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June 18, 1982

Mr. Harold Oseroff
NASA Goddard Space Flight Center
Greenbelt, MD 20770

Subject: Progress Report NAS5-26157

Dear Harold:

Present efforts on the analysis of the MAGSAT data include the following:

1) Analysis of MAGSAT scalar anomaly data in the U.S. continent: The entire MAGSAT data have been used to produce a scalar anomaly map of the U.S. In order to remove the eastwest striping anomalies, which are believed to be caused by the low-order polynomials used to reduce the orbital bias errors, we have applied a 2-D spectral filtering using the Fourier tranform method. The resultant low-pass filtered map, with the east-west stripings removed, resembles much closer to the surface aeromagnetic map based on the U.S. MAGNET data.

2) Application of the spectral filtering to the MAGSAT vector data.

3) Comparison of MAGSAT data with the newly compiled U.S. Gravity map based on the Department of Defense gravity data: We have acquired the entire U.S. DOD gravity data file consisting of about 750,000 land gravity data in U.S. The data are now being processed to produce a filtered U.S. gravity map whose spectral contents are comparable to those of MAGSAT magnetic map.

The above results are scheduled to be presented at the SEG meeting in Dallas this fall by Mr. K.H. Son, a Ph.d. candidate at this department working on the MAGSAT project.

Sincerely yours,

I.J. Won
Associate Professor of Geophysics

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