

Processing Requirement 4.3-1: Return Status : Not Run

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No Project Data Available
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End of Requirement 4.3-1
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Processing Requirement 4.3-2: Return Status : Passed

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No Project Data Available
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End of Requirement 4.3-2
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Requirement 4.4-3: Compliant

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End of Requirement 4.4-3
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Processing Requirement 4.5-1: Return Status : Passed

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Run Data
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****INPUT****

Space Structure Name = AC12A
Space Structure Type = Payload
Perigee Altitude = 450.000000 (km)
Apogee Altitude = 450.000000 (km)
Inclination = 51.600000 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Final Area-To-Mass Ratio = 0.028720 (m²/kg)
Start Year = 2018.000000 (yr)
Initial Mass = 4.306000 (kg)
Final Mass = 4.306000 (kg)
Duration = 1.000000 (yr)
Station-Kept = False
Abandoned = True
PMD Perigee Altitude = -1.000000 (km)
PMD Apogee Altitude = -1.000000 (km)
PMD Inclination = 0.000000 (deg)
PMD RAAN = 0.000000 (deg)
PMD Argument of Perigee = 0.000000 (deg)
PMD Mean Anomaly = 0.000000 (deg)

****OUTPUT****

Collision Probability = 0.000000
Returned Error Message: Normal Processing
Date Range Error Message: Normal Date Range
Status = Pass

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INPUT

Space Structure Name = AC12B
Space Structure Type = Payload
Perigee Altitude = 450.000000 (km)
Apogee Altitude = 450.000000 (km)
Inclination = 51.600000 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Final Area-To-Mass Ratio = 0.031096 (m²/kg)
Start Year = 2018.000000 (yr)
Initial Mass = 3.977000 (kg)
Final Mass = 3.977000 (kg)
Duration = 1.000000 (yr)
Station-Kept = False
Abandoned = True
PMD Perigee Altitude = -1.000000 (km)
PMD Apogee Altitude = -1.000000 (km)
PMD Inclination = 0.000000 (deg)
PMD RAAN = 0.000000 (deg)
PMD Argument of Perigee = 0.000000 (deg)
PMD Mean Anomaly = 0.000000 (deg)

OUTPUT

Collision Probability = 0.000000
Returned Error Message: Normal Processing
Date Range Error Message: Normal Date Range
Status = Pass

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===== End of Requirement 4.5-1 =====
Requirement 4.5-2: Compliant
Processing Requirement 4.6 Return Status : Passed

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Project Data

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****INPUT****

Space Structure Name = AC12A
Space Structure Type = Payload

Perigee Altitude = 450.000000 (km)
Apogee Altitude = 450.000000 (km)
Inclination = 51.600000 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Area-To-Mass Ratio = 0.028720 (m²/kg)
Start Year = 2018.000000 (yr)
Initial Mass = 4.306000 (kg)
Final Mass = 4.306000 (kg)
Duration = 1.000000 (yr)
Station Kept = False
Abandoned = True
PMD Perigee Altitude = 422.167670 (km)
PMD Apogee Altitude = 438.260218 (km)
PMD Inclination = 51.598114 (deg)
PMD RAAN = 8.775365 (deg)
PMD Argument of Perigee = 124.649565 (deg)
PMD Mean Anomaly = 0.000000 (deg)

****OUTPUT****

Suggested Perigee Altitude = 422.167670 (km)
Suggested Apogee Altitude = 438.260218 (km)
Returned Error Message = Passes LEO reentry orbit criteria.

Released Year = 2020 (yr)
Requirement = 61
Compliance Status = Pass

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****INPUT****

Space Structure Name = AC12B
Space Structure Type = Payload

Perigee Altitude = 450.000000 (km)
Apogee Altitude = 450.000000 (km)
Inclination = 51.600000 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)

Mean Anomaly = 0.000000 (deg)
Area-To-Mass Ratio = 0.031096 (m²/kg)
Start Year = 2018.000000 (yr)
Initial Mass = 3.977000 (kg)
Final Mass = 3.977000 (kg)
Duration = 1.000000 (yr)
Station Kept = False
Abandoned = True
PMD Perigee Altitude = 420.189729 (km)
PMD Apogee Altitude = 436.014618 (km)
PMD Inclination = 51.597856 (deg)
PMD RAAN = 7.866433 (deg)
PMD Argument of Perigee = 124.073798 (deg)
PMD Mean Anomaly = 0.000000 (deg)

****OUTPUT****

Suggested Perigee Altitude = 420.189729 (km)
Suggested Apogee Altitude = 436.014618 (km)
Returned Error Message = Passes LEO reentry orbit criteria.

Released Year = 2020 (yr)
Requirement = 61
Compliance Status = Pass

=====

===== End of Requirement 4.6 =====
*****Processing Requirement 4.7-1
Return Status : Passed

*******INPUT******

Item Number = 1

name = AC12A
quantity = 1
parent = 0
materialID = 8
type = Box
Aero Mass = 4.306000
Thermal Mass = 4.306000
Diameter/Width = 0.109000
Length = 0.340500
Height = 0.103500

name = Nadir Lid Assembly (AC12A)
quantity = 1
parent = 1

materialID = 8
type = Box
Aero Mass = 0.431000
Thermal Mass = 0.141000
Diameter/Width = 0.103500
Length = 0.110900
Height = 0.008000

name = STIM 210 IMU (AC12A)
quantity = 1
parent = 2
materialID = 8
type = Box
Aero Mass = 0.116000
Thermal Mass = 0.116000
Diameter/Width = 0.048300
Length = 0.064800
Height = 0.025400

name = Sensor Block (AC12A)
quantity = 4
parent = 2
materialID = 8
type = Box
Aero Mass = 0.016000
Thermal Mass = 0.016000
Diameter/Width = 0.015200
Length = 0.044400
Height = 0.010000

name = Star Tracker (AC12A)
quantity = 2
parent = 2
materialID = 8
type = Box
Aero Mass = 0.055000
Thermal Mass = 0.055000
Diameter/Width = 0.026700
Length = 0.041800
Height = 0.025400

name = Bus Electronics (AC12A)
quantity = 1
parent = 1
materialID = 23
type = Box
Aero Mass = 0.627000
Thermal Mass = 0.627000

