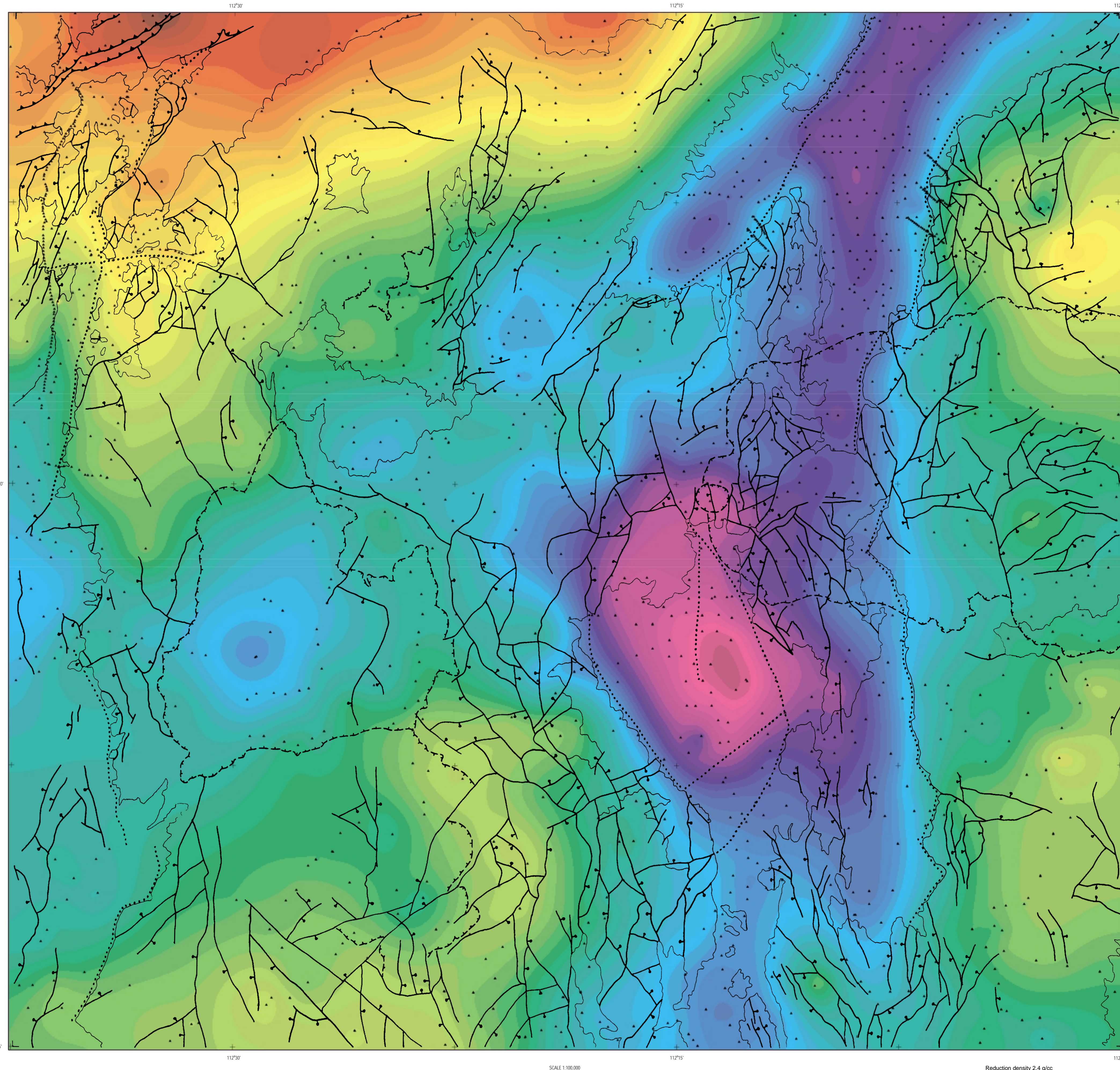


MAP A. AEROMAGNETIC MAP

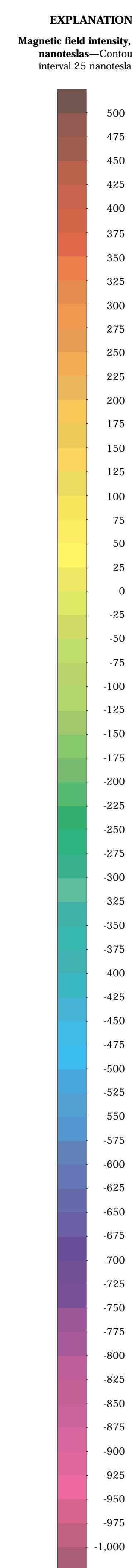


MAP B. BOUGUER GRAVITY MAP

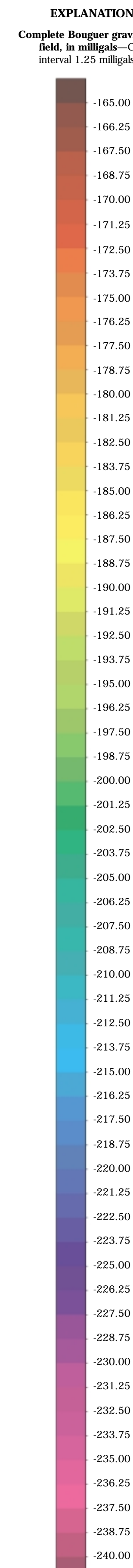
AEROMAGNETIC AND GRAVITY MAPS OF THE CENTRAL MARYSVALE VOLCANIC FIELD, SOUTHWESTERN UTAH

By David L. Campbell, Thomas A. Steven, Charles G. Cunningham, and Peter D. Rowley

1999



- ▲ 79-1518 Sample locality—Refer to table 1 for description by sample number
- Edge of Quaternary unit
- - - Fault—Dashed where inferred; bar and ball on downthrown side
- Boundary of major caldera



- ▲ Gravity station
- Edge of Quaternary unit
- - - Fault—Dashed where inferred; bar and ball on downthrown side
- Boundary of major caldera

Reduction density 2.4 g/cc  
Geologic base map modified from Rowley and others (in press)  
Edited by Diane E. Lane  
Digital cartography by David L. Campbell and Diane E. Lane  
Manuscript approved for publication April 14, 1999

