

Launch Mission Execution Forecast

Mission: Falcon 9 mPOWER-A

Issued: Valid:

ed: 15 Dec 2022 / 0830L (1330Z) 16 Dec 2022 / 1621 – 1749L (2121 – 2248Z)



Forecast Discussion: Launch conditions will be favorable tomorrow after a cold front pushes through the area today. A squall line associated with the front will weaken as it moves through central Florida this afternoon, but there should still be enough energy for strong to severe storms in the area. After the front pushes through, drier and cooler air will filter in by tomorrow afternoon. The only concern for Friday's attempt is the negligible risk of a Thick Cloud Layers Rule violation from any lingering mid-level cloud cover.

By Saturday, the front will remain to our south, but a mid-level disturbance will bring additional moisture from the Gulf, increasing cloud cover by the afternoon and rain chances by the evening. Therefore, launch conditions will be less favorable on Saturday with the main concern remaining the Thick Cloud Layers Rule.

	Probability of Violating Weather Constraints ¹										
ich Day	<10%	% Primary Concerns: Thick Cloud Layers Rule									
	Weather Conditions								Additional Risk Criteria ²		
aunch	Weather/Visibility: None / 7 mi.			ni.	Clouds Type Coverage Base (ft) Tops (ft)				Upper-Level Wind Shear:	Low	
Ľ	Temp/Humid	ity:	65°F / 55%	, D	Altocumulus	Few	10,000	12,000	Booster Recovery Weather:	Low	
	Liftoff Winds	(200') :	360° 12 - 1	I7 mph					Solar Activity:	Low	
	Probability of Violating Weather Constraints										
Delay	40% Primary Concerns: Thick Cloud Layers Rule										
	Weather Conditions								Additional Risk Criteria		
24-Hour	Weather/Visibility: Isol Showers		ers / 7 mi.	Туре	Cloud: Coverage	S Base (ft)	Tops (ft)	Upper-Level Wind Shear:	Low		
24	Temp/Humidity: 68°F / 70%		, 0	Altostratus	Broken	7,000	12,000	Booster Recovery Weather:	Low		
	Liftoff Winds (200'): 040° 10 - 15 mph		I5 mph	Cirrostratus	Broken	25,000	30,000	Solar Activity:	Low		
Notes		he Probability of Violation (PoV) is the chance of a local safety or customer constraint violation occurring anytime during the launch window. dditional Risk Criteria, which are not included in the PoV, are mission-specific constraints that may not include all phenomena within each risk factor.									
Ž		See <u>https://www.patrick.spaceforce.mil/Portals/14/Weather/LaunchFAQ.pdf</u> for more information									