

# Flight Results for Rocket Rally 2015

	Flight #1	Flight #2	Flight #3	Flight #4	Flight #5
Owners	Zach & Caleb H	Chester	Jessica, Ngan & Lindsey	Camille	Natalie & Jeff
Rocket Name					Pentatonix
Rocket Type	Arcas	G-Force	G-Force	Arcas	Arcas
Rocket Mass	722.5	1010	1021	748.1	620
Motor Used	G80-7T	G64-4W	G64-4W	G53-7J	G75-7M
Estimated Cd	0.6	0.65	0.6	0.6	0.7
Estimated Altitude	1925	750	820	1096	1850
Apogee Altitude		762 ft	805 ft		1490 ft
Top Speed		137 mph	142 mph		284 mph
Burn Time burn		2.0 s	2.23 s		1.42 s
Peak Acceleration PAcc		6.46 g	6.6 g		12.3 g
Avg Accerleration AAcc		3.1 g	2.9 g		9.1 g
Coast to Apogee C2AP		6.6 s	5.6 s		7.8 s
Apogee to Eject AP2E		-0.8 s	-5.6 s		0.6 s
Ejection Altitude EALt		752 ft	284 ft		1488 ft
Descent Speed dESc		14 mph	6 mph		14 mph
Flight Duration durA		43.6 s	32.4 s		77.9 s
Notes	Bad Altimeter		Spiral descent no chute	Bad Altimeter	Had the rocket camera

	Flight #6	Flight #7	Flight #8	Flight #9	Flight #10
Owners	Emma & Anika	Nick	Brody	Sarah & Dezeray	Madonna
Rocket Name	Gryffindor	Pacman		Spittle Spattle	Mystery Inc
Rocket Type	Arcas	G-Force	Arcas	Arcas	Sumo
Rocket Mass	620	1054			1012
Motor Used	G77-7R	G64-4W		G76-7G	G77 4r
Estimate Cd	0.57	0.65			0.35
Estimated Altitude	1423.71	762 ft		1670 ft	830 ft
Apogee Altitude	1101 ft	803 ft		1565 ft	897 ft
Top Speed	239 mph	145 mph		268 mph	165 mph
Burn Time burn	1.41 s	1.81 s		1.56 s	1.62 s
Peak Acceleration PAcc	9.5 g	6.7 g		16.0 g	11.3 g
Avg Accerleration AAcc	7.5 g	3.7 g		7.9 g	4.7 g
Coast to Apogee C2AP	7.0 s	5.1 s		6.4 s	6.2 s
Apogee to Eject AP2E	-7.0 s	-0.8 s		-1.3 s	1.2 s
Ejection Altitude EALt	194 ft	759 ft		1491 ft	877 ft
Descent Speed dESc	2 mph	9 mph		11 mph	11 mph
Flight Duration durA	51.2 s	62.6 s		91.3 s	61.2 s
Notes			Bad Altimeter		

	Flight #11	Flight #12	Flight #13	Flight #14	Flight #15
Owners	Caleb W., Emily & Lauryn	Ben & Mason	Cooper, Tyler & Addison	Hannah & Hayley	Adam
Rocket Name	RT-AH	Ferrari	Clash of Clans	Let It Go	Mass Effect
Rocket Type	G-Force	G-Force	G-Force	Arcas	Sumo
Rocket Mass	1023	1013	1181.9	751.1	
Motor Used	G76-4G	G80-7T	G138-T	G64-7W	G77-4R
Estimated Cd	0.4	0.6	0.5	0.62	
Estimated Altitude	850	1033	1220	1577.05	983 ft
Apogee Altitude	887 ft	1120 ft		1388 ft	725 ft
Top Speed	174 mph	205 mph		240 mph	153 mph
Burn Time burn	1.36 s	1.51 s		2.4 s	1.62 s
Peak Acceleration PAcc	12.0 g	7.8 g		12.4 g	5.3 g
Avg Accerleration AAcc	5.9 g	6.2 g		5.4 g	4.3 g
Coast to Apogee C2AP	6.5 s	6.8 s		7.2 s	3.9 s
Apogee to Eject AP2E	-2.2 s	0.5 s		-0.4 s	-0.5 s
Ejection Altitude EALt	815 ft	1119 ft		1379 ft	654 ft
Descent Speed dESc	18 mph	23 mph		26 mph	9 mph
Flight Duration durA	35.9 s	41.4 s		44.6 s	52.8 s
Notes	Sprial descent no chute	Sprial descent no chute	Crash	nose cone detached but safely recovered	

	Flight #16	Flight #17	Flight #18	Flight #19	Flight #20
Owners	Nate & Cody	Brady & Brandon			
Rocket Name	Buzz Lightyear	Dexter			
Rocket Type	G-Force	G-Force			
Rocket Mass	1025	999			
Motor Used	G76-4G	G64-4W			
Estimate Cd	0.34	0.47			
Estimated Altitude	843	850			
Apogee Altitude	892 ft				
Top Speed	172 mph				
Burn Time burn	1.44 s				
Peak Acceleration PAcc	12.2 g				
Avg Accerleration AAcc	5.45 g				
Coast to Apogee C2AP	6.1 s				
Apogee to Eject AP2E	2.3 s				
Ejection Altitude EALt	789 ft				
Descent Speed dESc	48 mph				
Flight Duration durA	6.1 s				
Notes	Crash no chute, was able to salvage atilometer data	Bad Altimeter			