

# X-15 FLIGHT CHRONOLOGY

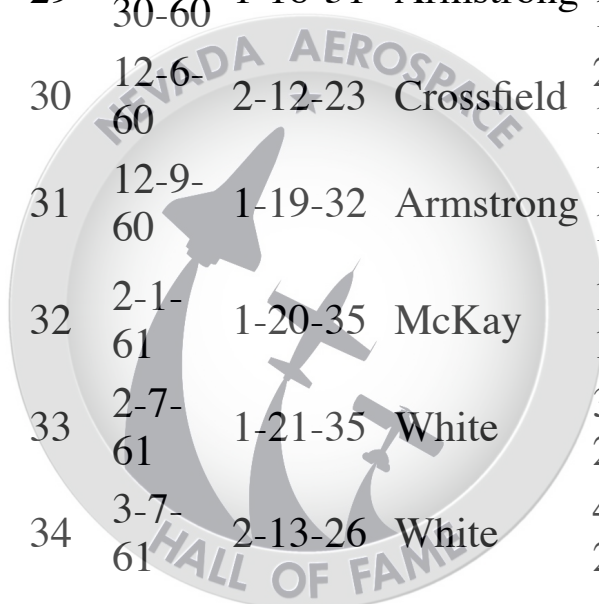
## X-15 FLIGHT LOG

Flight number stands for: X-15 number - Free flight number - B-52 carry number

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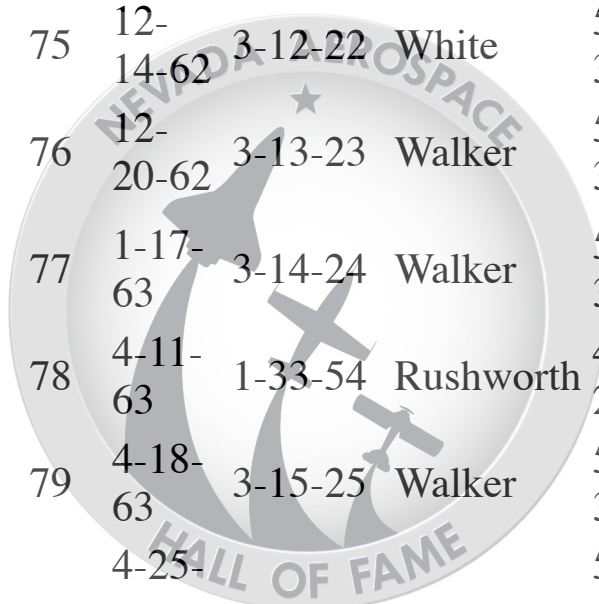
NO.	DATE	FLIGHT NO.	PILOT	MACH - MPH	MAX. ALT. FT.MSL	REMARKS
1	6-2-59	1-1-5	Crossfield	0.79 - 522	37,550	planned glide flight
2	9-17-59	2-1-3	Crossfield	2.11 - 1393	52,341	first powered flight
3	10-17-59	2-2-6	Crossfield	2.15 - 1419	61,78	
4	11-5-59	2-3-9	Crossfield	1.00 - 660	45,462	engine fire; fuselage structural failure on landing
5	1-23-60	1-2-7	Crossfield	2.53 - 1569	66,844	
6	2-11-60	2-4-11	Crossfield	2.22 - 1466	88,116	
7	2-17-69	2-5-12	Crossfield	1.57 - 1036	52,640	
8	3-17-60	2-6-13	Crossfield	2.15 - 1419	52,640	
9	3-25-60	1-3-8	Walker	2.00 - 1320	43,630	first research flight
10	3-29-60	2-7-15	Crossfield	1.96 - 1293	49,992	
11	3-31-60	2-8-16	Crossfield	2.93 - 1340	51,356	
12	4-13-60	1-4-9	White	1.91 -	48,000	

