



# Launch Mission Execution Forecast



**Mission:** Falcon 9 BlueBird-1

**Issued:** 11 Sep 2024 / 1000L (1400Z)

**Valid:** 12 Sep 2024 / 0452 – 0852L (0852 – 1252Z)

**Forecast Discussion:** A stalled front stretching across the region and above normal atmospheric moisture will continue elevated chances of showers and thunderstorms across the Spaceport this week. The front may be right overhead for the initial launch window early Thursday morning, and combined with a land breeze, the Probability of Violation will be on the higher end, with the Cumulus Clouds Rule, Thick Cloud Layers Rule and Surface Electric Fields Rule all possible. The front is expected to linger near the region Friday morning, however there is a small chance it could lift further north. The front lifting could limit the amount of convective activity near the Spaceport during the backup window, however confidence on this occurring is low. The PoV Friday morning is slightly lower, with the Cumulus Clouds Rule and Surface Electric Fields Rule a possibility during the period.

		Probability of Violating Weather Constraints <sup>1</sup>				
<b>Launch Day</b>	<b>70%</b>	<b>Primary Concerns:</b> Cumulus Clouds Rule, Thick Cloud Layers Rule, Surface Electric Fields Rule				
	Weather Conditions				Additional Risk Criteria <sup>2</sup>	
	<b>Weather/Visibility:</b> Sct Showers / 7 mi.	<b>Clouds</b>			<b>Upper-Level Wind Shear:</b> Low	
	<b>Temp/Humidity:</b> 78°F / 96%	Type	Coverage	Base (ft)	Tops (ft)	
<b>Liftoff Winds (200'):</b> 130° 10 - 15 mph	Cumulus	Scattered	2,500	20,000	<b>Solar Activity:</b> Low-Mod	
	Altostratus	Overcast	15,000	20,000		
		Probability of Violating Weather Constraints				
<b>24-Hour Delay</b>	<b>50%</b>	<b>Primary Concerns:</b> Cumulus Clouds Rule, Surface Electric Fields Rule				
	Weather Conditions				Additional Risk Criteria	
	<b>Weather/Visibility:</b> Sct Showers / 7 mi.	<b>Clouds</b>			<b>Upper-Level Wind Shear:</b> Low	
	<b>Temp/Humidity:</b> 78°F / 94%	Type	Coverage	Base (ft)	Tops (ft)	
<b>Liftoff Winds (200'):</b> 170° 7 - 11 mph	Cumulus	Scattered	2,500	13,000	<b>Solar Activity:</b> Low	
	Altostratus	Scattered	17,000	20,000		
<b>Notes</b>	<ol style="list-style-type: none"> <li>The Probability of Violation (PoV) is the chance of a local safety or customer constraint violation occurring any random time during the launch window.</li> <li>Additional Risk Criteria, which are not included in the PoV, are mission-specific constraints that may not include all phenomena within each risk factor.</li> </ol>					
	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 needed				