



Launch Mission Execution Forecast

Mission: Falcon Heavy USSF-44

Issued: 31 Oct 2022 / 0900L (1300Z)

Valid: 1 Nov 2022 / 0940 – 1011L (1340 – 1411Z)



Forecast Discussion: A frontal boundary moving into the eastern Gulf of Mexico this morning will weaken as it moves into the state over the next 24 hours. Occasional Atlantic showers clipping the Spaceport will continue through the day ahead of the boundary. The front will slow as it moves into the state, not clearing Central Florida until Wednesday.

The threat for showers over land will be low going into the primary launch window Tuesday morning, with light winds bringing overnight fog and stratus that lingers into the window. The primary weather concern will be a rouge Atlantic shower or enhanced cumulus brushing the coast. There will be slight increase in shower chances during the backup window Wednesday morning as the front moves through. Increasing pressure gradient behind the front will bump up onshore flow into Thursday, bringing an increase in cumulus clouds and Atlantic showers for the secondary backup window Thursday morning.

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.	Clouds			Upper-Level Wind Shear: Low	
Temp/Humidity: 76°F / 85%	Type	Coverage	Base (ft)	Tops (ft)	Solar Activity: Low	
Liftoff Winds (200'): VRB 5 mph	Stratus	Scattered	1,500	2,500		
	Stratocumulus	Scattered	3,000	5,000		
24-Hour Delay	Probability of Violating Weather Constraints					
	20%	Primary Concerns: Cumulus Cloud Rule				
	Weather Conditions				Additional Risk Criteria	
	Weather/Visibility: None / 7 mi.	Clouds			Upper-Level Wind Shear: Low	
Temp/Humidity: 77°F / 85%	Type	Coverage	Base (ft)	Tops (ft)	Solar Activity: Low	
Liftoff Winds (200'): 030° 5 - 10 mph	Cumulus	Scattered	3,500	7,000		
48-Hour Delay	Probability of Violating Weather Constraints					
	20%	Primary Concerns: Cumulus Cloud Rule				
	Weather Conditions				Additional Risk Criteria	
	Weather/Visibility: None / 7 mi.	Clouds			Upper-Level Wind Shear: Low	
Temp/Humidity: 77°F / 70%	Type	Coverage	Base (ft)	Tops (ft)	Solar Activity: Low	
Liftoff Winds (200'): 020° 12 - 17 mph	Cumulus	Scattered	3,000	10,000		
Notes	1. The Probability of Violation (PoV) is the chance of a local safety or customer constraint violation occurring anytime 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				