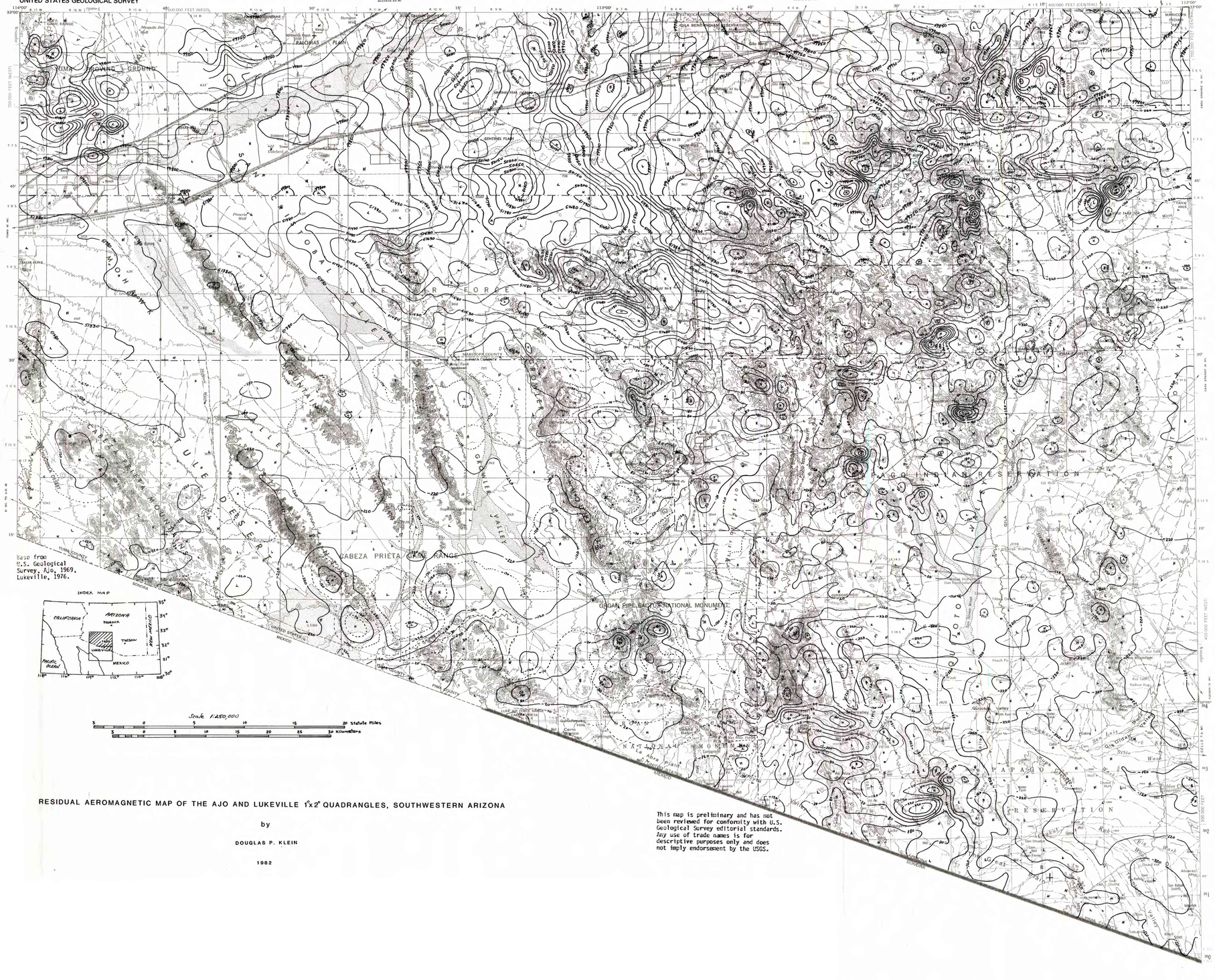
DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

OPEN-FILE REPORT
82-599



RESIDUAL AEROMAGNETIC MAP OF THE AJO AND LUKEVILLE 1°x2° QUADRANGLES, SOUTHWESTERN ARIZONA

by

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1982

This map is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards. Any use of trade names is for descriptive purposes only and does not imply endorsement by the USGS.

