



# Launch Mission Execution Forecast

**Mission:** Falcon 9 Ispace M1

**Issued:** 27 Nov 2022 / 1000L (1500Z)

**Valid:** 30 Nov 2022 / 0334 – 0344L (0834 – 0844Z)



**Forecast Discussion:** An unseasonably warm and breezy day is expected across the Spaceport ahead of the next front currently moving through the eastern Gulf of Mexico. It may kick off a few showers as it approaches later this evening, but overall is expected to lose most of its energy as it sags into Central Florida. High pressure builds across the eastern US behind the boundary, bringing dry conditions to start the week. The high center will slide offshore on Tuesday as the next system moves across the Midwest and Gulf. The associated front is expected to remain well west of the area going into the primary launch opportunity early Wednesday morning with breezy southeasterly flow. Passing low-topped cumulus clouds are expected to present only a minimal weather concern.

Like the previous few fronts, the mid-week system will lose its gas as it moves into Central Florida on Wednesday. The boundary is expected to reach the Spaceport early Thursday morning with the backup launch opportunity. Its arrival will bring a slop of fog and low stratus, isolated showers, and mid-level cloud cover. The later two will pose the main weather concerns with thick and cumulus clouds.

Launch Day	Probability of Violating Weather Constraints <sup>1</sup>							
	<10%	Primary Concerns: Cumulus Cloud Rule						
	Weather Conditions					Additional Risk Criteria <sup>2</sup>		
	Weather/Visibility:	None / 7 mi.	Type	Coverage	Base (ft)	Tops (ft)	Upper-Level Wind Shear:	Low
	Temp/Humidity:	72°F / 80%	Cumulus	Scattered	2,500	4,000	Solar Activity:	Low
	Liftoff Winds (200'): 130° 12 - 17 mph							
24-Hour Delay	Probability of Violating Weather Constraints							
	30%	Primary Concerns: Thick Cloud Layer Rule, Cumulus Cloud Rule						
	Weather Conditions					Additional Risk Criteria		
	Weather/Visibility:	Isold Showers / 7 mi.	Type	Coverage	Base (ft)	Tops (ft)	Upper-Level Wind Shear:	Low
	Temp/Humidity:	68°F / 90%	Cumulus	Broken	2,000	10,000	Solar Activity:	Low
	Liftoff Winds (200'): 330° 7 - 12 mph		Altostratus	Broken	20,000	25,000		
Notes	1. The Probability of Violation (PoV) is the chance of a local safety or customer constraint violation occurring anytime 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 <a href="https://www.patrick.spaceforce.mil/Portals/14/Weather/LaunchFAQ.pdf">https://www.patrick.spaceforce.mil/Portals/14/Weather/LaunchFAQ.pdf</a> for more information								
Next Forecast Will Be Issued			28 Nov 2022					