

## **Launch Mission Execution Forecast**

Mission: Falcon 9 Starlink 5-4

**Issued**: 11 Feb 2023 / 0930L (1430Z)

Valid: 11 Feb 2023 / 2342–12/0402L (12/0442-0902Z)



**Forecast Discussion**: A strong cold front will slice through the Florida Peninsula later today and bring rounds of strong storms through North and Central Florida this afternoon and evening. The strongest activity should stay north of the Spaceport, but a few isolated storms could pack winds exceeding 40 mph through the region. The associated low pressure system will lift north into Georgia tonight, and will unfortunately swing the cold front through the Spaceport near or during the launch window. The primary concerns during the launch window will be for Liftoff Winds, the Thick Cloud Layer Rule, and the Cumulus Cloud Rule, though additional rule violations will certainly remain on the table.

Sunday will be a transition day for much of the state as conditions quickly dry out of the northwest in the post-frontal environment. However, windy conditions, with gusts near 30 mph, will continue throughout the day due to a tight pressure gradient remaining behind the exiting storm system. High temperatures will struggle to reach the mid-60s and temperatures during the backup launch window will be 10-15 degrees colder than the primary launch window. The only concern for the backup launch window will be Liftoff Winds.

	Probability of Violating Weather Constraints <sup>1</sup>								
Day	80% Primary Concerns: Liftoff Winds, Thick Cloud Layer Rule, Cumulus Cloud Rule								
	Weather Conditions							Additional Risk Criteria <sup>2</sup>	
aunch	Weather/Visi	bility:	Sct Showers / 7 mi.	Туре	Clouds Coverage	Base (ft)	Tops (ft)	Upper-Level Wind Shear:	Moderate
Ĭ	Temp/Humid	ity:	67°F / 90%	Cumulus	Broken	2,500	5,000	Booster Recovery Weather:	Low
	Liftoff Winds	(200'):	220° 27 - 32 mph	Altostratus	Broken	12,000	16,000	Solar Activity:	Low
	Probability of Violating Weather Constraints								
Delay	30% Primary Concerns: Liftoff Winds								
	Weather Conditions							Additional Risk Criteria	
24-Hour	Weather/Visi	bility:	None / 7 mi.	Туре	Clouds Coverage	Base (ft)	Tops (ft)	Upper-Level Wind Shear:	Moderate
24	Temp/Humid	ity:	53°F / 80%	Cumulus	Scattered	2,500	3,500	Booster Recovery Weather:	Low
	Liftoff Winds	(200'):	300° 20 - 25 mph					Solar Activity:	Low
Notes	<ol> <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>								
Ž	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									