Launch Mission Execution Forecast

Mission: Falcon 9 Starlink 5-10
Issued: 28 Mar 2023 / 0845L (1245Z)
Valid: 29 Mar 2023 / 1601 – 1949L (2001 – 2349Z)

Forecast Discussion: Expect another very warm day across Central Florida as humidity rises ahead of an incoming frontal boundary. Pre-frontal showers will slide through the Spaceport in the late afternoon and evening hours, with the actual surface boundary passing after sunrise Wednesday morning. Despite the southern placement of the surface front Wednesday afternoon, zonal mid-level flow will keep a deck of altostratus clouds lingering across much of the eastern Gulf of Mexico and North/Central Florida into the evening. As a result, the main concern for the primary launch window will be the Thick Cloud Layers Rule, followed by Liftoff Winds as a distant second.

High pressure builds into the eastern US Thursday, bringing clearing skies and veering winds onshore. The only weather concern for the backup launch window will be for Liftoff Winds.

Launch Day

Probability of Violating Weather Constraints[1]

40%

Primary Concerns: Thick Cloud Layers Rule, Liftoff Winds

Weather Conditions

Weather/Visibility: None / 7 mi.
Temp/Humidity: 73°F / 60%
Liftoff Winds (200'): 020° 17 - 22 mph

Clouds

Type	Coverage	Base (ft)	Tops (ft)
Stratus	Broken	3,000	6,000
Altostratus	Broken	18,000	22,000

Additional Risk Criteria[2]

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

24-Hour Delay

Probability of Violating Weather Constraints

15%

Primary Concerns: Liftoff Winds

Weather Conditions

Weather/Visibility: None / 7 mi.
Temp/Humidity: 76°F / 50%
Liftoff Winds (200'): 080° 15 – 20 mph

Clouds

Type	Coverage	Base (ft)	Tops (ft)
Stratocumulus	Few	3,500	4,500

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