



Launch Mission Execution Forecast

Mission Falcon Heavy USSF-52

Issued 27 Dec 23 /1200L (27/1700Z)

Valid 28 Dec 23 / 2007-2017L (29/0107-0117Z)



Forecast Discussion: An area of low pressure off the coast of the Carolinas will slowly move northeast through the day as a weak wave located in the Gulf of Mexico will move eastward across the central and southern portions of the state, bringing some spotty showers overnight and into Thursday morning. Much of the upper-level moisture associated with the wave will move off the coast by midday, leaving only low topped showers along the front to the west by the launch window. Therefore, the primary launch weather concern is the Cumulus Cloud Rule associated with any showers that may develop ahead and along the front. Expect much drier, cooler conditions Friday as high pressure builds in, so the sole launch weather concern for the backup attempt will be Liftoff Winds.

		Probability of Violating Weather Constraints ¹				
Launch Day	20%	Primary Concerns: Cumulus Cloud Rule				
	Weather Conditions				Additional Risk Criteria ²	
	Weather/Visibility: Isold Showers / 7 mi	Clouds		Base (ft)	Tops (ft)	
	Temp/Humidity: 62°F / 90%	Type	Coverage	3,000	8,000	
Liftoff Winds (200'): 240° 13 - 18 mph	Cumulus	Scattered	25,000	30,000		
		Upper-Level Wind Shear: Low-Mod Solar Activity: Low				
		Cirrus Broken 25,000 30,000				
		Probability of Violating Weather Constraints				
24-Hour Delay	5%	Primary Concerns: Liftoff Winds				
	Weather Conditions				Additional Risk Criteria	
	Weather/Visibility: None / 7 mi	Clouds		Base (ft)	Tops (ft)	
	Temp/Humidity: 55°F / 60%	Type	Coverage	3,000	6,000	
Liftoff Winds (200'): 290° 20 - 25 mph	Stratocumulus	Few	25,000	30,000		
		Upper-Level Wind Shear: Mod Solar Activity: Low				
		Cirrus Scattered 25,000 30,000				
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				