07 10 2020; 16:31:19PM Activity Log Started
07 10 2020; 16:34:59PM Project Data Saved To File
07 10 2020; 16:35:30PM Activity Log Started
07 10 2020; 16:35:30PM Opened Project C:\Users\jrw29289\Desktop\DAS 2.0\project\Slingshot\
07 10 2020; 16:35:37PM Project Data Saved To File
07 10 2020; 16:51:54PM Activity Log Started
07 10 2020; 16:51:54PM Opened Project C:\Users\jrw29289\Desktop\DAS 2.0\project\Slingshot\
07 10 2020; 16:52:12PM Processing Requirement 4.3-1: Return Status : Not Run

==========
No Project Data Available
==========

========== End of Requirement 4.3-1 ==========
07 10 2020; 16:52:14PM Processing Requirement 4.3-2: Return Status : Passed

==========
No Project Data Available
==========

========== End of Requirement 4.3-2 ==========
07 10 2020; 17:02:03PM Processing Requirement 4.5-1: Return Status : Passed

==========
Run Data
==========

INPUT

Space Structure Name = Slingshot
Space Structure Type = Payload
Perigee Altitude = 500.000 (km)
Apogee Altitude = 500.000 (km)
Inclination = 45.000 (deg)
RAAN = 0.000 (deg)
Argument of Perigee = 0.000 (deg)
Mean Anomaly = 0.000 (deg)
Final Area-To-Mass Ratio = 0.0032 (m^2/kg)
Start Year = 2021.000 (yr)
Initial Mass = 19.294 (kg)
Final Mass = 19.294 (kg)
Duration = 1.000 (yr)
Station-Kept = False
Abandoned = True

OUTPUT

Collision Probability = 4.5256E-07
Returned Message: Normal Processing

Date Range Message: Normal Date Range
Status = Pass

==========

========== End of Requirement 4.5-1 ==========

07 10 2020; 17:02:04PM Processing Requirement 4.6 Return Status : Passed

==========
Project Data
==========

INPUT

Space Structure Name = Slingshot
Space Structure Type = Payload

Perigee Altitude = 500.000000 (km)
Apogee Altitude = 500.000000 (km)
Inclination = 45.000000 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Area-To-Mass Ratio = 0.003192 (m^2/kg)
Start Year = 2021.000000 (yr)
Initial Mass = 19.294000 (kg)
Final Mass = 19.294000 (kg)
Duration = 1.000000 (yr)
Station Kept = False
Abandoned = True
PMD Perigee Altitude = 488.447890 (km)
PMD Apogee Altitude = 499.209478 (km)
PMD Inclination = 44.996240 (deg)
PMD RAAN = 177.531038 (deg)
PMD Argument of Perigee = 155.106885 (deg)
PMD Mean Anomaly = 0.000000 (deg)

OUTPUT

Suggested Perigee Altitude = 488.447890 (km)
Suggested Apogee Altitude = 499.209478 (km)
Returned Error Message = Passes LEO reentry orbit criteria.

