



# Launch Mission Execution Forecast

**Mission:** Falcon 9 Starlink 6-19

**Issued:** 27 Sep 2023 / 1300L (1700Z)

**Valid:** 28 Sep 2023 / 1853 – 2253L (2253 – 29/0253Z)



**Forecast Discussion:** Deep tropical moisture continues to funnel across the peninsula as showers and thunderstorms will develop with heating of the day once again. For launch day, a weak frontal boundary sags into the state enhancing precipitation across the area, so widespread showers and storms are expected. Conditions will slowly improve through the window, however, showers and storms will likely remain along the coast well into the evening hours. Thus, the primary concerns will be the Lightning, Cumulus, and Anvil Cloud Rules. For the backup day, low pressure begins to develop on the boundary over the Atlantic waters to the northeast. This will shift shower activity eastward during the overnight hours, so there is a slightly lower concern for violation of the Anvil and Cumulus Cloud Rules.

		Probability of Violating Weather Constraints <sup>1</sup>					
<b>Launch Day</b>	<b>80%</b>	Primary Concerns: Lightning Rule, Anvil Cloud Rules, Cumulus Cloud Rule					
	Weather Conditions				Additional Risk Criteria <sup>2</sup>		
	<b>Weather/Visibility:</b>	Sct. Tstms / 5 mi.	Clouds			<b>Upper-Level Wind Shear:</b>	Low
			Type	Coverage	Base (ft)	Tops (ft)	
<b>Temp/Humidity:</b>	78°F / 85%	Cumulus	Broken	2,500	16,000	<b>Booster Recovery Weather:</b>	Low
<b>Liftoff Winds (200'):</b>	070° 10 - 15 mph	AltoCumulus	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: Anvil Cloud Rules, Cumulus Cloud Rule, Surface Electric Fields Rule					
	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>	80°F / 85%	Cumulus	Scattered	2,500	15,000	<b>Booster Recovery Weather:</b>	Low
<b>Liftoff Winds (200'):</b>	070° 10 - 15 mph	AltoCumulus	Broken	15,000	18,000	<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					