

Table 3
Landing Accuracy
(Nautical Miles from Projected Landing Point)

<u>Flight</u>	<u>Coordinates</u>		<u>Accuracy (nm)</u>
	<u>Latitude</u>	<u>Longitude</u>	
G-III	22°26'N	70°51'W	60
G-IV	27°44'N	74°11'W	44
G-V	29°44'N	69°45'W	91
G-VI-A	23°35'N	67°50'W	7
G-VII	25°25'01"N	70°06'07"W	6.4
G-VIII	25°13'08"N	136°E	1.1
G-IX-A	27°52'N	75°00'04"W	0.38
G-X	26°44'07"N	71°57"W	3.4
G-XI	24°15'04"N	70°W	2.65
G-XII	24°35'N	69°57'W	2.6

Table 1
Mercury Manned Space Flights

<u>Flight</u>	<u>Crew</u>	<u>Launch</u>	<u>Duration</u>	<u>Maximum G</u>
MR-3	Shepard	5/ 5/61	0:15:28	11.0
MR-4	Grissom	7/21/61	0:15:37	11.1
MA-6	Glenn	2/20/62	4:55:23	7.7
MA-7	Carpenter	5/24/62	4:56:05	7.8
MA-8	Schirra	10/ 3/63	9:13:11	8.1
MA-9	Cooper	5/15/63	34:19:49	7.6

Table 2

Gemini Manned Space Flights

<u>Flight</u>	<u>Crew</u>	<u>Launch</u>	<u>Duration</u>	<u>Reentry Maximum G</u>
G-III	Grissom, Young	3/23/65	4:52:31	4.3
G-IV	McDivitt, White	6/ 3/65	97:56:12	7.7
G-V	Cooper, Conrad	8/21/65	190:55:14	6.4
G-VII	Borman, Lovell	12/ 4/65	330:35:01	4.8
G-VI-A	Schirra, Stafford	12/15/65	25:51:24	4.5
G-VIII	Armstrong, Scott	3/16/66	10:41:26	5.3
G-IX-A	Stafford, Cernan	6/ 3/66	72:20:50	5.5
G-X	Young, Collins	7/18/66	70:46:39	6.1
G-XI	Conrad, Gordon	9/12/66	71:17:08	6.2
G-XII	Lovell, Aldrin	11/11/66	94:34:31	6.4

Table 4

Apollo Manned Space Flights

<u>Flight</u>	<u>Crew</u>	<u>Launch</u>	<u>Duration</u>	<u>Reentry Maximum G</u>
Apollo 7	Schirra, Eisele, Cunningham	10/11/68	260:09:45	3.33
Apollo 8	Borman, Lovell, Anders	12/21/68	147:00:11	6.84
Apollo 9	McDivitt, Scott, Schweikart	3/ 3/69	241:00:54	3.35
Apollo 10	Stafford, Young, Cernan	5/18/69	192:03:23	6.78
Apollo 11	Armstrong, Aldrin, Collins	7/16/69	195:18:35	6.56
Apollo 12	Conrad, Bean, Gordon	11/14/69	244:36:25	6.57
Apollo 13	Lovell, Haise, Swigert	4/11/70	142:54:41	5.56
Apollo 14	Shepard, Roosa, Mitchell	1/31/71	216:02:00	6.76
Apollo 15	Scott, Worden, Irwin	7/26/71	295:07:34	6.23
Apollo 16	Young, Mattingly, Duke	4/16/72	290:32:16	7.19
Apollo 17	Cernan, Evans, Schmitt	12/ 6/72	301:52	N/A

Table 7

Seven-Day Bedrest. Number of Seconds At Peak g_z
For Each Subject Following 168 Hours Bedrest

$+G_z$ -Level	Subject								
	1	2	3	4	5	6	7	8	9
2.5	370	35	370	370	185	370	370	370	370
3.0	370	7	1	228	1	370	370	370	370
3.5	370			75		142	250	370	127
4.0	370			2		27	100	20	2.886 G_z^*
4.5	156					1	1	3.56 G_z^*	

* G -level on up-ramp at which subject reached visual endpoint and run was terminated.

