



NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

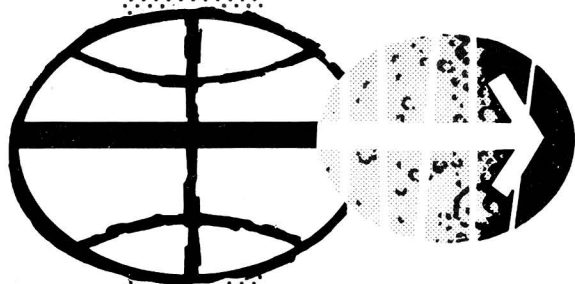
MSC APOLLO 13 INVESTIGATION TEAM

FINAL REPORT

PANEL 11

ADMINISTRATIVE, COMMUNICATIONS,
AND
PROCUREMENT

MAY 1970



MANNED SPACECRAFT CENTER
HOUSTON, TEXAS

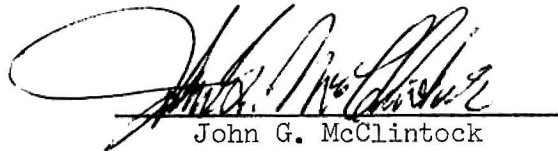
MSC APOLLO 13 INVESTIGATION TEAM

FINAL REPORT

PANEL 11

ADMINISTRATIVE, COMMUNICATIONS,
AND
PROCUREMENT

May 28, 1970

A handwritten signature in black ink, appearing to read "John G. McClintock", is written over a horizontal line.

John G. McClintock
Chairman, Panel 11



NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

MSC APOLLO 13 INVESTIGATION TEAM

MANNED SPACECRAFT CENTER

HOUSTON, TEXAS 77058

REPLY TO
ATTN OF:

FINAL REPORT

Panel # 11

A. PURPOSE:

The purpose of this report is to outline in summary form the functions and procedures of Panel # 11 which include administrative, communication, and procurement operations in support of the Apollo 13 Investigation Team.

B. SCOPE:

The activity of The Panel #11 operation was confined to support of the Investigation Team chaired by Col. McDivitt and Mr. Simpkinson, Team Leader. The operation is organizationally charted in Enclosure 1 and 1.a to relate support to the Team (Enclosure 1.b) and Board (Enclosure 1.c).

C. DEFINITION:

1. Administrative support is that support identified as office space, equipment, supplies, office (administrative) personnel, secretaries, clerks, reproduction operation.

2. Procurement support is that support required to buy any items in support of the investigation including consultant services, materials, and equipment.

3. Communication (correspondence) control support is that administrative support associated with logging, reproducing, and distributing communications (correspondence) sponsored by the Investigation Team.

D. POLICY:

The Apollo Mission Failure Investigation Plan outlines policy and the plan for administrative, procurement and communication activity in the event of an incident such as that experienced on Apollo 13. The operational set-up arranged in Room 207, Building 45 was partial implementation of that plan.

E. BACKGROUND:

1. Room 207, Building 45 was cleared for establishment of the Communication Control Center (CCC) by the Administrative Directorate April 23, 1970 (enclosure 1d).

2. Specific functional areas were established.

3. Operational procedures were issued as outlined under Procedures (below).

F. FUNCTIONS:

1. Correspondence Control -- Log in, assign file number, reproduce, and distribute Team originated correspondence.

2. Test Preparation Sheet (TPS) -- Register, log in, assign file number, reproduce, and distribute Team originated test plans and requirements. Record TPS closeout action.

3. Apollo Spacecraft Hardware Utilization Request (ASHUR) -- Processing, note in special ASHUR log, and make special distribution (Apollo Spacecraft Program Office, Program Control Division, Logistics Branch, PP8 maintains ASHUR Register).

4. Administrative and Procurement Support -- Obtained by CCC operation manager(s) from available MSC resources.

G. PROCEDURES:

1. Correspondence Control Procedures are outlined in Enclosure 2.

2. ASHUR procedures are outlined in ASPO Management Guide, Chapter 28. Special handling and distribution for Apollo 13 investigation are outlined in Enclosure 3.

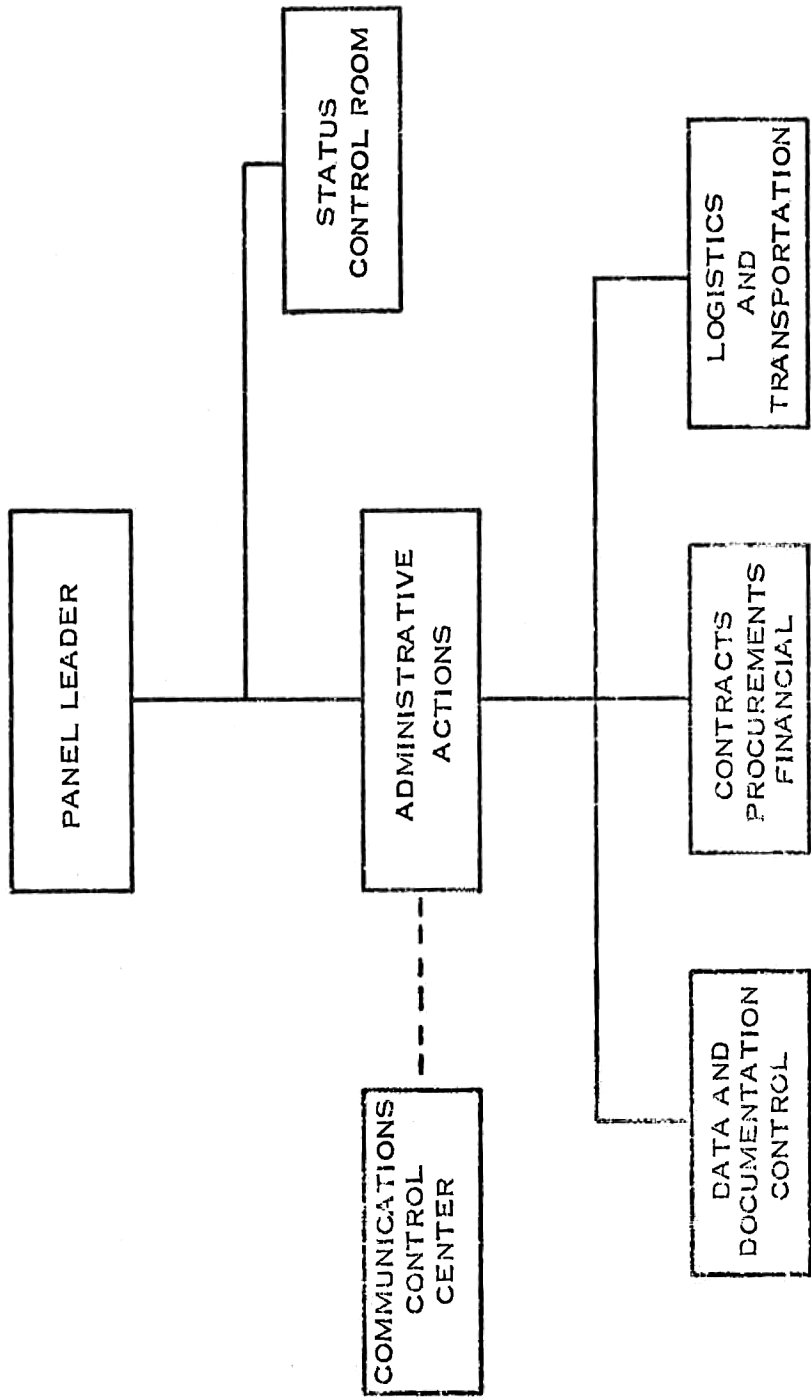
3. Test Preparation Sheet (TPS) procedures are outlined in Enclosure 4.

