# Rocket Data Sheet and Launch Record 

| Rocket Description |  |
| :---: | :---: |
| Owner: | Kennady \& Hannal |
| Rocket Name: | Mike \& Ike |
| Type: | ModelRockets.us |
| Length: (inches) | 22.625 inches |
| Diameter: (inches) | 1.645 inches |
| Fins: | 3 |
| Listed Mass: (g) | 87.1 grams |
| Date of Construction: | 9/19/2014 |
| Recommended Motors: |  |
| C6-5 or C6-3 |  |
| Center Gravity(CG): | 37.9 cm |
| Center Pressure(CP): |  |
| Building Notes |  |
| We didn't have any building issues. We sanded the edges of the fins a bit before attaching them. We realized with the fluorescent paint that it needed multiple |  |
| Estimated Cd: | 0.5 |
| Predicted Altitude: | 345 feet |
| Prediction Notes |  |
| The company of the "Big Sharky" rocket predicts that the rocket will soar to 650 ft using a C6-5 engine. |  |
| Launch Information |  |
| Date: | 9/25/2014 |
| Time of Launch: | 9:35:00 |
| Location: | Parking lot of socc |
| Rocket Mass(g): | 87.1 |
| Motor: | C6-3 |
| Motor Mass(g): | 24.8 |
| Altimeter Mass(g): | 9.9 |
| Liftoff Mass(g): | 121.8 |
| Wind Direction: | SE |
| Wind Speed: | 5 mph |
| Igniter: | estes |
| No. of tries to ignite: | One |
| Ignition |  |
| Successfull | " Blow Out |
| Caught on clips | - Motor Failure |
| Trajectory |  |
| - Straight-Up | - Spinning |
| Corkscrew | - Non-vertical |
| - Into the wind | - Unstable |
| Launch Notes |  |
| After the countdown was completed for launch off, there was a delay after about ten feet off launch pad. This could've been due to the initial lighting of the engine. |  |


| 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 |
| $\cdots$ Landed on Building |  |
| Recovery |  |
| Full Recovery | - Lost |
| Not Recoverab | - Parts lost |
| Distance \& Direction from pad: |  |
| The rocket landed about 50 yds from the launch pad, to the east of it. It landed near |  |
| Recovery Notes |  |


| Altimeter Two Data |  |
| :--- | :---: |
| Apogee Altitude: | 315 Ft |
| Top Speed: | 89 mph |
| Burn Time (burn): | 2.8 s |
| Peak Acc (Pacc): | 6.9 g |
| Avg Acc (Aacc): | 2.0 g |
| Coast Apogee (C2AP): | 3.0 s |
| Apogee to Eject (AP2E): | .2 s |
| Ejection Alt. (EALt): | 314 Ft |
| Descent Speed (dESc): | 9 mph |
| Flight Duration (durA): | 27.5 s |

## Altimeter Data Analysis

Our rocket didn't reach nearly the apogee of what we predicted, or compared to the apogees of our classmates' rockets. This could've been due to the weight of our rocket being heavier than most. Our descent speed was average compared to other rockets. Overall, the launch of rocket was fine, it was just the apogee that wasn't reached.

Prediction vs Actual Analysis Our prediction was that our rocket would soar to 345 feet. When even predicted a little lower than others in our class because our rocket was heavier than others. Unfortunately, our rocket didn't even reach our prediction apogee. It only soared to 315 feet.

| Post Launch Information |
| :--- |
| Flight Grade |
| $\because$ Excellent |
| $\because$ Good |
| $\cdots$ |
| $\because$ Fair |
|  |
| Poor |
| Descket cannot launch again |
| Do damage was damage to to to the rocket: |

## Rocket Project Suggestions

Using less paint and image so that your rocket weighs less than 89 grams, this definitely had an effect on the height our rocket was able to reach. Using a C6-3 engine was a good choice for our rocket. I think the rocket project goes very smoothly though, props Mr. Duhrkopf!

