

Motor Chart (All motors) v1.30

* Designates Reloadable Motors

Single Use = Blank

1KG = 9.80665 NEWTONS

AVG*25.5363=Lift in Grams

Motor	Delay	Company	Delay(Secs) (actual)	Prop. Type	Casing (mm)	Tot. Imp. (n-s)	Peak Th. (newtons)	Burn Time (sec.)	Avg. Th. (newtons)	Init. Mass (grams)	Empty (grams)	Propellant Weight	LIFT Max Thrust (grams)
up to E													
Micro Maxx		Quest		Black Pdr.	6x26	0.2			1.00			0.4	25.5
Micro Maxx II		Quest		Black Pdr.	6x26	0.3	3.2	0.70	0.50			0.5	12.8
1/4A2	2	Apogee		Black Pdr.	10.5x38	0.6	5.4	0.20	2.50			0.8	63.8
1/4A2	4	Apogee		Black Pdr.	10.5x38	0.6	5.4	0.20	2.50			0.8	63.8
1/4A3T	3	Estes		Black Pdr.	13x45	0.6	5.0	0.30	2.40			0.8	61.3
1/2A2	2	Apogee	2.13	Black Pdr.	10.5x38	1.2	4.0	0.63	1.94	4.2	2.7	1.5	49.5
1/2A2	4	Apogee	3.70	Black Pdr.	10.5x38	1.2	4.0	0.63	1.94	4.5	3	1.5	49.5
1/2A2	6	Apogee	5.22	Black Pdr.	10.5x38	1.3	4.0	0.63	1.94	4.4	2.9	1.5	49.5
1/2A3T	2	Estes	1.38	Black Pdr.	13x45	1.1	7.6	0.36	3.03	6.4	4.4	2.0	77.4
1/2A3T	4	Estes	3.08	Black Pdr.	13x45	1.1	7.6	0.36	3.03	6.8	4.8	2.0	77.4
1/2A6	2	Estes		Black Pdr.	18x70	1.1	7.9	0.30	3.40			2.6	86.8
A2	0	Apogee	None	Black Pdr.	10.5x57	2.5	4.8	1.30	1.90			3.0	48.5
A2	3	Apogee		Black Pdr.	10.5x57	2.5	4.8	1.30	1.90			3.0	48.5
A2	5	Apogee		Black Pdr.	10.5x57	2.5	4.8	1.30	1.90			3.0	48.5
A2	7	Apogee		Black Pdr.	10.5x57	2.5	4.8	1.30	1.90			3.0	48.5
A3T	4	Estes	4.00	Black Pdr.	13x45	2.2	5.8	1.01	2.20	8.5	5.2	3.3	56.2
A6	4	Quest		Black Pdr.	18x70	2.1	10.1	0.55	4.15	15.3	6.5	3.5	132.8
A6	3	FSI	3.50	Black Pdr.	18x70	1.8	10.0	0.38	4.94	14.8	11.8	3.0	126.1
A6	5	FSI	5.75	Black Pdr.	18x70	1.8	10.0	0.38	4.94	15.6	12.6	3.0	126.1
A8	3	Estes	2.25	Black Pdr.	18x70	2.3	9.7	0.73	3.18	16.7	13.4	3.3	81.2
A8	5	Estes	4.45	Black Pdr.	18x70	2.3	9.7	0.73	3.18	16	12.7	3.3	81.2
A10PT	P	Estes	None	Black Pdr.	13x45	2.0	12.6	0.85	2.35	8.0	4.2	3.8	60.0
A10T	3	Estes	2.35	Black Pdr.	13x45	2.0	12.6	0.85	2.35	8.5	4.7	3.8	60.0
B2	0	Apogee	None	Black Pdr.	10.5x88	4.8	5.5	2.50	1.90			6.0	48.5
B2	3	Apogee		Black Pdr.	10.5x88	4.8	5.5	2.50	1.90			6.0	48.5
B2	5	Apogee		Black Pdr.	10.5x88	4.8	5.5	2.50	1.90			6.0	48.5
B2	7	Apogee		Black Pdr.	10.5x88	4.8	5.5	2.50	1.90			6.0	48.5
B2	9	Apogee		Black Pdr.	10.5x88	4.8	5.5	2.50	1.90			6.0	48.5
B4	2	Estes	1.12	Black Pdr.	18x70	4.3	12.8	1.03	4.17	18.2	12.2	6.0	106.5
B4	4	Estes	3.65	Black Pdr.	18x70	4.3	12.8	1.03	4.17	19.5	13.5	6.0	106.5
B4	6	Estes	5.29	Black Pdr.	18x70	4.3	12.8	1.03	4.17	19.1	13.1	6.0	106.5
B6	0	Estes	None	Black Pdr.	18x70	4.3	12.1	0.86	5.03	15.6	10	5.6	128.4
B6	2	Estes	1.52	Black Pdr.	18x70	4.3	12.1	0.86	5.03	18.8	13.2	5.6	128.4
B6	4	Estes	3.68	Black Pdr.	18x70	4.3	12.1	0.86	5.03	19.1	13.5	5.6	128.4
B6	6	Estes	5.44	Black Pdr.	18x70	4.3	12.1	0.86	5.03	19.4	13.8	5.6	128.4
B6	0	Quest	None	Black Pdr.	18x70	4.6	14.4	0.80	6.20			6.5	158.3
B6	2	Quest		Black Pdr.	18x70	4.6	14.4	0.80	6.20			6.5	158.3
B6	4	Quest		Black Pdr.	18x70	4.6	14.4	0.80	6.20			6.5	158.3
B7	4	Apogee		Black Pdr.	13x50	5.0	14.8	0.70	6.70			2.8	171.1
B7	6	Apogee		Black Pdr.	13x50	5.0	14.8	0.70	6.70			2.8	171.1
B7	8	Apogee		Black Pdr.	13x50	5.0	14.8	0.70	6.70			2.8	171.1
B7	10	Apogee		Black Pdr.	13x50	5.0	14.8	0.70	6.70			2.8	171.1
B8	5	Estes	4.67	Black Pdr.	18x70	4.2	22.8	0.50	8.46	17.4	11.9	5.5	216.0
C4	3	Apogee		Black Pdr.	18x50	8.9	11.3	2.40	3.80			4.5	97.0
C4	5	Apogee		Black Pdr.	18x50	8.9	11.3	2.40	3.80			4.5	97.0
C4	7	Apogee		Black Pdr.	18x50	8.9	11.3	2.40	3.80			4.5	97.0
C5	3	Estes	2.92	Black Pdr.	18x70	9.1	21.9	1.73	5.26	24.8	13.5	11.3	134.3
C6	0	Estes	None	Black Pdr.	18x70	8.8	14.1	1.86	4.74	20.2	9.4	10.8	121.0
C6	3	Estes	2.47	Black Pdr.	18x70	8.8	14.1	1.86	4.74	24.1	13.3	10.8	121.0
C6	5	Estes	4.28	Black Pdr.	18x70	8.8	14.1	1.86	4.74	24.0	13.2	10.8	121.0
C6	7	Estes	6.24	Black Pdr.	18x70	8.8	14.1	1.86	4.74	24.2	13.4	10.8	121.0
C6	0	FSI	None	Black Pdr.	18x70	6.2	9.4	1.53	4.07	20.7	8.7	12.0	103.9
C6	3	FSI	3.12	Black Pdr.	18x70	6.2	9.4	1.53	4.07	20.9	8.9	12.0	103.9
C6	5	FSI	5.7	Black Pdr.	18x70	6.2	9.4	1.53	4.07	23.0	11	12.0	103.9
C6	4	Apogee		Black Pdr.	13x83	10.0	21.1	1.30	7.60			7.0	194.1
C6	7	Apogee		Black Pdr.	13x83	10.0	21.1	1.30	7.60			7.0	194.1
C6	10	Apogee		Black Pdr.	13x83	10.0	21.1	1.30	7.60			7.0	194.1
C6	3	Quest	3.12	Black Pdr.	18x70	8.8	15.5	2.54	3.45	24.3	15.5	11.0	153.2
C6	5	Quest	4.56	Black Pdr.	18x70	8.5	15.5	2.54	3.45	25.6	14.6	11.0	153.2
C10	4	Apogee		Black Pdr.	18x50	9.6	25.7	1.00	10.00			4.9	255.4
C10	7	Apogee		Black Pdr.	18x50	9.6	25.7	1.00	10.00			4.9	255.4
C10	10	Apogee		Black Pdr.	18x50	9.6	25.7	1.00	10.00			4.9	255.4
C11	0	Estes	None	Black Pdr.	24x70	8.8	21.7	0.81	10.86	30.4	18.4	12	277.3
C11	3	Estes	3.65	Black Pdr.	24x70	8.8	21.7	0.81	10.86	34.5	22.5	12	277.3
C11	5	Estes	5.24	Black Pdr.	24x70	8.8	21.7	0.81	10.86	35.5	23.5	12	277.3
C11	7	Estes	6.38	Black Pdr.	24x70	8.8	21.7	0.81	10.86	35.7	23.7	12	277.3
D3		Apogee		Black Pdr.	18x77	18.4	10.6	6.40	2.90			9.8	74.1
D3		Apogee		Black Pdr.	18x77	18.4	10.6	6.40	2.90			9.8	74.1
D3		Apogee		Black Pdr.	18x77	18.4	10.6	6.40	2.90			9.8	74.1
D5	P	Quest	None	Black Pdr.	18x70	19.6	11.5	3.98	4.93	38.4	25.1	13.3	127.7
D7T-RC*	0	Aerotech	None	Composite	24x70	18.5	11.0	2.87	6.46	42.2	31.7	10.5	165.0
D9	4	Aerotech	4.45	Composite	24x70	18.8	20.0	1.88	9.98	46.9	36.8	10.1	254.9
D9	7	Aerotech	7.58	Composite	24x70	18.8	20.0	1.88	9.98	47.4	37.3	10.1	254.9
D10		Apogee			18x70	18.8	25.1	1.40	13.40			9.8	342.2
D10		Apogee			18x70	18.8	25.1	1.40	13.40			9.8	342.2
D10		Apogee			18x70	18.8	25.1	1.40	13.40			9.8	342.2
D11-P	P	Estes	None	Black Pdr.	24x70	17.5	26.0	1.86	9.40	44.8	20.3	24.5	240.0
D12	0	Estes	None	Black Pdr.	24x70	16.8	29.7	1.65	10.21	39.2	18.1	21.1	306.4
D12	3	Estes	2.39	Black Pdr.	24x70	16.8	29.7	1.65	10.21	41.4	20.3	21.1	306.4
D12	5	Estes	4.25	Black Pdr.	24x70	16.8	29.7	1.65	10.21	45.2	24.1	21.1	306.4
D12	7	Estes	5.75	Black Pdr.	24x70	16.8	29.7	1.65	10.21	44.9	23.8	21.1	306.4
D13	4	Aerotech	3.32	Composite	18x70	19.3	23.6	1.52	12.67	31.0	21.2	9.8	323.5
D13	7	Aerotech	6.80	Composite	18x70	19.3	23.6	1.52	12.67	31.4	21.6	9.8	323.5
D13	10	Aerotech	8.27	Composite	18x70	19.3	23.6	1.52	12.67	31.9	22.1	9.8	323.5
D15	4	Aerotech	3.55	Composite	24x70	19.0	31.4	1.15	16.49	45.4	36.5	8.9	421.1
D15	6	Aerotech	5.79	Composite	24x70	19.0	31.4	1.15	16.49	46.2	37.3	8.9	421.1
D15	8	Aerotech	8.22	Composite	24x70	19.0	31.4	1.15	16.49	46.9	38	8.9	421.1
D21	4	Aerotech	4.80	Composite	18x70	19.6	32.1	0.94	20.84	24.9	15.3	9.6	532.2
D21	7	Aerotech	7.38	Composite	18x70	19.6	32.1	0.94	20.84	25.0	15.4	9.6	532.2
D24	4	Aerotech	4.17	Composite	18x70	18.0	25.5	1.22	14.77	30.5	21.7		

E6	4	Aerotech	4.08	Composite	24x70	38.7	20.1	6.06	6.38	46.3	24.8	21.5	162.9