Diameter/Width = 0.085000
Length = 0.097100
Height = 0.084900

name = NVIDIA Jetson (AC12A)
quantity = 1
parent = 1
materialID = 8
type = Box
Aero Mass = 0.009000
Thermal Mass = 0.009000
Diameter/Width = 0.050000
Length = 0.087000
Height = 0.014200

name = Torque Rod (AC12A)
quantity = 9
parent = 1
materialID = -1
type = Cylinder
Aero Mass = 0.018000
Thermal Mass = 0.018000
Diameter/Width = 0.008000
Length = 0.078700

name = Zenith Lid Assembly (AC12A)
quantity = 1
parent = 1
materialID = 8
type = Box
Aero Mass = 0.084000
Thermal Mass = 0.084000
Diameter/Width = 0.103500
Length = 0.110900
Height = 0.016700

name = Wing Assembly (AC12A)
quantity = 2
parent = 1
materialID = 8
type = Box
Aero Mass = 0.148000
Thermal Mass = 0.148000
Diameter/Width = 0.073700
Length = 0.313500
Height = 0.002700

name = Telescope Assembly (AC12A)

quantity = 1
parent = 1
materialID = 8
type = Box
Aero Mass = 1.311000
Thermal Mass = 0.037000
Diameter/Width = 0.082400
Length = 0.154500
Height = 0.056200

name = Baffle (AC12A)
quantity = 1
parent = 11
materialID = 66
type = Cylinder
Aero Mass = 0.212000
Thermal Mass = 0.212000
Diameter/Width = 0.051000
Length = 0.093000

name = Optics Holder (AC12A)
quantity = 1
parent = 11
materialID = 72
type = Box
Aero Mass = 0.243000
Thermal Mass = 0.243000
Diameter/Width = 0.093500
Length = 0.097500
Height = 0.049000

name = Optics (AC12A)
quantity = 1
parent = 11
materialID = -2
type = Cylinder
Aero Mass = 0.620000
Thermal Mass = 0.620000
Diameter/Width = 0.089500
Length = 0.048600

name = Front Shim (AC12A)
quantity = 1
parent = 11
materialID = -3
type = Cylinder
Aero Mass = 0.001000
Thermal Mass = 0.001000

Diameter/Width = 0.090500
Length = 0.030000

name = Rear Conical Monolith (AC12A)
quantity = 1
parent = 11
materialID = -3
type = Cylinder
Aero Mass = 0.006000
Thermal Mass = 0.006000
Diameter/Width = 0.090100
Length = 0.030000

name = O-Ring (AC12A)
quantity = 1
parent = 11
materialID = -4
type = Cylinder
Aero Mass = 0.005000
Thermal Mass = 0.005000
Diameter/Width = 0.086100
Length = 0.030000

name = Backplate (AC12A)
quantity = 1
parent = 11
materialID = 72
type = Cylinder
Aero Mass = 0.142000
Thermal Mass = 0.142000
Diameter/Width = 0.101300
Length = 0.040000

name = Imager Base Ring (AC12A)
quantity = 1
parent = 11
materialID = 72
type = Cylinder
Aero Mass = 0.045000
Thermal Mass = 0.045000
Diameter/Width = 0.045500
Length = 0.015000

name = Laser (AC12A)
quantity = 1
parent = 1
materialID = 8
type = Box

Aero Mass = 0.353000
Thermal Mass = 0.353000
Diameter/Width = 0.082200
Length = 0.120700
Height = 0.020200

name = Dosimeter Assembly (AC12A)
quantity = 1
parent = 1
materialID = 23
type = Box
Aero Mass = 0.055000
Thermal Mass = 0.027000
Diameter/Width = 0.052000
Length = 0.071600
Height = 0.009500

name = Dosimeter (AC12A)
quantity = 2
parent = 21
materialID = 8
type = Box
Aero Mass = 0.009000
Thermal Mass = 0.009000
Diameter/Width = 0.025400
Length = 0.035600
Height = 0.004700

name = PCB (AC12A)
quantity = 1
parent = 21
materialID = 23
type = Box
Aero Mass = 0.010000
Thermal Mass = 0.010000
Diameter/Width = 0.052000
Length = 0.071600
Height = 0.001600

name = Body Base Plate (AC12A)
quantity = 1
parent = 1
materialID = 8
type = Box
Aero Mass = 0.262000
Thermal Mass = 0.262000
Diameter/Width = 0.102800
Length = 0.336900

