Westinghouse Electric Corporation

Defense and Space Center

Mail Stop 825
Friendship International Airport
Box 1897, Baltimore, Md. 21203

October 20, 1971

Dr. S. M. Krimigis
Johns Hopkins University
Applied Physics Laboratory
8621 Georgia Avenue
Silver Spring, Md. 20910

Dear Dr. Krimigis,

Westinghouse is responsible for Control Center software development for IMP-H at the Multi-Satellite Operations Control Center. We need information about your requirements for real-time software support.

Please answer the enclosed questions and send the information to me as soon as possible. If there is any question, I can be reached at Goddard at X. 6446 or at Westinghouse at (301) 765-2240.

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Sincerely,

Mary Ann Long

Mary Ann Long
Engineer

IMP-H Real Time Experiment Processing

We need to know whether or not you want the real-time quick-look printout for your experiment to be the same as your integration printout. If you want a different format, send us the specifications.

Under the real-time operating system no provisions can be made for operator selected experiment options. Options depending on your data, the bit rate, or other telemetered items are permitted. If your integration program has options typed in, we need to know which option you want.

It is important to remember that in real-time operation there will usually be some loss of synch and that any scheme which assumes good, continuous data will cause trouble.

Information about your experiment data, modes of operation, subcommutators, command verification, etc. is needed. It is necessary that the S/C controller be able to verify your commands with a CRT display or special "control panel" printout without having to run your quick-look program at the time. Therefore, it is necessary to have this information spelled out even if we are going to convert your integration program for real-time use.

A standard header will be used which provides:

Bit rate
Station name
Orbit number
Date
Clock source (GMT, DTS1, DTS2, or DTS3)
Time
Data quality
Monitor PCM unit number
Computer system number
S/C clock (octal)
S/C clock (hours/min/sec)
Telemetry page number
On or off line processing
Experiment title

IMP-H

full-list

1. Do you want to use your integration printout? If not, what form do you want?

2. If you are using your integration printout, does it have any operator specified options? If so, which option do you want?

3. How can we tell if your experiment is on or off? AP

4. a. Where is your data in the telemetry format? Specify page, snapshot, sequence, frame, channel, starting bit, and length (in bits).

   b. Should the data be complemented?

   c. Should the bit order be reversed? If so, how many bits at a time?

   d. Is the data item a 10 or 12 bit accumulator?

5. How can we determine the mode your experiment is in, any warning indications, or other performance parameters which the S/C controller will need to know?

2 - "full-list"

3 - ~~DPP-1~~ AP 7 - see P VIII - 3 "ERD"

4 - ?

5 - calibrate seq. - P IX - 2
P VIII - 405

1011

also - word info