

11 01 2013; 13:40:13PM DAS Application Started
11 01 2013; 13:40:13PM Opened Project C:\DAS 2.0\project\
11 01 2013; 13:40:29PM Processing Requirement 4.3-1: Return Status :
Passed

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Project Data

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Objects Passing Through LEO = True
Number of Objects = 1

INPUT

Quantity = 10
Final Area-To-Mass Ratio = 0.089000 (m²/kg)
Perigee Altitude = 469.000000 (km)
Apogee Altitude = 972.000000 (km)
Inclination = 120.000000 (deg)
RAAN = -1.000000 (deg)
Argument of Perigee = -1.000000 (deg)
Mean Anomaly = -1.000000 (deg)
Released Year = 2013.000000 (yr)

OUTPUT

Perigee Altitude = -6378.136000 (km)
Apogee Altitude = -6378.136000 (km)
Inclination = 0.000000 (deg)
Lifetime = 2.255137 (yr)
Object Reentered within 25 years of Release = True
Object-Time = 22.176591 (obj-yrs)
Total Object-Time = 22.176591 (obj-yrs)
Status = Pass
Returned Error Message - Normal Processing

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===== End of Requirement 4.3-1 =====

11 01 2013; 13:40:35PM 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 =====

11 01 2013; 13:40:38PM Requirement 4.4-3: Compliant

===== End of Requirement 4.4-3 =====

11 01 2013; 13:41:06PM Processing Requirement 4.5-1: Return Status :
Passed

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Run Data

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****INPUT****

Space Structure Name = AC5 complete
Space Structure Type = Payload
Perigee Altitude = 469.000000 (km)
Apogee Altitude = 972.000000 (km)
Inclination = 120.000000 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Final Area-To-Mass Ratio = 0.008000 (m²/kg)
Start Year = 2013.000000 (yr)
Initial Mass = 2.100000 (kg)
Final Mass = 2.100000 (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 = 0.000001
Returned Error Message: Normal Processing
Date Range Error Message: Normal Date Range
Status = Pass

=====

****INPUT****

Space Structure Name = Battery bracket
Space Structure Type = Payload
Perigee Altitude = 469.000000 (km)
Apogee Altitude = 972.000000 (km)
Inclination = 120.000000 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Final Area-To-Mass Ratio = 0.105000 (m²/kg)
Start Year = 2013.000000 (yr)
Initial Mass = 0.012000 (kg)
Final Mass = 0.012000 (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 = Reaction wheel block
Space Structure Type = Payload
Perigee Altitude = 469.000000 (km)
Apogee Altitude = 972.000000 (km)
Inclination = 120.000000 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Final Area-To-Mass Ratio = 0.054000 (m²/kg)
Start Year = 2013.000000 (yr)
Initial Mass = 0.015000 (kg)
Final Mass = 0.015000 (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 = Antenna
Space Structure Type = Payload
Perigee Altitude = 469.000000 (km)
Apogee Altitude = 972.000000 (km)
Inclination = 120.000000 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)

Mean Anomaly = 0.000000 (deg)
Final Area-To-Mass Ratio = 0.047000 (m²/kg)
Start Year = 2013.000000 (yr)
Initial Mass = 0.016000 (kg)
Final Mass = 0.007000 (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 = Battery
Space Structure Type = Payload
Perigee Altitude = 469.000000 (km)
Apogee Altitude = 972.000000 (km)
Inclination = 120.000000 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Final Area-To-Mass Ratio = 0.031000 (m²/kg)
Start Year = 2013.000000 (yr)
Initial Mass = 0.017000 (kg)
Final Mass = 0.017000 (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 = AVO
Space Structure Type = Payload
Perigee Altitude = 469.000000 (km)
Apogee Altitude = 972.000000 (km)
Inclination = 120.000000 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Final Area-To-Mass Ratio = 0.040000 (m²/kg)
Start Year = 2013.000000 (yr)
Initial Mass = 0.023000 (kg)
Final Mass = 0.023000 (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 = Circuit Boards
Space Structure Type = Payload
Perigee Altitude = 469.000000 (km)
Apogee Altitude = 972.000000 (km)
Inclination = 120.000000 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Final Area-To-Mass Ratio = 0.037000 (m²/kg)
Start Year = 2013.000000 (yr)
Initial Mass = 0.030000 (kg)
Final Mass = 0.030000 (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 = ADIS
Space Structure Type = Payload
Perigee Altitude = 469.000000 (km)
Apogee Altitude = 972.000000 (km)
Inclination = 120.000000 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Final Area-To-Mass Ratio = 0.023000 (m²/kg)
Start Year = 2013.000000 (yr)
Initial Mass = 0.049000 (kg)
Final Mass = 0.049000 (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 = AC5 Lids
Space Structure Type = Payload
Perigee Altitude = 469.000000 (km)
Apogee Altitude = 972.000000 (km)