E6	6	Aerotech	5.56	Composite	24x70	38.7	20.1	6.06	6.38	46.3	24.8	21.5	162.9
E6	8	Aerotech	8.09	Composite	24x70	38.7	20.1	6.06	6.38	46.3	24.8	21.5	162.9
E6-RC*		Aerotech		Composite	24x70	40.0			6.00			21.5	153.2
E6	P	Apogee	None	Composite	24x77	37.8	16.6	5.80	6.50	42.1	20.1	22.0	162.9
E6	4	Apogee	4.35	Composite	24x77	37.8	16.6	5.80	6.50	46.7	24.7	22.0	162.9
E6	6	Apogee	4.88	Composite	24x77	37.8	16.6	5.80	6.50	47.1	25.1	22.0	162.9
E6	8	Apogee	7.15	Composite	24x77	37.8	16.6	5.80	6.50	46.2	24.2	22.0	162.9
E7-RC*		Aerotech		Composite	24x70	30.0	11.6	5.40	5.40			17.1	137.9
E9	P	Estes	None	Black Pdr.	24x95	27.9	19.5	3.09	9.02	62.7	26.9	35.8	230.3
E9	0	Estes	None	Black Pdr.	24x95	27.9	19.5	3.09	9.02	56.8	21	35.8	230.3
E9	4	Estes	3.26	Black Pdr.	24x95	27.9	19.5	3.09	9.02	64.1	28.3	35.8	230.3
E9	6	Estes	5.97	Black Pdr.	24x95	27.9	19.5	3.09	9.02	64.8	29	35.8	230.3
E9	8	Estes	7.24	Black Pdr.	24x95	27.9	19.5	3.09	9.02	64.9	29.1	35.8	230.3
E10	6	Ellis Mtn			24x102	35.8			10.00			28.3	255.4
E10	10	Ellis Mtn			24x102	35.8			10.00			28.3	255.4
E11	4	Aerotech	4.25	Composite	24x70	32.7	19.9	2.83	11.57	62.4	37.4	25.0	295.5
E12J*	?	Aerotech	?	Composite	24x70	34.2	18.3	3.10	11.20			30.0	286.0
E12	6	Ellis Mtn			24x102	35.8			12.00			28.3	306.4
E12	10	Ellis Mtn			24x102	35.8			12.00			28.3	306.4
E15	P	Estes	None	Black Pdr.	24x89	29.5	20.1	2.63		44.9	24.8	20.1	383.0
E15	4	Estes	3.39	Black Pdr.	24x89	29.5	20.1	2.63		56.7	36.6	20.1	383.0
E15	6	Estes	5.23	Black Pdr.	24x89	29.5	20.1	2.63		57.9	37.8	20.1	383.0
E15	8	Estes	6.72	Black Pdr.	24x89	29.5	20.1	2.63		58.7	38.6	20.1	383.0
E15PW	P	Aerotech	None	Composite	24x70	40.0			15.00			20.1	383.0
E15	4	Aerotech	4.56	Composite	24x70	39.8	28.8	2.64	15.06	50.2	30.1	20.1	384.6
E15	7	Aerotech	7.97	Composite	24x70	39.8	28.8	2.64	15.06	50.0	29.9	20.1	384.6
E15	4	Rocketvision	4.56	Composite	24x70	39.8	28.8	2.64	15.06	50.2	32.2	18.0	384.6
E15	7	Rocketvision	7.97	Composite	24x70	39.8	28.8	2.64	15.06	50.0	32	18.0	384.6
E16*	4	Aerotech	3.86	Composite	29x124	37.7	37.2	2.00	18.84	107.8	88.8	19.0	481.1
E16*	7	Aerotech	6.55	Composite	29x124	37.7	37.2	2.00	18.84	109.0	90	19.0	481.1
E16*	10	Aerotech	10.90	Composite	29x124	37.7	37.2	2.00	18.84	108.9	89.9	19.0	481.1
E18*	4	Aerotech	3.87	Composite	24x70	36.5	30.1	2.14	17.07	58.9	38.2	20.7	435.9
E18*	8	Aerotech	8.14	Composite	24x70	36.5	30.1	2.14	17.07	58.8	38.1	20.7	435.9
E18*	10	Aerotech	10.79	Composite	24x70	36.5	30.1	2.14	17.07	59.0	38.3	20.7	435.9
E23*	5	Aerotech	5.15	Composite	29x124	35.3	38.2	1.57	22.50	103.9	86.5	17.4	574.6
E23*	8	Aerotech	8.81	Composite	29x124	35.3	38.2	1.57	22.50	103.8	86.4	17.4	574.6
E25	4	Aerotech	4.72	Composite	18x70	21.9	45.6	0.94	23.26	24.3	13.3	11.0	594.0
E25	7	Aerotech	8.00	Composite	18x70	21.9	45.6	0.94	23.26	24.3	13.3	11.0	594.0
E27	3	Aerotech	2.56	Composite	18x70	21.5	33.1	1.00	21.52	31.1	21	10.1	549.5
E28*	2	Aerotech	2.03	Composite	24x70	39.7	50.5	1.22	32.53	54.0	35.6	18.4	830.7
E28*	5	Aerotech	4.87	Composite	24x70	39.7	50.5	1.22	32.53	54.4	36.0	18.4	830.7
E28*	8	Aerotech	7.48	Composite	24x70	39.7	50.5	1.22	32.53	55.3	36.9	18.4	830.7
E30	4	Aerotech	4.25	Composite	24x70	39.5	48.3	1.22	32.38	43.4	24.1	19.3	826.9
E30	7	Aerotech	6.56	Composite	24x70	39.5	48.3	1.22	32.38	43.2	23.9	19.3	826.9
Motor	Delay	Company	Delay(Seccs)	Prop. Type	Casing (mm)	Tot. Imp. (n-s)	Peak Th. (newtons)	Burn Time (sec.)	Avg. Th. (newtons)	Init. Mass (grams)	Empty (grams)	Propellant Weight	LIFT Max Thrust (grams)
F10	2	Aerotech	2.40	Composite	29x93	76.3	28.2	7.13	10.71	84.0	43.3	40.7	273.5
F10	4	Aerotech	4.32	Composite	29x93	76.3	28.2	7.13	10.71	83.5	42.8	40.7	273.5
F10	6	Aerotech	5.42	Composite	29x93	76.3	28.2	7.13	10.71	85.0	44.3	40.7	273.5
F10	8	Aerotech	8.21	Composite	29x93	76.3	28.2	7.13	10.71	84.7	44.0	40.7	273.5
F10	4	Apogee	3.35	Composite	29x92	74.3	22.7	7.0	10.60	82.3	42.3	40.0	273.5
F10	6	Apogee	5.65	Composite	29x92	74.3	22.7	7.0	10.60	83	43.0	40.0	273.5
F10	8	Apogee	6.64	Composite	29x92	74.3	22.7	7.0	10.60	82.5	42.5	40.0	273.5
F12*	2	Aerotech	1.33	Composite	24x70	43.2	23.5	2.93	14.74	68.6	38.6	30.0	376.4
F12*	5	Aerotech		Composite	24x70	43.2	23.5	2.90	14.70			30.0	375.4
F13	5	Aerotech	4.59	Composite	24x70	43.2	23.5	2.93	14.74	65.8	33.5	32.3	376.4
F13RC*		Aerotech		Composite	32x107	62.1	20.0	5.10	12.20			32.3	311.5
F14	P	Aerotech	None	Composite	29x98	61.5	31.7	4.06	15.15	97.8	47.8	50.0	386.9
F14	4	Aerotech	4.89	Composite	29x98	61.5	31.7	4.06	15.15	98.9	48.9	50.0	386.9
F14	6	Aerotech	6.27	Composite	29x98	61.5	31.7	4.06	15.15	98.6	48.6	50.0	386.9
F16RC*		Aerotech		Composite	32x107	75.5	26.4	5.70	13.30			62.5	339.6
F20	4	Aerotech	4.09	Composite	29x73	60.5	52.1	2.68	22.56	74.3	44.3	30.0	576.1
F20	7	Aerotech	6.93	Composite	29x73	60.5	52.1	2.68	22.56	74.9	44.9	30.0	576.1
F20	6	Ellis Mtn		Composite	24x140	67.9						31.2	510.7
F20	10	Ellis Mtn		Composite	24x140	67.9						31.2	510.7
F21	4	Aerotech		Composite	24x98	55.0	42.0	2.50	21.00	64.0	34.0	30.0	536.3
F21	6	Aerotech	6.00	Composite	24x98	55.0	42.0	2.50	21.00	64.0	34.0	30.0	536.3
F21	8	Aerotech	8.00	Composite	24x98	55.0	42.0	2.50	21.00	64.0	34.0	30.0	536.3
F22*	4	Aerotech	3.59	Composite	29x124	65.0	31.2	3.31	19.64	135.6	89.3	46.3	501.5
F22*	7	Aerotech	7.37	Composite	29x124	65.0	31.2	3.31	19.64	132.9	86.6	46.3	501.5
F23FJ	4	Aerotech	4.34	Composite	29x83	56.0	41.2	2.22	18.60	82.0	52.0	30.0	475.0
F23FJ	7	Aerotech	7.16	Composite	29x83	56.0	41.2	2.22	18.60	82.0	52.0	30.0	475.0
F23RC SK*		Aerotech		Composite	32x107	70.0		3.50	23.00			37.8	587.3
F23	6	Ellis Mtn			24x140	67.9	39.2	3.60	23.00	77.0	45.8	31.2	587.3
F23	10	Ellis Mtn			24x140	67.9	39.2	3.60	23.00	77.0	45.8	31.2	587.3
F24*	4	Aerotech	3.71	Composite	24x70	47.3	41.0	2.13	22.21	62.2	43.2	19.0	567.2
F24*	7	Aerotech	6.60	Composite	24x70	47.3	41.0	2.13	22.21	62.2	43.2	19.0	567.2
F25	4	Aerotech	4.29	Composite	29x98	77.9	46.8	3.05	25.55	89.9	54.3	35.6	652.5
F25	6	Aerotech	6.38	Composite	29x98	77.9	46.8	3.05	25.55	89.4	53.8	35.6	652.5
F25	9	Aerotech		Composite	29x98	77.9	46.8	3.05	25.55	90.0	54.4	35.6	652.5
F26FJ	6	Aerotech		Composite	29x98	62.2			26.00			43.1	663.9
F26FJ	9	Aerotech		Composite	29x98	62.2			26.00			43.1	663.9
F27R	4	Aerotech		Composite	29x83	49.6	37.7	2.00	24.40			28.0	689.5
F27R	8	Aerotech		Composite	29x83	49.6	37.7	2.00	24.40			28.0	689.5
F32	5	Aerotech	5.60	Composite	24x124	79.2	55.6	2.72	29.12	81.6	43.9	37.7	743.6
F32	10	Aerotech	9.48	Composite	24x124	79.2	55.6	2.72	29.12	81.0	43.3	37.7	743.6
F32	15	Aerotech	16.45	Composite	24x124	79.2	55.6	2.72	29.12	81.7	44	37.7	743.6
F32	5	Rocketvision	5.60	Composite	24x124	79.2	55.6	2.72	29.12	70.0	32.3	37.7	743.6
F32	10	Rocketvision	9.48	Composite	24x124	79.2	55.6	2.72	29.12	70.0	32.3	37.7	743.6
