

01 22 2016; 16:00:05PM DAS Application Started
01 22 2016; 16:00:05PM Opened Project C:\DAS 2.0\ac8cd\
01 22 2016; 16:00:18PM Opened Project C:\DAS 2.0\ac8cd_600km\
01 22 2016; 16:00:24PM Mission Editor Changes Applied
01 22 2016; 16:00:36PM Processing Requirement 4.3-1: Return Status :
Not Run

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

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End of Requirement 4.3-1 =====
01 22 2016; 16:00:39PM Processing Requirement 4.3-2: Return Status :
Passed

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

=====
End of Requirement 4.3-2 =====
01 22 2016; 16:00:42PM Requirement 4.4-3: Compliant

=====
End of Requirement 4.4-3 =====
01 22 2016; 16:00:59PM Processing Requirement 4.5-1: Return Status :
Passed

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

INPUT

Space Structure Name = AC8 complete
Space Structure Type = Payload
Perigee Altitude = 600.000000 (km)
Apogee Altitude = 600.000000 (km)
Inclination = 97.792700 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Final Area-To-Mass Ratio = 0.011350 (m²/kg)
Start Year = 2016.700000 (yr)
Initial Mass = 2.000000 (kg)
Final Mass = 2.000000 (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 = Reaction Wheel Block
Space Structure Type = Payload
Perigee Altitude = 600.000000 (km)
Apogee Altitude = 600.000000 (km)
Inclination = 97.792700 (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 = 2016.700000 (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 = 600.000000 (km)
Apogee Altitude = 600.000000 (km)
Inclination = 97.792700 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Final Area-To-Mass Ratio = 0.063000 (m²/kg)
Start Year = 2016.700000 (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 = Batteries
Space Structure Type = Payload
Perigee Altitude = 600.000000 (km)
Apogee Altitude = 600.000000 (km)
Inclination = 97.792700 (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 = 2016.700000 (yr)
Initial Mass = 0.045000 (kg)
Final Mass = 0.045000 (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 = Torque Rods
Space Structure Type = Payload
Perigee Altitude = 600.000000 (km)
Apogee Altitude = 600.000000 (km)
Inclination = 97.792700 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Final Area-To-Mass Ratio = 0.044000 (m²/kg)
Start Year = 2016.700000 (yr)
Initial Mass = 0.005000 (kg)
Final Mass = 0.005000 (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 = 600.000000 (km)
Apogee Altitude = 600.000000 (km)
Inclination = 97.792700 (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 = 2016.700000 (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 = Lids
Space Structure Type = Payload
Perigee Altitude = 600.000000 (km)
Apogee Altitude = 600.000000 (km)
Inclination = 97.792700 (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 = 2016.700000 (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 = 600.000000 (km)
Apogee Altitude = 600.000000 (km)
Inclination = 97.792700 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)

Mean Anomaly = 0.000000 (deg)
Final Area-To-Mass Ratio = 0.029000 (m²/kg)
Start Year = 2016.700000 (yr)
Initial Mass = 0.120000 (kg)
Final Mass = 0.120000 (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 = VectorNav IMU
Space Structure Type = Payload
Perigee Altitude = 600.000000 (km)
Apogee Altitude = 600.000000 (km)
Inclination = 97.792700 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Final Area-To-Mass Ratio = 0.027000 (m²/kg)
Start Year = 2016.700000 (yr)
Initial Mass = 0.053000 (kg)
Final Mass = 0.053000 (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 = Bus Electronics Assembly
Space Structure Type = Payload
Perigee Altitude = 600.000000 (km)
Apogee Altitude = 600.000000 (km)
Inclination = 97.792700 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Final Area-To-Mass Ratio = 0.017000 (m²/kg)
Start Year = 2016.700000 (yr)
Initial Mass = 0.310000 (kg)
Final Mass = 0.310000 (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 = 600.000000 (km)
Apogee Altitude = 600.000000 (km)
Inclination = 97.792700 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Final Area-To-Mass Ratio = 0.019000 (m²/kg)
Start Year = 2016.700000 (yr)
Initial Mass = 0.350000 (kg)
Final Mass = 0.350000 (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 = 600.000000 (km)
Apogee Altitude = 600.000000 (km)
Inclination = 97.792700 (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 = 2016.700000 (yr)
Initial Mass = 0.595000 (kg)
Final Mass = 0.595000 (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 =====
01 22 2016; 16:01:04PM Requirement 4.5-2: Compliant
01 22 2016; 16:01:06PM Processing Requirement 4.6 Return Status :
Passed

