Launch Mission Execution Forecast

Mission: Falcon 9 Starlink 12-18
Issued: 10 Feb 2025 / 1130L (1630Z)
Valid: 11 Feb 2025 / 1200 – 1600L (1700 – 2100Z)

Forecast Discussion: Aside from patchy morning fog, benign weather will continue across Central Florida through mid-week as we remain on the western fringe of a ridge axis. This will keep weak frontal boundaries pinned to our north and will promote continued above-average temperatures. With high temperatures reaching the 80-degree mark Tuesday, the sea breeze circulation may contribute to the formation low-topped showers in the afternoon. Therefore, we have added isolated showers into the forecast and are now tracking the Cumulus Cloud Rule as a distant concern for the primary launch window. On Wednesday, the flow dries out as a week frontal boundary shifts back north into the deep south, but the tightening pressure gradient will elevate winds at rocket level. However, wind speeds should still stay well below threshold, so Liftoff Winds will only be a distant concern for the backup launch opportunity Wednesday.

Launch Day

Probability of Violating Weather Constraints[1]

5% — **Primary Concerns**: Cumulus Cloud Rule

Weather Conditions

Weather/Visibility: Iso Showers / 7 mi.
Temp/Humidity: 74°F / 75%
Liftoff Winds (200'): 160° 12 - 17 mph

Clouds			
Type	Coverage	Base (ft)	Tops (ft)
Cumulus	Scattered	2,000	7,000

Additional Risk Criteria[2]

Upper-Level Wind Shear: Low
Booster Recovery Weather: Low
Solar Activity: Low

24-Hour Delay

Probability of Violating Weather Constraints

5% — **Primary Concerns**: Liftoff Winds

Weather Conditions

Weather/Visibility: None / 7 mi.
Temp/Humidity: 75°F / 80%
Liftoff Winds (200'): 180° 20 - 25 mph

Clouds			
Type	Coverage	Base (ft)	Tops (ft)
Cumulus	Scattered	2,000	6,000

Additional Risk Criteria

Upper-Level Wind Shear: Low
Booster Recovery Weather: Low
Solar Activity: Low

Notes

1. *The Probability of Violation (PoV) is the chance of a local safety or customer constraint violation occurring any random time 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