

DRAFT

May 10, 1972

TEST PLANS FOR RESOLVING THE APOLLO 16 90 DEGREE  
OFFSET AND ICDU FAIL PROBLEMS IN MILWAUKEE

Testing that will be performed in Milwaukee will be highly influenced by the results obtained from testing in the spacecraft at NR. The Engineering G&N System, ECDU tester, Harness tester, CTS and Ops Console, X-Ray machine and the single axis engineering ECDU will be utilized depending on preliminary test results. At this time, certain ground rules can be stated based on anticipated spacecraft test results. These are as follows:

1. Every effort within reason will be taken to keep the ECDU, AGC and A Harness connected together until testing has shown that additional information can only be gained by demating the connectors.
2. During S/C testing the ECDU fine errors will be monitored for indications of read counter oscillations. If a ICDU fail occurs during S/C testing and one or more of the fine errors show a read counter oscillation at that time, the problem is contained in the ECDU and testing in Milwaukee will be done at the ECDU tester level for further verification.
3. Enhanced or degraded B+ and coolant temperature testing will be performed in the S/C and if either of the two fail conditions appear, the ECDU, AGC and A Harness will be put in the engineering G&N system along with the ECDU breakout box to further isolate the source of the problem.
4. One of the last things that will be done in the S/C in an attempt to get either problem to reappear will be to wiggle the A Harness in the area of the ECDU and AGC. Should the failure/failures appear, Meggar and TAC testing on the harness will be performed in Milwaukee.
5. If the ICDU fail appears and remains as a hard failure during S/C testing, Black Box testing of the ECDU will be performed upon return of the equipment to Milwaukee along with AGC and Harness testing in that order.
6. In the event that S/C testing did not provide any insight to the source of either of the problems, the ECDU, AGC and A Harness will be installed in the engineering G&N system for further diagnostic testing.

DRAFT

Test Plans for Resolving the Apollo 16 90 Degree  
Offset and ICDU Fail Problems in Milwaukee

May 10, 1972  
Page 2

7. Presently, the two problems are thought to be unrelated; however, when the source of each problem is discovered, clearly any correlation will be identified.

It is the intent that the above conditions will serve as a baseline and that continued communication between Delco and MSC personnel will continue on a timely basis throughout this investigation so that up-to-date plans will be coordinated prior to execution of any major phase of testing.



J. Wachholz

JW/ju