F32	15	Rocketvision	16.45	Composite	24x124	79.2	55.6	2.72	29.12	70.0	32.3	37.7	743.6
F35	4	Roadrunner			29x112	76.5	50.0	2.30	35.00	111.0	70.9	40.1	893.8
F35	10	Roadrunner			29x112	76.5	50.0	2.30	35.00	111.0	70.9	40.1	893.8
F37*	6	Aerotech	5.13	Composite	29x99	50.7	46.5	1.60	31.67	108.4	80.2	28.2	808.7
F37*	10	Aerotech	9.93	Composite	29x99	50.7	46.5	1.60	31.67	109.3	81.1	28.2	808.7
F37*	14	Aerotech	12.43	Composite	29x99	50.7	46.5	1.60	31.67	108.2	80	28.2	808.7
F39*	3	Aerotech	3.17	Composite	24x70	49.7	59.5	1.33	37.34	59.3	36.6	22.7	953.5
F39*	6	Aerotech	6.27	Composite	24x70	49.7	59.5	1.33	37.34	60.0	37.3	22.7	953.5

F39	9	Aerotech	9.56	Composite	24x70	49.7	59.5	1.33	37.34	60.6	37.9	22.7	953.5
F40	4	Aerotech	3.21	Composite	29x124	78.1	68.1	2.06	37.91	125.6	85.6	40.0	968.1
F40	7	Aerotech	6.74	Composite	29x124	78.1	68.1	2.06	37.91	126.1	86.1	40.0	968.1
F40	10	Aerotech	8.97	Composite	29x124	78.1	68.1	2.06	37.91	126.2	86.2	40.0	968.1
F42T	4	Aerotech	8	Composite	29x95	52.9		1.26	42.00		76.0	27.0	1072.5
F42T	8	Aerotech	8	Composite	29x95	80.0		1.26	42.00	103.0	76.0	27.0	1072.5
F44	5	Aerotech	5.92	Composite	24x101	77.7	72.7	1.40	55.48	82.0	45.6	36.4	1416.8
F44	10	Aerotech	11.24	Composite	24x101	77.7	72.7	1.40	55.48	81.8	45.4	36.4	1416.8
F44	15	Aerotech	15.54	Composite	24x101	77.7	72.7	1.40	55.48	81.6	45.2	36.4	1416.8
F45	5.8,P	Roadrunner			29x93	61.0	62.0	1.40	45.00	93.0	63	30.0	1149.1
F50	4	Aerotech	4.25	Composite	29x98	76.8	79.6	1.43	53.73	84.9	47	37.9	1372.1
F50	6	Aerotech	6.05	Composite	29x98	76.8	79.6	1.43	53.73	83.9	46	37.9	1372.1
F50	9	Aerotech	9.20	Composite	29x98	76.8	79.6	1.43	53.73	84.9	47	37.9	1372.1
F50T	6	PML	6.05	Composite	29x98	76.8	79.6	1.43	53.73	83.9	46	37.9	1372.1
F52	6	Aerotech	5.75	Composite	29x124	73.0	79.0	1.42	51.37	121.1	84.5	36.6	1311.8
F52*	8	Aerotech	8.85	Composite	29x124	73.0	79.0	1.42	51.37	121.6	85	36.6	1311.8
F52*	11	Aerotech	11.56	Composite	29x124	73.0	79.0	1.42	51.37	121.6	85	36.6	1311.8
F60	4	Roadrunner			29x112	77.0	90.0	1.30	60.00	109.0	70.9	38.1	1532.2
F60	7	Roadrunner			29x112	77.0	90.0	1.30	60.00	109.0	70.9	38.1	1532.2
F60	10	Roadrunner			29x112	77.0	90.0	1.30	60.00	109.0	70.9	38.1	1532.2
F62*	S	Aerotech		Composite	29x89	51.0	56.5	1.10	62.00	109.0	78.5	30.5	1583.2
F62*	M	Aerotech		Composite	29x89	51.0	56.5	1.10	62.00	109.0	78.5	30.5	1583.2
F62*	L	Aerotech		Composite	29x89	51.0	56.5	1.10	62.00	109.0	78.5	30.5	1583.2
F72	5	Aerotech		Composite	24x124	74.9	98.8	1.20	61.90			36.8	1580.7
F72	10	Aerotech		Composite	24x124	74.9	98.8	1.20	61.90			36.8	1580.7
F72	15	Aerotech		Composite	24x124	74.9	98.8	1.20	61.90			36.8	1580.7
F72	5	Rocketvision			24x124	74.9	98.8	1.20	61.90			38.0	1580.7
F72	10	Rocketvision			24x124	74.9	98.8	1.20	61.90			38.0	1580.7
F72	15	Rocketvision			24x124	74.9	98.8	1.20	61.90			38.0	1580.7
Motor	Delay	Company	Delay(Secs)	Prop. Type	Casing (mm)	Tot. Imp. (n-s)	Peak Th. (newtons)	Burn Time (sec.)	Avg. Th. (newtons)	Init. Mass (grams)	Empty (grams)	Propellant Weight	LIFT Max Thrust (grams)
G12-RC*		Aerotech			32x107	87.2	20.6	8.60	10.20			51.1	260.5
G20	3	Ellis Mtn			29x149	113.5	46.0	5.50	20.00			62.0	510.7
G20	7	Ellis Mtn			29x149	113.5	46.0	5.50	20.00			62.0	510.7
G25	5	Aerotech	5.23	Composite	29x124	117.5	41.2	5.30	22.17	121.0	58.5	62.5	566.1
G25	10	Aerotech	9.63	Composite	29x124	117.5	41.2	5.30	22.17	120.9	58.4	62.5	566.1
G25	15	Aerotech	15.30	Composite	29x124	117.5	41.2	5.30	22.17	117.1	54.6	62.5	566.1
G33*	5	Aerotech	4.98	Composite	29x124	98.4	50.9	3.27	30.09	159.3	87.1	72.2	768.4
G33*	7	Aerotech	7.65	Composite	29x124	98.4	50.9	3.27	30.09	159.4	87.2	72.2	768.4
G35	4	Aerotech	4.29	Composite	29x98	100.8	76.2	2.91	34.65	100.5	50.5	50.0	884.8
G35	7	Aerotech	7.57	Composite	29x98	100.8	76.2	2.91	34.65	100.4	50.4	50.0	884.8
G35	6	Ellis Mtn			29x165	124.0	56.0	3.90	35.00			62.0	893.8
G35	10	Ellis Mtn			29x165	124.0	56.0	3.90	35.00			62.0	893.8
G37	P	Ellis Mtn	None		24x181	110.5	68.0	3.10	37.00			62.0	944.8
G37	6	Ellis Mtn			24x181	110.5	68.0	3.10	37.00			62.0	944.8
G37	10	Ellis Mtn			24x181	110.5	68.0	3.10	37.00			62.0	944.8
G38FJ	4	Aerotech	3.99	Composite	29x98	87.7	78.2	2.18	40.22	106.4	46.7	59.7	1027.1
G38FJ	7	Aerotech	6.17	Composite	29x98	87.7	78.2	2.18	40.22	105.9	46.2	59.7	1027.1
G40W	4	Aerotech	3.48	Composite	29x124	113.7	66.9	3.06	37.17	114.0	52	62.0	949.2
G40W	7	Aerotech	7.97	Composite	29x124	113.7	66.9	3.06	37.17	115.0	61.2	53.8	949.2
G40W	10	Aerotech	11.15	Composite	29x124	113.7	66.9	3.06	37.17	114.6	59.5	55.1	949.2
G40SS	P	Kosdon	None	Composite	29x206	110.6	59.5	2.96	37.35	180.0	131.6	48.4	953.8
G40W	4	PML	3.48	Composite	29x124	113.7	66.9	3.06	37.17	114.0	58.9	55.1	949.2
G40W	7	PML	7.97	Composite	29x124	113.7	66.9	3.06	37.17	115.0	59.9	55.1	949.2
G42	4	Aerotech	3.82	Composite	24x144	89.1	58.6	2.56	34.81	94.7	45.9	48.8	888.9
G42	8	Aerotech	8.15	Composite	24x144	89.1	58.6	2.56	34.81	95.0	46.2	48.8	888.9
G42	12	Aerotech	12.60	Composite	24x144	89.1	58.6	2.56	34.81	94.7	45.9	48.8	888.9
G50	6	PML	6.05	Composite	29x98	76.8	79.6	1.43	53.73	83.9	38.4	45.5	1372.1
G53*	5	Aerotech		Composite	29x124	90.9	87.3	1.70	53.10	146.0	86.0	60.0	1370.8
G53*	7	Aerotech		Composite	29x124	90.9	87.3	1.70	53.10	146.0	86.0	60.0	1370.8
G53*	10	Aerotech		Composite	29x124	90.9	87.3	1.70	53.10	146.0	86.0	60.0	1370.8
G54*	6	Aerotech	6.22	Composite	29x124	81.1	81.6	1.51	53.68	135.8	89.8	46.0	1370.8
G54*	10	Aerotech	8.99	Composite	29x124	81.1	81.6	1.51	53.68	136.2	90.2	46.0	1370.8
G54*	14	Aerotech	13.32	Composite	29x124	81.1	81.6	1.51	53.68	137.4	91.4	46.0	1370.8
G55	5	Aerotech	4.81	Composite	24x177	119.6	84.7	2.44	49.00	115.3	52.8	62.5	1251.3
G55	10	Aerotech	9.60	Composite	24x177	119.6	84.7	2.44	49.00	114.8	52.3	62.5	1251.3
G55	15	Aerotech	13.77	Composite	24x177	119.6	84.7	2.44	49.00	114.4	51.9	62.5	1251.3
G55	5	Rocketvision			24x177	119.6	84.7	2.40	49.00			62.5	1251.3
G55	10	Rocketvision			24x177	119.6	84.7	2.40	49.00			62.5	1251.3
G55	15	Rocketvision			24x177	119.6	84.7	2.40	49.00			62.5	1251.3
G60*	12A	Cesaroni			38x125	139.4	91.8	2.20	60.00	202.0	123.6	78.4	1532.2
G61W*	S,M,L	Aerotech			38x106	110.5	63.2	2.00	61.00	194.0	131.7	62.3	1557.7
G63*		Sky Ripper		Hybrid	29x305	85.0	157.6	1.30	63.00	210.0	205.0	75cc	1608.8
G64*	4	Aerotech	4.04	Composite	29x124	118.8	98.3	2.09	56.84	151.0	88.5	62.5	1451.5
G64*	8	Aerotech	8.39	Composite	29x124	118.8	98.3	2.09	56.84	151.4	88.9	62.5	1451.5
G64*	10	Aerotech	11.08	Composite	29x124	118.8	98.3	2.09	56.84	151.3	88.8	62.5	1451.5
G67R*	S,M	Aerotech			38x106	110.0			67.00	201.0	141	60.0	1710.9
G69*	12A	Cesaroni			38x125	128.8	85.9	1.90	69.00	205.0	142.5	62.5	1762.0
G69*	P	Aerotech		Composite	38x106	136.7	87.3	1.90	72.30			62.0	1762.0
