

August 14, 1972

To: S. M. Krimigis, C. D. Wende, J. W. Kohl
From: T. P. Armstrong and R. L. McCutcheon
Subject: IMP-H CPME Data Analysis Plans

Post-launch experimenter's data tapes from IPD at Goddard will each contain about 4 days worth of data. Creation of the Archives tapes with decompressed count rates and uncertainties only will yield about 4 days per tape using higher bit density and blocking factors on the Archives tape. Copying the raw, uncompressed and uncorrected decom data from the experimenter's tape onto the Archives tape will almost double the size of the Archives tape file and increase the logical record size to an unwieldy degree. It seems highly desirable to avoid recopying the experimenter's decom tape if at all possible. Further, it seems advisable to apply any R vs r corrections at the level of creating the Archives tape. We, therefore, propose the Archives tape contain only the decompressed, R vs r corrected count rates and uncertainties, along with ephemeris data. In the unlikely event of needing raw decom data, the user would have to utilize the original experimenter's tape which would be retained. We presume that the Archives tape as described above will be of adequate reliability to serve the purpose of deposition at the NSSDC.

The creation of 1-hour, 3-hour, and 24-hour averages will be based on the Master Science Tape File, and will follow its creation. This simplifies tape handling (fewer tapes) during the initial run and also facilitates processing data out of sequence, as usually happens in the IMP programs.

On averaged data the times and ephemeris parameters associated with a given average will be the midpoint times. Start times and stop times should be retained on the 1-hour, 3-hour, and 24-hour averages.

Action Items:

1. CDW -- Generate R vs r formulas for GM tube corrections.
2. All -- Decide on criteria (agree) for special events
 - a. anisotropies
 - b. onsets
 - c. X-rays
 - d. spectral variations
 - e. composition variations
3. CDW -- Provide formula for generating X-ray fluxes and spectral parameters for use in DETAIL
4. TPA -- Write DETAIL
5. All -- Decide on what parameters to Plot from MST


Thomas P. Armstrong


Richard L. McCutcheon

TPA/RLM/mwf

RLM

THE JOHNS HOPKINS UNIVERSITY
APPLIED PHYSICS LABORATORY

8621 GEORGIA AVENUE
SILVER SPRING, MARYLAND 20910

TELEPHONE
953-7100
589-7700
AREA CODE 301

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Please refer to:
TSSD-2884

Director
National Aeronautics and Space Administration
Goddard Space Flight Center
Greenbelt, Maryland 20771

Attention: Mr. B. H. Ferer/CODE 701.1

Subject: IMP-H CPME Experimenter's Tape

References: (a) GSFC Memo by J. H. Schmidt, "IMP-H Data Tape Format Letter", dated November 16, 1971

(b) APL Letter TSSD-2815, dated December 10, 1971

Enclosure: (1) APL Memo SLP-853-72, dated January 5, 1972, "Revised Tape Format for the IMP-H CPME Experimenter's Tape".

Dear Sir:

Reference b specified the requirements for the IMP-H CPME Experimenter's Tape. This is superseded by the information in Enclosure (1). Changes have been made to reflect the requirement that all digital performance parameters be given for every telemetry read-out. Previously they were requested once for each telemetry page. Also, the five to one blocking factor has been reduced to two to one in order to help the Information Processing Division reduce their total core storage requirements, as requested.

If further information is required, please contact Mr. R. L. McCutcheon at telephone number (301) 953-7100, extension 2441.

Very truly yours,

Original signed by
R. B. Kershner

R. B. Kershner
Space Development
Department Head

RLM

RBK:RIM:dgb

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