



Launch Mission Execution Forecast

Mission: Falcon Heavy ViaSat-3.1

Issued: 26 Apr 2023 / 0830L (1230Z)

Valid: 26 Apr 2023 / 1924 – 2031L (2324 – 27/0031Z)



Forecast Discussion: The next upper-level disturbance currently moving across the northern Gulf of Mexico will swing through the state later today. Expect a pattern not to dissimilar to yesterday, with storms kicking off near the Spaceport around midday and lingering through the afternoon. Weak inverted surface trough along the coast induced by the stalled boundary to the north will give an extra boost to the seabreeze, which should help shift most storms inland of the Spaceport by early this evening. With the additional upper-level support, a few showers or storms lingering in the vicinity can't be ruled out, however the main weather concern will be associated with any anvil clouds streaming back across the Spaceport from ongoing convection to the west.

The daytime hours on Thursday still track to be the quietest of the week, though this does not translate to no activity. Instead, the area will be in between upper-level systems with the old front being well north of the Spaceport. Thursday will look closer to a typical summer day with warm and breezy southeasterly flow, and late morning to early afternoon storm development along the sea breeze translating inland. With steering flow veering southerly, storms may not be quite so quick to move west, but most storms are still expected to be inland by the backup launch window Thursday evening. Trailing anvil clouds and lingering storms will remain the main concerns.

		Probability of Violating Weather Constraints ¹				
Launch Day	50%	Primary Concerns: Anvil Cloud Rules, Surface Electric Fields Rule, Cumulus Cloud Rule				
	Weather Conditions				Additional Risk Criteria ²	
	Weather/Visibility: None / 7 mi.	Clouds			Upper-Level Wind Shear: Low	
	Temp/Humidity: 75°F / 85%	Type	Coverage	Base (ft)	Tops (ft)	Booster Recovery Weather: N/A
Liftoff Winds (200'): 070° 10 - 15 mph	Cumulus	Scattered	2,500	10,000	Solar Activity: Low	
	Cirrostratus	Broken	18,000	24,000		
		Probability of Violating Weather Constraints				
24-Hour Delay	40%	Primary Concerns: Anvil Cloud Rules, Cumulus Cloud Rule				
	Weather Conditions				Additional Risk Criteria	
	Weather/Visibility: None / 7 mi.	Clouds			Upper-Level Wind Shear: Low	
	Temp/Humidity: 76°F / 88%	Type	Coverage	Base (ft)	Tops (ft)	Booster Recovery Weather: N/A
Liftoff Winds (200'): 110° 12 - 17 mph	Cumulus	Scattered	3,500	12,000	Solar Activity: Low	
	Cirrostratus	Broken	24,000	34,000		
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				