

26 April 1965

To: [REDACTED]

From: [REDACTED]

Subject: J-04/1019 FLIGHT LIMITATIONS

1. Enclosure (1) provides the nominal programmer start times in seconds from the ascending node. Mission 1019 has nominally been programmed for deactivation on Rev. 087 and the programmer starts are biased for deactivation starting with Rev. 088. In case of deactivation on some Rev. other than 087, or no deactivation at all, you will be informed of the necessary steps which must be taken to compensate for this bias at the appropriate time during flight.
2. Enclosure (2) provides a list of the engineering and lens stow operations programmed on mission 1019. The engineering operations are as normally programmed and no explanation of them is necessary. There are, however, several important points to be noted concerning the lens stow operations.
 - a) Stowing the lens even though no deactivation occurs will create no instrument problems.
 - b) Deactivation can only be accomplished at [REDACTED] or [REDACTED] and, more specifically, only at [REDACTED] on Rev. 056, Rev. 071, Rev. 087, Rev. 103, or at [REDACTED] on Rev. 057, Rev. 073, Rev. 089, or Rev. 105.
 - c) It should be further pointed out that, if deactivation is planned at [REDACTED] on any of the above Revs, the night engineering operation at [REDACTED] on that Rev. must be skipped in order to assure that the lens is stowed.
 - d) Additionally, ramp changes may be necessary prior to the lens stow operation to assure that the lens is stowed.

Declassified and Released by the N R O

In Accordance with E. O. 12958

on NOV 26 1997

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3. Enclosure (3) shows the programs which are safe to be in at time of separation.
4. There are no additional flight limitations on Mission 1019.



Enclosures

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SUB CYCLE	- DELAY STEP -										
	1	2	3	4	5	6	7	8	9	10	11
1	270	320	370	420	470	520	570	620	670	720	770
2	266	316	366	416	466	516	566	616	666	716	766
3	262	312	362	412	462	512	562	612	662	712	762
4	258	308	358	408	458	508	558	608	658	708	758
5	255	305	355	405	455	505	555	605	655	705	755
6	251	301	351	401	451	501	551	601	651	701	751
7	247	297	347	397	447	497	547	597	647	697	747
8	244	294	344	394	444	494	544	594	644	694	744
9	240	290	340	390	440	490	540	590	640	690	740
10	236	286	336	386	436	486	536	586	636	686	736
11	233	283	333	383	433	483	533	583	633	683	733
12	229	279	329	379	429	479	529	579	629	679	729
13	225	275	325	375	425	475	525	575	625	675	725
14	222	272	322	372	422	472	522	572	622	672	722
15	218	268	318	368	418	468	518	568	618	668	718
16	214	264	314	364	414	464	514	564	614	664	714
18	207	257	307	357	407	457	507	557	607	657	707
19	203	253	303	353	403	453	503	553	603	653	703
20	200	250	300	350	400	450	500	550	600	650	700
21	196	246	296	346	396	446	496	546	596	646	696
22	192	242	292	342	392	442	492	542	592	642	692
23	189	239	289	339	389	439	489	539	589	639	689
24	185	235	285	335	385	435	485	535	585	635	685
25	181	231	281	331	381	431	481	531	581	631	681
26	178	228	278	328	378	428	478	528	578	628	678
27	174	224	274	324	374	424	474	524	574	624	674
28	170	220	270	320	370	420	470	520	570	620	670
29	167	217	267	317	367	417	467	517	567	617	667
30	163	213	263	313	363	413	463	513	563	613	663
31	159	209	259	309	359	409	459	509	559	609	659
32	156	206	256	306	356	406	456	506	556	606	656
34	148	198	248	298	348	398	448	498	548	598	648
35	145	195	245	295	345	395	445	495	545	595	645
36	141	191	241	291	341	391	441	491	541	591	641
37	137	187	237	287	337	387	437	487	537	587	637
38	134	184	234	284	334	384	434	484	534	584	634
39	130	180	230	280	330	380	430	480	530	580	630
40	126	176	226	276	326	376	426	476	526	576	626
41	123	173	223	273	323	373	423	473	523	573	623
42	119	169	219	269	319	369	419	469	519	569	619
43	115	165	215	265	315	365	415	465	515	565	615
44	112	162	212	262	312	362	412	462	512	562	612
45	108	158	208	258	308	358	408	458	508	558	608
46	104	154	204	254	304	354	404	454	504	554	604
47	101	151	201	251	301	351	401	451	501	551	601
49	93	143	193	243	293	343	393	443	493	543	593
50	90	140	190	240	290	340	390	440	490	540	590
51	86	136	186	236	286	336	386	436	486	536	586
52	82	132	182	232	282	332	382	432	482	532	582
53	78	128	178	228	278	328	378	428	478	528	578