	60				1254	
13	4-19-60	1-5-10	Walker	2.56 - t 639	59,496	
14	5-5-60	1-6-11	White	2.20 - 1452	60,933	
15	5-12-60	1-7-12	Walker	3.19 - 2111	77,382	
16	5-19-60	1-8-13	White	2.31 - 1590	108,997	
17	5-26-60	2-9-18	Crossfield	2.20 - 1452	51,282	
18	8-4-60	1-9-17	Walker	3.31 - 2196	78,112	
19	8-12-60	1-10-19	White	2.52 - 1772	136,500	
20	8-19-60	1-11-21	Walker	3.13 - 1986	75,982	
21	9-10-60	1-12-23	White	3.23 - 2182	79,864	
22	9-23-60	1-13-25	Petersen	1.68 - 1108	53,043	
23	10-20-60	1-14-27	Petersen	1.94 - 1280	53,800	
24	10-28-60	1-15-28	McKay	2.02 - 1333	50,700	
25	11-4-60	1-16-29	Rushworth	1.95 - 1237	48,900	
26	11-15-60	2-10-21	Crossfield	2.97 - 1960	81,200	first flight with XLR-99 design engine
27	11-17-60	1-17-30	Rushworth	1.90 - 1254	54,750	
28	11-22-60	2-11-22	Crossfield	2.51 - 1656	61,900	first restart with XLR-99 design engine
29	11-30-60	1-18-31	Armstrong	1.75 - 1155	43,840	
30	12-6-60	2-12-23	Crossfield	2.35 - 1331	53,374	
31	12-9-60	1-19-32	Armstrong	1.39 - 1138	50,095	
32	2-1-61	1-20-35	McKay	1.83 - 1211	49,780	
33	2-7-61	1-21-35	White	3.50 - 2275	78,159	
34	3-7-61	2-13-26	White	4.43 - 2905	77,450	



35	3-30-61	2-14-28	Walker	3.95 - 2760	169,600	
36	4-21-61	2-15-29	White	4.62 - 3074	105,009	
37	5-25-61	2-16-31	Walker	4.95 - 3307	197,500	
38	6-23-61	2-17-33	White	5.27 - 3603	107,700	
39	8-10-61	1-22-37	Petersen	4.11 - 2735	73,200	
40	9-12-61	2-18-34	Walker	5.21 - 3613	114,300	
41	9-28-61	2-19-35	Petersen	5.39 - 3600	101,390	
42	10-4-61	1-23-39	Rushworth	4.30 - 2330	73,000	flight made with lower ventral off
43	10-11-61	2-20-35	White	5.21 - 3647	217,090	outer panel of left windshield cracked
44	10-17-61	1-24-49	Walker	5.74 - 3900	108,600	
45	11-9-61	2-21-37	White	6.04 - 4193	101,500	design speed achieved
46	12-20-61	3-1-2	Armstrong	3.76 - 2502	81,000	
47	1-10-62	1-25-44	Petersen	0.97 - 645	44,7510	emergency landing on Mud Lake after engine failed to light
48	1-17-62	3-2-3	Armstrong	5.51 - 3765	133,500	
49	4-5-62	3-3-7	Armstrong	4.12 - 2550	130,000	
50	4-19-62	1-26-46	Walker	5.69 - 3866	154,000	
51	4-20-62	3-4-8	Armstrong	5.31 - 3739	207,590	
52	4-30-62	1-27-48	Walker	4.94 - 3439	246,700	design altitude flight
53	5-8-62	2-22-40	Rushworth	5.34 - 3524	70,400	
54	5-22-62	1-28-49	Rushworth	5.03 - 3450	100,400	
55	6-1-62	2-23-43	White	5.42 - 3675	132,690	
56	6-7-62	1-29-59	Walker	5.39 - 3672	103,699	
57	6-12-62	3-5-9	White	5.02 - 3517	184,600	

