



Launch Mission Execution Forecast

Mission: Falcon 9 NROL-69

Issued: 23 Mar 2025 / 1115L (1515Z)

Valid: 24 Mar 2025 / DURING WINDOW



Forecast Discussion: High pressure will continue to slide into the Atlantic today, with its influence bringing another day of dry and seasonable weather. The week will start with the next front sliding through the southeastern US and into Florida by late Monday, crossing the Spaceport Tuesday morning as it rapidly weakens. Direct impacts from the front remain minimal for the primary launch window as any rain chances, if at all, will be well after the window. As with today, mid and high clouds associated with the upper-level jet will be streaming across the area on Monday, along with additional clouds from the approaching system. Most of this deck still looks too high and cold to be a Thick Cloud Layers concern, but there remains a slight possibility for lower clouds to come in sooner and threaten the launch window.

What is left of the front looks to move through early on Tuesday, with winds quickly veering out of the north-northeast. Clouds and a few showers will likely linger longer into the day as models have trended both slower and weaker with the system. For now, these don't look to be an immediate launch weather concern, though there remains enough uncertainty for the backup window on Tuesday to continue a threat for Thick Cloud Layers.

Launch Day	Probability of Violating Weather Constraints ¹					
	10%	Primary Concerns: Thick Cloud Layers Rule				
	Weather Conditions					Additional Risk Criteria ²
	Weather/Visibility: None / 7 mi.	Clouds				Upper-Level Wind Shear: Low
	Temp/Humidity: 74°F / 75%	Type	Coverage	Base (ft)	Tops (ft)	Booster Recovery Weather: Low
24-Hour Delay	Liftoff Winds (200'): 160° 10 - 15 mph	Cumulus	Scattered	3,500	6,000	Solar Activity: Low
	Probability of Violating Weather Constraints					
	15%	Primary Concerns: Thick Cloud Layers Rule				
	Weather Conditions					Additional Risk Criteria
	Weather/Visibility: None / 7 mi.	Clouds				Upper-Level Wind Shear: Low
Notes	Temp/Humidity: 70°F / 75%	Type	Coverage	Base (ft)	Tops (ft)	Booster Recovery Weather: Low
	Liftoff Winds (200'): 020° 7 - 12 mph	Cumulus	Scattered	2,500	6,000	Solar Activity: Low
		Cirrostratus	Overcast	22,000	27,000	
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 Needed				