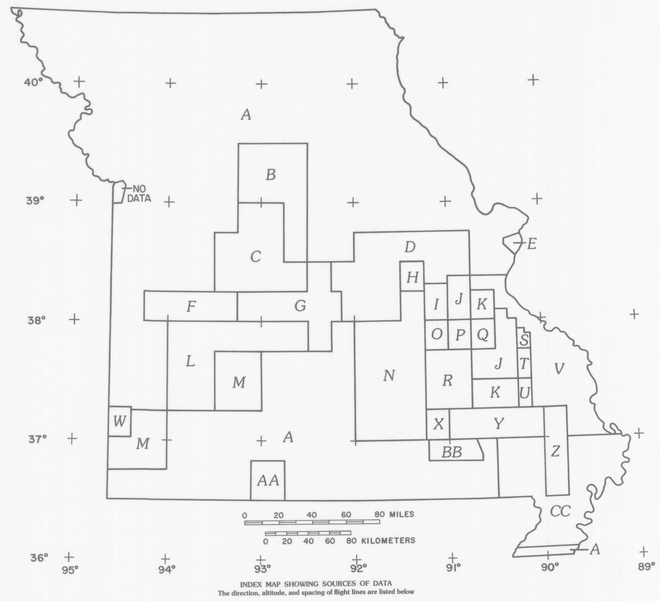
DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

GEOPHYSICAL INVESTIGATIONS MAP
GP-965



INDEX MAP SHOWING SOURCES OF DATA
The direction, altitude, and spacing of flight lines are listed below

EXPLANATION

MAGNETIC CONTOURS

Showing total-intensity magnetic field of the earth in nanoTeslas relative to an arbitrary datum. Hachures indicate areas of lower intensity; dashed where data are incomplete. Contour intervals 100 and 200 nanoTeslas. The main magnetic field of the earth, from Fabiano and Peddie (1969) was removed by hand at the time of compilation from all total-intensity aeromagnetic data flown prior to 1965. From all other total-intensity data the main magnetic field of the earth, as described in Barraclough and Fabiano (1977) was digitally removed at the time of the survey. Comparison of the vertical-intensity ground-magnetic data with total-intensity aeromagnetic data (flown as part of the National Uranium Resource Evaluation program of the Department of Energy) indicates that the regional gradients of both data sets is within 100 nanoTeslas. Consequently no adjustment was made to the vertical-intensity data.

SOURCES OF DATA

A. Vertical-intensity data, 1- and 2-mile intervals (Missouri Geological Survey and Water Resources, 1943).
B. North-South, 1500 feet above sea level, ½ mile (Missouri Division of Geological Survey and Water Resources, 1970).
C. North-South 1500 feet above sea level, ½ mile (Missouri Division of Geological Survey and Water Resources, 1969).
D. North-South, 1500 feet above sea level, ¼ mile (Missouri Division of Geological Survey and Water Resources, 1961a).
E. East-West, 400 feet above ground, 3 mile (Geodata, 1982).
F. North-South, 1500 feet above sea level, ½ mile (Missouri Division of Geological Survey and Water Resources, 1963a).
G. North-South, 1500 feet barometric, ½ mile (Missouri Division of Geological Survey and Water Resources, 1965).
H. North-South, 500 feet above ground, 1 mile (Missouri Division of Geological Survey and Water Resources, 1968c.)
I. North-South, 1000 feet above ground, ¼ mile (Dempsey and Meuschke, 1951e).
J. North-South, 1800 feet barometric, ¼ mile (Dempsey and Duffner, 1949).
K. North-South, 1000 feet above ground, ¼ mile (Dempsey and Duffner, 1949).
L. North-South, 1700 feet above sea level, ½ mile (Missouri Division of Geological Survey and Water Resources, 1962).
M. North-South, 2000 feet above sea level, ½ mile (Missouri Division of Geological Survey and Water Resources, 1968a).
N. North-South, 1800 feet barometric, ½ mile (U.S. Geological Survey, 1979).
O. North-South, 1800 feet above ground, ¼ mile (Dempsey and Meuschke, 1951a).
P. North-South, 1800 feet above ground, ¼ mile (Dempsey and others, 1950b).
Q. North-South, 1800 feet above ground, ¼ mile (Dempsey and others, 1950a).
R. North-South, 2000 feet above sea level, ½ mile (Missouri Division of Geological Survey and Water Resources, 1961b).
S. North-South, 1800 feet above ground, ¼ mile (Dempsey and Meuschke, 1951d).
T. North-South, 1800 feet above ground, ¼ mile (Dempsey and Meuschke, 1951b).
U. North-South, 1800 feet above ground, ¼ mile (Dempsey and Meuschke, 1951c).
V. East-West, 1000 feet above ground, 1 mile (Johnson and others, 1980).
W. North-South, 1000 feet above ground, ½ mile (Keller and Henderson, 1963).
X. North-South, 1500 feet above sea level, ¼ mile (Missouri Division of Geological Survey and Water Resources, 1968d).
Y. North-South, 500 feet above ground, ¼ and ⅛ mile (Missouri Division of Geological Survey and Water Resources, 1968b).
Z. North-South, 1000 feet above sea level, ½ mile (Missouri Division of Geological Survey and Water Resources, 1963c).
AA. North-South, 2000 feet above sea level, ½ mile (U.S. Geological Survey, 1982).
BB. North-South, 300 to 500 feet above ground, 1 mile (Missouri Division of Geological Survey and Water Resources, 1962b).
CC. East-West, 1000 feet barometric, 1 mile (U.S. Geological Survey, 1974).

