



Launch Mission Execution Forecast



Mission: Falcon 9 Starlink 12-6

Issued: 28 Dec 2024 / 0730L (1530Z)

Valid: 30 Dec 2024 / 0000 – 0328L (0500 – 0828Z)

Forecast Discussion: The main weather feature this weekend is a cold front expected to reach down into the Florida peninsula on Sunday, passing the Spaceport early in the morning on Monday. Ahead of the front, we can expect scattered showers with a chance for some isolated storms. Most model solutions have the showers moving offshore just prior to the opening of the window, and a weak secondary line is expected to make its way through after the close of the window. Thus, for the primary launch attempt, concerns will be for lingering storm and anvil activity, especially near the beginning of the window.

For the backup attempt, weather looks relatively benign, with some offshore showers. While unlikely, there is a small possibility that one of these showers could wander over the launch pad, causing a flight-through Cumulus Cloud Rule violation.

Launch Day		Probability of Violating Weather Constraints ¹					
		40%	Primary Concerns: Cumulus Cloud Rule, Anvil Cloud Rules				
		Weather Conditions				Additional Risk Criteria ²	
		Weather/Visibility: Sct Showers / 7 mi.	Clouds				Upper-Level Wind Shear: Low
			Type	Coverage	Base (ft)	Tops (ft)	Booster Recovery Weather: Low
		Temp/Humidity: 65°F / 96%	Cumulus	Scattered	2,000	14,000	Solar Activity: Low
		Liftoff Winds (200'): 220° 8 - 13 mph	Altostratus	Scattered	18,000	25,000	
24-Hour Delay		Probability of Violating Weather Constraints					
		10%	Primary Concerns: Cumulus Cloud Rule				
		Weather Conditions				Additional Risk Criteria	
		Weather/Visibility: Iso Showers / 7 mi.	Clouds				Upper-Level Wind Shear: Low
			Type	Coverage	Base (ft)	Tops (ft)	Booster Recovery Weather: Low
		Temp/Humidity: 64°F / 94%	Cumulus	Few	2,000	9,000	Solar Activity: Low
		Liftoff Winds (200'): 190° 5 - 10 mph					
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		29 DEC 2024					