

MIT/L PROGRAM CHANGE ROUTING SLIP

PCR/PCN # \_\_\_\_\_

ANOMALY # COM33

- |   |                                      |
|---|--------------------------------------|
| <input type="checkbox"/> COLOSSUS 2C            | <input type="checkbox"/> LUMINARY 1B |
| <input type="checkbox"/> COLOSSUS 2D            | <input type="checkbox"/> LUMINARY 1C |
| <input checked="" type="checkbox"/> COLOSSUS 2E | <input type="checkbox"/> LUMINARY 1D |
| <input type="checkbox"/> COLOSSUS 2F            | <input type="checkbox"/> LUMINARY 1E |

MIT Approved PCN

NASA Approved PCR

NASA Approved Software Anomaly

NASA Approved PCN

MIT Approved Software Anomaly

A. Coding

Begin coding immediately

NORM BRODEUR

ACTION: \_\_\_\_\_

Program Supervisor's Approval: Margaret Hamelton

Do not code until new GSOP material has been approved by the MIT Mission Design Review Board (MDRB) and distributed.

B. GSOP Preparation

Prepare GSOP revisions for MDRB consideration

ACTION: \_\_\_\_\_

Technical Committee Meeting not required.

Technical Committee Meeting(s) held on \_\_\_\_\_  
Attendees: \_\_\_\_\_

C. KSC Testing and Checkout

Review for possible impact on KSC testing and checkout

ACTION: \_\_\_\_\_

D. Other Programs Affected

Review for corresponding changes in \_\_\_\_\_

ACTION: \_\_\_\_\_

Special Instructions

Project Manager Stephen L. Cliff

Date 1/21/70

# MIT/IL SOFTWARE ANOMALY REPORT

MSC REPORT NO.  
COM 33  
PROGRAM  
COLOSSUS 2D  
PROGRAM REVISION  
COMANCHE 72, Rev 3

1.1 ORIGINATOR: N. Brodeur/P. Ryc	1.2 ORGANIZATION: MIT/IL	1.3 DATE: 1/20/70	1.4 ORIGINATOR CONTROL NO.
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1.5 DESCRIPTION OF ANOMALY:  
  
In KALCMANU STEERING log section, there is a call to subroutine ZEROEROR which is uninhibited thus allowing an interrupt (DAP) to take place in the middle of the zeroing sequence. (See Attachment)

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1.6 DESCRIPTION OF RUN:  
  
Eyeball

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- MIT ANALYSIS -

2.1 CAUSE:  
  
Error in code

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2.2 RECOGNITION:  
  
None

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MISSION EFFECT:  
  
See Attachment

CONTINUED ON PAGE

2.4 AVOIDANCE PROCEDURE:  
  
None

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2.5 RECOVERY PROCEDURE:  
  
None

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2.6 PROGRAM CORRECTION:  
  
Correct error in code in KALCMANU STEERING log section card #11 BZMF to NOGOM2

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2.7 RECOMMENDED DISPOSITION (Fix, Work-around, etc):  
  
Fix for 2E

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2.8 RECOMMENDED RE-TESTING:  
  
CONTINUED ON PAGE

2.9 MIT/IL SIGNATURE: <i>[Signature]</i>	2.10 DATE: 1/21/70
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3.1 NASA DIRECTION:  
  
*Fix for colossus 2E*

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4.1 CLOSING ACTION TAKEN:  
  
*There has been no further action  
fix for 2E.  
SEE PROGRAM NOTE  
CLOSED*

CONTINUED ON PAGE

3.2 NASA/IL SIGNATURE: <i>[Signature]</i>	3.3 ORGANIZATION: <i>[Signature]</i>	3.4 DATE: <i>[Signature]</i>	4.2 SIGNATURE: <i>[Signature]</i>	4.3 ORGANIZATION: <i>[Signature]</i>	4.4 DATE: <i>[Signature]</i>
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## MIT/IL SOFTWARE ANOMALY REPORT

REPORT NO.	COM 33
PROGRAM	COLOSSUS 2D
PROGRAM REVISION	COMANCHE 72, Rev 3

I.1 ORIGINATOR: N. Brodeur/P. Rye	I.2 ORGANIZATION: MIT/IL	I.3 DATE: 1/20/70	I.4 ORIGINATOR CONTROL NO.
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## 1.5 In the sequence in ZEROEROR

- CDUXD ← CDUX  
(A) CDUYD ← CDUY  
(B) CDUZD ← CDUZ

if T5 interrupts for PHASE 1 of the RCS DAP at (A)

Effectively, X gimbal angle error will be zeroed but not Y & Z

if at (B) X & Y gimbal ~~✗~~ error zeroed but not Z.

The X, Y, Z gimbal ~~✗~~ errors are transformed by the Matrix MGB to body ~~✗~~ errors so exactly what happens to ERROR X, Y, Z is a function of MGB which in turn is a function of gimbal angles.

- 2.3 At worst, a small unwanted jet firing might occur, but this is very unlikely. Essentially, a PHASE 1 T5RUPT at A or B would result in the DAP working with an inconsistent (but not really bad) set of reference angles for one cycle.