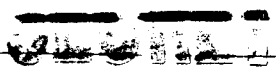
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PROGRAMMER START TIMES

SUB CYCLE	-DELAY STEP-										
	1	2	3	4	5	6	7	8	9	10	11
54	75	125	175	225	275	325	375	425	475	525	575
55	71	121	171	221	271	321	371	421	471	521	571
56	67	117	167	217	267	317	367	417	467	517	567
57	64	114	164	214	264	314	364	414	464	514	564
58	60	110	160	210	260	310	360	410	460	510	560
59	56	106	156	206	256	306	356	406	456	506	556
60	53	103	153	203	253	303	353	403	453	503	553
61	49	99	149	199	249	299	349	399	449	499	549
62	45	95	145	195	245	295	345	395	445	495	545
63	42	92	142	192	242	292	342	392	442	492	542
65	34	84	134	184	234	284	334	384	434	484	534
66	31	81	131	181	231	281	331	381	431	481	531
67	27	77	127	177	227	277	327	377	427	477	527
68	23	73	123	173	223	273	323	373	423	473	523
69	20	70	120	170	220	270	320	370	420	470	520
70	16	66	116	166	216	266	316	366	416	466	516
71	12	62	112	162	212	262	312	362	412	462	512
72	9	59	109	159	209	259	309	359	409	459	509
73	5	55	105	155	205	255	305	355	405	455	505
74	1	51	101	151	201	251	301	351	401	451	501
75	-1	48	98	148	198	248	298	348	398	448	498
76	-5	44	94	144	194	244	294	344	394	444	494
77	-9	40	90	140	190	240	290	340	390	440	490
78	-12	37	87	137	187	237	287	337	387	437	487
79	-16	33	83	133	183	233	283	333	383	433	483
81	-23	26	76	126	176	226	276	326	376	426	476
82	-27	22	72	122	172	222	272	322	372	422	472
83	-31	18	68	118	168	218	268	318	368	418	468
84	-34	15	65	115	165	215	265	315	365	415	465
85	-38	11	61	111	161	211	261	311	361	411	461
86	-42	7	57	107	157	207	257	307	357	407	457
87	-45	4	54	104	154	204	254	304	354	404	454
88	-439	-359	-279	-199	-119	-39	40	120	200	280	360
89	-443	-363	-283	-203	-123	-43	36	116	196	276	356
90	-447	-367	-287	-207	-127	-47	32	112	192	272	352
91	-450	-370	-290	-210	-130	-50	29	109	189	269	349
92	-454	-374	-294	-214	-134	-54	25	105	185	265	345
93	-458	-378	-298	-218	-138	-58	21	101	181	261	341
94	-462	-382	-302	-222	-142	-62	17	97	177	257	337
95	-466	-386	-306	-226	-146	-66	13	93	173	253	333
97	-473	-393	-313	-233	-153	-73	6	86	166	246	326
98	-477	-397	-317	-237	-157	-77	2	82	162	242	322
99	-481	-401	-321	-241	-161	-81	-1	78	158	238	318
100	-485	-405	-325	-245	-165	-85	-5	74	154	234	314
101	-489	-409	-329	-249	-169	-89	-9	71	151	231	311
102	-492	-412	-332	-252	-172	-92	-12	67	147	227	307
103	-496	-416	-336	-256	-176	-96	-16	63	143	223	303
104	-500	-420	-340	-260	-180	-100	-20	59	139	219	299
105	-504	-424	-344	-264	-184	-104	-24	55	135	215	295
106	-507	-427	-347	-267	-187	-107	-27	52	132	212	292

