



Launch Mission Execution Forecast

Mission: Falcon 9 SpainSat NG II

Issued: 21 Oct 2025 / 0830L (1230Z)

Valid: 22 Oct 2025 / 2130 – 23/0119L (23/0130 – 0519Z)



Forecast Discussion: The frontal boundary that moved through late yesterday has stalled across South Florida this morning with a very dry airmass to filtering into the Spaceport, especially above 5000 feet. Winds will be light enough to allow an east coast sea breeze to develop, but the threat of showers will remain very limited given the airmass. A reinforcing cool front moves through late on Wednesday, and with little in the way of additional moisture with it, conditions are expected to remain dry as it passes with little more than a wind shift. Any clouds are not expected to pose a LLCC concern for the primary launch window Wednesday evening.

Stronger onshore flow develops into the backup day on Thursday as the gradient tightens between the post frontal high moving through the eastern US and the boundary stalling across the Florida straits. Mid and upper levels remain very dry, but the increasing onshore component may help moisten lower levels for additional low topped cumulus development. Significant LLCC concerns remain low.

Launch Day	Probability of Violating Weather Constraints ¹							
	<5%	Primary Concerns: None						
	Weather Conditions					Additional Risk Criteria ²		
	Weather/Visibility:	None / 7 mi.	Type	Coverage	Base (ft)	Tops (ft)	Upper-Level Wind Shear:	Low
	Temp/Humidity:	76°F / 75%	Cumulus	Few	3,000	4,000	Booster Recovery Weather:	N/A
	Liftoff Winds (200’):	040° 10 - 15 mph					Solar Activity:	Low
24-Hour Delay	Probability of Violating Weather Constraints							
	5%	Primary Concerns: Cumulus Cloud Rule						
	Weather Conditions					Additional Risk Criteria		
	Weather/Visibility:	None / 7 mi.	Type	Coverage	Base (ft)	Tops (ft)	Upper-Level Wind Shear:	Low
	Temp/Humidity:	74°F / 65%	Cumulus	Few	3,000	5,000	Booster Recovery Weather:	N/A
	Liftoff Winds (200’):	040° 15 - 20 mph	Cirrus	Scattered	35,000	40,000	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					