



Launch Mission Execution Forecast

Mission: Falcon 9 Starlink 4-1

Issued: 12 Nov 2021 / 0800L (1300Z)

Valid: 13 Nov 2021 / 0709 - 0729L (12/1209 - 1229Z)



Forecast Discussion: Following today's pre-frontal trough and associated convective activity, westerly winds will bring drier air to the Spaceport Saturday morning. This will reduce cloud coverage and precipitation chances through the backup launch window until the front reaches the area later in the afternoon. A chance for a few morning showers can't be ruled out due to lingering low-level moisture. The primary concern for the launch window on Saturday morning is the Cumulus Cloud Rule.

Frontal passage on Saturday afternoon will bring showers followed by stronger northwesterly winds. High pressure begins to build in behind the front Saturday night into Sunday, accompanied by cooler and drier air through the beginning of next week. The primary concern for a 24-hour delay is Liftoff Winds.

		Probability of Violating Weather Constraints						
Launch Day	10%	Primary Concerns: Cumulus Cloud Rule						
	Weather Conditions				Additional Risk Criteria			
	Weather:	Isolated Showers	Clouds				Upper-Level Wind Shear:	Low
			Type	Coverage	Base (ft)	Tops (ft)	Booster Recovery Weather:	Low
	Visibility:	7 miles	Stratocumulus	Scattered	5,000	8,000	Solar Activity:	Low
Temp/Humidity:	68°F / 90%	Cirrus	Broken	27,000	30,000			
Liftoff Winds (200'):	320° 7-12 mph							
		Probability of Violating Weather Constraints						
24-Hour Delay	<10%	Primary Concerns: Liftoff Winds						
	Weather Conditions				Additional Risk Criteria			
	Weather:	None	Clouds				Upper-Level Wind Shear:	Low
			Type	Coverage	Base (ft)	Tops (ft)	Booster Recovery Weather:	Low
	Visibility:	7 miles	Cirrus	Few	30,000	34,000	Solar Activity:	Low
Temp/Humidity:	63°F / 80%							
Liftoff Winds (200'):	340° 15 - 20 mph							
<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		As Needed						