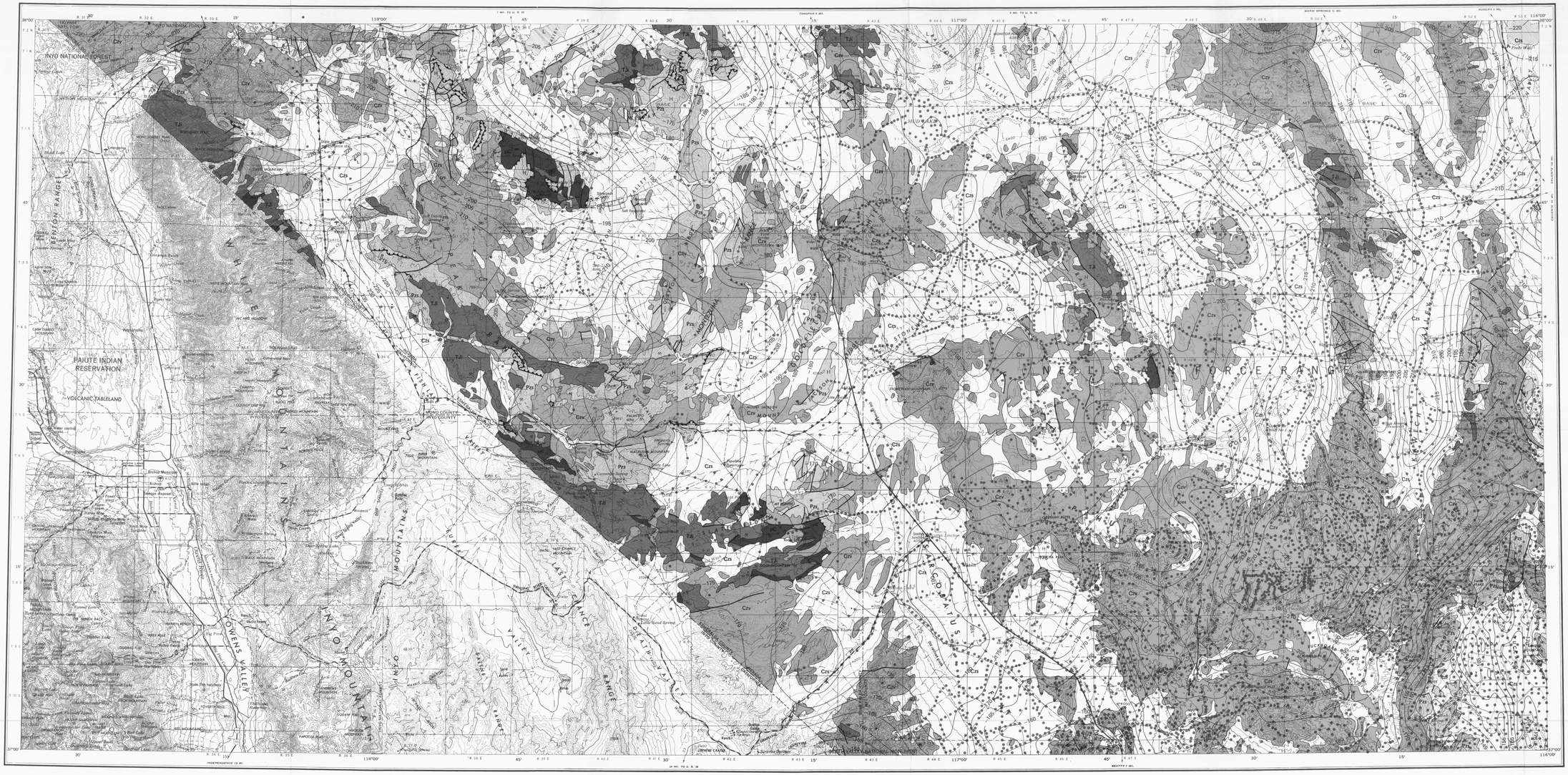


Czs

Cenozoic sedimentary rocks

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

Czv

Cenozoic volcanic rocks

Olivine basalts, welded to unwelded ash-flow tuffs, andesite lava and breccia, intrusive andesites.

CENOZOIC

Tji

Tertiary to Jurassic intrusive rocks

Granitic rocks. Mostly quartz monzonite and granodiorite. Rhyolitic intrusive rocks exposed in eastern half of map.

MESOZOIC

Pzs

Paleozoic sedimentary rocks

Extensive quartzite, and minor amounts of conglomerate, phyllitic siltstone. Less extensive marine limestone and dolomite.

PALEOZOIC

pC

Precambrian rocks

Quartzite, phyllitic siltstone, minor conglomerate, limestone and dolomite. Less extensive metamorphic rocks.

PRECAMBRIAN

Contact

Fault

Thrust fault

Barbs of upper plate.

H

−190

Gravity contours

Contour interval 5 milligals. Areas of low gravity are shown by "L", high gravity by "H".

Gravity base station

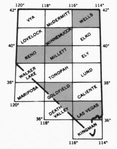
Gravity Station (some stations altimeter control)

The data have been reduced to the 1971 IGSN (International Gravity Standardization Network) (Morelli, 1974). The prime base station is the DOD gravity station G363-1 at the Las Vegas airport, g = 979,590.37 mGal. The reference spheroid is GRS 1967 (International Association of Geodesy, 1971). Bouguer reduction density is 2.67 g/cm^3. Terrain and curvature 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 in planar format and a procedure by Plouff (1977). Where topographic maps were available, the computer "inner zone" terrain corrections were supplemented with the use of templates. In the southeast corner of the map between latitude 37°00' and 37°15' and longitude 116°00 and 116°15' only selected gravity stations are shown. The gravity survey of the Nevada Test Site is concentrated here and the stations are far too numerous to show individually. See U.S. Geol. Survey Open-file Report 474–260, 1978, by the authors of this map for further discussion.

INDEX MAP

Area of coverage shown by heavy black border.

Published sheets shaded.



SOURCES OF GRAVITY DATA

	Number of Stations
Defense Mapping Agency, Aerospace Center, St. Louis Air Force Station, 1974.	126
Healey, D. L., Wahl, R. R., and Currey, F. E., 1978.	12,200
Peterson, D. L., 1973.	170
Wilson, C. W., and Peterson, D. L., 1977.	72
TOTAL	12,568

COMPLETE BOUGUER GRAVITY MAP OF NEVADA

GOLDFIELD AND MARIPOSA SHEETS

D. L. Healey, R. R. Wahl, and F. E. Currey

1980

SOURCE OF GENERALIZED GEOLOGY

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

Base map: U.S. 1:250,000 series, Goldfield sheet, 1970 and Mariposa sheet, 1970

First edition, first printing, 1980: 1550 copies
Printed by Williams and Heintz Map Corp., Washington, D.C.
Cartography by Susan L. Nichols
Edited by Mari A. Stephens
Geology generalized by John W. Erwin
Composed by Janet Armsbury

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