



# Launch Mission Execution Forecast

**Mission:** Falcon 9 Starlink 6-24

**Issued:** 20 Oct 2023 / 0930L (1330Z)

**Valid:** 21 Oct 2023 / 2216 – 22/0216L (22/0216 – 0616Z)



**Forecast Discussion:** Overall launch weather conditions look very favorable for a launch attempt this weekend. Today, a deep mid-level trough is digging into the Southeast and an associated weak cold front will move through the area tonight into tomorrow morning. Tomorrow, another shot of dry air will filter in as low-level winds shift to the west/northwest behind the front, and high pressure builds in the area. By the evening hours, it will be difficult to find a cloud in the sky besides a few upper-level cirrus clouds, and the only concern is the very small chance of bumping up against liftoff wind constraints due to the westerly flow.

On Sunday evening, high pressure remains in control with dry air in place. Some models are hinting at a weak boundary in the vicinity that may bring a few more coastal low-level clouds, but the very dry mid-level air should cap off any development from being a significant weather concern.

| Launch Day                          |  | Probability of Violating Weather Constraints <sup>1</sup> |                                      |           |           |  |                                      |
|-------------------------------------|--|---|--------------------------------------|-----------|-----------|--|--------------------------------------|
|                                     |  | <b>5%</b>   | Primary Concerns: Liftoff Winds      |           |           |  |                                      |
|                                     |  | Weather Conditions  |                                      |           |           | Additional Risk Criteria <sup>2</sup>  |                                      |
|                                     |  | <b>Weather/Visibility:</b> None / 7 mi.                   | <b>Clouds</b>                        |           |           | <b>Upper-Level Wind Shear:</b> Low-Mod |                                      |
|                                     |  | <b>Temp/Humidity:</b> 71°F / 60%                          | Type                                 | Coverage  | Base (ft) | Tops (ft)                              | <b>Booster Recovery Weather:</b> Low |
|                                     |  | <b>Liftoff Winds (200'):</b> 270° 7 - 12 mph              | Cirrus                               | Few       | 30,000    | 32,000                                 | <b>Solar Activity:</b> Low           |
| 24-Hour Delay                       |  | Probability of Violating Weather Constraints              |                                      |           |           |  |                                      |
|                                     |  | <b>5%</b>   | Primary Concerns: Cumulus Cloud Rule |           |           |  |                                      |
|                                     |  | Weather Conditions  |                                      |           |           | Additional Risk Criteria               |                                      |
|                                     |  | <b>Weather/Visibility:</b> None / 7 mi.                   | <b>Clouds</b>                        |           |           | <b>Upper-Level Wind Shear:</b> Low     |                                      |
|                                     |  | <b>Temp/Humidity:</b> 74°F / 65%                          | Type                                 | Coverage  | Base (ft) | Tops (ft)                              | <b>Booster Recovery Weather:</b> Low |
|                                     |  | <b>Liftoff Winds (200'):</b> 300° 5 - 10 mph              | Cumulus                              | Few       | 3,000     | 6,000                                  | <b>Solar Activity:</b> Low           |
|                                     |  |   | Cirrus                               | Scattered | 30,000    | 33,000                                 |                                      |
| 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 Required   |                                      |           |           |  |                                      |