G69		Sky Ripper		Hybrid	29x406	128.0	137.9	1.80	69.00	236.0	231.0	125cc	1762.0
G71*	4	Aerotech		Composite	29x124	107.0	117.0	1.50	71.00	147.0	83	64.0	1813.1
G71*	7	Aerotech		Composite	29x124	107.0	117.0	1.50	71.00	147.0	83	64.0	1813.1
G71*	10	Aerotech		Composite	29x124	107.0	117.0	1.50	71.00	147.0	83	64.0	1813.1
G75J*	S,M	Aerotech			29x194	135.6	70.3	2.40	75.00	233.0	128.7	104.3	1915.2
G77R*	S,M	Aerotech			29x150	105.0			77.00	165.0	107	58.0	1966.3
G79W*	S,M,L	Aerotech			29x150	108.6	100.7	1.40	79.00	157.0	95	62.0	2017.4
G79SS*	13A	Cesaroni			38x125	129.0	95.9	1.60	79.90	226.0	143	83.0	2040.3
G80	4	Aerotech	4.15	Composite	29x124	116.3	105.2	1.50	77.50	104.9	57	47.9	1979.1
G80	7	Aerotech	7.13	Composite	29x124	116.3	105.2	1.50	77.50	106.6	58.7	47.9	1979.1
G80	10	Aerotech	9.10	Composite	29x124	116.3	105.2	1.50	77.50	103.2	55.3	47.9	1979.1
G80T	4	PML	4.15	Composite	29x124	116.3	105.2	1.50	77.50	104.9	48	56.9	1979.1
G80T	7	PML	7.13	Composite	29x124	116.3	105.2	1.50	77.50	106.6	49.7	56.9	1979.1
G80	4	Roadrunner			29x140	108.0	114.0	1.40	80.00	135.0	80.3	54.7	2042.9
G80	7	Roadrunner			29x140	108.0	114.0	1.40	80.00	135.0	80.3	54.7	2042.9
G80	10	Roadrunner			29x140	108.0	114.0	1.40	80.00	135.0	80.3	54.7	2042.9
G100		Contrail		Hybrid	38x406	146.0	230.0	1.40	101.00	511.0	418	93	2553.6
G101*	S,M,L	Aerotech			29x125	85.0	102.3	1.00	101.00			46.0	2579.2
G104T*	S,M,L	Aerotech			29x125	81.5	113.8	1.00	104.00	136.0	92.1	43.9	2655.8

G123		Contrail		Hybrid	38x406	142.0	413.0	1.20	123.00	511.0	499.0	140cc	3141.0
G125		Sky Ripper		Hybrid	38x406	142.0	413.0	1.20	123.00	511.0	499.0	83	3192.0
G130		Contrail		Hybrid	38x406	100.0	706.0	0.90	130.00	516.0	423.0	93	3319.7
G234		Contrail		Hybrid	38x414	118.0	606.5	0.50	221.00	544.0	434.0	110	5975.5
G300		Contrail		Hybrid	38x407	161.0	619.0	0.70	300.00	544.0	521.0	90cc	7660.9
G339N*	P	Aerotech	NONE	Composite	28x97	108.9	503.5	0.40	307.50			49	7852.4
Motor	Delay	Company	Delay(Seconds)	Prop. Type	Casing (mm)	Tot. Imp. (n-s)	Peak Th. (newtons)	Burn Time (sec.)	Avg. Th. (newtons)	Init. Mass (grams)	Empty (grams)	Propellant Weight	LIFT Max Thrust (grams)
H			(actual)										
H45W	10	Aerotech			38x194	289.0	102.0	6.00	45.00	295.0	97.6	197.4	1149.1
H45W	15	Aerotech			38x194	289.0	102.0	6.00	45.00	295.0	97.6	197.4	1149.1
H48	P	Ellis Mtn	None		38x172	249.4	101.5	4.40	56.60	292.0	147	145.0	1445.4
H48	8	Ellis Mtn			38x172	249.4	101.5	4.40	56.60	292.0	147	145.0	1445.4
H50		Ellis Mtn			29x279	264.0	109.0	5.00	50.00			142.0	1276.8
H50		Ellis Mtn			29x279	264.0	109.0	5.00	50.00			142.0	1276.8
H55	6	Aerotech			29x191	162.3	55.0	2.50	55.00	188.0	88.3	99.7	1404.5
H55	10	Aerotech			29x191	162.3	55.0	2.50	55.00	188.0	88.3	99.7	1404.5
H55	14	Aerotech			29x191	162.3	55.0	2.50	55.00	188.0	88.3	99.7	1404.5
H70	6	Aerotech			29x229	215.0	174.0	2.00	70.00	224.0	98	126.0	1787.5
H70	10	Aerotech			29x229	215.0	174.0	2.00	70.00	224.0	98	126.0	1787.5
H70	14	Aerotech			29x229	215.0	174.0	2.00	70.00	224.0	98	126.0	1787.5
H70	P	Propulsion P		Hybrid	38x464	237.0	171.0	3.20	72.00	627.0	308.7	318.3	1838.6
H70	P	RATT		Hybrid	29x457	207.5	204.3	3.60	70.00	352.0	206.8	145.2	1787.5
H73J*	S,M	Aerotech			38x152	185.6	97.1	2.60	73.00	309.0	166.3	142.7	1864.1
H78		Sky Ripper		Hybrid	29x523	172.9	150.4	2.80	78.00	284.0	279.0	185cc	1991.8
H97J*	S,M	Aerotech		Composite	29x238	177.3	111.5	2.20	97.00	278.0	140.9	137.1	2477.0
H100P	P	West Coast		Hybrid	38x403	247.0						189cc	2553.6
H101	4	Ellis Mtn			29x273					270.0	120	150.0	2579.2
H110*	13A	West Coast		Hybrid	38x606	266.0			110.00			146.0	2809.0
H110*	13A	Cesaroni			38x185	266.0						145.6	2809.0
H112J*	6	Aerotech			38x191	261.1	121.7	2.90	112.00	379.0	187.8	191.2	2860.1
H112J*	10	Aerotech			38x191	261.1	121.7	2.90	112.00	379.0	187.8	191.2	2860.1
H112J*	14	Aerotech			38x191	261.1	121.7	2.90	112.00	379.0	187.8	191.2	2860.1
H121		Contrail		Hybrid	38x508	225.0	294.0	1.90	121.00	612.0	566.0	185cc	3089.9
H123W*	6	Aerotech			38x152	223.6	174.2	1.80	123.00	275.0	146.3	128.7	3141.0
H123W*	10	Aerotech			38x152	223.6	174.2	1.80	123.00	275.0	146.3	128.7	3141.0
H123W*	14	Aerotech			38x152	223.6	174.2	1.80	123.00	275.0	146.3	128.7	3141.0
H124		Sky Ripper		Hybrid	38x533	224.5	335.3	1.70	124.00	664.0	522.0	220cc	3166.5
H125W	S,M,L	Aerotech			29x330	299.4	307.0	2.60	125.00	323.0	135.1	187.9	3192.0
H128W*	S,M,L	Aerotech			29x194	166.2	168.7	1.30	128.00	206.0	111.8	94.2	3268.6
H141		Contrail		Hybrid	38x508	247.0	297.0	1.70	141.00			185cc	3600.6
H143SS*	13A	Cesaroni			38x185	247.0	167.0	1.70	142.40	347.0	182.0	165.0	3636.4
H144LW*	17A	Loki			38x190	239.3	254.0	1.60	144.00	336.0	210.0	126.0	3677.2
H148R*	S,M,L	Aerotech			38x152	206.0	174.2		148.00	309.0	187.0	122.0	3779.4
H153*	13A	Cesaroni			38x185	258.0	188.3	1.80	153.00	304.0	160.1	143.9	3907.0
H155		Sky Ripper		Hybrid	38x533	228.8	416.8	1.70	155.00	664.0	522.0	220cc	3958.1
H155		Contrail		Hybrid	38x711	541.0			155.00				3958.1
H165R*	M,L	Aerotech			29x194	165.0			165.00	202.0	112.0	90.0	4213.5
H180W*	S,M,L	Aerotech			29x238	217.7	228.5	1.30	180.00	252.0	128.1	123.9	4596.5
H210R*	10	Aerotech			29x238	215.4	275.7	1.00	215.40	246.0	135.2	110.8	5500.5
H210R*	P	Aerotech			29x238	215.4	275.7	1.00	215.40	246.0	135.2	110.8	5500.5
H211		Contrail		Hybrid	38x508	206.0	674.0	1.00	211.00	600.0	590.0	185cc	5388.2
H220T*	6	Aerotech			29x238	220.0			220.00			106.4	5618.0
H220T*	10	Aerotech			29x238	220.0			220.00			106.4	5618.0
H220T*	14	Aerotech			29x238	220.0			220.00			106.4	5618.0
H222		Contrail		Hybrid	38x407	161.0	619.0	0.70	222.00	520.0	498.0	140cc	5669.1
H238T*	S,M,L	Aerotech			29x194	167.8	263.4	0.70	238.00	196.0	112.6	83.4	5067.6
H242T*	6	Aerotech			38x152	231.7	276.6	1.10	242.00	264.0	149.3	114.7	6179.8
H242T*	10	Aerotech			38x152	231.7	276.6	1.10	242.00	264.0	149.3	114.7	6179.8
H242T*	14	Aerotech			38x152	231.7	276.6	1.10	242.00	264.0	149.3	114.7	6179.8
H246		Contrail		Hybrid	38x508	222.0	653.0	0.90	246.00	598.0	414.0	184	6281.9
H248		Contrail		Hybrid	38x719	261.5	746.0	1.10	245.00	794.0		185cc	6333.0
H250G*	7	Aerotech			29x238	231.0		0.90	250.00	250.0	134.0	116	6384.1
H268R*	10	Aerotech			29x333	320.0			268.00	358.0	192.0	166.0	6843.7
H268R*	14	Aerotech			29x333	320.0			268.00	358.0	192.0	166.0	6843.7
H268R*	P	Aerotech			29x333	320.0			268.00	358.0	192.0	166.0	6843.7
H275	10	Ellis Mtn			29x275	293.5	641.6	1.1	275.00	255.0	92.0	163.0	6292.0
H277		Contrail		Hybrid	38x712	292.0	793.0	1.2	277.00	732.0	703.0	370cc	7073.5
H300		Contrail		Hybrid	38x508	161.0	710.0	0.6	300.00	612.0	566.0	185cc	7660.9
H303		Contrail		Hybrid	38x508	170.0	752.0	0.6	303.00	589.0	566.0	185cc	7737.5
H333		Contrail		Hybrid	38x991	556.0			333.00			460cc	8503.6
