



Mission Planning and Analysis Division
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
MANNED SPACECRAFT CENTER
HOUSTON, TEXAS 77058

REPLY TO
ATTN OF: FM24 (72-247)

November 6, 1972

MEMORANDUM

TO: Distribution

FROM: FM2/Mission Integration Branch

SUBJECT: Nominal Apollo 17 Major Event Timelines for January 6, 1973, G.m.t. (T+24) and January 7, 1973, G.m.t. (T+48) Launches

The enclosed tables present major event timeline data for the nominal Apollo 17 missions launched on January 6, 1973, 01:21 G.m.t. (T+24) (January 5, 1973, 19:21 c.s.t.), and January 7, 1973, 01:28 G.m.t. (T+48) (January 6, 1973, 19:28 c.s.t.). The target lunar site is Taurus Littrow. Also shown is the revolution number for lunar events, the longitude for all events, and the ΔV and burn time for all major burns.

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APPROVED BY:

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2 Enclosures

FM24/DRLostak:jrh:10/31/72

Table I.
 Apollo 17 Major Event Timeline
 Mission Launched January 6, 1973, 01:21 G.m.t.; January 5, 1973, 19:21 c.s.t.
 (72.1° Launch Azimuth, 1st Opportunity)

<u>Event</u>	<u>Lunar rev</u>	<u>g.e.t. hr:min:sec</u>	<u>c.s.t. day/hr:min</u>	<u>Longitude, deg</u>	<u>ΔV, fps</u>	<u>Burn Time, sec</u>	<u>SEA, *** deg</u>
EOI		00:11:57.2	5/19:33	-52.1*			
TLI Ign. (approx.)		03:26:35.8	22:48	-20.3*	10428.0	334.5	
LOI Ign.		73:54:38.5	8/21:16	-171.9	2908.6	387.2	
180° Crossing	**	76:03:09.5	23:24	180.0			
DOI-1 Ign.	3	78:13:31.4	9/01:35	171.5	205.8	23.8	
Undock and Sep.	12	95:32:09.4	18:53	136.0	1.0	3.4	
Circ. Ign.	12	96:59:36.9	20:21	-142.0	70.1	4.1	
DOI-2 Ign.	12	97:04:40.9	20:26	-158.2	9.4	26.9	
CSM Pass Over LLS	13	98:01:43.1	21:23	30.7			
Lunar Landing (approx.)	13	98:05:50.0	21:27	30.7			10.2
LOPC Ign.	48	167:39:59.4	12/19:01	-56.5	336.7	18.9	
Lunar Lift-Off (approx.)	51	173:07:25.0	13/00:28	30.7			45.1
CSM Pass Over LLS	51	173:08:24.3	00:29	30.7			
CSM/IM Final Sep.	54	179:02:30.0	06:24	36.0	2.0	12.7	
TEI Ign.	76	221:47:31.3	15/01:09	177.7	3256.2	152.5	
Entry		282:07:00.7	17/13:28	176.2*			
Splashdown (approx.)		282:20:10.0	13:41	-170.0*			

*Geodetic longitude, all others are selenographic
 **180° longitude at end of first lunar rev.
 ***Sun elevation angle

Table II.
 Apollo 17 Major Event Timeline
 Mission Launched January 7, 1973, 01:28 G.m.t.; January 6, 1973, 19:28 c.s.t.
 (72.1° Launch Azimuth, 1st Opportunity)

<u>Event</u>	<u>Lunar rev</u>	<u>g.e.t. hr:min:sec</u>	<u>c.s.t. day/hr:min</u>	<u>Longitude, deg</u>	<u>ΔV, fps</u>	<u>Burn Time, sec</u>	<u>SEA,*** deg</u>
EOI		00:11:57.2	6/19:40	-52.1*			
TLI Ign. (approx.)		03:28:57.6	22:57	-12.7*	10437.4	334.8	
LOI Ign.		71:05:38.2	9/18:34	-167.8	2990.1	396.5	
180° Crossing	**	73:15:28.2	20:43	180.0			
DOI-1 Ign.	3	75:24:51.9	22:53	174.8	209.9	24.1	
Undock and Sep.	12	92:44:34.2	10/16:13	136.0	1.0	3.3	
Circ. Ign.	12	94:12:01.7	17:40	-142.0	70.1	4.0	
DOI-2 Ign.	12	94:17:06.0	17:45	-158.2	9.4	26.9	
CSM Pass Over LLS	13	95:14:08.0	18:42	30.7			
Lunar Landing (approx.)	13	95:18:20.0	18:46	30.7			20.3
LOPC Ign.	48	164:52:25.7	13/16:20	-56.5	336.7	18.6	
Lunar Lift-Off (approx.)	51	170:19:50.0	21:48	30.7			54.2
CSM Pass Over LLS	51	170:20:50.7	21:49	30.7			
CSM/IM Final Sep.	54	176:15:00.0	14/03:43	35.8	2.0	12.5	
TEI Ign.	75	218:57:35.1	15/22:26	-174.7	3092.5	143.5	
Entry		283:00:45.6	18/14:29	170.0*			
Splashdown (approx.)		283:14:00.0	14:42	-171.0*			

*Geodetic longitude, all others are selenographic

**180° longitude at end of first lunar rev.

***Sun elevation angle

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