



Launch Mission Execution Forecast

Mission: Falcon 9 StarlinkV1.0-L17

Issued: 27 Feb 2021 / 1000L (1500Z)

Valid: 28 Feb 2021 / 2027 - 2048L (1/0127- 0148Z)



Forecast Discussion: High pressure stretching across the western Atlantic into Florida peninsula will bring another warm and dry day to the Spaceport. Expect a steady increase in prevailing southeasterly flow, especially with a diffuse sea breeze passage in the afternoon.

Not too much change in the pattern as Sunday arrives, with just enough moisture for an increase in afternoon cumulus clouds enhanced by the sea breeze. The primary weather concerns for the Sunday evening launch attempt will be these cumulus clouds along with liftoff winds in the increased southeasterly flow.

Uncertainty lingers for a Monday evening launch attempt as some differences remain regarding the speed of the next frontal boundary. While there is agreement that the weakening boundary will be moving through Central Florida Monday evening, there is still disagreement on how quickly. A conservative approach has the boundary on the doorstep of the Cape not too long after the launch window, so still expecting a small threat for showers along with increasing cloud cover. The primary weather concerns for a backup launch attempt Monday evening will be thick clouds and cumulus clouds associated with the boundary.

		Probability of Violating Weather Constraints					
Launch Day	10%	Primary Concerns: Cumulus Cloud Rule, Liftoff Winds					
	Weather Conditions				Additional Risk Criteria		
	Weather/Visibility: None / 7 mi.	Clouds				Upper-Level Wind Shear:	Low
		Type	Coverage	Base (ft)	Tops (ft)	Booster Recovery Weather:	Moderate
Temp/Humidity: 73°F / 72%	Cumulus	Few	3,000	6,000	Solar Activity:	Low	
Liftoff Winds (200'): 140° 15 - 20 mph	Cirrus	Few	30,000	35,000			
		Probability of Violating Weather Constraints					
24-Hour Delay	30%	Primary Concerns: Thick Cloud Layer Rule, 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)	Booster Recovery Weather:	Moderate
Temp/Humidity: 75°F / 80%	Cumulus	Scattered	2,500	10,000	Solar Activity:	Low	
Liftoff Winds (200'): 190° 7- 12 mph	Cirrocumulus	Broken	30,000	40,000			
<i>Note: The Probability of Violation (POV) is the chance that a Lightning Launch Commit Criteria (LLCC) or certain user constraints (surface winds, precipitation, and temperatures, etc.) will be violated during the launch window. It does not take into account upper-level wind shear, booster recovery weather, and solar activity.</i>							
Next Forecast Will Be Issued		28 Feb 2021					