H340		Contrail		Hybrid	38x712	288.0			340.00			275cc	8682.3
H500*	17A	Loki			38x295	317.0			500.00			156.0	12768.1
H565*	A	Cesaroni			38x244	319.8			565.00			165.0	14428.0
H669*	P	Aerotech			38x152	221.0	961.5	0.3	651.40			98.0	16634.3
H999*	P	Aerotech			38x203	319.9			999.00			147.0	25510.7
Motor	Delay	Company	Delay(Seconds)	Prop. Type	Casing (mm)	Tot. Imp. (n-s)	Peak Th. (newtons)	Burn Time (sec.)	Avg. Th. (newtons)	Init. Mass (grams)	Empty (grams)	Propellant Weight	LIFT Max Thrust (grams)
i			(actual)										
I65W	P	AEROTECH	NONE		54X235	640.0	150.1	8.3	76.30	762	392.3	369.7	1948.4
I69	10	ELLIS MTN			29X406	369.0	149.0	5	69.00			236.0	1762.0
I80		RATT		HYBRID	29X730	367.9	104.4	5.8	80.00	553	331.2	221.8	2042.9
I80-P	P	PROPULSION	NONE	HYBRID	38X646	460.0	198.8	5.8	80.00	842	509.6	332.4	2042.9
I90L		RATT		HYBRID	29X921	485.2			90.00	685	395.7	289.3	2298.3
I110-P	P	WCR	NONE	HYBRID	38X606	499.7	162.6	4.6	108.50	824	497	329.0	2770.7
I115W*		AEROTECH			54X156	412.0			115.00	545	326	219.0	2936.7
I117		SKY RIPPER		HYBRID	38X914	591.6	435.6	4.4	117.00	1133	763	370.0	2987.7
I117J*		AEROTECH			54X156	361.0		3.1	117.00	566	323	243.0	2987.7
I119		SKY RIPPER		HYBRID	38X711	407.0	454.4	3	119.00	967	703	264.0	3038.8
I130		HYPERTEK		HYBRID	54X546	470.6			130.00			298.0	3319.7
I130-P	P	ELLIS MTN	NONE		38X330	597.6	258.7	4.4	130.00			308.0	3319.7
I132W	M,L	AEROTECH			38X335	610.7	512.9	4.8	132.00	512	135.6	376.4	3370.8
I134-15	15	ELLIS MTN			38X355	444.9	268.8	5.2	134.00	581	280.5	300.5	3421.9
I136		HYPERTEK		HYBRID	54X546	507.0			136.00			283.0	3472.9
I145FX		HYPERTEK		HYBRID	54X546	541.0			145.00			298.0	3702.8
I147		SKY RIPPER		HYBRID	38X711	519.0	497.3	3.5	147.00	967	703	264.0	3753.8
I150-20*	P	ELLIS MTN	NONE		38X241	378.0	155.5	2.8	150.00	422	169.2	252.8	3830.4
I160-20*	P	PROPULSION		HYBRID	38X646	484.0	299.0	3.1	155.00	856	548.3	307.7	3958.1
I160-P*	P	ELLIS MTN	NONE		38X280	493.2	265.3	3.5	160.00	516	208.3	307.7	4085.8
I161W	S,M,L	AEROTECH			38X191	335.8	266.6	1.8	161.00	366	172.8	193.2	4111.3

I170-15A*	15A	CESARONI				38X244	418.5	242.3	2.1	170.00	405	193.2	211.8	4341.2
I170S*	L	KOSDON/AT				38X314	374.0	211.0	2	170.00			182.0	4341.2
I195J*	6, 10, 14	AEROTECH				38X299	426.5	216.3	2.1	195.00	572	271	301.0	4979.6
I195WW*		ANIMAL				38x249	358.0	238.0	1.8	200.00			192.0	4979.6
I200W*	6, 10, 14	AEROTECH				29X333	326.3	463.3	1.7	200.00	358	170.7	187.3	5107.3
I205		HYPERTEK			HYBRID	54X546	469.0			205.00			298.0	5234.9
I205-13A*	13A	CESARONI				38X244	380.9	236.0	1.9	205.00	402	195.9	206.1	5234.9
I210		CONTRAIL			HYBRID	38X922	497.0	648.0	2.7	182.00	870	745	125.0	5362.6
I211W*	6, 10, 14	AEROTECH				38X248	434.5	399.5	1.7	211.00	455	203.7	251.3	5388.2
I212SS-14A*	14A	CESARONI				38X244	364.0	255.2	1.7	212.70	475	200	275.0	5431.6
I215R*		AEROTECH				54X156	399.0			215.00	527	319	208.0	5490.3
I218R*	6, 14, P	AEROTECH				38X203	330.0			218.00	372	199.3	172.7	5566.9
I220*		ANIMAL				38x249	358.0	312.0	1.6	223.00			202	5679.8
I221		CONTRAIL			HYBRID	38X172	355.0	355.0	1.7	221.00	710	680	30	5643.5
I222		HYPERTEK			HYBRID	54X546	519.0			222.00			275	5669.1
I225FJ*		AEROTECH				38X240	374.0	367.9	1.6	230.50			264	5886.1
I225FX		HYPERTEK			HYBRID	54X546	527.5			225.00			298	5745.7
I229T*		AEROTECH				54X156	407.0			229.00	514	318	196	5847.8
I230-20*	P	ELLIS MTN	NONE			38X331	625.8	359.2	3.1	230.00	610	318	292	5873.3
I240-15A*	15A	CESARONI				38X302	555.8	279.0	2	240.00	504	225	279	6128.7
I245G*		AEROTECH				38X202	351.0			245.00	365	184	181	6256.4
I255*	S,M,L	AEROTECH				38X248	374.0			255.00			264	6511.7
I260		HYPERTEK			HYBRID	54X614	570.4			260.00			382.8	6639.4
I271BB*	20	ANIMAL				38X258	390.0		1.4	271.00			189	6920.3
I280F*	L	KOSDON/AT				38X258	390.0	334.0	1.0	280.00			182	7150.2
I284W*	6, 10, 14	AEROTECH				38X299	607.3	570.6	1.9	284.00	556	240	316	7252.3
I285-15A*	15A	CESARONI				38X302	510.1	350.6	1.9	285.00	506	233.6	272.4	7277.8
I285R*	10, 14, P	AEROTECH				38X250	420.0			285.00	493	262.8	230.2	7277.8
I285GG	20	ANIMAL				38X258	353.0		1.5	285.00			206.5	7277.8
I287SS-15A*	15A	CESARONI				38X302	486.0	344.2	1.7	286.20	605	274	331	7308.5
I290		CONTRAIL			HYBRID	38X922	430.0	635.5	1.5	286.60	885		460CC	7405.5
I300T*	6, 10, 14	AEROTECH				38X250	440.0	474.4	1.4	300.40			221.6	7671.1
I301*	18	KOSDON/AT				38x370	554.0	433.0	1.8	302.00	726	5	721	7686.4
I305FJ*		AEROTECH				38X288	452.1	418.2	1.4	313.50			330	8005.6
I307		CONTRAIL			HYBRID	38X922	573.0	777.0	1.9	308.00	810	700	110	7839.6
I310		HYPERTEK			HYBRID	54X645	574.5			310.00	1305	903.8	401.2	7916.2
I310S*	S,L,P	KOSDON/AT				38X368	633.8	473.9	2.1	310.00			316.3	7916.2
I315SK*	20	ANIMAL				38X370	572.0		1.8	315.00			333.7	8043.9
I325WW*		ANIMAL				38X370	594.0	402.0	1.8	328.00			317.0	8299.3
I350SS-16A*	16A	CESARONI				38X360	601.0	399.7	1.7	352.10	782	368	414	8991.3
I354*	S,M,L	AEROTECH				38X337	570.0			354.00			396	9039.8
I357T*	S,M,L	AEROTECH				38X203	360.4	432.8	1.0	357.00	343	168.6	174.4	9116.4
I360-15A*	15A	CESARONI				38X360	625.5	555.5	1.8	360.00			334.6	9193.1
I364FJ*		AEROTECH				38X355	570.1	487.3	1.5	373.30			335	9532.7
I366R*	M,L	AEROTECH				38X299	539.0	507.0	1.0	366.00	556	256	300	9346.3
I370F*	P	KOSDON/AT				38X368	634.3	539.2	1.7	370.00			316.9	9448.4
I375GG*	20	ANIMAL				38X370	596.0		1.6	375.00	734	393.8	340.2	9576.1
I400		CONTRAIL			HYBRID	38X991	432.0	1006.0	1.0	400.00	925	465	460	10214.5
I405LW-17A		LOKI				38X305	493.2	493.2	1.2	405.00	543	291	252	10342.2
I435T*	6, 10, 14	AEROTECH				38X299	565.0	785.6	1.1	435.00	518	248.1	269.9	11108.3
I450F	L	KOSDON/AT				38X368	633.0	627.0	1.0	450.00			302	11491.3
I500		CONTRAIL			HYBRID	38X712	336.0	1069.0	0.7	500.00	800	748	52	12768.1
I550	20	KOSDON/AT				38x370	575.0	689.0	1.0	587.00	712	5	707	14045.0
I599N*		AEROTECH				54X156	410.0			599.00	505	319	186	15296.2
I727		CONTRAIL			HYBRID	38X922	611.0	5808.0	0.8	725.00	929	763	166	13100.1
I747		CONTRAIL			HYBRID	38X712	341.0			747.00			225CC	19075.6
I1299*	P	AEROTECH	NONE			38x249	423.0	1851.4	0.3	1335.00	422	230	192	34090.9
Motor	Delay	Company	Delay(Secs) (actual)	Prop. Type		Casing (mm)	Tot. Imp. (n-s)	Peak Th. (newtons)	Burn Time (sec.)	Avg. Th. (newtons)	Init. Mass (grams)	Empty (grams)	Propellant Weight	LIFT Max Thrust (grams)
J90W*	S,M,L	AEROTECH				54X243	707.3	188.0	6.9	99.00	853	427	426	2298.3
J110	P	ELLIS MTN	NONE			54X276	751.2	222.0	6.8	110.00	875	454	421	2809.0
J115		HYPERTEK			HYBRID	54X614	673.7			115.00	1282	866.1	415.9	2936.7
J120FX		HYPERTEK			HYBRID	54X614	757.5			120.00	1293	846.8	446.2	3064.4
J125W	P	AEROTECH	NONE			54X368	1202.4	338.9	7.8	125.00	1288	649.3	638.7	3192.0