Height = 0.011200

name = Frame Part 2 (AC12A)

quantity = 1

parent = 1

materialID = 8

type = Box

Aero Mass = 0.466000

Thermal Mass = 0.466000

Diameter/Width = 0.102800

Length = 0.336900

Height = 0.097500

name = Reaction Wheels (AC12A)

quantity = 3

parent = 1

materialID = 54

type = Cylinder

Aero Mass = 0.060000

Thermal Mass = 0.060000

Diameter/Width = 0.025000

Length = 0.042400

name = Reaction Wheels Base (AC12A)

quantity = 1

parent = 1

materialID = 8

type = Box

Aero Mass = 0.065000

Thermal Mass = 0.065000

Diameter/Width = 0.042800

Length = 0.096800

Height = 0.029200

*****OUTPUT****

Item Number = 1

name = AC12A

Demise Altitude = 77.998957

Debris Casualty Area = 0.000000

Impact Kinetic Energy = 0.000000

name = Nadir Lid Assembly (AC12A)

Demise Altitude = 75.555090

Debris Casualty Area = 0.000000

Impact Kinetic Energy = 0.000000

name = STIM 210 IMU (AC12A)
Demise Altitude = 71.643019
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Sensor Block (AC12A)
Demise Altitude = 73.800949
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Star Tracker (AC12A)
Demise Altitude = 72.372050
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Bus Electronics (AC12A)
Demise Altitude = 73.306043
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = NVIDIA Jetson (AC12A)
Demise Altitude = 77.713301
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Torque Rod (AC12A)
Demise Altitude = 74.223160
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Zenith Lid Assembly (AC12A)
Demise Altitude = 76.484394
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Wing Assembly (AC12A)
Demise Altitude = 76.269230
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Telescope Assembly (AC12A)
Demise Altitude = 77.672808
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Baffle (AC12A)
Demise Altitude = 0.000000
Debris Casualty Area = 0.447386
Impact Kinetic Energy = 94.407913

name = Optics Holder (AC12A)
Demise Altitude = 0.000000
Debris Casualty Area = 0.466964
Impact Kinetic Energy = 73.208908

name = Optics (AC12A)
Demise Altitude = 62.058890
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Front Shim (AC12A)
Demise Altitude = 77.672808
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Rear Conical Monolith (AC12A)
Demise Altitude = 77.651496
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = O-Ring (AC12A)
Demise Altitude = 77.672808
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Backplate (AC12A)
Demise Altitude = 0.000000
Debris Casualty Area = 0.440438
Impact Kinetic Energy = 35.607883

name = Imager Base Ring (AC12A)
Demise Altitude = 0.000000
Debris Casualty Area = 0.392032
Impact Kinetic Energy = 19.855295

name = Laser (AC12A)
Demise Altitude = 72.280816
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Dosimeter Assembly (AC12A)
Demise Altitude = 77.283965
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Dosimeter (AC12A)
Demise Altitude = 76.033855
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = PCB (AC12A)
Demise Altitude = 76.934949
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Body Base Plate (AC12A)
Demise Altitude = 75.984847
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Frame Part 2 (AC12A)
Demise Altitude = 76.188910
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Reaction Wheels (AC12A)
Demise Altitude = 69.285402
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

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*****  
name = Reaction Wheels Base (AC12A)  
Demise Altitude = 76.446605  
Debris Casualty Area = 0.000000  
Impact Kinetic Energy = 0.000000
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*****INPUT****
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```
Item Number = 2
```

```
name = AC12B  
quantity = 1  
parent = 0  
materialID = 8  
type = Box  
Aero Mass = 3.977000  
Thermal Mass = 3.977000  
Diameter/Width = 0.109000  
Length = 0.340500  
Height = 0.103500
```

```
name = Body Base Plate (AC12B)  
quantity = 1  
parent = 1  
materialID = 8  
type = Box  
Aero Mass = 0.262000  
Thermal Mass = 0.262000  
Diameter/Width = 0.102800  
Length = 0.336900  
Height = 0.011200
```

```
name = Frame Part 2 (AC12B)  
quantity = 1  
parent = 1  
materialID = 8  
type = Box  
Aero Mass = 0.466000  
Thermal Mass = 0.466000  
Diameter/Width = 0.102800  
Length = 0.336900  
Height = 0.097500
```

