NOTICE

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June 8, 1981

Mr. Harold Oseroff
NASA Goddard Space Flight Center
Greenbelt, MD 20771

SUBJECT: Progress Report on NAS5-26157

Dear Harold:

During the last reporting period, our efforts have been
directed in the following areas:

1. Refinement of MAGNET data.

The aeromagnetic data obtained through the U.S. Project MAGNET
are being compiled and analyzed to construct the first contiguous
continental U.S. aeromagnetic map. This data is most essential
for the project to provide the ground base data which can be
compared through the upward-continuation process to the MAGSATE
data in the region. Derivation of a proper reference field to be
subtracted from the MAGNET data has been problematic. Several
field models thus tried do not seem to eliminate properly the main
field. Other method such as removing the bestfit polynomial
surface representing the main field is presently tested.


The MAGSATE data in the North American continent for the period
of November 1 - December 22, 1979 are being compiled and compared
with the MAGNET data. Efforts are being made to eliminate the
orbital bias errors as much as possible.

3. Derivation of the Curie depth information from magnetic data.

A theoretical study on deriving the depth to the Curie isotherm
based on magnetic field data was included in the last quarterly
report. A computer program has been developed and successfully
tested for theoretically generated data sets. The inversion
program computes a topographic profile of the Curie depth isotherm
which fits best to the observed vector or scalar field magnetic
data. We are presently testing the algorithm to real data. The
completed results will be included in the future report.

E82-10193  MAGSATE AND AEROMAGNETIC DATA IN THE NORTH AMERICAN CONTINENT Progress Report (North Carolina State Univ. at Raleigh.) 2 p HC A02/NT A01 CSCL 059 Unclas 6/43 00193
This is an abbreviated report for our current activity. I plan to include detailed results of these studies in my next quarterly report.

Sincerely,

I.J. Won
Associate Professor of Geophysics