

ARDUSAT ODAR LOG

11 08 2012; 16:45:48PM DAS Application Started
11 08 2012; 16:46:00PM Processing Requirement 4.3-1: Return Status : Not Run

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No Project Data Available
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11 08 2012; 16:46:10PM Processing Requirement 4.3-2: Return Status : Passed

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No Project Data Available
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11 08 2012; 16:46:14PM Requirement 4.4-3: Compliant

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11 08 2012; 16:46:18PM Processing Requirement 4.5-1: Return Status : Passed

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Run Data
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INPUT

Space Structure Name = LEO1
Space Structure Type = Payload
Perigee Altitude = 400.000000 (km)
Apogee Altitude = 400.000000 (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 = 0.014400 (m²/kg)
Start Year = 2012.000000 (yr)
Initial Mass = 1.300000 (kg)
Final Mass = 1.300000 (kg)
Duration = 0.820000 (yr)
Station-Kept = False
Abandoned = True
PMD Perigee Altitude = -1.000000 (km)
PMD Apogee Altitude = -1.000000 (km)
PMD Inclination = 0.000000 (deg)
PMD RAAN = 0.000000 (deg)
PMD Argument of Perigee = 0.000000 (deg)
PMD Mean Anomaly = 0.000000 (deg)

OUTPUT

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

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11 08 2012; 16:46:34PM Requirement 4.5-2: Compliant
11 08 2012; 16:46:37PM Processing Requirement 4.6 Return Status : Passed

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Project Data
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INPUT

Space Structure Name = LEO1
Space Structure Type = Payload

Perigee Altitude = 400.000000 (km)
Apogee Altitude = 400.000000 (km)
Inclination = 51.600000 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Mean Anomaly = 0.000000 (deg)
Area-To-Mass Ratio = 0.014400 (m²/kg)
Start Year = 2012.000000 (yr)
Initial Mass = 1.300000 (kg)
Final Mass = 1.300000 (kg)
Duration = 0.820000 (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 = 400.000000 (km)
Suggested Apogee Altitude = 400.000000 (km)
Returned Error Message = Reentry during mission (no PMD req.).

Released Year = 2012 (yr)
Requirement = 61
Compliance Status = Pass

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11 08 2012; 16:46:46PM *****Processing Requirement 4.7-1
Return Status : Passed

*****INPUT*****

Item Number = 1

name = LEO1
quantity = 1
parent = 0
materialID = 9
type = Box
Aero Mass = 1.300000
Thermal Mass = 1.300000
Diameter/Width = 1.660000
Length = 1.660000
Height = 0.880000

name = 1 Side Panels
quantity = 4
parent = 1
materialID = 24

type = Flat Plate
Aero Mass = 0.064000
Thermal Mass = 0.064000
Diameter/Width = 0.100000
Length = 0.100000

name = 1 Bottom Panel
quantity = 1
parent = 1
materialID = 9
type = Flat Plate
Aero Mass = 0.050000
Thermal Mass = 0.050000
Diameter/Width = 0.100000
Length = 0.100000

name = 1 Top Panel
quantity = 1
parent = 1
materialID = 24
type = Flat Plate
Aero Mass = 0.064000
Thermal Mass = 0.064000
Diameter/Width = 0.100000
Length = 0.100000

name = 1 Batteries
quantity = 2
parent = 1
materialID = 58
type = Cylinder
Aero Mass = 0.056000
Thermal Mass = 0.056000
Diameter/Width = 0.020000
Length = 0.040000

name = 1 Harness
quantity = 1
parent = 1
materialID = 19
type = Cylinder
Aero Mass = 0.040000
Thermal Mass = 0.040000
Diameter/Width = 0.014600
Length = 0.050000

name = Card Stack
quantity = 1
parent = 1
materialID = 52
type = Box
Aero Mass = 0.453000
Thermal Mass = 0.453000
Diameter/Width = 0.094000
Length = 0.096000
Height = 0.050000

name = 1 Antenna
quantity = 1
parent = 1
materialID = 9
type = Cylinder
Aero Mass = 0.080000

Thermal Mass = 0.080000
Diameter/Width = 0.019400
Length = 0.100000

name = Structure
quantity = 1
parent = 1
materialID = 9
type = Box
Aero Mass = 0.200000
Thermal Mass = 0.200000
Diameter/Width = 0.100000
Length = 0.113000
Height = 0.100000

*****OUTPUT*****

Item Number = 1

name = LEO1
Demise Altitude = 77.991769
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

name = 1 Side Panels
Demise Altitude = 0.000000
Debris Casualty Area = 1.960000
Impact Kinetic Energy = 6.684944

name = 1 Bottom Panel
Demise Altitude = 0.000000
Debris Casualty Area = 0.490000
Impact Kinetic Energy = 4.079689

name = 1 Top Panel
Demise Altitude = 0.000000
Debris Casualty Area = 0.490000
Impact Kinetic Energy = 6.684944

name = 1 Batteries
Demise Altitude = 0.000000
Debris Casualty Area = 0.789482
Impact Kinetic Energy = 39.468132

name = 1 Harness
Demise Altitude = 0.000000
Debris Casualty Area = 0.393152
Impact Kinetic Energy = 23.005154

name = Card Stack
Demise Altitude = 0.000000
Debris Casualty Area = 0.466678
Impact Kinetic Energy = 252.594467

name = 1 Antenna
Demise Altitude = 0.000000
Debris Casualty Area = 0.414795

Impact Kinetic Energy = 35.327885

name = Structure
Demise Altitude = 0.000000
Debris Casualty Area = 0.498862
Impact Kinetic Energy = 29.337420

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11 08 2012; 16:46:55PM Processing Requirement 4.8-1: Return Status : Passed

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Project Data
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INPUT

Tether Diameter = 137438953
Tether Length = 44.000000
Tether Mass = 50.000000
EM Tether = No
Launch Year = 2012.000000
Deployed Year = 2012.500000
Retraction Year = 1000.000000
Perigee of Highest Mass = 400.000000
Apogee of Highest Mass = 400.000000
RAAN = -1.000000
Inclination = 51.600000
Argument of Perigee = -1.000000
Mass of Highest Altitude End Mass = 1.300000
Mass of Lowest Altitude End Mass = 1.300000
Cross Sectional Area of Highest Altitude End Mass = 0.020000

OUTPUT

sever = 0.000000