

MIT/IL (CAMBRIDGE) K. GREENE

MIT/IL SOFTWARE ANOMALY REPORT

MIT REPORT NO.	LN Y 61
PROGRAM	LUMINARY
PROGRAM REVISION	69-97

1.1 ORIGINATOR: P. VOLANTE	1.2 ORGANIZATION: MIT/IL	1.3 DATE: 4/24/69	1.4 ORIGINATOR CONTROL NO.
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1.5 DESCRIPTION OF ANOMALY:
If a Restart (Hardware or Software) occurs during the Trunnion or Shaft incorporations of P20 Rendezvous Navigation (or P22), an incorrect State Vector Update can occur.

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1.6 DESCRIPTION OF RUN:
Luminary 69 Level 6 test of a stable orbit rendezvous - V37 selection of P39 while P20 running resulted in a Noun 49 excessive State Vector Update display.

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- MIT ANALYSIS -

2.1 CAUSE:
An Index Register is not properly Restart protected.

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2.2 RECOGNITION:
Noun 49 Display occurred when it shouldn't have (this may or may not happen).

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2.3 MISSION EFFECT:
Possible incorrect State Vector Update or else incorrect Noun 49 Display.

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2.4 AVOIDANCE PROCEDURE:
Do not select another program via Verb 37 while P20 is incorporating a mark (i.e., wait until mark counter is incremented in the V16N45... *RESTART* *wait for comp. act.*

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2.5 RECOVERY PROCEDURE:
If a Noun 49 Display occurs following a Restart, key in Recycle to reject the mark. *go of.*

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2.6 PROGRAM CORRECTION:
Fix Restart protection for the Trunnion and Shaft Angle incorporations.

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2.7 RECOMMENDED DISPOSITION (Fix, Work-around, etc):
Work-around for LUMINARY 1 and 1A; fix subsequently.

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2.8 RECOMMENDED RE-TESTING:
Restart test with P20 + P39 running when fixed

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2.9 MIT/IL SIGNATURE: <i>James T. Korman</i>	2.10 DATE: <i>4-25-69</i>
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3.1 NASA DIRECTION:

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2.11 CLOSING ACTION TAKEN:
Note for 1 + 1A.

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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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