Table 5

Baseline. Number of Seconds At Peak g_z
For Each Subject Prior To Any Bedrest

$+G_z$ -Level	Subject								
	1	2	3	4	5	6	7	8	9
2.5	370	370	370	370	370	370	370	370	370
3.0	370	370	370	370	250	370	370	370	370
3.5	370	3.3 G_z^*	370	370	3.4 G_z^*	370	320	370	370
4.0	370			3.7 G_z^*		285	12	370	370
4.5	370					68		370	110

* G -level on up-ramp at which subject reached visual endpoint and run was terminated.

Table 6

One-Day Bedrest. Number of Seconds At Peak g
For Each Subject Following 24 Hours Bedrest

+G _z -Level	Subject								
	1	2	3	4	5	6	7	8	9
2.5	370	370	370	370	370	370	370	370	370
3.0	370	189	370	370	12	370	370	370	370
3.5	370	1	3.25G _z *	1		215	370	370	370
4.0	370					48	165	370	85
4.5	370						7	75	13

* G-level on up-ramp at which subject reached
visual endpoint and run was terminated.

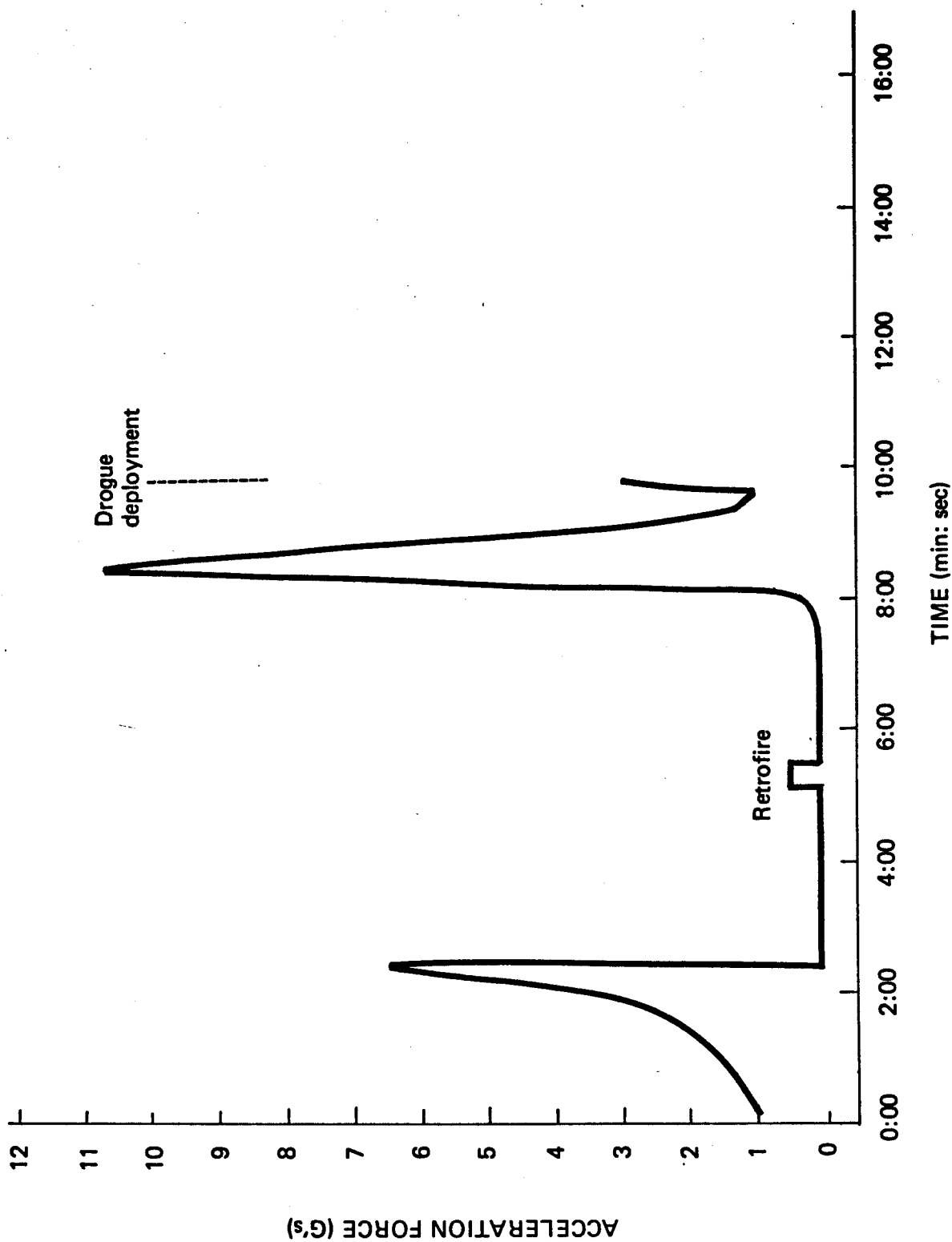


Figure 1 - Lift-Off and Reentry Profile--Mercury

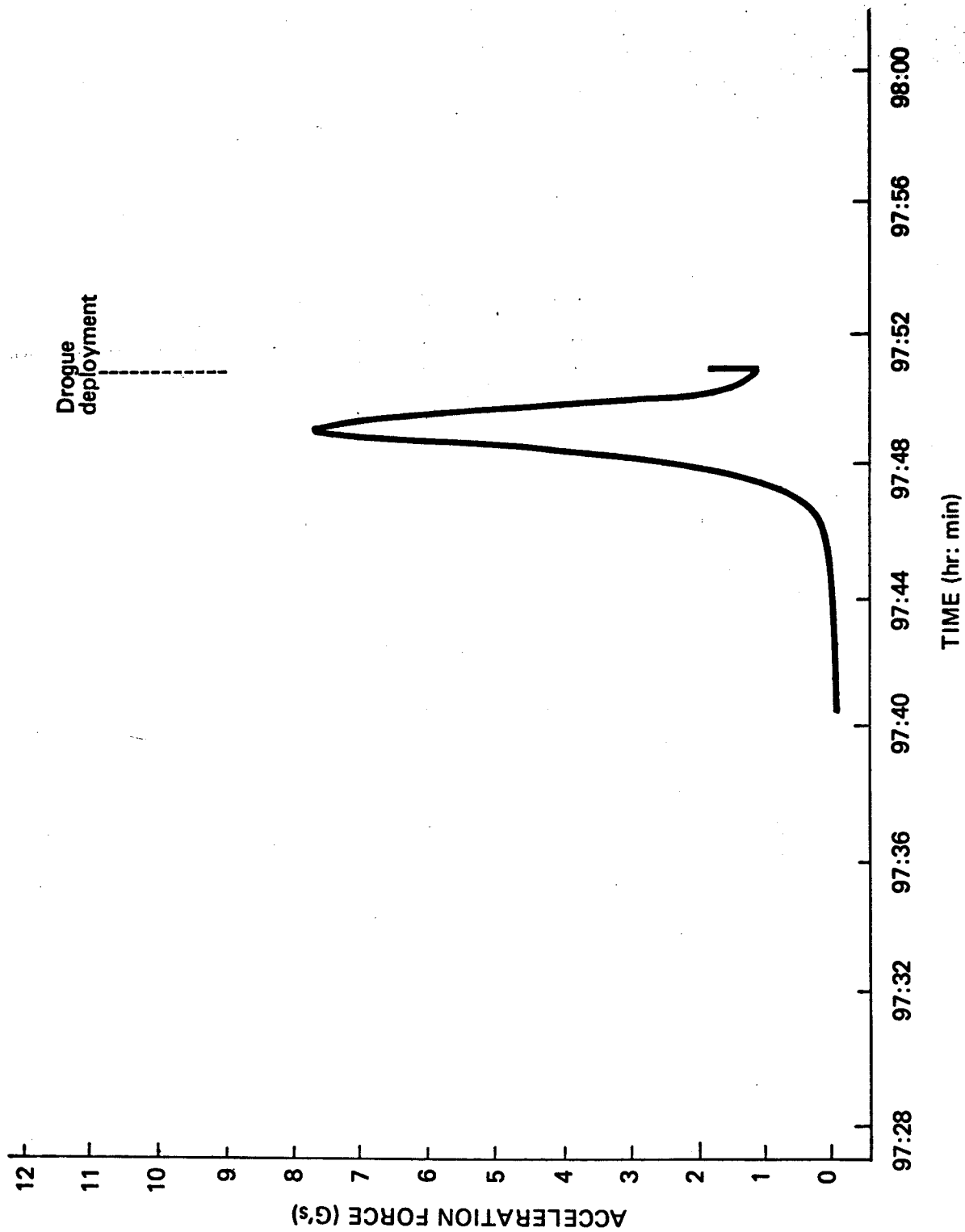


Figure 2 - Reentry Profile--Gemini IV

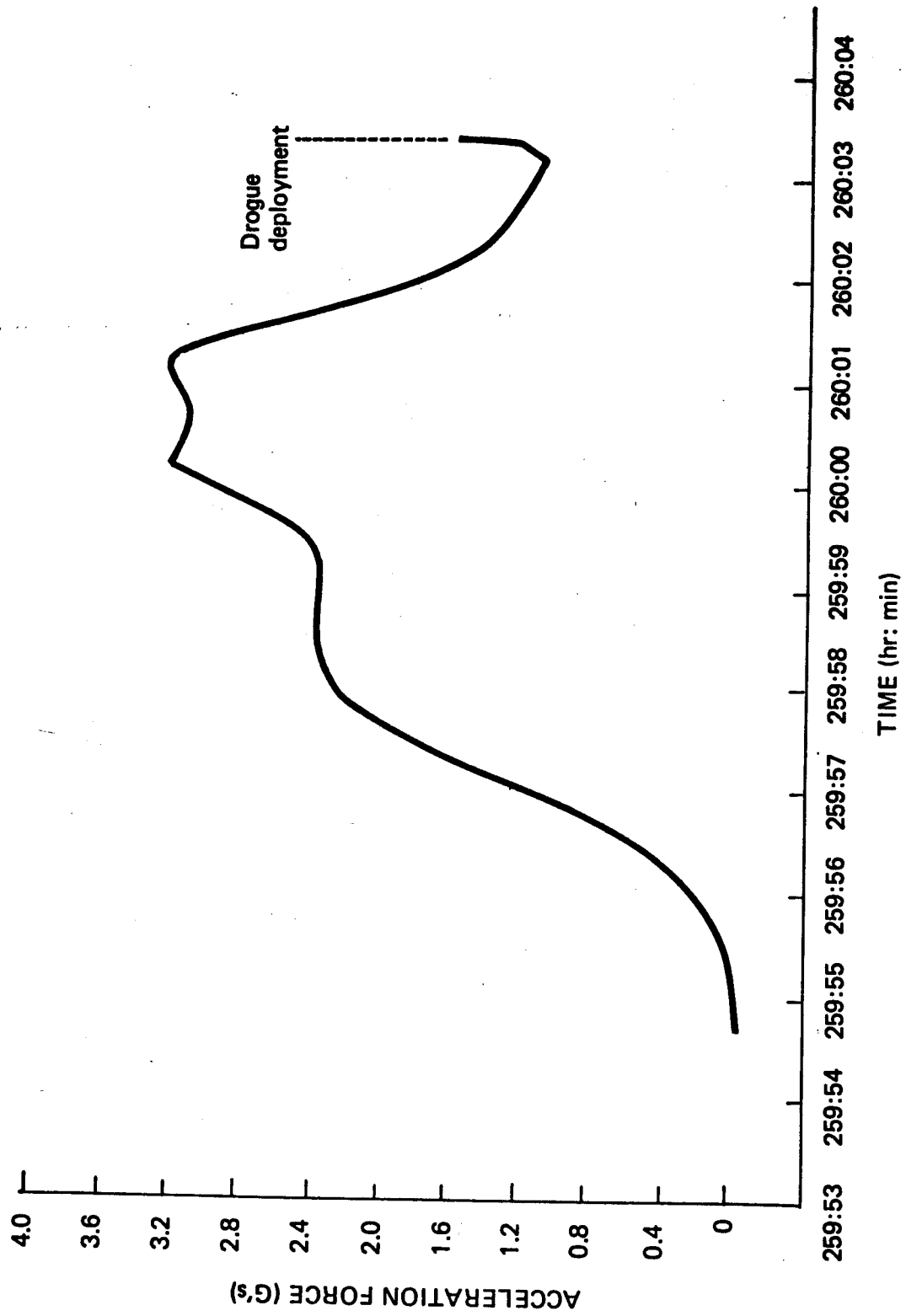


Figure 3 - Reentry Profile--Apollo 7 (Earth Orbital Mission)