H. ACTIVITY:

Activity of the Panel has been recorded in summary form in three Panel Staff Meetings. Minutes of these meetings have been recorded and are on file for reference.

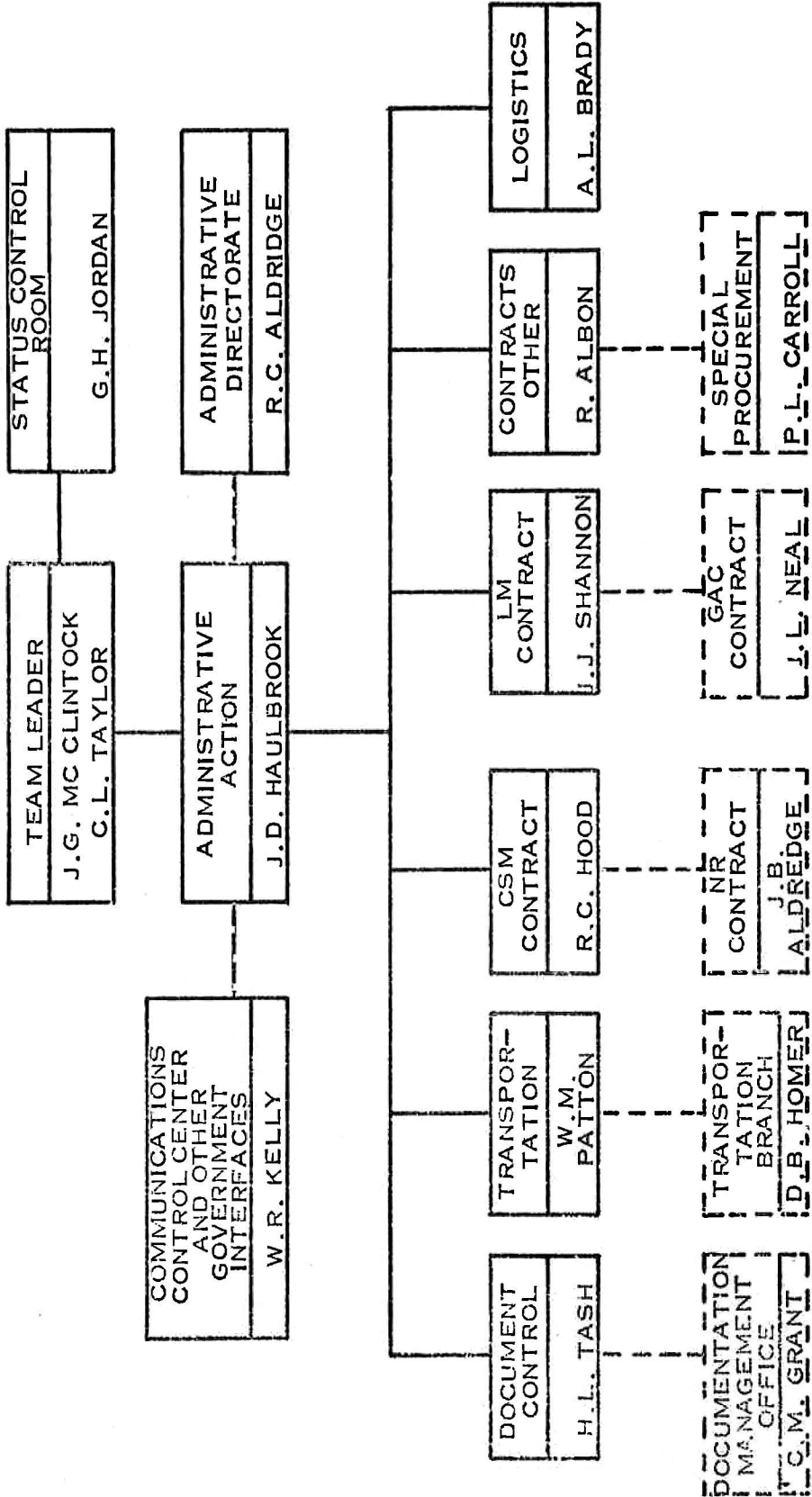
MSC Apollo 13 Investigation Team
Prepared: 4-20-70
Distributed: 4-20-70