Inclination = 120.000000 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Final Area-To-Mass Ratio = 0.042000 (m²/kg)
Start Year = 2013.000000 (yr)
Initial Mass = 0.086000 (kg)
Final Mass = 0.086000 (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 = Payload interface plate
Space Structure Type = Payload
Perigee Altitude = 469.000000 (km)
Apogee Altitude = 972.000000 (km)
Inclination = 120.000000 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Final Area-To-Mass Ratio = 0.038000 (m²/kg)
Start Year = 2013.000000 (yr)
Initial Mass = 469.000000 (kg)
Final Mass = 0.092000 (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 = STIM
Space Structure Type = Payload
Perigee Altitude = 469.000000 (km)
Apogee Altitude = 972.000000 (km)
Inclination = 120.000000 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Final Area-To-Mass Ratio = 0.016000 (m²/kg)
Start Year = 2013.000000 (yr)
Initial Mass = 0.110000 (kg)
Final Mass = 0.110000 (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 = Pea Placer
Space Structure Type = Payload
Perigee Altitude = 469.000000 (km)
Apogee Altitude = 972.000000 (km)
Inclination = 120.000000 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Final Area-To-Mass Ratio = 0.014000 (m²/kg)
Start Year = 2013.000000 (yr)
Initial Mass = 0.117000 (kg)
Final Mass = 0.117000 (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 = EM Assembly
Space Structure Type = Payload
Perigee Altitude = 469.000000 (km)
Apogee Altitude = 972.000000 (km)
Inclination = 120.000000 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Final Area-To-Mass Ratio = 0.018000 (m²/kg)
Start Year = 2013.000000 (yr)
Initial Mass = 0.275000 (kg)
Final Mass = 0.275000 (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 = Payload Assembly

Space Structure Type = Payload
Perigee Altitude = 469.000000 (km)
Apogee Altitude = 972.000000 (km)
Inclination = 120.000000 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Final Area-To-Mass Ratio = 0.016000 (m²/kg)
Start Year = 2013.000000 (yr)
Initial Mass = 0.573000 (kg)
Final Mass = 0.573000 (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 = Body Structure
Space Structure Type = Payload
Perigee Altitude = 469.000000 (km)
Apogee Altitude = 972.000000 (km)
Inclination = 120.000000 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Final Area-To-Mass Ratio = 0.026000 (m²/kg)
Start Year = 2013.000000 (yr)
Initial Mass = 0.582000 (kg)
Final Mass = 0.582000 (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 = CSTT Cover
Space Structure Type = Payload
Perigee Altitude = 469.000000 (km)
Apogee Altitude = 972.000000 (km)
Inclination = 120.000000 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Final Area-To-Mass Ratio = 0.110000 (m²/kg)
Start Year = 2013.000000 (yr)
Initial Mass = 0.040000 (kg)
Final Mass = 0.040000 (kg)
Duration = 2.000000 (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 = Tether
Space Structure Type = Payload
Perigee Altitude = 469.000000 (km)
Apogee Altitude = 972.000000 (km)
Inclination = 120.000000 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Final Area-To-Mass Ratio = 17.420000 (m²/kg)
Start Year = 2013.000000 (yr)

Initial Mass = 0.020000 (kg)
Final Mass = 0.020000 (kg)
Duration = 2.000000 (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 = 0.000001
Returned Error Message: Normal Processing
Date Range Error Message: Normal Date Range
Status = Pass

=====

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

11 01 2013; 13:41:12PM Requirement 4.5-2: Compliant
11 01 2013; 13:41:14PM Processing Requirement 4.6 Return Status :
Passed

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Project Data

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****INPUT****

Space Structure Name = AC5 complete
Space Structure Type = Payload

Perigee Altitude = 469.000000 (km)
Apogee Altitude = 972.000000 (km)
Inclination = 120.000000 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Area-To-Mass Ratio = 0.008000 (m²/kg)
Start Year = 2013.000000 (yr)
Initial Mass = 2.100000 (kg)
Final Mass = 2.100000 (kg)
Duration = 1.000000 (yr)
Station Kept = False
Abandoned = True
PMD Perigee Altitude = 472.563244 (km)
PMD Apogee Altitude = 957.848205 (km)
PMD Inclination = 119.993419 (deg)
PMD RAAN = 174.648861 (deg)
PMD Argument of Perigee = 310.520109 (deg)
PMD Mean Anomaly = 0.000000 (deg)

****OUTPUT****

Suggested Perigee Altitude = 472.563244 (km)
Suggested Apogee Altitude = 957.848205 (km)
Returned Error Message = Passes LEO reentry orbit criteria.

