EXHIBIT B

ORBITAL DEBRIS ASSESSMENT REPORT FOR OUTPOST MISSION 2 SATELLITE

Orbital Debris Assessment Report

Outpost Mission 2 Satellite

Prepared using NASA Debris Assessment Software (DAS) version 3.2.4.

Compliance

Requirement	Compliant
4.3-1a	Compliant
4.3-1b	Compliant
4.3-2	N/A
4.4-1	Compliant
4.4-2	Compliant
4.4-3	N/A
4.4-4	N/A
4.5-1	Compliant
4.5-2	Compliant
4.6-1	Compliant
4.6-2	N/A
4.6-3	N/A
4.6-4	Compliant
4.7-1	Compliant
4.8-1a	N/A
4.8-1b	N/A

1 Program Management and Mission Overview

Mission Sponsor: Outpost Technologies Corporation; 1601 Colorado Avenue Santa Monica, CA 90404

Responsible managers:

- Vanessa Kuroda
- Andreas Rousing

Mission description: This mission is a technology evaluation and demonstration mission. It will validate that the basic spacecraft can successfully launch, start, communicate with, and start two gas generators while further testing avionics and computing equipment.

ODAR summary:

- No orbital debris to be released as part of normal operations
- No credible scenarios for spacecraft breakup
- Collision probability compliant
- Orbit decay lifetime less than 25 years
- Reentry debris casualty risk is zero

Anticipated launch vehicle and site: Exolaunch deployer on Transporter 9 launch onboard SpaceX Falcon 9 from Cape Canaveral, Florida

Proposed launch date: no earlier than October 1, 2023

Launch and deployment profile: delivered to circular sun-synchronous, low-Earth Orbit (LEO) with a nominal altitude of 525 km ±20 km altitude and MLTDN 10:30 + 60 min

Maneuvering capability:

- Attitude control: none
- Orbit control: none

Reason for operational orbit: rideshare opportunity

Proposed mission duration: the proposed mission duration of Outpost Mission 2 is less than 6 months. Outpost Mission 2 is anticipated to spend approximately 3.863 years total in LEO.

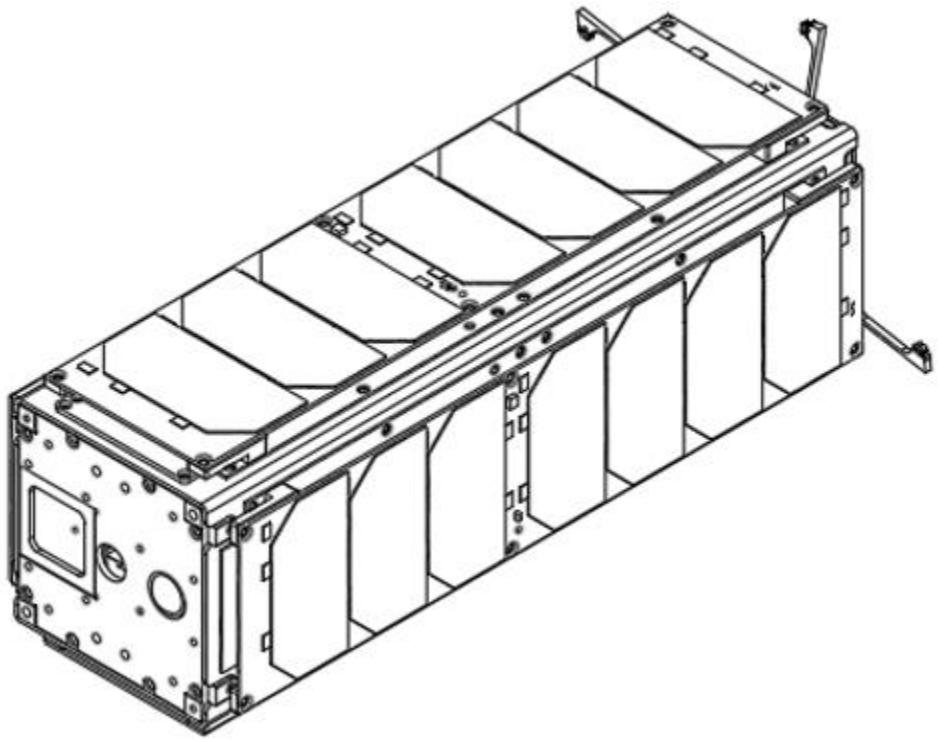
Identified interactions with operational spacecraft: none