MSC APOLLO 13 INVESTIGATION TEAM
ADMINISTRATIVE, COMMUNICATIONS AND PROCUREMENT PANEL
FUNCTIONAL ORGANIZATION



MSC APOLLO 13 INVESTIGATION TEAM
 ADMINISTRATIVE, COMMUNICATIONS AND PROCUREMENT PANEL

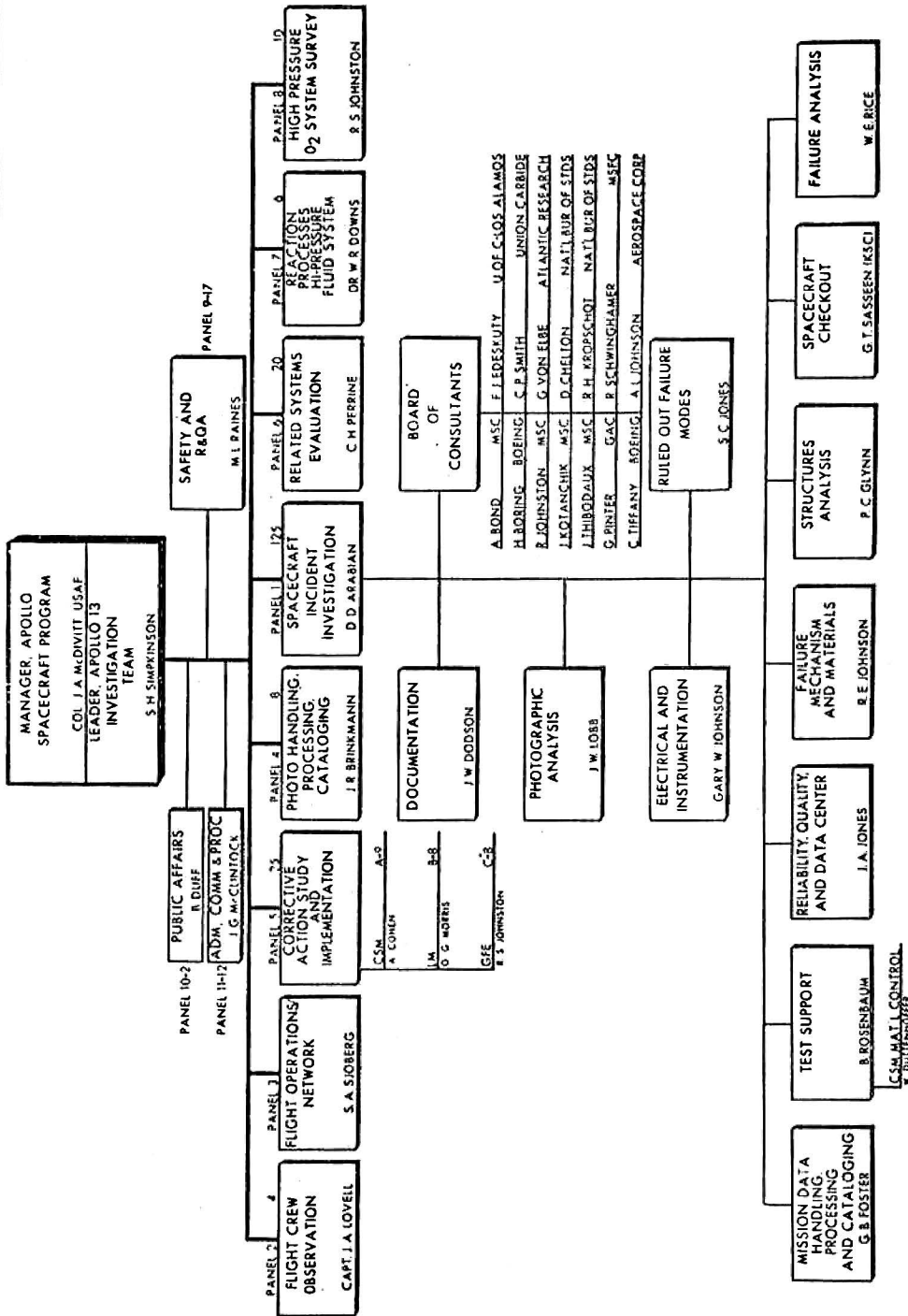
ORGANIZATION



MSC APOLLO 13 INVESTIGATION TEAM

SCIENTIFIC PROGRAM MANAGER

MISSION RESPONSIBILITY SUPERVISION
 RDTMC



**APOLLO 13
REVIEW BOARD**

E. M. CORTRIGHT CHAIRMAN

DR. J. F. CLARK R. F. ALLNUTT xx
 DR. H. M. MARK x N. ARMSTRONG
 V. L. JOHNSON BRIG GEN W. R. HEDRICK xxx
 M. KLEIN

OBSERVERS
 W. ANDERS
 C. HARRINGTON
 I. PINKEL
 J. WILSON

**OMSF
TECHNICAL SUPPORT**
 C. W. MATHEWS

COUNSEL
 G. MALLEY

SECRETARIAT
 E. P. SWIEDA

**REPORT
EDITORIAL
GROUP**
 R. G. ROMATOWSKI

**PUBLIC
AFFAIRS**
 B. DUFF

**LEGISLATIVE
AFFAIRS**
 G. J. MOSSINGHOFF

MISSION EVENTS
 (N. ARMSTRONG)
 F. SMITH

PRE-INCIDENT EVENTS
 J. WILLIAMS

INCIDENT EVENTS
 T. BALLARD

**POST INCIDENT
EVENTS**
 P. FRANK

**MANUFACTURING
& TEST**
 (J. F. CLARK)
 H. SCHURMEIER

**FABRICATION &
ACCEPTANCE TESTING**
 E. BAEHR

**SUBSYSTEM &
SYSTEM TESTING**
 K. HEIMBURG

**RELIABILITY &
QUALITY ASSURANCE**
 B. MORRIS

DESIGN
 (V. L. JOHNSON)
 S. HIMMEL

**DESIGN
EVALUATION**
 J. LINDLEY

**FAILURE MODES
& MECHANISMS**
 W. LUCAS

RELATED SYSTEMS
 J. SAUNDERS

**PROJECT
MANAGEMENT**
 (M. KLEIN)
 E. KILGORE

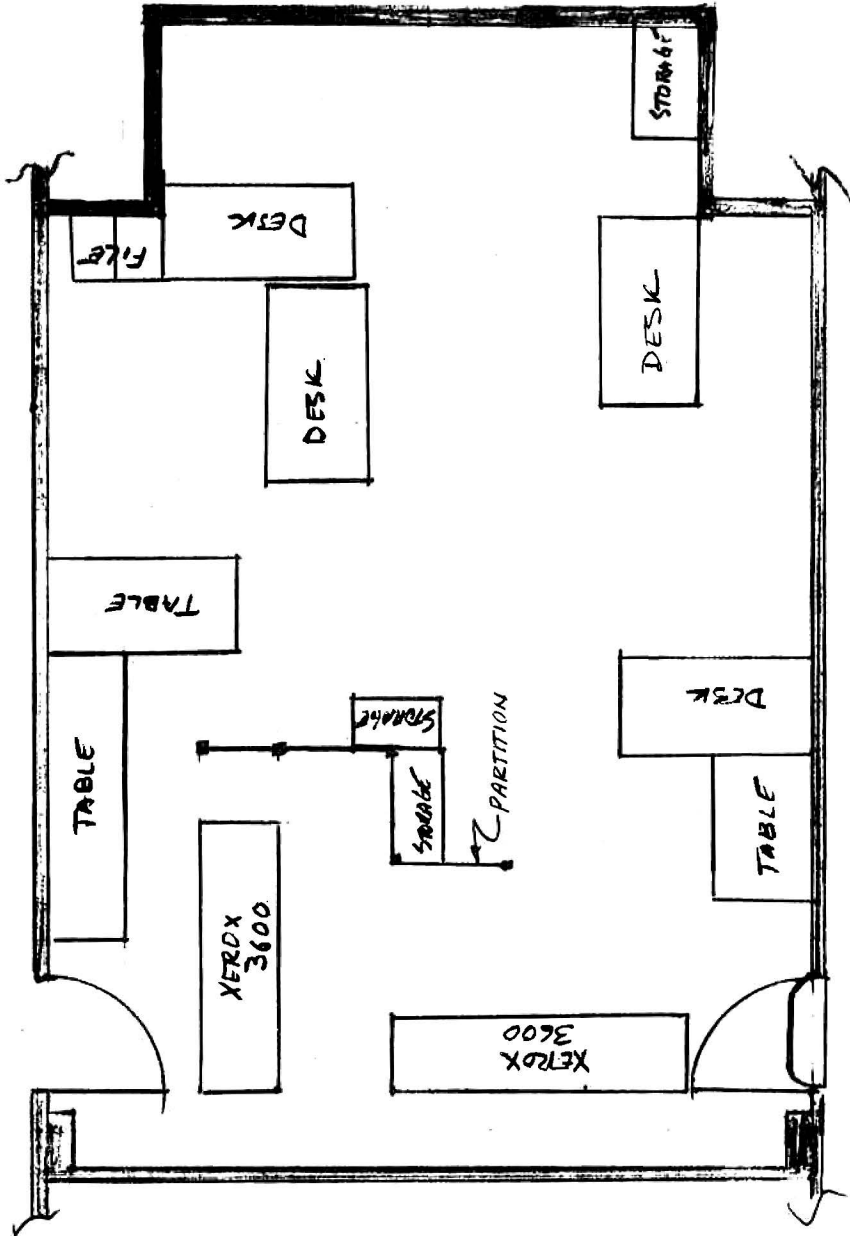
**D. GINTER
M. MEAD
J. WHITTEN (SAFETY)**

x SPECIAL ANALYSES
 xx REPORT
 xxx INTEGRATION

APPROVED
 E. M. CORTRIGHT

E. M. Cortright 1/24/70

HALL TO ELEVATOR & STAIRS



ROOM 207

BLDG 95

HALL - TO
ELEVATOR & STAIRS

NOTE: NOT TO SCALE

CORRESPONDENCE CONTROL CENTER
APRIL 13 INVESTIGATION

Enclosure 1d



MSC Apollo 13 Investigation Team
Prepared: 4-20-70
Distributed: 4-21-70

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
MANNED SPACECRAFT CENTER
HOUSTON, TEXAS 77058

APR 20 1970

IN REPLY REFER TO

MEMORANDUM TO : Apollo 13 Investigation Team
FROM : PA/Leader, MSC Apollo 13 Investigation Team
SUBJECT : Apollo 13 Investigation Correspondence

In order to assure a systematic and effective correspondence flow and control system, the following guidelines are to be followed by all personnel involved in the Apollo 13 Investigation:

1. All correspondence generated at MSC concerning the Apollo 13 Investigation will be prepared on the special letterhead format (sample attached). All correspondence will be signed and dated. In addition, all correspondence will utilize the special cover sheet for Apollo 13 Investigation Correspondence (sample attached).
2. The originals of incoming correspondence concerning the Apollo 13 Investigation are to be retained on file in the communications action center, Room 207, Building 45. Don Haulbrook, PP is responsible for maintaining the originals on file, assuring proper action assignment and for the proper logging of the correspondence.
3. The official copy of outgoing correspondence will also be retained in the communication action center indicated above. Mr. Haulbrook will provide for the logging of outgoing correspondence.
4. Mr. Haulbrook will have required copies made of correspondence and distributed to all Apollo 13 Investigation Team leaders.

