



Launch Mission Execution Forecast



Mission: Falcon 9 Starlink 4-34

Issued: 15 Sept 2022 / 2230L (16/0230Z)

Valid: 16 Sept 2022 / 2055 – 2115L (17/0055 – 0115)

Forecast Discussion: Only small changes are expected in the ongoing unsettled pattern across the Florida peninsula to end the week. Weather on Friday is expected to play out similar to today, with morning storms over the Atlantic pushing outflow boundaries into the coast and kicking off storms along a diffuse east coast sea breeze in the afternoon. The strongest activity will again gradually shift inland from the coast through the afternoon hours. While most storms are not likely to push back towards the Spaceport, late day boundary collisions will lead to a few popup showers and storms across the area. In addition, upper-level flow will continue to bring anvils from any inland activity back across the Spaceport through the late evening. The main weather concerns for a Friday evening launch attempt will be the anvil cloud rules, surface electric field rule, and lightning rule.

The surface boundary across South Florida is expected to shift northwards again on Saturday, potentially right back across the local area along with the ongoing stationary front. Additional convergence along the boundary will bring periods of showers and embedded storms through the afternoon hours. Some of this activity will linger through Saturday evening, with the main weather concerns the anvil cloud rules, cumulus cloud rule, and surface electric field rule.

		Probability of Violating Weather Constraints ¹					
Launch Day	60%	Primary Concerns: Anvil Cloud Rules, Surface Electric Field Rule, Lightning Rule					
	Weather Conditions				Additional Risk Criteria²		
	Weather/Visibility: None / 7 mi.	Clouds			Upper-Level Wind Shear: Low		
		Type	Coverage	Base (ft)	Tops (ft)		
Temp/Humidity: 79°F / 80%	Altostratus	Broken	12,000	18,000	Booster Recovery Weather: Low		
Liftoff Winds (200'): 080° 5 - 10 mph	Cirrostratus	Overcast	30,000	35,000	Solar Activity: Low		
		Probability of Violating Weather Constraints					
24-Hour Delay	70%	Primary Concerns: Anvil Cloud Rules, Cumulus Cloud Rule, Surface Electric Field Rule					
	Weather Conditions				Additional Risk Criteria		
	Weather/Visibility: Showers / 7 mi.	Clouds			Upper-Level Wind Shear: Low		
		Type	Coverage	Base (ft)	Tops (ft)		
Temp/Humidity: 79°F / 80%	Cumulus	Broken	3,000	12,000	Booster Recovery Weather: Low		
Liftoff Winds (200'): 070° 5 - 10 mph	Altostratus	Broken	16,000	20,000	Solar Activity: Low		
Notes	1. The Probability of Violation (PoV) is the chance of a local safety or customer constraint violation occurring anytime during the launch window.						
	2. 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 Needed					