

Massachusetts Institute of Technology
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Cambridge, Massachusetts

LUMINARY Memo #68

TO: Distribution
FROM: George W. Cherry
DATE: February 20, 1969
SUBJECT: Lunar Landing Guidance Equations Program Alarms

In the present LUMINARY 1A, TGO computations which fail to converge cause the program to flash V37 and the astronaut cannot select P66. (Alarm 1406). If the astronaut is exercising his new ATT HOLD option (PCR 737) in P63, P64, P65 and allows a very large attitude error to develop, the TGO computations may fail to converge. We do not want Alarm 1406 or any other alarm of this nature which might be caused by large attitude errors to toss the crew irrevocably out of the landing programs. We also do not want any landing guidance equations unhappiness to do anything except turn on a program alarm. No POODOOs!

Action: Don Eyles, Allan Klumpp, please scrutinize the equations performance with large attitude error and implement the above philosophy. Alarm 1406 should not do a POODOO, certainly at least not in ATT HOLD mode.