

Name	Configuration	Velocity off Rod	Apogee	Velocity at Deployment	Optimum Delay	Max Velocity	Max Acc.	Time to Apogee	Flight Time	Ground hit	Stability at Rail Exit
M1939-0 Flight Profile	[M1939-0]	84.8 ft/s	11085 ft	86.6 ft/s	19 s	948 ft/s	238 ft/s ²	25.9 s	170 s	20.8 ft/s	3.513
M1939-0 Flight Profile 5mph	[M1939-0]	84.8 ft/s	11061 ft	86.6 ft/s	19 s	948 ft/s	238 ft/s ²	25.9 s	169 s	20.8 ft/s	2.379
M1939-0 Flight Profile 10mph	[M1939-0]	84.8 ft/s	11001 ft	86.6 ft/s	19 s	947 ft/s	238 ft/s ²	25.9 s	169 s	20.8 ft/s	1.419
M1939-0 Flight Profile 15mph	[M1939-0]	84.8 ft/s	10899 ft	86.7 ft/s	18.8 s	946 ft/s	239 ft/s ²	25.7 s	169 s	20.8 ft/s	1.087
M1939-0 Flight Profile 20mph	[M1939-0]	84.8 ft/s	10813 ft	86.6 ft/s	18.7 s	945 ft/s	239 ft/s ²	25.6 s	167 s	20.8 ft/s	0.938
M1939-0 Flight Profile 25mph	[M1939-0]	84.8 ft/s	10679 ft	86.5 ft/s	18.5 s	943 ft/s	240 ft/s ²	25.4 s	165 s	20.7 ft/s	0.449
M1939-0 Flight Profile 5 °	[M1939-0]	84.9 ft/s	10958 ft	86.6 ft/s	18.9 s	949 ft/s	238 ft/s ²	25.8 s	168 s	20.8 ft/s	3.505
M1939-0 Flight Profile 10 °	[M1939-0]	85 ft/s	10599 ft	86.6 ft/s	18.4 s	951 ft/s	239 ft/s ²	25.3 s	164 s	20.8 ft/s	3.496

	# Time (s)	Altitude (ft)	Vertical velocity (ft/s)	Stability margin calibers
15 mph	# Event LAUNCHROD occurred at t=0.5 seconds			
	0.5	17.717	84.772	NaN
	0.515	19.012	87.937	0.997
	0.538	21.044	92.701	1.087
	0.571	24.294	99.885	1.212
	0.621	29.556	110.609	1.389
	0.671	35.357	121.436	1.563
	0.721	41.702	132.357	1.711
	0.771	48.595	143.363	1.86
	0.821	56.04	154.456	2.022
	0.871	64.043	165.634	2.185
	0.921	72.606	176.896	2.398
	0.971	81.734	188.24	2.652
	1.021	91.431	199.645	2.853
	1.071	101.7	211.104	2.936
	1.121	112.54	222.615	3.111
	1.171	123.96	234.173	3.425
	1.221	135.96	245.772	3.664
	1.271	148.54	257.402	3.591
	1.321	161.7	269.04	3.347
20 mph	# Event LAUNCHROD occurred at t=0.5 seconds			
	0.5	17.717	84.771	NaN
	0.515	19.012	87.936	0.938
	0.538	21.044	92.7	0.986
	0.571	24.294	99.883	1.069
	0.621	29.556	110.606	1.209
	0.671	35.357	121.43	1.363
	0.721	41.701	132.348	1.548
	0.771	48.594	143.353	1.729
	0.821	56.039	154.444	1.846
	0.871	64.04	165.62	1.943
	0.921	72.603	176.879	2.119
	0.971	81.73	188.22	2.361
	1.021	91.426	199.623	2.555
	1.071	101.69	211.08	2.813
	1.121	112.54	222.587	3.068
	1.171	123.95	234.138	3.227
	1.221	135.95	245.73	3.393
	1.271	148.53	257.348	3.631
	1.321	161.69	268.972	3.649
25 mph	# Event LAUNCHROD occurred at t=0.5 seconds			
	0.5	17.717	84.773	NaN
	0.515	19.013	87.937	0.449
	0.538	21.045	92.7	0.541
	0.571	24.295	99.881	0.62
	0.621	29.556	110.6	0.736
	0.671	35.357	121.418	0.899
	0.721	41.7	132.329	0.999
	0.771	48.592	143.324	1.132
	0.821	56.035	154.406	1.338
	0.871	64.034	165.574	1.517
	0.921	72.594	176.829	1.737
	0.971	81.719	188.167	1.959
	1.021	91.412	199.567	2.179
	1.071	101.68	211.022	2.483
	1.121	112.52	222.526	2.786
	1.171	123.93	234.07	3.107
	1.221	135.92	245.645	3.478
	1.271	148.5	257.234	3.669
	1.321	161.65	268.817	3.508
	1.371	175.38	280.392	3.427