L. BERMAN See attached sheet. CONTINUED ON PAGE -MIT ANALYSIS- CONTINUED ON PAGE	MIT/11	LSOFTWAR	E ANC	MALY	REP	ORI	CC REPORT N	LNY 49
L. BERMAN See attached sheet. CONTINUED ON PAGE -MIT ANALYSIS- CONTINUED ON PAGE	. I ORIGINATOR:	The product and the state of th		AND CONTROL TO A SECOND STATE OF STATE		ROL NO.	LUMI	
See attached sheet. CONTINUED ON PAGE - MIT ANALYSIS- CONTINUED ON PAGE - MIT ANALYSIS- CONTINUED ON PAGE - MIT ANALYSIS- CONTINUED ON PAGE - CONTIN	L. BERMAN	MIT/IL.	3	/21/69		;	PROGRAM REVI	69
CONTINUED ON PAGE - MIT ANALYSIS- CONTINUED ON PAGE - MIT ANALYSIS- CONTINUED ON PAGE - MIT ANALYSIS- CONTINUED ON PAGE 2.1 CAUSE: Overflow in computation (see attached sheet.) CONTINUED ON PAGE 2.3 MISSION EFFEC. For small Tgo (early aborts), out-of-plane position error will not be eliminated. CONTINUED ON PAGE 2.4 ANOIDANCE PROCEDURE: Plane correction must be made later. 2.5 PROGRAM CORRECTION: See attached sheet. CONTINUED ON PAGE 2.7 RECOVERY PROCEDURE: Plane correction must be made later. 2.8 PROGRAM CORRECTION: See attached sheet. CONTINUED ON PAGE 2.9 MIGHT STORMANDER: OVER TISSING. Inspection of a nominal abort sequence. CONTINUED ON PAGE 2.7 MIGHT STORMANDER: OVER TISSING. Inspection of a nominal abort sequence. CONTINUED ON PAGE 2.7 MIGHT STORMANDER: OVER TISSING. CONTINUED ON PAGE 2.7 MIGHT STORMANDER: OVER TISSING. CONTINUED ON PAGE CONTINUED ON PAG	.5 DESCRIPTION OF ANOMALY:	-			1	Į.		
CONTINUED ON PAGE - MIT ANALYSIS- CONTINUED ON PAGE - MIT ANALYSIS- CONTINUED ON PAGE - MIT ANALYSIS- CONTINUED ON PAGE 2.1 CAUSE: Overflow in computation (see attached sheet.) CONTINUED ON PAGE 2.3 MISSION EFFEC. For small Tgo (early aborts), out-of-plane position error will not be eliminated. CONTINUED ON PAGE 2.4 ANOIDANCE PROCEDURE: Plane correction must be made later. 2.5 PROGRAM CORRECTION: See attached sheet. CONTINUED ON PAGE 2.7 RECOVERY PROCEDURE: Plane correction must be made later. 2.8 PROGRAM CORRECTION: See attached sheet. CONTINUED ON PAGE 2.9 MIGHT STORMANDER: OVER TISSING. Inspection of a nominal abort sequence. CONTINUED ON PAGE 2.7 MIGHT STORMANDER: OVER TISSING. Inspection of a nominal abort sequence. CONTINUED ON PAGE 2.7 MIGHT STORMANDER: OVER TISSING. CONTINUED ON PAGE 2.7 MIGHT STORMANDER: OVER TISSING. CONTINUED ON PAGE CONTINUED ON PAG		•	•	•			~	
CONTINUED ON PAGE - MIT ANALYSIS- CONTINUED ON PAGE - MIT ANALYSIS- CONTINUED ON PAGE - MIT ANALYSIS- CONTINUED ON PAGE 2.1 CAUSE: Overflow in computation (see attached sheet.) CONTINUED ON PAGE 2.3 MISSION EFFEC. For small Tgo (early aborts), out-of-plane position error will not be eliminated. CONTINUED ON PAGE 2.4 ANOIDANCE PROCEDURE: Plane correction must be made later. 2.5 PROGRAM CORRECTION: See attached sheet. CONTINUED ON PAGE 2.7 RECOVERY PROCEDURE: Plane correction must be made later. 2.8 PROGRAM CORRECTION: See attached sheet. CONTINUED ON PAGE 2.9 MIGHT STORMANDER: OVER TISSING. Inspection of a nominal abort sequence. CONTINUED ON PAGE 2.7 MIGHT STORMANDER: OVER TISSING. Inspection of a nominal abort sequence. CONTINUED ON PAGE 2.7 MIGHT STORMANDER: OVER TISSING. CONTINUED ON PAGE 2.7 MIGHT STORMANDER: OVER TISSING. CONTINUED ON PAGE CONTINUED ON PAG		4			•			