2 Spacecraft Description

a. Physical description: The Outpost Mission 2 satellite is a 3U cubesat with a deployable antenna on one end face and fixed solar panels. Basic physical dimensions are approximately 10 x 10 x 34 cm without the antenna deployed. The smallest dimension measures at least 10 cm by 10 cm

without the antennas deployed. This dimension is greater than 10 cm and, therefore, the satellite is trackable.

b. Detailed illustration



c. Total mass at launch: approximately 4.353 kg

Dry mass at launch: the dry mass at launch is effectively the same as the total mass; the spacecraft contains no propellants.

d. Fluids on board: none

e. Propulsion systems: none

f. Attitude control systems: none

g. Range safety and pyrotechnic devices: none

h. Electrical generation and storage:

The spacecraft uses two battery packs. Each consists of four Molicel INR-18650-P28A cells in series. Each cell has 2800 mAh capacity at 3.6 V nominal.

The spacecraft has four fixed solar panels. The panels are connected to the battery packs through a charge controller and battery management system that monitors the battery health, managing charge and discharge behavior. The system detects off-nominal conditions and shuts down battery packs to prevent unsafe conditions.

The EPS includes heaters to maintain the batteries at 10º C or higher. These heaters are powered directly by the batteries under control of the battery management system.

The batteries can be isolated from the rest of the electrical system under command from the flight computer. Once in shut down mode, the batteries require command from software to charge the batteries again.

i. Other stored energy sources:

Two nitrogen-producing gas generators are present with each including a filter part that purifies and cools the exhaust to ambient temperature.

j. Radioactive materials: none

k. Proximity operations: none

3 Spacecraft Debris Released During Normal Operations

Assessment of Spacecraft Compliance with Requirements 4.3-1 and 4.3-2

Requirement 4.3-1 Mission Related Debris Passing Through LEO: Compliant: no debris is expected to be released during normal operations; expected on-orbit lifetime is 3.863 years as calculated by the NASA Debris Assessment Software.

Requirement 4.3-2: Not applicable. The mission will only operate in low-Earth orbit.

4 Spacecraft intentional breakups and potential for explosions

Requirement 4.4-1: Compliant. Analysis presented below.
Requirement 4.4-2: Compliant. Passivation approach presented below.
Requirement 4.4-3: not applicable (no planned breakups)
Requirement 4.4-4: not applicable (no planned breakups)

Details:

a. Potential causes for spacecraft breakup

Two potential causes for breakup or explosion have been identified: the EPS batteries and nitrogen gas generators. Outpost has analyzed both cases. Neither shows credible failure modes leading to accidental explosion.

b. Summary of failure modes and effects analysis of credible failure modes leading to explosion

Battery explosion: All failure modes below might result in battery explosion. However, in the unlikely event that a battery cell does explosively rupture, the small size, mass, and energy of these batteries coupled with the enclosures surrounding the batteries will ensure debris from the rupture should be contained within the spacecraft.

Battery failure mode: internal short circuit

- Mitigation: mount batteries where other structures are unlikely to impinge on the battery in way that would lead to mechanical deformation
- Mitigation: vibration and thermal testing
- Faults required: tests must be ineffective at detecting manufacturing defects; spacecraft structural failure

Battery failure mode: internal thermal rise due to high load discharge rate

- Mitigation: Molicel INR-18650-P28A cells used on this mission have flight heritage with NASA and have been manufacturer-tested with results in its test report documentation[1]
- Mitigation: battery management system monitors cell temperatures, discharges current, and shuts down a pack if monitored temperatures exceed a defined threshold
- Faults required: spacecraft thermal design must be incorrect and the battery management and disconnection functions must fail

