

SEP 30 1963

MEMORANDUM for Distribution

Subject: Results of Planning Meeting for Apollo Spacecraft Guidance  
and Navigation Review

A meeting of pertinent organizational elements was held on September 27, 1963, to formulate an agenda for the Apollo Spacecraft Guidance and Navigation Review as outlined in MSC Memo S (ROP:gvh), dated September 24, 1963. This meeting was a planning session for the meeting which will be held October 7, 1963, in the Director's Conference Room at MSC, starting at 9:00 a.m.

The agenda formulated for the October 7 meeting is intended to allow decisions to be made by an Executive session on the Command and Service Module Computer and the Lunar Excursion Module Navigation and Guidance System.


The following is a brief description of the issues in question:

a. As a result of the Gemini-Apollo compatibility study, it was decided that an investigation should be made to determine if the Saturn 5 Triple Modular Redundant Computer made by IBM should be used instead of the Apollo Guidance Computer made by MIT-Raytheon. The action to date has been a joint MSC-Bellcomm comparison of the two computers and a joint MSC-IBM study to evaluate the feasibility of installing the TMR computer in the Command Module.

b. A study has been initiated to determine if the current MIT Guidance and Navigation System with the GAEC Abort Guidance System should be used in the Lunar Excursion Module, or if a new lightweight, doubly redundant Guidance and Navigation System should be developed with radar on the ascent stage for use as an Abort Guidance System.

The attached agenda has been developed for the October 7 meeting in order to allow the Executive session to resolve the issues.

<u>DX</u>	<u>OFF</u>	<u>#</u>	<u>T</u>	<u>PGM</u>	<u>SUBJ</u>
9-30-63	MSC	M	GN	(Above)	
<u>SIGNATOR</u>	<u>LOC</u>				
GILBERT	063-65				

  
David W. Gilbert  
Manager, Spacecraft Systems  
Guidance and Control

Enc:

Agenda for October 7 meeting  
Attendees List for September 27 meeting

Distribution:

(Per attached list)

Subject: Results of Planning Meeting for Apollo Spacecraft Guidance  
and Navigation Review

Distribution:

NASA Hq. - MD(P) G. M. Low  
MSA J. H. Disher  
R. C. Henry  
MD(S) J. F. Shea (5)

D.  
DP  
DO  
DA

E - M. A. Faget  
EST - R. G. Chilton  
GSM - R. R. Carley  
OFC - W. J. North  
J. Bilodeau  
P. Kramer  
C. W. Frasier

OFO - C. C. Kraft  
RFS - F. J. Bailey  
SL - J. L. Decker  
SLE - O. G. Maynard  
SS - D. M. Hammock  
Z - J. A. McDivitt  
D. K. Slayton  
POD - G. M. Preston

AGENDA FOR REVIEW OF  
APOLLO SPACECRAFT GUIDANCE AND NAVIGATION  
SYSTEM, October 7, 1963

MSC

<u>Time</u> <u>(minutes)</u>	<u>Presentation</u> <u>by</u>	
15	D. Gilbert, ASPO	<u>I. Introduction - (Present System)</u>
		<u>A. System Description</u>
		<u>B. System Development Status</u>
		<u>C. System Requirements</u>
		<u>II. Description of Issues to be Resolved</u>
		<u>A. TMR Computer vs MIT Computer</u>
5	D. Gilbert, ASPO	1. Present Status of Studies
15	I. Nehama, Bellcomm	2. Triple Modular Redundancy Computer Descriptions
10	D. Gilbert, ASPO	3. Apollo Guidance Computer
10	R. Chilton, EST	4. Status Report of IBM Study
10	D. Gilbert, ASPO	5. Program Impact
5	D. Gilbert, ASPO	6. Summation
15		7. Discussion
		<u>B. LEM G&amp;N Configuration</u>
5	D. Gilbert, ASPO	1. Present System
10	P. Kramer, OFC	2. Use of Lunar Landing Radar on Ascent Stage
5	W. North, OFC	3. Operational Consideration Ground Rules
15	J. Decker, ASPO	4. Total LEM weight and reliability consideration
20	C. Frasier, OFC	5. Proposed new LEM Guidance Configuration
15	C. Moster, Bellcomm	6. Results of Bellcomm study
20	D. Gilbert, ASPO	7. Management, Cost and Schedule Impact
5	D. Gilbert, ASPO	8. Summation

PLANNING MEETING FOR APOLLO SPACECRAFT  
GUIDANCE AND NAVIGATION REVIEW

September 27, 1963

ATTENDEES

D. W. Gilbert	MSC/ASPO/SG
A. Cohen	MSC/ASPO/SGE
P. D. Schrock	OMSF
C. R. Moster	Bellcomm
R. G. Chilton	MSC/EST
C. W. Frasier	MSC/OFC
J. W. Bilodeau	MSC/OFC
O. E. Maynard	MSC/ASPO/SLE
J. A. McDivitt	MSC/Z

Enclosure