



Launch Mission Execution Forecast

Mission: Falcon 9 Starlink 4-35

Issued: 22 Sep 2022 / 0800L (1200Z)

Valid: 24 Sep 2022 / 1927 – 2145L (2327 – 25/0145Z)



Forecast Discussion: Drying, northerly flow is expected in Central Florida today, lowering rain and lightning chances. Elsewhere, Hurricane Fiona continues to churn northwards towards Bermuda, creating an extensive area of high seas from Florida to North Carolina. On Friday, Fiona is forecast to accelerate northeastward as it passes Bermuda, keeping waves elevated from Florida northwards. A trailing band of convergence from Fiona is likely to develop when high pressure moves into the eastern US. As this band works its way south to our area, it will produce elevated winds as well as squally showers along the coast. The trailing convergence band should push south of the Spaceport Saturday as high pressure builds in, allowing winds and waves to diminish. The primary weather concerns for a Saturday evening launch attempt are the Cumulus Cloud Rule and Liftoff Winds associated with the convergence band.

On Sunday, the pressure gradient relaxes, leaving the Spaceport in light easterly flow. This should provide more favorable launch conditions by evening, with only a lingering concern for the Cumulus Cloud Rule in the event the convergence band pushes back northwards quicker than expected.

Launch Day	Probability of Violating Weather Constraints ¹					
	30%	Primary Concerns: Cumulus Cloud Rule, Liftoff Winds				
	Weather Conditions				Additional Risk Criteria ²	
	Weather/Visibility: Isold Showers / 7 mi.	Clouds		Upper-Level Wind Shear: Low		
	Type	Coverage	Base (ft)	Tops (ft)	Booster Recovery Weather: Low	
Temp/Humidity: 78°F / 82%	Cumulus	Scattered	3,000	12,000	Solar Activity: Low	
Liftoff Winds (200'): 070° 17 - 22 mph	AltoCumulus	Scattered	14,000	16,000		

24-Hour Delay	Probability of Violating Weather Constraints					
	20%	Primary Concerns: Cumulus Cloud Rule				
	Weather Conditions				Additional Risk Criteria	
	Weather/Visibility: None / 7 mi.	Clouds		Upper-Level Wind Shear: Low		
	Type	Coverage	Base (ft)	Tops (ft)	Booster Recovery Weather: Low	
Temp/Humidity: 77°F / 82%	Cumulus	Few	3,000	10,000	Solar Activity: Low	
Liftoff Winds (200'): 100° 10 - 15 mph	AltoCumulus	Scattered	12,000	15,000		

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

Next Forecast Will Be Issued 23 Sep 22