



Launch Mission Execution Forecast

Mission: Falcon 9 Starlink 6-54

Issued: 27 Apr 2024 / 0900L (1300Z)

Valid: 28 Apr 2024 / 1750 – 2150L (2150 – 29/0150Z)



Forecast Discussion: Surface high pressure moving off the northeast US coast will migrate southward and slowly weaken into early next week. Locally, enhanced onshore flow will tap somewhat deeper moisture off the Atlantic, resulting in additional onshore-moving cumulus clouds accompanied by widely scattered showers. The greatest risk of these will be during the late night through early afternoon hours and thus outside our launch windows. Additionally, considerable high cloudiness is expected to spill into the area from the west later today and into Sunday, leading to an additional concern of sufficiently thick upper-level cloud layers; however, these clouds are likely to thin or exit the area for the backup launch opportunity on Monday.

Launch Day	Probability of Violating Weather Constraints ¹					
	20%	Primary Concerns: Thick Cloud Layers Rule, Cumulus Cloud Rule				
	Weather Conditions				Additional Risk Criteria ²	
	Weather/Visibility: Isol Showers / 7 mi.	Clouds			Upper-Level Wind Shear: Low	
	Type	Coverage	Base (ft)	Tops (ft)		
Temp/Humidity: 75°F / 60%	Cumulus	Scattered	3,000	10,000	Booster Recovery Weather: Low-Mod	
Liftoff Winds (200'): 100° 17 - 22 mph	Cirrostratus	Broken	21,000	25,000	Solar Activity: Low	

24-Hour Delay	Probability of Violating Weather Constraints					
	10%	Primary Concerns: Cumulus Cloud Rule				
	Weather Conditions				Additional Risk Criteria	
	Weather/Visibility: None / 7 mi.	Clouds			Upper-Level Wind Shear: Low	
	Type	Coverage	Base (ft)	Tops (ft)		
Temp/Humidity: 76°F / 60%	Cumulus	Scattered	3,000	9,000	Booster Recovery Weather: Low-Mod	
Liftoff Winds (200'): 120° 17 - 22 mph					Solar Activity: Low	

Notes

- 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 As Required