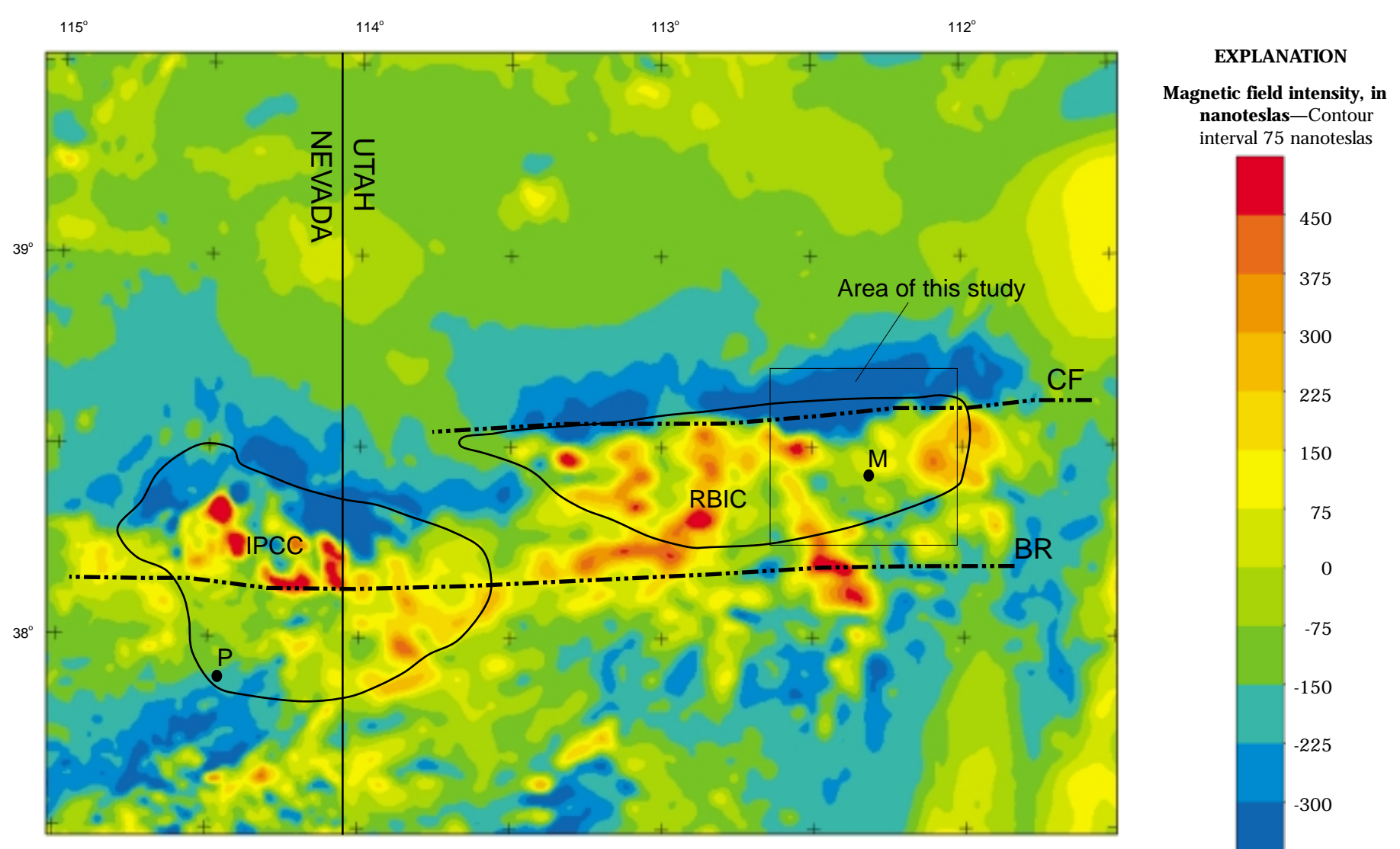


Figure 2. Composite aeromagnetic map of southeastern Nevada and southwestern Utah, showing regional aeromagnetic signatures associated with the Plio-Pleistocene igneous belt. Data from several original surveys were merged to make this map, and where necessary were upward continued to 1,000 ft from original survey elevations, so are different from those on map A. Upward continuation emphasizes broad features at the expense of detail. IPCC, Indian Peak Caldera Complex (Rowley and others, 1998); RBIC, Redfield Belt of Inyo and Calaveras Shivers and Morris, 1986; M, Marysville; P, Pocher; CF, Cove Fort transverse zone; BR, Blue Ribbon transverse zone.