```
name = Nadir Lid Assembly (AC12B)  
quantity = 1  
parent = 1  
materialID = 8
```

type = Box
Aero Mass = 0.541000
Thermal Mass = 0.141000
Diameter/Width = 0.103500
Length = 0.110900
Height = 0.008000

name = STIM 210 IMU (AC12B)
quantity = 1
parent = 4
materialID = 8
type = Box
Aero Mass = 0.116000
Thermal Mass = 0.116000
Diameter/Width = 0.048300
Length = 0.064800
Height = 0.025400

name = Sensor Block (AC12B)
quantity = 4
parent = 4
materialID = 8
type = Box
Aero Mass = 0.016000
Thermal Mass = 0.016000
Diameter/Width = 0.015200
Length = 0.044400
Height = 0.010000

name = Star Tracker (AC12B)
quantity = 4
parent = 4
materialID = 8
type = Box
Aero Mass = 0.055000
Thermal Mass = 0.055000
Diameter/Width = 0.026700
Length = 0.041800
Height = 0.025400

name = Bus Electronics (AC12B)
quantity = 1
parent = 1
materialID = 23
type = Box
Aero Mass = 0.627000
Thermal Mass = 0.627000
Diameter/Width = 0.085000

Length = 0.097100
Height = 0.084900

name = Reaction Wheel Housing (AC12B)
quantity = 1
parent = 1
materialID = 54
type = Box
Aero Mass = 0.255000
Thermal Mass = 0.010000
Diameter/Width = 0.052800
Length = 0.071100
Height = 0.039200

name = Motor with Reaction Wheel (AC12B)
quantity = 3
parent = 9
materialID = 54
type = Cylinder
Aero Mass = 0.060000
Thermal Mass = 0.060000
Diameter/Width = 0.025000
Length = 0.042400

name = Reaction Wheel Base (AC12B)
quantity = 1
parent = 9
materialID = 8
type = Box
Aero Mass = 0.065000
Thermal Mass = 0.065000
Diameter/Width = 0.042800
Length = 0.096800
Height = 0.029200

name = Torque Rod (AC12B)
quantity = 9
parent = 1
materialID = -1
type = Cylinder
Aero Mass = 0.018000
Thermal Mass = 0.018000
Diameter/Width = 0.008000
Length = 0.078700

name = Wing Assembly (AC12B)
quantity = 2
parent = 1

materialID = 8
type = Box
Aero Mass = 0.148000
Thermal Mass = 0.148000
Diameter/Width = 0.073700
Length = 0.343500
Height = 0.002700

name = Zenith Lid Assembly (AC12B)
quantity = 1
parent = 1
materialID = 8
type = Box
Aero Mass = 0.084000
Thermal Mass = 0.084000
Diameter/Width = 0.103500
Length = 0.110900
Height = 0.008000

name = Laser (AC12B)
quantity = 1
parent = 1
materialID = 8
type = Box
Aero Mass = 0.353000
Thermal Mass = 0.353000
Diameter/Width = 0.082200
Length = 0.120700
Height = 0.020200

name = TIM Box (AC12B)
quantity = 1
parent = 1
materialID = 8
type = Box
Aero Mass = 0.100000
Thermal Mass = 0.100000
Diameter/Width = 0.081300
Length = 0.106700
Height = 0.025400

name = Experiment Puck (AC12B)
quantity = 9
parent = 1
materialID = 8
type = Box
Aero Mass = 0.010000
Thermal Mass = 0.010000

Diameter/Width = 0.024500
Length = 0.024500
Height = 0.024500

name = CNT Epoxy Coupon (AC12B)
quantity = 2
parent = 1
materialID = 23
type = Box
Aero Mass = 0.030000
Thermal Mass = 0.030000
Diameter/Width = 0.050800
Length = 0.076200
Height = 0.005000

name = Dosimeter Assembly (AC12B)
quantity = 1
parent = 1
materialID = 23
type = Box
Aero Mass = 0.083000
Thermal Mass = 0.055000
Diameter/Width = 0.052000
Length = 0.071600
Height = 0.009500

name = Dosimeter (AC12B)
quantity = 2
parent = 19
materialID = 8
type = Box
Aero Mass = 0.009000
Thermal Mass = 0.009000
Diameter/Width = 0.025400
Length = 0.035600
Height = 0.004700

name = PCB (AC12B)
quantity = 1
parent = 19
materialID = 23
type = Box
Aero Mass = 0.010000
Thermal Mass = 0.010000
Diameter/Width = 0.052000
Length = 0.071600
Height = 0.001600

name = Thruster Bracket (AC12B)
quantity = 1
parent = 1
materialID = 8
type = Box
Aero Mass = 0.047000
Thermal Mass = 0.047000
Diameter/Width = 0.096000
Length = 0.099000
Height = 0.014000

name = Thruster Assembly (AC12B)
quantity = 1
parent = 1
materialID = 23
type = Box
Aero Mass = 0.458000
Thermal Mass = 0.458000
Diameter/Width = 0.096000
Length = 0.096000
Height = 0.062400

name = Thruster Lid (AC12B)
quantity = 1
parent = 1
materialID = 8
type = Box
Aero Mass = 0.044000
Thermal Mass = 0.044000
Diameter/Width = 0.101800
Length = 0.107700
Height = 0.003600

*****OUTPUT****

Item Number = 2

name = AC12B
Demise Altitude = 77.998762
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Body Base Plate (AC12B)
Demise Altitude = 75.908871
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Frame Part 2 (AC12B)
Demise Altitude = 76.125285
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Nadir Lid Assembly (AC12B)
Demise Altitude = 75.500457
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = STIM 210 IMU (AC12B)
Demise Altitude = 71.616886
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Sensor Block (AC12B)
Demise Altitude = 73.746996
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Star Tracker (AC12B)
Demise Altitude = 72.333542
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Bus Electronics (AC12B)
Demise Altitude = 73.158449
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Reaction Wheel Housing (AC12B)
Demise Altitude = 75.987683
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Motor with Reaction Wheel (AC12B)
Demise Altitude = 67.379191
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Reaction Wheel Base (AC12B)
