



Launch Mission Execution Forecast



Mission: Falcon 9 Starlink 5-2

Issued: 24 Jan 2023 / 0800L (1300Z)

Valid: 26 Jan 2023 / 0402-0624L (0902-1124Z)

Forecast Discussion: High pressure is pushing off the Carolinas, creating easterly winds and continued favorable conditions along the Space Coast. Elsewhere, a strong low pressure system developing in Texas will move into the Mississippi Valley, while trailing a cold front into the Gulf of Mexico. This cold front will weaken Wednesday as the low pressure area continues northward to the Great Lakes region. Unfortunately, the boundary will be very close or over the Spaceport during the launch window early Thursday morning. The launch weather concerns Thursday are the Cumulus Cloud Rule, the Surface Electric Field Rule, and the Thick Cloud Layers Rule all associated with the front.

Skies will clear through the day Thursday, with temperatures hovering in the low 60s as high pressure pushes into the Gulf Coast States. The only launch weather concern early Friday morning will be Liftoff Winds.

		Probability of Violating Weather Constraints ¹						
Launch Day	30%	Primary Concerns: Cumulus Cloud Rule, Surface Electric Field Rule, Thick Cloud Layers Rule						
	Weather Conditions				Additional Risk Criteria ²			
	Weather/Visibility:	Isold Showers / 7 mi.	Clouds				Upper-Level Wind Shear:	Low-Mod
			Type	Coverage	Base (ft)	Tops (ft)		
Temp/Humidity:	60°F / 90%	Cumulus	Scattered	3,000	12,000	Booster Recovery Weather:	Low	
Liftoff Winds (200')	250° 15 - 20 mph	Altostratus	Broken	10,000	14,000	Solar Activity:	Low	
		Probability of Violating Weather Constraints						
24-Hour Delay	10%	Primary Concerns: Liftoff Winds						
	Weather Conditions				Additional Risk Criteria			
	Weather/Visibility:	None / 7 mi.	Clouds				Upper-Level Wind Shear:	Low
			Type	Coverage	Base (ft)	Tops (ft)		
Temp/Humidity:	47°F / 70%	Stratocumulus	Few	2,500	4,000	Booster Recovery Weather:	Low	
Liftoff Winds (200')	330° 17 - 22 mph					Solar Activity:	Low	
Notes	<ol style="list-style-type: none"> The Probability of Violation (PoV) is the chance of a local safety or customer constraint violation occurring any random time during the launch window. 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 https://www.patrick.spaceforce.mil/Portals/14/Weather/LaunchFAQ.pdf for more information							
Next Forecast Will Be Issued		25 January 2023						