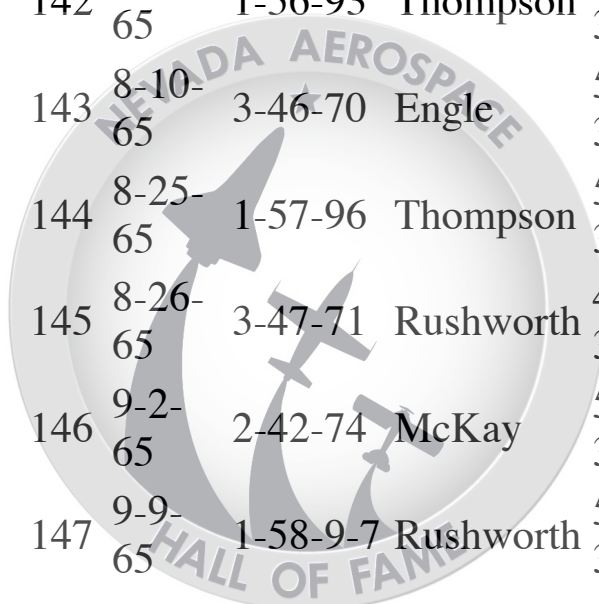
58	6-21-62	3-6-10	White	5.93 - 3641	246,700	
59	6-27-62	1-30-51	Walker	5.92 - 4104	123,700	unofficial world speed record
60	6-29-62	2-24-44	McKay	4.95 - 3290	33,200	
61	7-16-62	1-31-52	Walker	5.37 - 3674	107,299	
62	7-17-62	3-7-14	White	5.45 - 3822	314,750	FAI world altitude record
63	7-19-52	2-25-15	McKay	5.18 - 3474	85,250	
64	7-26-62	1-32-53	Armstrong	5.74 - 3939	98,900	
65	8-2-62	3-8-16	Walker	5.07 - 3439	144,500	
66	8-8-62	2-26-46	Rushworth	4.40 - 2943	90,877	
67	8-14-62	3-9-18	Walker	5.25 - 3747	193,600	
68	8-20-62	2-27-47	Rushworth	5.24 - 3534	38,990	
69	8-29-62	2-28-48	Rushworth	5.12 - 3447	97,200	
70	9-28-62	2-29-50	McKay	4.22 - 2765	69,200	this and all following flights without lower ventral
71	10-4-62	3-10-19	Rushworth	5.17 - 3493	112,200	
72	10-9-62	2-39-51	McKay	5.46 - 3716	130,290	
73	10-23-62	3-11-20	Rushworth	5.47 - 3764	134,500	
74	11-9-62	2-31-52	McKay	1.49 - 1019	53,950	emergency landing at Mud Lake
75	12-14-62	3-12-22	White	5.65 - 3742	141,400	
76	12-20-62	3-13-23	Walker	5.73 - 3793	160,400	
77	1-17-63	3-14-24	Walker	5.47 - 3677	271,700	first civilian flight above 50 miles
78	4-11-63	1-33-54	Rushworth	4.25 - 2864	74,400	
79	4-18-63	3-15-25	Walker	5.51 - 3770	92,500	
	4-25-			5.32 -		