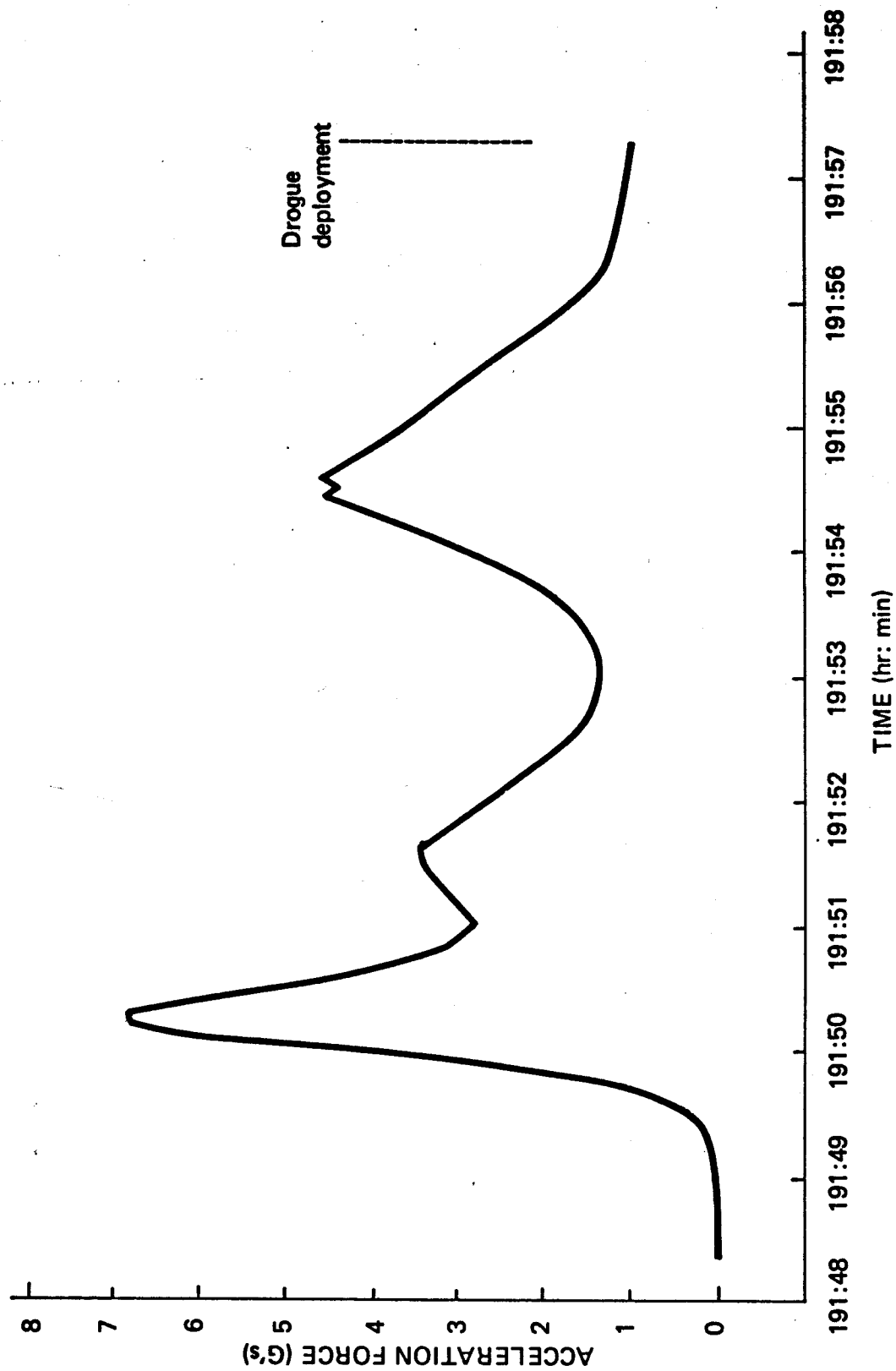
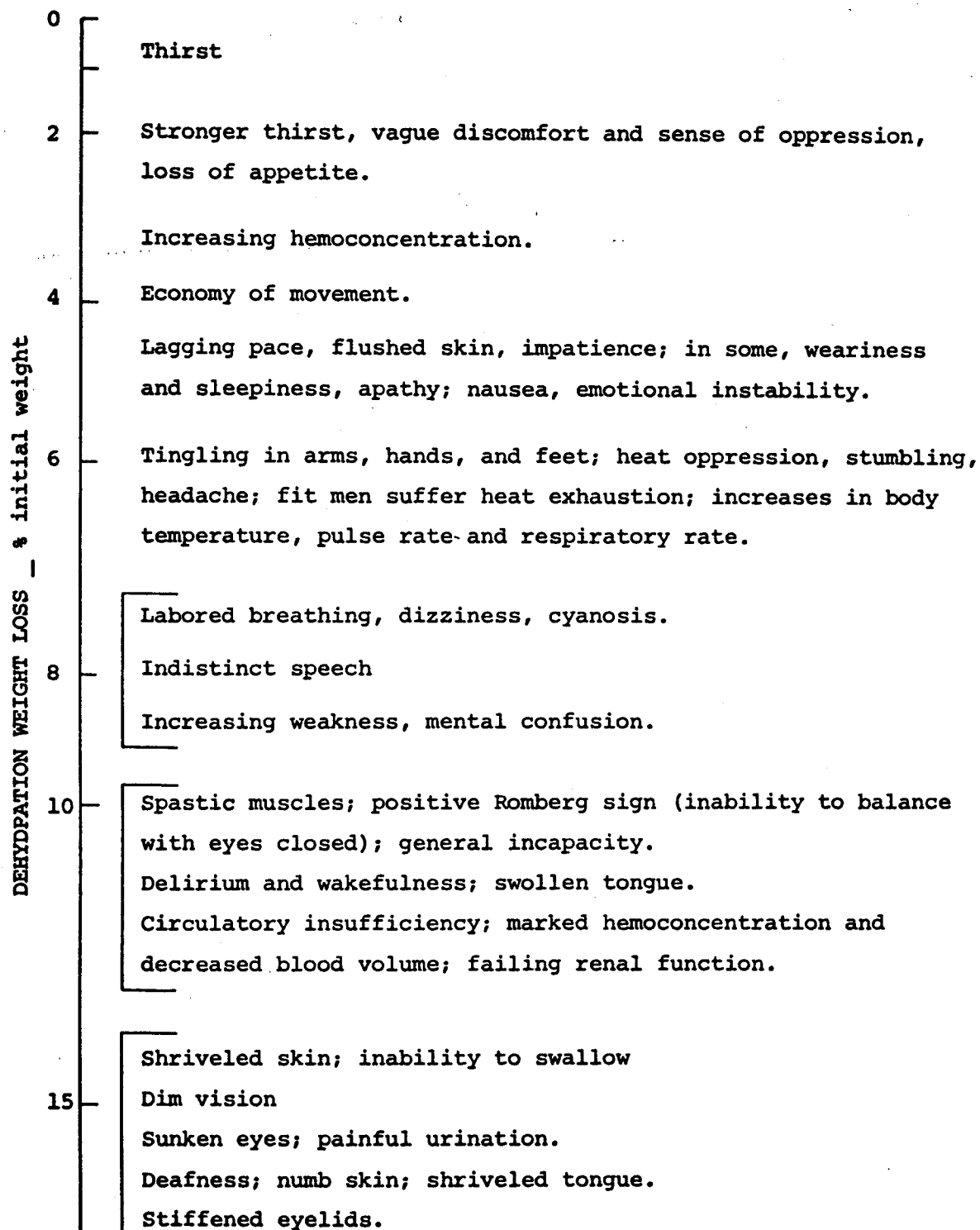