=====

Project Data
=====

INPUT

Space Structure Name = AC8 complete
Space Structure Type = Payload

Perigee Altitude = 600.000000 (km)
Apogee Altitude = 600.000000 (km)
Inclination = 97.792700 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Area-To-Mass Ratio = 0.011350 (m²/kg)
Start Year = 2016.700000 (yr)
Initial Mass = 2.000000 (kg)
Final Mass = 2.000000 (kg)
Duration = 1.000000 (yr)
Station Kept = False
Abandoned = True
PMD Perigee Altitude = 586.834663 (km)
PMD Apogee Altitude = 611.063508 (km)
PMD Inclination = 97.802721 (deg)
PMD RAAN = 359.273213 (deg)
PMD Argument of Perigee = 123.107824 (deg)
PMD Mean Anomaly = 0.000000 (deg)

OUTPUT

Suggested Perigee Altitude = 586.834663 (km)
Suggested Apogee Altitude = 611.063508 (km)
Returned Error Message = Passes LEO reentry orbit criteria.

Released Year = 2032 (yr)
Requirement = 61
Compliance Status = Pass

=====

INPUT

Space Structure Name = Reaction Wheel Block
Space Structure Type = Payload

Perigee Altitude = 600.000000 (km)
Apogee Altitude = 600.000000 (km)
Inclination = 97.792700 (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 = 2016.700000 (yr)
Initial Mass = 0.015000 (kg)

Final Mass = 0.015000 (kg)
Duration = 1.000000 (yr)
Station Kept = False
Abandoned = True
PMD Perigee Altitude = 584.185841 (km)
PMD Apogee Altitude = 605.480348 (km)
PMD Inclination = 97.800394 (deg)
PMD RAAN = 359.628016 (deg)
PMD Argument of Perigee = 128.728810 (deg)
PMD Mean Anomaly = 0.000000 (deg)

OUTPUT

Suggested Perigee Altitude = 584.185841 (km)
Suggested Apogee Altitude = 605.480348 (km)
Returned Error Message = Passes LEO reentry orbit criteria.

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

=====

INPUT

Space Structure Name = Antenna
Space Structure Type = Payload

Perigee Altitude = 600.000000 (km)
Apogee Altitude = 600.000000 (km)
Inclination = 97.792700 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Area-To-Mass Ratio = 0.063000 (m²/kg)
Start Year = 2016.700000 (yr)
Initial Mass = 0.012000 (kg)
Final Mass = 0.012000 (kg)
Duration = 1.000000 (yr)
Station Kept = False
Abandoned = True
PMD Perigee Altitude = 583.041106 (km)
PMD Apogee Altitude = 604.857084 (km)
PMD Inclination = 97.799893 (deg)
PMD RAAN = 359.704067 (deg)
PMD Argument of Perigee = 139.355096 (deg)
PMD Mean Anomaly = 0.000000 (deg)

OUTPUT

Suggested Perigee Altitude = 583.041106 (km)
Suggested Apogee Altitude = 604.857084 (km)
Returned Error Message = Passes LEO reentry orbit criteria.

