



# Launch Mission Execution Forecast



**Mission:** Falcon 9 Intelsat G-31/G-32

**Issued:** 11 November 2022 / 0730L (1230Z)

**Valid:** 12 November 2022 / 1106 – 1307L (1606 – 1807Z)

**Forecast Discussion:** Nicole is pushing along the spine of the Appalachians and into Mid-Atlantic States while trailing a trough that could ignite a few isolated showers across Central Florida this evening. Elsewhere, a frontal boundary is forming in the western Gulf Coast States. On Saturday, Nicole is forecast to be over New England, while the frontal boundary works its way into the Florida Panhandle, leaving favorable weather conditions across the Spaceport. The primary weather concern for a launch attempt Saturday is the Cumulus Cloud Rule.

On Sunday, the boundary will push into Central Florida and likely move through the Spaceport during the launch window. While the boundary is in the vicinity, cloudiness and isolated showers can be expected. Conditions should clear after passage, though winds will be gusty from the north. The primary weather concerns for a Sunday attempt are Liftoff Winds, the Cumulus Cloud Rule, and the Thick Cloud Layer Rule depending on the location of the boundary. Weather later in the launch window appears to be better, as it gives the best chance for the boundary to have moved through the Spaceport.

Launch Day		Probability of Violating Weather Constraints <sup>1</sup>					
		<b>10%</b>		Primary Concerns: Cumulus Cloud Rule			
		Weather Conditions				Additional Risk Criteria <sup>2</sup>	
		Weather/Visibility: None / 7 mi.		<b>Clouds</b> Type Coverage Base (ft) Tops (ft)		Upper-Level Wind Shear: Low	
		Temp/Humidity: 77°F / 82%		Stratocumulus Scattered 3,000 5,000		Recovery Conditions: Low	
		Liftoff Winds (200'): 250° 5 - 10 mph				Solar Activity: Low	
24-Hour Delay		Probability of Violating Weather Constraints					
		<b>40% → 20%</b>		Primary Concerns: Liftoff Winds, Cumulus Cloud Rule, Thick Cloud Layer Rule			
		Weather Conditions				Additional Risk Criteria	
		Weather/Visibility: Isol Showers / 7 mi.		<b>Clouds</b> Type Coverage Base (ft) Tops (ft)		Upper-Level Wind Shear: Low-Mod	
		Temp/Humidity: 72°F / 72%		Cumulus Scattered 3,000 18,000		Recovery Conditions: Low	
		Liftoff Winds (200'): 350° 15 - 20 mph		Altostratus Broken 16,000 20,000		Solar Activity: Low	
Notes		1. The Probability of Violation (PoV) is the chance of a local safety or customer constraint violation occurring anytime 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					
Next Forecast Will Be Issued		As Required					