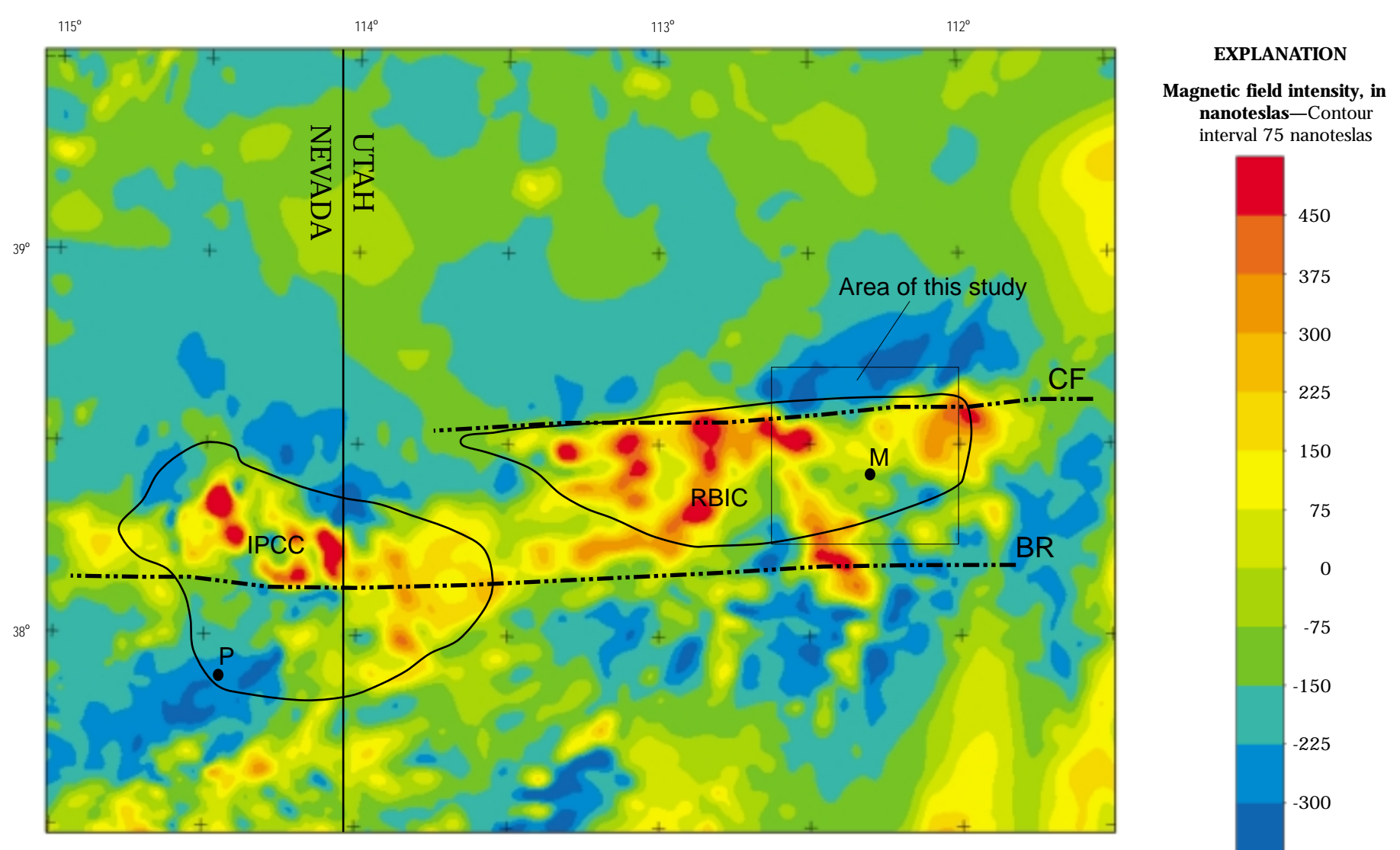


Figure 3. Reduced-to-pole (RTP) aeromagnetic map of southeastern Nevada and southwestern Utah. A mathematical process was used to make aeromagnetic highs and lows fall more directly over their sources. Nevertheless, the low persists north of the study area. Generally, on RTP maps, we expect highs to indicate calderas or thick sequences of volcanic rocks, and lows to reflect reversed-polarity extrusive rocks that have strong remanent magnetization. IPCC, Indian Peak Caldera Complex (Rowley and others, 1998); RBIC, Redfield Belt of Inyo and Calaveras Shivers and Morris, 1986; M, Marysville; P, Pocher; CF, Cove Fort transverse zone; BR, Blue Ribbon transverse zone.

