FLIGHT DIRECTOR
G. D. Griffin

MISSION RULE/TRAINING
FLIGHT OPERATIONS

MISSION RULE SUMMARY
Apollo 12

10-75
10/20/69

C. W.
APOLLO 12 MISSION RULES
(REV A TO BE PUBLISHED 10/20/69)

- LAUNCH/EARTH PARKING ORBIT
  - NO SIGNIFICANT CHANGES FROM APOLLO 11

- TRANSLUNAR INJECTION/TRANSLUNAR COAST
  - TLI RULES ARE NOW BASED ON HAVING A "FINITE" PROBABILITY OF
    ACHIEVING AN APOGEE OF 65,000 N.MI. APOLLO 11 WAS BASED ON
    95 PERCENT PROBABILITY
  - CRITERIA FOR GOING ON NON-FREE-RETURN TRAJECTORY AT MIDCOURSE
    CORRECTION NUMBER 2 IS SAME AS LUNAR ORBIT INSERTION.

- LUNAR ORBIT INSERTION
  - LOI ABORT RULES AND TECHNIQUES HAVE CHANGES BECAUSE OF NON-FREE-
    RETURN TRAJECTORY; HOWEVER, BASIC PHILOSOPHY IS SAME AS APOLLO 11
  - LOI ABORTS IN CERTAIN RANGES REQUIRE DPS PLUS APS MANEUVERS

- DESCENT/LANDING
  - SAME BASIC PHILOSOPHY AS APOLLO 11
  - POINT LANDING TECHNIQUES EMPLOYED, BUT PRIMARILY INVOLVES CHANGES
    IN PROCEDURES
APOLLO 12 MISSION RULES (CONCL'D)

- LUNAR STAY
  - NO CHANGE IN APOLLO 11 PHILOSOPHY
  - LONGER STAY TIME AND TWO EVA'S REQUIRE SIGNIFICANT PROCEDURE DIFFERENCES
  - SOME NEW RULES ASSOCIATED WITH SURVEYOR III ACTIVITIES

- ASCENT/RENDEZVOUS
  - NO SIGNIFICANT CHANGES FROM APOLLO 11

- POST RENDEZVOUS
  - ADDITIONAL CONSIDERATION GIVEN TO LM CONSUMABLES RULES TO PROVIDE FOR IMPACTING OF LM ASCENT STAGE
  - ADDITIONAL CONSIDERATION GIVEN TO CSM CONSUMABLES RULES TO PROVIDE FOR LUNAR ORBIT PLANE CHANGE AND SUBSEQUENT LUNAR PHOTOGRAPHY

- TRANSEARTH INJECTION/TRANSEARTH COAST/ENTRY
  - NO SIGNIFICANT CHANGES FROM APOLLO 11
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<th>TOTAL</th>
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**LM Checkout Timeline**

**AGS**
- Initialize
- Docked Fine Align
  - V06 N20, LM Drift CKS
  - CSM LS TRACK

**Rev 11**
- Soft Undock
- SEP

- LM P52

**Rev 12**
- LGC SV (LM/CSM)
- LGC SV (LM/CSM)

**Rev 13**
- LGC SV1 (LM)
- LGC SV (SM)
- CMC SV (CSM/LM)
- LGC Target Loads (RLS1)
- DOI/PDI PADS