



Launch Mission Execution Forecast

Mission: Falcon 9 Starlink 4-16

Issued: 26 Apr 2022 / 0800L (1200Z)

Valid: 29 Apr 2022 / 1723 – 1744L (2123 – 2144Z)



Forecast Discussion: Weakening high pressure situated across the western Atlantic will gradually be replaced by a frontal boundary approaching from the northwest Wednesday into early Thursday. This system will bring the threat of scattered showers and possibly a few thunderstorms at that time. This front is expected to slowly sag south of the local area on Friday, although the tail end of the boundary will likely linger not far away across south Florida. Thus, remnant cumulus clouds associated with the front are the main weather concern for launch day.

For a 24-hour delay, weak high pressure retreating from the area may allow the frontal boundary to the south to lift somewhat closer to the Spaceport, with clouds associated with this feature continuing to be the primary weather concern.

Probability of Violating Weather Constraints¹

Launch Day

20%

Primary Concerns: Cumulus Cloud Rule

Weather Conditions

Additional Risk Criteria²

Weather/Visibility:		Clouds				Upper-Level Wind Shear:	
Temp/Humidity:		Type	Coverage	Base (ft)	Tops (ft)	Booster Recovery Weather:	
None / 7 mi.		Cumulus	Scattered	4,000	8,000	Low	
76°F / 65%						Low	
Liftoff Winds (200'): 100° 15 - 20 mph						Solar Activity: Low	

Probability of Violating Weather Constraints

24-Hour Delay

20%

Primary Concerns: Cumulus Cloud Rule

Weather Conditions

Additional Risk Criteria

Weather/Visibility:		Clouds				Upper-Level Wind Shear:	
Temp/Humidity:		Type	Coverage	Base (ft)	Tops (ft)	Booster Recovery Weather:	
None / 7 mi.		Cumulus	Scattered	3,500	10,000	Low	
77°F / 65%						Low	
Liftoff Winds (200'): 130° 12 - 17 mph						Solar Activity: Low	

Notes

- The Probability of Violation (PoV) is the chance of a local safety or customer constraint violation occurring anytime during the launch window.
- 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

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

27 APR 2022