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Final Report on Contract ONR/NO0014-75-C-0294

October 1, 1974 to September 30, 1980

Funds provided by this contract were used to design and build the first electric field experiment that has successfully measured magnetospheric electric fields above the ionosphere, and to analyze the electric field data thereby obtained. The instrument was flown into an elliptical polar orbit on the S3-3 satellite where it made measurements for about two years following its July, 1977, launch.

The S3-3 satellite was, perhaps, the most important magnetospheric satellite launched in the past decade, since it discovered and studied the low altitude particle acceleration region that produces discrete auroral arcs and much of the magnetospheric energetic ion population. During the period of this contract, twenty-one scientific papers were written on these topics, invited papers were presented at about ten meetings, and contributed papers were presented at an additional twelve meetings. In the year following termination of this contract, an additional eleven scientific papers have been either published or submitted for publication. A bibliography of these publications is attached.

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