Any questions concerning correspondence should be directed to Mr. Haulbrook.


Scott H. Simpkinson 4-20-70

Enclosures

MSC Apollo 13 Investigation Team, Panel Format
Special letterhead format for Apollo 13 Investigation Correspondence
Special cover sheet for Apollo 13 Investigation Correspondence

MSC Apollo 13 Investigation Team

PANEL FORMAT

In accordance with memorandum PA/SHS-70-50 dated April 19, 1970, the Panels will be referred to by number and, when necessary, by the Group alphabet as given in the attached list.

Enclosure 2
Page 2

MSC Apollo 13 Investigation Team
Leader, Scott H. Simpkinson

Panel #1, Spacecraft Incident Investigation
Leader, Donald D. Arabian

Group a, Mission Data Handling, Processing, and Cataloging-
Galloway B. Foster

Group b, Historical Records Handling and Cataloging-
Jack A. Jones

Group c, Failure Mechanism and Materials-
Robert E. Johnson

Group d, Structures Analysis-
Philip C. Glynn

Group e, Spacecraft Checkout-
George T. Sasseen (Kennedy Space Center)

Group f, Test Support-
Robert K. Allgeier, Jr.

Group g, Failure Analysis-
W. Eugene Rice

Group h, Photographic Analysis-
John D. Lobb, Jr.

Group i, Electrical and Instrumentation-
Gary W. Johnson

Group j, Documentation-
Joseph W. Dodson

Group k, Board of Consultants-

Outside Consultants:

Frederick J. Edeskuty
Los Alamos Scientific Lab.

C. P. Smith
Union Carbide Corporation
Linde Div, Cryogenic Develop. Lab.

Charles Tiffany
Boeing Company-Seattle

(Pressure vessel expert-announce later)

Dudley Chelton
Cryogenic Lab, National Bureau of Stds.
(Cryogenics- announce later)

Richard H. Kropschot
Cryogenics Lab, National Bureau of Stds.

Robert Schwinghamer
Materials Div, Astrionics Lab
MSFC

George Pinter
Grumman Aerospace Corporation

MSC Consultants:

Aleck C. Bond
Richard S. Johnston
Joseph N. Kotanchik
Joseph G. Thibodaux, Jr.
Hugh D. Boring-Boeing-Houston

Panel #2, Flight Crew Observations
Leader, James A. Lovell

Panel #3, Flight Operations and Network-
Leader, Sigurd A. Sjoberg

- Group a, Booster Systems Engineer
- Group b, Retrofire Officer
- Group c, Flight Dynamics Officer
- Group d, Guidance Officer
- Group e, EECOM
- Group f, GNC
- Group g, TELMU
- Group h, Control
- Group i, INCO
- Group j, Procedures Officer

Panel #4, Photograph Handling, Processing, and Cataloging-
Leader, John R. Brinkmann
Deputy Leader, William S. Forrester

- Group a, Still Photography-
E. Jack Ottinger
- Group b, Motion-Picture Photography (Documentary and Engineering)-
Taylor W. Moorman
- Group c, Work Order Control, Cataloging, and Special Files-
Carlos Ramirez
- Group d, Visual Aids and Specialized Photographic Techniques:
 - (1) Still- Ludy T. Benjamin
 - (2) Motion Picture- George C. Collins
 - (3) Photographic Interpretation and Analysis- Noel T. Lamar
- Group e, Audiovisual Support (incl. preparation of film clips, services
of projectionists, and audio recording and dubbing)-
John Denman

Panel # 5, Corrective Action Study and Implementation-
Leaders: Aaron Cohen, Owen G. Morris, and Richard S. Johnston

Group a, CSM (command service module)-
Aaron Cohen

Group b, LM (lunar module)-
Owen G. Morris

Group c, GFE (Government-furnished equipment)-
Richard S. Johnston

Panel #6, Related Systems Evaluation-
Leader, Calvin H. Perrine, Jr.

Group a, LM (lunar module)-
Jerry W. Craig

Group b, CSM (command service module)-
Richard A. Colonna

Group c, GFE (Government-furnished equipment)-
John R. Sevier

Group d, GSE (Government support equipment)-
David W. Camp

Panel # 7, Reaction Processes in High Pressure Fluid Systems-
Leader, Dr. W. R. Downs
Deputy Leader, Dr. Robert C. Ried, Jr.

Panel #8, High Pressure Oxygen Systems Survey-
Leader, Richard S. Johnston

Panel #9, Safety and Reliability and Quality Assurance-
Advisor to the Leader, MSC Apollo Investigation Team

Panel #5, Corrective Action Study and Implementation

Group a, CSM (command service module) Advisors-
Reliability and Quality Assurance- L. Terry Spence
Safety- Charles N. Rice

Group b, LM (lunar module) Advisors-
Reliability and Quality Assurance- Edison M. Fields
Safety- Norbert B. Vaughn

Group c, GFE (Government-furnished equipment) Advisors-
Reliability and Quality Assurance- Chester E. C
Chester E. McCollough, Jr.
Safety- Norbert B. Vaughn

Enclosure 2
Page 5

Continued-

Panel # 9, Safety and Reliability and Quality Assurance

Panel #6, Related Systems Evaluation- Advisors

Reliability and Quality Assurance- Joseph H. Levine
Safety- John C. French

Panel #8, High Pressure Oxygen System Survey- Advisors

Reliability and Quality Assurance- John W. Conlon
Safety- John W. Conlon

Panel #11, Administrative, Communications, and Procurement- Advisors

Reliability and Quality Assurance- William L. Baldwin
Safety- William L. Baldwin

Panel #10, Public Affairs-

Leader, Brian Duff

Deputy Leader, John E. Riley

Group a, Special Events Office-

Group b, Public Information Office-

Group c, Broadcasting Services Office-

Group d, Drafts of News, Releases, Statements; News Query Research;
Support Panel as required-
Douglas Ward

Group f, Drafts of News, Releases, Statements; News Query Research;
Support Panel as required-
R. Terry White

Panel #11, Administrative, Communications, and Procurement
Leader, John G. McClintock
Deputy Leader, Clinton L. Taylor

Group a, Status Control Room-
Gareth H. Jordan

Group b, Communications Control Center and Other Government Interfaces-
William R. Kelly

Group c, Administrative Action-
John D. Haulbrook

Group d, Administrative Directorate-
Roy C. Aldridge

Group e, Document Control-
Herbert L. Tash

Group f, Transportation-
William M. Patton

Group g, CSM Contract-
Robert C. Hood

Group h, LM Contract-
James D. Shannon

Group i, Contracts, Others-
Ralph Albon

Group j, Logistics-
A. L. Brady

Group k, Documentation Management Office-
Charles M. Grant, Jr.

