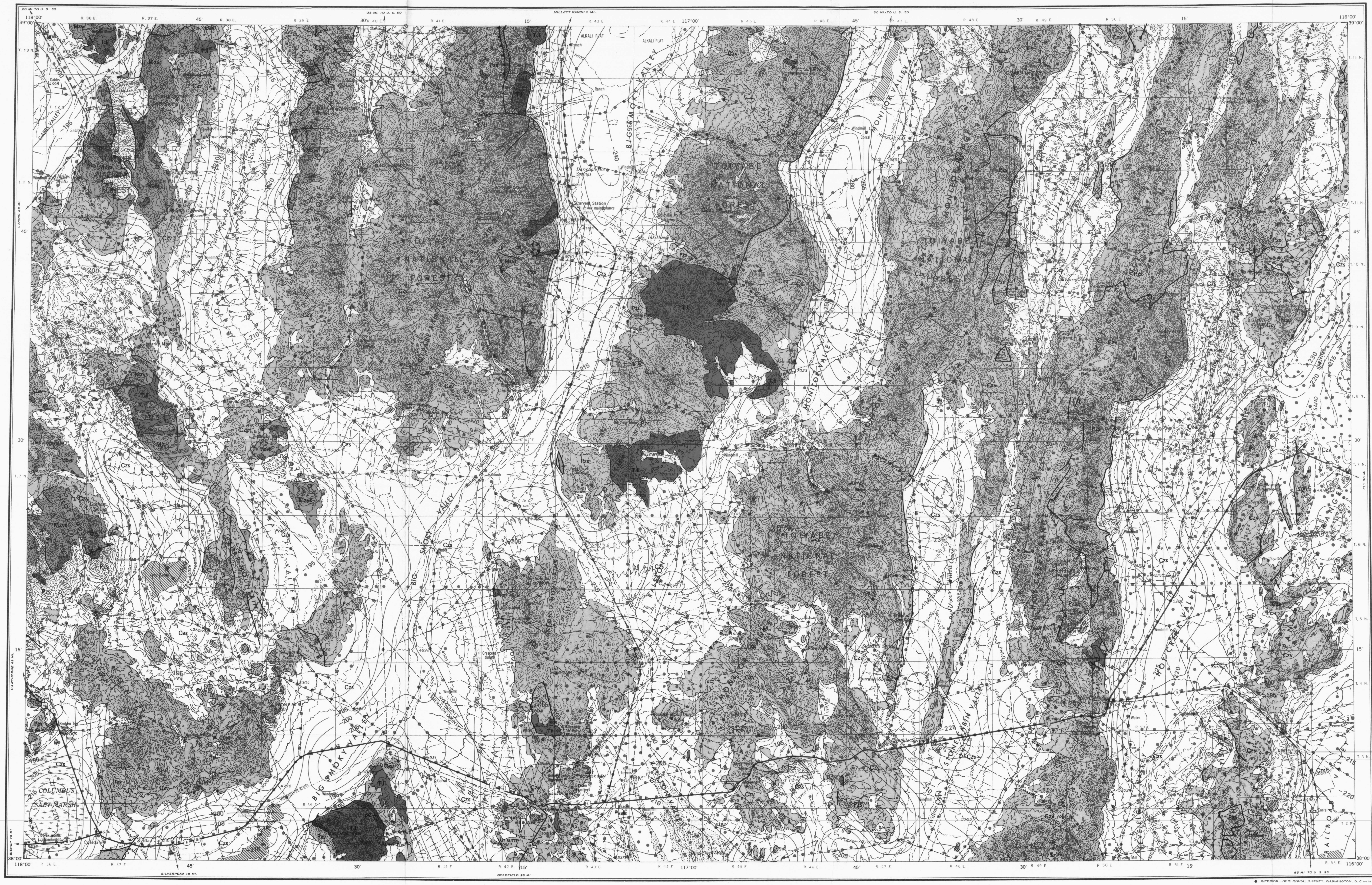


● INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D. C.—1973

Czs

Cenozoic sedimentary rocks

Alluvial deposits, playa deposits, tuffaceous sedimentary rocks, sandstone, conglomerate, minor limestone and dolomites.

Czv

Cenozoic volcanic rocks

Extensive welded and unwelded silicic ash-flow tuffs. Andesite flows and breccias, rhyolite flows and shallow intrusives exposed in central and western portion of map.

CENOZOIC

TJi

Tertiary to Jurassic intrusive rocks

Granitic rocks. Mostly quartz monzonite and granodiorite. Locally includes intrusive rhyolitic to dioritic rocks.

Mzvs

Mesozoic volcanic and sedimentary rocks

Includes conglomerate, shale, sandstone, minor limestone and dolomite units. Volcanic units include greenstone, felsite and tuffs.

MESOZOIC

Pzs

Paleozoic sedimentary rocks

Carbonate-detrital rocks in western portion of map. Rocks of the carbonate (Eastern) assemblage exposed in eastern portion of map.