Released Year = 2037 (yr)
Requirement = 61
Compliance Status = Pass

=====

****INPUT****

Space Structure Name = Battery bracket
Space Structure Type = Payload

Perigee Altitude = 469.000000 (km)
Apogee Altitude = 972.000000 (km)
Inclination = 120.000000 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Area-To-Mass Ratio = 0.105000 (m²/kg)
Start Year = 2013.000000 (yr)
Initial Mass = 0.012000 (kg)
Final Mass = 0.012000 (kg)
Duration = 1.000000 (yr)
Station Kept = False
Abandoned = True
PMD Perigee Altitude = 457.696451 (km)
PMD Apogee Altitude = 820.264934 (km)
PMD Inclination = 119.987949 (deg)
PMD RAAN = 195.789402 (deg)
PMD Argument of Perigee = 315.817168 (deg)
PMD Mean Anomaly = 0.000000 (deg)

****OUTPUT****

Suggested Perigee Altitude = 457.696451 (km)
Suggested Apogee Altitude = 820.264934 (km)
Returned Error Message = Passes LEO reentry orbit criteria.

Released Year = 2014 (yr)
Requirement = 61
Compliance Status = Pass

=====

****INPUT****

Space Structure Name = Reaction wheel block
Space Structure Type = Payload

Perigee Altitude = 469.000000 (km)
Apogee Altitude = 972.000000 (km)
Inclination = 120.000000 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Area-To-Mass Ratio = 0.054000 (m²/kg)
Start Year = 2013.000000 (yr)
Initial Mass = 0.015000 (kg)
Final Mass = 0.015000 (kg)
Duration = 1.000000 (yr)
Station Kept = False
Abandoned = True
PMD Perigee Altitude = 466.570131 (km)
PMD Apogee Altitude = 898.064604 (km)
PMD Inclination = 119.991205 (deg)
PMD RAAN = 184.060780 (deg)
PMD Argument of Perigee = 312.833575 (deg)
PMD Mean Anomaly = 0.000000 (deg)

****OUTPUT****

Suggested Perigee Altitude = 466.570131 (km)
Suggested Apogee Altitude = 898.064604 (km)
Returned Error Message = Passes LEO reentry orbit criteria.

Released Year = 2019 (yr)
Requirement = 61
Compliance Status = Pass

=====

****INPUT****

Space Structure Name = Antenna
Space Structure Type = Payload

Perigee Altitude = 469.000000 (km)
Apogee Altitude = 972.000000 (km)
Inclination = 120.000000 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Area-To-Mass Ratio = 0.047000 (m²/kg)
Start Year = 2013.000000 (yr)
Initial Mass = 0.016000 (kg)
Final Mass = 0.007000 (kg)
Duration = 1.000000 (yr)
Station Kept = False
Abandoned = True
PMD Perigee Altitude = 471.058870 (km)
PMD Apogee Altitude = 942.263645 (km)
PMD Inclination = 119.992870 (deg)

PMD RAAN = 177.129116 (deg)
PMD Argument of Perigee = 311.123979 (deg)
PMD Mean Anomaly = 0.000000 (deg)

OUTPUT

Suggested Perigee Altitude = 471.058870 (km)
Suggested Apogee Altitude = 942.263645 (km)
Returned Error Message = Passes LEO reentry orbit criteria.

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

=====

INPUT

Space Structure Name = Battery
Space Structure Type = Payload

Perigee Altitude = 469.000000 (km)
Apogee Altitude = 972.000000 (km)
Inclination = 120.000000 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Area-To-Mass Ratio = 0.031000 (m²/kg)
Start Year = 2013.000000 (yr)
Initial Mass = 0.017000 (kg)
Final Mass = 0.017000 (kg)
Duration = 1.000000 (yr)
Station Kept = False
Abandoned = True
PMD Perigee Altitude = 469.739009 (km)
PMD Apogee Altitude = 928.918552 (km)
PMD Inclination = 119.992383 (deg)
PMD RAAN = 179.238892 (deg)
PMD Argument of Perigee = 311.640803 (deg)
PMD Mean Anomaly = 0.000000 (deg)

OUTPUT

Suggested Perigee Altitude = 469.739009 (km)
Suggested Apogee Altitude = 928.918552 (km)
Returned Error Message = Passes LEO reentry orbit criteria.

Released Year = 2022 (yr)
Requirement = 61
Compliance Status = Pass

=====

INPUT

Space Structure Name = AVO
Space Structure Type = Payload

Perigee Altitude = 469.000000 (km)
Apogee Altitude = 972.000000 (km)
Inclination = 120.000000 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Area-To-Mass Ratio = 0.040000 (m²/kg)
Start Year = 2013.000000 (yr)
Initial Mass = 0.023000 (kg)
Final Mass = 0.023000 (kg)
Duration = 1.000000 (yr)
Station Kept = False
Abandoned = True
PMD Perigee Altitude = 468.545057 (km)
PMD Apogee Altitude = 917.094852 (km)
PMD Inclination = 119.991947 (deg)
PMD RAAN = 181.096256 (deg)
PMD Argument of Perigee = 312.098420 (deg)
PMD Mean Anomaly = 0.000000 (deg)

****OUTPUT****

Suggested Perigee Altitude = 468.545057 (km)
Suggested Apogee Altitude = 917.094852 (km)
Returned Error Message = Passes LEO reentry orbit criteria.