J135W	S,M,L	AEROTECH				54X368	1068.7	274.0	6.8	135.00	1141	508	633	3447.4
J140PP	P	PROPULSION			HYBRID	38X881	664.0	201.6	4.9	134.00	1166	627	539	3575.1
J144		SKY RIPPER			HYBRID	38X914	699.0			144.00	1133	763	370	3677.2
J145H		AEROTECH			HYBRID	54X709	825.7	303.3	5.7	145.00	1797	1387.5	409.5	3702.8
J148*	L	ELLIS MTN				54X356	903.4	903.4	6.1	148.00	1179	823	356	3779.4
J150		CONTRAIL			HYBRID	38X922	654.0	490.0	4.1	155.00	889	779	110	3830.4
J150		HYPERTEK			HYBRID	54X645	751.4			150.00	1306	872.5	433.5	3830.4
J160	P	RATT	NONE		HYBRID	38X1219	667.0	410.7	5.1	160.00	544	540	4	4085.8
J170		HYPERTEK			HYBRID	54X614	728.0			170.00	1282	874.5	407.5	4341.2
J170H		AEROTECH			HYBRID	54X709	739.0			170.00	1282	872.5	409.5	4341.2
J180T*	S,M,L	AEROTECH				54X230	764.1	392.0	4.5	180.00	809	371.9	437.1	4596.5
J190FX		HYPERTEK			HYBRID	54X614	827.0			190.00	1293	849.7	443.3	4851.9
J210-16A*		CESARONI				54X236	836.0	335.0	4.0	210.00	842	759	83	5362.6
J210H		AEROTECH			HYBRID	54X709				210.00				5362.6
J220		HYPERTEK			HYBRID	54X645	720.9			220.00	1305	882.4	422.6	5618.0
J222		CONTRAIL			HYBRID	38X1227	928.0	786.0	4.3	216.00	1043	933	110	5669.1
J228	6	ELLIS MTN				38X562	1115.3	616.0	5	228.00	839	270	569	5822.3
J234		CONTRAIL			HYBRID	54X912	1032.6	567.7	4.3	240.00	1764	1314	450	5975.5
J242		CONTRAIL			HYBRID	38X1220	752.0			242.00			830CC	6179.8
J246		CONTRAIL			HYBRID	38X922	673.0	490.0	2.8	238.00	861	751	110	6281.9
J250		CONTRAIL			HYBRID	38X711	430.0			250.00			370CC	6384.1
J250		HYPERTEK			HYBRID	54X614	744.5			250.00	1292	887.4	404.6	6384.1
J250FJ*		AEROTECH				54X241	731.0		2.9	250.00	907	420	487	6384.1
J260HW		AEROTECH			HYBRID	54X709				260.00				6639.4
J270-20*	P	ELLIS MTN	NONE			38X384	732.9	427.6	3.5	270.00	712	364.9	347.1	6894.8
J270FX		HYPERTEK			HYBRID	54X614	802.2			270.00	1296	872.8	423.2	6894.8
J272		CONTRAIL			HYBRID	54X922	1065.5	573.0	3.9	276.00	1746		910CC	6945.9
J275W*	S,M,L,XL	AEROTECH				54X230	774.0	370.0	3.3	275.00	864	392	472	7022.5
J280SS*	16A	CESARONI				54X236	716.5			280.00	954	442	512	7150.2
J285-15A	15A	CESARONI				38X360	648.0	369.3	2.3	287.50	595	282	313	7341.7
J292		CONTRAIL			HYBRID	54X719	734.0	627.8	2.5	292.00	1542		530CC	7456.6
J295FX		HYPERTEK				54X552	998.8			295.00			711.9	7533.2
J295-15A*	15A	CESARONI				54x320	1196.3	450.5	4	298.00	1119	525	594	7609.8
J300-15A*	15A	CESARONI				38x360	694.0	552.0	2.1	300.00	607	261.6	345.4	7660.9

J315R*	L,P	AEROTECH			54X230	763.3				315.00	851	413	438	8043.9
J317		HYPERTEK		HYBRID	81X552	998.8				317.00	1758	1046.1	711.9	8095.0
J330-16A*	16A	CESARONI			38X419	765.0	459.3	2.3		325.30	702	327	375	8306.9
J330*	20,P	ELLIS MTN			38X433	861.7	660.7	3.6		330.00	788	376.1	411.9	8427.0
J330FX		HYPERTEK		HYBRID	81X552	1051.1				330.00	1777	1039	738	8427.0
J333		CONTRAIL		HYBRID	38X1227	733.0	1227.0	2.4		305.00	1064	954	110	8503.6
J345		CONTRAIL		HYBRID	38X1227	891.0	1222.0	2.7		318.00	1118	934	184	8810.0
J350W*	L	AEROTECH			38X337	670.1				350.00			361.1	8937.7
J350W*	S,M,L	AEROTECH			38X337	697.4	822.5	1.5		350.00			381.1	8937.7
J355		CONTRAIL		HYBRID	54X719	678.9	803.1	1.9		354.90	1564	1114	450	9065.4
J357WW*	P	ANIMAL	NONE		54X326	998.4	402.4	3.0		338.70	1210	661.9	548.1	8649.1
J358		CONTRAIL		HYBRID	54X922	913.9	1146.6	2.7		340.80	1743	1293	450	9142.0
J360-15A*	15A	CESARONI			38X419	825.7	828.0	1.9		360.00	709	295.9	413.1	9193.1
J365SK*	P	ANIMAL	NONE		54X403	1125.0		3.2		365.00	1459	756.7	702.3	9320.7
J370GG*	P	ANIMAL	NONE		54X326	1040.0	458.5	2.8		365.60			598.3	9336.1
J380SS-16A*	16A	CESARONI			54X320	1043.0				380.00			769	9703.8
J390-TURBO*		AEROTECH			54X709	1280.0				390.00			391	9959.1
J400RR	P	ANIMAL	NONE		54X326	1100.0		2.6		400.00			558	10214.5
J400SS-16A*	16A	CESARONI			38X419	700.0				400.00	702	310	392	10214.5
J405S*	L	KOSDON/AT			38X476	722.0	518.0	1.9		405.00			367	10342.2
J410FJ*		AEROTECH			54X326	1094.0		2.8		401.00	1267	537	730	10240.1
J415W*	S,M,L	AEROTECH			54X314	1295.2	732.8	2.9		415.00	1168	474.7	693.3	10597.6
J416		CONTRAIL		HYBRID	54X922	1130.0	1038.3	2.8		411.00	1700		910CC	10623.1
J420R*	S,M,L	AEROTECH			38X337	658.0				420.00	650	305	340	10725.2
J440BB*	20	ANIMAL			38X370	653.0		1.5		440.00	699	385.9	313.1	11236.0
J450ST*	P	ANIMAL	NONE		54X326	1070.0	563.2	2.3		459.10	1196	662.9	533.1	11723.7
J460T*	S,M,L	AEROTECH			54X230	855.3	870.5	1.8		460.00	789	373.6	415.4	11746.7
J480BB*	P	ANIMAL	NONE		54X326	1165.0		2.4		480.00			556	12257.4
J500ST-20A*	20A	ANIMAL			38X370	659.6	779.0	1.3		500.00			326.5	12768.1
J500G*		AEROTECH			38X345	723.0		1.4		500.00	654	291	363	12768.1
J525LW*	P	LOKI	NONE		54X330	1112.5	640.8	2.1		525.00	1240	615	625	13406.5
J528LW-17A*	17A	LOKI			38X419	896.0	896.0	1.2		528.00	745	371	374	13483.2
J540R*	S,M,L,P	AEROTECH			54X314	1161.0				540.00	1084	405	679	13789.6
J555		CONTRAIL		HYBRID	38X1227	795.0	2500.0	1.6		497.00	1132	966	166	14172.6
J555	P	ANIMAL	NONE		54X492	1300.0		2.4		555.00			862	14172.6
J570W*	S,M,L	AEROTECH			38X479	1142.5	973.1	1.9		570.00	902	366.2	535.8	14555.7
J605F*	L	KOSDON/AT			38X476	737.0	882.0	1.3		605.00			367	15449.4
J642		CONTRAIL			54X922	1092.6	1493.9	1.7		633.70	1791	1341	450	16394.3
J800T*	S,M,L,XL	AEROTECH			54X314	1229.1	1001.0	1.8		696.50	1086	468	618	17786.0
J800		CONTRAIL		HYBRID	38X1227	928.0	4840.0	1.2		758.00	1148	982	166	20429.0
J825*		AEROTECH			38X478	974.9	1244.3	1.2		892.90			500	22801.3
J1299*	P	AEROTECH	NONE		54X231	843.4	1468.3	0.7		1291.60			372	32982.6
J1423*	P	AEROTECH	NONE		54X230	845.0				1423.00			371.6	36338.1
J1999*	P	AEROTECH	NONE		54X316	1214.8	2965.9	0.6		1963.40			591	50137.9
J2135*	P	AEROTECH	NONE		54X314	1261.0				2135.00			557.4	54519.9
Motor	Delay	Company	Delay(Seccs)	Prop. Type	Casing (mm)	Tot. Imp. (n-s)	Peak Th. (newtons)	Burn Time (sec.)	Avg. Th. (newtons)	Init. Mass (grams)	Empty (grams)	Propellant Weight	LIFT Max Thrust (grams)	
K185W*	S,M,L	AEROTECH			54X437	1417.2	404.7	6.9		185.00	1434	597.2	836.8	4724.2
K234		CONTRAIL		HYBRID	54X1263	1657.0	477.5	7.0		235.00	2063	1613	450	5975.5
K240		HYPERTEK			81X552	1292.0				240.00	1807	1007.8	799.2	6128.7
K240H		RATT		HYBRID	64X908	1844.7				240.00	2814	1522	1292	6128.7
K250LWM*		LOKI			54X499	1607.0	728.3	6.5		250.00	1791	816	975	6384.1
K250W*	P	AEROTECH			54X673	2484.0	545.8	9.3		250.00	2211	667.9	1543.1	6384.1
K250*	P	AEROTECH	NONE		54X649	2342.0				250.00			1400	6384.1
K265		CONTRAIL		HYBRID	54X1219	1684.0	777.1	6.2		268.90	1814		1490CC	6767.1
K270W*		AEROTECH			54X579	2020.0		7.5		270.00	2083	921	1162	6894.8
K300		CONTRAIL		HYBRID	75X1016	1909.0	690.0	6.5		293.00	4059	3479	580	7660.9
K321		CONTRAIL		HYBRID	54X1220	1569.9	738.0	4.9		320.50	2043	1593	450	8197.4
