



# Launch Mission Execution Forecast

**Mission:** Falcon 9 mPOWER-B

**Issued:** 28 Apr 2023 / 0845L (1245Z)

**Valid:** 28 Apr 2023 / 1712 – 1840L (2112 – 2240Z)



**Forecast Discussion:** The very active weather pattern that produced severe storms over the Spaceport yesterday will remain in place today and into the weekend. Showers and thunderstorms will again develop this afternoon due to several pulses of energy aloft, low level offshore flow, and plentiful moisture. Although instability is not quite as high as the last two days, strong to isolated severe thunderstorms are still possible in the afternoon and evening. The main concerns for today’s attempt are the rules associated with these storms, including the Cumulus Cloud Rule, Surface Electric Fields Rule, Lightning Rule, and Anvil Cloud Rules.

On Saturday, the pattern will again favor another round of afternoon/evening thunderstorms. Offshore flow and energy aloft, coupled with sea breeze development, will once again promote storm development along the east coast of the state. The POV and main concerns are the same as the primary day.

		Probability of Violating Weather Constraints <sup>1</sup>					
<b>Launch Day</b>	<b>80%</b>	<b>Primary Concerns:</b> Cumulus Cloud Rule, Surface Electric Fields Rule, Anvil Cloud Rules, Lightning Rule					
	Weather Conditions				Additional Risk Criteria <sup>2</sup>		
	<b>Weather/Visibility:</b> Sct Storms / 5 mi.	<b>Clouds</b>				<b>Upper-Level Wind Shear:</b>	Low
		Type	Coverage	Base (ft)	Tops (ft)	<b>Booster Recovery Weather:</b>	Low
<b>Temp/Humidity:</b> 77°F / 90%	Cumulus	Broken	3,000	20,000	<b>Solar Activity:</b>	Low	
<b>Liftoff Winds (200'):</b> 220° 15 - 20 mph	Cirrostratus	Broken	24,000	30,000			
		Probability of Violating Weather Constraints					
<b>24-Hour Delay</b>	<b>80%</b>	<b>Primary Concerns:</b> Cumulus Cloud Rule, Surface Electric Fields Rule, Anvil Cloud Rules, Lightning Rule					
	Weather Conditions				Additional Risk Criteria		
	<b>Weather/Visibility:</b> Sct Storms / 5 mi.	<b>Clouds</b>				<b>Upper-Level Wind Shear:</b>	Low
		Type	Coverage	Base (ft)	Tops (ft)	<b>Booster Recovery Weather:</b>	Low
<b>Temp/Humidity:</b> 77°F / 90%	Cumulus	Broken	3,000	20,000	<b>Solar Activity:</b>	Low	
<b>Liftoff Winds (200'):</b> 160° 15 - 20 mph	Cirrostratus	Broken	24,000	30,000			
<b>Notes</b>	1. The Probability of Violation (PoV) is the chance of a local safety or customer constraint violation occurring any random time during the launch window.						
	2. 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 <a href="https://www.patrick.spaceforce.mil/Portals/14/Weather/LaunchFAQ.pdf">https://www.patrick.spaceforce.mil/Portals/14/Weather/LaunchFAQ.pdf</a> for more information					
<b>Next Forecast Will Be Issued</b>		As Required					