See attached sheet. -MIT ANALYSIS- ZI CAUSE: Overflow in computation (see attached sheet.) Z2 RECOGNITION: Failure of vehicle to make expected roll (about \overline{\overli	See attached sneet.		` •	*		3	•	
See attached sheet. -MIT ANALYSIS- ZI CAUSE: Overflow in computation (see attached sheet.) Z2 RECOGNITION: Failure of vehicle to make expected roll (about \overline{\overli			•					
See attached sheet. -MIT ANALYSIS- ZI CAUSE: Overflow in computation (see attached sheet.) Z2 RECOGNITION: Failure of vehicle to make expected roll (about \overline{\overli	•				2			
See attached sheet. -MIT ANALYSIS- 2.1 CAUSE: Overflow in computation (see attached sheet.) -AMIT ANALYSIS- CONTINUED ON PAGE 2.2 RECOGNITION: Failure of vehicle to make expected roll (about \overline{		•					CONTINUE	ON PAGE
See attached sheet. -MIT ANALYSIS- 2.1 CAUSE: Overflow in computation (see attached sheet.) -AMIT ANALYSIS- CONTINUED ON PAGE 2.2 RECOGNITION: Failure of vehicle to make expected roll (about \overline{	1.6 DESCRIPTION OF RUN:				•	:		•
CONTINUED ON PAGE -MIT ANALYSIS- Overflow in computation (see attached sheet.) Z2 RECOGNITION: Failure of vehicle to make expected roll (about Z8) toward CSM plane. CONTINUED ON PAGE Z3 MISSION EFFECE. For small Tgo (early aborts), out-of-plane position error will not be eliminated. Z4 AVOIDAME PROCEDURE: CONTINUED ON PAGE Z5 RECOVERY PROCEDURE: Plane correction must be made later. CONTINUED ON PAGE Z6 PROGRAM CORRECTIONE See attached sheet. Z7 RECOMMENDED DISPOSITION IF IN, VENT-PROUND, etc. Not serious enough to fix in 69, should be fixed for LUMINARY IA. CONTINUED ON PAGE Z6 RECOMMENDED RE-TISTING: Inspection of a nominal abort sequence. CONTINUED ON PAGE Z7 MIJENSTIGNATURE: W. Chara. Z10 PAGE. Z10 PAGE. Z11 MASA DIRECTIONE Z11 MASA DIRECTIONE Z12 MIJENSTIGNATURE: W. Chara. Z12 PAGENTATIONE Z13 MIJENSTIGNATURE: W. Chara. Z14 MIJENSTIGNATURE: W. Chara. Z15 PAGENTATIONE Z17 MIJENSTIGNATURE: W. Chara. Z17 MIJENSTIGNATURE: W. Chara. Z18 MIJENSTIGNATURE: W. Chara. Z10 PAGE. Z10 PAGE. Z10 PAGENTATIONE Z11 PAGENTATIONE Z11 PAGENTATIONE Z12 PAGENTATIONE Z11 PAGENTATIONE Z12 PAGENTATIONE Z13 PAGENTATIONE Z14 MIJENSTIGNATURE: W. Chara. Z17 PAGENTATIONE Z18 PAGENTATIONE Z18 PAGENTATIONE Z18 PAGENTATIONE Z19 PAGENTATIONE Z10 PAGENTATIONE Z10 PAGENTATIONE Z10 PAGENTATIONE Z10 PAGENTATIONE Z11 PAGENTATIONE Z11 PAGENTATIONE Z11 PAGENTATIONE Z12 PAGENTATIONE Z13 PAGENTATIONE Z14 PAGENTATIONE Z17 PAGENTATIONE Z18 PAGENTATIONE Z18 PAGENTATIONE Z19 PAGENTATIONE Z10 PAGENTATIONE Z11 PAGENTATIONE Z11 PAGENTATIONE Z11 PAGENTATIONE Z11 PAGENTATIONE Z11 PAGENTATIONE Z10 PAGENTATIONE Z10 PAGENTATIONE Z10 PAGENTATIONE Z10 PAGENTATIONE Z10 PAGENTATIONE Z11 PAGENTATIONE Z10 PAGENTATIONE Z11 PAGENTATIONE Z11 PAGENTA	•			F			. •	
-MIT ANALYSIS- Overflow in computation (see attached sheet.) 22 SECOGNITION: Failure of vehicle to make expected roll (about Z8) toward CSM plane. COMINUED ON PAGE 23 MISSION EFFECE. For small Tgo (early aborts), out-of-plane position error will not be eliminated. 24 AVOIDAME PROCEDURE: COMINUED ON PAGE 25 RECOVERY PROCEDURE: Plane correction must be made later. 26 PROCRAM CORRECTIONE See attached sheet. 