



Mission Planning and Analysis Division  
 NATIONAL AERONAUTICS AND SPACE ADMINISTRATION  
 MANNED SPACECRAFT CENTER  
 HOUSTON, TEXAS 77058

JAN 27 1971

REPLY TO  
 ATTN OF 71-FM7-13

MEMORANDUM TO: See List Below

FROM : FM/Mission Planning and Analysis Division

SUBJECT : Change for RTCC offline formulation for Apollo 14;  
 Star-Horizon Observation Processor

1. Reference: MSC Internal Note No. 69-FM-326, "RTCC Offline Requirements for M-2: Star-Horizon Observation Processor," FM/P. Flanagan and TM/R. Kidd, February 24, 1970.
2. The reference internal note should be updated as defined in the attached change sheet, and the RTCC offline star horizon observation processor should be altered accordingly for Apollo 14. The equation for the terminator visibility check is currently incorrectly defined.

Emil R. Schiesser  
 Assistant Chief  
 Mathematical Physics Branch

The Flight Software Branch concurs with the above recommendation and requests IEM to proceed accordingly.

James C. Stokes, Jr., Chief  
 Flight Software Branch

APPROVED BY:

John P. Mayer  
 Chief, Mission Planning  
 and Analysis Division

Attachment

Distribution: (See attached list)

FM:JELucker;fdb

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(Revised January 8, 1971)

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CHANGE SHEET

FOR

NSC INTERNAL NOTE 69-FM-326 DATED FEBRUARY 24, 1970

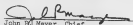
RTCC OFFLINE REQUIREMENTS FOR E-2:  
STAR-SORRIZON OBSERVATION PROCESSOR

By Paul Flanagan, MPS, and  
Robert Kidd, TRW Systems Group

Change 3

By T. J. Blucker, NSC  
February 1, 1971

  
James C. McPherson, Chief  
Mathematical Physics Branch

  
John H. Mayer, Chief  
Mission Planning and Analysis  
Division

Page 1 of 1

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After the following pen-and-ink change has been made, place this CHANGE SHEET between the cover and title page and write on the cover, "CHANGE 3 inserted".

1. Pen-and-ink change on page 14a: Add  $h$  within the terminator visibility check. The new check should read

$$D_2^2 - 4(D_1 D_3) < 0$$

## CHANGE HISTORY FOR 69-PM-326

Change no.	Date	Description
1	8/13/70	Replace pages 13, 14: Eliminated some original parameters and added some new parameters. Expanded original pages to include additional discussion.  Replace pages 21, 22: Flow charts added to define new computation logic for parameters mentioned above.
2	12/3/70	Pen-and-ink change for equation defining $D_3$ on page 14a.
3	2/1/71	Pen-and-ink change for terminator angle check on page 14a.

NASA - Manned Spacecraft Center

RELEASE APPROVAL

1. Type of Document

Change sheet to Internal note

2. Identification 69-70-326 dated

February 28, 1970

Page 1 of 1 Pages

TO:

3. FROM:

Division Mission Planning and Analysis  
Branch Mathematical Physics  
Section4. Title or Subject HYDROFLIGHT REQUIREMENTS FOR S-2: STAB-  
HORIZON OBSERVATION PROCEDURE

Date of Paper

Feb. 1, 1971

5. Author(s) Paul Flanagan, MFB, and Robert Kidd, THW Systems Group  
Change by T. J. Blucker, MFB

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