Battery failure mode: excessive discharge rate or short circuit due to external device failure or terminal contact with conductors not at battery voltage

- Mitigation: all rails on EPS board have overcurrent protection and individual voltage/current sensing
- Mitigation: design of battery pack and insulators such that no contact with nearby board traces is possible without being caused by some other mechanical failure
- Mitigation: protoflight level environmental testing should reveal any mechanical battery failures
- Mitigation: current sense resistor actively monitors battery current at all phases of operation. Current thresholds are set in the battery monitoring circuit which only allow charge and discharge operation within the operating range
- Faults required: an external load must fail or short circuit and external over-current detection disconnection must all fail

Battery failure mode: inoperable vents

[1] *See generally Lithium Ion Battery Safety Testing Report*, Molicel, https://bit.ly/3I6RfAD (last visited Feb. 7, 2023).

- Mitigation: battery venting is not inhibited by the battery holder design or the spacecraft design, so the battery can vent gasses to the external environment
- Combined faults required for realized failure: both the cell manufacturer and spacecraft assembler must fail to install proper venting to realize this failure mode

Battery failure mode: crushing

- Mitigation: prevented by design. No moving parts are near the battery assembly
- Faults required: a catastrophic failure must occur in a system external to the batteries and the failure must cause collision sufficient to crush the batteries leading to an internal short circuit

Battery failure mode: excess battery cell temperature due to orbital environment and high discharge combined

- Mitigation: temperature sensors actively monitor all battery cell temperatures at all phases of operation. Temperature thresholds are set in the battery management monitoring circuit which only allows charge and discharge operation within the operating range
- Mitigation: active temperature monitoring by the battery management system will shut down a battery pack before it exceeds allowable operating temperatures, removing discharge-related causes
- Faults required: incorrect thermal analysis and thermal design, ineffective qualification testing in thermal-vacuum chamber, and over-current and temperature monitoring and control must all fail

Gas generators:[2] Onboard generators produce gas by igniting solid grain inside a casing. The combustion process generates gasses that are quickly cooled before being expelled through a diffuser and onto a plate that allows uniform venting to the spacecraft's outside. Without pressurization or secondary reactions with the gas generation, the risk of an explosion or structural failure is drastically reduced. As a result, a gas generator can operate reliably and safely.

- Mitigation: The initial solid fuel grain includes silicon dioxide and sodium azide. The grain is inert before ignition and would not create orbital debris or explode. Even when ignited, the products are mostly gaseous and released so slowly that no opportunity exists for pressure to build and explode within the casing.
- Mitigation: Pressurization risks are mitigated by the diffuser when it expands the gas to match the ambient conditions, ensuring balanced pressures within the system.

[2] A thermal protection system is required to protect spacecraft on reentry to celestial bodies with atmospheres. NASA's hypersonic inflatable aerodynamic decelerator ("HIAD") is one such system being developed for missions to planets and moons with atmospheres as well as returning payloads to Earth. To support such government and commercial deployments, Outpost is developing GasPak, a low mass, low temperature, and clean gas generator that would inflate HIADs and similar reentry-aiding hardware. Mission 2 will carry and, once on orbit, attempt to start two nitrogen-producing gas generators. Two separate tests would occur at separate times with each lasting less than one minute.

- Mitigation: The gas generator casing is designed for maximum expected operational pressure of at least 100 bar and has passed proof pressure testing up to 200 bar.
- Faults required: The diffuser and vent to the spacecraft's outside would both have to fail simultaneously, as well as create pressure in excess of 200 bar to possibly overcome the pressure rating of the casing. These gas generators were qualified and used on orbit for the RemoveDebris mission and support safety-critical terrestrial applications, such as fire extinguishers and airbag deployments, without experiencing these faults.

c. Designed spacecraft breakup: there are no components designed for breakup

   Components passivated at end of mission (EOM): only applies to the EPS batteries and gas generators.