27 RECOMMENDED DISPOSITION (Fix, WART-MOUND, etc.) Not serious enough to fix in 69, should be fixed for LUMINARY 1A. EN RECOMMENDED RE-TESTING: Inspection of a nominal abort sequence. CONTINUED ON PAGE 2.7 MITMISSION FIRE CONTINUED ON PAGE 2.8 MITMISSION FIRE CONTINUED ON PAGE 2.9 MITMISSION FIRE CONTINUED ON PAGE 2.9 MITMISSION FIRE CONTINUED ON PAGE 2.10 AND FIRE CONTINUED ON PAGE CONTINUED ON PAGE 1.10 AND ACTION TAKEN. CONTINUED ON PAGE CONTINUED ON PAGE CONTINUED ON PAGE CONTINUED ON PAGE 1.2 MASSAMASC SIGNATURE: 1.3 ORGANIZATION 14 DATE: CONTINUED ON PAGE 1.2 MASSAMASC SIGNATURE: 1.3 ORGANIZATION 14 DATE: 1.4 DATE: CONTINUED ON PAGE CONTINUED ON PA	See attached sheet.	•		#	,	256		•
-MIT ANALYSIS- Overflow in computation (see attached sheet.) 22 SECOGNITION: Failure of vehicle to make expected roll (about Z8) toward CSM plane. COMINUED ON PAGE 23 MISSION EFFECE. For small Tgo (early aborts), out-of-plane position error will not be eliminated. 24 AVOIDAME PROCEDURE: COMINUED ON PAGE 25 RECOVERY PROCEDURE: Plane correction must be made later. 26 PROCRAM CORRECTIONE See attached sheet. 27 RECOMMENDED DISPOSITION (Fix, WART-MOUND, etc.) Not serious enough to fix in 69, should be fixed for LUMINARY 1A. EN RECOMMENDED RE-TESTING: Inspection of a nominal abort sequence. CONTINUED ON PAGE 2.7 MITMISSION FIRE CONTINUED ON PAGE 2.8 MITMISSION FIRE CONTINUED ON PAGE 2.9 MITMISSION FIRE CONTINUED ON PAGE 2.9 MITMISSION FIRE CONTINUED ON PAGE 2.10 AND FIRE CONTINUED ON PAGE CONTINUED ON PAGE 1.10 AND ACTION TAKEN. CONTINUED ON PAGE CONTINUED ON PAGE CONTINUED ON PAGE CONTINUED ON PAGE 1.2 MASSAMASC SIGNATURE: 1.3 ORGANIZATION 14 DATE: CONTINUED ON PAGE 1.2 MASSAMASC SIGNATURE: 1.3 ORGANIZATION 14 DATE: 1.4 DATE: CONTINUED ON PAGE CONTINUED ON PA	•	•						
Overflow in computation (see attached sheet.) 22 RECOGNITION: Failure of vehicle to make expected roll (about Zg) toward CSM plane. CONTINUED ON PAGE 23 MISSION EFFECT: For small Tgo (early aborts), out-of-plane position error will not be eliminated. 24 AVOIDANCE PROCEDURE: CONTINUED ON PAGE 25 RECOVERY PROCEDURE: Plane correction must be made later. CONTINUED ON PAGE 26 PROGRAM CORRECTION: See attached sheet. CONTINUED ON PAGE 27 RECOMMENDED DISPOSITION (Fix, Wark-around, etck) Not serious enough to fix in 69, should be fixed for LUMINARY 1A. CONTINUED ON PAGE 28 RECOMMENDED RE-RESING: Inspection of a nominal abort sequence. CONTINUED ON PAGE 2.10 DARE; 2.10 DARE; 2.11 MASA DIRECTION: 4.1 CLOSING ACTION LAKEN. CONTINUED ON PAGE AT CLOSENG ACTION TAKEN.	•					,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	CONTINUE	ON PAGE
Overflow in computation (see attached sheet.) 2.7 RECOGNITION: Failure of vehicle to make expected roll (about Zg) toward CSM plane. CONTINUED ON PAGE 2.3 MISSION EFFECT: For small Tgo (early aborts), out-of-plane position error will not be eliminated. 2.4 AVOIDANCE PROCEDURE: CONTINUED ON PAGE 2.5 RECOVERY PROCEDURE: Plane correction must be made later. 2.6 PROGRAM CORRECTION: See attached sheet. CONTINUED ON PAGE 2.7 RECOMMENDED DISPOSITION IFIE, WARK-Around, etc. Not serious enough to fix in 69, should be fixed for LUMINARY 1A. CONTINUED ON PAGE 1.8 RECOMMENDED RE-TESTING: Inspection of a nominal abort sequence. CONTINUED ON PAGE 2.9 MILTURATION: W		- N	IT ANAL	YSIS -	•			
