

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](#) 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](#) and [Amy Winebarger](#).