Group l, Transportation Branch-
David B. Homer

Group m, NR Contract-
John B. Alldrege

Group n, GAC Contract-
James L. Neal

Group o, Special Procurement-
Parker L. Carroll

CORRESPONDENCE CONTROL CENTER

PROCEDURE FOR INCOMING & OUTGOING MAIL

1. Read correspondence for action assignment. Attach distribution list. TIME/DATE STAMP ALL INCOMING MAIL ON BACK SIDE OF LAST PAGE.
2. If action is required, add name of office (mail code) and name if known to distribution list. Use three calendar days if suspense date is not shown by originator. PAO INQUIRIES SHALL BE MARKED FOR IMMEDIATE ACTION AND ROUTED TO PA/SIMPKINSON FOR ACTION UNLESS OTHERWISE DIRECTED. ANSWERS TO PAO INQUIRIES SHALL BE ROUTED THROUGH SIMPKINSON FOR HIS CONCURRENCE.
3. Add any other mail codes/names to distribution list if required (be sure to include copy for originator if not on standard distribution list and his mail code).
4. DATE STAMP CORRESPONDENCE IF NOT DATED BY ORIGINATOR.
5. Give correspondence to girl who logs in the mail.
6. Log in correspondence as appropriate, showing date of correspondence, To/From, type of correspondence and subject of correspondence. Also show distribution. If correspondence is routed to those on standard distribution list, indicate "Std. Dist." Add any other names as appropriate.

Write log number on top (first) page of correspondence (not on distribution list unless it is a suspense item, then also annotate this list) in lower right hand corner. If item is an action item with suspense date, also write the same log number on distribution list in lower right hand corner.

7. Reproduce copies as required, putting distribution list on top of correspondence.
8. For action/suspense items, reproduce an extra copy of the whole package (without enclosures, if any) for the suspense file. If correspondence is too bulky (too many pages), use common sense and reproduce only top page for suspense file.
8. All mail leaving the CCC shall have the Apollo 13 pink cover sheet stapled on top of the correspondence.
9. NO ORIGINALS ARE TO BE SENT OUT OF THE CCC; these are to be retained for the official file. When correspondence is to leave the Center, the following notation is to be typed on the face of the correspondence to the addressee only: THIS IS TO BE TREATED AS THE ORIGINAL COPY. Original and accompanying yellow concurrence copy are to be retained in the CCC files.

ALL OUTGOING CORRESPONDENCE REQUIRES PA/SIMPKINSON CONCURRENCE (on yellow concurrence copy).

All outgoing correspondence leaving the Center requires that appropriate mailing envelopes be made before sending out.

10. Classify the correspondence for filing. Write the file number (for example, 19/3-20) on the first page of the correspondence in the upper right hand corner. Write the file number in the log corresponding to the log number of the correspondence.
11. File in appropriate folder, with the most current date on top in the folder. All papers to be filed should be stapled in two places on top. No paper clips will be put in the files; the only exception will be when the file matter is too bulky to be stapled (then use large paper clip or rubber band to keep the material together). When file folder becomes one inch thick, start Folder #2 & mark each one thus: Folder #1, 4/20/70-4/28/70. Folder #2, 4/29/70-
12. If cross referencing is required, reproduce an extra copy and annotate as appropriate in upper right hand corner and indicate same in correspondence log. For example, 19/3-11, X-20.
13. The yellow concurrence copy which is to be submitted with the file copy (original) of correspondence leaving the Center will be filed with the original in the same file. Staple the yellow copy behind the original.
14. Re distribution of daily staff meetings conducted by Col. McDivitt/PA (the transcript version), PP will type from the tape and distribute copies to PA/McDivitt and PA/Simpkinson only. CCC will distribute remainder to standard distribution list when received.
15. Re daily status of Room 660 control room charts, Building 2 provides PA/McDivitt an immediate copy. CCC will distribute to remainder of standard distribution list when received.
16. CHECK SUSPENSE FILE DAILY AND CALL ACTION OFFICES (MSC) FOR DELINQUENT ACTION FOLLOW-UP. ON SUSPENSE FILE COPY, WRITE TIME/DATE OF CALL & PERSON TALKED TO. THEN PUT BACK IN CORRECT PLACE IN SUSPENSE FILE. When action is completed, the suspense file copy may be destroyed.
17. Note to file classifier: Answers to suspense correspondence should be filed in the same file as the original action. Of course, it may be cross referenced to other files if required.
18. Always add mail codes if not shown on correspondence for distribution.
19. All correspondence for Cortright, Swieda, Simpkinson and Arabian will be handcarried by the messenger to their offices in Building 45. If messenger is not available for length of time, a CCC person should deliver.
20. All other outgoing correspondence will be put in outgoing mail box.
21. All action/suspense correspondence will be handcarried to the action office by the messenger.

22. When copies of correspondence need to be destroyed, please tear up in small pieces before putting in wastebasket.
23. Test Preparation Sheets (TPS) will be logged in the TPS log book, distributed per instructions as indicated in the TPS Flow Chart, enclosure number 4, page 5. Apollo S/C Hardware Utilization Requests (ASHUR) will be logged in the ASHUR log, distributed by ASHUR Standard Distribution list, and the original filed in CCC File No. 23.
24. NOTE: Last person to leave at end of day will put all wastebaskets outside of door for janitor pickup. Doors will be locked and key (usually placed on bulletin board during day) given to Guard on third floor.

Attachments

Apollo 13 Investigation Files Index
(A/O 5/20/70)

Standard Correspondence Distribution List

Test Review Subpanel Meeting Minutes Distribution List

Special Final Report Distribution List

Distribution List for Apollo 13 Review Board Data/

Test Request MSC Summary Actions - Action Assignees

APOLLO 13 CORRESPONDENCE CONTROL CENTER FILES INDEX (1970)

- 19/3-1 - PANEL 1, SPACECRAFT INCIDENT INVESTIGATION (ARABIAN)
- 1.a - DOCUMENTS, PANEL 1 (Filed in 3rd drawer)
- 2 - PANEL 2, FLIGHT CREW OBSERVATION (LOVELL)
- 3 - PANEL 3, FLIGHT OPERATIONS/NETWORK (SJOBERG)
- 4 - PANEL 4, PHOTO HANDLING, PROCESSING, CATALOGING (BRINKMANN)
- 5 - PANEL 5, CORRECTIVE ACTION, STUDY & IMPLEMENTATION (GENERAL)
- 5.a - PANEL 5a, CSM (COHEN)
- 5.b - PANEL 5b, LM (MORRIS)
- 5.c - PANEL 5c, GFE, (JOHNSTON)
- 6 - PANEL 6, RELATED SYSTEMS EVALUATION (PERRINE)
- 7 - PANEL 7, REACTION PROCESSES, HI-PRESSURE FLUID SYSTEMS (DOWNS)
- 8 - PANEL 8, HIGH PRESSURE O₂ SYSTEM SURVEY (JOHNSTON)
- 9 - PANEL 9, SAFETY & R&QA (RAINES)
- 10 - PANEL 10, PUBLIC AFFAIRS (DUFF)
- 11 - PANEL 11, ADMIN, COMM. & PROCUREMENT/CONSULTANT SERVICES (McCLINTOCK)
- 12 - APOLLO 13 INVESTIGATION TEAM MEETING MINUTES (DAILY STAFF MEETING)
- 13 - APOLLO 13 REVIEW BOARD MINUTES/REPORTS
- 14 - INVESTIGATION TEAM ORGANIZATION/DIRECTIVES
- 15 - SATURN AS-508 EVALUATION BULLETINS
- 16 - EQUIPMENT & DATA (TRANSPORTATION, HANDLING, SHIPMENT, STORAGE, RECOVERY, SECURITY, ETC.)
- 17 - SUPERCRITICAL HELIUM TANKS/OXYGEN TANKS/NITROGEN TANKS/FUEL TANKS (Fans, Motors, Standpipes, Gages, etc.)
- 18 - MATERIALS
- 19 - PAO QUERIES
- 20 - PHOTOGRAPHY
- 21 - DAILY STATUS OF ROOM 660 CONTROL ROOM CHARTS
- 22 - TEST PREPARATION SHEETS (TPS)
- 23 - APOLLO SPACECRAFT HARDWARE UTILIZATION REPORTS (ASHUR)
- 24 - APOLLO 13 MISSION - GENERAL
- 25 - ELECTRICAL POWER SUBSYSTEM (EPS)
- 26 - SPACECRAFT WEIGHT INFORMATION
- 27 - CONSUMMABLES
- 28 - NASA HDQS/BELLCOMM REPORTS ON APOLLO 13
- 29 - CONTRACTOR REPORTS
- 30 - REVIEW BOARD DATA
- 31 - FORMS REPRODUCED, ROOM 207
- 32 - LETTERS OF APPRECIATION

