



Launch Mission Execution Forecast

Mission: Falcon 9 NASA Crew-7

Issued: 24 Aug 2023 / 0845L (1245Z)

Valid: 25 Aug 2023 / 0344Z - 0355L (0744Z - 0755Z)



Forecast Discussion: Weak backdoor boundary is overhead this morning, providing the focus for the enhanced Atlantic shower activity that's been moving into the Spaceport from the northeast. The boundary brings with it a distinct enhanced moisture band, but models are in good agreement that the boundary and its moisture will move through the area before stalling out just to the south later today. There is the potential for a weak surface low to develop along the boundary to the southeast, but at the moment its expected location looks to enhance dry air advecting into the Spaceport later today rather than aid shower development. While low topped onshore moving showers can't be ruled out heading into the primary launch window early Friday morning, conditions look less favorable for these showers than the past few days. The Cumulus Cloud Rule remains the main weather concern, primarily for any showers that move directly over the launch site.

The boundary washes out on Friday, with high pressure behind it weakening as it moves south into the state. There will continue to be a small threat for Atlantic showers into the weekend, though lower than Friday morning under weakening east-northeast flow and drier than normal conditions. The primary weather concern for the backup windows early Saturday and Sunday mornings will remain the Cumulus Cloud Rule.

Launch Day	Probability of Violating Weather Constraints ¹				
	10%	Primary Concerns: Cumulus Cloud Rule			
	Weather Conditions			Additional Risk Criteria ²	
	Weather/Visibility: None / 7 mi.	Type	Coverage	Base (ft)	Tops (ft)
Temp/Humidity: 81°F / 78%	Cumulus	Scattered	3,000	10,000	Ascent Corridor Recovery: Low
Liftoff Winds (200'): 050° 10 - 15 mph					Solar Activity: Low
24-Hour Delay	Probability of Violating Weather Constraints				
	5%	Primary Concerns: Cumulus Cloud Rule			
	Weather Conditions			Additional Risk Criteria	
	Weather/Visibility: None / 7 mi.	Type	Coverage	Base (ft)	Tops (ft)
Temp/Humidity: 80°F / 83%	Cumulus	Scattered	2,500	6,000	Ascent Corridor Recovery: Low
Liftoff Winds (200'): 050° 5 - 10 mph					Solar Activity: Low
48-Hour Delay	Probability of Violating Weather Constraints				
	5%	Primary Concerns: Cumulus Cloud Rule			
	Weather Conditions			Additional Risk Criteria	
	Weather/Visibility: None / 7 mi.	Type	Coverage	Base (ft)	Tops (ft)
Temp/Humidity: 80°F / 85%	Cumulus	Scattered	2,500	5,000	Ascent Corridor Recovery: Low
Liftoff Winds (200'): VRB 5 mph					Solar Activity: Low
Notes	<ol style="list-style-type: none"> 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		As Needed			