

N 84-2/486

DATA REDUCTION AND ANALYSIS FOR ISEE-A AND -B ENERGETIC PARTICLES FLUX EXPERIMENT AND ISEE-C ELECTRON AND X-RAY EXPERIMENTS

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February, 1984  
Final Technical Report for Period November 1, 1979 - September 30, 1983

Prepared for  
  
Goddard Space Flight Center  
Greenbelt, MD 20771

TECHNICAL REPORT STANDARD TITLE PAGE

1 Report No	2. Government Accession No	3 Recipient's Catalog No	
4 Title and Subtitle Data Reduction and Analysis for ISEE-A and -B Energetic Particles Flux Experiment and ISEE-C Electron and X-ray Experiments		5 Report Date 2/84	6 Performing Organization Code
		8 Performing Organization Report No	
7 Author(s) K. A. Anderson		10 Work Unit No.	
9 Performing Organization Name and Address  Space Sciences Laboratory University of California Berkeley, CA 94720		11 Contract or Grant No NAS5-25980	13. Type of Report and Period Covered Final Report 11/1/79 - 9/30/83
		14 Sponsoring Agency Code	
12 Sponsoring Agency Name and Address NASA Goddard Space Flight Center Greenbelt, MD 20771			
15 Supplementary Notes			
16 Abstract  This final technical report on contract NAS5-25980 summarizes the data reduction and analysis activities from late 1979 to late 1983. A bibliography of publications published to date is included.			
17. Key Words (Selected by Author(s))  Data reduction and analysis  ISEE spacecraft		18. Distribution Statement  Unlimited	
19. Security Classif (of this report)  U	20 Security Classif (of this page)  U	21 No of Pages  5	22 Price*

## FINAL TECHNICAL REPORT ON CONTRACT NAS5-25980

The purpose of contract NAS5-25980, effective November 1, 1979 through September 30, 1983, was to analyze data from several experiments which were designed and fabricated under contracts NAS5-20079 and NAS5-22307 and flown on the three ISEE spacecraft. Detailed technical descriptions of the experiment hardware, the operation of the experiments in flight, and lists of the earlier publications resulting from the experiments are given in the final reports for the earlier contracts: respectively, "Energetic Particles Flux Experiment for ISEE Mother/Daughter Spacecraft" and "University of California Electron and X-ray Experiments on ISEE-3." Since the focus of NAS5-25980 was on data analysis, much writing and publishing of results from the experiments has occurred in the last several years, so this report consists mainly of an updated bibliography of all publications to date from all three contracts. These publications have already been submitted to NASA.

As the bibliography shows, data from the UCB-U Washington-Toulouse detectors were used to attack a large variety of scientific problems. Many effective scientific collaborations were formed in this connection, and the efforts continue. We also continue to furnish data to a number of ISEE and other groups of experimenters who have requested it. In addition, many talks have been presented at scientific and technical meetings in the U.S. and abroad.

The ISEE-1 and -2 high time resolution, low energy proton and electron analyzers continued to operate satisfactorily for the duration of NAS5-25980, as did the ISEE-2 solid state particle telescope. Also during this time, the ISEE-3 X-ray experiment operated extremely well with no discernable degradation.

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