APOLLO 13 INVESTIGATION TEAM
STANDARD CORRESPONDENCE DISTRIBUTION LIST

AA/R. R. Gilruth
PA/J. A. McDivitt
PA/O. G. Morris (Chairman, Panel 5b)
PA/R. S. Johnston (Chairman, Panel 5c, 8)
PA/S. H. Simpkinson
PA/R. W. Kubicki
PA/E. B. Hamblett
PT/D. D. Arabian (11) (Chairman, Panel 1)
CB/J. A. Lovell (Chairman, Panel 2)
FA/S. A. Sjoberg (Chairman, Panel 3)
BL/J. R. Brinkmann (Chairman, Panel 4)
PF/A. Cohen (Chairman, Panel 5a)
PD/C. H. Perrine, Jr. (Chairman, Panel 6)
ES/Dr. W. R. Downs (Chairman, Panel 7)
AP/Brian Duff (Chairman, Panel 10)
PP/J. G. McClintock (Chairman, Panel 11)
NA/M. L. Raines (Chairman, Panel 9)
PP/C. King
E. P. Swieda, Apollo 13 Review Board (2)
Boeing, Waugh, HA56

ORIGINATOR (if not shown) _____ MAIL CODE: _____

ACTION OFFICE: _____ SUSPENSE DATE: _____

REMARKS:

APOLLO 13 INVESTIGATION TEAM

TEST REVIEW SUBPANEL MEETING MINUTES DISTRIBUTION LIST

AA/R. R. Gilruth
PA/J. A. McDivitt
PA/O. G. Morris (Chairman, Panel 5b)
PA/R. S. Johnston (Chairman, Panel 5c, 8)
PA/S. H. Simpkinson
PA/R. W. Kubicki
PA/E. B. Hamblett
PT/D. D. Arabian (11) (Chairman, Panel 1)
CB/J. A. Lovell (Chairman, Panel 2)
FA/S. A. Sjoberg (Chairman, Panel 3)
BL/J. R. Brinkmann (Chairman, Panel 4)
PF/A. Cohen (Chairman, Panel 5a)
PD/C. H. Perrine, Jr. (Chairman, Panel 6)
ES/Dr. W. R. Downs (Chairman, Panel 7)
AP/B. Duff (Chairman, Panel 10)
PP/J. G. McClintock (Chairman, Panel 11)
NA/M. L. Raines (Chairman, Panel 9)
PP/C. King
E. P. Swieda, Apollo 13 Review Board (2)
ES/J. Kotanchik
EA/A. Bond
EP/G. Thibodaux
PT/R. Gadbois
PF/D. Teegarder
PF/R. Duttonhofer
Boeing/C. Tiffany
NR/D. Levine
EP/B. Rosenbaum

NOTE - Package includes minutes for
meeting of May 1970

General W. R. Hedrick
Boeing, Waugh, HA 56

Enclosure 2
Page 13

APOLLO 13 INVESTIGATION TEAM
SPECIAL FINAL REPORT DISTRIBUTION LIST

AA/R. R. Gilruth
PA/J. A. McDivitt
PA/O. G. Morris (Chairman, Panel 5b)
PA/R. S. Johnston (Chairman, Panel 5c, 8)
PA/S. H. Simpkinson
PA/R. W. Kubicki
PA/E. B. Hamblett
PT/D. D. Arabian (11) (Chairman, Panel 1)
CB/J. A. Lovell (Chairman, Panel 2)
FA/S. A. Sjoberg (Chairman, Panel 3)
BL/J. R. Brinkmann (Chairman, Panel 4)
PF/A. Cohen (Chairman, Panel 5a)
PD/C. H. Perrine, Jr. (Chairman, Panel 6)
ES/Dr. W. R. Downs (Chairman, Panel 7)
AP/Brian Duff (Chairman, Panel 10)
PP/J. G. McClintock (Chairman, Panel 11)
NA/M. L. Raines (Chairman, Panel 9)
E. P. Swieda, Apollo 13 Review Board (2)
PP/C. King
E. M. Cortright
Dr. J. F. Clark
Dr. H. M. Mark
V. L. Johnson
R. F. Allnutt
N. Armstrong
Brig. Gen. W. R. Hedrick
M. Klein
C. W. Mathews
G. Malley
R. G. Romatowski

F. Smith
H. Schurmeier
S. Himmel
E. Kilgore

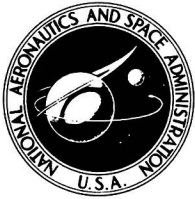
DISTRIBUTION SHOULD BE MADE BY NUMBERED COPIES.
LIST SHOULD BE KEPT DESIGNATING WHAT COPY EACH RECEIVED.

Enclosure 2
Page 14

DISTRIBUTION LIST
APOLLO 13 REVIEW BOARD DATA/TEST REQUEST
MSC SUMMARY ACTIONS

ACTION ASSIGNEES

PT3/Bud Foster
EE12/Milt Kingsley
EE4/Bob Swint
EP5/Shelby Owens
PT/Bob Malley
EG412/John Hanaway
PT14/John Crockett
PT/Ted Sasseen
EE4/Frank Rotramel
EP5/W. Chandler
EP6/C. Propp
ES4/Richard Bricker
ND/Jack Jones
ES/Phil Glynn
PD/Cal Perrine
PF/Aaron Cohen
Boeing/W. Waugh
EE4/G Johnson
EP5/Eugene Rice
PT/Dave Goldenbaum
ES/Dr. W. R. Downs
PF/Aaron Cohen (Dave Levine, NR)
PT/Arabiañ
FC/M. Windler
EC/E. Tucker
PT/Gadbois
PP12/Kraus
General Hedrick



NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

MSC APOLLO 13 INVESTIGATION TEAM

MANNED SPACECRAFT CENTER

HOUSTON, TEXAS 77058

REPLY TO
ATTN OF:

MEMORANDUM TO: Apollo 13 Investigation Team

FROM : PA/Leader, MSC Apollo 13 Investigation Team

SUBJECT : Processing of correspondence concerning the
Apollo 13 Investigation

A Correspondence Control Center has been established in building 45, room 207, to support the Apollo 13 Investigation Team. All correspondence pertaining to the Apollo 13 Investigation, except for correspondence wholly internal to a team panel, will be processed through the Communication Control Center using the following guidelines.

