



Launch Mission Execution Forecast

Mission: Falcon 9 Bandwagon-4

Issued: 1 Nov 2025 / 1100L (1500Z)

Valid: 2 Nov 2025 / 0100 – 0120L (0500 – 0520Z)



Forecast Discussion: A broad area of high pressure centered across the southeastern US will slide off to the north and east over the next day, allowing the next cold front to move into Florida by late Sunday. Ahead of this system, a very dry airmass remains in place with models showing no significant moisture advection until well after the primary launch window late tonight. There may be enough low-level moisture for a low-topped cumulus/stratocumulus deck, or even a few showers out over the open Atlantic, but this activity continues to look too warm to pose a meaningful launch weather concern for the primary launch window.

Models remain pessimistic about how much precipitation holds together with the boundary as it arrives into the Spaceport late on Sunday. Timing however does put the peak of rain chances around the time of the backup window early on Monday. The main threat will likely come from a mid to upper layer cloud deck encouraged by the strong mid-level trough and upper-level jet accompanying the surface front. The primary concern for the backup window will be the Thick Cloud Layers Rule, with a lower threat for Cumulus Clouds accompanying any nearby showers.

Launch Day	Probability of Violating Weather Constraints ¹							
	5%	Primary Concerns: Cumulus Cloud Rule						
	Weather Conditions					Additional Risk Criteria ²		
	Weather/Visibility:	None / 7 mi.	Type	Coverage	Base (ft)	Tops (ft)	Upper-Level Wind Shear:	Low
	Temp/Humidity:	69°F / 75%	Cumulus	Scattered	3,500	5,500	Booster Recovery Weather:	Low
	Liftoff Winds (200’):	VRB 5 mph					Solar Activity:	Low
24-Hour Delay	Probability of Violating Weather Constraints							
	20%	Primary Concerns: Thick Cloud Layers Rule, Cumulus Cloud Rule						
	Weather Conditions					Additional Risk Criteria		
	Weather/Visibility:	Sct. Showers / 7 mi.	Type	Coverage	Base (ft)	Tops (ft)	Upper-Level Wind Shear:	Low-Mod
	Temp/Humidity:	71°F / 80%	Cumulus	Scattered	3,500	9,000	Booster Recovery Weather:	Low
	Liftoff Winds (200’):	300° 7 - 12 mph	Altostratus	Broken	14,000	18,000	Solar Activity:	Low
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 Launch FAQ https://45thweathersquadron.nebula.spaceforce.mil/pages/launchForecastSupport.html for more information							
Next Forecast Will Be Issued			As Needed					