



# Launch Mission Execution Forecast

**Mission:** Falcon 9 Starlink 6-14

**Issued:** 07 Sep 2023 / 1100L (1500Z)

**Valid:** 08 Sep 2023 / 1932-2331L (08/2332-09/0331Z)



**Forecast Discussion:** High pressure and fair weather lingers over the Space Coast for one last day. By tomorrow, a mid-level shortwave trough will push over the Southeast and provide increased moisture and instability. Thunderstorm development is likely tomorrow afternoon along sea breeze boundaries in Central Florida. This could become a Surface Electric Fields Rule or Lightning Rule concern towards the beginning of the window on Friday. The primary concern will be the Cumulus Cloud Rule and Anvil Rules as westerly upper-level flow may push anvil over the Space Coast from thunderstorm development in Central Florida.

By Saturday, the shortwave troughs departure creates less upper-level support and a more typical wet-season thunderstorm potential in the afternoon. Lingering thunderstorm activity over Central Florida may still impact the beginning of the back-up launch window but will likely be less pronounced than Friday.

| Launch Day                                    |  | Probability of Violating Weather Constraints <sup>1</sup>   |          |                                       |                                    |                                      |
|---|--|---|----------|---------------------------------------|------------------------------------|--------------------------------------|
| Launch Day                                    | <b>40→15%</b>  | Primary Concerns: Cumulus Cloud Rule, Anvil Cloud Rules, Surface Electric Fields Rule, Lightning Rule |          |                                       |                                    |                                      |
|   | Weather Conditions   |   |          | Additional Risk Criteria <sup>2</sup> |                                    |                                      |
|   | <b>Weather/Visibility:</b> Showers / 7 mi.   | <b>Clouds</b>   |          |                                       | <b>Upper-Level Wind Shear:</b> Low |                                      |
|   | <b>Temp/Humidity:</b> 82°F / 70%   | Type  | Coverage | Base (ft)                             | Tops (ft)                          | <b>Booster Recovery Weather:</b> Low |
| <b>Liftoff Winds (200'):</b> 160° 10 - 15 mph | Cumulus  | Scattered   | 3,000    | 8,000                                 | <b>Solar Activity:</b> Low         |                                      |
|   | Altostratus  | Broken  | 13,000   | 25,000                                |                                    |                                      |
| 24-Hour Delay                                 |  | Probability of Violating Weather Constraints  |          |                                       |                                    |                                      |
| 24-Hour Delay                                 | <b>30→10%</b>  | Primary Concerns: Cumulus Cloud Rule, Anvil Cloud Rules   |          |                                       |                                    |                                      |
|   | Weather Conditions   |   |          | Additional Risk Criteria              |                                    |                                      |
|   | <b>Weather/Visibility:</b> Showers / 7 mi.   | <b>Clouds</b>   |          |                                       | <b>Upper-Level Wind Shear:</b> Low |                                      |
|   | <b>Temp/Humidity:</b> 82°F / 65%   | Type  | Coverage | Base (ft)                             | Tops (ft)                          | <b>Booster Recovery Weather:</b> Low |
| <b>Liftoff Winds (200'):</b> 140° 10 - 15 mph | Cumulus  | Few   | 3,000    | 10,000                                | <b>Solar Activity:</b> Low         |                                      |
|   | Altostratus  | Broken  | 14,000   | 25,000                                |                                    |                                      |
| 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 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>           |  | As Needed   |          |                                       |                                    |                                      |