   The two stages of battery passivation are controlled from the flight computer at the end of the mission. Once the mission ends, the flight computer disables battery charging in the solar panel front-end management chip through an EEPROM memory register. The result is the batteries are disconnected from the solar panels but they can still discharge into the system and heater. The heaters will then dissipate remaining energy in the batteries down to < 100 mAh remaining stored energy.

   By mission completion, the gas generators will have been spent and will not contain any further components that would cause breakup.

d. Components that cannot be passivated: none

5 Spacecraft potential for on-orbit collisions

Requirement 4.5-1: Limiting debris generated by collisions with large objects when operating in Earth orbit

- Requirement Text: *For each spacecraft and launch vehicle orbital stage in or passing through LEO, the program or project shall demonstrate that, during the orbital lifetime of each spacecraft and orbital stage, the probability of accidental collision with space objects larger than 10 cm in diameter is less than 0.001 (Requirement 56506).*
- Compliance statement: Large object impact and debris generation probability = 1.5969×10^{-6}, much less than 0.001
- This value was calculated at the highest possible 545 km altitude to show compliance at the worst case (log file below)
- Description and efficacy of debris avoidance capability: the spacecraft has no propulsion or planned attitude control systems for performing debris avoidance. Outpost will register its Mission 0 satellite with the US Space Force's 18th Space Control Squadron. Outpost will also contact and work with any entity who owns a spacecraft that has the potential to collide with Outpost's satellite to avoid collision

Requirement 4.5-2: Limiting the probability of damage from small objects when operating in Earth or lunar orbit

- Requirement Text: *For each spacecraft, the program or project shall demonstrate that, during the mission of the spacecraft, the probability of accidental collision with orbital debris and meteoroids sufficient to prevent compliance with the applicable post-mission disposal requirements is less than 0.01 (Requirement 56507).*
- Compliance Statement: the spacecraft relies on passive orbital decay for post mission disposal, so no parts exist that can be damaged that would impede disposal.

Output from DAS log:
06 07 2023; 10:01:24AM Processing Requirement 4.5-1: Return Status : Passed

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

INPUT

Space Structure Name = Spacecraft
Space Structure Type = Payload
Perigee Altitude = 545.000 (km)
Apogee Altitude = 545.000 (km)
Inclination = 97.500 (deg)
RAAN = 0.000 (deg)
Argument of Perigee = 0.000 (deg)
Mean Anomaly = 0.000 (deg)
Final Area-To-Mass Ratio = 0.0117 (m^2/kg)
Start Year = 2023.830 (yr)
Initial Mass = 4.353 (kg)
Final Mass = 4.353 (kg)
Duration = 0.500 (yr)
Station-Kept = False
Abandoned = True
Long-Term Reentry = True

OUTPUT

Collision Probability = 1.5969E-06
Returned Message: Normal Processing
Date Range Message: Normal Date Range
Status = Pass

==========

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

06 07 2023; 10:04:28AM Project Data Saved To File
06 07 2023; 10:04:39AM Requirement 4.5-2: Compliant

========== End of Requirement 4.5-2 ==========

6 Spacecraft post-mission disposal plans and procedures

Requirement 4.6-1 (Disposal for space structures in or passing through LEO): met

(a) Natural reentry: projected orbital lifetime as calculated by the NASA DAS tool: 3.863 years
(b) Direct reentry: not used
(c) Direct retrieval: not used

Requirement 4.6-2 (Disposal for space structure near GEO): not applicable

(a) Storage between LEO and GEO: not applicable
(b) Storage above GEO: not applicable
(c) Earth escape: not applicable

Requirement 4.6-3 (Disposal for space structures between LEO and GEO): not applicable

Requirement 4.6-4 (Reliability of post-mission disposal operations): met

Details:

a. **Disposal option selected:** natural reentry. The orbit of Outpost Mission 2 will decay because of atmospheric drag, and the satellite will eventually deorbit by atmospheric re-entry.

b. **Systems or components required to accomplish post-mission disposal:** none; spacecraft is to be passivated, and an EOM maneuver is not required to ensure deorbit within 25 years.