Released Year = 2031 (yr)
Requirement = 61
Compliance Status = Pass

==========

========== End of Requirement 4.6 ==========
07 10 2020; 17:02:08PM *********Processing Requirement 4.7-1
Return Status : Passed

```
***********INPUT****
 Item Number = 1

name = Slingshot
quantity = 1
parent = 0
materialID = 8
type = Box
Aero Mass = 19.294001
Thermal Mass = 19.294001
Diameter/Width = 0.226000
Length = 0.366000
Height = 0.211000

name = Structure
quantity = 1
parent = 1
materialID = 8
type = Box
Aero Mass = 1.355000
Thermal Mass = 1.355000
Diameter/Width = 0.226000
Length = 0.366000
Height = 0.211000

name = Electronics Module
quantity = 1
parent = 1
materialID = 8
type = Box
Aero Mass = 3.832000
Thermal Mass = 2.764000
Diameter/Width = 0.108000
Length = 0.234000
Height = 0.100000

name = Reaction Wheel
quantity = 3
parent = 3
materialID = 59
type = Box
Aero Mass = 0.229000
Thermal Mass = 0.229000
Diameter/Width = 0.055000
Length = 0.055000
Height = 0.023000

name = Torque Rod
quantity = 3
parent = 3
materialID = 19
type = Cylinder
Aero Mass = 0.127000
```

```
Thermal Mass = 0.127000
Diameter/Width = 0.018000
Length = 0.062000

name = Ext. Battery Pack
quantity = 2
parent = 1
materialID = 8
type = Box
Aero Mass = 0.305000
Thermal Mass = 0.305000
Diameter/Width = 0.078000
Length = 0.079000
Height = 0.033000

name = +X Panel Assembly 1
quantity = 1
parent = 1
materialID = 8
type = Box
Aero Mass = 2.402600
Thermal Mass = 0.000000
Diameter/Width = 0.199000
Length = 0.254000
Height = 0.100000

name = +X Panel 1
quantity = 1
parent = 7
materialID = 8
type = Box
Aero Mass = 0.601000
Thermal Mass = 0.601000
Diameter/Width = 0.199000
Length = 0.254000
Height = 0.005000

name = Star Tracker (Nadir
quantity = 1
parent = 7
materialID = 8
type = Cylinder
Aero Mass = 0.068000
Thermal Mass = 0.068000
Diameter/Width = 0.032000
Length = 0.059000

name = TT&C Antenna (Nadir)
quantity = 1
parent = 7
materialID = 40
type = Box
Aero Mass = 0.085000
Thermal Mass = 0.085000
```

Diameter/Width = 0.076000
Length = 0.076000
Height = 0.007000

name = T.spoon
quantity = 1
parent = 7
materialID = 8
type = Box
Aero Mass = 0.667000
Thermal Mass = 0.000000
Diameter/Width = 0.091000
Length = 0.116000
Height = 0.060000

name = T.spoon Structure
quantity = 1
parent = 11
materialID = 8
type = Box
Aero Mass = 0.154000
Thermal Mass = 0.154000
Diameter/Width = 0.091000
Length = 0.116000
Height = 0.060000

name = Copper Straps
quantity = 3
parent = 11
materialID = 19
type = Box
Aero Mass = 0.071000
Thermal Mass = 0.071000
Diameter/Width = 0.035000
Length = 0.048000
Height = 0.005000

name = PCB (T.spoon)
quantity = 3
parent = 11
materialID = 23
type = Box
Aero Mass = 0.100000
Thermal Mass = 0.100000
Diameter/Width = 0.090000
Length = 0.090000
Height = 0.007000

name = SDR + ACETaTE
quantity = 1
parent = 7
materialID = 8
type = Box
Aero Mass = 0.981600

```
Thermal Mass = 0.000000
Diameter/Width = 0.094000
Length = 0.108000
Height = 0.041000

name = SDR Structure
quantity = 1
parent = 15
materialID = 8
type = Box
Aero Mass = 0.143000
Thermal Mass = 0.143000
Diameter/Width = 0.094000
Length = 0.108000
Height = 0.041000

name = PCB (SDR)
quantity = 1
parent = 15
materialID = 23
type = Box
Aero Mass = 0.040000
Thermal Mass = 0.040000
Diameter/Width = 0.040000
Length = 0.065000
Height = 0.010000

name = NanoDock Module
quantity = 1
parent = 15
materialID = 8
type = Box
Aero Mass = 0.076000
Thermal Mass = 0.076000
Diameter/Width = 0.090000
Length = 0.096000
Height = 0.014000

name = NanoMind Module
quantity = 1
parent = 15
materialID = 8
type = Box
Aero Mass = 0.077000
Thermal Mass = 0.077000
Diameter/Width = 0.040000
Length = 0.065000
Height = 0.014900

name = TR-600 Module
quantity = 2
parent = 15
materialID = 8
type = Box
```

```
Aero Mass = 0.065300
Thermal Mass = 0.065300
Diameter/Width = 0.040000
Length = 0.065000
Height = 0.014800

name = PCB (C-Band)
quantity = 1
parent = 15
materialID = 23
type = Box
Aero Mass = 0.160000
Thermal Mass = 0.160000
Diameter/Width = 0.076000
Length = 0.089000
Height = 0.030000

name = C-Band Structure
quantity = 1
parent = 15
materialID = 8
type = Box
Aero Mass = 0.355000
Thermal Mass = 0.355000
Diameter/Width = 0.084000
Length = 0.099000
Height = 0.039000

name = +X Panel Assembly 2
quantity = 1
parent = 1
materialID = 8
type = Box
Aero Mass = 0.720000
Thermal Mass = 0.000000
Diameter/Width = 0.086000
Length = 0.091000
Height = 0.058000

name = ExoRomper
quantity = 1
parent = 23
materialID = 8
type = Box
Aero Mass = 0.720000
Thermal Mass = 0.109000
Diameter/Width = 0.086000
Length = 0.091000
Height = 0.058000

name = ExoRomper Structure
quantity = 1
parent = 24
materialID = 8
```

