



# Launch Mission Execution Forecast

**Mission:** Falcon Heavy GOES-U

**Issued:** 22 Jun 2024 / 1300L (1700Z)

**Valid:** 25 Jun 2024 / 1701 – 1931L (2101 – 2331Z)



**Forecast Discussion:** As Invest AL92 moves onshore near the Georgia coast, deep tropical moisture will remain over the Florida peninsula through next week. The surface Atlantic ridge axis will begin to slide southwards over the next several days, eventually making its way just south of the Spaceport by Monday. This will cause prevailing low-level winds to shift to an offshore direction before the afternoon sea breeze develops. The above average levels of moisture, combined with the southwesterly flow and sufficient instability, will increase shower and storm chances each afternoon next week. On both Tuesday and Wednesday, the east coast sea breeze will form and trigger showers/storms in the early to mid-afternoon, before the evening launch window opens. Due to the offshore flow being relatively light, the sea breeze front will likely be able to migrate inland as the afternoon progresses. However, with the westerly steering and upper-level flow, the storms and their associated anvil clouds will slowly migrate eastwards back towards the coast, leading to several Lightning Launch Commit Criteria concerns related to these convective clouds. Given the evening launch window, the probability of violation is elevated for both the launch and back-up days, with the primary concerns being the Cumulus Cloud, Anvil Cloud, and Surface Electric Fields Rules.

Probability of Violating Weather Constraints <sup>1</sup>																													
<b>Launch Day</b>	<b>70%</b> Primary Concerns: Cumulus Cloud Rule, Anvil Cloud Rules, Surface Electric Fields Rule																												
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<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>	23 Jun 2024																												