Demise Altitude = 74.410089
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Torque Rod (AC12B)
Demise Altitude = 74.070855
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Wing Assembly (AC12B)
Demise Altitude = 76.267425
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Zenith Lid Assembly (AC12B)
Demise Altitude = 76.254230
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Laser (AC12B)
Demise Altitude = 72.097308
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = TIM Box (AC12B)
Demise Altitude = 76.108972
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Experiment Puck (AC12B)
Demise Altitude = 76.895761
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = CNT Epoxy Coupon (AC12B)
Demise Altitude = 77.098863
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

===== 500 KM MISSION ORBIT ANALYSIS =====

Processing Requirement 4.3-1: Return Status : Not Run

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

=====
End of Requirement 4.3-1
Processing Requirement 4.3-2: Return Status : Passed

=====
No Project Data Available
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=====
End of Requirement 4.3-2
Requirement 4.4-3: Compliant

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End of Requirement 4.4-3
Processing Requirement 4.5-1: Return Status : Passed

=====
Run Data
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INPUT

Space Structure Name = AC12A
Space Structure Type = Payload
Perigee Altitude = 500.000000 (km)
Apogee Altitude = 500.000000 (km)
Inclination = 51.600000 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Final Area-To-Mass Ratio = 0.028720 (m²/kg)
Start Year = 2018.000000 (yr)
Initial Mass = 4.306000 (kg)
Final Mass = 4.306000 (kg)
Duration = 1.000000 (yr)
Station-Kept = False
Abandoned = True
PMD Perigee Altitude = -1.000000 (km)
PMD Apogee Altitude = -1.000000 (km)
PMD Inclination = 0.000000 (deg)
PMD RAAN = 0.000000 (deg)
PMD Argument of Perigee = 0.000000 (deg)
PMD Mean Anomaly = 0.000000 (deg)

****OUTPUT****

Collision Probability = 0.000000
Returned Error Message: Normal Processing
Date Range Error Message: Normal Date Range
Status = Pass

=====

****INPUT****

Space Structure Name = AC12B
Space Structure Type = Payload
Perigee Altitude = 500.000000 (km)
Apogee Altitude = 500.000000 (km)
Inclination = 51.600000 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Final Area-To-Mass Ratio = 0.031096 (m²/kg)
Start Year = 2018.000000 (yr)
Initial Mass = 3.977000 (kg)
Final Mass = 3.977000 (kg)
Duration = 1.000000 (yr)
Station-Kept = False
Abandoned = True
PMD Perigee Altitude = -1.000000 (km)
PMD Apogee Altitude = -1.000000 (km)
PMD Inclination = 0.000000 (deg)
PMD RAAN = 0.000000 (deg)
PMD Argument of Perigee = 0.000000 (deg)
PMD Mean Anomaly = 0.000000 (deg)

****OUTPUT****

Collision Probability = 0.000000
Returned Error Message: Normal Processing
Date Range Error Message: Normal Date Range
Status = Pass

=====

===== End of Requirement 4.5-1 =====
Requirement 4.5-2: Compliant
Processing Requirement 4.6 Return Status : Passed

=====

Project Data

=====

INPUT

Space Structure Name = AC12A
Space Structure Type = Payload

Perigee Altitude = 500.000000 (km)
Apogee Altitude = 500.000000 (km)
Inclination = 51.600000 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Area-To-Mass Ratio = 0.028720 (m²/kg)
Start Year = 2018.000000 (yr)
Initial Mass = 4.306000 (kg)
Final Mass = 4.306000 (kg)
Duration = 1.000000 (yr)
Station Kept = False
Abandoned = True
PMD Perigee Altitude = 483.578629 (km)
PMD Apogee Altitude = 504.471831 (km)
PMD Inclination = 51.599570 (deg)
PMD RAAN = 60.102721 (deg)
PMD Argument of Perigee = 110.979079 (deg)
PMD Mean Anomaly = 0.000000 (deg)

OUTPUT

Suggested Perigee Altitude = 483.578629 (km)
Suggested Apogee Altitude = 504.471831 (km)
Returned Error Message = Passes LEO reentry orbit criteria.

Released Year = 2021 (yr)
Requirement = 61
Compliance Status = Pass

=====

INPUT

Space Structure Name = AC12B
Space Structure Type = Payload

Perigee Altitude = 500.000000 (km)
Apogee Altitude = 500.000000 (km)
Inclination = 51.600000 (deg)

RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Area-To-Mass Ratio = 0.031096 (m²/kg)
Start Year = 2018.000000 (yr)
Initial Mass = 3.977000 (kg)
Final Mass = 3.977000 (kg)
Duration = 1.000000 (yr)
Station Kept = False
Abandoned = True
PMD Perigee Altitude = 483.112913 (km)
PMD Apogee Altitude = 503.880160 (km)
PMD Inclination = 51.599509 (deg)
PMD RAAN = 59.855113 (deg)
PMD Argument of Perigee = 110.823841 (deg)
PMD Mean Anomaly = 0.000000 (deg)

****OUTPUT****

Suggested Perigee Altitude = 483.112913 (km)
Suggested Apogee Altitude = 503.880160 (km)
Returned Error Message = Passes LEO reentry orbit criteria.

Released Year = 2021 (yr)
Requirement = 61
Compliance Status = Pass

=====

===== End of Requirement 4.6 =====

*****Processing Requirement 4.7-1

Return Status : Passed

*******INPUT******

Item Number = 1

name = AC12A
quantity = 1
parent = 0
materialID = 8
type = Box
Aero Mass = 4.306000
