



Launch Mission Execution Forecast

Mission: Falcon 9 NASA Crew-7

Issued: 25 Aug 2023 / 0000L (0400Z)

Valid: 26 Aug 2023 / 0322L - 0333L (0722Z - 0733Z)



Forecast Discussion: The frontal boundary that pushed through earlier today has moved into South Florida this evening, allowing a notably drier airmass to work its way into the Spaceport. Beyond a few passing sprinkles moving onshore, weather will be quiet overnight. High pressure sliding south behind the boundary will weaken as it moves into Florida, but the gradient between the high, the remnant boundary, and TS Franklin as it lifts north of the islands well east of Florida will keep breezy northeasterly flow in place. With onshore flow a passing Atlantic shower can never be ruled out, but the airmass will remain dry enough that this threat will be very low. The primary weather concern for the launch windows early Saturday and Sunday mornings will remain the Cumulus Cloud Rule.

The pattern gets more complicated heading into early next week as what is expected to be Hurricane Franklin lifts north across the western Atlantic, and a tropical disturbance that is currently being monitored by the NHC for development potentially lifts out of the northwestern Caribbean. At the very least, expect a trend towards an increasingly unsettled pattern with a increasing chances for Atlantic showers.

Launch Day	Probability of Violating Weather Constraints ¹																
	5%	Primary Concerns: Cumulus Cloud Rule															
	Weather Conditions				Additional Risk Criteria ²												
	Weather/Visibility: None / 7 mi.	<table border="1"> <thead> <tr> <th colspan="4">Clouds</th> </tr> <tr> <th>Type</th> <th>Coverage</th> <th>Base (ft)</th> <th>Tops (ft)</th> </tr> </thead> <tbody> <tr> <td>Cumulus</td> <td>Scattered</td> <td>2,500</td> <td>8,000</td> </tr> </tbody> </table>			Clouds				Type	Coverage	Base (ft)	Tops (ft)	Cumulus	Scattered	2,500	8,000	Upper-Level Wind Shear:
Clouds																	
Type	Coverage	Base (ft)	Tops (ft)														
Cumulus	Scattered	2,500	8,000														
Temp/Humidity: 80°F / 83%				Ascent Corridor Recovery:	Low												
Liftoff Winds (200'): 030° 5 - 10 mph				Solar Activity:	Low												
24-Hour Delay	Probability of Violating Weather Constraints																
	5%	Primary Concerns: Cumulus Cloud Rule															
	Weather Conditions				Additional Risk Criteria												
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Cumulus	Scattered	2,500	5,000														
Temp/Humidity: 80°F / 85%				Ascent Corridor Recovery:	Low												
Liftoff Winds (200'): 110° 5 - 10 mph				Solar Activity:	Low												
48-Hour Delay	Probability of Violating Weather Constraints																
	20%	Primary Concerns: Cumulus Cloud Rule, Surface Electric Fields Rule															
	Weather Conditions				Additional Risk Criteria												
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Liftoff Winds (200'): 160° 5 - 10 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															