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

=====

INPUT

Space Structure Name = Batteries
Space Structure Type = Payload

Perigee Altitude = 600.000000 (km)
Apogee Altitude = 600.000000 (km)
Inclination = 97.792700 (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 = 2016.700000 (yr)
Initial Mass = 0.045000 (kg)
Final Mass = 0.045000 (kg)
Duration = 1.000000 (yr)
Station Kept = False
Abandoned = True
PMD Perigee Altitude = 588.699092 (km)
PMD Apogee Altitude = 606.433497 (km)
PMD Inclination = 97.801928 (deg)
PMD RAAN = 359.392789 (deg)
PMD Argument of Perigee = 139.556485 (deg)
PMD Mean Anomaly = 0.000000 (deg)

OUTPUT

Suggested Perigee Altitude = 588.699092 (km)
Suggested Apogee Altitude = 606.433497 (km)
Returned Error Message = Passes LEO reentry orbit criteria.

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

=====

INPUT

Space Structure Name = Torque Rods
Space Structure Type = Payload

Perigee Altitude = 600.000000 (km)
Apogee Altitude = 600.000000 (km)
Inclination = 97.792700 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)

Area-To-Mass Ratio = 0.044000 (m²/kg)
Start Year = 2016.700000 (yr)
Initial Mass = 0.005000 (kg)
Final Mass = 0.005000 (kg)
Duration = 1.000000 (yr)
Station Kept = False
Abandoned = True
PMD Perigee Altitude = 584.542522 (km)
PMD Apogee Altitude = 607.100756 (km)
PMD Inclination = 97.800949 (deg)
PMD RAAN = 359.543240 (deg)
PMD Argument of Perigee = 125.458423 (deg)
PMD Mean Anomaly = 0.000000 (deg)

OUTPUT

Suggested Perigee Altitude = 584.542522 (km)
Suggested Apogee Altitude = 607.100756 (km)
Returned Error Message = Passes LEO reentry orbit criteria.

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

=====

INPUT

Space Structure Name = Circuit Boards
Space Structure Type = Payload

Perigee Altitude = 600.000000 (km)
Apogee Altitude = 600.000000 (km)
Inclination = 97.792700 (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 = 2016.700000 (yr)
Initial Mass = 0.030000 (kg)
Final Mass = 0.030000 (kg)
Duration = 1.000000 (yr)
Station Kept = False
Abandoned = True
PMD Perigee Altitude = 586.783640 (km)
PMD Apogee Altitude = 606.241592 (km)
PMD Inclination = 97.801331 (deg)
PMD RAAN = 359.483937 (deg)
PMD Argument of Perigee = 139.542045 (deg)
PMD Mean Anomaly = 0.000000 (deg)

OUTPUT

Suggested Perigee Altitude = 586.783640 (km)

Suggested Apogee Altitude = 606.241592 (km)
Returned Error Message = Passes LEO reentry orbit criteria.

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

=====

INPUT

Space Structure Name = Lids
Space Structure Type = Payload

Perigee Altitude = 600.000000 (km)
Apogee Altitude = 600.000000 (km)
Inclination = 97.792700 (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 = 2016.700000 (yr)
Initial Mass = 0.086000 (kg)
Final Mass = 0.086000 (kg)
Duration = 1.000000 (yr)
Station Kept = False
Abandoned = True
PMD Perigee Altitude = 585.247080 (km)
PMD Apogee Altitude = 606.787728 (km)
PMD Inclination = 97.801058 (deg)
PMD RAAN = 359.526396 (deg)
PMD Argument of Perigee = 128.324029 (deg)
PMD Mean Anomaly = 0.000000 (deg)

OUTPUT

Suggested Perigee Altitude = 585.247080 (km)
Suggested Apogee Altitude = 606.787728 (km)
Returned Error Message = Passes LEO reentry orbit criteria.

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

=====

INPUT

Space Structure Name = Payload Interface Plate
Space Structure Type = Payload

Perigee Altitude = 600.000000 (km)
Apogee Altitude = 600.000000 (km)
Inclination = 97.792700 (deg)

RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Area-To-Mass Ratio = 0.029000 (m²/kg)
Start Year = 2016.700000 (yr)
Initial Mass = 0.120000 (kg)
Final Mass = 0.120000 (kg)
Duration = 1.000000 (yr)
Station Kept = False
Abandoned = True
PMD Perigee Altitude = 587.692381 (km)
PMD Apogee Altitude = 606.873756 (km)
PMD Inclination = 97.801767 (deg)
PMD RAAN = 359.417535 (deg)
PMD Argument of Perigee = 140.466170 (deg)
PMD Mean Anomaly = 0.000000 (deg)

****OUTPUT****

Suggested Perigee Altitude = 587.692381 (km)
Suggested Apogee Altitude = 606.873756 (km)
Returned Error Message = Passes LEO reentry orbit criteria.