Figure 4 - Reentry Profile--Apollo 10 (Lunar Mission)

Estimated wind speed (in mph)	Actual thermometer reading (° F.)											
	50	40	30	20	10	0	-10	-20	-30	-40	-50	-60
	EQUIVALENT TEMPERATURE (° F.)											
calm	50	40	30	20	10	0	-10	-20	-30	-40	-50	-60
5	48	37	27	16	6	-5	-15	-26	-36	-47	-57	-68
10	40	28	16	4	-9	-21	-33	-46	-58	-70	-83	-95
15	36	22	9	-5	-18	-36	-45	-58	-72	-85	-99	-112
20	32	18	4	-10	-25	-39	-53	-67	-82	-96	-110	-124
25	30	16	0	-15	-29	-44	-59	-74	-88	-104	-118	-133
30	28	13	-2	-18	-33	-48	-63	-79	-94	-109	-125	-140
35	27	11	-4	-20	-35	-49	-67	-82	-98	-113	-129	-145
40	26	10	-6	-21	-37	-53	-69	-85	-100	-116	-132	-148
(wind speeds greater than 40 mph have little addi- tional effect.)	LITTLE DANGER (for properly clothed person)				INCREASING DANGER				GREAT DANGER			
	Danger from freezing of exposed flesh											
Trenchfoot and immersion foot may occur at any point on this chart.												

Figure 5. Windchill chart.

