

## **General Disclaimer**

### **One or more of the Following Statements may affect this Document**

- This document has been reproduced from the best copy furnished by the organizational source. It is being released in the interest of making available as much information as possible.
- This document may contain data, which exceeds the sheet parameters. It was furnished in this condition by the organizational source and is the best copy available.
- This document may contain tone-on-tone or color graphs, charts and/or pictures, which have been reproduced in black and white.
- This document is paginated as submitted by the original source.
- Portions of this document are not fully legible due to the historical nature of some of the material. However, it is the best reproduction available from the original submission.

"Made available under NASA sponsorship in the interest of early and wide dissemination of Earth Resources Survey Program information and without liability for any use made thereof."

**ORIGINAL PAGE IS OF POOR QUALITY**

*NIFF*

*SAI*

**E83-10134**

PURDUE UNIVERSITY CR-169762  
Department of Geosciences  
West Lafayette, IN 47907

TO: Goddard Space Flight Center  
Greenbelt, MD 20771  
ATTN: a) Technical Officer, Code 902  
b) Contracting Officer, Code 269  
c) Publication Branch, Code 253.1  
d) Patent Counsel, Code 204

FROM: L.W. Braile and W.J. Hinze, Dept. of Geosciences, Purdue University  
West Lafayette, IN 47907

*MAGSAT*  
SUBJECT: Quarterly Progress Report - October, November and December, 1982

DATE: December 30, 1982

Progress has continued on all phases of the research program for the period October, November and December, 1982. Three papers involving satellite elevation magnetic anomaly maps, prepared by our group, were presented at the 1982 Society of Exploration Geophysicists annual meeting in Dallas during the week of October 17-21. These papers were entitled "Satellite Magnetic Anomalies of Africa and Europe" by R. Olivier, J.J. Hinze and R.R.B. von Frese, and "Relation of MAGSAT Anomalies to Main Tectonic Provinces in South America" by D.W. Yuan, E.G. Lidiak, G.R. Keller and M.B. Longacre. The first two papers are currently being documented for publication. In addition, a paper entitled "Regional Geophysical Analysis of Mississippi Embayment Crustal Structure" by R.R.B. von Frese is being prepared for presentation at the annual meeting of the Society of Mining Engineers of the American Institute of Mining Engineers (SME-AIME) to be held in Atlanta, GA on March 6-10, 1983. This paper will present a detailed integrated regional gravity and magnetic anomaly model for the deep crustal structure of the embayment.

The problem of inverting 2°-average MAGSAT scalar anomalies for the region 80°W, 60°E longitude and 40°S, 70°N latitude has been attempted on the LARS computer. However, the effort was aborted due to insufficient allocation of CPU-time. This problem is currently being resubmitted and should be implemented shortly for quantitative comparison with free-air gravity anomaly, geothermal, and tectonic data.

(E83-10134) [SATELLITE ELEVATION MAGNETIC ANCHALY MAPS] Quarterly Progress Report, Oct. - Dec. 1982 (Purdue Univ.) 1 P  
HC A02/HF A01

83-19140

CSCL 05B

Unclas  
00134

G3/43



*Magsat  
Rec'd GSFC In 1-21-83  
Prog Rpt Type II  
M-028*