c. **Area-to-mass ratio after post mission disposal:** Assuming random tumbling, the smallest calculated cross-sectional area (no deployments, off-nominal scenario) is 0.05094 m^2, resulting in an area-to-mass ratio of 0.009002 m^2/kg, used for worst case orbital lifetime calculations. The nominal/maximum drag area with nominal deployments is 0.0126 m^2/kg, resulting in an area-to-mass ratio of 0.01170 m^2/kg, which is shown for nominal orbital lifetime calculations below.

d. **Plan for controlled reentry:** not applicable

At EOM, Outpost Mission 2 will passivate and decay via natural re-entry. From the nominal 525 km altitude, the orbital lifetime is 3.863 years. In the worst-case scenario where Outpost Mission 2 is delivered to the highest 545 km orbit and remains in a stowed configuration due to a hardware failure or DOA, it will naturally deorbit in approximately 10.516 years.

Output from DAS log for nominal scenario at 525 km resulting in 3.863 year lifetime:

06 01 2023; 12:36:53PM Science and Engineering - Orbit Lifetime/Dwell Time

INPUT

Start Year = 2023.830000 (yr)
Perigee Altitude = 525.000000 (km)
Apogee Altitude = 525.000000 (km)
Inclination = 97.500000 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Area-To-Mass Ratio = 0.011700 (m^2/kg)

OUTPUT

Orbital Lifetime from Startyr = 3.863107 (yr)
Time Spent in LEO during Lifetime = 3.863107 (yr)
Last year of Propagation = 2027 (yr)
Returned Error Message: Object reentered

Output from DAS log for worst case altitude (545 km), DOA scenario (smallest area-to-mass ratio with no deployments):
06 02 2023; 13:13:29PM Science and Engineering - Orbit Lifetime/Dwell Time

INPUT

Start Year = 2023.830000 (yr)
Perigee Altitude = 545.000000 (km)
Apogee Altitude = 545.000000 (km)
Inclination = 97.500000 (deg)
RAAN = 0.000000 (deg)
Argument of Perigee = 0.000000 (deg)
Area-To-Mass Ratio = 0.009002 (m^2/kg)

OUTPUT

Orbital Lifetime from Startyr = 10.516085 (yr)
Time Spent in LEO during Lifetime = 10.516085 (yr)
Last year of Propagation = 2034 (yr)
Returned Error Message: Object reentered

7 Spacecraft reentry hazards

Requirement 4.7-1: (Limit number and size of debris fragments that survive atmospheric reentry)

a. Uncontrolled reentry: compliant

b. Controlled reentry: does not apply
c. Controlled reentry: does not apply
d. Reentry in higher orbits: does not apply

Details:

a. Detailed description of spacecraft component by size, mass, material, shape, and location: see report output below
b. Summary of objects expected to survive an uncontrolled reentry: no components are expected to survive
c. Calculation of risk of human casualty: no components are expected to reach the Earth's surface

Output from DAS log:

06 01 2023; 12:37:47PM Activity Log Started
06 01 2023; 12:58:34PM **********Processing Requirement 4.7-1
Return Status : Passed

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

name = Spacecraft
quantity = 1
parent = 0
materialID = 27
type = Box
Aero Mass = 4.352620
Thermal Mass = 4.352620
Diameter/Width = 0.100000
Length = 0.340000
Height = 0.100000

name = Frame
quantity = 1
parent = 1
materialID = 27
type = Box
Aero Mass = 0.112000
Thermal Mass = 0.112000
Diameter/Width = 0.100000
Length = 0.340000
Height = 0.100000

name = Enclosures
quantity = 7

parent = 1
materialID = 8
type = Box
Aero Mass = 0.110000
Thermal Mass = 0.110000
Diameter/Width = 0.090000
Length = 0.090000
Height = 0.012000

name = End caps
quantity = 2
parent = 1
materialID = 8
type = Flat Plate
Aero Mass = 0.185000
Thermal Mass = 0.185000
Diameter/Width = 0.095000
Length = 0.095000