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

=====

****INPUT****

Space Structure Name = Circuit Boards
Space Structure Type = Payload

Perigee Altitude = 469.000000 (km)
Apogee Altitude = 972.000000 (km)
Inclination = 120.000000 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Area-To-Mass Ratio = 0.037000 (m²/kg)
Start Year = 2013.000000 (yr)
Initial Mass = 0.030000 (kg)
Final Mass = 0.030000 (kg)
Duration = 1.000000 (yr)
Station Kept = False
Abandoned = True

PMD Perigee Altitude = 468.949242 (km)
PMD Apogee Altitude = 921.070004 (km)
PMD Inclination = 119.992096 (deg)
PMD RAAN = 180.473091 (deg)
PMD Argument of Perigee = 311.944652 (deg)
PMD Mean Anomaly = 0.000000 (deg)

****OUTPUT****

Suggested Perigee Altitude = 468.949242 (km)
Suggested Apogee Altitude = 921.070004 (km)
Returned Error Message = Passes LEO reentry orbit criteria.

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

=====

****INPUT****

Space Structure Name = ADIS
Space Structure Type = Payload

Perigee Altitude = 469.000000 (km)
Apogee Altitude = 972.000000 (km)
Inclination = 120.000000 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Area-To-Mass Ratio = 0.023000 (m²/kg)
Start Year = 2013.000000 (yr)
Initial Mass = 0.049000 (kg)
Final Mass = 0.049000 (kg)
Duration = 1.000000 (yr)
Station Kept = False
Abandoned = True
PMD Perigee Altitude = 470.756638 (km)
PMD Apogee Altitude = 939.180159 (km)
PMD Inclination = 119.992757 (deg)
PMD RAAN = 177.617697 (deg)
PMD Argument of Perigee = 311.243344 (deg)
PMD Mean Anomaly = 0.000000 (deg)

****OUTPUT****

Suggested Perigee Altitude = 470.756638 (km)
Suggested Apogee Altitude = 939.180159 (km)
Returned Error Message = Passes LEO reentry orbit criteria.

Released Year = 2023 (yr)
Requirement = 61
Compliance Status = Pass

=====

****INPUT****

Space Structure Name = AC5 Lids
Space Structure Type = Payload

Perigee Altitude = 469.000000 (km)
Apogee Altitude = 972.000000 (km)
Inclination = 120.000000 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Area-To-Mass Ratio = 0.042000 (m²/kg)
Start Year = 2013.000000 (yr)
Initial Mass = 0.086000 (kg)
Final Mass = 0.086000 (kg)
Duration = 1.000000 (yr)
Station Kept = False
Abandoned = True
PMD Perigee Altitude = 468.272072 (km)
PMD Apogee Altitude = 914.426014 (km)
PMD Inclination = 119.991845 (deg)
PMD RAAN = 181.514009 (deg)
PMD Argument of Perigee = 312.201648 (deg)
PMD Mean Anomaly = 0.000000 (deg)

****OUTPUT****

Suggested Perigee Altitude = 468.272072 (km)
Suggested Apogee Altitude = 914.426014 (km)
Returned Error Message = Passes LEO reentry orbit criteria.

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

=====

****INPUT****

Space Structure Name = Payload interface plate
Space Structure Type = Payload

Perigee Altitude = 469.000000 (km)
Apogee Altitude = 972.000000 (km)
Inclination = 120.000000 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Area-To-Mass Ratio = 0.038000 (m²/kg)
Start Year = 2013.000000 (yr)
Initial Mass = 469.000000 (kg)
Final Mass = 0.092000 (kg)

Duration = 1.000000 (yr)
Station Kept = False
Abandoned = True
PMD Perigee Altitude = 473.477274 (km)
PMD Apogee Altitude = 967.512961 (km)
PMD Inclination = 119.993747 (deg)
PMD RAAN = 173.102473 (deg)
PMD Argument of Perigee = 310.145515 (deg)
PMD Mean Anomaly = 0.000000 (deg)

OUTPUT

Suggested Perigee Altitude = 473.477274 (km)
Suggested Apogee Altitude = 967.512961 (km)
Returned Error Message = Passes LEO reentry orbit criteria.