(NORMAL WEIGHT)



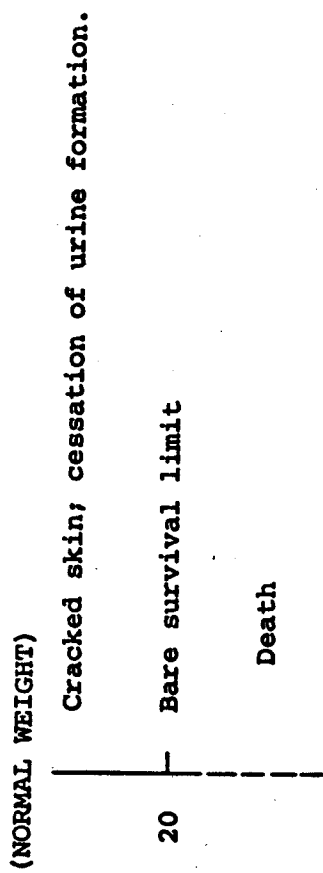


Figure 6. Symptoms of dehydration. (From Kanter & Webb, based on data of others; in Webb, 1964)

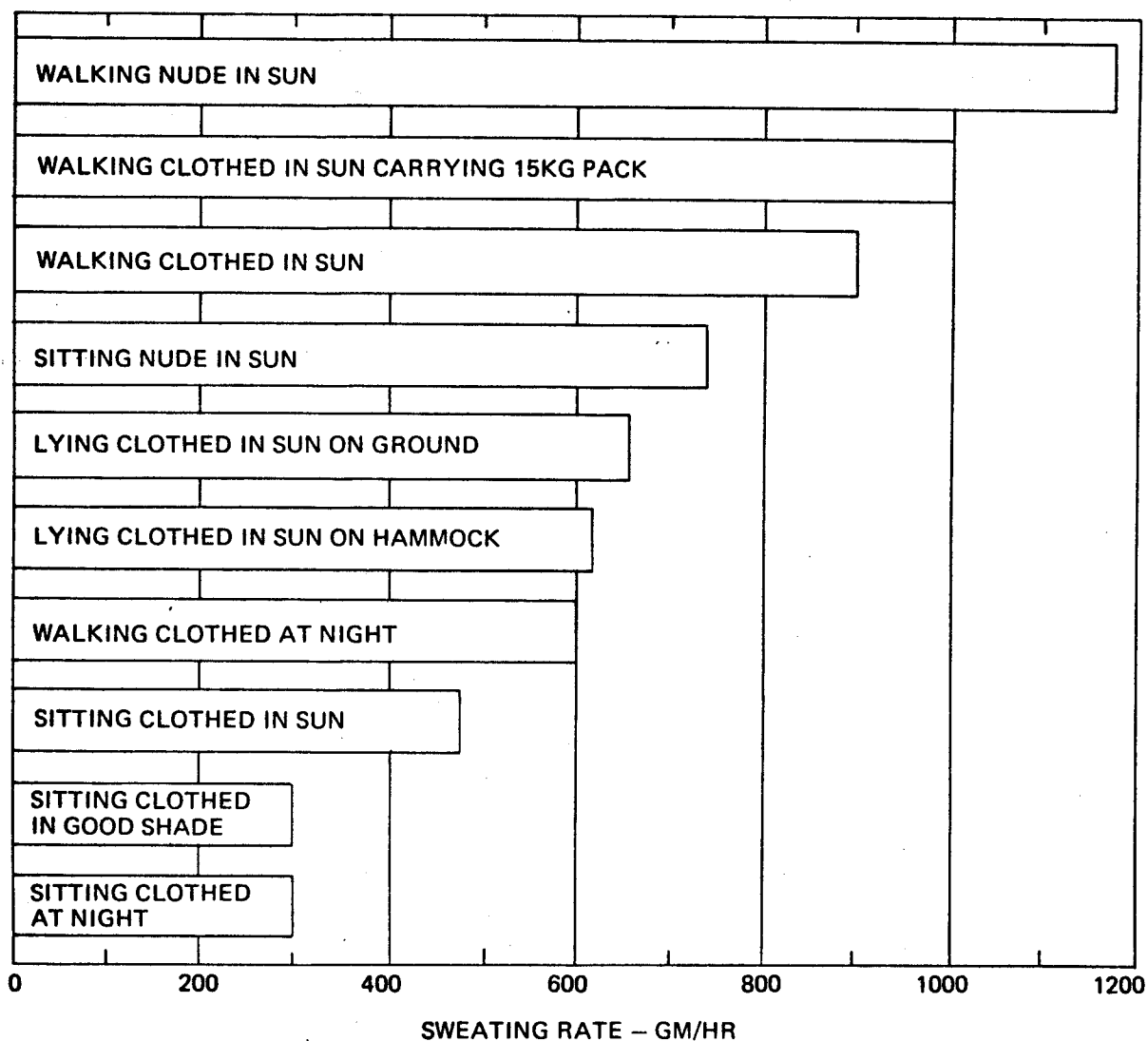


Figure 7. Sweating rates are shown for various activities in the desert