name = -Z Standoffs
quantity = 2
parent = 1
materialID = 8
type = Box
Aero Mass = 0.101000
Thermal Mass = 0.101000
Diameter/Width = 0.080000
Length = 0.080000
Height = 0.030000

name = +Z Standoffs
quantity = 1
parent = 1
materialID = 8
type = Box
Aero Mass = 0.020000
Thermal Mass = 0.020000
Diameter/Width = 0.060000
Length = 0.060000
Height = 0.017500

name = Stack Bracket
quantity = 2
parent = 1

materialID = 8
type = Flat Plate
Aero Mass = 0.044000
Thermal Mass = 0.044000
Diameter/Width = 0.090000
Length = 0.090000

name = Stack Rods
quantity = 8
parent = 1
materialID = 54
type = Cylinder
Aero Mass = 0.007720
Thermal Mass = 0.007720
Diameter/Width = 0.003000
Length = 0.140000

name = PCB's
quantity = 17
parent = 1
materialID = 8
type = Flat Plate
Aero Mass = 0.035000
Thermal Mass = 0.035000
Diameter/Width = 0.090000
Length = 0.090000

name = Solar Panels
quantity = 4
parent = 1
materialID = 8
type = Flat Plate
Aero Mass = 0.110000
Thermal Mass = 0.110000
Diameter/Width = 0.085000
Length = 0.325000

name = Endcap Brackets
quantity = 6
parent = 1
materialID = 8
type = Box
Aero Mass = 0.008000
Thermal Mass = 0.008000

Diameter/Width = 0.013500
Length = 0.030000
Height = 0.010000

name = Small Endcap Brackets
quantity = 4
parent = 1
materialID = 54
type = Box
Aero Mass = 0.003000
Thermal Mass = 0.003000
Diameter/Width = 0.010000
Length = 0.012000
Height = 0.007500

name = Solar Panel Brackets
quantity = 8
parent = 1
materialID = 8
type = Box
Aero Mass = 0.016000
Thermal Mass = 0.016000
Diameter/Width = 0.030000
Length = 0.085000
Height = 0.007500

name = Interstack Brackets
quantity = 2
parent = 1
materialID = 8
type = Box
Aero Mass = 0.028000
Thermal Mass = 0.028000
Diameter/Width = 0.090000
Length = 0.090000
Height = 0.010000

name = Shear Support Spacers
quantity = 2
parent = 1
materialID = 8
type = Box
Aero Mass = 0.000730
Thermal Mass = 0.000730

Diameter/Width = 0.010000
Length = 0.050000
Height = 0.003125

name = Interstack Adapter Plates
quantity = 2
parent = 1
materialID = 54
type = Flat Plate
Aero Mass = 0.014000
Thermal Mass = 0.014000
Diameter/Width = 0.030000
Length = 0.050000

name = GPS Box Stand
quantity = 1
parent = 1
materialID = 8
type = Box
Aero Mass = 0.066000
Thermal Mass = 0.066000
Diameter/Width = 0.059000
Length = 0.068000
Height = 0.052000

name = Face Plates
quantity = 4
parent = 1
materialID = 8
type = Flat Plate
Aero Mass = 0.081000
Thermal Mass = 0.081000
Diameter/Width = 0.090000
Length = 0.300000

name = Fasteners
quantity = 156
parent = 1
materialID = 54
type = Cylinder
Aero Mass = 0.000550
Thermal Mass = 0.000550
Diameter/Width = 0.003000
Length = 0.010000

name = Torque Rods
quantity = 2
parent = 1
materialID = 54
type = Cylinder
Aero Mass = 0.009050
Thermal Mass = 0.009050
Diameter/Width = 0.005000
Length = 0.063500

name = GasPak Casing
quantity = 1
parent = 1
materialID = 66
type = Cylinder
Aero Mass = 0.030000
Thermal Mass = 0.030000
Diameter/Width = 0.020000
Length = 0.074000