type = Box
Aero Mass = 0.545000
Thermal Mass = 0.545000
Diameter/Width = 0.086000
Length = 0.091000
Height = 0.058000

name = Visible Camera and Lens
quantity = 1
parent = 24
materialID = 8
type = Box
Aero Mass = 0.046000
Thermal Mass = 0.046000
Diameter/Width = 0.044000
Length = 0.046000
Height = 0.040000

name = Lepton 3.5 Thermal Camera and Lens
quantity = 1
parent = 24
materialID = 8
type = Box
Aero Mass = 0.008000
Thermal Mass = 0.008000
Diameter/Width = 0.022000
Length = 0.030000
Height = 0.010000

name = O615 Motor Power Assembly
quantity = 2
parent = 24
materialID = 59
type = Cylinder
Aero Mass = 0.006000
Thermal Mass = 0.006000
Diameter/Width = 0.006000
Length = 0.030000

name = -X Panel Assembly 1
quantity = 1
parent = 1
materialID = 8
type = Box
Aero Mass = 1.303962
Thermal Mass = 0.000000
Diameter/Width = 0.119000
Length = 0.254000
Height = 0.100000

name = -X Panel 1
quantity = 1
parent = 29
materialID = 8

type = Box
Aero Mass = 0.636000
Thermal Mass = 0.636000
Diameter/Width = 0.199000
Length = 0.254000
Height = 0.005000

name = Star Tracker (Zenith)
quantity = 1
parent = 29
materialID = 8
type = Cylinder
Aero Mass = 0.068000
Thermal Mass = 0.068000
Diameter/Width = 0.028000
Length = 0.059000

name = TT&C Antenna (Zenith)
quantity = 1
parent = 29
materialID = 40
type = Box
Aero Mass = 0.085000
Thermal Mass = 0.085000
Diameter/Width = 0.076000
Length = 0.076000
Height = 0.007000

name = Hyper
quantity = 1
parent = 29
materialID = 8
type = Box
Aero Mass = 0.514962
Thermal Mass = 0.000000
Diameter/Width = 0.050000
Length = 0.081000
Height = 0.043200

name = Tank
quantity = 1
parent = 33
materialID = 8
type = Box
Aero Mass = 0.363000
Thermal Mass = 0.363000
Diameter/Width = 0.050000
Length = 0.081000
Height = 0.043200

name = Valve
quantity = 2
parent = 33
materialID = 8

type = Cylinder
Aero Mass = 0.037000
Thermal Mass = 0.037000
Diameter/Width = 0.022000
Length = 0.042000

name = Nozzle Stand
quantity = 1
parent = 33
materialID = 66
type = Cylinder
Aero Mass = 0.004000
Thermal Mass = 0.004000
Diameter/Width = 0.021000
Length = 0.023000

name = Nozzle Cap
quantity = 1
parent = 33
materialID = 59
type = Cylinder
Aero Mass = 0.005000
Thermal Mass = 0.005000
Diameter/Width = 0.016000
Length = 0.008000