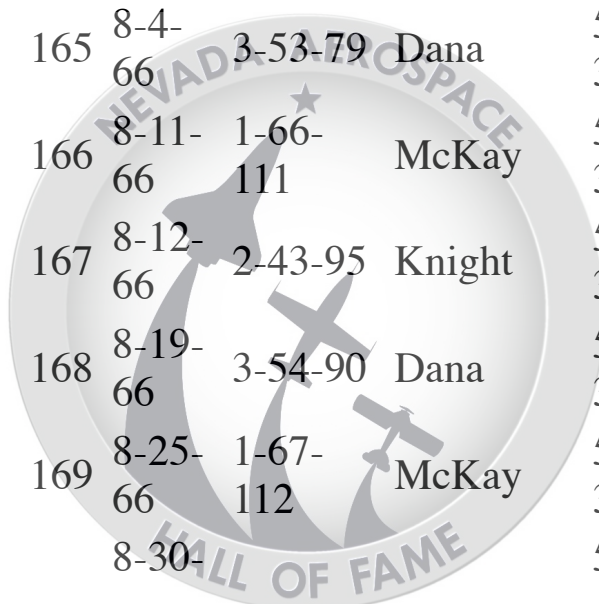
80	63	1-34-55	McKay	3654	105,500	
81	5-2-63	3-15-26	Walker	4.73 - 3433	209,400	
82	5-14-63	3-17-28	Rushworth	5.20 - 3600	95,600	
83	5-15-63	1-35-56	McKay	5.57 - 3956	124,290	
84	5-29-63	3-13-29	Walker	5.52 - 3853	92,000	inner panel of left windshield cracked
85	6-19-63	3-19-30	Rushworth	4.97 - 3539	223,700	
86	6-25-63	1-36-57	Walker	5.51 - 3911	111,80,0	
87	6-27-63	3-20-31	Rushworth	4.89 - 3425	285,099	
88	7-9-63	1-37-59	Walker	5.07 - 3631	226,400	
89	7-18-63	1-33-61	Rushworth	5.63 - 3925	104,300	
90	7-19-63	3-21-32	Walker	5.59 - 3710	347,300	
91	8-22-63	3-22-36	Walker	5.58 - 3794	354,200	unofficial world altitude record
92	10-7-63	1-39-63	Engle	4.21 - 2834	77,300	
93	10-29-63	1-40-64	Thompson	4.10 - 2712	74,403	
94	11-7-63	3-23-39	Rushworth	4.40 - 2925	82,300	
95	11-14-63	1-41-65	Engle	4.75 - 3296	99,900	
96	11-27-63	3-24-41	Thompson	4.94 - 3310	39,300	
97	12-5-63	1-42-67	Rushworth	6.06 - 4013	101,000	
98	1-8-64	1-43-69	Engle	5.32 - 3616	139,900	
99	1-16-64	3-25-42	Thompson	4.92 - 3242	71,000	
100	1-28-64	1-44-70	Rushworth	5.34 - 3613	107,400	
101	2-19-64	3-26-43	Thompson	5.29 - 3519	78,690	
102	3-13-64	3-27-44	McKay	5.11 - 3392	76,000	

103	3-27-64	1-45-72	Rushworth	5.63 - 3827	101,509	
104	4-8-64	1-46-73	Engle	5.01 - 3468	175,009	
105	4-29-64	1-47-74	Rushworth	5.72 - 3906	101,600	
106	5-12-64	3-28-47	McKay	4.66 - 3934	72,800	
107	5-19-64	1-48-75	Engle	5.92 - 3494	195,800	
108	5-21-64	3-29-49	Thompson	2.90 - 1865	64,200	premature engine shutdown at 41 sec.
109	6-25-64	2-32-55	Rushworth	4.59 - 3104	33,300	
110	6-30-64	1-49-77	McKay	4.96 - 3334	99,690	
111	7-8-64	3-30-50	Engle	5.05 - 3520	170,400	
112	7-29-64	3-31-52	Engle	5.33 - 3623	78,990	
113	9-12-64	3-32-53	Thompson	5.24 - 3535	31,209	
114	8-14-64	2-33-56	Rushworth	5.23 - 3590	103,390	
115	8-26-64	3-33-54	McKay	5.65 - 3863	91,099	
116	9-3-64	3-34-55	Thompson	5.35 - 3615	71,600	
117	9-21-64	3-35-57	Engle	5.59 - 3813	97,000	
118	9-29-64	2-24-57	Rushworth	5.20 - 3542	97,300	
119	10-15-64	1-50-79	McKay	4.56 - 3043	34,900	
120	10-30-64	3-36-59	Thompson	4.66 - 3113	94,600	
121	11-30-64	2-35-69	McKay	4.66 - 30139	37 290	
122	12-9-64	3-37-69	Thompson	5.42) - 3723	92,409	
123	12-10-64	1-51-91	Engle	5.35 - 3675	113,201	
124	12-22-64	3-33-61	Rushworth	5.55 - 3593	81,200	
	1-13-			5.49 -		