Released Year = 2022 (yr)
Requirement = 61
Compliance Status = Pass

=====

INPUT

Space Structure Name = STIM
Space Structure Type = Payload

Perigee Altitude = 469.000000 (km)
Apogee Altitude = 972.000000 (km)
Inclination = 120.000000 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Area-To-Mass Ratio = 0.016000 (m²/kg)
Start Year = 2013.000000 (yr)
Initial Mass = 0.110000 (kg)
Final Mass = 0.110000 (kg)
Duration = 1.000000 (yr)
Station Kept = False
Abandoned = True
PMD Perigee Altitude = 471.615305 (km)
PMD Apogee Altitude = 947.981644 (km)
PMD Inclination = 119.993076 (deg)
PMD RAAN = 176.221117 (deg)
PMD Argument of Perigee = 310.902522 (deg)
PMD Mean Anomaly = 0.000000 (deg)

OUTPUT

Suggested Perigee Altitude = 471.615305 (km)
Suggested Apogee Altitude = 947.981644 (km)
Returned Error Message = Passes LEO reentry orbit criteria.

Released Year = 2025 (yr)

Requirement = 61
Compliance Status = Pass

=====

****INPUT****

Space Structure Name = Pea Placer
Space Structure Type = Payload

Perigee Altitude = 469.000000 (km)
Apogee Altitude = 972.000000 (km)
Inclination = 120.000000 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Area-To-Mass Ratio = 0.014000 (m²/kg)
Start Year = 2013.000000 (yr)
Initial Mass = 0.117000 (kg)
Final Mass = 0.117000 (kg)
Duration = 1.000000 (yr)
Station Kept = False
Abandoned = True
PMD Perigee Altitude = 471.855524 (km)
PMD Apogee Altitude = 950.466795 (km)
PMD Inclination = 119.993164 (deg)
PMD RAAN = 175.825713 (deg)
PMD Argument of Perigee = 310.806235 (deg)
PMD Mean Anomaly = 0.000000 (deg)

****OUTPUT****

Suggested Perigee Altitude = 471.855524 (km)
Suggested Apogee Altitude = 950.466795 (km)
Returned Error Message = Passes LEO reentry orbit criteria.

Released Year = 2028 (yr)
Requirement = 61
Compliance Status = Pass

=====

****INPUT****

Space Structure Name = EM Assembly
Space Structure Type = Payload

Perigee Altitude = 469.000000 (km)
Apogee Altitude = 972.000000 (km)
Inclination = 120.000000 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Area-To-Mass Ratio = 0.018000 (m²/kg)

Start Year = 2013.000000 (yr)
Initial Mass = 0.275000 (kg)
Final Mass = 0.275000 (kg)
Duration = 1.000000 (yr)
Station Kept = False
Abandoned = True
PMD Perigee Altitude = 471.372829 (km)
PMD Apogee Altitude = 945.483082 (km)
PMD Inclination = 119.992986 (deg)
PMD RAAN = 176.618132 (deg)
PMD Argument of Perigee = 310.999291 (deg)
PMD Mean Anomaly = 0.000000 (deg)

OUTPUT

Suggested Perigee Altitude = 471.372829 (km)
Suggested Apogee Altitude = 945.483082 (km)
Returned Error Message = Passes LEO reentry orbit criteria.

Released Year = 2024 (yr)
Requirement = 61
Compliance Status = Pass

=====

INPUT

Space Structure Name = Payload Assembly
Space Structure Type = Payload

Perigee Altitude = 469.000000 (km)
Apogee Altitude = 972.000000 (km)
Inclination = 120.000000 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Area-To-Mass Ratio = 0.016000 (m²/kg)
Start Year = 2013.000000 (yr)
Initial Mass = 0.573000 (kg)
Final Mass = 0.573000 (kg)
Duration = 1.000000 (yr)
Station Kept = False
Abandoned = True
PMD Perigee Altitude = 471.615305 (km)
PMD Apogee Altitude = 947.981644 (km)
PMD Inclination = 119.993076 (deg)
PMD RAAN = 176.221117 (deg)
PMD Argument of Perigee = 310.902522 (deg)
PMD Mean Anomaly = 0.000000 (deg)

OUTPUT

Suggested Perigee Altitude = 471.615305 (km)
Suggested Apogee Altitude = 947.981644 (km)

Returned Error Message = Passes LEO reentry orbit criteria.