Thermal Mass = 4.306000
Diameter/Width = 0.109000
Length = 0.340500
Height = 0.103500

name = Nadir Lid Assembly (AC12A)

quantity = 1
parent = 1
materialID = 8
type = Box
Aero Mass = 0.431000
Thermal Mass = 0.141000
Diameter/Width = 0.103500
Length = 0.110900
Height = 0.008000

name = STIM 210 IMU (AC12A)
quantity = 1
parent = 2
materialID = 8
type = Box
Aero Mass = 0.116000
Thermal Mass = 0.116000
Diameter/Width = 0.048300
Length = 0.064800
Height = 0.025400

name = Sensor Block (AC12A)
quantity = 4
parent = 2
materialID = 8
type = Box
Aero Mass = 0.016000
Thermal Mass = 0.016000
Diameter/Width = 0.015200
Length = 0.044400
Height = 0.010000

name = Star Tracker (AC12A)
quantity = 2
parent = 2
materialID = 8
type = Box
Aero Mass = 0.055000
Thermal Mass = 0.055000
Diameter/Width = 0.026700
Length = 0.041800
Height = 0.025400

name = Bus Electronics (AC12A)
quantity = 1
parent = 1
materialID = 23
type = Box

Aero Mass = 0.627000
Thermal Mass = 0.627000
Diameter/Width = 0.085000
Length = 0.097100
Height = 0.084900

name = NVIDIA Jetson (AC12A)
quantity = 1
parent = 1
materialID = 8
type = Box
Aero Mass = 0.009000
Thermal Mass = 0.009000
Diameter/Width = 0.050000
Length = 0.087000
Height = 0.014200

name = Torque Rod (AC12A)
quantity = 9
parent = 1
materialID = -1
type = Cylinder
Aero Mass = 0.018000
Thermal Mass = 0.018000
Diameter/Width = 0.008000
Length = 0.078700

name = Zenith Lid Assembly (AC12A)
quantity = 1
parent = 1
materialID = 8
type = Box
Aero Mass = 0.084000
Thermal Mass = 0.084000
Diameter/Width = 0.103500
Length = 0.110900
Height = 0.016700

name = Wing Assembly (AC12A)
quantity = 2
parent = 1
materialID = 8
type = Box
Aero Mass = 0.148000
Thermal Mass = 0.148000
Diameter/Width = 0.073700
Length = 0.313500
Height = 0.002700

name = Telescope Assembly (AC12A)
quantity = 1
parent = 1
materialID = 8
type = Box
Aero Mass = 1.311000
Thermal Mass = 0.037000
Diameter/Width = 0.082400
Length = 0.154500
Height = 0.056200

name = Baffle (AC12A)
quantity = 1
parent = 11
materialID = 66
type = Cylinder
Aero Mass = 0.212000
Thermal Mass = 0.212000
Diameter/Width = 0.051000
Length = 0.093000

name = Optics Holder (AC12A)
quantity = 1
parent = 11
materialID = 72
type = Box
Aero Mass = 0.243000
Thermal Mass = 0.243000
Diameter/Width = 0.093500
Length = 0.097500
Height = 0.049000

name = Optics (AC12A)
quantity = 1
parent = 11
materialID = -2
type = Cylinder
Aero Mass = 0.620000
Thermal Mass = 0.620000
Diameter/Width = 0.089500
Length = 0.048600

name = Front Shim (AC12A)
quantity = 1
parent = 11
materialID = -3
type = Cylinder

Aero Mass = 0.001000
Thermal Mass = 0.001000
Diameter/Width = 0.090500
Length = 0.030000

name = Rear Conical Monolith (AC12A)
quantity = 1
parent = 11
materialID = -3
type = Cylinder
Aero Mass = 0.006000
Thermal Mass = 0.006000
Diameter/Width = 0.090100
Length = 0.030000

name = O-Ring (AC12A)
quantity = 1
parent = 11
materialID = -4
type = Cylinder
Aero Mass = 0.005000
Thermal Mass = 0.005000
Diameter/Width = 0.086100
Length = 0.030000

name = Backplate (AC12A)
quantity = 1
parent = 11
materialID = 72
type = Cylinder
Aero Mass = 0.142000
Thermal Mass = 0.142000
Diameter/Width = 0.101300
Length = 0.040000

name = Imager Base Ring (AC12A)
quantity = 1
parent = 11
materialID = 72
type = Cylinder
Aero Mass = 0.045000
Thermal Mass = 0.045000
Diameter/Width = 0.045500
Length = 0.015000

name = Laser (AC12A)
quantity = 1
parent = 1

materialID = 8
type = Box
Aero Mass = 0.353000
Thermal Mass = 0.353000
Diameter/Width = 0.082200
Length = 0.120700
Height = 0.020200

name = Dosimeter Assembly (AC12A)
quantity = 1
parent = 1
materialID = 23
type = Box
Aero Mass = 0.055000
Thermal Mass = 0.027000
Diameter/Width = 0.052000
Length = 0.071600
Height = 0.009500

name = Dosimeter (AC12A)
quantity = 2
parent = 21
materialID = 8
type = Box
Aero Mass = 0.009000
Thermal Mass = 0.009000
Diameter/Width = 0.025400
Length = 0.035600
Height = 0.004700

name = PCB (AC12A)
quantity = 1
parent = 21
materialID = 23
type = Box
Aero Mass = 0.010000
Thermal Mass = 0.010000
Diameter/Width = 0.052000
Length = 0.071600
Height = 0.001600

name = Body Base Plate (AC12A)
quantity = 1
parent = 1
materialID = 8
type = Box
Aero Mass = 0.262000
Thermal Mass = 0.262000

Diameter/Width = 0.102800
Length = 0.336900
Height = 0.011200

name = Frame Part 2 (AC12A)
quantity = 1
parent = 1
materialID = 8
type = Box
Aero Mass = 0.466000
Thermal Mass = 0.466000
Diameter/Width = 0.102800
Length = 0.336900
Height = 0.097500

name = Reaction Wheels (AC12A)
quantity = 3
parent = 1
materialID = 54
type = Cylinder
Aero Mass = 0.060000
Thermal Mass = 0.060000
Diameter/Width = 0.025000
Length = 0.042400

name = Reaction Wheels Base (AC12A)
quantity = 1
parent = 1
materialID = 8
type = Box
Aero Mass = 0.065000
Thermal Mass = 0.065000
Diameter/Width = 0.042800
Length = 0.096800
Height = 0.029200

*****OUTPUT****

Item Number = 1

name = AC12A
Demise Altitude = 77.998957
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Nadir Lid Assembly (AC12A)
Demise Altitude = 75.555090
