1. ORIGINATOR: Bennett
   DATE: June 11, 1968

1.2 ORGANIZATION: MPAD
   APPROVAL: [Signature] DATE: 6/11/68

1.4 TITLE OF CHANGE:
   Increase DFS Throttle Recovery Limit

1.5 REASON(S) FOR CHANGE:
   See attached page.

1.6 DESCRIPTION OF CHANGE:
   See attached page.

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

2.1 [ ] APPROVED [ ] DISAPPROVED

2.2 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. SOFTWARE CONTROL BOARD ACTION

4.1 IMPLEMENT AND PROVIDE DETAILED CHANGE EVAL.

4.2 REMARKS:

4.3 SOFTWARE CONTROL BOARD SIGN OFF: [Signature] DATE: 6/25/68

5. MIT DETAILED PROGRAM CHANGE EVALUATION

5.1 MIT COORDINATOR: __________________
   DATE: __________________

5.2 MIT EVALUATION:

6. SOFTWARE CONTROL BOARD DECISION ON MIT DETAILED PROGRAM CHANGE EVALUATION

6.1 [ ] START OR CONTINUE [ ] DISAPPROVED OR STOP
   IMPLEMENTATION [ ] IMPLEMENTATION

6.2 REMARKS:

6.3 SOFTWARE CONTROL BOARD SIGN OFF: __________________
   DATE: __________________

APPROVED FOR IMPLEMENTATION
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.
LUMINARY

Issue: Preliminary Program Change Approval

☐ MIT Approved PCN
☐ NASA Approved PCR

A. Coding
○ Begin coding immediately
ACTION: Craig Schuberg

○ 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
7/8/98