



Launch Mission Execution Forecast



Mission: Falcon 9 Starlink 4-10

Issued: 06 Mar 2022 / 0830L (1330Z)

Valid: 08 Mar 2022 / 0856 – 1057L (1356 – 1557Z)

Forecast Discussion: High pressure over the western Atlantic will finish out the weekend with dry, warm, and gusty conditions today. On Monday, the high pressure center will continue to move to the east, and the resulting southerly flow will enhance moisture in the area and lead to greater chances of precipitation. A cold front is expected to stall over the panhandle early on Tuesday morning, and models have been increasing the total amount of local moisture as we enter the launch window. A sea breeze collision Monday evening through early Tuesday morning will cause east-moving showers over Central Florida, and these showers have a potential to linger into the launch window. As such, conditions are looking to be slightly less favorable than in previous forecasts. The primary weather concern for Tuesday's launch attempt is the Cumulus Cloud Rule.

Conditions for a Wednesday launch attempt now look slightly better than previously anticipated due to a stagnant pattern as well as the aforementioned showers decreasing available low-level moisture. While some showers may be possible on Wednesday morning, conditions trend more favorably for launch. The primary weather concern Wednesday remains the Cumulus Cloud Rule

		Probability of Violating Weather Constraints ¹						
Launch Day	20%	Primary Concerns: Cumulus Cloud Rule						
	Weather Conditions				Additional Risk Criteria ²			
	Weather/Visibility:	Sct'd Showers / 7 mi.	Clouds				Upper-Level Wind Shear:	Low
			Type	Coverage	Base (ft)	Tops (ft)		
Temp/Humidity:	71°F / 90%	Stratocumulus	Broken	2,000	4,000	Booster Recovery Weather:	Moderate	
Liftoff Winds (200'):	220° 10 - 15 mph	Cumulus	Broken	2,000	9,000	Solar Activity:	Low	
		Probability of Violating Weather Constraints						
24-Hour Delay	10%	Primary Concerns: Cumulus Cloud Rule						
	Weather Conditions				Additional Risk Criteria			
	Weather/Visibility:	Isol'd Showers / 7 mi.	Clouds				Upper-Level Wind Shear:	Low
			Type	Coverage	Base (ft)	Tops (ft)		
Temp/Humidity:	72°F / 75%	Stratocumulus	Scattered	2,000	3,500	Booster Recovery Weather:	Low	
Liftoff Winds (200'):	200° 15 - 20 mph	Cumulus	Scattered	2,000	6,000	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 anytime 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							

Note: The Probability of Violation (POV) is the chance that a Lightning Launch Commit Criteria (LLCC) or certain user constraints (surface winds, precipitation, and temperatures, etc.) will be violated during the launch window. It does not take into account upper-level wind shear, booster recovery weather, and solar activity.

Next Forecast Will Be Issued 07 MAR 2022