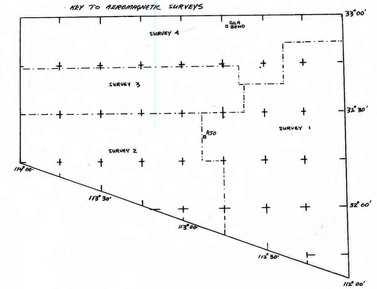
EXPLANATION

Boundaries of aeromagnetic surveys

H L Relative magnetic highs (H) or lows (L)

Contours of total residual magnetic intensity. Dotted contours are interpolated from original contours. Values are in nanoteslas (gammas)(nT)

Contour intervals are 100 nT in survey area 1, 50 nT in survey areas 2, 3, and 4. Local anomalies in the west part of area 4 have 10 nT contour intervals.



DATA SOURCES

Survey 1: U.S. Geological Survey, 1980, Residual aeromagnetic map, Papago Indian Reservation, southern Arizona: U.S. Geological Survey Open-file Report 80-56, scale 1:250,000.

Survey 2: U.S. Geological Survey, 1980, Residual aeromagnetic map, Cabeza Prieta Area, southern Arizona: U.S. Geological Survey Open-file Report 80-97, 2 sheets, scale 1:62,500.

Survey 3: U.S. Geological Survey, 1979, Aeromagnetic map of the Aguila Mountains and vicinity, Arizona: U.S. Geological Survey Open-file Report 79-1446, scale 1:250,000.

Survey 4: U.S. Geological Survey, 1980, Aeromagnetic map of the northern part of the Ajo 1° x 2° quadrangle, Arizona: U.S. Geological Survey Open-file Report 80-1126, scale 1:250,000.

SURVEY SPECIFICATIONS

Survey, Contractor and Date Flown	Flight Direction	Altitude	Line Spacing	Contour Interval *3	Regional Field Correction	Base Value
Survey 1 Aerial Surveys, Salt Lake City, Utah June 1976	E-W	1220 m (4000 ft) barometric	1.6 km (1 mi)	20 nt	I.G.R.F. *1 1975 updated to June 1976 having slope of 5.47 nT/km east (3.42 nT/mi) and 14.9 nT/km north (9.30 nT/mi)	49393 nT at SW corner
Survey 2 Aerial Surveys, Salt Lake City, Utah July 1975	E-W	1220 m (4000 ft) barometric	1.6 km (1 mi)	20 nT	I.G.R.F. 1975 updated to July 1975 having slope of 5.57 nT/km east (3.48 nT/mi) and 14.9 nT/km north (9.3 nT/mi)	49463 nT at SW corner
Survey 3 LKB Resources Inc., Hunting Valley, Pennsylvania Dec-Jan 1978-1979	E-W	1220 m (4000 ft) barometric *2	1.6 km (1 mi)	10 nT	I.G.R.F. 1975 updated to Dec. 1975	49908 nT at SW corner; a constant value of 51,300 nT added to residual after trend removal
Survey 4 Airmag Survey Inc., Philadelphia, Pennsylvania Dec-Jan 1979-1980	E-W	1220 m (4000 ft) barometric	1.6 km (1 mi)	10 nT	I.G.R.F. 1975 updated to Nov. 1979	49806 nT at SW corner: a a constant value of 49,800 nT added to residual after trend removal

*1 I.G.R.F. (International Geomagnetic Reference Field)
see: International Association of Geomagnetism and Aeronomy Working Group on the International Geomagnetic Reference Field, 1975, EOS, v. 57, p. 120-121.

*2 U.S. Geological Survey Open-File Report 79-1446, 1979, mistakenly gives 4000 ft MTC (mean terrain clearance) for altitude specifications.

*3 Contour intervals as shown in original data-source publications.