



# Launch Mission Execution Forecast

**Mission:** Falcon 9 Starlink 6-30

**Issued:** 26 Nov 2023 / 1345L (1845Z)

**Valid:** 27 Nov 2023 / 2300 – 28/0300L (28/0400 – 0800Z)



**Forecast Discussion:** After a disturbance traverses Florida today, a cold front will approach Central Florida tonight into tomorrow. The front may bring showers to the area as it passes in the morning, but will be to the south of the Spaceport by tomorrow evening. Behind the front, cooler and drier air will begin to filter in from the northwest. Although the surface front and any significant weather will be well to our south, the position of the subtropical jet stream will promote a cirrostratus deck in the upper levels that begins to stream in overnight. Today, models are indicating that these upper-level clouds will likely increase in coverage and thickness as the window progresses. If the bases get low enough, this could be a Thick Cloud Layers Rule concern. However, since these clouds will be associated with the jet stream instead of thunderstorms, there is more leniency in the rule to allow for a lower base without causing a violation.

On Tuesday, the jet stream and associated cirrus deck will push farther south, lowering the risk of any weather rule concerns. Overall, conditions look even more favorable for the back-up day, with the only concern being the small risk of a Thick Cloud Layers Rule violation.

Launch Day		Probability of Violating Weather Constraints <sup>1</sup>				
		<b>10→20%</b>	Primary Concerns: Thick Cloud Layers Rule			
		Weather Conditions			Additional Risk Criteria <sup>2</sup>	
		<b>Weather/Visibility:</b> None / 7 mi.	<b>Clouds</b>			<b>Upper-Level Wind Shear:</b> Low
			Type	Coverage	Base (ft)	Tops (ft)
		<b>Temp/Humidity:</b> 62°F / 75%	Cumulus	Few	2,000	6,000
		<b>Liftoff Winds (200'):</b> 330° 15 - 20 mph	Cirrostratus	Broken	24,000	30,000
						<b>Booster Recovery Weather:</b> Low
						<b>Solar Activity:</b> Low
24-Hour Delay		Probability of Violating Weather Constraints				
		<b>10%</b>	Primary Concerns: Thick Cloud Layers Rule			
		Weather Conditions			Additional Risk Criteria	
		<b>Weather/Visibility:</b> None / 7 mi.	<b>Clouds</b>			<b>Upper-Level Wind Shear:</b> Low-Mod
			Type	Coverage	Base (ft)	Tops (ft)
		<b>Temp/Humidity:</b> 60°F / 65%	Cumulus	Few	2,000	5,000
		<b>Liftoff Winds (200'):</b> 340° 13 - 18 mph	Cirrus	Scattered	30,000	33,000
						<b>Booster Recovery Weather:</b> Low
						<b>Solar Activity:</b> Low
Notes		<ol style="list-style-type: none"> <li>The Probability of Violation (PoV) is the chance of a local safety or customer constraint violation occurring any random time during the launch window.</li> <li>Additional Risk Criteria, which are not included in the PoV, are mission-specific constraints that may not include all phenomena within each risk factor.</li> </ol> <p>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</p>				
Next Forecast Will Be Issued		As Required				