

APOLLO SPACECRAFT SOFTWARE CONFIGURATION CONTROL BOARD
- PROGRAM CHANGE REQUEST -

No. 210
(Completed by FSB)

0 COMPLETED BY ORIGINATOR	1.1 ORIGINATOR: <u>Bennett</u> DATE: <u>June 11, 1968</u>	1.2 ORGANIZATION: <u>MPAD</u> APPROVAL: <u>[Signature]</u> DATE: <u>6/4/68</u>
1.3 EFFECTIVITY: <u>Luminary</u>	1.4 TITLE OF CHANGE: <u>Increase DPS Throttle Recovery Limit</u>	
1.5 REASON(S) FOR CHANGE: <u>See attached page.</u>		
1.6 DESCRIPTION OF CHANGE: <u>See attached page.</u>		
2.0 SOFTWARE CONTROL BOARD OR FLIGHT SOFTWARE BRANCH DECISION FOR VISIBILITY IMPACT ESTIMATE BY MIT	2.1 <input type="checkbox"/> APPROVED <input type="checkbox"/> DISAPPROVED	
2.2 REMARKS:	2.3 SOFTWARE CONTROL BOARD OR FLIGHT SOFTWARE BRANCH SIGN OFF: _____ DATE: _____	
3.0 MIT VISIBILITY IMPACT EVALUATION:	3.1 SCHEDULE IMPACT: <u>0</u>	
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 <input checked="" type="checkbox"/> IMPLEMENT AND PROVIDE DETAILED CHANGE EVAL. <input type="checkbox"/> PROVIDE DETAILED CHANGE EVALUATION <input type="checkbox"/> DISAPPROVED	
4.2 REMARKS:	4.3 SOFTWARE CONTROL BOARD SIGN OFF: <u>K.W. & scb</u> DATE: <u>6/25/68</u>	
5.0 MIT DETAILED PROGRAM CHANGE EVALUATION	5.1 MIT COORDINATOR: _____ DATE: _____	
5.2 MIT EVALUATION: APPROVED FOR IMPLEMENTATION		
6.0 SOFTWARE CONTROL BOARD DECISION ON MIT DETAILED PROGRAM CHANGE EVALUATION	6.1 <input type="checkbox"/> START OR CONTINUE IMPLEMENTATION <input type="checkbox"/> DISAPPROVED OR STOP IMPLEMENTATION	
6.2 REMARKS:	6.3 SOFTWARE CONTROL BOARD SIGN OFF: _____ DATE: _____	

PROGRAM CHANGE

REQUEST NO. 210PREPARED BY: F. V. BennettDATE: June 11, 1968ORGANIZATION: MPADCONTINUATION SECTION (REFER TO BLOCK NUMBER AND TITLE
ON PROGRAM CHANGE REQUEST FORM)

1.5 REASON FOR CHANGE:

The reason for this change is to make the guidance logic consistent with the nominal trajectory design and ΔV budgeting. The current implementation in programs P-63 and P-64 provides for DPS throttle recovery at a thrust command of 5775 lbs (55% of maximum design thrust). The nominal trajectory design reported in MSC Internal Note 68-FM-78 is based on throttle recovery at 5985 lbs (57%). The 55% recovery limit results in a ΔV penalty of 9 fps which corresponds to a propellant penalty of 14 lbs or a separation weight reduction of 27 lbs.

It is desirable that the throttle recovery limit be placed in erasable rather than fixed memory to accommodate future improvements in the DPS throttle zone.

1.6 DESCRIPTION OF CHANGE:

The thrust level at which the PGNCS recovers DPS throttle in programs P-63 and P-64 is currently fixed at 5775 lbs (55% of maximum design thrust). This change requires that the throttle recovery level be changed to 5985 lbs (57%). This change should be investigated for implementation in (a) fixed memory and (b) erasable memory.

REMARKS

LUMINARY

Colossus Preliminary Program Change Approval

- MIT Approved PCN
- NASA Approved PCR

A. Coding

Begin coding immediately

ACTION:

Don Eyles
Craig Schulenberg

Do not code until new GSOP material has been approved by the MIT Mission Design Review Board (MDRB) and distributed.

B. GSOP Preparation

Prepare GSOP revisions for MDRB consideration

ACTION:

Bernie Kriegsmann

Technical Committee Meeting Was Not Required

Technical Committee Meeting(s) held on _____
Attendees:

Special Instructions

George W. Cherry
7/8/68