Overflow in computation (see attached sheet.) 2.7 RECOGNITION: Failure of vehicle to make expected roll (about Zg) toward CSM plane. CONTINUED ON PAGE 2.3 MISSION EFFECT: For small Tgo (early aborts), out-of-plane position error will not be eliminated. 2.4 AVOIDANCE PROCEDURE: CONTINUED ON PAGE 2.5 RECOVERY PROCEDURE: Plane correction must be made later. 2.6 PROGRAM CORRECTION: See attached sheet. CONTINUED ON PAGE 2.7 RECOMMENDED DISPOSITION IFIE, WARK-Around, etc. Not serious enough to fix in 69, should be fixed for LUMINARY 1A. CONTINUED ON PAGE 1.8 RECOMMENDED RE-TESTING: Inspection of a nominal abort sequence. CONTINUED ON PAGE 2.9 MILTURATION: W	2.1 CAUSE:	:				·:		
22 RECOGNITION: Failure of vehicle to make expected roll (about Zg) toward CSM plane. CONTINUED ON PAGE 23 MISSION EFFECT: For small Tgo (early aborts), out-of-plane position error will not be eliminated. CONTINUED ON PAGE 24 AVOIDANCE PROCEDURE: Plane correction must be made later. CONTINUED ON PAGE 25 RECOMMENDED DISPOSITION (Fix, Work-wound, etc.) Not serious enough to fix in 69, should be fixed for LUMINARY 1A. CONTINUED ON PAGE 13 RECOMMENDED RE-ESTING: Inspection of a nominal abort sequence. CONTINUED ON PAGE 2.9 MILITY SIGNATURE: CONTINUED ON PAGE 2.10 DATE: 2.1 CLOSING ACTION TAKEN. CONTINUED ON PAGE 1.1 MASA DIRECTION. CONTINUED ON PAGE CONTINUED ON PAGE 1.2 MASAMASC SIGNATURE: CONTINUED ON PAGE AL CLOSING ACTION TAKEN. CONTINUED ON PAGE CONTINUED ON PAGE AL CLOSING ACTION TAKEN.	pastroid ?	on (see attache	d sheet	.)				•
Failure of vehicle to make expected roll (about 28) toward CSM plane. CONTINUED ON PAGE 2.3 MISSION EFFECT: For small Tgo (early aborts), out-of-plane position error will not be eliminated. 2.4 AVOIDAMET PROCEDURE: CONTINUED ON PAGE 2.5 RECOVERY PROCEDURE: Plane correction must be made later. CONTINUED ON PAGE 2.6 PROGRAM CORRECTION: See attached sheet. CONTINUED ON PAGE 2.7 RECOMMENDED DISPOSITION (Fix, Wark-around, etc.) Not serious enough to fix in 69, should be fixed for LUMINARY 1A. CONTINUED ON PAGE 2.8 RECOMMENDED RE-TESTING: Inspection of a nominal abort sequence. CONTINUED ON PAGE 2.9 MISTRIPSIONATURE: W. CONTINUED ON PAGE 2.10 DATE:	OAGLIOM III combaration	Jii (BOO artisa	•				CONTINUE	ON PAGE
Failure of vehicle to make expected roll (about 28) toward CSM plane. CONTINUED ON PAGE 2.3 MISSION EFFECT: For small Tgo (early aborts), out-of-plane position error will not be eliminated. 2.4 AVOIDAMET PROCEDURE: CONTINUED ON PAGE 2.5 RECOVERY PROCEDURE: Plane correction must be made later. CONTINUED ON PAGE 2.6 PROGRAM CORRECTION: See attached sheet. CONTINUED ON PAGE 2.7 RECOMMENDED DISPOSITION (Fix, Wark-around, etc.) Not serious enough to fix in 69, should be fixed for LUMINARY 1A. CONTINUED ON PAGE 2.8 RECOMMENDED RE-TESTING: Inspection of a nominal abort sequence. CONTINUED ON PAGE 2.9 MISTRIPSIONATURE: W. CONTINUED ON PAGE 2.10 DATE:	2.2 RECOGNITION:	•						