name = Pressure Sensor
quantity = 2
parent = 33
materialID = 59
type = Cylinder
Aero Mass = 0.010000
Thermal Mass = 0.010000
Diameter/Width = 0.015800
Length = 0.017100

name = Ceramic Tube
quantity = 1
parent = 33
materialID = 1
type = Cylinder
Aero Mass = 0.000162
Thermal Mass = 0.000162
Diameter/Width = 0.002286
Length = 0.019100

name = Mounting Bracket
quantity = 1
parent = 33
materialID = -1
type = Box
Aero Mass = 0.031740
Thermal Mass = 0.031740
Diameter/Width = 0.056300

Length = 0.062800
Height = 0.038100

name = Hyper PCB
quantity = 1
parent = 33
materialID = 23
type = Box
Aero Mass = 0.017060
Thermal Mass = 0.017060
Diameter/Width = 0.042900
Length = 0.059700
Height = 0.005000

name = Coral Reef
quantity = 1
parent = 1
materialID = 8
type = Box
Aero Mass = 0.113000
Thermal Mass = 0.000000
Diameter/Width = 0.040000
Length = 0.048000
Height = 0.005110

name = Coral Reef Structure
quantity = 1
parent = 42
materialID = 8
type = Box
Aero Mass = 0.013000
Thermal Mass = 0.013000
Diameter/Width = 0.048000
Length = 0.048000
Height = 0.005110

name = Coral Reef PCB
quantity = 1
parent = 42
materialID = 23
type = Box
Aero Mass = 0.100000
Thermal Mass = 0.100000
Diameter/Width = 0.090000
Length = 0.090000
Height = 0.007000

name = Laser Comm Transmitter
quantity = 1
parent = 1
materialID = 8
type = Box
Aero Mass = 0.373000
Thermal Mass = 0.000000

Diameter/Width = 0.082000
Length = 0.127000
Height = 0.018000

name = Laser Comm Structure
quantity = 1
parent = 45
materialID = 8
type = Box
Aero Mass = 0.350000
Thermal Mass = 0.350000
Diameter/Width = 0.082000
Length = 0.127000
Height = 0.018000

name = Laser Comm PCB
quantity = 1
parent = 45
materialID = 23
type = Box
Aero Mass = 0.023000
Thermal Mass = 0.023000
Diameter/Width = 0.082000
Length = 0.127000
Height = 0.018000

name = Spoon Handle
quantity = 1
parent = 1
materialID = 8
type = Box
Aero Mass = 0.808000
Thermal Mass = 0.000000
Diameter/Width = 0.083000
Length = 0.094000
Height = 0.017000

name = Spoon Handle Structure
quantity = 8
parent = 48
materialID = 8
type = Box
Aero Mass = 0.042000
Thermal Mass = 0.042000
Diameter/Width = 0.083000
Length = 0.094000
Height = 0.017000

name = Spoon Handle PCB
quantity = 8
parent = 48
materialID = 23
type = Box
Aero Mass = 0.059000

Thermal Mass = 0.059000
Diameter/Width = 0.080000
Length = 0.080000
Height = 0.007000

name = -X Panel Assembly 2
quantity = 1
parent = 1
materialID = 8
type = Box
Aero Mass = 0.361000
Thermal Mass = 0.000000
Diameter/Width = 0.101000
Length = 0.105000
Height = 0.015000

name = -X Panel 2
quantity = 1
parent = 51
materialID = 8
type = Box
Aero Mass = 0.103000
Thermal Mass = 0.103000
Diameter/Width = 0.101000
Length = 0.105000
Height = 0.015000

name = Diplexer
quantity = 1
parent = 51
materialID = 8
type = Box
Aero Mass = 0.258000
Thermal Mass = 0.258000
Diameter/Width = 0.077000
Length = 0.080000
Height = 0.024000

name = +Y Panel Assembly
quantity = 1
parent = 1
materialID = 8
type = Box
Aero Mass = 1.785000
Thermal Mass = 0.000000
Diameter/Width = 0.210000
Length = 0.329000
Height = 0.008000

