



Launch Mission Execution Forecast



Mission: Space Launch System - Artemis I

Issued: 28 Aug 2022 / 0645L (1045Z)

Valid: 29 Aug 2022 / 0833 – 1033L (1233 – 1433Z)

Forecast Discussion: With a weakening of the trough to the north, and a retreatment of the Bermuda high, a pattern shift back to south-southeast flow is underway. Expect showers and storms to blossom along the east coast of Florida and move inland, away from the Spaceport, early this afternoon. Overall, a shorter duration of storms is likely today. Overnight, lingering remnant showers over the peninsula may spread back to the coast, but most should dissipate after midnight.

The southeasterly flow regime will remain in place for the opening of the initial launch window Monday morning. While the overall lightning threat seems low, onshore flow will promote scattered showers across the Atlantic waters through the launch window, with the risks lowest at the opening of the window, and highest at the end. As a result, the primary weather concerns for a Monday morning attempt will be the Cumulus Cloud Rule, Surface Electric Fields Rule, and the Flight Through Precipitation constraint.

Probability of Violating Weather Constraints ¹						
Launch Day	20→40%	Primary Concerns: Cumulus Cloud Rule, Surface Electric Fields Rule, Flight Through Precipitation				
	Weather Conditions				Additional Risk Criteria ²	
	Weather/Visibility: Sct Showers / 7 mi.	Clouds				Upper-Level Winds: Low Solar Activity: Low
	Temp/Humidity: 82°F / 90%	Type	Coverage	Base (ft)	Tops (ft)	
Liftoff Winds (132'): 150° 5-10 mph	Cumulus	Scattered	2,500	20,000		
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 https://www.patrick.spaceforce.mil/Portals/14/Weather/LaunchFAQ.pdf for more information						
Next Forecast Will Be Issued		As required				