



Launch Mission Execution Forecast

Mission: Falcon 9 Starlink 4-10

Issued: 08 Mar 2022 / 0715L (1215Z)

Valid: 09 Mar 2022 / 0835 – 1036L (1335 – 1536Z)



Forecast Discussion: The previously-approaching cold front has stalled along the panhandle of Florida, keeping any frontal or post-frontal impacts from reaching the Spaceport. Southerly winds are bringing more moisture into the area, supplying fuel for evening showers and isolated storms during sea breeze boundary interactions. Short range models are mostly in agreement with showers moving out of the area early tomorrow morning prior to the launch window. The primary weather concern for tomorrow's launch attempt remains the Cumulus Cloud Rule due to the slight chance that showers persist longer than expected, much as they did this morning.

In the case of a 24-hour delay, Thursday's conditions continue to look similar to Wednesday's. Models have backed off on a sea breeze interaction on Wednesday evening, however instability and moisture are still favorable for isolated storms. Those overnight showers and storms have a similar chance of pushing into the launch window, and low-level winds are expected to intensify. Thursday's primary weather concerns are the Cumulus Cloud Rule and Liftoff Winds.

Launch Day	Probability of Violating Weather Constraints ¹					
	20%	Primary Concerns: Cumulus Cloud Rule				
	Weather Conditions				Additional Risk Criteria ²	
	Weather/Visibility: Isol'd Showers / 7 mi.	Clouds				Upper-Level Wind Shear: Low
	Type	Coverage	Base (ft)	Tops (ft)		
Temp/Humidity: 72°F / 90%	Cumulus	Scattered	2,000	8,000	Booster Recovery Weather: Low	
Liftoff Winds (200'): 190° 15 - 20 mph					Solar Activity: Low	

24-Hour Delay	Probability of Violating Weather Constraints					
	20%	Primary Concerns: Cumulus Cloud Rule, 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: 72°F / 88%	Cumulus	Few	2,000	6,000	Booster Recovery Weather: Low	
Liftoff Winds (200'): 190° 20 - 25 mph					Solar Activity: Low	

Notes

- 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 AS REQUIRED