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Kennedy Space Center  
APOLLO PROGRAM DIRECTIVE NO.

Date: November 30, 1967

KSC APOLLO PROGRAM DIRECTIVE NO. 18

TO: Distribution

FROM:

*R. O. Maddleton*  
Apollo Program Manager

SUBJECT: Apollo Unsatisfactory Condition Report Closeout Requirements for  
KSC Hardware

I. PURPOSE

The purpose of this directive is to amplify requirements contained in KSC Apollo Program Directive No. 6 concerning closure of Unsatisfactory Condition Reports written on KSC provided ground support equipment. These are interim requirements pending revision of KSC Apollo Program Directive No. 6.

II. SUPERSESSIONS

This directive takes precedence over APD No. 6 in areas of conflicting requirements.

III. SCOPE

The requirements contained herein pertain to all KSC organizations responsible for initiating UCRs against KSC provided Apollo hardware or for taking corrective action pertaining to these UCRs. This directive is applicable to the following organizations:

A. KSC

Apollo Program Manager  
Director of Technical Support  
    Director, Information Systems  
    Director, Support Operations  
Director of Launch Operations  
    Director, Launch Vehicle Operations  
    Director, Spacecraft Operations  
Director of Installation Support  
Director of Design Engineering

B. Contractors (Operational and/or Maintenance Responsibility)

CCSD	Grumman	FEC
DAC	GE (ACE)	PAA
IBM	Bendix	TWA
Boeing	NAA	

C. Contractors (Design Responsibility)

CCSD  
Boeing

GE  
Dow

IV. DEFINITIONS

- A. FLIGHT READINESS ACTION. That action taken to ensure that no degradation of flight readiness has occurred because of a part failure or any unsatisfactory condition. This includes:
1. Action required to render the GSE ready for operation in support of a flight, including system reverification.
  2. Subsequent investigations by design organizations to ensure that no degradation of flight worthiness has occurred because of the problem.
- B. CLOSE UCR FOR FLIGHT READINESS. A UCR is closed for flight readiness when flight readiness action has been completed and concurred in by the Apollo Program Manager.
- C. RECURRENCE CONTROL ACTION. That action taken to ensure that the reported unsatisfactory condition will not recur on future stages or on GSE during future support operations. This consists of failure analysis and/or investigation and subsequent corrective action or design changes initiated by the responsible design or operational organizations, with specific effectivities and recommendations to prevent recurrence.
- D. CLOSED UCR FOR RECURRENCE CONTROL. A UCR is closed for recurrence control when recurrence control action has been completed and concurred in by the Apollo Program Manager.
- E. PRIORITY I. Equipment whose failure can cause loss of the vehicle/stage or human life.
- F. PRIORITY II. Equipment whose failure can cause a launch scrub.
- G. PRIORITY III. Equipment whose failure can cause a launch delay.

V. PROGRAM REQUIREMENTS

A. General

1. The "Investigation and Corrective Action" report, KSC Form 14-14B (ICAR) is the official form accepted for closing Unsatisfactory Condition Reports (UCRs) written on KSC designed equipment. The ICAR form will be used for all flight readiness and recurrence control UCR closeout with one exception outlined in paragraph V.A.5 below.

2. An ICAR must be validated by both design and operational organizations prior to closeout.

3. The Apollo Program Manager will close UCRs for both flight readiness and recurrence control.

4. Priority I, II and III problems must be closed for flight readiness prior to each mission. The priority of a problem as assigned by the cognizant design organization on the ICAR will take precedence over the priority as originally assigned by the initiator on the UCR.

5. UCRs stamped "Closed - Design action not required" by the originator will not require an ICAR; nor will they require closeout action. These UCRs are closed out upon receipt by the Apollo Program Office and are sent to the data bank for historical record.

6. The responsible KSC design and operational organizations shall provide the Apollo Program Manager a risk assessment for all Priority I, II and III UCRs which they propose to close only for flight readiness for the current mission. This assessment will be provided two days prior to the LRR, FRR, and when appropriate, the Design Certification Review. These risk assessments will be updated daily from the last major test (CDDT, FRT, etc.) to launch and will be made available to the Apollo Program Office upon request.

B. ICAR Preparation and Processing

1. All final ICARs shall identify

- a. Corrective action taken by design or corrective action recommended.
- b. Change documentation in cases of design changes (ECP, EO, etc.)
- c. A point of contact for design information
- d. Mission effectivity of design changes (if required)
- e. A launch readiness statement (Closed upon \_\_\_\_, open until \_\_\_\_)
- f. Other information required on KSC Form 14-14B

2. The design organization will complete the ICAR, obtain appropriate signatures, and forward one copy to the originating contractor or KSC organization, one copy to the cognizant KSC quality surveillance organization, and one copy to the Apollo Program Office (AP-RQA).

3. The UCR originator shall review the ICAR received from the responsible design organization, and shall indicate on the ICAR the operational action taken to accomplish closure. The ICAR shall also be annotated as:

- a. Closed for flight readiness
- b. Closed for recurrence control
- c. Corrective action not adequate (explain in detail reasons for disagreement)

4. The UCR originating contractor or KSC organization will obtain appropriate signatures and distribute copies of the ICAR to the cognizant KSC design organization, design responsible contractor, and the Apollo Program Office (AP-RQA).

C. Closure and Status Reporting

1. A UCR is held open for flight readiness by the Apollo Program Office if:

- a. Action to restore discrepant hardware to operational status has not been completed
- b. Design and operations have not provided ICAR closure or do not agree that the UCR is closed.
- c. The Apollo Program Office disagrees with closure.

2. The KSC Apollo Program Office will publish and distribute weekly reports to KSC operational and design organizations and contractors showing the UCR closeout status. Operational and design organizations will review the status reports and inform the Apollo Program Office of any disagreements. The Apollo Program Office will resolve disagreements and will publish the necessary changes reflecting the agreements reached in subsequent reports.

3. The Apollo Program Office shall submit closure data for updating the R&QA ADP system.

Date: November 30, 1967

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