



Launch Mission Execution Forecast



Mission: Falcon 9 Transporter-3

Issued: 12 Jan 2022 / 0830L (1330Z)

Valid: 13 Jan 2022 / 1025 – 1054L (1525 – 1554Z)

Forecast Discussion: A high pressure center is sliding of the coast of the southeastern US this morning as a weak trough lingers offshore eastern Florida. The gradient between these two features will continue to bring breezy conditions to the Spaceport, along with a few passing showers. A fast moving upper level system still expected to cross the Gulf and Florida peninsula today and tonight, with its main effect bringing more cloud cover and additional showers. Most of this activity will be clearing mid-morning as a stronger area of low pressure develops along the eastern seaboard, but there will be a concern for enhanced mid-level clouds lingering into the primary launch window. The primary concern for a Thursday morning launch attempt will be for Thick Clouds and Cumulus Clouds.

The surface low will move out over the western Atlantic late Thursday into Friday, allowing northwesterly flow to reinforce the cool and dry air. Only a few Cumulus Clouds are expected as a weather concern for the backup launch opportunity Friday morning.

Launch Day	Probability of Violating Weather Constraints					
	30%	Primary Concerns: Thick Cloud Layer Rule, Cumulus Cloud Rule				
	Weather Conditions				Additional Risk Criteria	
	Weather/Visibility: None / 7 mi.	Clouds			Upper-Level Wind Shear: Low	
	Type	Coverage	Base (ft)	Tops (ft)		
Temp/Humidity: 63°F / 70%	Cumulus	Scattered	4,000	10,000	Booster Recovery Weather: Low	
Liftoff Winds (200'): 320° 10 - 15 mph	Altostratus	Scattered	15,000	19,000	Solar Activity: Low	

24-Hour Delay	Probability of Violating Weather Constraints					
	10%	Primary Concerns: Cumulus Cloud Rule				
	Weather Conditions				Additional Risk Criteria	
	Weather/Visibility: None / 7 mi.	Clouds			Upper-Level Wind Shear: Low	
	Type	Coverage	Base (ft)	Tops (ft)		
Temp/Humidity: 58°F / 60%	Cumulus	Few	3,500	5,000	Booster Recovery Weather: Low	
Liftoff Winds (200'): 320° 12 - 17 mph					Solar Activity: Low	

Note: The Probability of Violation (POV) is the chance that a Lightning Launch Commit Criteria (LLCC) or certain user constraints (surface winds, precipitation, and temperatures, etc.) will be violated during the launch window. It does not take into account upper-level wind shear, booster recovery weather, and solar activity.

Next Forecast Will Be Issued | As Needed