



Launch Mission Execution Forecast

Mission: Falcon 9 Eutelsat HOTBIRD-F1

Issued: 13 Oct 2022 / 0900L (1300Z)

Valid: 14 Oct 2022 / 2326 – 15/0122L (15/0326 – 0522Z)



Forecast Discussion: A low pressure system currently located in northern Canada is dragging a surface front across the Ohio Valley, the latter of which is anticipated to move through the Florida peninsula throughout the day today and extending into tomorrow morning. The quick-moving front is expected to be well south of the Spaceport by tomorrow evening, and high pressure should dominate after frontal passage. Drier, cooler air along with higher winds filtering in from the north in the wake of the front should temper any significant shower coverage this weekend and result in favorable launch conditions for both the primary and backup launch opportunities. A few discrepancies exist among short- and mid-range models relating to wind direction and moisture content at the Spaceport, giving some uncertainty to shower coverage, but cumulus development should be relatively low-topped and pose little threat for violating launch criteria. The primary rule of concern for both the primary day and backup day remains the Cumulus Cloud Rule.

Launch Day		Probability of Violating Weather Constraints ¹					
Launch Day	10%	Primary Concerns: Cumulus Cloud Rule					
	Weather Conditions				Additional Risk Criteria ²		
	Weather/Visibility: None / 7 mi.	Clouds		Upper-Level Wind Shear: Low			
	Temp/Humidity: 78°F / 65%	Type	Coverage	Base (ft)	Tops (ft)	Booster Recovery Weather: Low	
Liftoff Winds (200'): 060° 15 - 20 mph	Cumulus	Scattered	3,500	8,500	Solar Activity: Low		
24-Hour Delay		Probability of Violating Weather Constraints					
24-Hour Delay	10%	Primary Concerns: Cumulus Cloud Rule					
	Weather Conditions				Additional Risk Criteria		
	Weather/Visibility: None / 7 mi.	Clouds		Upper-Level Wind Shear: Low			
	Temp/Humidity: 76°F / 60%	Type	Coverage	Base (ft)	Tops (ft)	Booster Recovery Weather: Low	
Liftoff Winds (200'): 060° 10 - 15 mph	Cumulus	Few	3,000	7,000	Solar Activity: Low		
Notes	1. The Probability of Violation (PoV) is the chance of a local safety or customer constraint violation occurring anytime during the launch window. 2. Additional Risk Criteria, which are not included in the PoV, are mission-specific constraints that may not include all phenomena within each risk factor.						
	See https://www.patrick.spaceforce.mil/Portals/14/Weather/LaunchFAQ.pdf for more information						
Next Forecast Will Be Issued		AS REQUIRED					