

## **Launch Mission Execution Forecast**

Mission: Falcon 9 Starlink 12-13

**Issued**: 21 Feb 2025 / 1100L (1600Z)

**Valid**: 23 Feb 2025 / 2342 – 24/0342L (24/0442 – 0842Z)



**Forecast Discussion**: Cool, dry conditions are expected today as high pressure builds in. The high will quickly shift eastward and weaken by Sunday as weak low pressure is expected to develop in the Gulf. Model guidance is split on the development and progression of this next system, however, overall upper-level moisture is expected to increase by Sunday evening. The primary concern for the launch window will be the Thick Cloud Layers Rule associated with increasing cloud cover from the west. For the backup day, mid-and high-cloud coverage will decrease but low-level moisture will remain with easterly flow, so some isolated onshore moving showers are possible.

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	Probability of Violating Weather Constraints <sup>1</sup>										
Day	25% Primary Concerns: Thick Cloud Layers Rule										
ıch	Weather Conditions								Additional Risk Criteria <sup>2</sup>		
aunch	Weather/Visi	bility:	None / 7 m	ni.	Туре	Clouds Coverage	Base (ft)	Tops (ft)	Upper-Level Wind Shear:	Low	
	Temp/Humid	ity:	66°F / 80%	ó	Cumulus	Scattered	2,000	8,000	Booster Recovery Weather:	Low	
	Liftoff Winds	(200'):	090° 7 - 12	2 mph	Altostratus	Broken	14,000	22,000	Solar Activity:	Low	
,	Probability of Violating Weather Constraints										
Delay	10%	10% Primary Concerns: Cumulus Cloud Rule									
	Weather Conditions								Additional Risk Criteria		
24-Hour	Weather/Visibility: Isol Shower			ers / 7 mi.	Туре	Clouds Coverage	Base (ft)	Tops (ft)	Upper-Level Wind Shear:	Low	
24	Temp/Humidity: 66°F / 85%			Cumulus	Scattered	2,500	8,000	Booster Recovery Weather:	Low		
	<b>Liftoff Winds (200')</b> : 070° 12 - 17 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										