OUTGOING CORRESPONDENCE

1. Correspondence will be prepared on special letterhead format and will have the special cover sheet attached. Reference memorandum dated April 20, 1970, "Apollo 13 Investigation correspondence."
2. Only an original copy will be prepared, except when correspondence is to go outside MSC a standard concurrence copy will also be made. The correspondence will be delivered to the Correspondence Control Center when it is properly signed, dated, and ready to go.
3. The Correspondence Control Center will log in, make copies and distribute copies to the addressee, the author, and to the Apollo 13 Investigation Team Standard Correspondence Distribution List. A copy of this standard list is enclosed. Any requirement for distribution other than the standard list, must be submitted on a separate sheet of paper with the original of the correspondence.

INCOMING CORRESPONDENCE

1. The original of all incoming correspondence, except PAO correspondence defined in 3 below, concerning the Apollo 13 Investigation will be delivered to the Correspondence Control Center.
2. The Correspondence Control Center will assign action when required, establish a suspense date, and distribute copies to the Apollo 13 Investigation Team Standard Correspondence Distribution List.

3. Correspondence from news media or interested citizens is the responsibility of PAO and not the Correspondence Control Center. If support is needed from the Apollo 13 Investigation Team, PAO will send a copy to the Correspondence Control Center requesting assistance.

TEST PREPARATION SHEET

Test Preparation Sheets (TPS) will be prepared and processed in accordance with memorandum dated April 22, 1970, "Test Preparation Sheet handling and distribution procedure." A standard distribution for TPS's has been established. The Correspondence Control Center is responsible for making the distribution. A copy of the Apollo 13 Investigation Team Standard TPS Distribution List is enclosed.

 4-23-70
Scott H. Simpkinson

Enclosures

Apollo 13 Investigation Team Standard Correspondence Distribution List
Apollo 13 Investigation Team Standard TPS Distribution List



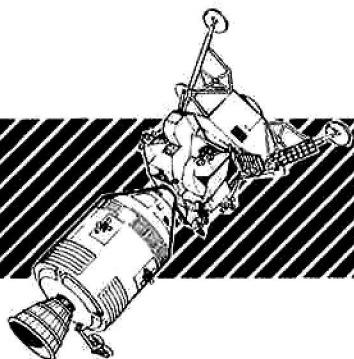
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

MSC APOLLO 13 INVESTIGATION TEAM

MANNED SPACECRAFT CENTER

HOUSTON, TEXAS 77058

REPLY TO
ATTN OF:



OFFICIAL NASA RECORD

**MSC
APOLLO 13
INVESTIGATION TEAM**

OFFICIAL COMMUNICATION

**PRIORITY HANDLING
OFFICIAL NASA RECORD**

Enclosure 2
Page 14

NASA — MSC

MSC Apollo 13 Investigation Team
Prepared: 4-20-70
Distributed: 4-20-70



NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
MANNED SPACECRAFT CENTER
HOUSTON, TEXAS 77058

APR 20 1970

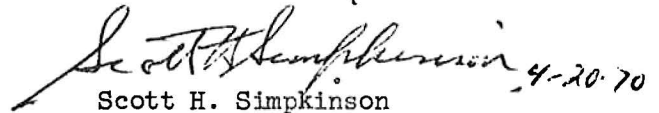
IN REPLY REFER TO:

MEMORANDUM TO : Apollo 13 Investigation Team
FROM : PA/Leader, MSC Apollo 13 Investigation Team
SUBJECT : Apollo 13 ASHUR approval

Effective immediately, all ASHUR requests concerning Apollo 13 will require the approval of the ASPO Program Manager or Assistant Program Manager for Flight Safety.

This instruction supersedes all previous instructions concerning approval of ASHUR requests.

The preparation and submittal channels are not changed by this instruction.


Scott H. Simpkinson 4-20-70

APOLLO 13 INVESTIGATION TEAM

STANDARD ASHUR DISTRIBUTION LIST

cc:

PT/D. Arabian, Panel 1

FF/A. Cohen, Panel 5, Group a

PA/O. G. Morris, Panel 5, Group b

PA/R. S. Johnston, Panel 5, Group c

PD/C. H. Perrine, Jr., Panel 6

ES/Dr. W.R. Downs, Panel 7

NA/M. L. Raines, Panel 9

PA/ S. H. Simpkinson

PP/G. Jordan, Panel 11

PT2/C. Lauback

Historical Records Center, Room 321, Bldg. 45



NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

MSC APOLLO 13 INVESTIGATION TEAM

MANNED SPACECRAFT CENTER
HOUSTON, TEXAS 77058

REPLY TO
ATTN OF: PA

April 22, 1970

MEMORANDUM TO: MSC Apollo 13 Investigation Team Members
FROM : Leader, MSC Apollo 13 Investigation Team
SUBJECT : Test Preparation Sheet handling and distribution procedure

Forward: The use of the TPS (Test Preparation Sheet) as a device for authorization testing or work involving hardware in conjunction with the MSC Apollo 13 Investigation Team will be governed by the procedures delineated below and not those procedures listed in the MSC Quality Assurance Manual. Work or testing involving CM-109 will be authorized by ASHUR per my memorandum dated April 20, 1970. All TPS utilized in this activity will be of the type "A" category in that they will exercise complete configuration control over the hardware covered by the TPS and can authorize procurement and/or fabrication of parts, components, and assemblies if required.

TPS Execution:

1. The originator of the TPS will:
 - a. Execute the form delineating work or testing to be done, schedule, assignee, cost limitations, documentation of results required, etc.
 - b. Have the TPS staffed with all required approval and sign-off signatures:
 - (1) Donald D. Arabian has sign-off authority after approval of the Board of Consultants for Panel 1 TPS's.
 - (2) Colonel McDivitt and Mr. Simpkinson have sign-off authority for all other Panel TPS's.
 - c. Hand-carry the completed and approved TPS to Mr. Haulbrook (MSC Apollo 13 Investigation Team Communication Control Center) for TPS number assignment.

TPS Execution continued-


2. The MSC Apollo 13 Investigation Team Communication Control Center will effect the following distribution of the TPS's:

- Copy 1- Original- retained by the MSC Apollo 13 Investigation Team Files
- Copy 2- Green - Originator
- Copy 3- Pink - Panel Leader (originator's)
- Copy 4- Blue - Action Assignee
- Copy 5- (Hard Copy) - Action Assignee
- Copy 6- (Zerex Copy) - D. D. Arabian
- Copy 7- (Zerex Copy) - A. Cohen
- Copy 8- (Zerex Copy) - O. G. Morris
- Copy 9- (Zerex Copy) - R. S. Johnston
- Copy 10- (Zerex Copy) - C. H. Perrine, Jr.
- Copy 11- (Zerex Copy) - W. R. Downs
- Copy 12- (Zerex Copy) - S. H. Simpkinson
- Copy 13- (Zerex Copy) - M. L. Raines.

3. The MSC Apollo 13 Investigation Communications Control Center will send a copy of the TPS log to the Board of Review daily.

4. The TPS originator will, upon receipt of the results or findings of the work or test covered by the TPS, execute a TPS continuation sheet delineating the results, if brief, or affix the action assignee's original report to the sheet and forward to the MSC Apollo 13 Investigation Communication Control Center for reproduction and distribution. The first such continuation sheet should carry a caption describing the contents and each continuation sheet should carry the same number as the original TPS followed by the letter F (for findings).

