



# Launch Mission Execution Forecast

**Mission:** Falcon 9 StarlinkV1.0 L-16

**Issued:** 15 Jan 2021 / 0930L (1430Z)

**Valid:** 18 Jan 2021 / 0840 – 0851L (1340 – 1351Z)



**Forecast Discussion:** A cold front will move through the area this evening into early Saturday morning bringing rain showers and breezy winds. Conditions will begin to improve after frontal passage as high pressure dominates the area leading to few clouds over the Cape. On Monday, moisture from a low pressure system east of the Cape will inundate the area, causing an increase in cloud cover that tapers off through the day as the low moves further northeast. This will lead to broken low-topped cumulus and stratocumulus that will remain through the launch window. An increased pressure gradient will cause the west to northwest winds to be elevated. Thick Cloud Layer Rule and Cumulus Cloud Rule will be the primary concerns for the launch day.

As the front moves out of the area, high pressure will begin to build in over the Space Coast late Monday night causing drier conditions and winds from the north to northeast. A few cumulus clouds could develop over the coast in the morning, leading to Cumulus Cloud rule being the primary concern for a Tuesday launch attempt.

		Probability of Violating Weather Constraints					
<b>Launch Day</b>	<b>30%</b>	<b>Primary Concerns:</b> Thick Cloud Layer Rule, Cumulus Cloud Rule					
	Weather Conditions				Additional Risk Criteria		
	<b>Weather/Visibility:</b> None / 7 mi.	<b>Clouds</b>				<b>Upper-Level Wind Shear:</b>	Moderate
	<b>Temp/Humidity:</b> 60°F / 70%	Type	Coverage	Base (ft)	Tops (ft)	<b>Booster Recovery Weather:</b>	Moderate
<b>Liftoff Winds (200'):</b> 270° 15- 20 mph	Cumulus	Broken	2,500	6,000	<b>Solar Activity:</b>	Low	
	Cirrocumulus	Few	29,000	32,000			
		Probability of Violating Weather Constraints					
<b>24-Hour Delay</b>	<b>10%</b>	<b>Primary Concerns:</b> Cumulus Cloud Rule					
	Weather Conditions				Additional Risk Criteria		
	<b>Weather/Visibility:</b> None / 7 mi.	<b>Clouds</b>				<b>Upper-Level Wind Shear:</b>	Low
	<b>Temp/Humidity:</b> 60°F / 50%	Type	Coverage	Base (ft)	Tops (ft)	<b>Booster Recovery Weather:</b>	Low
<b>Liftoff Winds (200'):</b> 020° 10 - 15 mph	Cumulus	Few	2,500	4,000	<b>Solar Activity:</b>	Low	
<b>Next Forecast Will Be Issued</b>		16 JAN 2021					

**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.