



Launch Mission Execution Forecast



Mission: Falcon 9 Turksat-5B

Issued: 15 Dec 2021 / 0830L (1330Z)

Valid: 18 Dec 2021 / 2258 – 19/0028L (19/0358 – 0528Z)

Forecast Discussion: The remnant low pressure across Florida responsible for recent showery weather will subside late today into tomorrow leading to improving weather conditions Thursday into Friday. High pressure across the central Atlantic will maintain an onshore component to the wind, becoming increasingly moist yet again over the weekend as a frontal boundary approaches from the northwest. Thus the primary weather concern for launch day is cumulus clouds potentially associated with showers.

For the delay day, the front is expected to settle nearby, allowing additional moisture convergence and a greater potential for showers and layered thick clouds.

		Probability of Violating Weather Constraints																			
Launch Day	20%	Primary Concerns: Cumulus Cloud Rule																			
	Weather Conditions			Additional Risk Criteria																	
	Weather/Visibility: Isol Showers / 7 mi.	<table border="1"> <thead> <tr> <th colspan="4">Clouds</th> </tr> <tr> <th>Type</th> <th>Coverage</th> <th>Base (ft)</th> <th>Tops (ft)</th> </tr> </thead> <tbody> <tr> <td>Cumulus</td> <td>Scattered</td> <td>3,000</td> <td>12,000</td> </tr> </tbody> </table>			Clouds				Type	Coverage	Base (ft)	Tops (ft)	Cumulus	Scattered	3,000	12,000	Upper-Level Wind Shear: Low				
	Clouds																				
Type	Coverage	Base (ft)	Tops (ft)																		
Cumulus	Scattered	3,000	12,000																		
Temp/Humidity: 69°F / 90%				Booster Recovery Weather: Low																	
Liftoff Winds (200'): 170° 10 - 15 mph				Solar Activity: Low																	
		Probability of Violating Weather Constraints																			
24-Hour Delay	40%	Primary Concerns: Cumulus Cloud Rule, Thick Cloud Layers Rule																			
	Weather Conditions			Additional Risk Criteria																	
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Type	Coverage	Base (ft)	Tops (ft)																		
Cumulus	Scattered	2,500	12,000																		
Altostratus	Broken	10,000	19,000																		
Temp/Humidity: 66°F / 93%				Booster Recovery Weather: Low																	
Liftoff Winds (200'): 030° 10 - 15 mph				Solar Activity: Low																	
<p><i>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.</i></p>																					
Next Forecast Will Be Issued		16 DEC 2021																			