



# Launch Mission Execution Forecast

**Mission:** Falcon 9 Starlink 6-17

**Issued:** 18 Sep 2023 / 0830L (1230Z)

**Valid:** 19 Sep 2023 / 2147 – 20/0147L (20/0147 – 0547Z)



**Forecast Discussion:** A front will push south across central Florida today, with scattered showers and a few thunderstorms aligning along this front, mainly just south of the Spaceport. Low level winds will shift from westerly to northeasterly by late afternoon behind the boundary. This front is expected to stall just south of the area tonight into Tuesday, taking the focus for organized showers and storms with it. Even so, shallow onshore flow in the low levels of the atmosphere suggests a threat for showers rolling off the Atlantic waters and onto the coast, particularly during the night and morning hours, with a lesser risk of thunderstorms along the coast Tuesday afternoon and evening. Significant uncertainty develops mid-to-late week with respect to the evolution of this front, with a good potential of it moving back northward, leading to a much higher risk of unsettled weather locally. For the primary launch day, the threat for weather violations appears to be somewhat higher than expected values considering the season and time of day, with a notably higher potential for the delay day. The most likely weather violation to occur during the primary launch opportunity is cumulus clouds associated with onshore-moving showers, with the added possibility of remnant clouds from decaying thunderstorms for the delay day.

		Probability of Violating Weather Constraints <sup>1</sup>					
<b>Launch Day</b>	<b>40%</b>	Primary Concerns: Cumulus Cloud Rule					
	Weather Conditions				Additional Risk Criteria <sup>2</sup>		
	<b>Weather/Visibility:</b>	Isol Showers / 7 mi.	Clouds			<b>Upper-Level Wind Shear:</b>	Low
			Type	Coverage	Base (ft)	Tops (ft)	
<b>Temp/Humidity:</b>	77°F / 85%	Cumulus	Scattered	2,500	14,000	<b>Booster Recovery Weather:</b>	Low
<b>Liftoff Winds (200'):</b>	060° 10 - 15 mph	Alto cumulus	Broken	16,000	20,000	<b>Solar Activity:</b>	Low
		Probability of Violating Weather Constraints					
<b>24-Hour Delay</b>	<b>70%</b>	Primary Concerns: Cumulus Cloud Rule, Anvil Cloud Rules					
	Weather Conditions				Additional Risk Criteria		
	<b>Weather/Visibility:</b>	Sct Showers / 7 mi.	Clouds			<b>Upper-Level Wind Shear:</b>	Low
			Type	Coverage	Base (ft)	Tops (ft)	
<b>Temp/Humidity:</b>	77°F / 90%	Cumulus	Scattered	2,500	14,000	<b>Booster Recovery Weather:</b>	Low
<b>Liftoff Winds (200'):</b>	080° 10 - 15 mph	Alto cumulus	Broken	14,000	19,000	<b>Solar Activity:</b>	Low
<b>Notes</b>	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 <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					
<b>Next Forecast Will Be Issued</b>		As Required					