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

=====

****INPUT****

Space Structure Name = VectorNav IMU
Space Structure Type = Payload

Perigee Altitude = 600.000000 (km)
Apogee Altitude = 600.000000 (km)
Inclination = 97.792700 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Area-To-Mass Ratio = 0.027000 (m²/kg)
Start Year = 2016.700000 (yr)
Initial Mass = 0.053000 (kg)
Final Mass = 0.053000 (kg)
Duration = 1.000000 (yr)
Station Kept = False
Abandoned = True
PMD Perigee Altitude = 588.000555 (km)
PMD Apogee Altitude = 606.947787 (km)
PMD Inclination = 97.801875 (deg)
PMD RAAN = 359.401002 (deg)
PMD Argument of Perigee = 139.296010 (deg)
PMD Mean Anomaly = 0.000000 (deg)

OUTPUT

Suggested Perigee Altitude = 588.000555 (km)
Suggested Apogee Altitude = 606.947787 (km)
Returned Error Message = Passes LEO reentry orbit criteria.

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

=====

INPUT

Space Structure Name = Bus Electronics Assembly
Space Structure Type = Payload

Perigee Altitude = 600.000000 (km)
Apogee Altitude = 600.000000 (km)
Inclination = 97.792700 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Area-To-Mass Ratio = 0.017000 (m²/kg)
Start Year = 2016.700000 (yr)
Initial Mass = 0.310000 (kg)
Final Mass = 0.310000 (kg)
Duration = 1.000000 (yr)
Station Kept = False
Abandoned = True
PMD Perigee Altitude = 585.624337 (km)
PMD Apogee Altitude = 611.214756 (km)
PMD Inclination = 97.802420 (deg)
PMD RAAN = 359.319338 (deg)
PMD Argument of Perigee = 123.416065 (deg)
PMD Mean Anomaly = 0.000000 (deg)

OUTPUT

Suggested Perigee Altitude = 585.624337 (km)
Suggested Apogee Altitude = 611.214756 (km)
Returned Error Message = Passes LEO reentry orbit criteria.

Released Year = 2025 (yr)
Requirement = 61
Compliance Status = Pass

=====

INPUT

Space Structure Name = Payload Assembly
Space Structure Type = Payload

Perigee Altitude = 600.000000 (km)
Apogee Altitude = 600.000000 (km)
Inclination = 97.792700 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Area-To-Mass Ratio = 0.019000 (m²/kg)
Start Year = 2016.700000 (yr)
Initial Mass = 0.350000 (kg)
Final Mass = 0.350000 (kg)
Duration = 1.000000 (yr)
Station Kept = False
Abandoned = True
PMD Perigee Altitude = 585.720661 (km)
PMD Apogee Altitude = 610.742002 (km)
PMD Inclination = 97.802312 (deg)
PMD RAAN = 359.335641 (deg)
PMD Argument of Perigee = 125.215647 (deg)
PMD Mean Anomaly = 0.000000 (deg)

****OUTPUT****

Suggested Perigee Altitude = 585.720661 (km)
Suggested Apogee Altitude = 610.742002 (km)
Returned Error Message = Passes LEO reentry orbit criteria.

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

=====

****INPUT****

Space Structure Name = Body Structure
Space Structure Type = Payload

Perigee Altitude = 600.000000 (km)
Apogee Altitude = 600.000000 (km)
Inclination = 97.792700 (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 = 2016.700000 (yr)
Initial Mass = 0.595000 (kg)
Final Mass = 0.595000 (kg)
Duration = 1.000000 (yr)
Station Kept = False
Abandoned = True
PMD Perigee Altitude = 588.699092 (km)
PMD Apogee Altitude = 606.433497 (km)
PMD Inclination = 97.801928 (deg)
PMD RAAN = 359.392789 (deg)

PMD Argument of Perigee = 139.556485 (deg)
PMD Mean Anomaly = 0.000000 (deg)

OUTPUT

Suggested Perigee Altitude = 588.699092 (km)
Suggested Apogee Altitude = 606.433497 (km)
Returned Error Message = Passes LEO reentry orbit criteria.