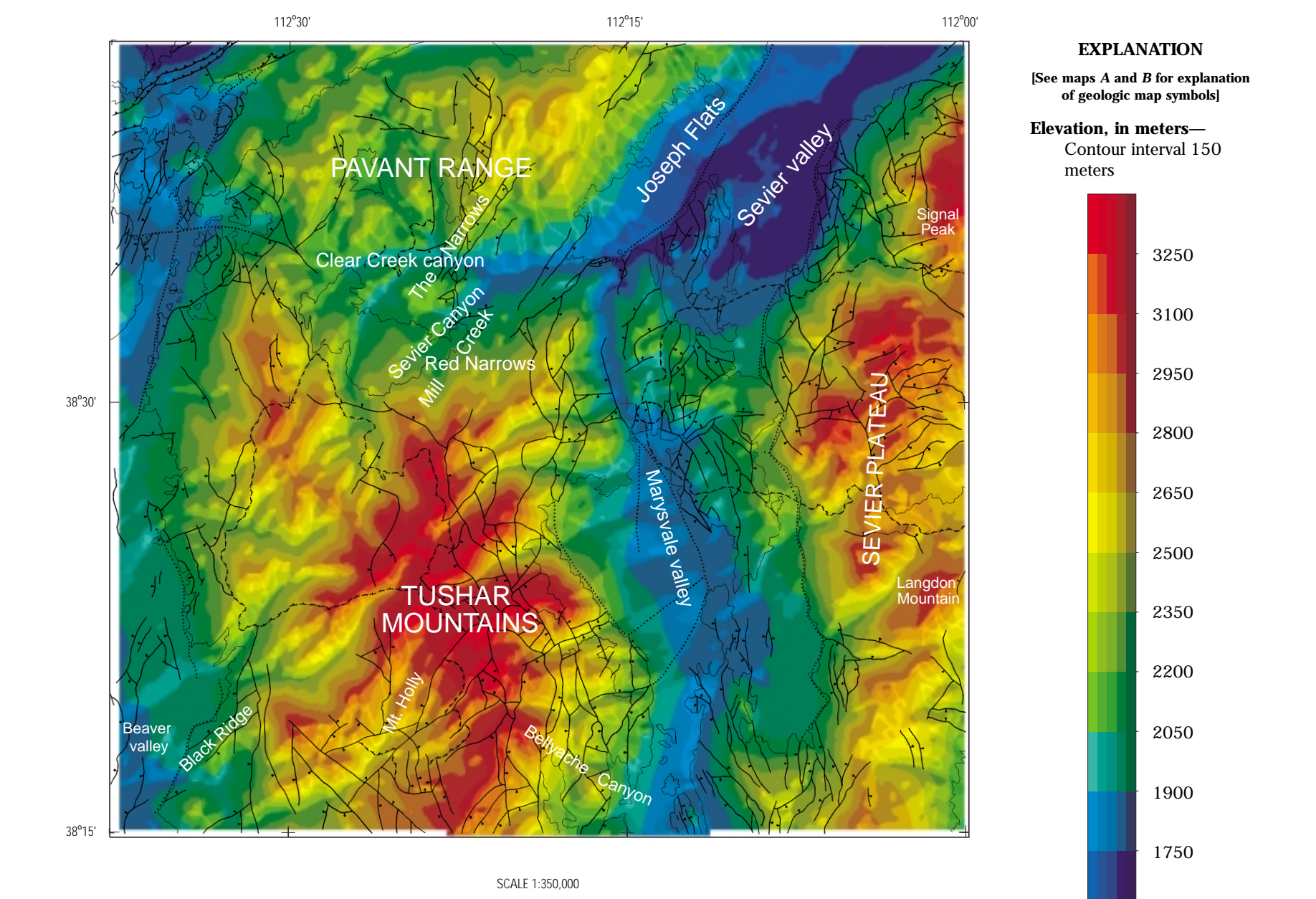


Figure 4. Topographic map of the central Marysville volcanic field, Utah, showing selected geographic features. Display is a color-shaded relief map, illuminated from the southeast.

