



Launch Mission Execution Forecast

Mission: Falcon 9 Axiom-3

Issued: 16 Jan 2024 / 1130L (1630Z)

Valid: 17 Jan 2024 / 1706 - 1717L (2206 - 2217Z)



Forecast Discussion: A stormy day is ahead for the Spaceport as a weak area of low pressure moves into North Florida and pulls a cold front through the peninsula later today. Cold and dry air will filter in behind the front on Wednesday as high-pressure slides across the southeastern US. No significant weather launch weather concerns are expected with an increasing stratocumulus deck as winds veer onshore.

The post-frontal high will slide off the southeastern US on Thursday, allowing local winds to veer out of the south-southeast. A weak inverted trough developing just off the east coast along with another warm front creeping north from South Florida will introduce small chances for showers to the Spaceport. With the airmass remain generally dry, these chances will be low, but will introduce a slightly higher chance for Cumulus Cloud Rule violations as well as Flight Through Precipitation.

The forecast for Friday has turned more uncertain given the interactions between another low-pressure system moving up the east coast, the old front draped across the Central peninsula, and another approaching cold front moving into the state. The trend has been for what rain chances there are to occur earlier in the day, with the secondary backup winds behind a northwest wind shift. Still, cumulus clouds and precipitation may linger into the afternoon.

Launch Day	Probability of Violating Weather Constraints ¹						
	<5%	Primary Concerns: Cumulus Cloud Rule					
	Weather Conditions				Additional Risk Criteria ²		
	Weather:	None	Clouds			Upper-Level Wind Shear:	Low
			Type	Coverage	Base (ft)	Tops (ft)	
	Visibility:	7 miles	Stratocumulus	Scattered	2,000	4,000	Ascent Corridor Recovery: Moderate
	Temp/Humidity:	55°F / 70%	Cirrostratus	Scattered	35,000	40,000	Booster Recovery Weather: Low
Liftoff Winds (200'):	010° 15 - 20 mph				Solar Activity:	Low	
24-Hour Delay	Probability of Violating Weather Constraints						
	10%	Primary Concerns: Cumulus Cloud Rule, Flight Through Precipitation					
	Weather Conditions				Additional Risk Criteria		
	Weather:	None	Clouds			Upper-Level Wind Shear:	Low
			Type	Coverage	Base (ft)	Tops (ft)	
	Visibility:	7 miles	Cumulus	Broken	3,000	11,000	Ascent Corridor Recovery: Moderate
	Temp/Humidity:	70°F / 80%	Cirrostratus	Broken	30,000	35,000	Booster Recovery Weather: Low
Liftoff Winds (200'):	170° 10 - 15 mph				Solar Activity:	Low	
48-Hour Delay	Probability of Violating Weather Constraints						
	25%	Primary Concerns: Cumulus Cloud Rule, Flight Through Precipitation					
	Weather Conditions				Additional Risk Criteria		
	Weather:	None	Clouds			Upper-Level Wind Shear:	Low-Mod
			Type	Coverage	Base (ft)	Tops (ft)	
	Visibility:	7 miles	Cumulus	Broken	3,000	15,000	Ascent Corridor Recovery: Moderate
	Temp/Humidity:	68°F / 80%	Cirrostratus	Broken	24,000	35,000	Booster Recovery Weather: Low
Liftoff Winds (200'):	290° 12 - 17 mph				Solar Activity:	Low	
Notes	1. The Probability of Violation (PoV) is the chance of a local safety or customer constraint violation occurring any random time during the launch window.						
	2. 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