



Launch Mission Execution Forecast



Mission: Falcon 9 CRS-29

Issued: 8 Nov 2023 / 0830L (1330Z)

Valid: 9 Nov 2023 / 2023 – 2034L (10/0123 – 0134Z)

Forecast Discussion: High pressure will continue to dominate Florida’s weather today through Friday, leading to mostly sunny skies and nearly dry weather across the Spaceport. The surface ridge will meander from the eastern Gulf of Mexico to the western Atlantic through the end of the week, shifting the northeasterly flow to the east-southeast. High resolution model guidance indicates some coastal showers may be rounding the warm waters of the Gulf Stream Thursday evening, but activity should stay low-topped and far enough away to be of any LLCC concern. With the altostratus deck expected to be thinner and higher in the atmosphere, thick clouds are no longer a concern for the initial launch window. The weather continues to trend very favorably for an initial launch attempt.

On Friday, the surface ridge will continue shifting farther eastward into the Atlantic. This will give a more southerly component to the onshore flow. Aside from a few coastal showers, the weather pattern for the Space Coast will remain largely benign with atmospheric moisture staying very shallow. As a result, the Cumulus Cloud Rule will be the only weather concern for the backup launch window.

Launch Day		Probability of Violating Weather Constraints ¹				
Launch Day	5%	Primary Concerns: Cumulus Cloud Rule				
	Weather Conditions				Additional Risk Criteria ²	
	Weather/Visibility: None / 7 mi.	Clouds			Upper-Level Wind Shear: Low	
		Type	Coverage	Base (ft)	Tops (ft)	
Temp/Humidity: 71°F / 80%	Cumulus	Scattered	2,500	4,000		
Liftoff Winds (200’): 100° 10 - 15 mph	Altostratus	Scattered	25,000	28,000	Solar Activity: Low	
24-Hour Delay		Probability of Violating Weather Constraints				
24-Hour Delay	10%	Primary Concerns: Cumulus Cloud Rule				
	Weather Conditions				Additional Risk Criteria	
	Weather/Visibility: Isold Showers / 7 mi.	Clouds			Upper-Level Wind Shear: Low	
		Type	Coverage	Base (ft)	Tops (ft)	
Temp/Humidity: 73°F / 85%	Cumulus	Scattered	2,500	7,000		
Liftoff Winds (200’): 130° 10 - 15 mph					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 https://www.patrick.spaceforce.mil/Portals/14/Weather/LaunchFAQ.pdf for more information				
Next Forecast Will Be Issued		As Required				