CONTINUED ON PAGE 2.3 MISSION EFFECT: FOR Small Tgo (early aborts), out-of-plane position error will not be eliminated. 2.4 AVOIDAMET PROCEDURE: 2.5 RECOVERY PROCEDURE: Plane correction must be made later. CONTINUED ON PAGE 2.6 PROGRAM CORRECTION See attached sheet. CONTINUED ON PAGE 2.7 RECOMMENDED DISPOSITION (Fix. Work-around, etc): Not serious enough to fix in 69, should be fixed for LUMINARY 1A. CONTINUED ON PAGE 2.8 RECOMMENDED RE-TISTING: Inspection of a nominal abort sequence. CONTINUED ON PAGE 2.9 MIJITLY SIGNATURE: W. Comp. 2.10 PATE: 2.7 MASAWASC SIGNATURE: 3.1 ORGANIZATION: 3.1 CONTINUED ON PAGE 1.2 MASAWASC SIGNATURE: 3.3 ORGANIZATION: 3.4 DARE: 3.4 DARE: 3.5 CONTINUED ON PAGE 1.2 MASAWASC SIGNATURE: 3.3 ORGANIZATION: 3.4 DARE: 3.4 DARE: 3.5 CONTINUED ON PAGE 1.2 MASAWASC SIGNATURE: 3.3 ORGANIZATION: 3.4 DARE: 3.3 ORGANIZATION: 3.4 DARE: 3.4 DARE: 3.5 CONTINUED ON PAGE 3.5 CONTINUED ON PAGE 3.6 DARE: 3.7 CONTINUED ON PAGE 3.8 DARE: 3.8 DARE: 3.8 DARE: 3.8 DARE: 3.9 DARE: 3.1 DARE: 3.1 DARE: 3.1 DARE: 3.1 DARE: 3.2 DARE: 3.3 DARE: 3.3 DARE: 3.4 DARE: 3.4 DARE: 3.4 DARE: 3.5 DARE: 3.5 DARE: 3.5 DARE: 3.6 DARE: 3.7 DARE: 3.7 DARE: 3.8 DARE: 3.8 DARE: 3. DARE: 3.8 DARE: 3.0 DARE: 3.1 DARE: 3. DARE: 3.1 DARE: 3. DARE:	Failure of vehicle to m	nake expected :	roll (ab	out Zg)	toward	d CSM p	lane.	
For small Tgo (early aborts), out-of-plane position error will not be eliminated. 2.4 AVOIDAME PROCEDURE: CONTINUED ON PAGE 2.5 RECOVERY PROCEDURE: Plane correction must be made later. CONTINUED ON PAGE 2.6 PROGRAM CORRECTION: See attached sheet. CONTINUED ON PAGE 2.7 RECOMMENDED DISPOSITION (Fix, Work-ground, etc.) Not serious enough to fix in 69, should be fixed for LUMINARY 1A. CONTINUED ON PAGE 2.8 RECOMMENDED RE-TISTING: Inspection of a nominal abort sequence. CONTINUED ON PAGE 2.9 MINISTISSIONATURE: W. Continued on PAGE 2.9 MINISTISSIONATURE: W. Continued on PAGE 2.1 CLOSING ACTION TAKEN: CONTINUED ON PAGE CONTINUED ON PAGE CONTINUED ON PAGE 2.1 CLOSING ACTION TAKEN: CONTINUED ON PAGE CONTINUED ON PAGE 2.2 MASAWINSC SIGNATURE: 2.3 ORGANIZATION: 4.4 DARE:		-						D ON PAGE
For small Tgo (early aborts), out-of-plane position error will not be eliminated. 2.4 AVOIDAME PROCEDURE: CONTINUED ON PAGE 2.5 RECOVERY PROCEDURE: Plane correction must be made later. CONTINUED ON PAGE 2.6 PROGRAM CORRECTION: See attached sheet. CONTINUED ON PAGE 2.7 RECOMMENDED DISPOSITION (Fix, Work-ground, etc.) Not serious enough to fix in 69, should be fixed for LUMINARY 1A. CONTINUED ON PAGE 2.8 RECOMMENDED RE-TISTING: Inspection of a nominal abort sequence. CONTINUED ON PAGE 2.9 MINISTISSIONATURE: W. Continued on PAGE 2.9 MINISTISSIONATURE: W. Continued on PAGE 2.1 CLOSING ACTION TAKEN: CONTINUED ON PAGE CONTINUED ON PAGE CONTINUED ON PAGE 2.1 CLOSING ACTION TAKEN: CONTINUED ON PAGE CONTINUED ON PAGE 2.2 MASAWINSC SIGNATURE: 2.3 ORGANIZATION: 4.4 DARE:	2 3 MISSION EFFECT:	•• .	8.8			ł		
De eliminated. 2.4 AVOIDANCE PROCEDURE: Plane correction must be made later. CONTINUED ON PAGE 2.5 RECOVERY PROCEDURE: Plane correction must be made later. CONTINUED ON PAGE 2.6 PROGRAM CORRECTION: See attached sheet. CONTINUED ON PAGE 2.7 RECOMMENDED DISPOSITION (Fix, Work-around, etc.) Not serious enough to fix in 69, should be fixed for LUMINARY 1A. CONTINUED ON PAGE 2.8 RECOMMENDED RE-TESTING: Inspection of a nominal abort sequence. CONTINUED ON PAGE 2.9 MITTING SIGNATURE: W. Continued on PAGE 2.10 DATE: 2.2 MASA DIRECTION: CONTINUED ON PAGE CONTINUED ON PAGE CONTINUED ON PAGE 1.2 MASA AMASC SIGNATURE: 1.3 ORGANIZATION 14 DATE: 4.3 ORGANIZATION 4.4 DATE:		hantal out-of	-nlane	nosition	error	will no	t	