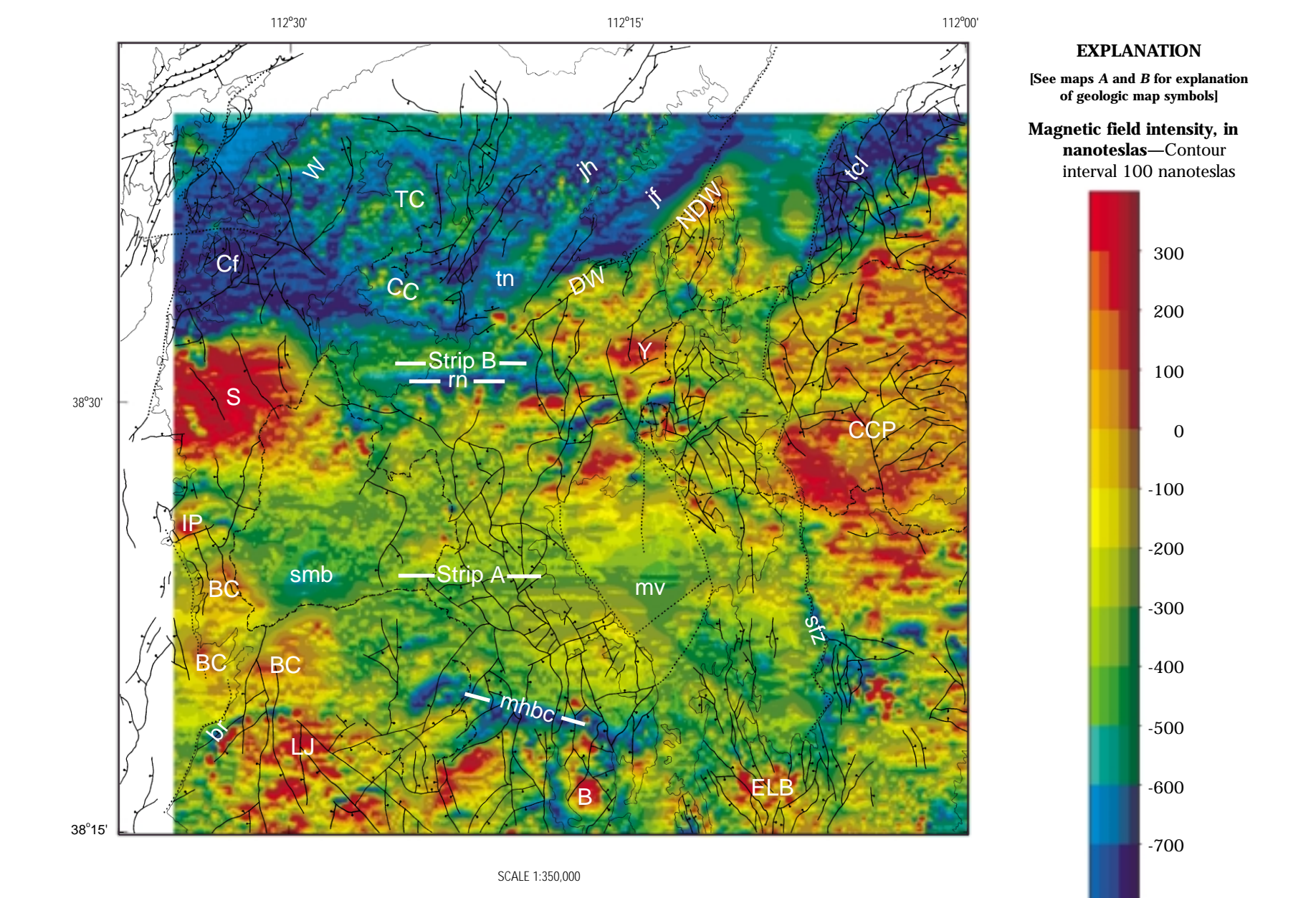


Figure 10. Key to aeromagnetic map of the central Marysville volcanic field, Utah (map A). Shadings are from a computer-driven "sun" at 60° elevation. Illuminating the data from the south, such a display emphasizes problems that may have occurred in reducing and composing the original data. Index letters are keyed to aeromagnetic anomalies that are discussed in the text; lower case, low; upper case, high. Geologic map overlay from figure 6.

