



Launch Mission Execution Forecast

Mission: Falcon 9 KF-3

Issued: 10 Oct 2025 / 1045L (1445Z)

Valid: 11 Oct 25 / 2041L – 2315L (12/0041 – 0315Z)



Forecast Discussion: The heavy rain will continue today across East Central Florida due to deep moisture in place and a frontal boundary stalled across the area. Tonight into tomorrow, a surface low will form along this front and slowly begin to push to the northeast. As the low develops, it will drag the front farther south and allow for some drier air to move in behind it. However, a tightening pressure gradient will increase northerly winds along the coast. There will also be enough lingering moisture and low-level convergence for scattered coastal showers through tomorrow night. Thus, the primary concerns for Saturday evening's launch window are Liftoff Winds and the Cumulus Cloud Rule. Conditions will significantly improve on Sunday as winds relax and drier air filters into the area. The only concern is the very low risk of a Cumulus Cloud Rule violation.

Launch Day	Probability of Violating Weather Constraints ¹						
	35%	Primary Concerns: Liftoff Winds, Cumulus Cloud Rule					
	Weather Conditions					Additional Risk Criteria ²	
	Weather/Visibility:	Sct Showers / 7 mi.	Clouds			Upper-Level Wind Shear:	Low
	Temp/Humidity:	75°F / 85%	Type	Coverage	Base (ft)	Tops (ft)	Booster Recovery Weather:
Liftoff Winds (200'):	350° 22 - 28 mph	Cumulus	Scattered	2,000	14,000	Solar Activity:	Low
		Cirrus	Scattered	25,000	30,000		
24-Hour Delay	Probability of Violating Weather Constraints						
	5%	Primary Concerns: Cumulus Cloud Rule					
	Weather Conditions					Additional Risk Criteria	
	Weather/Visibility:	None / 7 mi.	Clouds			Upper-Level Wind Shear:	Low
	Temp/Humidity:	73°F / 80%	Type	Coverage	Base (ft)	Tops (ft)	Booster Recovery Weather:
Liftoff Winds (200'):	340° 12 - 17 mph	Cumulus	Few	2,000	8,000	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 Required					