Debris Casualty Area = 0.000000

Impact Kinetic Energy = 0.000000

name = STIM 210 IMU (AC12A)
Demise Altitude = 71.643019
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Sensor Block (AC12A)
Demise Altitude = 73.800949
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Star Tracker (AC12A)
Demise Altitude = 72.372050
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Bus Electronics (AC12A)
Demise Altitude = 73.306043
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = NVIDIA Jetson (AC12A)
Demise Altitude = 77.713301
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Torque Rod (AC12A)
Demise Altitude = 74.223160
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Zenith Lid Assembly (AC12A)
Demise Altitude = 76.484394
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Wing Assembly (AC12A)
Demise Altitude = 76.269230
Debris Casualty Area = 0.000000

Impact Kinetic Energy = 0.000000

name = Telescope Assembly (AC12A)

Demise Altitude = 77.672808

Debris Casualty Area = 0.000000

Impact Kinetic Energy = 0.000000

name = Baffle (AC12A)

Demise Altitude = 0.000000

Debris Casualty Area = 0.447386

Impact Kinetic Energy = 94.407913

name = Optics Holder (AC12A)

Demise Altitude = 0.000000

Debris Casualty Area = 0.466964

Impact Kinetic Energy = 73.208908

name = Optics (AC12A)

Demise Altitude = 62.058890

Debris Casualty Area = 0.000000

Impact Kinetic Energy = 0.000000

name = Front Shim (AC12A)

Demise Altitude = 77.672808

Debris Casualty Area = 0.000000

Impact Kinetic Energy = 0.000000

name = Rear Conical Monolith (AC12A)

Demise Altitude = 77.651496

Debris Casualty Area = 0.000000

Impact Kinetic Energy = 0.000000

name = O-Ring (AC12A)

Demise Altitude = 77.672808

Debris Casualty Area = 0.000000

Impact Kinetic Energy = 0.000000

name = Backplate (AC12A)

Demise Altitude = 0.000000

Debris Casualty Area = 0.440438

Impact Kinetic Energy = 35.607883

name = Imager Base Ring (AC12A)
Demise Altitude = 0.000000
Debris Casualty Area = 0.392032
Impact Kinetic Energy = 19.855295

name = Laser (AC12A)
Demise Altitude = 72.280816
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Dosimeter Assembly (AC12A)
Demise Altitude = 77.283965
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Dosimeter (AC12A)
Demise Altitude = 76.033855
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = PCB (AC12A)
Demise Altitude = 76.934949
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Body Base Plate (AC12A)
Demise Altitude = 75.984847
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Frame Part 2 (AC12A)
Demise Altitude = 76.188910
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Reaction Wheels (AC12A)
Demise Altitude = 69.285402
Debris Casualty Area = 0.000000

Impact Kinetic Energy = 0.000000

name = Reaction Wheels Base (AC12A)

Demise Altitude = 76.446605

Debris Casualty Area = 0.000000

Impact Kinetic Energy = 0.000000

*****INPUT****

Item Number = 2

name = AC12B

quantity = 1

parent = 0

materialID = 8

type = Box

Aero Mass = 3.977000

Thermal Mass = 3.977000

Diameter/Width = 0.109000

Length = 0.340500

Height = 0.103500

name = Body Base Plate (AC12B)

quantity = 1

parent = 1

materialID = 8

type = Box

Aero Mass = 0.262000

Thermal Mass = 0.262000

Diameter/Width = 0.102800

Length = 0.336900

Height = 0.011200

name = Frame Part 2 (AC12B)

quantity = 1

parent = 1

materialID = 8

type = Box

Aero Mass = 0.466000

Thermal Mass = 0.466000

Diameter/Width = 0.102800

Length = 0.336900

Height = 0.097500

name = Nadir Lid Assembly (AC12B)

quantity = 1

parent = 1
materialID = 8
type = Box
Aero Mass = 0.541000
Thermal Mass = 0.141000
Diameter/Width = 0.103500
Length = 0.110900
Height = 0.008000

name = STIM 210 IMU (AC12B)
quantity = 1
parent = 4
materialID = 8
type = Box
Aero Mass = 0.116000
Thermal Mass = 0.116000
Diameter/Width = 0.048300
Length = 0.064800
Height = 0.025400

name = Sensor Block (AC12B)
quantity = 4
parent = 4
materialID = 8
type = Box
Aero Mass = 0.016000
Thermal Mass = 0.016000
Diameter/Width = 0.015200
Length = 0.044400
Height = 0.010000

name = Star Tracker (AC12B)
quantity = 4
parent = 4
materialID = 8
type = Box
Aero Mass = 0.055000
Thermal Mass = 0.055000
Diameter/Width = 0.026700
Length = 0.041800
Height = 0.025400

name = Bus Electronics (AC12B)
quantity = 1
parent = 1
materialID = 23
type = Box
Aero Mass = 0.627000

Thermal Mass = 0.627000
Diameter/Width = 0.085000
Length = 0.097100
Height = 0.084900

name = Reaction Wheel Housing (AC12B)
quantity = 1
parent = 1
materialID = 54
type = Box
Aero Mass = 0.255000
Thermal Mass = 0.010000
Diameter/Width = 0.052800
Length = 0.071100
Height = 0.039200

name = Motor with Reaction Wheel (AC12B)
quantity = 3
parent = 9
materialID = 54
type = Cylinder
Aero Mass = 0.060000
Thermal Mass = 0.060000
Diameter/Width = 0.025000
Length = 0.042400

name = Reaction Wheel Base (AC12B)
quantity = 1
parent = 9
materialID = 8
type = Box
Aero Mass = 0.065000
Thermal Mass = 0.065000
Diameter/Width = 0.042800
Length = 0.096800
Height = 0.029200

name = Torque Rod (AC12B)
