



Launch Mission Execution Forecast

Mission: Falcon 9 Starlink 4-34

Issued: 13 Sept 2022 / 0730L (1130Z)

Valid: 13 Sept 2022 / 2200 – 2220L (14/0200 – 0220Z)



Forecast Discussion: The weather outlook for today will play out like yesterday as the front across North Florida this morning continues to sag southward. There will be two main opportunities for storms at the Spaceport today, the first will be with the development of the slow-moving east coast sea breeze early this afternoon. The second, and higher chances, will be as ongoing storms over the eastern Gulf of Mexico and western Florida push east across the peninsula and collide with the east coast sea breeze late afternoon and early evening. While activity is expected to be winding down and moving offshore going into this evening's launch window, convective debris and anvils from earlier activity will likely linger. The main weather concerns will be the anvil cloud rules and the debris cloud rule with the leftover activity.

The front will wash out across the area mid-week, but remaining energy will continue to drive the unsettled pattern. Models are a little more bullish on pushing the front just south of the Spaceport on Wednesday, allowing a northeasterly wind shift, but with the front still close enough to provide additional support for numerous afternoon storms. Showers and storms will likely be on the wane by start of the backup launch window Wednesday evening as they favor areas to the west, but similar to the primary day convective debris and anvils will linger. The main weather concerns for the backup window will remain the anvil cloud rules and the debris cloud rule.

		Probability of Violating Weather Constraints ¹					
Launch Day	50%	Primary Concerns: Anvil Cloud Rules, Debris Cloud Rule					
	Weather Conditions				Additional Risk Criteria²		
	Weather/Visibility: None / 7 mi.	Clouds				Upper-Level Wind Shear:	Low
	Temp/Humidity: 78°F / 80%	Type	Coverage	Base (ft)	Tops (ft)	Booster Recovery Weather:	Low
Liftoff Winds (200'): VRB 5 mph	Altostratus	Broken	13,000	18,000	Solar Activity:	Low	
	Cirrostratus	Overcast	31,000	36,000			
		Probability of Violating Weather Constraints					
24-Hour Delay	50%	Primary Concerns: Anvil Cloud Rules, Debris Cloud Rule					
	Weather Conditions				Additional Risk Criteria		
	Weather/Visibility: None / 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° 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					