125	65	3-39-62	Thompson	3712	99,4-0
126	2-2-65	3-40-63	Engle	5.71 - 3996	98,201
127	2-17-65	2-36-63	Rushworth	5.27 - 3511	95,100
128	2-26-65	1-52-35	McKay	5.40 - 3750	1 53,609
129	3-26-65	1-53-36	Rushworth	5.17 - 3590	101,900
130	4-23-65	3-41-64	Engle	5.49 - 3530	79,700
131	4-28-65	2-37-64	McKay	4.30 - 3273	92,600
132	5-18-65	2-33-66	McKay	5.17 - 3541	102,100
133	5-25-65	1-54-33	Thompson	4.37 - 3418	179,900
134	5-28-65	3-42-65	Engle	5.17 - 3754	299,600
135	6-15-65	3-43-66	Engle	4.59 - 3404	244,700
136	6-17-65	1-55-39	Thompson	5.14 - 3541	108,500
137	5-22-65	2-39-70	McKay	5.64 - 3933	155,990
138	6-29-65	3-44-67	Engle	4.94 - 3432	239,600
139	7-8-65	2-40-72	McKay	5.19 - 3659	212,600
140	7-20-65	3-45-65	Rushworth	5.40 - 3760	105,400
141	8-3-65	2-41-73	Rushworth	5.16 - 3692	208,700
142	8-5-65	1-56-93	Thompson	5.15 - 3534	103,290
143	8-10-65	3-46-70	Engle	5.20 - 3550	271,000
144	8-25-65	1-57-96	Thompson	5.11 - 3604	214,109
145	8-26-65	3-47-71	Rushworth	4.79 - 3372	239,600
146	9-2-65	2-42-74	McKay	5.16 - 3570	239,300
147	9-9-65	1-58-9-7	Rushworth	5.25 - 3534	97,20.0



148	9-14-65	3-48-72	McKay	5.03 - 3519	239,039	
149	9-22-65)	1-59-99	Rushworth	5.13 - 3550	100,300	
150	9-23-65	3-49-73	McKay	5.33 - 3732	295,600	
151	9-30-65	1-60-99	Knight	4.06 - 2718	76,699	
152	10-12-65	3-50-74	Knight	4.62 - 3108	94,490	
153	10-14-65	1-61-101	Engle	5.09 - 3554	266,500	
154	10-27-65	3-51-75	McKay	5.06 - 3519	236,990	
155	11-3-65	2-43-75	Rushworth	2.31 - 1500	70,600	first flight with empty external tanks
156	11-4-65	1-62-103	Dana	4.22 - 2765	80,200	
157	5-6-66	1-63-104	McKay	2.21 - 1434	63,490	premature engine shutdown at 31 seconds
158	5-18-66	2-44-79	Rushworth	5.43 - 3699	99,019	
159	7-1-66	2-45-81	Rushworth	1.54 - 1023	45,000	first heavy tank flight engine shutdown at 32 seconds
160	7-12-66	1-64-107	Knight	5.34 - 3652	130,000	
161	7-13-66	3-52-78	Dana	4.71 - 3217	96,100	
162	7-21-66	2-46-83	Knight	5.12 - 3569	192,309	
163	7-28-66	1-65-103	McKay	5.19 - 3702	241,301	
164	8-3-66	2-47-84	Knight	5.03 - 3449	249,000	
165	8-4-66	3-53-79	Dana	5.34 - 3693	132,700	
166	8-11-66	1-66-111	McKay	5.21 - 3590	251,000	
167	8-12-66	2-43-95	Knight	5.02 - 3472	231,100	
168	8-19-66	3-54-90	Dana	5.20 - 3617	173,000	
169	8-25-66	1-67-112	McKay	5.11 - 3543	257,509	
	8-30-			5.21 -		





