NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
MANNED SPACECRAFT CENTER
HOUSTON, TEXAS 77058

REPLY TO
ATTN OF: FS66-71-72

JUN 29 1971

MEMORANDUM

TO: Distribution

FROM: FS/Chief, Flight Support Division

SUBJECT: Minutes of the LUMINARY 1E (Apollo 15) Flight Software Readiness Review (FSRR)

The LUMINARY 1E FSRR was held on Thursday, June 17, 1971, at 9 a.m. in building 2, room 966. The agenda for this meeting is listed in the enclosure.

Mr. T. G. Price of the Flight Support Division introduced the meeting and then briefly discussed the erasable load status. The preliminary and FRT erasable loads have been published and the final erasable load will be published July 1, 1971. There have been no problems concerning the erasable load data. Questions on erasable load status should be directed to Mr. J. A. Martin, Jr., extension 2308.

Mr. R. Larson of MIT/SDL then presented a summary of LUMINARY 1E development, a list of the program changes, a list of the outstanding anomalies and the results of the Level 6 testing. The following items were discussed during Mr. Larson's presentation and action as indicated was assigned to resolve the issues.

a. The adequacy of testing for the docked DPS/APS burns was questioned; i.e., correctness of data and configuration. Mr. Price will meet with Mr. R. O. Nobles of the Mission Planning and Analysis Division (MPAD) to review the docked burn testing.

b. Mr. Larson stated that if the elevation angle option is loaded in P34 and time of ignition computed for a direct rendezvous that a 611 alarm (no TIG for this elevation angle) may occur. The present timeline calls for loading TIG and computing the elevation angle so this does not appear to be a problem. But, MIT/SDL and MPAD were given action to resolve this potential problem area.

c. There was a discussion concerning how large the delta RLS (Noun 69) update magnitude can be for the PDI+5-minute update. Mr. Price was assigned action to coordinate this with Mr. P. C. Shaffer of the Flight Control Division.

d. The program note resulting from Anomaly Report L-1E-09 should request that no call-up display be monitored during the latter portion of ascent. The monitored display will mask the V97 (engine fail) problem associated with L-1E-09. Mr. Price is to coordinate the inclusion of this clarification into the program notes.

In conclusion, Mr. Larson stated that MIT/SDL recommends the use of LUMINARY 1E for the Apollo 15 mission.

Mr. B. R. Suchocki of the Crew Training and Simulation Division/KSC then stated that the crew has flown many training flights on the LMS simulator and that they are ready to fly the Apollo 15 mission.

Then, Mr. S. Greene of GAC discussed the results of the FMES/FCI simulator mission verification testing. Mr. Greene briefly discussed the scope of testing, the number of PCR's verified, docked control modes testing accomplished, lunar descent abort tests with the channel backup set, and then gave a status of the simulator discrepancy reports (SDR's). None of these SDR's were considered significant, and Mr. Greene concluded that a nominal or abort Apollo 15 mission can be flown using LUMINARY 1E.

Copies of all the slides presented at the LUMINARY FSRR are available from the LUMINARY Program Engineer, Mr. Price, at extension 2308. So, to lighten the reproduction work, these slides are not enclosed here. Also, any questions concerning the LUMINARY FSRR should be directed to Mr. Price.

James C. Stokes, Jr.

Enclosure

FS66/TGPrice:jvm:6/24/71:2308

LUMINARY FLIGHT SOFTWARE READINESS REVIEW
THRUSDAY, JUNE 17, 1971, 9 A.M.
ROOM 966, BUILDING 2
AGENDA

Introduction	T. Price/FS6
Erasable Load Status	T. Price/FS6
Level 6 Test Results	R. Larson/MIT
Outstanding Anomalies	R. Larson/MIT
Crew Training Status	B. Suchocki/KSC
FMES/FCI Test Results	S. Greene/GAC