PROGRAM CHANGE REQUEST

334 Rev. 1

1.0 COMPLETED BY ORIGINATOR

1.1 ORIGINATOR	DATE	1.2 ORGANIZATION	APPROVAL	DATE
Haise/Kaiser	9/28/70	FCOD		

1.3 EFFECTIVITY: Apollo 15 and Subs - Luminary

1.4 TITLE OF CHANGE: Change DSKY DESCENT/ASCENT NOUNS

1.5 REASON(S) FOR CHANGE: Current displays do not provide the priority of information needed by the crew during descent and ascent. The V_I currently displayed in N63 is redundant to H/H for trajectory control. The same is true with respect to V_I during ascent where as ΔVGx is needed to backup engine auto shutdown.

1.6 DESCRIPTION OF CHANGE: With the changes described below ΔH should be automatically displayed in P63. It should be +99999 until valid LR altitude data is received (current logic). The display itself should be flashing, indicating that the crew has not enabled LR update. V57

2.0 SOFTWARE CONTROL BOARD OR FLIGHT SOFTWARE BRANCH DECISION FOR VISIBILITY IMPACT ESTIMATE BY MIT

2.1 ☐ APPROVED ☐ DISAPPROVED

2.2 SOFTWARE CONTROL BOARD OR FLIGHT SOFTWARE BRANCH SIGN OFF

DATE

2.3 REMARKS:

3.0 MIT VISIBILITY IMPACT EVALUATION:

3.1 SCHEDULE IMPACT

3.2 IMPACT OF PROVIDING DETAILED EVALUATION

3.3 STORAGE IMPACT

3.4 REMARKS:

3.5 MIT COORDINATOR

DATE

4.0 SOFTWARE CONTROL BOARD ACTION

4.1 ☐ IMPLEMENT AND REQUIRE DETAILED CHANGE EVAL. ☐ REQUIRE DETAILED CHANGE EVALUATION ☐ DISAPPROVED

4.2 REMARKS

4.3 SOFTWARE CONTROL BOARD SIGN OFF

DATE

5.0 MIT DETAILED PROGRAM CHANGE EVALUATION

5.1 MIT COORDINATOR

DATE

5.2 MIT EVALUATION

6.0 SOFTWARE CONTROL BOARD DECISION ON MIT DETAILED PROGRAM CHANGE EVALUATION

6.1 ☐ START OR CONTINUE IMPLEMENTATION ☐ DISAPPROVED OR STOP IMPLEMENTATION

6.2 SOFTWARE CONTROL BOARD SIGN OFF

DATE

6.3 REMARKS:

APOLLO SPACECRAFT SOFT[illegible] CONFIGURATION CONTROL BOARD
DATA AMPLIFICATION SHEET

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CONTINUATION SECTION: (Refer to Block Number and Title on Program Change Request form.)

1.6 should do so, and cause N63 to stop flashing. Conversely, V58E should cause the display to begin flashing again. In P64/P66 there should be no such DSKY flash indication of V57/V58.

N68 should be on call; however, it should contain the V_I that used to be in N63 as well as the ground-track distance to the computed landing site.

The new normal ascent display (N94) should contain the quantity used to insure proper cutoff (i.e.ΔVGx). N77 R2 should be changed to display ΔVGy in body coordinates instead of Vy in local vertical coordinates.

Note:

I. Change Nouns as follows:

a. In P63, N63: ΔH, $\dot{H}$, H

b. On call in descent N68: Horizontal Range, T_{GO}, V_I

c. In P12, N94: ΔVGx, $\dot{H}$, H ($\Delta VGx \equiv$ R1 of N85)

d. On call in ascent N77: T_{GO}, ΔVGy, V_I ($\Delta VGy \equiv$ R2 of N85)

e. N85 should remain callable.

II. Change V57 logic as follows:

a. V57 should set the LR_INH flag

b. V58 should reset the LR INH flag

c. V57 should not generate any display

d. In P63, if LR INH flag is reset, N63 should flash (A PRO, V34E, V32E, etc. response to N63 should be ignored.)

REMARKS: