

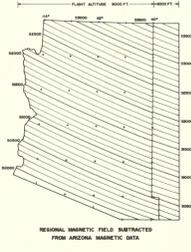
RESIDUAL AEROMAGNETIC MAP OF ARIZONA

SCALE 1:1,000,000



UNIVERSAL TRANSVERSE MERCATOR PROJECTION  
 CENTRAL MERIDIAN 111° W, INTERNATIONAL SPHEROID  
 CONTOUR INTERVAL, 25 GAMMAS  
 by  
 WILLIAM A. SAUCK and JOHN S. SUMNER  
 1970

**Explanation**  
 Residual magnetic intensity values are given in gammas. The original total field data were corrected for diurnal variations as observed at the Tucson Magnetic Observatory (2250) during the flight period. The regional magnetic field as shown on the accompanying index map was removed using a Fortran computer program derived from a Goddard Space Flight Center (NASA) report X-611-64-316 by Cain et al., Oct. 1964. The spherical harmonic coefficients and their first and second line derivatives (SHEC 12-06)-1, of degree and order 10) used with the program to represent the regional magnetic field are from Cain et al. 1967, A Proposed Model for the International Geomagnetic Reference Field-1965, *Journal of Geomagnetism and Geoelectricity*, v. 15, no. 4. The residual values were uniformly offset in a positive sense such that the 400 gamma contour represents zero residual field.  
 The Arizona aeromagnetic survey was flown June 1 to August 21, 1965, with a nominal flight line spacing of 2 km (1.25 miles) at elevations of 9,000 and 11,000 feet. The survey instrument was the University of Wisconsin-Elaec digital recording proton precession magnetometer. Flight lines were positioned from aerial photographs having an average spacing of 10 km (6.2 miles) along the flight paths. This map has incorporated the U.S.G.S. specific map of "Topographic and Verticality" by Anderson, Mitchell, and Tyson, 1965. Exact locations of magnetic contours may have discrepancies as large as 2.5 to 11.5 miles due to data gaps between flight lines and the interpolation of locations between positioning photographs. The data used in compiling this map are available.



RESIDUAL MAGNETIC INTENSITY PLUS 400 GAMMAS