CONTINUED ON PAGE 2.5 RECOVERY PROCEDURE: Plane correction must be made later. 2.6 PROGRAM CORRECTION: See attached sheet. 2.7 RECOMMENDED DISPOSITION (Fix, Work-around, etc.) Not serious enough to fix in 69, should be fixed for LUMINARY 1A. CONTINUED ON PAGE 2.8 RECOMMENDED OF A nominal abort sequence. CONTINUED ON PAGE 2.9 MITTINSTIGNATURE: CV. Charm, 2.10 DATE: 2.9 MITTINSTIGNATURE: CV. Charm, 2.10 DATE: 2.10 DATE: 2.11 NASA DIRECTION: CONTINUED ON PAGE CONTINUED ON PAGE CONTINUED ON PAGE 1.2 NASAWASC SIGNATURE: 3.3 ORGANIZATION 13.4 DATE: 4.2 SIGNATURE: 4.3 ORGANIZATION 4.4 DATE:	For small 1 go (early a	aboris), out-or	plane	Position	CIIOI	, , , , , , , , , , , , , , , , , , ,	CONTINUE	D ON PAGE
CONTINUED ON PAGE 2.5 RECOVERY PROCEDURE: Plane correction must be made later. CONTINUED ON PAGE 2.6 PROGRAM CORRECTION: See attached sheet. CONTINUED ON PAGE 2.7 RECOMMENDED DISPOSITION (Fix, Work-around, etc): Not serious enough to fix in 69, should be fixed for LUMINARY 1A. CONTINUED ON PAGE 2.8 RECOMMENDED RE-RISTING: Inspection of a nominal abort sequence. CONTINUED ON PAGE 2.9 MINISTERNATURE: W. Continued on PAGE 2.10 DATE: 2.10 DATE: 2.2 LICOSING ACTION TAKEN: CONTINUED ON PAGE CONTINUED ON PAGE 1.2 MASAMASC SIGNATURE: 1.3 ONGANIZATION: 1.4 DATE: 1.4 DATE: 1.5 MASAMASC SIGNATURE: 1.5 NASAMASC SIGNATURE: 1.6 ONGANIZATION: 1.4 DATE: 1.7 DATE: 1.8 ONGANIZATION: 1.4 DATE: 1.9 ONGANIZATION: 1.4 DATE: 1.1 DATE: 1.2 NASAMASC SIGNATURE: 1.3 ONGANIZATION: 1.4 DATE: 1.4 DATE: 1.5 DATE: 1.6 DATE: 1.7 DATE: 1.8 DATE: 1.9 ONGANIZATION: 1.4 DATE: 1.1 DATE: 1.2 NASAMASC SIGNATURE: 1.3 ONGANIZATION: 1.4 DATE: 1.4 DATE: 1.5 DATE: 1.5 DATE: 1.6 DATE: 1.7 DATE: 1.8 DATE: 1.9 DATE: 1.9 DATE: 1.1 DATE: 1.1 DATE: 1.2 DATE: 1.3 ONGANIZATION: 1.4 DATE: 1.4 DATE: 1.5 DATE: 1.5 DATE: 1.6 DATE: 1.7 DATE: 1.8 DATE: 1.9 DATE: 1.1 DATE: 1.1 DATE: 1.2 DATE: 1.3 DATE: 1.4 DATE: 1.5 DATE: 1.5 DATE: 1.6 DATE: 1.7 DATE: 1.8 DATE: 1.8 DATE: 1.9 DATE: 1.1 DATE: 1.1 DATE: 1.2 DATE: 1.3 DATE: 1.4 DATE: 1.5 DATE: 1.5 DATE: 1.6 DATE: 1.7 DATE: 1.8 DATE: 1.8 DATE: 1.9 DATE: 1.9 DATE: 1.1 DATE: 1.1 DATE: 1.2 DATE: 1.3 DATE: 1.4 DATE: 1.5 DATE: 1.5 DATE: 1.6 DATE: 1.7 DATE: 1.8 DATE: 1.8 DATE: 1.9 DATE: 1.9 DATE: 1.1 DATE: 1.1 DATE: 1.2 DATE: 1.3 DATE: 1.4 DATE: 1.5 DATE: 1.5 DATE: 1.6 DATE: 1.7 DATE: 1.8 DATE: 1.8 DATE: 1.9 DATE: 1.9 DATE: 1.0 DATE: 1.1 DATE: 1.1 DATE: 1.2 DATE: 1.3 DATE: 1.4 DATE: 1.5 DATE: 1.5 DATE: 1.6 DATE: 1.7 DATE: 1.7 DATE: 1.8 DATE: 1.8 DATE: 1.8 DATE: 1.9 DATE: 1.9 DATE: 1.9 DATE: 1.1 DATE: 1.1 DATE: 1.1 DATE: 1.2 DATE: 1.2 DATE: 1.3 DATE: 1.4 DATE: 1.5 DATE: 1.5 DATE: 1.7 DATE: 1.7 DAT	DE ETIMITATEM.				··			
Plane correction must be made later. 2.6 PROGRAM CORRECTION: See attached sheet. 2.7 RECOMMENDED DISPOSITION (Fix. Work-wound, etc). Not serious enough to fix in 69, should be fixed for LUMINARY 1A. CONTINUED ON PAGE 2.8 RECOMMENDED RE-TESTING: Inspection of a nominal abort sequence. CONTINUED ON PAGE 2.9 MILTUS SIGNATURE: W. Continued on PAGE 2.10 DATE: 3.2 2/16 2.11 NASA DIRECTION: CONTINUED ON PAGE 2.2 MASAWASC SIGNATURE: 3.3 ORGANIZATION 3.4 DATE: 4.2 SIGNATURE: 4.3 ORGANIZATION: 4.4 DATE:		· •		(4)		•		