5. The MSC Apollo 13 Investigation Communication Control Center will then effect the same distribution for the findings as the original TPS, less the copies to the action assignee.


4-22-70
Scott H. Simpkinson

PA:EBHamblett,Jr.:ee 4-22-70

Subject: Test Preparation Sheet procedures

DISTRIBUTION:

Standard distribution list plus:

Group leaders

PB/A. Hobokan, RASPO-Bethpage

PC/W. H. Gray, RASPO-Downey

PSK/A. E. Morse, Jr., RASPO-KSC

APOLLO 13 INVESTIGATION TEAM

STANDARD TPS DISTRIBUTION LIST

Copy 1 (white)	File
Copy 2 (green)	Originator
Copy 3 (pink)	Panel Leader
Copy 4 (blue)	Action Assignee
Copy 5 (hard)	Action Assignee

cc: PT/D. D. Arabian, Panel 1
PF/A. Cohen, Panel 5, Group a
PA/O. G. Morris, Panel 5, Group b
PA/R. S. Johnston, Panel 5, Group c
PD/C. H. Perrine, Jr., Panel 6
ES/Dr. W. R. Downs, Panel 7
NA/M. L. Raines, Panel 9
PA/S. H. Simpkinson
PP/G. Jordan, Panel 11
E. P. Swieda (16 copies)
PT2/C. Laubach
Historical and Inspection Records Center
(Bldg. 45, Rm. 321)

DISTRIBUTION OF TEST RESULTS

Report less than 6 pages:

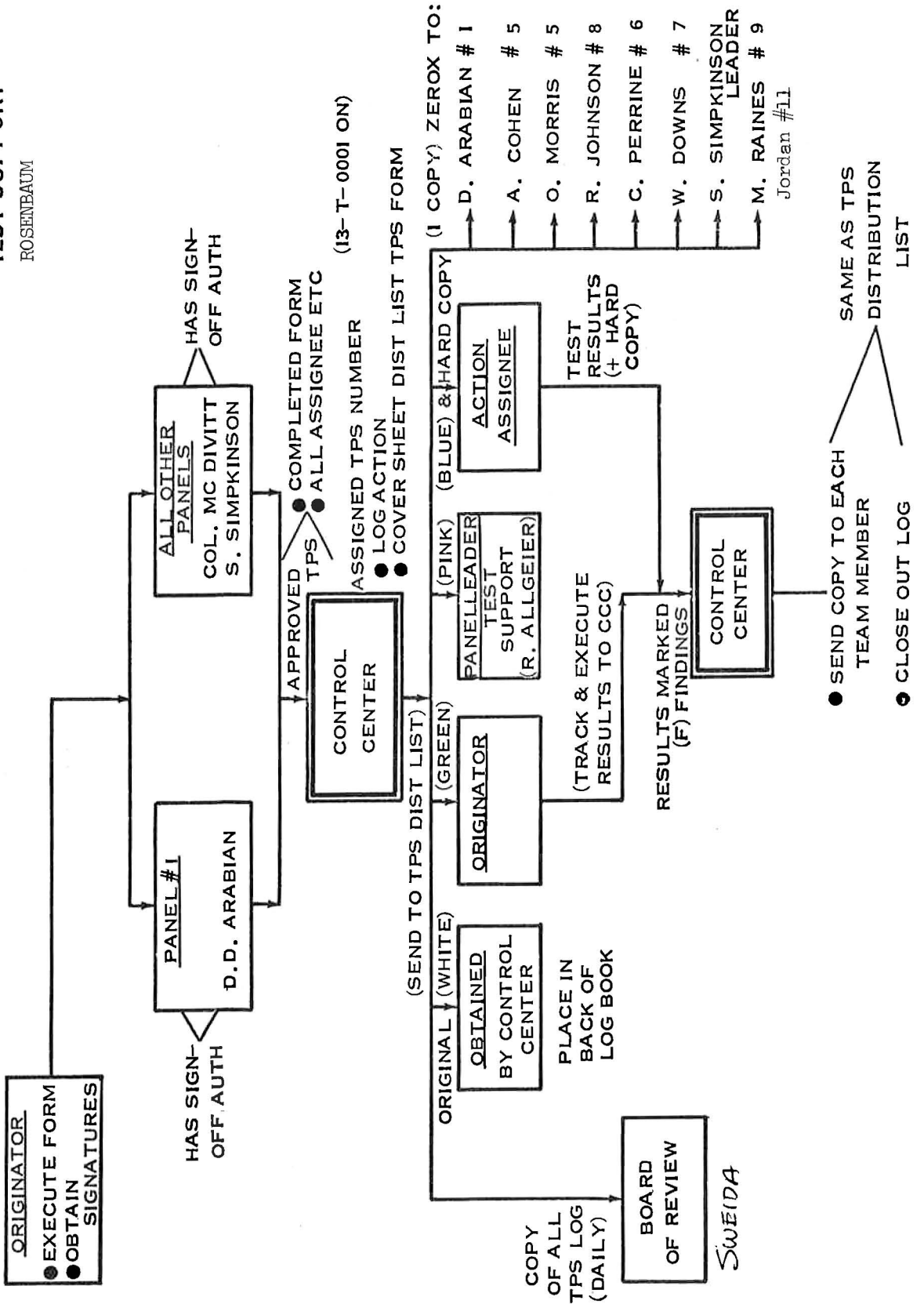
Same as TPS distribution except that the originals of the report will be filed in the Historical and Inspection Records Center, Room 321, Bldg. 45.

Report more than 6 pages:

- (1) TPS continuation sheet only, noting that the report is on file in the Historical and Inspection Records Center, will be distributed the same as the TPS distribution.
- (2) Two (2) copies of the report will be distributed to the Apollo 13 Investigation Board (Attn: General W. R. Hedrick, Jr.) unless waived by the Board because of size.

TEST PREPARATION SHEET (TPS) FLOW

TEST SUPPORT
ROSENBAUM



APOLLO 13 INVESTIGATION TEAM
SPECIAL FINAL REPORT DISTRIBUTION LIST

AA/R. R. Gilruth
PA/J. A. McDivitt
PA/O. G. Morris (Chairman, Panel 5b)
PA/R. S. Johnston (Chairman, Panel 5c, 8)
PA/S. H. Simpkinson
PA/R. W. Kubicki
PA/E. B. Hamblett
PT/D. D. Arabian (11) (Chairman, Panel 1)
CB/J. A. Lovell (Chairman, Panel 2)
FA/S. A. Sjoberg (Chairman, Panel 3)
BL/J. R. Brinkmann (Chairman, Panel 4)
PF/A. Cohen (Chairman, Panel 5a)
PD/C. H. Perrine, Jr. (Chairman, Panel 6)
ES/Dr. W. R. Downs (Chairman, Panel 7)
AP/Brian Duff (Chairman, Panel 10)
PP/J. G. McClintock (Chairman, Panel 11)
NA/M. L. Raines (Chairman, Panel 9)
E. P. Swieda, Apollo 13 Review Board (2)
PP/C. King
E. M. Cortright
Dr. J. F. Clark
Dr. H. M. Mark
V. L. Johnson
R. F. Allnutt
N. Armstrong
Brig. Gen. W. R. Hedrick
M. Klein
C. W. Mathews
G. Malley
R. G. Romatowski
E. Kilgore
F. Smith
H. Schurmeier
S. Himmel

