



BOUGUER GRAVITY MAP OF THE BANGOR 1° X 2° QUADRANGLE, MAINE

BY

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This map is preliminary and has not been edited or reviewed for conformity to Geological Survey standards.

DATA SOURCES
Department of Defense gravity data from: Environmental Data Services, NOAA, Boulder, CO.
Abbey, D. A., 1972, Gravity study of several Maine coastal plutons, southeastern Maine: M.S. dissertation, SUNY at Buffalo, 77 p.
Simpson, R. W., and LaPierre, P., 1978, Principal facts for gravity profiles at Orrington and Waterville, Maine: U.S. Geological Survey Open-File Report 78-849, 6 p.
Sweeney, J., 1972, Detailed gravity investigation of shapes of granitic intrusives, south-central Maine, and implications regarding their mode of emplacement: Ph.D. dissertation, SUNY at Buffalo, 117 p.
Unpublished data: D. S. Hodge (SUNY at Buffalo).

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. Hachures 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 166.7 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 mgal.

REFERENCES CITED
International Association of Geodesy, 1971, Geodetic Reference System 1967: International Association of Geodesy Special Publication, no. 3, 116 p.
Morelli, C., (ed.), 1974, The International Gravity Standardization Net 1971: International Association of Geodesy Special Publication, no. 4, 194 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.