quantity = 9
parent = 1
materialID = -1
type = Cylinder
Aero Mass = 0.018000
Thermal Mass = 0.018000
Diameter/Width = 0.008000
Length = 0.078700

name = Wing Assembly (AC12B)

quantity = 2
parent = 1
materialID = 8
type = Box
Aero Mass = 0.148000
Thermal Mass = 0.148000
Diameter/Width = 0.073700
Length = 0.343500
Height = 0.002700

name = Zenith Lid Assembly (AC12B)
quantity = 1
parent = 1
materialID = 8
type = Box
Aero Mass = 0.084000
Thermal Mass = 0.084000
Diameter/Width = 0.103500
Length = 0.110900
Height = 0.008000

name = Laser (AC12B)
quantity = 1
parent = 1
materialID = 8
type = Box
Aero Mass = 0.353000
Thermal Mass = 0.353000
Diameter/Width = 0.082200
Length = 0.120700
Height = 0.020200

name = TIM Box (AC12B)
quantity = 1
parent = 1
materialID = 8
type = Box
Aero Mass = 0.100000
Thermal Mass = 0.100000
Diameter/Width = 0.081300
Length = 0.106700
Height = 0.025400

name = Experiment Puck (AC12B)
quantity = 9
parent = 1
materialID = 8
type = Box

Aero Mass = 0.010000
Thermal Mass = 0.010000
Diameter/Width = 0.024500
Length = 0.024500
Height = 0.024500

name = CNT Epoxy Coupon (AC12B)
quantity = 2
parent = 1
materialID = 23
type = Box

Aero Mass = 0.030000
Thermal Mass = 0.030000
Diameter/Width = 0.050800
Length = 0.076200
Height = 0.005000

name = Dosimeter Assembly (AC12B)
quantity = 1
parent = 1
materialID = 23
type = Box

Aero Mass = 0.083000
Thermal Mass = 0.055000
Diameter/Width = 0.052000
Length = 0.071600
Height = 0.009500

name = Dosimeter (AC12B)
quantity = 2
parent = 19
materialID = 8
type = Box

Aero Mass = 0.009000
Thermal Mass = 0.009000
Diameter/Width = 0.025400
Length = 0.035600
Height = 0.004700

name = PCB (AC12B)
quantity = 1
parent = 19
materialID = 23
type = Box

Aero Mass = 0.010000
Thermal Mass = 0.010000
Diameter/Width = 0.052000
Length = 0.071600

Height = 0.001600

name = Thruster Bracket (AC12B)

quantity = 1

parent = 1

materialID = 8

type = Box

Aero Mass = 0.047000

Thermal Mass = 0.047000

Diameter/Width = 0.096000

Length = 0.099000

Height = 0.014000

name = Thruster Assembly (AC12B)

quantity = 1

parent = 1

materialID = 23

type = Box

Aero Mass = 0.458000

Thermal Mass = 0.458000

Diameter/Width = 0.096000

Length = 0.096000

Height = 0.062400

name = Thruster Lid (AC12B)

quantity = 1

parent = 1

materialID = 8

type = Box

Aero Mass = 0.044000

Thermal Mass = 0.044000

Diameter/Width = 0.101800

Length = 0.107700

Height = 0.003600

*****OUTPUT****

Item Number = 2

name = AC12B

Demise Altitude = 77.998762

Debris Casualty Area = 0.000000

Impact Kinetic Energy = 0.000000

name = Body Base Plate (AC12B)

Demise Altitude = 75.908871

Debris Casualty Area = 0.000000

Impact Kinetic Energy = 0.000000

name = Frame Part 2 (AC12B)
Demise Altitude = 76.125285
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Nadir Lid Assembly (AC12B)
Demise Altitude = 75.500457
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = STIM 210 IMU (AC12B)
Demise Altitude = 71.616886
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Sensor Block (AC12B)
Demise Altitude = 73.746996
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Star Tracker (AC12B)
Demise Altitude = 72.333542
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Bus Electronics (AC12B)
Demise Altitude = 73.158449
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Reaction Wheel Housing (AC12B)
Demise Altitude = 75.987683
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Motor with Reaction Wheel (AC12B)
Demise Altitude = 67.379191
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Reaction Wheel Base (AC12B)
Demise Altitude = 74.410089
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Torque Rod (AC12B)
Demise Altitude = 74.070855
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Wing Assembly (AC12B)
Demise Altitude = 76.267425
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Zenith Lid Assembly (AC12B)
Demise Altitude = 76.254230
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Laser (AC12B)
Demise Altitude = 72.097308
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = TIM Box (AC12B)
Demise Altitude = 76.108972
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Experiment Puck (AC12B)
Demise Altitude = 76.895761
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = CNT Epoxy Coupon (AC12B)
Demise Altitude = 77.098863
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Dosimeter Assembly (AC12B)
Demise Altitude = 76.489605
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Dosimeter (AC12B)
Demise Altitude = 75.202972
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = PCB (AC12B)
Demise Altitude = 76.125191
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Thruster Bracket (AC12B)
Demise Altitude = 76.955855
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Thruster Assembly (AC12B)
Demise Altitude = 73.760285
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Thruster Lid (AC12B)
Demise Altitude = 77.002871
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

=====
===== End of Requirement 4.7-1 =====