name = +Y Panel
quantity = 1
parent = 54
materialID = 8
type = Box

```
Aero Mass = 1.290000
Thermal Mass = 1.290000
Diameter/Width = 0.210000
Length = 0.329000
Height = 0.008000

name = Vertigo
quantity = 1
parent = 54
materialID = 8
type = Box
Aero Mass = 0.495000
Thermal Mass = 0.000000
Diameter/Width = 0.083000
Length = 0.094000
Height = 0.073000

name = Vertigo Structure
quantity = 1
parent = 56
materialID = 8
type = Box
Aero Mass = 0.202000
Thermal Mass = 0.202000
Diameter/Width = 0.083000
Length = 0.094000
Height = 0.073000

name = Vertigo Reaction Wheel
quantity = 3
parent = 56
materialID = 59
type = Cylinder
Aero Mass = 0.071000
Thermal Mass = 0.071000
Diameter/Width = 0.026000
Length = 0.018000

name = Vertigo Motor
quantity = 3
parent = 56
materialID = 59
type = Cylinder
Aero Mass = 0.020000
Thermal Mass = 0.020000
Diameter/Width = 0.015000
Length = 0.052300

name = Vertigo ESPON IMU
quantity = 2
parent = 56
materialID = 59
type = Box
Aero Mass = 0.010000
```

```
Thermal Mass = 0.010000
Diameter/Width = 0.024000
Length = 0.024000
Height = 0.010000

name = Eclipse-RR
quantity = 1
parent = 1
materialID = 8
type = Box
Aero Mass = 2.991000
Thermal Mass = 0.000000
Diameter/Width = 0.098000
Length = 0.192000
Height = 0.098000

name = Eclipse Structure
quantity = 1
parent = 61
materialID = 8
type = Box
Aero Mass = 2.800000
Thermal Mass = 2.800000
Diameter/Width = 0.098000
Length = 0.192000
Height = 0.098000

name = Eclipse PCB 1
quantity = 1
parent = 61
materialID = 23
type = Box
Aero Mass = 0.040000
Thermal Mass = 0.040000
Diameter/Width = 0.088000
Length = 0.337000
Height = 0.010000

name = Eclipse PCB 2
quantity = 2
parent = 61
materialID = 23
type = Box
Aero Mass = 0.030000
Thermal Mass = 0.030000
Diameter/Width = 0.092000
Length = 0.092000
Height = 0.010000

name = Eclipse Mirror
quantity = 1
parent = 61
materialID = 8
type = Box
```

Aero Mass = 0.091000
Thermal Mass = 0.091000
Diameter/Width = 0.041000
Length = 0.092000
Height = 0.010000

name = -Y Panel
quantity = 1
parent = 1
materialID = 8
type = Box
Aero Mass = 0.489000
Thermal Mass = 0.489000
Diameter/Width = 0.203000
Length = 0.254000
Height = 0.008000

name = +Z Panel Assembly
quantity = 1
parent = 1
materialID = 8
type = Box
Aero Mass = 0.373000
Thermal Mass = 0.000000
Diameter/Width = 0.193000
Length = 0.210000
Height = 0.014000

name = +Z Panel
quantity = 1
parent = 67
materialID = 8
type = Box
Aero Mass = 0.373000
Thermal Mass = 0.174000
Diameter/Width = 0.193000
Length = 0.210000
Height = 0.014000

name = ANT2000-S Antenna
quantity = 1
parent = 68
materialID = 23
type = Box
Aero Mass = 0.110000
Thermal Mass = 0.110000
Diameter/Width = 0.082600
Length = 0.100500
Height = 0.020100

name = NTE Payload
quantity = 1
parent = 68
materialID = 40

type = Box
Aero Mass = 0.054000
Thermal Mass = 0.054000
Diameter/Width = 0.082000
Length = 0.082000
Height = 0.005000

name = C-band Patch Antenna
quantity = 1
parent = 68
materialID = 40
type = Box
Aero Mass = 0.005000
Thermal Mass = 0.005000
Diameter/Width = 0.022000
Length = 0.023000
Height = 0.010000

