Launch Accommodation Worksheet for Heliophysics Flight Opportunities in Research and Technology

This launch accommodation worksheet must be filled out and included as part of the proposal pdf by proposers to [B.11 H-FORT](https://nspires.nasaprs.com/external/solicitations/summary.do?solId=%7bDBCE844C-1D0B-D36A-12A6-86FC953F1B6C%7d&path=&method=init) requesting a cubesat or small sat.

Compilation from SMD ESPA RUG 5/10/20

|  |  |  |
| --- | --- | --- |
| Payload dimensions and mass | Proposal section/page | Comments |
| x (cm): outward from ring interface plane, includes separation system |  |  |
| y (cm): along LV thrust direction |  |  |
| z (cm) |  |  |
| Does the payload protrude into the central volume (x<0)? |  |  |
| Page reference for dimensioned rendering of spacecraft, coordinates x,y,z as in Rideshare Users Guide |  |  |
| Wet Mass (kg) |  |  |
| Where is the center of gravity of the spacecraft (coordinates x,y,z)? |  |  |
| Peak line load across interface with ESPA ring? (lbs/in or kg/cm) |  |  |
| First fixed-free fundamental frequencies above 75Hz? (y/n) |  |  |

Continued…

|  |  |  |  |
| --- | --- | --- | --- |
| Orbital Requirements |  | preferred | acceptable |
| LEO: orbit altitude |  |  |  |
| LEO: orbit inclination |  |  |  |
| Sun Synchronous Orbit: Equatorial Crossing time |  |  |  |
| GEO: longitude |  |  |  |
| Other orbit requirements |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| Payload Cleanliness |  |  |  |
| Payload complies with ISO Level 8 (Class 100,000) cleanliness (Y/explain) |  |  | |
| Payload needs no more than ISO Level 8 (Class 100,000) cleanliness (Y/explain) |  |  | |
| Constraints on level of cleaning? |  |  | |
| No-touch/no-clean areas? |  |  | |
| Other cleaning or cleanliness requirements? |  |  | |

|  |  |  |  |
| --- | --- | --- | --- |
| Pre-launch do-no-harm Requirements |  |  |  |
| Constraints on level of thermal vacuum bakeout? |  |  | |
| Radiated emission at the pad (2019 Helio ESPA RUG 5.4.7.3)? |  |  | |

Continued…

|  |  |  |  |
| --- | --- | --- | --- |
| Pre-launch Constraints and Requirements |  |  |  |
| Security requirements? |  |  | |
| Thermal requirements before encapsulation |  |  | |
| Thermal requirements after encapsulation |  |  | |
| Magnetic sensitivity? |  |  | |
| Sensitive to helium? Silicon? Other? |  |  | |
| Need for access post encapsulation in the fairing? If yes, describe. |  |  | |
| GN2 purge up till launch? If yes, identify flow rate and purity required. |  |  | |
| Battery charging/maintenance after encapsulation? |  |  | |
| Monitoring requirements for spacecraft health? |  |  | |
| Facilities needed to fuel or pressurize a propulsion system before flight? |  |  | |
| Propellant: none, green, hazardous, etc. |  |  | |
| Other pre-launch requirements? |  |  | |

Continued…

|  |  |  |  |
| --- | --- | --- | --- |
| Launch and Deploy Requirements |  |  |  |
| Requirements on launch timing? |  |  | |
| Requirements for electrical interface with LV (IFD, etc.)? |  |  | |
| Launch environment constraints (e.g. vibration)? |  |  | |
| Powered on during ascent (Y/N)? |  |  | |
| Wake-up mechanism after deployment? |  |  | |
| Requirements for downrange telemetry after deployment? |  |  | |
| Other deployment requirements? |  |  | |

|  |  |  |  |
| --- | --- | --- | --- |
| Post-launch do-no-harm Requirements |  |  |  |
| Plans to delay deployment of solar arrays, antenna, booms etc., after release? |  |  | |
| Plans to prevent RF transmission until safely away from upper stage, other spacecraft |  |  | |

Questions regarding this launch accommodation worksheet may be directed to [Dan Moses](mailto:dan.moses@nasa.gov?subject=B.11%20launch%20accommodation%20worksheet%20Question) and [Amy Winebarger](mailto:amy.r.winebarger@nasa.gov?subject=B.11%20launch%20accommodation%20worksheet%20Question).