04 02 2018; 17:04:27PM DAS Application Started
04 02 2018; 17:04:29PM Opened Project C:\Users\jrw29289\Desktop\AeroCubes\AC12\New folder\
04 02 2018; 17:04:34PM Opened Project C:\Users\jrw29289\Desktop\AeroCubes\AC12\New folder\
04 02 2018; 17:04:49PM Mission Editor Changes Applied
04 02 2018; 17:04:53PM Processing Requirement 4.3-1:   Return Status : Not Run

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

========== End of Requirement 4.3-1 ==========
04 02 2018; 17:04:55PM Processing Requirement 4.3-2: Return Status : Passed

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

========== End of Requirement 4.3-2 ==========
04 02 2018; 17:04:58PM Requirement 4.4-3: Compliant

========== End of Requirement 4.4-3 ==========
04 02 2018; 17:05:06PM Processing Requirement 4.5-1:   Return Status : Passed

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

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 = 0.030210 (m^2/kg)
    Start Year = 2018.000000 (yr)
    Initial Mass = 4.094000 (kg)
    Final Mass = 4.094000 (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 = 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 (m^2/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 ==========

04 02 2018; 17:05:10PM Requirement 4.5-2: Compliant
04 02 2018; 17:05:11PM Processing Requirement 4.6 Return Status : Passed

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

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 = 0.030210 (m^2/kg)
    Start Year = 2018.000000 (yr)
    Initial Mass = 4.094000 (kg)
    Final Mass = 4.094000 (kg)
    Duration = 1.000000 (yr)
    Station Kept = False
    Abandoned = True
    PMD Perigee Altitude = 420.939331 (km)
    PMD Apogee Altitude = 436.863640 (km)
    PMD Inclination = 51.597954 (deg)
    PMD RAAN = 8.208693 (deg)
    PMD Argument of Perigee = 124.292371 (deg)
    PMD Mean Anomaly = 0.000000 (deg)

OUTPUT

    Suggested Perigee Altitude = 420.939331 (km)
    Suggested Apogee Altitude = 436.863640 (km)
    Returned Error Message = Passes LEO reentry orbit criteria.

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

==========

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 (m^2/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 ===============
04 02 2018; 17:05:16PM  *********Processing Requirement 4.7-1
    Return Status :  Passed

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

name = AC12A
quantity = 1
parent = 0
materialID = 8
type = Box
Aero Mass = 4.094000
Thermal Mass = 4.094000
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 = 1.099000
Thermal Mass = 0.037000
Diameter/Width = 0.082400
Length = 0.154500
Height = 0.056200

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 = 20
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 = 20
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 = 77.996176
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Nadir Lid Assembly (AC12A)
Demise Altitude = 75.501894
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = STIM 210 IMU (AC12A)
Demise Altitude = 71.530878
Debris Casualty Area = 0.000000

Impact Kinetic Energy = 0.000000

****
name = Sensor Block (AC12A)
Demise Altitude = 73.716394
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Star Tracker (AC12A)
Demise Altitude = 72.262207
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Bus Electronics (AC12A)
Demise Altitude = 73.211832
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = NVIDIA Jetson (AC12A)
Demise Altitude = 77.712441
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Torque Rod (AC12A)
Demise Altitude = 74.122183
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Zenith Lid Assembly (AC12A)
Demise Altitude = 76.441535
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Wing Assembly (AC12A)
Demise Altitude = 76.222738
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Telescope Assembly (AC12A)
Demise Altitude = 77.664621
Debris Casualty Area = 0.000000

Impact Kinetic Energy = 0.000000

****
name = Optics Holder (AC12A)
Demise Altitude = 0.000000
Debris Casualty Area = 0.466964
Impact Kinetic Energy = 73.202507

****
name = Optics (AC12A)
Demise Altitude = 61.856714
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Front Shim (AC12A)
Demise Altitude = 77.664621
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Rear Conical Monolith (AC12A)
Demise Altitude = 77.642957
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = O-Ring (AC12A)
Demise Altitude = 77.664621
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 = 35.609222

****
name = Imager Base Ring (AC12A)
Demise Altitude = 0.000000
Debris Casualty Area = 0.392032
Impact Kinetic Energy = 19.856871

****
name = Laser (AC12A)
Demise Altitude = 72.169980
Debris Casualty Area = 0.000000

Impact Kinetic Energy = 0.000000

****
name = Dosimeter Assembly (AC12A)
Demise Altitude = 77.261832
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Dosimeter (AC12A)
Demise Altitude = 75.982605
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = PCB (AC12A)
Demise Altitude = 76.906777
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Body Base Plate (AC12A0
Demise Altitude = 75.940808
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Frame Part 2 (AC12A)
Demise Altitude = 76.140277
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Reaction Wheels (AC12A)
Demise Altitude = 69.134878
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Reaction Wheels Base (AC12A)
Demise Altitude = 76.417449
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 ===============
```