Released Year = 2025 (yr)

Requirement = 61

Compliance Status = Pass

=====

****INPUT****

Space Structure Name = Body Structure

Space Structure Type = Payload

Perigee Altitude = 469.000000 (km)

Apogee Altitude = 972.000000 (km)

Inclination = 120.000000 (deg)

RAAN = 0.000000 (deg)

Argument of Perigee = 0.000000 (deg)

Mean Anomaly = 0.000000 (deg)

Area-To-Mass Ratio = 0.026000 (m²/kg)

Start Year = 2013.000000 (yr)

Initial Mass = 0.582000 (kg)

Final Mass = 0.582000 (kg)

Duration = 1.000000 (yr)

Station Kept = False

Abandoned = True

PMD Perigee Altitude = 470.379653 (km)

PMD Apogee Altitude = 935.358403 (km)

PMD Inclination = 119.992620 (deg)

PMD RAAN = 178.222483 (deg)

PMD Argument of Perigee = 311.391428 (deg)

PMD Mean Anomaly = 0.000000 (deg)

****OUTPUT****

Suggested Perigee Altitude = 470.379653 (km)

Suggested Apogee Altitude = 935.358403 (km)

Returned Error Message = Passes LEO reentry orbit criteria.

Released Year = 2022 (yr)

Requirement = 61

Compliance Status = Pass

=====

****INPUT****

Space Structure Name = CSTT Cover

Space Structure Type = Payload

Perigee Altitude = 469.000000 (km)

Apogee Altitude = 972.000000 (km)

Inclination = 120.000000 (deg)

RAAN = 0.000000 (deg)

Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Area-To-Mass Ratio = 0.110000 (m²/kg)
Start Year = 2013.000000 (yr)
Initial Mass = 0.040000 (kg)
Final Mass = 0.040000 (kg)
Duration = 2.000000 (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****

Suggested Perigee Altitude = 469.000000 (km)
Suggested Apogee Altitude = 972.000000 (km)
Returned Error Message = Reentry during mission (no PMD req.).

Released Year = 2014 (yr)
Requirement = 61
Compliance Status = Pass

=====

****INPUT****

Space Structure Name = Tether
Space Structure Type = Payload

Perigee Altitude = 469.000000 (km)
Apogee Altitude = 972.000000 (km)
Inclination = 120.000000 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Area-To-Mass Ratio = 17.420000 (m²/kg)
Start Year = 2013.000000 (yr)
Initial Mass = 0.020000 (kg)
Final Mass = 0.020000 (kg)
Duration = 2.000000 (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****

Suggested Perigee Altitude = 469.000000 (km)
Suggested Apogee Altitude = 972.000000 (km)
Returned Error Message = Reentry during mission (no PMD req.).

Released Year = 2013 (yr)
Requirement = 61
Compliance Status = Pass

=====

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

11 01 2013; 13:41:24PM *****Processing Requirement 4.7-1

Return Status : Passed

*****INPUT*****

Item Number = 1

name = AC5 complete
quantity = 1
parent = 0
materialID = 8
type = Box
Aero Mass = 2.100000
Thermal Mass = 2.100000
Diameter/Width = 0.100000
Length = 0.150000
Height = 0.100000

name = AC5 complete
quantity = 1
parent = 1
materialID = 8
type = Box
Aero Mass = 2.100000
Thermal Mass = 2.100000
Diameter/Width = 0.100000
Length = 0.150000
Height = 0.100000

*****OUTPUT*****

Item Number = 1

name = AC5 complete
Demise Altitude = 77.994762
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = AC5 complete
Demise Altitude = 67.464542
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

*****INPUT*****

Item Number = 2

name = Battery bracket
quantity = 1
parent = 0
materialID = 8
type = Box
Aero Mass = 0.012000
Thermal Mass = 0.012000
Diameter/Width = 0.026000
Length = 0.090000
Height = 0.013000

name = Battery bracket
quantity = 1
parent = 1
materialID = 8
type = Box
Aero Mass = 0.012000
Thermal Mass = 0.012000
Diameter/Width = 0.026000
Length = 0.090000
Height = 0.013000

*****OUTPUT*****

Item Number = 2

name = Battery bracket
Demise Altitude = 77.990980
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Battery bracket
Demise Altitude = 73.122285
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

*****INPUT*****

Item Number = 3

name = Reaction wheel block
quantity = 1
parent = 0
materialID = 8
type = Box
Aero Mass = 0.015000
Thermal Mass = 0.015000
Diameter/Width = 0.028000

Length = 0.029000
Height = 0.028000

name = Reaction wheel block
quantity = 1
parent = 1
materialID = 8
type = Box
Aero Mass = 0.015000
Thermal Mass = 0.015000
Diameter/Width = 0.028000
Length = 0.029000
Height = 0.028000

*****OUTPUT****

Item Number = 3

name = Reaction wheel block
Demise Altitude = 77.986574
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Reaction wheel block
Demise Altitude = 73.709980
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

*****INPUT****

Item Number = 4

name = Antenna
quantity = 1
parent = 0
materialID = 1
type = Flat Plate
Aero Mass = 0.007000
Thermal Mass = 0.007000
Diameter/Width = 0.040000
Length = 0.050000

name = Antenna
quantity = 1
parent = 1
materialID = 1
type = Flat Plate
Aero Mass = 0.007000
Thermal Mass = 0.007000
Diameter/Width = 0.040000
Length = 0.050000

