

Rocket Data Sheet and Launch Record

Rocket Description		Recovery Information		Altimeter Two Data	
Owner:	Adam Toney	Ejection Occurred		Apogee Altitude:	427 Ft
Rocket Name:	ICBM #2015	¨ During Ascent	¨ At Apogee	Top Speed:	113 mph
Type:	Model Rockets.US	¨ After Apogee	¨ During Descent	Burn Time (burn):	1.76 s
Length: (inches)	22.625	¨ Ejection Failure		Peak Acc (Pacc):	9.5g
Diameter: (inches)	1.645	Parachute Deployment		Avg Acc (Aacc):	2.9g
Fins:	Three	¨ Full	¨ Partial	Coast Apogee (C2AP):	3.8s
Listed Mass: (g)	70.87	¨ Did not deploy		Apogee to Eject (AP2E):	1.5s
Date of Construction:	9/18/2014	Parachute Descent		Ejection Alt. (EALt):	405 Ft
Recommended Motors:		¨ Stable Descent	¨ Tangled lines	Descent Speed (dESc):	21 mph
B6-2; C6-3		¨ Some swaying	¨ Sprial descent	Flight Duration (durA):	19.7s
Center Gravity(CG):	15.75 in from nose	Reason for Recovery Failure		Altimeter Data Analysis	
Center Pressure(CP):		¨ Damaged Chute		Everything looks about right due to a parachute failure	
Building Notes		¨ Tight Upper Body tube			
Fully white with ICBM style to the design		¨ Improper setup			
		¨ Chute Separated			
		¨ Motor Ejected			
Estimated Cd:	0.5	¨ Unplanned Separation		Prediction vs Actual Analysis	
Predicted Altitude:	375	¨ Other Parachute failed to deploy		I had predicted 375ft but the rocket went to 427 ft so I was 52 ft off	
Prediction Notes		Descent Speed			
Company says 650ft but I say only 375ft		¨ Slow	¨ Average speed		
		¨ Very fast	¨ Ballistic		
		Landing			
Launch Information		¨ Soft	¨ Water		
Date:	9/25/2014	¨ Tree	¨ Caught on Wire		
Time of Launch:	10:45:00	¨ Hard	¨ Crash		
Location:	Parking lot	¨ Landed on Building		Post Launch Information	
Rocket Mass(g):	70.87	Recovery		Flight Grade	
Motor:	c6-5	¨ Full Recovery	¨ Lost	¨ Excellent	
Motor Mass(g):	25	¨ Not Recoverable	¨ Parts lost	¨ Good	
Altimeter Mass(g):	9.9	Distance & Direction from pad:		¨ Fair	
Liftoff Mass(g):	105.77	40 yds to the West of the pad		¨ Poor	
Wind Direction:	North	Recovery Notes		¨ Rocket cannot launch again	
Wind Speed:	5 mph	One of the fins broke off at landing		Describe any damage to the rocket:	
Igniter:	Estees			A fin broke off on the landing	
No. of tries to ignite:	One				
Ignition				Rocket Project Suggestions	
¨ Successfull	¨ Blow Out	Lessons Learned		Ensure your nose cone is not tight and double check the parachute to make sure it will deploy. The C6-3s look to be a better choice for the rockets than the C6-5s due to the wind so have more of those types of engines	
¨ Caught on clips	¨ Motor Failure	Make sure the nose cone is loose and check the parachute to make sure it deploys and does not fail. This also shows I will need to take wind into more consideration.			
Trajectory					
¨ Straight-Up	¨ Spinning				
¨ Corkscrew	¨ Non-vertical				
¨ Into the wind	¨ Unstable				
Launch Notes					
Had a successful launch, but the parachute failed to deploy after the ejection					