



# Launch Mission Execution Forecast

**Mission:** Falcon 9 Starlink 5-1

**Issued:** 27 Dec 2022 / 0800L (1300Z)

**Valid:** 28 Dec 2022 / 0430 – 0632L (0930 – 1132Z)



**Forecast Discussion:** An upper level trough currently situated over the eastern Gulf of Mexico will cross the state today and lift out across the Atlantic tonight. At the surface, another high pressure system spreads across the Southeast US, bringing clearing skies to the region this afternoon and overnight. Favorable local weather is expected for Wednesday and Thursday, with only a very slim threat of low-topped cumulus clouds interfering with the launch opportunities either morning.

Launch Day		Probability of Violating Weather Constraints <sup>1</sup>					
		<b>&lt;10%</b> Primary Concerns: Cumulus Cloud Rule					
		Weather Conditions				Additional Risk Criteria <sup>2</sup>	
		Weather/Visibility: None / 7 mi.		<b>Clouds</b> Type Coverage Base (ft) Tops (ft)		Upper-Level Wind Shear: Low	
		Temp/Humidity: 53°F / 85%		Cumulus Few 3,000 6,000		Booster Recovery Weather: Moderate	
		Liftoff Winds (200'): 020° 10 - 15 mph				Solar Activity: Low	
24-Hour Delay		Probability of Violating Weather Constraints					
		<b>10%</b> Primary Concerns: Cumulus Cloud Rule					
		Weather Conditions				Additional Risk Criteria	
		Weather/Visibility: None / 7 mi.		<b>Clouds</b> Type Coverage Base (ft) Tops (ft)		Upper-Level Wind Shear: Low	
		Temp/Humidity: 60°F / 85%		Cumulus Scattered 3,000 9,000		Booster Recovery Weather: Low	
		Liftoff Winds (200'): 090° 10 - 15 mph				Solar Activity: Low	
Notes		1. The Probability of Violation (PoV) is the chance of a local safety or customer constraint violation occurring anytime 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					
Next Forecast Will Be Issued		As Requested					