Milestone Review Flysheet 2017-2018

Institution	Maharishi School	Milestone	PDR

Vehicle Properties	
Total Length (in)	92.4
Diameter (in)	6.1
Gross Lift Off Weigh (lb.)	
Airframe Material(s)	Fiberglass
Fin Material and Thickness (in)	Fiberglass, 0.118
Coupler Length/Shoulder Length(s) (in)	

Motor Properties	
Motor Brand/Designation	Aerotech K680
Max/Average Thrust (lb.)	180 lbs
Total Impulse (lbf-s)	
Mass Before/After Burn (lb.)	
Liftoff Thrust (lb.)	140 lbs
Motor Retention Method	

Stability Analysis	
Center of Pressure (in from nose)	72.4 inches
Center of Gravity (in from nose)	60.2 inches
Static Stability Margin (on pad)	2.01
Static Stability Margin (at rail exit)	2.01
Thrust-to-Weight Ratio	
Rail Size/Type and Length (in)	
Rail Exit Velocity (ft/s)	

Ascent Analysis	
Maximum Velocity (ft/s)	
Maximum Mach Number	1
Maximum Acceleration (ft/s^2)	
Predicted Apogee (From Sim.) (ft)	5,283

Recovery System Properties Drogue Parachute	
Manufacturer/Model	
Size/Diameter (in or ft)	
Altitude at Deployment (ft)	
Velocity at Deployment (ft/s)	
Terminal Velocity (ft/s)	
Recovery Harness Material	
Recovery Harness Size/Thickness (in)	
Recovery Harness Length (ft)	
Harness/Airframe Interfaces	

Recovery System Properties Main Parachute				
Manufacturer/Model				
Size/Diameter (in or ft)				
Altitude at Deployment (ft)				
Velocity at Deployment (ft/s)				
Terminal Velocity (ft/s)				
Recovery Harness Material				
Recovery Harness Size/Thickness (in)				
Recovery Harness Length (ft)				
Harness/Airframe Interfaces				
Kinetic Energy of Each Section (Ft-lbs)	Section 1	Section 2	Section 3	Section 4

Kinetic Energy of Each Section (Ft-lbs)	Section 1	Section 2	Section 3	Section 4

Recovery Electronics	
Altimeter(s)/Timer(s) (Make/Model)	
Redundancy Plan and Backup Deployment Settings	
Pad Stay Time (Launch Configuration)	

Recovery Electronics		
Rocket Locators (Make/Model)		
Transmitting Frequencies (all - vehicle and payload)	***Required by CDR***	
ection System Energetics (ex. Black Powder		
Energetics Mass - Drogue Chute (grams)	Primary	
	Backup	
Energetics Mass - Main Chute (grams)	Primary	
	Backup	
Energetics Masses - Other (grams) - If Applicable	Primary	
	Backup	

Milestone Review Flysheet 2017-2018

Institution	Maharishi School	Milestone	PDR

Payload	
Payload 1 (official payload)	Overview
	ngineering payload will function through the unravelling of a shock cord through the use of a motor/winch when the arduino board and altimeter wor
Payload 2 (non-scored payload)	Overview

Test Plans, Status, and Results	
Ejection Charge Tests	Planned to do by Nov 30th
Sub-scale Test Flights	Planned to do 2 sub-scale flights by Dec 14th
Full-scale Test Flights	Planned two full-scale flights by March 16th

Milestone Review Flysheet 2017-2018

Institution	Maharishi School	Milestone	PDR

Additional Comments