Plane correction must be made later. 2.6 PROGRAM CORRECTION: See attached sheet. 2.7 RECOMMENDED DISPOSITION (Fix. Work-wound, etc). Not serious enough to fix in 69, should be fixed for LUMINARY 1A. CONTINUED ON PAGE 2.8 RECOMMENDED RE-TESTING: Inspection of a nominal abort sequence. CONTINUED ON PAGE 2.9 MILTUS SIGNATURE: W. Continued on PAGE 2.10 DATE: 3.2 2/16 2.11 NASA DIRECTION: CONTINUED ON PAGE 2.2 MASAWASC SIGNATURE: 3.3 ORGANIZATION 3.4 DATE: 4.2 SIGNATURE: 4.3 ORGANIZATION: 4.4 DATE:							CONTINUE	ON PAGE
Plane correction must be made later. 26 PROGRAM CORRECTION: See attached sheet. 27 RECOMMENDED DISPOSITION (Fix, Work-around, etch: Not serious enough to fix in 69, should be fixed for LUMINARY 1A. CONTINUED ON PAGE 28 RECOMMENDED RE-TESTING: Inspection of a nominal abort sequence. CONTINUED ON PAGE 2.9 MINING SIGNATURE: QV. Charry, 2.10 DARE: 2.10 DARE: 2.11 CLOSING ACTION TAKEN: CONTINUED ON PAGE CONTINUED ON PAGE 1.2 MASAMMSC SIGNATURE: 4.3 ONGANIZATION 4.4 DATE: 4.2 SIGNATURE: 4.3 ONGANIZATION 4.4 DATE: 4.3 ONGANIZATION 4.4 DATE:	2.5 RECOVERY PROCEDURE:							
CONTINUED ON PAGE 2.6 PROGRAM CORRECTION: See attached sheet. CONTINUED ON PAGE 2.7 RECOMMENDED DISPOSITION (Fix, Work-around, etc): Not serious enough to fix in 69, should be fixed for LUMINARY 1A. CONTINUED ON PAGE 2.8 RECOMMENDED RE-TESTING: Inspection of a nominal abort sequence. CONTINUED ON PAGE 2.9 MIJNIT SIGNATURE: W. Charry 3/2/1/6 3.1 NASA DIRECTION: CONTINUED ON PAGE 2.2 MASAMASC SIGNATURE: 4.3 ONGANIZATION 4.4 DATE: 4.2 SIGNATURE: 4.3 ONGANIZATION 4.4 DATE:	timate 1900 to 1900 to 1900	be made later	•			,	•	
See attached sheet. See attached sheet. Continued on page 2.7 RECOMMENDED DISPOSITION (Fix, Work-around, etc): Not serious enough to fix in 69, should be fixed for LUMINARY 1A. CONTINUED ON PAGE 2.9 MITHUS SIGNATURE: W. Continued on PAGE 3.1 NASA DIRECTION: CONTINUED ON PAGE A1 CLOSING ACTION TAKEN: CONTINUED ON PAGE CONTINUED ON PAGE A2 SIGNATURE: 43 ONGANIZATION: 44 DATE:	Flatic Collection in a			_		•	CONTINUE	ON PAGE
See attached sheet. 2.7 RECOMMENDED DISPOSITION (Fix. Work-around, etc): Not serious enough to fix in 69, should be fixed for LUMINARY 1A. CONTINUED ON PAGE 2.8 RECOMMENDED RE-TESTING: Inspection of a nominal abort sequence. CONTINUED ON PAGE 2.9 MITTILS IGNATURE: W. Charry, 3/2//6 2.10 DATE: 2/2//6 2.10 DATE: 3/2//6 2.10 DATE	2.6 PROGRAM CORRECTION:	<u> </u>				,	CONTINUE	011 17.02
CONTINUED ON PAGE 2.7 RECOMMENDED DISPOSITION (Fix, Work-around, etch Not serious enough to fix in 69, should be fixed for LUMINARY 1A. CONTINUED ON PAGE 2.9 MILYAY SIGNATURE: W. Continued on Page 2.9 MILYAY SIGNATURE: W. Continued on Page 3.1 NASA DIRECTION: CONTINUED ON PAGE CONTINUED ON				•		•		
2.1 RECOMMENDED DISPOSITION (Fix, Work-around, etc): Not serious enough to fix in 69, should be fixed for LUMINARY 1A. CONTINUED ON PAGE 2.8 RECOMMENDED RE-TESTING: Inspection of a nominal abort sequence. CONTINUED ON PAGE 2.9 MITTHY SIGNATURE: W. Charry, 3/2//6 3.1 NASA DIRECTION: CONTINUED ON PAGE CONTINUED ON PAGE CONTINUED ON PAGE 1.2 MASAMASC SIGNATURE: 3.3 ORGANIZATION 3.4 DAIE: 4.2 SIGNATURE: 4.3 ONGANIZATION 4.4 DAIE:	See attached sheet.	••						
Not serious enough to fix in 69, should be fixed for LUMINARY 1A. CONTINUED ON PAGE 2.8 RECOMMENDED RE-TESTING: Inspection of a nominal abort sequence. CONTINUED ON PAGE 2.9 MITHUS IGNATURE: W. Continued Continued On Page 3.1 NASA DIRECTION: CONTINUED ON PAGE CONTINUED ON PAGE CONTINUED ON PAGE 1.2 MASAMASC SIGNATURE: 3.3 ORGANIZATION: 4.4 DARE: 4.2 SIGNATURE: 4.3 ONGANIZATION: 4.4 DARE:	a a accountance DISPOSITION A Six More	reasound etch					CONTINUE	ON PAGE