```
04 02 2018; 13:19:05PM  DAS Application Started
04 02 2018; 13:19:13PM  Opened Project C:\Users\jrw29289\Desktop\AeroCubes\AC7\DAS2.02
run\
04 02 2018; 13:20:48PM  Opened Project C:\Users\jrw29289\Desktop\AeroCubes\AC12\
04 02 2018; 16:18:45PM  Processing Requirement 4.3-1:   Return Status :  Not Run

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

=============== End of Requirement 4.3-1 ===============
04 02 2018; 16:18:48PM  Processing Requirement 4.3-2: Return Status : Passed

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

=============== End of Requirement 4.3-2 ===============
04 02 2018; 16:20:42PM  Project Data Saved To File
04 02 2018; 16:20:42PM  Saved Project As C:\Users\jrw29289\Desktop\AeroCubes\AC12\New
folder\
04 02 2018; 16:20:45PM  Mission Editor Changes Applied
04 02 2018; 16:20:51PM  Processing Requirement 4.3-1:   Return Status :  Not Run

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

=============== End of Requirement 4.3-1 ===============
04 02 2018; 16:20:53PM  Processing Requirement 4.3-2: Return Status : Passed

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

=============== End of Requirement 4.3-2 ===============
04 02 2018; 16:20:56PM  Requirement 4.4-3:  Compliant

=============== End of Requirement 4.4-3 ===============
04 02 2018; 16:21:01PM  Processing Requirement 4.5-1:   Return Status :  Passed

==============
Run 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)
Final Area-To-Mass Ratio = 0.030210 (m^2/kg)
Start Year = 2018.000000 (yr)
Initial Mass = 4.094000 (kg)
Final Mass = 4.094000 (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 (m^2/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 ===============
04 02 2018; 16:21:06PM  Requirement 4.5-2:  Compliant
04 02 2018; 16:21:07PM  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 = 0.030210 (m^2/kg)
    Start Year = 2018.000000 (yr)
    Initial Mass = 4.094000 (kg)
    Final Mass = 4.094000 (kg)
    Duration = 1.000000 (yr)
    Station Kept = False
    Abandoned = True
    PMD Perigee Altitude = 483.287558 (km)
    PMD Apogee Altitude = 504.101142 (km)
    PMD Inclination = 51.599532 (deg)
    PMD RAAN = 59.947665 (deg)
    PMD Argument of Perigee = 110.882657 (deg)
    PMD Mean Anomaly = 0.000000 (deg)
```

OUTPUT

    Suggested Perigee Altitude = 483.287558 (km)
    Suggested Apogee Altitude = 504.101142 (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 (m^2/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 ===============
04 02 2018; 16:24:16PM  *********Processing Requirement 4.7-1
    Return Status :  Passed

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

name = AC12A
quantity = 1
parent = 0
materialID = 8
type = Box
Aero Mass = 4.094000
Thermal Mass = 4.094000
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 = 1.099000
Thermal Mass = 0.037000
Diameter/Width = 0.082400
Length = 0.154500
Height = 0.056200

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 = 20
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 = 20
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 (AC12A0
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 = 77.996176
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Nadir Lid Assembly (AC12A)
Demise Altitude = 75.501894
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = STIM 210 IMU (AC12A)
Demise Altitude = 71.530878
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Sensor Block (AC12A)
Demise Altitude = 73.716394
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Star Tracker (AC12A)
Demise Altitude = 72.262207
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Bus Electronics (AC12A)
Demise Altitude = 73.211832
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = NVIDIA Jetson (AC12A)
Demise Altitude = 77.712441
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Torque Rod (AC12A)
Demise Altitude = 74.122183
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Zenith Lid Assembly (AC12A)
Demise Altitude = 76.441535
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Wing Assembly (AC12A)
Demise Altitude = 76.222738
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Telescope Assembly (AC12A)
Demise Altitude = 77.664621
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Optics Holder (AC12A)
Demise Altitude = 0.000000
Debris Casualty Area = 0.466964
Impact Kinetic Energy = 73.202507

****
name = Optics (AC12A)
Demise Altitude = 61.856714
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Front Shim (AC12A)
Demise Altitude = 77.664621
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Rear Conical Monolith (AC12A)
Demise Altitude = 77.642957
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = O-Ring (AC12A)
Demise Altitude = 77.664621
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 = 35.609222

************************************
name = Imager Base Ring (AC12A)
Demise Altitude = 0.000000
Debris Casualty Area = 0.392032
Impact Kinetic Energy = 19.856871

************************************
name = Laser (AC12A)
Demise Altitude = 72.169980
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

************************************
name = Dosimeter Assembly (AC12A)
Demise Altitude = 77.261832
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

************************************
name = Dosimeter (AC12A)
Demise Altitude = 75.982605
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

************************************
name = PCB (AC12A)
Demise Altitude = 76.906777
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

************************************
name = Body Base Plate (AC12A0
Demise Altitude = 75.940808
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

************************************
name = Frame Part 2 (AC12A)
Demise Altitude = 76.140277
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000
```

```
************************************
name = Reaction Wheels (AC12A)
Demise Altitude = 69.134878
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

************************************
name = Reaction Wheels Base (AC12A)
Demise Altitude = 76.417449
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 ==========