



Launch Mission Execution Forecast

Mission: Falcon 9 TurkSat-5A

Issued: 7 Jan 2021 / 0800L (1300Z)

Valid: 7 Jan 2021 / 2028 – 8/0028L (8/0128 – 0528Z)



Forecast Discussion: A strong low pressure system is moving across the Deep South this morning with its associated cold front draped along the Central Gulf Coast. This system will progress eastward through the day, with the cold front expected in North Florida this evening. Models continue to show the front breaking up as it crosses the state this evening, with the boundary itself and notable precipitation chances not expected to arrive until after the launch window. However, increasing clouds during the window will remain a watch item. The primary concern this evening remains cumulus clouds and thick clouds, especially in the latter half of the window.

The front will move through the Spaceport before daybreak Friday, though the influence of its parent low will keep a few showers in the forecast through the day. Conditions will be cooler and drier by evening, but scattered low topped cumulus and stratocumulus will linger into the launch window. While clouds are not expected to be tall, the cool airmass in place will make it easier for any more robust cumulus development to reach to colder temperatures. The primary weather concern for a launch attempt Friday evening will be cumulus clouds.

Launch Day	Probability of Violating Weather Constraints					
	30%	Primary Concerns: Cumulus Cloud Rule, Thick Cloud Layer Rule				
	Weather Conditions				Additional Risk Criteria	
	Weather/Visibility: None / 7 mi.	Clouds			Upper-Level Wind Shear: Moderate	
	Type	Coverage	Base (ft)	Tops (ft)		
Temp/Humidity: 68°F / 70%	Cumulus	Scattered	3,500	9,000	Booster Recovery Weather: Low	
Liftoff Winds (200'): 190° 17 - 22 mph	Cirrocumulus	Broken	18,000	25,000	Solar Activity: Low	

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	
	Type	Coverage	Base (ft)	Tops (ft)		
Temp/Humidity: 54°F / 68%	Cumulus	Scattered	2,500	4,500	Booster Recovery Weather: Moderate	
Liftoff Winds (200'): 290° 17 - 22 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
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