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AG #33-74

To: National Aeronautics and Space Administration
Lyndon B. Johnson Space Center
Houston, Texas 77058

Attention: Mr. E. L. Tribble, BT12
Mr. Max Holley, EG14

Subject: Status of Spare and Flight Assigned IMU's

Gentlemen:

On February 8, 1974 the Skylab program will come to a close. The combined USA/Soviet Union mission is the only remaining manned space flight using Apollo supported hardware. To support this mission, three IMU's should be available; an on-board system, a prime spare, and a back-up spare. It is our opinion at this time that the reliability of available IMU inventory is inadequate to support this complement for the mission, therefore corrective action is recommended.

The latest performance data for the available IMU's have been reviewed and the status of the inertial components in the six potential flight IMU's are summarized in Table A (page 5) of the enclosed ISS MEMO #73-270 "Status of Spare and Flight Assigned IMU's". The four IMU's exhibiting problems that warrant removal and/or diagnostics are presented on the following page. The remaining two flight quality systems include the present Skylab IV system which may not be scheduled for reuse.

Therefore, it is recommended that the inertial component problems on the following page be resolved at the earliest possible time to allow adequate testing time for the verification of the integrity of each suspect or replaced instrument.

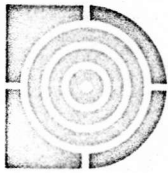
Yours truly,

Jerold P. Gilmore
Director 10G
Inertial Division

JPG/cgd
Enclosure

IMU's Exhibiting Problems that Warrant Removal and/or Diagnostics

IMU S/N	Instrument	Problem	Recommendation	Implications
9	Y-IRIG	Substandard Wheel	Removal	Reliability-potential Wheel Failure
25	Y-PIPA	Bias	Removal	Reliability
30	Z-IRIG	NBD	Removal	Performance
35	Y-IRIG	NBD	To be determined	Performance



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