



# Launch Mission Execution Forecast

**Mission:** Falcon 9 Starlink 4-35

**Issued:** 21 Sep 2022 / 0800L (1200Z)

**Valid:** 24 Sep 2022 / 1927 – 2145L (2327 – 25/0145Z)



**Forecast Discussion:** Weak onshore flow is expected across the Space Coast today as we transition to drier conditions over the next couple of days. Elsewhere, Hurricane Fiona will continue to churn northwards towards Bermuda, creating a large area of elevated seas from Florida to North Carolina. On Friday, Fiona is forecast to accelerate northeastward as it passes Bermuda, keeping waves elevated from Florida northwards. A trailing band of convergence from Fiona is likely to develop when the pressure gradient intensifies as high pressure builds along the eastern US. As this band works its way into the area, it will produce elevated winds as well as squally showers along the Space Coast. The trailing convergence band should push south of the Spaceport Saturday as high pressure builds in, allowing winds and waves to diminish. The primary weather concerns for Saturday evening are the Cumulus Cloud Rule and Liftoff Winds.

On Sunday, the pressure gradient relaxes, leaving the Spaceport in light easterly flow. This should provide more favorable launch conditions by evening, with only a lingering concern for the Cumulus Cloud Rule.

Launch Day		Probability of Violating Weather Constraints <sup>1</sup>							
Launch Day		<b>40%</b>		Primary Concerns: Cumulus Cloud Rule, Liftoff Winds					
		Weather Conditions				Additional Risk Criteria <sup>2</sup>			
		Weather/Visibility: None / 7 mi.		Type		Clouds		Upper-Level Wind Shear: Low	
		Temp/Humidity: 78°F / 82%		Cumulus		Coverage	Base (ft)	Tops (ft)	Booster Recovery Weather: Low-Mod
Liftoff Winds (200'): 060° 17 - 22 mph		Altocumulus		Scattered	12,000	15,000	Solar Activity: Low		
24-Hour Delay		Probability of Violating Weather Constraints							
24-Hour Delay		<b>20%</b>		Primary Concerns: Cumulus Cloud Rule					
		Weather Conditions				Additional Risk Criteria			
		Weather/Visibility: None / 7 mi.		Type		Clouds		Upper-Level Wind Shear: Low	
		Temp/Humidity: 77°F / 82%		Cumulus		Coverage	Base (ft)	Tops (ft)	Booster Recovery Weather: Low
Liftoff Winds (200'): 090° 5 - 10 mph		Altocumulus		Scattered	12,000	15,000	Solar Activity: Low		
Notes	<ol style="list-style-type: none"> <li>The Probability of Violation (PoV) is the chance of a local safety or customer constraint violation occurring anytime 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								
Next Forecast Will Be Issued		22 Sep 22							