at an air temperature of 100°F dry bulb. (Roth, 1964; source: Adolph)

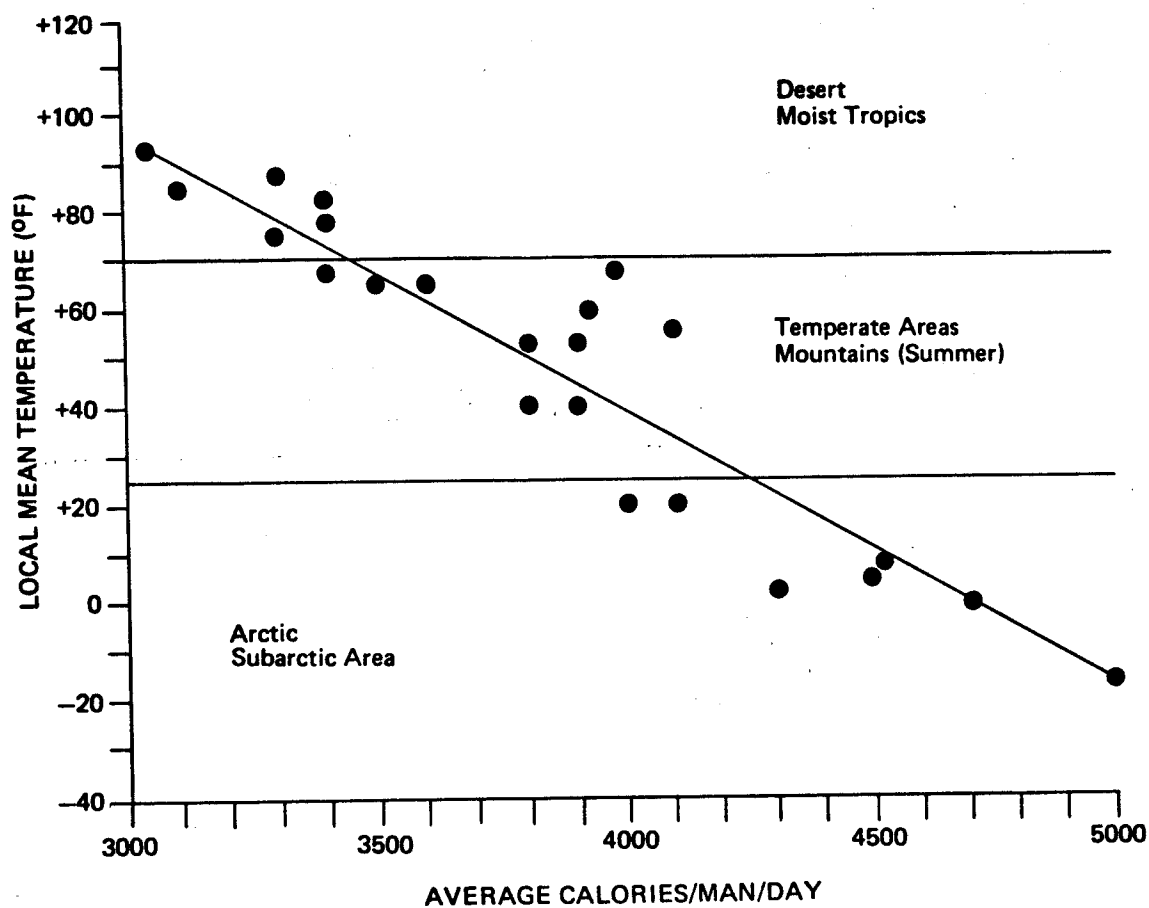


Figure 8. Voluntary caloric intake, North American troops. (Averages are for 50 or more men with abundant food supplies in different parts of the world.)

