

FIG.7-- PRELIMINARY MAP OF SIMPLE BOUGUER GRAVITY ANOMALIES
IN COPPER RIVER BASIN, ALASKA

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1959 Scale 1: 250,000 5 0 5 10 15 20 miles

BASE DERIVED FROM UNITED STATES GEOLOGICAL SURVEY 1: 250,000 TOPOGRAPHIC QUADRANGLE MAPS.

Contour interval 10 mgal

Explanation

The map is based on 300 stations established during the summers of 1958 and 1959 with a World-Wide gravity meter having a scale constant of .0242 mgal per scale division. The observed gravity values were related to a gravity measurement of 981.9309 gals at Gulkana Airport made by Thiel, Bonini, Ostenso, Woollard (1958). Stations indicated by a solid black dot were made at benchmarks whose elevations are known to an accuracy of ± 2 feet. The elevations of stations indicated by open dots were obtained from either spot elevations shown on U. S. Geological Survey mile to the inch topographic maps, a stadia traverse along the road to Lake Louise, or by altimetry. The accuracy of these elevations appears to be better than 25 feet. Simple Bouguer corrections using a density of 2.67 gm/cm³ have been made on all stations, but the map does not show the complete Bouguer anomaly since no terrain corrections were made. Terrain corrections to Hayford's zone M have, however, been made on a few sample stations and range from 8 mgal on the mountainous fringes of the basin to less than 0.2 mgal in the marshy, central portions of the basin. The contour interval is 10 mgal and all values are negative.

- Gravity Stations at bench marks
- o Other gravity stations (see above)

Gravity contour, contours dashed where data are incomplete