



Launch Mission Execution Forecast

Mission: Falcon 9 KF-2

Issued: 05 Aug 2025 / 1245L (1645Z)

Valid: 07 Aug 2025 / 0940 – 1030L (1340 – 1430Z)



Forecast Discussion: A breakdown in the upper-level ridge begins midweek as a trough approaches from the north and an upper-level disturbance lifts northward from the south. Surface winds and steering flow remain weak on Wednesday, allowing for a well-defined east coast sea breeze to develop by early afternoon. With daytime heating and the inland progression of the sea breeze boundary, expect scattered shower development through the late morning and early afternoon. The frontal boundary approaching from the north is expected to stall near the region by Wednesday evening, lingering into Thursday and contributing to increased moisture and atmospheric instability. By Thursday, onshore flow combined with the stalled front will support earlier convective development, particularly along and east of the I-95 corridor. While the bulk of thunderstorm activity is still anticipated to focus inland during the late afternoon, closer proximity to the frontal boundary and enhanced mid-level support will increase the potential for showers and storms along the coast, including the Cape Canaveral area.

Launch Day	Probability of Violating Weather Constraints ¹						
	15%	Primary Concerns: Cumulus Cloud Rule					
	Weather Conditions					Additional Risk Criteria ²	
	Weather/Visibility:	None / 7 mi.	Clouds				Upper-Level Wind Shear: Low
	Temp/Humidity:	83°F / 79%	Type	Coverage	Base (ft)	Tops (ft)	Booster Recovery Weather: Low
24-Hour Delay	Liftoff Winds (200'):	060° 12 - 18 mph	Cumulus	Few	2,000	9,000	Solar Activity: Low
	Weather Conditions					Additional Risk Criteria	
	Weather/Visibility:	None / 7 mi.	Clouds				Upper-Level Wind Shear: Low
	Temp/Humidity:	85°F / 76%	Type	Coverage	Base (ft)	Tops (ft)	Booster Recovery Weather: Low
	Liftoff Winds (200'):	090° 15 - 20 mph	Cumulus	Few	2,000	9,000	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			06 AUG 2025				