PROGRAMMER STAR. TIMES

SUB CYCLE	-DELAY STEP-										
	1	2	3	4	5	6	7	8	9	10	11
107	-511	-431	-351	-271	-191	-111	-31	48	128	208	288
108	-515	-435	-355	-275	-195	-115	-35	44	124	204	284
109	-519	-439	-359	-279	-199	-119	-39	40	120	200	280
110	-523	-443	-363	-283	-203	-123	-43	36	116	196	276
112	-530	-450	-370	-290	-210	-130	-50	29	109	189	269
113	-534	-454	-374	-294	-214	-134	-54	25	105	185	265
114	-538	-458	-378	-298	-218	-138	-58	21	101	181	261
115	-542	-462	-382	-302	-222	-142	-62	17	97	177	257
116	-545	-465	-385	-305	-225	-145	-65	14	94	174	254
117	-549	-469	-389	-309	-229	-149	-69	10	90	170	250
118	-553	-473	-393	-313	-233	-153	-73	6	86	166	246
119	-557	-477	-397	-317	-237	-157	-77	2	82	162	242
120	-561	-481	-401	-321	-241	-161	-81	-1	78	158	238
121	-564	-484	-404	-324	-244	-164	-84	-4	75	155	235
122	-568	-488	-408	-328	-248	-168	-88	-8	71	151	231
123	-572	-492	-412	-332	-252	-172	-92	-12	67	147	227
124	-576	-496	-416	-336	-256	-176	-96	-16	63	143	223
125	-580	-500	-420	-340	-260	-180	-100	-20	59	139	219
126	-583	-503	-423	-343	-263	-183	-103	-23	56	136	216
128	-591	-511	-431	-351	-271	-191	-111	-31	48	128	208
129	-595	-515	-435	-355	-275	-195	-115	-35	44	124	204
130	-599	-519	-439	-359	-279	-199	-119	-39	40	120	200
131	-602	-522	-442	-362	-282	-202	-122	-42	37	117	197
132	-606	-526	-446	-366	-286	-206	-126	-46	33	113	193
133	-610	-530	-450	-370	-290	-210	-130	-50	29	109	189
134	-614	-534	-454	-374	-294	-214	-134	-54	25	105	185
135	-618	-538	-458	-378	-298	-218	-138	-58	21	101	181
136	-621	-541	-461	-381	-301	-221	-141	-61	18	98	178
137	-625	-545	-465	-385	-305	-225	-145	-65	14	94	174
138	-629	-549	-469	-389	-309	-229	-149	-69	10	90	170
139	-633	-553	-473	-393	-313	-233	-153	-73	6	86	166
140	-637	-557	-477	-397	-317	-237	-157	-77	2	82	162
141	-640	-560	-480	-400	-320	-240	-160	-80	-0	79	159
142	-644	-564	-484	-404	-324	-244	-164	-84	-4	75	155
144	-652	-572	-492	-412	-332	-252	-172	-92	-12	67	147
145	-656	-576	-496	-416	-336	-256	-176	-96	-16	63	143
146	-659	-579	-499	-419	-339	-259	-179	-99	-19	60	140
147	-663	-583	-503	-423	-343	-263	-183	-103	-23	56	136
148	-667	-587	-507	-427	-347	-267	-187	-107	-27	52	132
149	-671	-591	-511	-431	-351	-271	-191	-111	-31	48	128
150	-675	-595	-515	-435	-355	-275	-195	-115	-35	44	124
151	-678	-598	-518	-438	-358	-278	-198	-118	-38	41	121
152	-682	-602	-522	-442	-362	-282	-202	-122	-42	37	117
153	-686	-606	-526	-446	-366	-286	-206	-126	-46	33	113
154	-690	-610	-530	-450	-370	-290	-210	-130	-50	29	109
155	-694	-614	-534	-454	-374	-294	-214	-134	-54	25	105
156	-697	-617	-537	-457	-377	-297	-217	-137	-57	22	102
157	-701	-621	-541	-461	-381	-301	-221	-141	-61	18	98
158	-705	-625	-545	-465	-385	-305	-225	-145	-65	14	94
166	-735	-655	-575	-495	-415	-335	-255	-175	-95	-15	64



SUB CYCLE	PROGRAMMER START TIMES										
	1	2	3	4	5	6	7	8	9	10	11
173	-762	-682	-602	-522	-442	-362	-282	-202	-122	-42	37
182	-796	-716	-636	-556	-476	-396	-316	-236	-156	-76	3
189	-823	-743	-663	-583	-503	-423	-343	-263	-183	-103	-23
198	-857	-777	-697	-617	-537	-457	-377	-297	-217	-137	-57