K350LWM*		LOKI			54X736	2374.0							1406	8937.7
K365RR*	P	ANIMAL	NONE		75X244	1680.0		4.6		365.00			946	9320.7
K400S*	S,M,L	KOSDON/AT			54X403	1386.2	578.2	3.5		400.00			721.8	10214.5
K404		CONTRAIL		HYBRID	75X1016	2441.0	1036.0	6.4		379.00	4150	3447	703	10316.7
K445-17A*	17A	CESARONI			54X404	1636.3	664.8	3.7		445.00	1398	606	792	11363.6
K450BB*	P,SM	ANIMAL			75X244	1845.0		4.1		450.00			881.6	11491.3
K453		CONTRAIL		HYBRID	76X813	2096.0	2128.5	3.6		586.00	3606	3106	500	11567.9
K456		CONTRAIL		HYBRID	75X813	1628.0	1422.0	3.7		439.00	3704	3124	580	11644.5
K458W*	P	AEROTECH	NONE		98X275	2464.6	585.8	6		458.00	3164	1739	1425	11695.6
K470ST*	P	ANIMAL	NONE		75X302	1679.0	804.0	3.7		470.00			826	12002.0
K475WW*	P	ANIMAL	NONE		54X403	1400.0	588.3	2.9		474.20			728.6	12109.3
K475*	L	ELLIS MTN			54X664	2434.9	885.9	5.1		475.00	2168	1035	1133	12129.7
K485H		AEROTECH		HYBRID	54X699	1686.8	851.1	3.5		485.00	2220	1296.6	923.4	12385.1
K510*	P	CESARONI	NONE		75X350	2486.0	689.8	4.8		514.00	2590	1393	1197	13125.6
K513FJ*		AEROTECH			54X410	1467.0		2.8		513.00	1647	673	974	13100.1
K530GG*	P	ANIMAL	NONE		54X403	1401.6	657.2	2.7		526.90			796.7	13455.1
K530SS-16A*	16A	CESARONI			54X404	1412.0				530.00	1640	615	1025	13534.2
K550W*	S,M,L,XL	AEROTECH			54X410	1539.1	655.3	3.9		396.80	1487	598	889	14044.9
K555SK*	P	ANIMAL	NONE		54X492	1300.0				555.00			862	14172.6
K555		CONTRAIL		HYBRID	54X1220	1686.5	1200.0	3.0		554.50	2038	1588	450	14172.6
K560RR*	P	ANIMAL	NONE		54X430	1480.0		2.6		560.00			750	14300.3
K560W*	P	AEROTECH	NONE		75X396	2510.5	753.7	4.1		560.00	2744	1319.1	1424.9	14300.3
K570WW*	P	ANIMAL	NONE		54X492	1697.4	751.5	3.0		559.10	1815	900.4	914.6	14277.3
K570-17A*	17A	CESARONI			54X488	2062.9	892.7	3.6		574.00	1685	695	990	14657.8
K575FJ*	P	AEROTECH	NONE		38X478	798.1	839.5	1.3		594.00			576	15168.5
K575SS*	P	CESARONI	NONE		75X395	2493.0	667.3	4.3		578.00	3143	1423	1720	14760.0
K600F*	S,M,L,P	KOSDON/AT			54X403	1428.5	874.0	2.4		600.00	1416	691.7	724.3	15321.8
K600WW*	P,SM	ANIMAL			75X368	2500.0	766.4	4.1		614.10	2913	1689.7	1223.3	15681.8
K605RR*	P	ANIMAL	NONE		75X368	2410.0		4.0		605.00			1231	15449.4
K630		CONTRAIL		HYBRID	75X813	1340.6	973.1	2.2		609.40	3550	3035	515	16087.8
K650RR*	P	ANIMAL	NONE		54X492	1840.0		2.8		650.00			931	16598.6
K650SS-16A*	16A	CESARONI			54X488	1749.5				650.00	1990	709	1281	16598.6
K650T*	P	AEROTECH	NONE		98X289	2405.7	752.8	3.7		650.00	2935	1655	1280	16598.6
K660-17A*	17A	CESARONI			54X572	2437.0	1078.9	3.7		659.00	1949	772	1177	16828.4
K661		CONTRAIL		HYBRID	75X1016	1847.0				661.00			2050	16879.5
K670GG*	P	ANIMAL	NONE		54X492	1751.1	804.6	2.6		668.40	1915	901	1014	17068.4
K678		CONTRAIL		HYBRID	75X1016	1847.0	2342.0	2.8		661.00	4050	3470	580	18054.1
K680R*	P	AEROTECH	NONE		98X289	2358.0	835.0	3.5		680.00			1316	17364.7
K695R*	M,L,P	AEROTECH			54X410	1514.0				695.00	1487	584	903	17747.7
K700BB*	P	ANIMAL	NONE		54X430	1650.0		2.3		700.00			745	17875.4

K700W*	P	AEROTECH	NONE		54X568	2261.0	1617.0	3.5	700.00	2035	731.7	1303.3	17875.4
K707		CONTRAIL		HYBRID	75X813	1385.8	1486.0	2.0	698.00	3674	3515	159	18054.1
K750*		KOSDON/AT			54X727	2468.0	1188.0	3.3	752.00	2636	1137	1499	19152.2
K777*		CONTRAIL		HYBRID	75X1016	1833.0	1908.0	2.6	695.00	4050	3034	1016	19841.7
K780R*	P	AEROTECH	NONE		75X395	2371.0	965.0	3.0	780.00	2934	1666	1268	19918.3
K800BB*	P	ANIMAL	NONE		54X492	1950.0		2.3	800.00			914	20429.0
K805*	P	AEROTECH	NONE		54X401	1762.0		2.2	805.00	1543	672	871	20556.7
K828FJ*		AEROTECH			54X579	2120.0		2.5	828.00	2223	850	1373	21144.1
K888		CONTRAIL		HYBRID	76X1016	2400.0	3024.8	2.7	896.00	4173	3548	625	22676.2
K950ST*	P	ANIMAL	NONE		54X492	1858.8	1204.5	2.0	943.50	1795	907.6	887.4	24093.5
K960LWB*		LOKI			54X499	1946.0	1528.6	2.0	960.00	1746	816	930	24514.8
K975WWW*	P,SM	ANIMAL			54X728	2454.4	1290.9	2.5	976.40	2599	1241.7	1357.3	24933.6
K1000-SK*	SM,P	ANIMAL			54X728	2120.0		2.0	1000.00			1297	25536.3
K1000S*	P	KOSDON/AT	NONE		54X728	2592.7	1737.7	2.6	1000.00			1301	25536.3
K1050W	P	AEROTECH	NONE		54X676	2530.3	2164.0	2.3	1050.00	2128	765.8	1362.2	26813.1
K1075GG*	P	ANIMAL	NONE		54X728	2392.5	1384.7	2.2	526.90			1399.9	27451.5
K1100T*	S,M,L,XL	AEROTECH			54X398	1598.7	2004.0	1.6	1100.00	1336	562.7	773.3	28089.9
K1275*	P	AEROTECH	NONE		54X568	2224.9	1554.0	1.8	1275.00	1986	764	1222	32558.7
K1400F*	P	KOSDON/AT	NONE		54X728	2640.0	1989.2	1.9	1400.00			1248	35750.8
K1499*	P	AEROTECH	NONE		75X260	1321.7	1720.1	0.9	1499.80	1741	1137	604	38299.3
K1750*		KOSDON/AT			54X1727	2423.0	2070.0	1.4	1751.00	2564	1123	1441	44688.5
K1999*	P	AEROTECH	NONE		98X289	2540.0	2159.6	1.3	1887.40			1225	48197.1
Motor L	Delay	Company	Delay(Secs) (actual)	Prop. Type	Casing (mm)	Tot. Imp. (n-s)	Peak Th. (newtons)	Burn Time (sec.)	Avg. Th. (newtons)	Init. Mass (grams)	Empty (grams)	Propellant Weight	LIFT Max Thrust (grams)
L200		HYPERTEK		HYBRID	75X1031	2639.3			200.00	3895	2281.1	1613.9	5107.3
L225FX		HYPERTEK		HYBRID	75X1031	2788.7			225.00	3948	2259.6	1688.4	5745.7
L330*	P	ELLIS MTN	NONE		76X381	2910.5	484.6	7.3	330.00	2670	1180.1	1489.9	8427.0
L350		HYPERTEK		HYBRID	75X1031	3042.9			350.00	3903	2283.2	1619.8	8937.7
L355FX		HYPERTEK		HYBRID	75X1031	2851.1			355.00	3954	2316	1638	9065.4
L369		CONTRAIL		HYBRID	75X813	3828.7	651.9	10.6	361.70	4800	4015	785	9422.9
L475		HYPERTEK		HYBRID	75X1031	2774.4			475.00	3898	2354.7	1543.3	12129.7
L535FX		HYPERTEK		HYBRID	75X1031	2994.3			535.00	3948	2332.3	1615.7	13661.9
L540		HYPERTEK		HYBRID	75X1387	4615.1			540.00	5656	3097.3	2558.7	13789.6
L550		HYPERTEK		HYBRID	75X1031	3094.7			550.00	3898	2346.4	1551.6	14044.9
L570FX		HYPERTEK		HYBRID	75X1387	4715.5			570.00	5706	3098.1	2607.9	14555.7
L575		HYPERTEK		HYBRID	75X1387	4831.4			575.00	5653	3100.2	2552.8	14683.4
L600	P	RATT	NONE	HYBRID	64X1066	3152.0	2071.7	7.1	600.00	2200	0	2200	15321.8
L600*	P	ELLIS MTN	NONE		76X584	4995.4	1056.0	8.0	600.00	4120	1647.2	2472.8	15321.8
L610FX		HYPERTEK		HYBRID	75X1031	3130.9			610.00	3951	2347.7	1603.3	15577.1
L625FX		HYPERTEK		HYBRID	75X1387	4950.9			625.00	5706	3103.9	2602.1	15960.2
L666SK*	P	ANIMAL	NONE		75X870	2700.0		4.0	666.00			1646.7	17007.1
L700BB*	P,SM	ANIMAL			75X368	2590.0		3.3	700.00			1193.9	17875.4
L730*	P	CESARONI	NONE		54X649	2765.0	1214.9	3.8	733.00	2247	896	1351	18718.1
L740FX		HYPERTEK		HYBRID	75X1438	5033.0			740.00			2598	18896.8
L777WWW*	P,SM	ANIMAL		HYBRID	75X497	3136.6	1000.2	4.1	774.50	3699	1936.7	1762.3	19777.8
L800*	P	CESARONI	NONE		75X486	3757.0	1286.1	4.7	804.00	3511	1716	1795	20531.2
L800		CONTRAIL		HYBRID	75X1372	3759.0	1608.0	4.6	813.00	4726	1526	3200	20531.2
L850W*	P	AEROTECH	NONE		75X531	3736.4	1866.2	4.4	850.00	3742	1647.2	2094.8	21705.8