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Dempsey, W. J., Duffner, R. T., Keller, Fred, Jr., and Henderson, J. R., Jr., 1950a, Total intensity aeromagnetic map of Bonne Terre quadrangle, Missouri: U.S. Geological Survey Geophysical Investigations Map GP–14, scale 1:31,680.
_____ 1950b, Total intensity aeromagnetic map of Potosi quadrangle, Missouri: U.S. Geological Survey Geophysical Investigations Map GP–13, scale 1:31,680.
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_____ 1951b, Total intensity aeromagnetic map of part of Higdon quadrangle, Missouri: U.S. Geological Survey Geophysical Investigations Map GP–80, scale 1:31,680.
_____ 1951c, Total intensity aeromagnetic map of part of Marquand quadrangle, Missouri: U.S. Geological Survey Geophysical Investigations Map GP–79, scale 1:31,680.
_____ 1951d, Total intensity aeromagnetic map of part of Weingarten quadrangle, Missouri: U.S. Geological Survey Geophysical Investigations Map GP–81, scale 1:31,680.
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_____ 1961b, Total intensity aeromagnetic maps, Bass, Corridon, Edgehill, and Lesterville quadrangles: (Rolla, Missouri), 4 sheets, scale 1:62,500.
_____ 1962, Total intensity aeromagnetic maps, Ash Grove, Fair Play, Greenfield, Hermitage, Macks Creek, Stockton, Stockton 1, Stockton 2, Stourland, and Urbana quadrangles: (Rolla, Missouri), 10 sheets, scale 1:62,500.
_____ 1963a, Total intensity aeromagnetic maps, Butler 4, Clinton 3, Clinton 4, and Fristoe quadrangles: (Rolla, Missouri), 4 sheets, scale 1:62,500.
_____ 1963b, Total intensity aeromagnetic map of Carter County, Missouri (Rolla, Missouri), scale 1:62,500.
_____ 1963c, Total intensity aeromagnetic maps, Advance, Bloomfield, and Malden quadrangles: (Rolla, Missouri), scale 1:62,500.
_____ 1965, Total intensity aeromagnetic maps, Eugene, Iberia, Linn Creek, Little Niangua, Richland, Tavern, and Warsaw quadrangles: (Rolla, Missouri), 7 sheets, scale 1:62,500.
_____ 1968a, Total intensity aeromagnetic maps, Joplin East, Neosho, Ritchey, Sarcoxie, Seneca, Bolivar, Buffalo, Morrisville, and Stratford quadrangles: (Rolla, Missouri), 9 sheets, scale 1:62,500.
_____ 1968b, Total intensity aeromagnetic maps, Ellington, Greenville, Piedmont, and Zalma quadrangles: (Rolla, Missouri), 4 sheets, scale 1:62,500.
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_____ 1968d, Total intensity aeromagnetic map Cardavera quadrangle: (Rolla, Missouri), scale 1:62,500.
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Base from Missouri Geological Survey

SCALE 1:500 000
10 0 10 20 30 40 50 MILES
10 0 10 20 30 40 50 60 70 KILOMETERS

LAMBERT CONFORMAL CONIC PROJECTION

MAGNETIC ANOMALY MAP OF MISSOURI

By
Isidore Zietz, Kevin R. Bond, and Frederic E. Riggle

1985

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