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ENCLOSURE 1

J-04 / 1019 / 1614 ENGINEERING AND LENS STOW OPERATIONS

REV	PROGRAMS	PURPOSE
001	1-9	A MISSION CONFIDENCE CHECK
008	1-9	NORMAL NIGHT TIME ENGINEERING
016	1-2	CUSTOMER PROGRAMMED STATESIDE
016	3-9	DAYTIME STATESIDE ENGINEERING
024	1-9	NORMAL NIGHT TIME ENGINEERING
031	1-7	CUSTOMER PROGRAMMED STATESIDE
032	1-3	CUSTOMER PROGRAMMED STATESIDE
032	4-9	DAYTIME STATESIDE ENGINEERING
040	1-9	NORMAL NIGHT TIME ENGINEERING
047	1-5,7-8	CUSTOMER PROGRAMMED STATESIDE
048	1-9	DAYTIME STATESIDE ENGINEERING
055	1-9	LENS STOW FOR DEACTIVATE AT [REDACTED] ON REV 056
056	1-9	NORMAL NIGHT TIME ENGINEERING
056	1-9	LENS STOW FOR DEACTIVATE AT [REDACTED] ON REV 057
063	1-9	CUSTOMER PROGRAMMED STATESIDE
070	1-9	LENS STOW FOR DEACTIVATE AT [REDACTED] ON REV 071
071	1-9	NORMAL NIGHT TIME ENGINEERING
072	1-9	LENS STOW FOR DEACTIVATE AT [REDACTED] ON REV 073
079	1-2	CUSTOMER PROGRAMMED STATESIDE
079	3-9	DAYTIME STATESIDE ENGINEERING
086	1-9	LENS STOW FOR DEACTIVATE AT [REDACTED] ON REV 087
087	1-9	NORMAL NIGHT TIME ENGINEERING
088	1-9	LENS STOW FOR DEACTIVATE AT [REDACTED] ON REV 089
095	1-3	CUSTOMER PROGRAMMED STATESIDE
095	4-9	DAYTIME STATESIDE ENGINEERING
102	1-9	LENS STOW FOR DEACTIVATE AT [REDACTED] ON REV 103
103	1-9	NORMAL NIGHT TIME ENGINEERING
104	1-9	LENS STOW FOR DEACTIVATE AT [REDACTED] ON REV 105

J-04 / 1614 / 1019 SAFE SEPARATION PROGRAMS

	PROGRAM NUMBER								
	1	2	3	4	5	6	7	8	9
016	X	X	X	X	X	X	X	X	X
017	X	X	X	X	X	X	X	X	X
018	X	X	X	X	X	X		X	
032	X			X	X	X	X	X	X
033	X	X	X	X	X	X	X	X	X
034	X	X	X	X	X	X	X	X	
048	X	X	X	X	X	X	X	X	X
049	X	X	X	X	X	X	X	X	X
050		X	X	X		X		X	X
063	X	X	X	X	X	X	X	X	X
064	X	X	X	X	X	X	X	X	X
065	X	X	X	X		X	X	X	X
066		X							X
078	X	X	X	X	X	X	X	X	X
079	X	X	X	X	X	X	X	X	X
080	X	X	X	X	X	X	X	X	X
081	X	X	X	X		X	X		X
082				X				X	
094	X	X	X	X	X	X	X	X	X
095				X	X	X	X	X	X
096	X	X	X	X	X	X	X	X	X
097					X	X			X
098					X		X		
110	X	X	X	X	X	X	X	X	X
111	X	X	X	X	X	X	X	X	X
112			X	X	X		X		
113					X			X	X
114					X				X
126	X	X	X	X	X	X	X	X	X
127	X	X	X	X	X	X	X	X	X
128	X	X	X	X				X	
129								X	
130		X	X			X	X		X
142	X	X	X	X	X	X	X	X	X
143	X	X	X	X	X	X	X	X	X
144						X			
145		X							
146		X		X		X			
157	X	X	X	X	X	X	X	X	X

2
3
4
5
6
7
8
9
10
11
12

158				X	X	X	X	X	X
159	X	X	X	X	X	X	X	X	X
160	X	X	X	X	X	X	X	X	X
161	X	X	X	X	X	X	X	X	X
173	X	X	X	X	X	X	X	X	X
174	X	X	X	X	X	X	X	X	X
175	X	X	X	X	X	X	X	X	X
176	X	X	X	X	X	X	X	X	X
177	X	X	X	X	X	X	X	X	X
189	X	X	X	X	X	X	X	X	X
190	X	X	X	X	X	X	X	X	X
191	X	X	X	X	X	X	X	X	X
192	X	X	X	X	X	X	X	X	X
193	X	X	X	X	X	X	X	X	X

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