



Launch Mission Execution Forecast

Mission: Falcon Heavy Echostar XXIV/Jupiter 3

Issued: 27 Jul 2023 / 0015L (0415Z)

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Forecast Discussion: After a brief respite from the daily storms today, a weak tropical wave will push into the Florida Peninsula tomorrow. This system will significantly increase moisture, producing scattered showers and isolated thunderstorms along the coast. The main concerns for the primary launch window will be the Cumulus Cloud Rule, Thick Cloud Layers Rule, and Anvil Cloud Rules.

On Friday, the Atlantic ridge will retreat towards the east, causing steering flow to become lighter while shifting to the south. However, moisture from the tropical wave will still linger across the state. While most afternoon storms should generally move inland, coastal convective activity may linger near the Spaceport during the launch window. The same weather rules will be the focus of concern for the backup launch window Friday night.

		Probability of Violating Weather Constraints ¹					
Launch Day	60%	Primary Concerns: Cumulus Cloud Rule, Thick Cloud Layers Rule, Anvil Cloud Rules					
	Weather Conditions				Additional Risk Criteria ²		
	Weather/Visibility: Sct Showers / 7 mi.	Clouds			Upper-Level Wind Shear: Low		
	Temp/Humidity: 79°F / 85%	Type	Coverage	Base (ft)	Tops (ft)	Booster Recovery Weather: N/A	
Liftoff Winds (200'): 100° 7 - 12 mph	Cumulus	Scattered	3,000	12,000	Solar Activity: Low		
	Altostratus	Broken	15,000	20,000			
		Probability of Violating Weather Constraints					
24-Hour Delay	35%	Primary Concerns: Cumulus Cloud Rule, Thick Cloud Layers Rule, Anvil Cloud Rules					
	Weather Conditions				Additional Risk Criteria		
	Weather/Visibility: Iso Showers / 7 mi.	Clouds			Upper-Level Wind Shear: Low		
	Temp/Humidity: 81°F / 85%	Type	Coverage	Base (ft)	Tops (ft)	Booster Recovery Weather: N/A	
Liftoff Winds (200'): 150° 10 - 15 mph	Cumulus	Scattered	3,000	9,000	Solar Activity: Low		
	Cirrostratus	Broken	22,000	26,000			
Notes	1. The Probability of Violation (PoV) is the chance of a local safety or customer constraint violation occurring any random time 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					