MIT/IL SOFTWARE ANOMALY REPORT

P Rye

MSC REPORT NO.	
LNY 92	
PROGRAM	LUMINARY 1B
PROGRAM REVISION	

1.1 ORIGINATOR:	1.2 ORGANIZATION	1.3 DATE:	1.4 ORIGINATOR CONTROL NO.
M. HAMILTON	MIT/IL	3/7/69	

1.5 DESCRIPTION OF ANOMALY:

If an extended verb with displays (and no CCS NEWJOB is done before the first display) is called during a normal non-flash cyclical display, the extended verb display may not come up until the key release button is selected. This problem might occur if V41 or V42 is selected during the V06N63 display in P12, P70, P71; the V06N63 display in P63, the V06N64 display in P64, the V06N60 display in P65, P66, P67, the V06N62 display in P63 until TIG, the V06N40 display in P40, P41, P42 and the V06N74 display in P12 until TIG. An example of how this happens is as follows:

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1.6 DESCRIPTION OF RUN:

COLOSSUS hybrid run made with V79E selected during R52 in P22.

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- MIT ANALYSIS -

2.1 CAUSE:

Coding error. V41 and V42 do not perform a CCS NEWJOB before their final display.

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2.2 RECOGNITION:

After selection of these extended verbs, the normal cyclical display comes up as a static display instead of the extended verb display.

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2.3 MISSION EFFECT:

The above extended verbs may not be executed during these times until an extra key release is selected.

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2.4 AVOIDANCE PROCEDURE:

Avoidance of V41 and V42 during the displays mentioned in 1.5 above.

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2.5 RECOVERY PROCEDURE:

Hit key release button if extended verb display does not appear. This action will bring up correct display.

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2.6 PROGRAM CORRECTION:

A CCS NEWJOB should be done before extended verbs with displays. A place to do this would be in TESTXACT after the blanking of the DSKY.

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

Fix for LUMINARY 1C.

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2.8 RECOMMENDED RE-TESTING:

Unit test V41 and V42 during a normal non-flash cyclical display.

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2.9 MIT/IL SIGNATURE:	2.10 DATE:
M.H. Hamilton	8/6/69

3.1 NASA DIRECTION:	4.1 CLOSING ACTION TAKEN:
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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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1.5 Description of Anomaly, cont'd.

(1) In CLOCKJOB during P40, V06N40 comes up approximately every second as a non-flash display.

(2) When V41E is selected the V06N40 display finds the ASTRONAUT busy and goes to sleep in DSPLIST.

(3) After the E on V41E, the extended verb JOB performs a RELDSP to release the display system.

(4) RELDSP performs a JOBWAKE due to the fact that there is a sleeping JOB in DSPLIST (see No. 2 above).

(5) The JOB in DSPLIST has been awakened but will not be executed until a CCS NEW JOB is performed.

(6) The extended verb JOB now puts up the first display in V41 which is a flashing V21N22 (in the case of V41N20).

(7) V21N22 goes to sleep at ENDIDLE thereby providing a CCS NEWJOB for the DSPLIST JOB to be executed.

(8) The DSPLIST JOB now is processed and the leftover V06N40 normal display from the old RELDSP request comes on top of the V21N22 display. The flash is not on, but the extended verb display can be responded to.

(9) If the key release button is selected, the key release logic goes to PINBRNCH. PINBRNCH reestablishes the extended verb display correctly.