name = Battery Casing Piece 1
quantity = 6
parent = 1
materialID = 8
type = Box
Aero Mass = 0.028000
Thermal Mass = 0.028000
Diameter/Width = 0.092500
Length = 0.092500
Height = 0.007800

name = Battery Casing Piece 2
quantity = 1
parent = 1
materialID = 8
type = Box
Aero Mass = 0.017500
Thermal Mass = 0.017500
Diameter/Width = 0.092500
Length = 0.092500
Height = 0.001500

name = Battery Casing Piece 3

quantity = 2
parent = 1
materialID = 8
type = Box
Aero Mass = 0.033500
Thermal Mass = 0.033500
Diameter/Width = 0.092500
Length = 0.092500
Height = 0.010000

name = Battery Frame Pieces
quantity = 6
parent = 1
materialID = 8
type = Box
Aero Mass = 0.022000
Thermal Mass = 0.022000
Diameter/Width = 0.010000
Length = 0.080000
Height = 0.010000

name = Batteries
quantity = 8
parent = 1
materialID = 57
type = Cylinder
Aero Mass = 0.042000
Thermal Mass = 0.042000
Diameter/Width = 0.026000
Length = 0.065000

name = Antenna
quantity = 1
parent = 1
materialID = 8
type = Box
Aero Mass = 0.078300
Thermal Mass = 0.078300
Diameter/Width = 0.100000
Length = 0.100000
Height = 0.006000

name = Wires/Harnessing
quantity = 30

parent = 1
materialID = 19
type = Cylinder
Aero Mass = 0.000702
Thermal Mass = 0.000702
Diameter/Width = 0.001000
Length = 0.100000

name = GasPak Payload
quantity = 1
parent = 1
materialID = 8
type = Box
Aero Mass = 0.063500
Thermal Mass = 0.063500
Diameter/Width = 0.100000
Length = 0.100000
Height = 0.055000

**********OUTPUT****
Item Number = 1

name = Spacecraft
Demise Altitude = 77.999043
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Frame
Demise Altitude = 77.881189
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Enclosures
Demise Altitude = 77.423662
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = End caps
Demise Altitude = 76.962343
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = -Z Standoffs
Demise Altitude = 77.501471
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = +Z Standoffs
Demise Altitude = 77.832252
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Stack Bracket
Demise Altitude = 77.727781
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Stack Rods
Demise Altitude = 77.137795
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = PCB's
Demise Altitude = 77.783756
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Solar Panels
Demise Altitude = 77.763333
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Endcap Brackets
Demise Altitude = 77.691309
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****

name = Small Endcap Brackets
Demise Altitude = 76.843644
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Solar Panel Brackets
Demise Altitude = 77.818166
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Interstack Brackets
Demise Altitude = 77.853384
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Shear Support Spacers
Demise Altitude = 77.972106
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Interstack Adapter Plates
Demise Altitude = 76.907252
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = GPS Box Stand
Demise Altitude = 77.670690
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Face Plates
Demise Altitude = 77.825959
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Fasteners
Demise Altitude = 77.238246

Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Torque Rods
Demise Altitude = 76.511065
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = GasPak Casing
Demise Altitude = 75.578062
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Battery Casing Piece 1
Demise Altitude = 77.853429
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Battery Casing Piece 2
Demise Altitude = 77.902098
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Battery Casing Piece 3
Demise Altitude = 77.825592
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Battery Frame Pieces
Demise Altitude = 77.591911
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Batteries
Demise Altitude = 75.676259
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Antenna
Demise Altitude = 77.622386
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = Wires/Harnessing
Demise Altitude = 77.825473
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****
name = GasPak Payload
Demise Altitude = 77.811476
Debris Casualty Area = 0.000000
Impact Kinetic Energy = 0.000000

****

========== End of Requirement 4.7-1 ==========
06 01 2023; 12:58:34PM Project Data Saved To File

8 Special classes of space missions

Requirement 4.8-1(a) (tether systems): does not apply
Requirement 4.8-1(b) (satellites smaller than 10 cm x 10 cm x 10 cm): does not apply