Milestone Review Flysheet

Institution Pennsylvania State University			у		Milestone		CDR			
Vehicle Properties							Motor Properties			
Total Length (in) 147					Motor Ma	Motor Manufacturer			Cesaroni	
	Diameter (in)			6.079		Motor Designation		L1350		
Gross Lift (Off Weigh (lb)		38.69			Max/Average Thrust (lb)		Avg: 303.4		
Airfram	e Material		Blue Tube 2.0		Total Imp	Total Impulse (lbf-s)		962		
Fin N	//aterial		G10 FR4 Fiberglass		Mass Before	Mass Before/After Burn		2616g/1270g		
С	Orag		0.628			nrust (lb)	340			
	:	Stability Analysis					Ascent Analysis			
Cer	nter of Pressure (in from no	ose)	115			Maximum Veloxity (ft/s)			675	
Ce	enter of Gravity (in from no	se)	91.75		I	Maximum Mach Number			0.61	
	Static Stability Margin		3.8		Ma:	Maximum Acceleration (ft/s^2)				
Static Stability Margin (off launch rail)		2.65		Targe	Target Apogee (From Simulations)		5231			
Thrust-to-Weight Ratio		7.83			Stable Velocity (ft/s)					
Rail Size and Length (in)		1.5/144		Dis	Distance to Stable Velocity (ft)		3.5			
Rail Exit Velocity (ft/s)		75	5.8							
	Recov	ery System Prop	erties			Reco	very System Prope	erties		
		Dogue Parachute	•				Main Parachute			
Manufact	turer/Model		Fruity Chutes Elliptical		Manufactu	ırer/Model		Fruity Chute Iris Ulra		
S	Size		18" Diameter		Si	ze	72" Diameter			
į	Altitude at Deployment (ft)	1	5280		A	Altitude at Deployment (ft)		700		
V	elocity at Deployment (ft/s	5)	-		Ve	Velocity at Deployment (ft/s		/s) 95		
	Terminal Velocity (ft/s)		95			Terminal Velocity (ft/s)		19.52		
ı	Recovery Harness Material		Kevlar		R	Recovery Harness Material		l Kevlar		
l	Harness Size/Thickness (in)		0.5		Н	Harness Size/Thickness (in)		0.5		
Recovery Harness Length (ft)		30		Re	Recovery Harness Length (ft)		40			
Harness/Airframe Interfaces		1/2" Steel Eye Bolt		Harness/Airfra	ime Interfaces		1/2" Steel Eye Bolt			
	Forward Body	Aft Body	Section 3	Section 4		Nose/Body Tube	Avionics Bay	Booster	KIWI	
	,			1	Kinetic Enerfy of Each					

Section (Ft-Ibs)	1651	2728				Section (Ft-lbs)	51.42	49.64	52.44	9.22		
Recovery Electonics					Recovery Electonics							
Altimeter(s)/Timer(s) (Make/Model)		Stratologger CF				Rocket Locators	s (Make/Model)	Garmin Astro 320				
						Transmitting	Frequencies	MURS (151.820 MHz - 154.600 MHz)				
Redundan	cy Plan	Single level redundancy for drogue and main event				Pyrodex Mass Drog	gue Chute (grams)	5				
Pad Stay Time (Laun	ch Configuration)	2 hours				Pyrodex Mass Ma	ain Chute (grams)	4				
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