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

=====

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

01 22 2016; 16:01:15PM *****Processing Requirement 4.7-1
Return Status : Passed

*****INPUT*****

Item Number = 1

name = AC8 complete
quantity = 1
parent = 0
materialID = 8
type = Box
Aero Mass = 2.000000
Thermal Mass = 2.000000
Diameter/Width = 0.102500
Length = 0.170000
Height = 0.102500

name = AC8 complete
quantity = 1
parent = 1
materialID = 8
type = Box
Aero Mass = 2.000000
Thermal Mass = 2.000000
Diameter/Width = 0.102500
Length = 0.170000
Height = 0.102500

*****OUTPUT*****

Item Number = 1

name = AC8 complete
Demise Altitude = 77.996660
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = AC8 complete

Demise Altitude = 67.674113
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

*****INPUT****

Item Number = 2

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 = 2

name = Reaction Wheel Block
Demise Altitude = 77.993730
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Reaction Wheel Block
Demise Altitude = 73.477972
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

*****INPUT****

Item Number = 3

name = Antenna
quantity = 2
parent = 0
materialID = 19

type = Flat Plate
Aero Mass = 0.012000
Thermal Mass = 0.012000
Diameter/Width = 0.040000
Length = 0.050000

name = Antenna
quantity = 2
parent = 1
materialID = 19
type = Flat Plate
Aero Mass = 0.012000
Thermal Mass = 0.012000
Diameter/Width = 0.040000
Length = 0.050000

*****OUTPUT****

Item Number = 3

name = Antenna
Demise Altitude = 77.994449
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Antenna
Demise Altitude = 0.000000
Debris Casualty Area = 0.831331
Impact Kinetic Energy = 1.175041

*****INPUT****

Item Number = 4

name = Batteries
quantity = 4
parent = 0
materialID = 54
type = Cylinder
Aero Mass = 0.045000
Thermal Mass = 0.045000
Diameter/Width = 0.018000

name = Batteries
quantity = 4
parent = 1
materialID = 54
type = Cylinder
Aero Mass = 0.045000
Thermal Mass = 0.045000
Diameter/Width = 0.018000
Length = 0.065000

*****OUTPUT****

Item Number = 4

name = Batteries

Demise Altitude = 77.991504

Debris Casualty Area = 0.000000

Impact Kinetic Energy = 0.000000

name = Batteries

Demise Altitude = 68.192167

Debris Casualty Area = 0.000000

Impact Kinetic Energy = 0.000000

*****INPUT****

Item Number = 5

name = Torque Rods

quantity = 3

parent = 0

materialID = -1

type = Cylinder

Aero Mass = 0.005000

Thermal Mass = 0.005000

Diameter/Width = 0.004000

name = Torque Rods

quantity = 3

parent = 1

materialID = -1

type = Cylinder

Aero Mass = 0.005000

Thermal Mass = 0.005000

Diameter/Width = 0.004000

Length = 0.055000

*****OUTPUT****

Item Number = 5

name = Torque Rods

Demise Altitude = 77.987808

Debris Casualty Area = 0.000000

Impact Kinetic Energy = 0.000000

name = Torque Rods

Demise Altitude = 75.469191

Debris Casualty Area = 0.000000

Impact Kinetic Energy = 0.000000

*****INPUT****

Item Number = 6

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 = 6

name = Circuit Boards
Demise Altitude = 77.999183
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Circuit Boards
Demise Altitude = 73.856418
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