*****OUTPUT****

Item Number = 4

name = Antenna
Demise Altitude = 77.996441
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Antenna
Demise Altitude = 0.000000
Debris Casualty Area = 0.415666
Impact Kinetic Energy = 0.399731

*****INPUT****

Item Number = 5

name = Battery
quantity = 1
parent = 0
materialID = 56
type = Cylinder
Aero Mass = 0.017000
Thermal Mass = 0.017000
Diameter/Width = 0.016000

name = Battery
quantity = 1
parent = 1
materialID = 56
type = Cylinder
Aero Mass = 0.017000
Thermal Mass = 0.017000
Diameter/Width = 0.016000
Length = 0.033000

*****OUTPUT****

Item Number = 5

name = Battery
Demise Altitude = 77.991246
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Battery
Demise Altitude = 68.929245
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

*****INPUT****

Item Number = 6

name = AVO
quantity = 1
parent = 0
materialID = 56
type = Cylinder
Aero Mass = 0.023000
Thermal Mass = 0.023000
Diameter/Width = 0.026000

name = AVO
quantity = 1
parent = 1
materialID = 56
type = Cylinder
Aero Mass = 0.023000
Thermal Mass = 0.023000
Diameter/Width = 0.026000
Length = 0.040000

*****OUTPUT****

Item Number = 6

name = AVO
Demise Altitude = 77.995316
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = AVO
Demise Altitude = 0.000000
Debris Casualty Area = 0.399739
Impact Kinetic Energy = 4.963423

*****INPUT****

Item Number = 7

name = Circuit Boards
quantity = 1
parent = 0
materialID = 23
type = Flat Plate
Aero Mass = 0.030000
Thermal Mass = 0.030000
Diameter/Width = 0.056000
Length = 0.056000

name = Circuit Boards
quantity = 1
parent = 1
materialID = 23

type = Flat Plate
Aero Mass = 0.030000
Thermal Mass = 0.030000
Diameter/Width = 0.056000
Length = 0.056000

*****OUTPUT****

Item Number = 7

name = Circuit Boards
Demise Altitude = 77.992472
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Circuit Boards
Demise Altitude = 74.073191
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

*****INPUT****

Item Number = 8

name = ADIS
quantity = 1
parent = 0
materialID = 8
type = Box
Aero Mass = 0.049000
Thermal Mass = 0.049000
Diameter/Width = 0.044000
Length = 0.047000
Height = 0.014000

name = ADIS
quantity = 1
parent = 1
materialID = 8
type = Box
Aero Mass = 0.049000
Thermal Mass = 0.049000
Diameter/Width = 0.044000
Length = 0.047000
Height = 0.014000

*****OUTPUT****

Item Number = 8

name = ADIS
Demise Altitude = 77.994308
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = ADIS
Demise Altitude = 72.455027
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

*****INPUT****

Item Number = 9

name = AC5 Lids
quantity = 1
parent = 0
materialID = 8
type = Flat Plate
Aero Mass = 0.086000
Thermal Mass = 0.086000
Diameter/Width = 0.096000
Length = 0.105000

name = AC5 Lids
quantity = 1
parent = 1
materialID = 8
type = Flat Plate
Aero Mass = 0.086000
Thermal Mass = 0.086000
Diameter/Width = 0.096000
Length = 0.105000

*****OUTPUT****

Item Number = 9

name = AC5 Lids
Demise Altitude = 77.987894
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = AC5 Lids
Demise Altitude = 71.265136
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

*****INPUT****

Item Number = 10

name = Payload interface plate
quantity = 1
parent = 0

materialID = 8
type = Flat Plate
Aero Mass = 0.092000
Thermal Mass = 0.092000
Diameter/Width = 0.097000
Length = 0.097000

name = Payload interface plate
quantity = 1
parent = 1
materialID = 8
type = Flat Plate
Aero Mass = 0.092000
Thermal Mass = 0.092000
Diameter/Width = 0.097000
Length = 0.097000

*****OUTPUT****

Item Number = 10

name = Payload interface plate
Demise Altitude = 77.989512
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Payload interface plate
Demise Altitude = 71.224683
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

*****INPUT****

Item Number = 11

name = STIM
quantity = 1
parent = 0
materialID = 8
type = Box
Aero Mass = 0.110000
Thermal Mass = 0.110000
Diameter/Width = 0.048000
Length = 0.053000
Height = 0.026000

name = STIM
quantity = 1
parent = 1
materialID = 8
type = Box
Aero Mass = 0.110000
Thermal Mass = 0.110000

Diameter/Width = 0.048000
Length = 0.053000
Height = 0.026000

*****OUTPUT****

Item Number = 11

name = STIM
Demise Altitude = 77.990637
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = STIM
Demise Altitude = 71.782800
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

