

# MIT/IL SOFTWARE ANOMALY REPORT

NA

MIC REPORT NO. <b>COM 5</b>
PROGRAM <b>COLOSSUS 2</b>
PROGRAM REVISION <b>Comanche 44 &amp; 45</b>

1.1 ORIGINATOR: <b>B. BYRNE</b>	1.2 ORGANIZATION: <b>MIT</b>	1.3 DATE: <b>3/13/69</b>	1.4 ORIGINATOR CONTROL NO.
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1.5 DESCRIPTION OF ANOMALY:

Second N88 display (planet option) in P23 requires reload of planet unit vector. With aligned IMU first N88 display is used for auto optics, second N88 verifies actual mark. Information entered in first display is clobbered before second display and requires reload.

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1.6 DESCRIPTION OF RUN:

P23 Level 3 test which included planet option

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- MIT ANALYSIS -

2.1 CAUSE:

Use of N88 display registers (STAR, +2, +4) as temporary storage by R52.

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2.2 RECOGNITION: Second N88 display differs from first. If proceeded upon  $\Delta R$ ,  $\Delta V$  N49 may produce unusually large state corrections.

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2.3 MISSION EFFECT: None, if recognized: 1) load N88 correctly, 2) reject mark; otherwise state vector would be incorrectly updated and would require additional marks correct and/or state vector update.

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2.4 AVOIDANCE PROCEDURE:

Load second N88 display with marked planet unit vector.

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2.5 RECOVERY PROCEDURE: If pre-marking state were zapped to LM slots, unzap and start new marking schedule. Otherwise take additional marks and/or obtain state vector uplink. Note that W-matrix initialization may be desirable.

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2.6 PROGRAM CORRECTION: Identify new erasable vector which holds input unit vector through second N88 display.

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2.7 RECOMMENDED DISPOSITION (Fix, Work-around, etc):

Follow (2.4) for Colossus (Comanche 44, 45). Fix for Colossus 2A.

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2.8 RECOMMENDED RE-TESTING:

Rerun above test (1.6).

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2.9 MIT/IL SIGNATURE: <i>B. Byrne</i>	2.10 DATE: <b>3/13/69</b>
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3.1 NASA DIRECTION:

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4.1 CLOSING ACTION TAKEN:

MIT will fix for Colossus 2A.

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3.2 NASA/MSC SIGNATURE:	3.3 ORGANIZATION:	3.4 DATE:	4.2 SIGNATURE:	4.3 ORGANIZATION:	4.4 DATE:
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