name = Context Camera
quantity = 1
parent = 68
materialID = 8
type = Cylinder
Aero Mass = 0.030000
Thermal Mass = 0.030000
Diameter/Width = 0.025000
Length = 0.035000

name = -Z Panel Assembly
quantity = 1
parent = 1
materialID = 8
type = Box
Aero Mass = 0.606000
Thermal Mass = 0.000000
Diameter/Width = 0.105000
Length = 0.220000
Height = 0.005000

name = -Z Panel
quantity = 1
parent = 73
materialID = 8
type = Box
Aero Mass = 0.256000
Thermal Mass = 0.256000
Diameter/Width = 0.105000
Length = 0.220000
Height = 0.005000

name = Blinker
quantity = 1
parent = 73
materialID = 8

type = Box
Aero Mass = 0.350000
Thermal Mass = 0.024000
Diameter/Width = 0.092000
Length = 0.099000
Height = 0.028000

name = Blinker Structure
quantity = 1
parent = 75
materialID = 8
type = Box
Aero Mass = 0.066000
Thermal Mass = 0.066000
Diameter/Width = 0.092000
Length = 0.099000
Height = 0.028000

name = Blinker Avionics
quantity = 1
parent = 75
materialID = 23
type = Box
Aero Mass = 0.190000
Thermal Mass = 0.190000
Diameter/Width = 0.092000
Length = 0.100000
Height = 0.028000

name = Blinker Antenna
quantity = 1
parent = 75
materialID = 40
type = Box
Aero Mass = 0.030000
Thermal Mass = 0.030000
Diameter/Width = 0.041000
Length = 0.041000
Height = 0.010000

name = Blinker Battery
quantity = 1
parent = 75
materialID = 59
type = Cylinder
Aero Mass = 0.040000
Thermal Mass = 0.040000
Diameter/Width = 0.014000
Length = 0.065000

name = Solar Array
quantity = 2
parent = 1
materialID = 27

```
type = Box
Aero Mass = 0.510000
Thermal Mass = 0.510000
Diameter/Width = 0.213000
Length = 0.715000
Height = 0.002500

**************OUTPUT****
Item Number = 1

name = Slingshot
Demise Altitude = 77.996796
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

************************************
name = Structure
Demise Altitude = 75.736290
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

************************************
name = Electronics Module
Demise Altitude = 68.972839
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

************************************
name = Reaction Wheel
Demise Altitude = 0.000000
Debris Casualty Area = 1.253166
Impact Kinetic Energy = 214.249756

************************************
name = Torque Rod
Demise Altitude = 64.558960
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

************************************
name = Ext. Battery Pack
Demise Altitude = 72.815285
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

************************************
name = +X Panel Assembly 1
Demise Altitude = 77.996796
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

************************************
name = +X Panel 1
Demise Altitude = 74.567337
```

Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Star Tracker (Nadir
Demise Altitude = 75.454689
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = TT&C Antenna (Nadir)
Demise Altitude = 75.206093
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = T.spoon
Demise Altitude = 77.996796
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = T.spoon Structure
Demise Altitude = 76.558197
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Copper Straps
Demise Altitude = 74.859467
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = PCB (T.spoon)
Demise Altitude = 76.609077
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = SDR + ACEToTE
Demise Altitude = 77.996796
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = SDR Structure
Demise Altitude = 76.325233
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = PCB (SDR)
Demise Altitude = 76.931892

Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = NanoDock Module
Demise Altitude = 76.656029
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = NanoMind Module
Demise Altitude = 75.358612
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = TR-600 Module
Demise Altitude = 75.736656
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = PCB (C-Band)
Demise Altitude = 76.213982
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = C-Band Structure
Demise Altitude = 73.448593
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = +X Panel Assembly 2
Demise Altitude = 77.996796
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = ExoRomper
Demise Altitude = 76.839287
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = ExoRomper Structure
Demise Altitude = 70.536598
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Visible Camera and Lens
Demise Altitude = 75.453438

Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Lepton 3.5 Thermal Camera and Lens
Demise Altitude = 76.001160
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = O615 Motor Power Assembly
Demise Altitude = 74.861824
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = -X Panel Assembly 1
Demise Altitude = 77.996796
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = -X Panel 1
Demise Altitude = 74.369789
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Star Tracker (Zenith)
Demise Altitude = 75.189636
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = TT&C Antenna (Zenith)
Demise Altitude = 75.206093
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Hyper
Demise Altitude = 77.996796
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Tank
Demise Altitude = 72.315720
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Valve
Demise Altitude = 75.561722

Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Nozzle Stand
Demise Altitude = 0.000000
Debris Casualty Area = 0.386856
Impact Kinetic Energy = 0.307302

****
name = Nozzle Cap
Demise Altitude = 76.265953
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Pressure Sensor
Demise Altitude = 75.435760
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Ceramic Tube
Demise Altitude = 0.000000
Debris Casualty Area = 0.367973
Impact Kinetic Energy = 0.006533

****
name = Mounting Bracket
Demise Altitude = 77.898918
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Hyper PCB
Demise Altitude = 77.460297
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Coral Reef
Demise Altitude = 77.996796
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Coral Reef Structure
Demise Altitude = 77.294006
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Coral Reef PCB
Demise Altitude = 76.609077

Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Laser Comm Transmitter
Demise Altitude = 77.996796
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Laser Comm Structure
Demise Altitude = 73.479156
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Laser Comm PCB
Demise Altitude = 77.789291
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Spoon Handle
Demise Altitude = 77.996796
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Spoon Handle Structure
Demise Altitude = 77.241684
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Spoon Handle PCB
Demise Altitude = 77.019341
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = -X Panel Assembly 2
Demise Altitude = 77.996796
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = -X Panel 2
Demise Altitude = 76.417297
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Diplexer
Demise Altitude = 73.128860

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Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

************************************
name = +Y Panel Assembly
Demise Altitude = 77.996796
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

************************************
name = +Y Panel
Demise Altitude = 72.471382
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

************************************
name = Vertigo
Demise Altitude = 77.996796
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

************************************
name = Vertigo Structure
Demise Altitude = 75.905228
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

************************************
name = Vertigo Reaction Wheel
Demise Altitude = 69.683319
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

************************************
name = Vertigo Motor
Demise Altitude = 75.139847
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

************************************
name = Vertigo ESPON IMU
Demise Altitude = 0.000000
Debris Casualty Area = 0.769294
Impact Kinetic Energy = 2.135869

************************************
name = Eclipse-RR
Demise Altitude = 77.996796
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

************************************
name = Eclipse Structure
Demise Altitude = 66.806526
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Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Eclipse PCB 1
Demise Altitude = 77.813698
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Eclipse PCB 2
Demise Altitude = 77.606560
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Eclipse Mirror
Demise Altitude = 75.434036
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = -Y Panel
Demise Altitude = 75.295853
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = +Z Panel Assembly
Demise Altitude = 77.996796
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = +Z Panel
Demise Altitude = 77.037674
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = ANT2000-S Antenna
Demise Altitude = 75.507591
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = NTE Payload
Demise Altitude = 74.300995
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = C-band Patch Antenna
Demise Altitude = 76.021439

Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Context Camera
Demise Altitude = 74.440926
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = -Z Panel Assembly
Demise Altitude = 77.996796
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = -Z Panel
Demise Altitude = 75.779373
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Blinker
Demise Altitude = 77.694611
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Blinker Structure
Demise Altitude = 76.729355
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Blinker Avionics
Demise Altitude = 75.843765
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Blinker Antenna
Demise Altitude = 75.580521
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Blinker Battery
Demise Altitude = 73.406258
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Solar Array
Demise Altitude = 0.000000

Debris Casualty Area = 1.540234
Impact Kinetic Energy = 38.168152

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========== End of Requirement 4.7-1 ==========
07 10 2020; 17:02:08PM Project Data Saved To File