MEMO

TO: Distribution
FROM: K. W. Greene
DATE: 1 October 1970
SUBJECT: Notes on SCB Meeting #41 held at MSC on 9/30/70.

I AGS SCP #59

This SCP added the variable scaling to AGS RR filter, put filter in Matrix form and Modified out-of-plane filter gains.

The accomplishment of this SCP requires a change to the polarity in Luminary 1E (See PCR 340) GAC is to receive the AGS tapes on about 1, November for checkout. A PGNCS tape will have to be supplied GAC to support testing of AGS at GAC.

II ACTION ITEMS

a) Bit Failure Protection - The analysis of bit failure protection has been completed for Colossus and three PCR's have been submitted. (PCR 1074, 1075, 1076) The analysis of bit failure protection for Luminary is continuing. This effort should be reported on at the next SCB.

b) Permanent Fixed Memory Constants - It was reported that this effort is continuing at MIT/DL and should be available in about one month. It was also reported that the current mass properties for Apollo 15 include the addition of the Rover.

c) Fixed Co-ordinate System for SKYLAB - This action item is closed by the submission of several PCR's.

d) PCR 320 TLI Cutoff/Initiation - The required co-ordination with the Data Priority meetings has taken place. This item is closed.
III  LUMINARY 1D (APOLLO 14)
PCR 331.2  Section 2 GSOP Additions
    Status: Approved. MIT will attempt to accomplish
            this GSOP change for Luminary 1D.
PCR 1056 Rev. 1  Improvements to Impulse and
    Status: Approved. The GSOP should clarify the
            setting of 4 jet ullage by RO3.

IV  LUMINARY 1E (APOLLO 15)
PCR 333  Change Recognition of ROD Switch
    Status: Approved.
PCR 334  Change DSKY descent/ascent nouns
    Status: Withdrawn. (MIT has an action item to
            co-ordinate this change and re-write).
PCR 335  Remove alignment Option from P63
    Status: Approved.
PCR 336  Allow extended verbs during P20
    Status: Withdrawn. (MIT has an action item to
            co-ordinate and re-write).
PCR 337  Illuminate unused DSKY light for N49
    Status: Withdrawn. (MIT has an action item to
            co-ordinate and re-write).
PCR 338  Change LPD scaling to 1° in all directions
    Status: Approved.
PCR 339  Have P20 F50 72 Display Update
    Status: Approved.
PCR 340  LATVEL Polarity CHANGE
    Status: Approved.
PCN 1059  Have Major Modes Changes Set
    Status: Up a 1/ACCS Job. Pending MSC review.
PCR 1066  Display N81 on all Passes of P34/74 and
            P35/75
    Status: Approved. N59 should be available on call.
            Colossus should be looked at to assure if it is also available on call in Colossus.
PCN 1070   GSOP Change for FDAI Needle Initialization
            fix for L-1D-01
            Status: Approved.
PCR 1079   ALMCADR on Telemetry
            Status: Approved.
PCR 1082.2 Ephemerides
            Status: Pg 1 of the PCR was approved.
            (See Comments contained in this memo under
general discussion of Ephemerides Data).
PCR 1080   Change Time to Perform IMUCDU Zero
            Status: Disapproved.

The anomalies for Luminary 1D were reviewed.
In the future anomalies will not be fixed until direction is given
by the SCB.

IV  COLOSSUS 2E (APOLLO 14)
PCR 331.1  Section 2 GSOP Additions
            Status: Approved for Apollo 15 (Colossus 3).
PCN 1004   GSOP Section 4 Changes
            Status: Approved.
PCN 1005   GSOP Section 5 Changes
            Status: Approved.

V  COLOSSUS 3 (APOLLO 15)
PCR 325   New Target ΔV Program
            Status: Approved. (The Astronaut office is to look
at this for possible inclusion in the LM).
PCR 326   R61 Maneuver Recomputation
            Status: Approved. (The Astronaut office is to look
at this for possible inclusion in the LM).
PCR 327   Reverse P22N89 Response
            Status: Approved.
PCR 328   P34 Elevation Angle Initialization to +000.00
            Status: Approved.
PCR $^g$ 325, 326, 327, 328 had been previously approved at an informal SCB on 27 August 1970.

COM43 Entry Problems-This anomaly was discussed. The board requested that additional work to correct this anomaly be conducted by MSC and MIT. This effort should be reported on at the next SCB.

PCR 332  
MINKEY fixed Constants to E-Memory
Status: Pending (An action item was established that everyone should bring in their candidates for transferal from fixed memory to erasable memory at the next SCB).

PCR 1071  
Display N11 in P36
Status: Disapproved.

PCR 1074  
Input Channel Bit Failure Protection for Ch. 31, 1-6.
Status: Pending review by System Group at MSC.

PCR 1075  
Input Channel Bit Failure Protection for 31, 7-12
Status: Pending review by System Group at MSC.

PCR 1076  
Input Channel Bit Failure Protection for Chan. 33, 4 and 5
Status: Approved (one weeks schedule impact).

PCR 1077  
Delete Auto RCS-DAP selection in MINKEY
Status: Approved.

PCR 1078  
Mod. of Pulse Torquing in MINKEY and $\Delta V$ test for SPS or RCS selection.
Status: Approved.

PCN 1081  
Coding Change to fix anomaly COM44
Status: Approved.

PCR 1082.1  
Ephemerides
Status: Approved.

PCN 1083  
Improvements to Deadband Selection via N79
Status: Approved.

PCN 1084  
Eliminate V37 Lockout During Option zero
Status: Approved.

PCR 1086  
P24 Shaft Stop Avoid.
Status: Approved.
VI SKYLAB

MIT was given an action item to come up with a name for the SKYLAB Assembly. This is to be reported on at the next SCB.

SL035 Add TEPHEM to C/A Downlist
Status: Approved.

SL036 Compute ATM Star Tracker Gimbal Angles
Status: Approved.

SL037 NSR Maneuver Computation
Status: Withdrawn. It is assumed this capability is already in existence. If it is not the PCR should be re-submitted.

SL038 NC1 and NC2 Iterative Maneuver
Status: Disapproved.

SL039 DKI Maneuver Sequence
Status: Approved.

SL400 Program 15 Deletion
Status: Approved.

SL401 Ephemerides Routine

SL402 Eliminate 481 Dag Limitation in TEPHEM
(For SL401 & 402 see comments at the end of this memo).

SL403 New Alignment Technique
Status: Pending.

VII PCR's Involving Astrodynamics and Ephemerides

At the conclusion of the SCB a meeting was held in the FSB office. The following action is to be taken.

PCR SL023 and SL401 are to be disapproved. A new PCR is to be prepared by MIT which specifies which constants are to be in fixed and which constants are to be in erasable, plus the transfer of the Luminary Ephemerides Routine to the Skylab Program.

PCR SL034 Improvements to Ephemerides is to be approved.

PCR SL033 Use 1950 Fixed Co-ordinate System.
R. Robertson's Memo is to be sent to FSB as a detail evaluation of SL033 this PCR with the memo attached is then to be approved for implementation.
Incorporate Star Position Vector data in the 1950 Co-ordinate System, but with stars proper-motioned to January 1973 is to be written by MIT.

MIT is to write a PCR for Luminary 1E to change the scaling thus removing the present restrictions.

In addition MIT is to submit the constants data attached to PCR 1082.2 as a detail evaluation to Page 1 of 1 of PCR 1082.2. This data will then be approved for implementation.

KWGrejt

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