Rocket Data Sheet and Launch Record

Rocket Description	
Owner:	Mr Duhrkopf
Rocket Name:	Big Sharky
Type:	Modelrockets.us
Length: (inches)	22.625
Diameter: (inches)	1.645
Fins:	3
Listed Mass: (g)	85 g
Date of Construction:	9/4/2012
Recommended Motors: (C only)	
C6-3, C6-5	
Center Gravity(CG):	13.77 in from nose
Center Pressure(CP):	

Building Notes

Had trouble with the stickers, couple fins are chipped. shouldn't effect performance

Estimated Cd:	0.5
Predicted Altitude:	400 Ft

Prediction Notes

company says 650 ft which is way off. My mass is similiar to listed. Picked 400 ft due to the 4 previous flights. Wind will play a big factor in the altitude

Launch Information	
Date:	9/23/2014
Time of Launch:	4th
Location:	little kids soccer
Rocket Mass(g):	83.1
Motor:	C6-5
Motor Mass(g):	25
Altimeter Mass(g):	9.9
Liftoff Mass(g):	118
Wind Direction:	south
Wind Speed:	11 mph
Igniter:	Estes
No. of tries to ignite:	1

Ignition

¨ Successfull	¨ Blow Out
¨ Caught on clips	¨ Motor Failure

Trajectory

¨ Straight-Up	¨ Spinning
¨ Corkscrew	¨ Non-vertical
¨ Into the wind	¨ Unstable

Launch Notes

Put into wind a little. Almost sideways from the start

Recovery Information

Ejection Occurred

¨ During Ascent	¨ At Apogee
¨ After Apogee	¨ During Descent
¨ Ejection Failure	

Parachute Deployment

¨ Full	¨ Partial
¨ Did not deploy	

Parachute Descent

¨ Stable Descent	¨ Tangled lines
¨ Some swaying	¨ Sprial descent

Reason for Recovery Failure

¨ Damaged Chute
¨ Tight Upper Body tube
¨ Improper setup
¨ Chute Separated
¨ Motor Ejected
¨ Unplanned Separation
¨ Other _____

Descent Speed

¨ Slow	¨ Average speed
¨ Very fast	¨ Ballistic

Landing

¨ Soft	¨ Water
¨ Tree	¨ Caught on Wire
¨ Hard	¨ Crash
¨ Landed on Building	

Recovery

¨ Full Recovery	¨ Lost
¨ Not Recoverable	¨ Parts lost

Distance & Direction from pad:

20 yds south on the road

Recovery Notes

chute popped way after apogee. Landed hard on the shoulder of the road

Lessons Learned

C6-5 is too much delay time if the rocket does not travel straight up. Very easy to have rocket not go straight up when windy

Altimeter Two Data	
Apogee Altitude:	290 Ft
Top Speed:	91 mph
Burn Time (burn):	2.21 s
Peak Acc (Pacc):	7.2g
Avg Acc (Aacc):	1.96g
Coast Apogee (C2AP):	2.5 s
Apogee to Eject (AP2E):	2.4 s
Ejection Alt. (EALt):	227 Ft
Descent Speed (dESc):	12 mph
Flight Duration (durA):	19.3 s

Altimeter Data Analysis

Everything looks good

Prediction vs Actual Analysis

Way off. Trajectory was way off. Wind could be the issue, could be the setup

Post Launch Information

Flight Grade

¨ Excellent
¨ Good
¨ Fair
¨ Poor
¨ Rocket cannot launch again

Describe any damage to the rocket:

Loose fin but is repairable, nicks on ther fins

Rocket Project Suggestions

Try not to launch in windy conditions