Launch Mission Execution Forecast

Mission: Falcon 9 Starlink 4-3
Issued: 1 Dec 2021 / 1000L (1500Z)
Valid: 2 Dec 2021 / 1657 – 1857L (2157 – 2357Z)

Forecast Discussion: Surface high pressure will remain in control of the weather from the eastern Gulf of Mexico, the southeast US and the adjacent Atlantic waters. Low level moisture will continue to be rather limited so any cumulus clouds that are able to develop will be very isolated. The primary concern for launch day will be the Cumulus Cloud Rule.

In the event of a 24-hour delay, conditions are not expected to change. The surface ridge remains firmly entrenched over the northeastern Gulf of Mexico. Once again, expect meager moisture available for cloud development. The primary concern for the back up day will be the Cumulus Cloud Rule.

Launch Day

Probability of Violating Weather Constraints

<10% | **Primary Concerns**: Cumulus Cloud Rule

Weather Conditions

Weather/Visibility:	None / 7 mi.
Temp/Humidity:	69°F / 70%
Liftoff Winds (200'):	040° 10 - 15 mph

Clouds

Type	Coverage	Base (ft)	Tops (ft)
Cumulus	Few	3,000	6,000

Additional Risk Criteria

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

24-Hour Delay

Probability of Violating Weather Constraints

<10% | **Primary Concerns**: Cumulus Cloud Rule

Weather Conditions

Weather/Visibility:	None / 7 mi.
Temp/Humidity:	68°F / 70%
Liftoff Winds (200'):	030° 10 - 15 mph

Clouds

Type	Coverage		Tops (ft)
Cumulus	Few	3,000	6,000

Additional Risk Criteria

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

Note: The Probability of Violation (POV) is the chance that a Lightning Launch Commit Criteria (LLCC) or certain user constraints (surface winds, precipitation, and temperatures, etc.) will be violated during the launch window. It does not take into account upper-level wind shear, booster recovery weather, and solar activity.

Next Forecast Will Be Issued | As Required