



# Launch Mission Execution Forecast

**Mission:** Falcon 9 Starlink 6-65

**Issued:** 29 Nov 2024 / 1100L (1600Z)

**Valid:** 30 Nov 2024 / 0000 – 0400L (0500 – 0900Z)



**Forecast Discussion:** A cold front is pushing through Central Florida late this morning, with a few showers and winds shifting out of the north-northwest. With an upper jet overhead and cloud/no cloud boundary setting up along the edge of the front, there will be just enough instability to kick off a few rounds of showers across the Spaceport through the afternoon, along with a minimal threat for lightning. Precip is expected to be done heading into the primary launch window at midnight, but the question of clouds remains. Most models still show an extensive post-frontal cloud deck hanging around, potentially flirting with the freezing level, and thus becoming a launch weather concern. Factors that play into this will also include how quickly winds above the surface swing out of the north-northeast and reinforce the post-frontal inversion. The most problematic cloud decks will push south through the window, though a low-topped stratocumulus deck will likely remain. Post-frontal winds will also be a watch item, though the strongest winds will occur a few hours ahead of the window with speeds, while remaining breezy, diminishing through the late night.

Recent models suggest a developing coastal trough/area of convergence just off the coast on Saturday. This will enhance the cumulus/stratocumulus deck and trigger occasional Atlantic showers that will continue into the backup window late Saturday night. While this activity is expected to be low topped, the cooling temperatures aloft will make reaching +5°C or 0°C achievable for any overperforming clouds.

Probability of Violating Weather Constraints <sup>1</sup>																																	
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<b>Notes</b>	<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>																																
	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																																
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