

Milestone Review Flysheet

PDR, CDR, FRR

Institution Name

University of Hawaii - Windward Campus

Milestone

FRR

Rocket Properties

Diameter	4.0 in
Length	86.0 in
Gross Liftoff Weight	24.6 lbs
Launch lug/button size	1010
Motor Retention	Not required for PDR

Motor Properties

Manufacturer	Aerotech
Designation	K560W
Peak, Average Thrust	120 lbs
Mass (before,after burn)	2774 g/1341 g
Total Impulse	2560 N s

Stability Analysis

CP, CG Location (from nose)	62.5 in
Stability Margin	8.74
Thrust-to-Weight Ratio	6
Rail size, Length	12 feet

Ascent Analysis

Max Velocity	725 ft/s
Max Acceleration	258 ft/s/s
Peak Altitude	5280
Rail Exit Velocity	30 ft/s

Recovery System Properties

Drogue Parachute

Size	36 in
Configuration	octagonal
Altitude at Deployment	5280
Velocity at Deployment	0

Recovery System Properties

Main Parachute

Size	96 in
Configuration	circular
Altitude at Deployment	500 ft
Velocity at Deployment	60.0 ft/s
Velocity upon Landing	<20 ft/s

Recovery System Properties

Electronics/Ejection

Altimeter(s) Make, Model	G-Wiz HCX			
Redundancy Plan (altimeters, switches, batteries, etc.)	PerfectFlight MAWDs			
Pad Stay Time (launch configuration)	<60 min			
Rocket Locator (Make, Model)				
Frequencies of Transmitting Electronics	Not required for PDR			
Black Powder Mass	Main	4.0 g	Drogue	3.0g

Payload/Science

Succinct Overview of Payload/Science Experiment	Testing a three-axis accelerometer.
Identify Major Components	BS2e and inertial sensors
Mass of Payload/Science	1.0 kg

Test Plan Schedule/Status

Ejection Test(s)	3/6/10 on the WCC campus. This was successful. The only omissin was that the avionics bay wa
Subscale Launches	On-going. Next scheduled launch for testing is 3/20/01. As of this writing, every test has been a s
Full-Scale Launches	3/14/01 KMCAS - Flight was successful. Max. Altitude was 851 (MDAWs)

