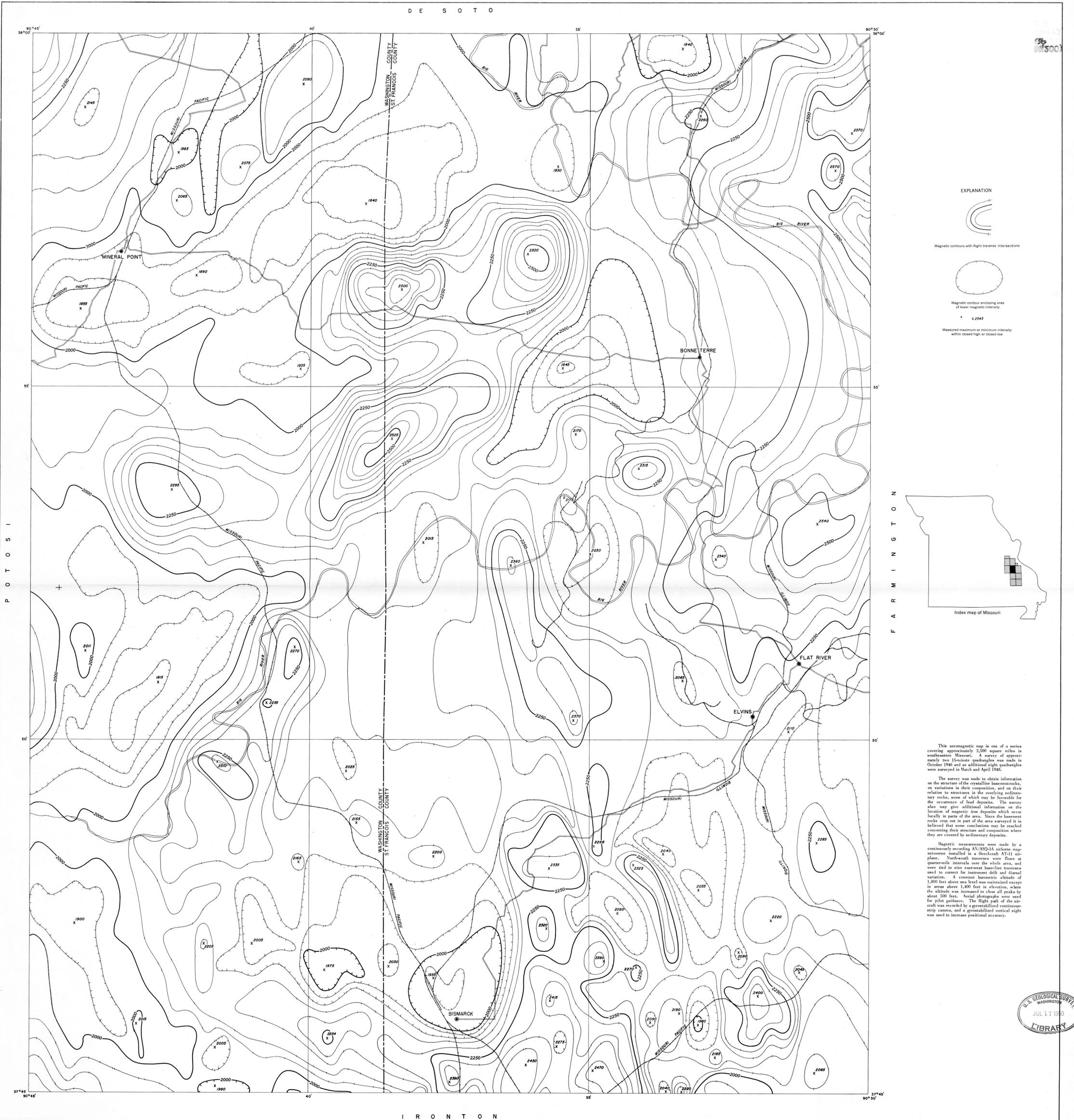
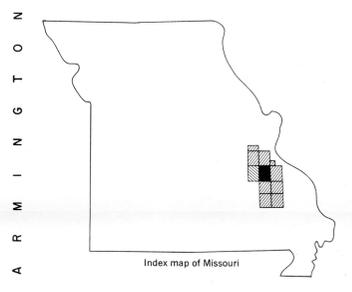


D E S O T O



EXPLANATION

- Magnetic contours with flight traverse intersections
- Magnetic contour enclosing area of lower magnetic intensity
- Measured maximum or minimum intensity within closed high or closed low



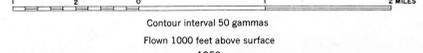
This aeromagnetic map is one of a series covering approximately 2,500 square miles in southeastern Missouri. A survey of approximately two 15-minute quadrangles was made in October 1946 and an additional eight quadrangles were surveyed in March and April 1948.

The survey was made to obtain information on the structure of the crystalline basement rocks, on variations in their composition, and on their relation to structures in the overlying sedimentary rocks, some of which may be favorable for the occurrence of lead deposits. The survey also may give additional information on the location of magnetic iron deposits which occur locally in parts of the area. Since the basement rocks crop out in part of the area surveyed it is believed that some conclusions may be reached concerning their structure and composition where they are covered by sedimentary deposits.

Magnetic measurements were made by a continuously recording AN/AS-24 airborne magnetometer installed in a Beechcraft AT-11 airplane. North-south traverses were flown at quarter-mile intervals over the whole area, and were tied to nine east-west base-line traverses used to correct for instrument drift and diurnal variation. A constant barometric altitude of 1,800 feet above sea level was maintained except in areas above 1,400 feet in elevation, where the altitude was increased to clear all peaks by about 500 feet. Aerial photographs were used for pilot guidance. The flight path of the aircraft was recorded by a ground-stabilized continuous-strip camera, and a ground-stabilized vertical light was used to increase positional accuracy.



**TOTAL INTENSITY AEROMAGNETIC MAP OF BONNE TERRE QUADRANGLE, MISSOURI**  
RELATIVE TO ARBITRARY DATUM



1950

**M(200)**  
**GP**  
No. 14  
Sheet 2  
C. 2

Aeromagnetic survey 1946 by F. Hedges, Jr. and J. R. Henderson  
1948 by W. J. Dempsey and R. T. Duffner  
Compilation directed by W. J. Dempsey

Missouri (Bonne Terre quad.) Aerom.  
1950  
For sale by U. S. Geological Survey  
PRICE 20 CENTS

Base from U. S. Geological Survey topographic quadrangle map