

**EXPLANATION**

Contours of Bouguer anomaly values drawn by computer from a 2 km by 2 km gridded representation of the data.

Contour interval is 2 milligals.

Beckers are used to indicate gravity lows. Small squares (■) mark the locations of individual stations. UTM projection.

Anomalies were calculated relative to the 1967 Geodetic Reference System formula for theoretical gravity (International Association of Geodesy, 1971), and base values were adjusted to conform to the International Gravity Standardization Net of 1971 (Morelli, 1974). Terrain corrections have been calculated from 0.895 km to 146.7 km using a modification of the terrain correction program of Plouff (1977). No terrain corrections have been applied for the zones closer than 0.895 km, but in most cases errors resulting from this omission are substantially less than 1.0 mgals.

**REFERENCES CITED**

International Association of Geodesy, 1971, Geodetic Reference System 1967, International Association of Geodesy Special Publication, no. 1, 118 p.

Morelli, C., (ed.), 1974, The International Gravity Standardization Net 1971, International Association of Geodesy Special Publication, no. 4, 190 p.

Plouff, D., 1977, Preliminary documentation for a FORTRAN program to compute gravity terrain corrections based on topography digitized on a geographic grid, U.S. Geological Survey Open-File Report 77-534, 45 p.

**DATA SOURCES**

Department of Defense gravity data from: Defense Special Data Services, RMA, Boulder, CO.

Canadian gravity data from: National Gravity Data Bank, Energy, Mines, and Resources, Earth Physics Branch, Gravity and Geodynamics Division, Ottawa, Canada.

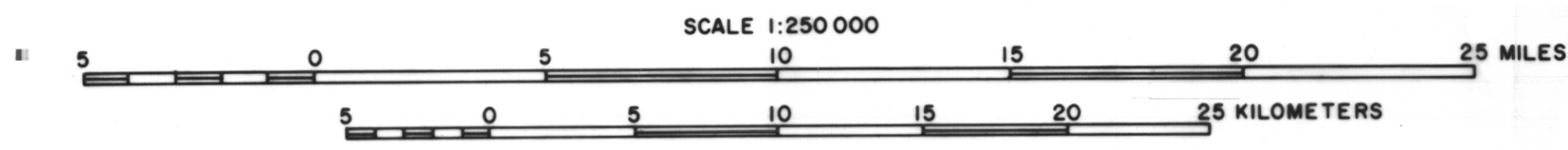
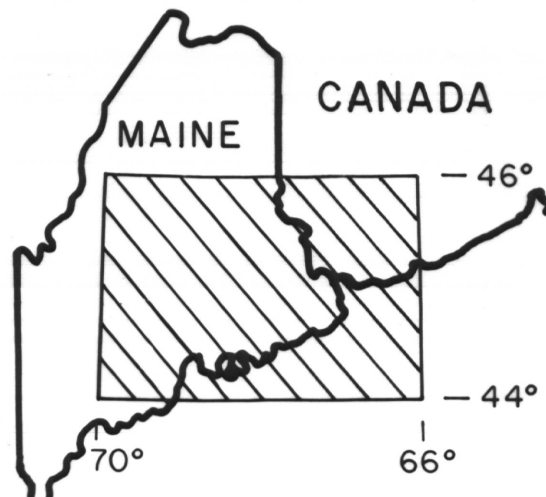
Abbey, B. A., 1972, Gravity study of several Maine coastal plateaus, southeastern Maine: M.S. dissertation, SUNY at Buffalo, 77 p.

Simpson, R. W., and LaPlante, P., 1978, Principal facts for gravity profiles at Vergennes and Waterville, Maine: U.S. Geological Survey Open-File Report 78-011, 4 p.

1979, Principal facts for gravity profiles near South Portland, Maine: U.S. Geological Survey Open-File Report 79-012, 11 p.

Dowsey, J., 1972, Detailed gravity investigation of shapes of glacial intrusions, south-central Maine, and implications regarding their role of emplacement: Ph.D. dissertation, SUNY at Buffalo, 117 p.

Unpublished data: B. S. Hodge (SUNY at Buffalo).



PRELIMINARY BOUGUER GRAVITY MAP OF EASTERN MAINE AND ADJACENT CANADA

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