170	66	2-49-36	Knight	3543	100,200	
171	9-8-66	1-69-113	McKay	2.44 - 1692	73,200	premature engine shutdown at 38 seconds
172	9-14-66	3-55-32	Dana	5.12 - 3536	254,200	
173	10-5-66	1-69-116	Adams	3.00 - 2990	75,400	
174	11-1-66	3-56-83	Dana	5.46 - 3750	306,900	
175	11-18-66	2-50-89	Knight	5.33 - 4250	98,900	unofficial world's speed record
176	11-29-66	3-57-86	Adams	4.65 - 3120	92,000	
177	3-22-67	1-70-119	Adams	5.59 - 3322	133,190	
178	4-26-67	3-58-87	Dana	1.80 - 1163	53,400	
179	4-28-67	1-71-121	Adams	5.44 - 3720	167,000	
180	5-8-67	2-51-92	Knight	4.75 - 3193	97,690	
181	5-17-67	3-59-39	Dana	4.30 - 3177	71,100	
182	6-15-67	1-72-125	Adams	5.12 - 3606	229,300	
183	6-22-67	3-60-90	Dana	5.44 - 3611	82,200	
184	6-29-67	1-73-126	Knight	4.17 - 2870	173,009	Electrical failure climbing through 107,000 - landed at Mud Lake, Nev.
185	7-20-67	3-61-91	Dana	5.44 - 3693	84,400	
186	8-21-67	2-52-96	Knight	4.94 - 3368	91,000	Full ablative second engine light
187	8-25-67	3-62-92	Adams	4.63 - 3115	84,400	
188	10-3-67	2-53-97	Knight	6.70 - 4520	102,100	Unofficial world's speed record, (full ablative , tanks , dummy ramjet, mechanical eyelid)
189	10-4-67	3-63-94	Dana	5.53 - 3897	251,100	
190	10-17-67	3-54-95	Knight	5.53 - 3356	280,500	
191	11-15-67	3-65-97	Adams	5.20 - 3570	266,009	Fatal accident, aircraft destroyed
192	3-1-	1-74-	Dana	4.36 -	104,500	

	68	130		2373	
193	4-4-68	1-75-133	Dana	5.27 - 3610	197,500
194	4-26-68	1-76-134	Knight	5.00 - 3545	207,010
195	5-11-68	1-77-136	Dana	5.15 - 3563	220,199
196	7-16-68	1-78-133	Knight	4.79 - 3332	221,510
197	8-21-68	1-79-139	Dana	5.01 - 3443	267,500
198	9-13-68	1-30-140	Knight	5.37 - 3723	254,100
199	10-24-63	1-31-141	Dana	5.33 - 3716	255,000

## X-15 PILOTS IN ORDER OF CHRONOLOGICAL FLIGHT AND NUMBER OF FLIGHTS

A. Scott Crossfield	NAA	14
Joseph A. Walker	NASA	25
Robert M. White	USAF	16
Forrest S. Petersen	USN	5
John B. McKay	NASA	29
Robert A. Rushworth	USN	34
Neil A. Armstrong	NASA	7
Joe H. Engle	USAF	16
Milton O. Thompson	NASA	14
William J. Knight	USAF	16
William H. Dana	NASA	16
Michael J. Adams	USAF	7

### X-15 FLIGHT DATA

Fastest Speed (basic aircraft)	6.06 Mach	Flight Number 1-42-67
	4104 mph, N=5.92	Flight Number 1-30-51
Fastest Speed (with tanks)	4520 mph, 6.70 Mach	Flight number 2-53-97
Highest Altitude	354,200 feet, 67.08 miles	Flight Number 3-22-36
Total Flight Time	30 hrs, 13 min, 49.2 sec	



Total Distance Flown	41,763.8 st. miles
Total Flights	199

## **TIMES ABOVE MACH**

Hrs:Mins:Secs  
(Cumulative)

1	2	3	4	5	6
18:23:11.6	12:13:50.0	8:51:12.8	5:57:23.8	1:27:15.8	0:01:16.8