CONTINUED ON PAGE 2.8 RECOMMENDED RE-TESTING: Inspection of a nominal abort sequence. CONTINUED ON PAGE	•		. 7 . 1		T TYN (T)	NT A TO T.F. 1	Α.	•
Inspection of a nominal abort sequence. Continued on page 2.9 MITHUSIGNATURE: W. Charry, 3/2//6 3.1 NASA DIRECTION: CONTINUED ON PAGE CONTINUED ON PAGE CONTINUED ON PAGE 3.2 NASAMASC SIGNATURE: 3.3 ORGANIZATION 3.4 DAIE: 4.2 SIGNATURE: 4.3 ORGANIZATION: 4.4 DAIE:	Not serious enough to	11x in 69, shou	iid be ii	ixed for	TOMI	NARY	•	
Inspection of a nominal abort sequence. CONTINUED ON PAGE A 2 SIGNATURE: A 3 ONGANIZATION: 4 4 DATE:	A A DECOMMENSOR DE TESTINO		· · · · · · · · · · · · · · · · · · ·				CONTINUE	ON PAGE
SEQUENCE. CONTINUED ON PAGE CO		1 abort					The state of the s	
CONTINUED ON PAGE CONTINUED ON			2.9	MITHY SIGNATI	JRE: C11	11		2.10 DATE: /
CONTINUED ON PAGE S. 2. MASAMASC SIGNATURE: 3. 3. ORGANIZATION 3. 4. DATE: 4. 2. SIGNATURE: 4. 3. ORGANIZATION: 4. 4. DATE:		CONTINUED ON PA	GE .	Leon	e w.	Man	4,	3/21/61
3.2 MASAMSC SIGNATURE: 3.3 ORGANIZATION 3.4 DATE: 4.2 SIGNATURE: 4.3 ORGANIZATION: 4.4 DATE:	3.1 NASA DIRECTION:		4.1	CLOSING ACTI	ON TAKEN:	• /		
3.2 MASAMSC SIGNATURE: 3.3 ORGANIZATION 3.4 DATE: 4.2 SIGNATURE: 4.3 ORGANIZATION: 4.4 DATE:	*·							
3.2 MASAMSC SIGNATURE: 3.3 ORGANIZATION 3.4 DATE: 4.2 SIGNATURE: 4.3 ORGANIZATION: 4.4 DATE:			.					
3.2 MASAMSC SIGNATURE: 3.3 ORGANIZATION 3.4 DATE: 4.2 SIGNATURE: 4.3 ORGANIZATION: 4.4 DATE:						150		
3.2 MASAMSC SIGNATURE: 3.3 ORGANIZATION 3.4 DATE: 4.2 SIGNATURE: 4.3 ORGANIZATION: 4.4 DATE:						•	•	
3.2 MASAMSC SIGNATURE: 3.3 ORGANIZATION 3.4 DATE: 4.2 SIGNATURE: 4.3 ORGANIZATION: 4.4 DATE:	Į.						e	
3.2 MASAMSC SIGNATURE: 3.3 ORGANIZATION 3.4 DATE: 4.2 SIGNATURE: 4.3 ORGANIZATION: 4.4 DATE:	t		1					
3.2 MASAMSC SIGNATURE: 3.3 ORGANIZATION 3.4 DATE: 4.2 SIGNATURE: 4.3 ORGANIZATION: 4.4 DATE:	•	CONTINUED ON DA	ice.					AN A165
	3.2 MASAMASC SIGNATURE. 13.3 OR			STONATURE	···	14.3 0000	277 177 400 10 00	
Wic for Man 605		·		JIOHAIUKE:		3 086	ANICATION:	LA DAIC:
M.L. POID IAUA (NEW WIN BH)	MIC Form 1403 (Rev May 68)				·			

MIT/IL SOFTWARE ANOMALY REPORT

CRIGINATOR:

L. BERMAN

L. BERMAN

L. BERMAN

L. CONTROL NO.

L. DATE:

1.4 ORIGINATOR

CONTROL NO.

PROGRAM EVISION 69

Ver a

For early aborts, the rate parameters in ascent guidance tend to be large; in fact, both yaw and pitch rate parameters (y rate and p rate) overflow on a typical run (4-4-Bernikowich). For pitch the problem is not serious, since the overflow is caused by a DDV, which means that the result is POS or NEG MAX, which is about 1.5 times the maximum magnitude permitted for p rate anyway, so even if it didn't quite overflow, it would get cut back.

For yaw, however, the overflow is caused by a SL2, so where we should have 1.03, we get .03, i.e., we get small yaw rates, which is equivalent to giving up yaw position control (which is physically the result).

The solution is to replace

219	. DDA	DDV	SL2		DDV
220		TGO with	DDV		SETPD
221	SL2	STEPD .			TGO
222	•	04		•	04

Same operations in a different order. It is a lot easier than diving in to rescaling the whole mess.