



Launch Mission Execution Forecast

Mission: Falcon 9 Starlink 4-34

Issued: 14 Sept 2022 / 2100L (15/0100Z)

Valid: 15 Sept 2022 / 2117 – 2137L (16/0117 – 0137Z)



Forecast Discussion: The weak frontal boundary lying across Central Florida, upper-level jet, and tropical airmass will continue to drive a very wet and unsettled pattern with periods of rain continuing overnight. These factors will drive an early start to showers and storms on Thursday, though activity will be very slow moving and take a while to shift inland from the coast. While most storms are less likely to push back towards the Spaceport, late day boundary collisions may lead to popup showers and storms back towards 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 Thursday evening launch attempt will be the anvil cloud rules and surface electric field rules.

Not too much change in the larger pattern going into Friday with the nearly stationary front continuing to oscillate across Central Florida. The weather for a late evening launch attempt Friday evening looks similar to Thursday, with the primary weather concerns leftover anvil clouds and associated electric fields.

Launch Day		Probability of Violating Weather Constraints ¹				
Launch Day	60%	Primary Concerns: Anvil Cloud Rules, Surface Electric Field Rule				
	Weather Conditions				Additional Risk Criteria ²	
	Weather/Visibility: None / 7 mi.	Clouds			Upper-Level Wind Shear: Low	
	Temp/Humidity: 78°F / 83%	Type	Coverage	Base (ft)	Tops (ft)	Booster Recovery Weather: Low
Liftoff Winds (200'): 060° 5 - 10 mph	Altostratus	Broken	12,000	20,000	Solar Activity: Low	
	Cirrostratus	Overcast	25,000	34,000		
24-Hour Delay		Probability of Violating Weather Constraints				
24-Hour Delay	50%	Primary Concerns: Anvil Cloud Rules, Surface Electric Field Rule				
	Weather Conditions				Additional Risk Criteria	
	Weather/Visibility: None / 7 mi.	Clouds			Upper-Level Wind Shear: Low	
	Temp/Humidity: 79°F / 80%	Type	Coverage	Base (ft)	Tops (ft)	Booster Recovery Weather: Low
Liftoff Winds (200'): 080° 5 - 10 mph	Altostratus	Broken	12,000	18,000	Solar Activity: Low	
	Cirrostratus	Broken	30,000	35,000		
Notes	<ol style="list-style-type: none"> The Probability of Violation (PoV) is the chance of a local safety or customer constraint violation occurring 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					
Next Forecast Will Be Issued		As Needed				