

T/DL PROGRAM CHANGE ROUTING SLIP

PCR/PCN # S1036

ANOMALY # \_\_\_\_\_

ADR # \_\_\_\_\_

- COLOSSUS 3
- COLOSSUS \_\_\_\_\_
- SKYLARK \_\_\_\_\_
- LUMINARY 1E
- LUMINARY \_\_\_\_\_

- MIT Approved PCN
- MIT Approved ADR
- NASA Approved PCR
- NASA Approved PCN
- NASA Approved Software Anomaly
- MIT Approved Software Anomaly

A. Coding

Begin coding immediately

ACTION: Don Melard  
Bob Hoarlan  
Program Supervisor's Approval: Margaret Hamilton

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: Bob White

Technical Committee Meeting not required.

Technical Committee Meeting(s) held on \_\_\_\_\_  
Attendees: \_\_\_\_\_

C. KSC Testing and Checkout

Review for possible impact on KSC testing and checkout

ACTION: \_\_\_\_\_

D. Other Programs Affected

Review for corresponding changes in \_\_\_\_\_

ACTION: \_\_\_\_\_

Special Instructions

Project Manager Stephen Latta

Date 1/20/71

**-APOLLO SPACECRAFT SOFTWARE CONFIGURATION CONTROL BOARD  
PROGRAM CHANGE REQUEST**

NUMBER (Completed by FSB)

**S1036**

**1.0 COMPLETED BY ORIGINATOR**

1.1 ORIGINATOR C. B. Parker <i>CBP</i>	DATE 7/9/70	1.2 ORGANIZATION <i>CBP</i> FCD/FDB	APPROVAL <i>Frank Koch</i>	DATE 7/9/70
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1.3 EFFECTIVITY, SL2	1.4 TITLE OF CHANGE Compute ATM star tracker gimbal angles
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1.5 REASON(S) FOR CHANGE  
To provide a backup method of providing inertial attitude information to the ATMDC in the event of a star tracker failure.

1.6 DESCRIPTION OF CHANGE  
Provide the capability for the CMC to compute the star tracker gimbal angles required to point the star tracker at a designated star. (Standard Apollo star code options) Two options are required.

**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 0	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"/> DIS-APPROVED	4.2 REMARKS
4.3 SOFTWARE CONTROL BOARD SIGN OFF <i>Frank Koch</i>	
DATE 9/20/70	

**5.0 MIT DETAILED PROGRAM CHANGE EVALUATION**

5.1 MIT COORDINATOR	5.2 MIT EVALUATION
DATE	

**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	

APOLLO SPACECRAFT SOFTWARE CONFIGURATION CONTROL BOARD  
DATA AMPLIFICATION SHEET

PAGE 2 OF 2

PROGRAM CHANGE REQUEST NO.

PREPARED BY

DATE

ORGANIZATION

SL 036

C. B. Parker

7/9/70

FCD/FDB

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

1.6 Description of Change

Option 1 assumes that the IMU is powered and aligned. The only required inputs are the target star and a request for computation.

Option 2 assumes that the vehicle is in the solar inertial mode with the Z axis pointed at the center of the sun. The required inputs are the target star, a sextant star, and a "mark" input, indicating that the sextant star is centered in the sextant.

Both options assume that the CMC has been initialized with all necessary trajectory type information, and that the crew or the ground has previously loaded a set of three angles which define the orientation of the ATM sensors with respect to the nav base. See related PCR No. SLO28.

REMARKS:

APOLLO SPACECRAFT SOFTWARE CONFIGURATION CONTROL BOARD  
DATA AMPLIFICATION SHEET

PAGE 1 OF 2

PROGRAM CHANGE REQUEST NO.	PREPARED BY C. B. Parker	DATE 7/9/70	ORGANIZATION FCD/FDB
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REMARKS: