



Launch Mission Execution Forecast



Mission: Space Launch System - Artemis I

Issued: 26 Aug 2022 / 0700L (1100Z)

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

Forecast Discussion: An unsettled weather pattern will continue across Central Florida through Saturday as a weak trough to the north keeps predominant steering flow out of the south-southwest. This will favor stormy afternoons and evenings as the sea breeze collision favors the east coast. As usual, showers and storms will decrease overnight. On Sunday, a pattern shift back to south-southeast flow is expected, which should decrease the coverage of the showers and thunderstorms along the Space Coast. This flow regime will remain in place for the opening of the initial launch window Monday morning. While the overall lightning threat seems low, this onshore flow regime will promote scattered showers across the Atlantic waters through the launch window. 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	30% Primary Concerns: Cumulus Cloud Rule, Surface Electric Fields Rule, Flight Through Precipitation												
	<table border="1"> <thead> <tr> <th colspan="2">Weather Conditions</th> <th colspan="2">Additional Risk Criteria²</th> </tr> </thead> <tbody> <tr> <td>Weather/Visibility: Sct Showers / 7 mi.</td> <td>Clouds</td> <td rowspan="3">Upper-Level Winds: Low</td> <td rowspan="3">Solar Activity: Low</td> </tr> <tr> <td>Temp/Humidity: 82°F / 90%</td> <td>Type Coverage Base (ft) Tops (ft)</td> </tr> <tr> <td>Liftoff Winds (132'): 140° 5-10 mph</td> <td>Cumulus Scattered 2,500 20,000</td> </tr> </tbody> </table>	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'): 140° 5-10 mph	Cumulus Scattered 2,500 20,000
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Notes	<p>1. The Probability of Violation (PoV) is the chance of a local safety or customer constraint violation occurring anytime during the launch window.</p> <p>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.</p> <p>See https://www.patrick.spaceforce.mil/Portals/14/Weather/LaunchFAQ.pdf for more information</p>												

Next Forecast Will Be Issued 27 Aug 2022