*****INPUT****

Item Number = 7

name = Lids
quantity = 2
parent = 0
materialID = 8
type = Flat Plate
Aero Mass = 0.086000
Thermal Mass = 0.086000
Diameter/Width = 0.096000
Length = 0.105000

name = Lids
quantity = 2

```
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 = 7
```

```
name = Lids
Demise Altitude = 77.998027
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000
```

```
*****
```

```
name = Lids
Demise Altitude = 70.828456
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000
```

```
*****
```

```
*****INPUT****
```

```
Item Number = 8
```

```
name = Payload Interface Plate
quantity = 1
parent = 0
materialID = 8
type = Flat Plate
Aero Mass = 0.120000
Thermal Mass = 0.120000
Diameter/Width = 0.097000
Length = 0.097000
```

```
name = Payload Interface Plate
quantity = 1
parent = 1
materialID = 8
type = Flat Plate
Aero Mass = 0.120000
Thermal Mass = 0.120000
Diameter/Width = 0.097000
Length = 0.097000
```

```
*****OUTPUT****
```

```
Item Number = 8
```

```
name = Payload Interface Plate
Demise Altitude = 77.990566
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000
```

```
*****
name = Payload Interface Plate
Demise Altitude = 70.568292
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000
```

```
*****
```

```
*****INPUT****
Item Number = 9
```

```
name = VectorNav IMU
quantity = 1
parent = 0
materialID = 9
type = Box
Aero Mass = 0.053000
Thermal Mass = 0.053000
Diameter/Width = 0.042000
Length = 0.048000
Height = 0.025000
```

```
name = VectorNav IMU
quantity = 1
parent = 1
materialID = 9
type = Box
Aero Mass = 0.053000
Thermal Mass = 0.053000
Diameter/Width = 0.042000
Length = 0.048000
Height = 0.025000
```

```
*****OUTPUT****
Item Number = 9
```

```
name = VectorNav IMU
Demise Altitude = 77.988488
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000
```

```
*****
name = VectorNav IMU
Demise Altitude = 72.993714
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000
```

```
*****
```

```
*****INPUT****
Item Number = 10
```

```
name = Bus Electronics Assembly
```

quantity = 1
parent = 0
materialID = 23
type = Box
Aero Mass = 0.310000
Thermal Mass = 0.310000
Diameter/Width = 0.078000
Length = 0.089000
Height = 0.055000

name = Bus Electronics Assembly
quantity = 1
parent = 1
materialID = 23
type = Box
Aero Mass = 0.310000
Thermal Mass = 0.310000
Diameter/Width = 0.078000
Length = 0.089000
Height = 0.055000

*****OUTPUT****

Item Number = 10

name = Bus Electronics Assembly
Demise Altitude = 77.992316
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Bus Electronics Assembly
Demise Altitude = 72.897589
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

*****INPUT****

Item Number = 11

name = Payload Assembly
quantity = 1
parent = 0
materialID = 8
type = Box
Aero Mass = 0.350000
Thermal Mass = 0.350000
Diameter/Width = 0.097000
Length = 0.097000
Height = 0.052000

name = Payload Assembly
quantity = 1
parent = 1

materialID = 8
type = Box
Aero Mass = 0.350000
Thermal Mass = 0.350000
Diameter/Width = 0.097000
Length = 0.097000
Height = 0.052000

*****OUTPUT****

Item Number = 11

name = Payload Assembly
Demise Altitude = 77.990777
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Payload Assembly
Demise Altitude = 69.984214
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

*****INPUT****

Item Number = 12

name = Body Structure
quantity = 1
parent = 0
materialID = 8
type = Box
Aero Mass = 0.595000
Thermal Mass = 0.595000
Diameter/Width = 0.105000
Length = 0.165000
Height = 0.105000

name = Body Structure
quantity = 1
parent = 1
materialID = 8
type = Box
Aero Mass = 0.595000
Thermal Mass = 0.595000
Diameter/Width = 0.105000
Length = 0.165000
Height = 0.105000

*****OUTPUT****

Item Number = 12

name = Body Structure
Demise Altitude = 77.991387

Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = Body Structure
Demise Altitude = 71.499511
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

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