

MIT/IL SOFTWARE ANOMALY REPORT

P. Ruse

MIT REPORT NO. L-4B-01
PROGRAM LUMINARY
PROGRAM REVISION 116

1.1 ORIGINATOR: P. VOLANTE	1.2 ORGANIZATION: MIT/IL	1.3 DATE: 8/19/69	1.4 ORIGINATOR CONTROL NO.
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1.5 DESCRIPTION OF ANOMALY:
 Selection of P22 before the CSM has entered Mode 2 Radar Coverage can result in an erroneous 530 Alarm.

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1.6 DESCRIPTION OF RUN:
 P22 Digital Simulation, nominal G Mission orbit.

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- MIT ANALYSIS -

2.1 CAUSE:
 The Radar Pre-designation routine does not work.

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2.2 RECOGNITION:
 Alarm 530 when the CSM should be coming into coverage.

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2.3 MISSION EFFECT:
 None.

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2.4 AVOIDANCE PROCEDURE:
 Do not select P22 until CSM is within RR coverage. This time can be supplied from the ground or inferred from the range, range-rate display...

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2.5 RECOVERY PROCEDURE:
 If alarm 530 is displayed, answer display and reselect P22 when CSM is within RR coverage.

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2.6 PROGRAM CORRECTION:
 Fix coding in Pre-designate.

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2.7 RECOMMENDED DISPOSITION (Fix, Work-around, etc):
 Work-around in LUMINARY 1B; fix in LUMINARY 1C.

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2.8 RECOMMENDED RE-TESTING:
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2.9 MIT/IL SIGNATURE: <i>James J. McCoy</i>	2.10 DATE: <i>22 Aug 69</i>
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3.1 NASA DIRECTION:

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4.1 CLOSING ACTION TAKEN:

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3.2 NASA/MSO SIGNATURE:	3.3 ORGANIZATION	3.4 DATE:	4.2 SIGNATURE:	4.3 ORGANIZATION:	4.4 DATE:
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NATO: VOLANTE	L2 ORGANIZATION: MIT/IL	L3 DATE: 8/19/69	L4 ORIGINATOR CONTROL NO.	MSC REPORT NO. L-1B-01 PROGRAM LUMINARY PROGRAM REVISION 116
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.4 Avoidance Procedure, cont'd.

...of R31 (V83). When the range-rate is negative, there is a known range at ... which the vehicle enters radar coverage, assuming nominal CSM orbit and LM orientation.