L890SS*	P	CESARONI	NONE		75X530	3762.0	1228.3	4.2	890.00	4346	1766	2580	22727.3
L900RR*	P	ANIMAL	NONE		75X497	3450.0		3.8	900.00			1771	22982.6
L930LWB		LOKI			76X499	3587.0	1136.7	3.8	930.00	3538	1633	1905	23748.7
L952W*	P	AEROTECH	NONE		98X427	4656.0	1021.5	6.2	952.00	5012	2262.3	2749.7	24310.5
L970		HYPERTEK		HYBRID	75X1438	5098.0			970.00			2537	24770.2
L1000S*	P	KOSDON/AT	NONE		54X728	2592.0	1738.0	2.6	1000.00	2325	1024	1301	25536.3
L1060GG*	P,SM	ANIMAL			75X497	3622.6	1298.3	3.4	1065.50	3939	2020	1919	27208.9
L1080BB*	P	ANIMAL	NONE		75X497	3700.0		3.4	1080.00			1717	27579.2
L1090SS*	P	CESARONI	NONE		75X665	4815.0	1702.1	4.4	1090.00	5461	2021	3440	27834.5
L1100RR*	SM,P	ANIMAL			75X728	2600.0		2.3	1100.00			1346	28089.9
L1111ST*	P	ANIMAL	NONE		75X497	3479.9	1379.0	3.1	1111.00			1642	28370.8
L1115*	P	CESARONI	NONE		75X621	5015.0	1713.3	4.5	1119.00	4404	2010	2394	28575.1
L1120W*	P	AEROTECH	NONE		75X665	4946.5	1794.0	4.4	1120.00	4658	1880.2	2777.8	28600.6
L1150R*	P	AEROTECH	NONE		75X530	3517.0	1346.0	3.1	1150.00	3674	1772	1902	29366.7
L1222SF		CONTRAIL		HYBRID	75X1371	3682.0	2892.0	3.1	1173.00	4989	4203	786	31205.3
L1300BB*	SM,P	ANIMAL			75X728	2675.0		2.0	1300.00			1314	33197.1
L1300R*	P	AEROTECH	NONE		98X443	4567.0			1300.00			2632	33197.1
L1400LW*	PS	LOKI	?		54X736	2850.6	2710.5	2.0	1400.00	2540	1140	1400	35750.8
L1400F*	P	KOSDON/AT	NONE		54X728	2640.0	1989.0	1.9	1400.00			1248	35750.8
L1400*		ANIMAL			75X785	4744.3	1963.3	3.4	1390.90	5204	2375	2829	35750.8
L1420R*	P	AEROTECH	NONE		75X443	4603.0	1814.0	3.2	1420.00			2560	36261.5
L1428		CONTRAIL		HYBRID	76X1753	4733.0	3064.0	3.1	1531.00	5738	4588	1150	36465.8
L1500T*	P	AEROTECH	NONE		98X665	5089.3	1752.0	3.5	1500.00	4659	2168.7	2490.3	38304.4
L2525GF		CONTRAIL		HYBRID	75X1524	4677.0	4905.8	1.9	2456.00	5579	4273	1306	64479.1
Motor M	Delay	Company	Delay(Secs) (actual)	Prop. Type	Casing (mm)	Tot. Imp. (n-s)	Peak Th. (newtons)	Burn Time (sec.)	Avg. Th. (newtons)	Init. Mass (grams)	Empty (grams)	Propellant Weight	LIFT Max Thrust (grams)
M520*	P	CESARONI	NONE		98X548	7441.0	1184.2	13.8	542.00	6693	3035	3658	13840.7
M650*		AEROTECH			75X801	5964.0	1475.0	9.1	656.00	5125	2232	2893	16598.6
M711BS		CONTRAIL		HYBRID	75X1371	5507.0	1872.0	7.2	762.40	4900	4173	727	18156.3
M740		HYPERTEK		HYBRID	75X1438	5143.0			740.00			2589	18896.8
M750*		AEROTECH			98X732	9325.0	1454.0	12.7	744.00	8776	3236	5540	19152.2
M845		AEROTECH			98X782	6159.0			845.00			3433	21578.1
M900	P	RATT	NONE	HYBRID	69X1828	6463.5	1945.3	12.3	900.00	3288	0	3288	22982.6
M956		HYPERTEK		HYBRID	98X1166	6421.0			956.00			3162	24412.7
M960FX		HYPERTEK		HYBRID	75X1438	5126.0			960.00			2629	24514.8
M1000		HYPERTEK		HYBRID	98X1405	9155.0			1000.00	8907	4670.6	4236.4	25536.3
M1000*	P	ELLIS MTN	NONE		76X787	7320.3	2425.0	7	1000.00	5578	2066.8	3511.2	25536.3
M1001		HYPERTEK		HYBRID	98X1438	9835.0			1001.00			5161	25561.8
M1010FX		HYPERTEK		HYBRID	98X1405	9114.4			1010.00	9000	4698.6	4301.4	25791.6
M1015FX		HYPERTEK		HYBRID	98X1166	6334.0			1015.00			3250	25919.3
M1040FX		HYPERTEK		HYBRID	98X1438	10098.0			1040.00			5293	26557.7
M1297W*	P	AEROTECH	NONE		75X665	5416.6	2049.0	4.2	1297.00	4637	1915	2722	33120.5
M1315W*	P	AEROTECH	NONE		75X801	6713.5	2362.5	5.4	1315.00	5645	2145.6	3499.4	33580.2
M1350WWW*	P,SM	ANIMAL			75X785	5710.5	1662.7	4.2	1350.00	5403	2475.7	2927.3	34474.0
M1400*	P	CESARONI	NONE		75X757	6251.0	2291.8	4.5	1398.00	5302	2310	2992	35699.7
M1419W*	P	AEROTECH	NONE		98X579	7755.5	1590.9	7.1	1419.00	6916	2839	4077	36236.0
M1450*		KOSDON/AT			75X1039	7813.0	2134.0	5.5	1432.00	7615	2826	4789	37027.6
M1480RR*	SM,P	ANIMAL			75X785	5800.0		3.9	1480.00			3000	37793.7
M1491		CONTRAIL		HYBRID	76X1372	5675.6	5705.6	3.4	1693.00	4876	4212	664	38074.6
M1550R*	P	AEROTECH	NONE		75X801	5600.0	2180.0	3	1550.00	5645	2475	3170	39581.2

M1575		CONTRAIL		HYBRID	98X1524	6546.8	2965.3	4.2	1556.40	10683	8473	2210	40219.6
M1600R*	P	AEROTECH	NONE		98X579	7084.0	1917.0	4	1600.00	6917	2891	4026	40858.0
M1730SK*	P	ANIMAL	NONE		98X870	8115.0		4.7	1730.00			4945.2	44177.7
M1850R*	P	AEROTECH	NONE		75X923	7658.6	4489.4	4	1909.60			4122	48764.0
M1850GG*	P	ANIMAL	NONE		75X781	5920.0	2269.0	3	1850.00	4500	1125	3375	47242.1
M1882LW*	PS	LOKI			76X787	6303.0	2860.0	3	1882.00	5534	2404	3130	48059.2
M1900BB*	SM,P	ANIMAL			75X785	6100.0		2.9	1900.00			2733	48518.9
M1939W*	P	AEROTECH	NONE		98X732	10481.5	2429.7	6.2	1939.00	8988	3268.9	5719.1	49518.8
M2000R*	P	AEROTECH	NONE		98X732	9218.0	2327.0	4	2000.00	8987	3619	5368	51072.5
M2020WWW*	P	ANIMAL	NONE		98X870	10281.0			2020.00			5160.9	51583.3
M2100*	P	AEROTECH	NONE		98X598	7802.0		3.7	2100.00	6918	2970	3948	53626.1
M3203*	P	AEROTECH	NONE		75x653	5485.0		2.6	2030.00	4906	2243	2663	51838.6
M2200SK*	SM,P	ANIMAL			75X1039	6350.0		2.9	2200.00			3766	56179.8
M2281BF*		CONTRAIL		HYBRID	75X1524	5482.0	6040.0	2.1	2552.00	5579	4273	1306	58248.2
M2400T*	P	AEROTECH	NONE		98X597	7716.5	3401.6	3.2	2400.00	6451	2758.4	3692.6	61287.0
M2500GG*	P,SM	ANIMAL			75X1039	7800.0	2995.5	3.1	2501.40	7552	3304	4248	63876.4
M2500T*	P	AEROTECH	NONE		98X751	9671.0	3710.9	3.9	2500.00	8064	3352.8	4711.2	63840.7
M2505*	P	CESARONI	NONE		98X579	7450.0	2952.6	3.0	2491.00	6250	2911	3339	63610.8
M2600GG*	P	ANIMAL	NONE		98X870	10607.0			2600.00			5591.4	66394.3
M2700BB*	P	ANIMAL	NONE		98X870	11452.0			2700.00			5147.1	68947.9
M2700		CONTRAIL		HYBRID	98X1524	6034.0	5483.6	2.3	2644.80	10432	8702	1730	68947.9
M2800		CONTRAIL		HYBRID	98X1524	6059.8	4963.6	2.3	2569.50	10704	8494	2210	71501.5
M2900*		KOSDONIAT			75x1039	5290.0	5290.0	2.1	2979.00	7195	2930	4265	74055.1
M3000ST*	P	ANIMAL	NONE		75X1039	7367.0	4387.0	2.5	3000.00	6720	2901	3819	76608.8
Motor	Delay	Company	Delay(Seccs)	Prop. Type	Casing	Tot. Imp.	Peak Th.	Burn Time	Avg. Th.	Init. Mass	Empty	Propellant	LIFT Max
N-O			(actual)		(mm)	(n-s)	(newtons)	(sec.)	(newtons)	(grams)	(grams)	Weight	Thrust (grams)
N2000W*	P	AEROTECH	NONE		98X1046	13347.1	2327.0	4.0	2000.00	8987	3619	5368	51072.5
N2020*	P	ANIMAL	NONE		98x870	10281.0		5.0	2020.00			5161	51583.2
N2500*	P	CESARONI	NONE		98X1010	13766.0	3875.9	5.4	2562.00	11668	4890	6778	65423.9
N2600*	P	ANIMAL	NONE		98x870	10607.0		4.0	2600.00			5591	66394.3
N2700*	P	ANIMAL	NONE		98x870	11452.0		4.2	2700.00			5147	68947.9
N2800*	P	ANIMAL	NONE		98x870	11452.0		4.2	2700.00			5147	71501.5
N4000BB*		ANIMAL	NONE		98X1213	14801.7	3654.3	5.4	2764.10	13809	6113	7696	102145.0
N4800T*	P	AEROTECH	NONE		98X1201	19361.0	6599.4	4.4	4800.00	14784	5213.2	9570.8	122574.1
O5100*	P	CESARONI	NONE		161X803	29990.0	6562.0	5.9	5113.00	23577	10332	13245	130566.9
O6300		CONTRAIL		HYBRID	152X1829	27244.0	12732.1	4.3	6353.60	28576	23360	5216	160878.4