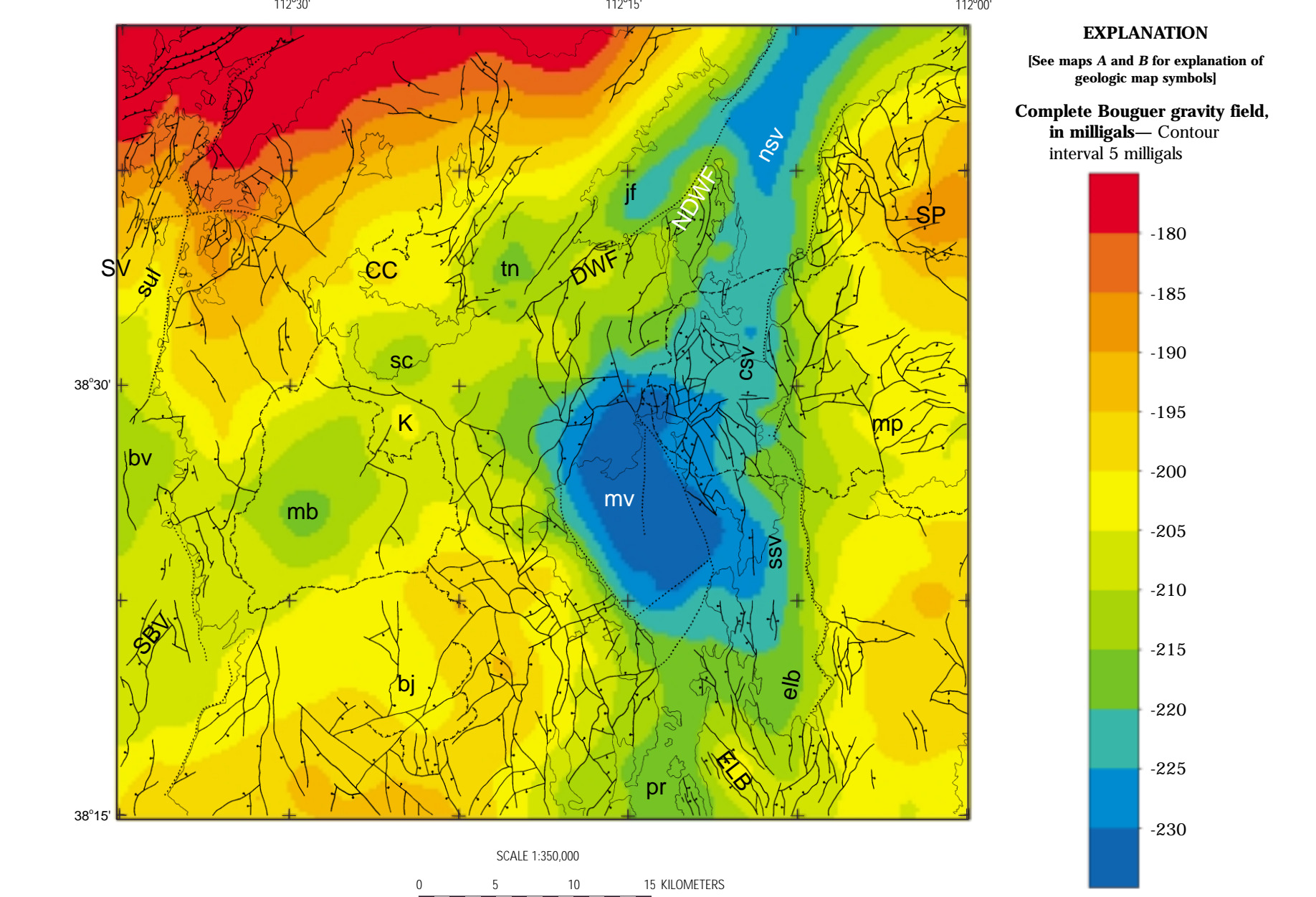


Figure 11. Key to Bouguer gravity map of the central Marysville volcanic field, Utah (map B). Index letters are keyed to gravity anomalies that are discussed in the text; lower case, low; upper case, high. Geologic map overlay from figure 6.