*****INPUT****

Item Number = 12

name = Pea Placer
quantity = 1
parent = 0
materialID = 8
type = Cylinder
Aero Mass = 0.117000
Thermal Mass = 0.117000
Diameter/Width = 0.037000

name = Pea Placer
quantity = 1
parent = 1
materialID = 8
type = Cylinder
Aero Mass = 0.117000
Thermal Mass = 0.117000
Diameter/Width = 0.037000
Length = 0.043000

*****OUTPUT****

Item Number = 12

name = Pea Placer
Demise Altitude = 77.996707
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Pea Placer
Demise Altitude = 71.968488
Debris Casualty Area = 0.000000

Impact Kinetic Energy = 0.000000

*****INPUT*****

Item Number = 13

name = EM Assembly
quantity = 1
parent = 0
materialID = 23
type = Box
Aero Mass = 0.275000
Thermal Mass = 0.275000
Diameter/Width = 0.078000
Length = 0.089000
Height = 0.047000

name = EM Assembly
quantity = 1
parent = 1
materialID = 23
type = Box
Aero Mass = 0.275000
Thermal Mass = 0.275000
Diameter/Width = 0.078000
Length = 0.089000
Height = 0.047000

*****OUTPUT*****

Item Number = 13

name = EM Assembly
Demise Altitude = 77.999613
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = EM Assembly
Demise Altitude = 73.208488
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

*****INPUT*****

Item Number = 14

name = Payload Assembly
quantity = 1
parent = 0
materialID = 8
type = Box
Aero Mass = 0.573000

Thermal Mass = 0.573000
Diameter/Width = 0.097000
Length = 0.097000
Height = 0.092000

name = Payload Assembly
quantity = 1
parent = 1
materialID = 8
type = Box
Aero Mass = 0.573000
Thermal Mass = 0.573000
Diameter/Width = 0.097000
Length = 0.097000
Height = 0.092000

*****OUTPUT****

Item Number = 14

name = Payload Assembly
Demise Altitude = 77.992660
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Payload Assembly
Demise Altitude = 70.116386
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

*****INPUT****

Item Number = 15

name = Body Structure
quantity = 1
parent = 0
materialID = 8
type = Box
Aero Mass = 0.582000
Thermal Mass = 0.582000
Diameter/Width = 0.105000
Length = 0.165000
Height = 0.105000

name = Body Structure
quantity = 1
parent = 1
materialID = 8
type = Box
Aero Mass = 0.582000
Thermal Mass = 0.582000
Diameter/Width = 0.105000

Length = 0.165000
Height = 0.105000

*****OUTPUT****

Item Number = 15

name = Body Structure
Demise Altitude = 77.989785
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Body Structure
Demise Altitude = 71.902894
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

*****INPUT****

Item Number = 16

name = CSTT Cover
quantity = 1
parent = 0
materialID = 8
type = Flat Plate
Aero Mass = 0.040000
Thermal Mass = 0.040000
Diameter/Width = 0.083000
Length = 0.100000

name = CSTT Cover
quantity = 1
parent = 1
materialID = 8
type = Flat Plate
Aero Mass = 0.040000
Thermal Mass = 0.040000
Diameter/Width = 0.083000
Length = 0.100000

*****OUTPUT****

Item Number = 16

name = CSTT Cover
Demise Altitude = 77.987941
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = CSTT Cover
Demise Altitude = 70.667480
Debris Casualty Area = 0.000000

Impact Kinetic Energy = 0.000000

*****INPUT****

Item Number = 17

name = Tether
quantity = 1
parent = 0
materialID = 8
type = Flat Plate
Aero Mass = 0.020000
Thermal Mass = 0.020000
Diameter/Width = 0.100000
Length = 12.000000

name = Tether
quantity = 1
parent = 1
materialID = 8
type = Flat Plate
Aero Mass = 0.020000
Thermal Mass = 0.020000
Diameter/Width = 0.100000
Length = 12.000000

*****OUTPUT****

Item Number = 17

name = Tether
Demise Altitude = 77.992926
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Tether
Demise Altitude = 0.000000
Debris Casualty Area = 2.874534
Impact Kinetic Energy = 0.005436

*****INPUT****

Item Number = 18

name = pea
quantity = 10
parent = 0
materialID = 14
type = Cylinder
Aero Mass = 0.001200
Thermal Mass = 0.001200
Diameter/Width = 0.008000

name = pea
quantity = 10
parent = 1
materialID = 14
type = Cylinder
Aero Mass = 0.001200
Thermal Mass = 0.001200
Diameter/Width = 0.008000
Length = 0.013000

*****OUTPUT****

Item Number = 18

name = pea
Demise Altitude = 77.993847
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = pea
Demise Altitude = 76.499472
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

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