



Launch Mission Execution Forecast

Mission: Falcon 9 Starlink 6-19

Issued: 28 Sep 2023 / 1300L (1700Z)

Valid: 29 Sep 2023 / 1828 – 2228L (2228 – 29/0228Z)



Forecast Discussion: A weak frontal boundary will continue to sag southward into the central part of the state so expect another round of widespread showers and storms this afternoon through the evening hours. For launch day, the boundary will continue to slowly move southward, however, models aren't in full agreement as to how far. Nevertheless, the Space Port will likely see at least some drying in the atmosphere. Primary concerns will be the Anvil Cloud Rules and the Cumulus Cloud Rule associated with any showers and storms that form along the frontal boundary. For the backup day, the boundary makes little southward progression and may even pull back to the north. Stronger easterly flow across the Cape will shift the focus to onshore moving showers and therefore the Cumulus Cloud Rule will be the primary concern.

		Probability of Violating Weather Constraints ¹					
Launch Day	60%	Primary Concerns: Anvil Cloud Rules, Cumulus Cloud Rule, Surface Electric Fields Rule					
	Weather Conditions				Additional Risk Criteria ²		
	Weather/Visibility: Sct. Showers / 7 mi.	Clouds			Upper-Level Wind Shear: Low		
	Temp/Humidity: 80°F / 80%	Type	Coverage	Base (ft)	Tops (ft)	Booster Recovery Weather: Low	
Liftoff Winds (200'): 060° 8 - 12 mph	Cumulus	Scattered	2,500	14,000	Solar Activity: Low		
	Cirrus	Broken	20,000	30,000			
		Probability of Violating Weather Constraints					
24-Hour Delay	65%	Primary Concerns: Cumulus Cloud Rule, Anvil Cloud Rules, Surface Electric Fields Rule					
	Weather Conditions				Additional Risk Criteria		
	Weather/Visibility: Sct. Showers / 7 mi.	Clouds			Upper-Level Wind Shear: Low		
	Temp/Humidity: 81°F / 80%	Type	Coverage	Base (ft)	Tops (ft)	Booster Recovery Weather: Low	
Liftoff Winds (200'): 070° 16 - 20 mph	Cumulus	Scattered	2,500	12,000	Solar Activity: Low		
	Cirrus	Broken	25,000	30,000			
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		As Required					