PALEOZOIC

p€

Precambrian rocks

Phyllite and phyllitic siltstone, minor limestone and dolomite.

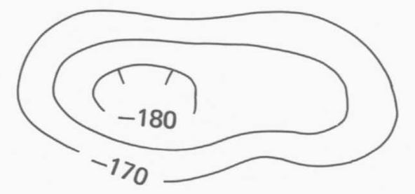
PRECAMBRIAN

Contact

Fault

Thrust fault

Barbs on upper plate.



Gravity contours

Contour interval 5 milligals. Dashed in areas of poor control. Hachured contours indicate areas of low gravity closure. Contours are based on a 1 km data grid selected from indicated stations.

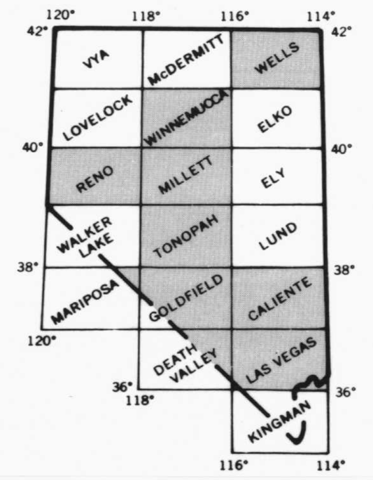
▲

Gravity base station

●

Gravity station

The gravity data have been reduced to the 1971 IGSN (International Gravity Standardization Network) (Morelli, 1974). The prime base station is the IGSN71 gravity station "Tonopah, J" at the Tonopah airport, g = 979,462.25 mgals. The reference spheroid is GRS 1967 (International Association of Geodesy, 1971). Reduction density is 2.67 g/cm³. Terrain corrections were made for all stations from the station outward to a distance of 166.7 km using the U.S. Geological Survey modification of the Defense Mapping Agency digital terrain data and a procedure by Plouff (1977). Where topographic maps were available, terrain corrections to a distance of 0.59 km were made using cylindrical ring templates (Hammer, 1939).



INDEX MAP

Area of coverage shown by heavy black border.
Published sheets shaded.

SOURCES OF GRAVITY DATA

	Number of stations
A.H. Cogbill (Healey and others, 1980)	127
Defense Mapping Agency Hydrographic/ Topographic Center (DMAHTC)/ Geodetic Survey Squadron (GSSQ) (Healey and others, 1980)	193
DMAHTC/GSSQ (Saltus and others, 1981)	928
D.L. Healey (Healey and others, 1980)	2564
D.L. Peterson (Saltus and others, 1981)	35
D.B. Snyder (Saltus and others, 1981)	387
Others (Healey and others, 1980)	314
Total	4548

SCALE 1:250,000

0 5 10 15 20 25 30 35 40 Kilometers

0 5 10 15 20 25 Miles

CONTOUR INTERVAL 200 FEET WITH SUPPLEMENTARY CONTOURS AT 100-FOOT INTERVALS

COMPLETE BOUGUER GRAVITY MAP OF NEVADA

TONOPAH SHEET

D.L. Healey, D.B. Snyder, and R.R. Wahl

1981

SOURCE OF GENERALIZED GEOLOGY

Stewart, J.H., and Carlson, J.E. (1974) Preliminary geologic map of Nevada: U.S. Geol. Survey Misc. Studies, MF-609.

REFERENCES

Hammer, Sigmund (1939) Terrain corrections for gravimeter stations: Geophysics, v. 4, p. 184-194.

Healey, D.L., Wahl, R.R., and Currey, F.E. (1980) Complete Bouguer gravity map of the Tonopah 1° x 2° quadrangle, Nevada: U.S. Geological Survey open-file report 80-611.

International Association of Geodesy (1971) Geodetic reference system 1967: International Association of Geodesy Special Publication 3.

Morelli, C. (1974) The International Gravity Standardization Net 1971: International Association of Geodesy Special Publication 4.

Plouff, Donald (1977) Preliminary documentation for a FORTRAN program to complete gravity terrain corrections based on topography digitized on a geographic grid, U.S. Geological Survey open-file report 77-535.

Saltus, R.W., Snyder, D.B., and Karish, C.R. (1981) Principal facts, accuracies, sources, and base station descriptions and plots for 1380 gravity stations in the western half of the Tonopah 1° x 2° quadrangle, Nevada: U.S. Geological Survey open-file report, 5 p.; available from National Technical Information Service, NTIS PB81-219-081.

D- 01

Base map: U.S. 1:250,000 series, Tonopah sheet, 1973

First edition, first printing, 1981: 1500 copies
Printed by Williams and Heintz Map Corp., Washington, D.C.
Cartography by Susan L. Tingley
Edited by Mati A. Stephens
Geology generalized by John W. Erwin
Typeset by Patricia A. Chambers

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