



Launch Mission Execution Forecast

Mission: Falcon 9 TurkSat-5A

Issued: 4 Jan 2021 / 1200L (1700Z)

Valid: 6 Jan 2021 / 2028 – 7/0028L (7/0128 – 0528Z)



Forecast Discussion: High pressure will build across the central and eastern US through mid-week, bringing cool and dry conditions the next few days. Temperatures will gradually modify by Wednesday as winds turn onshore. An active southern stream upper level jet will bring broken high clouds that are expected to be too cold to be a thick cloud concern. The primary weather concern for a Wednesday evening launch attempt will be scattered cumulus clouds from the Atlantic moving onshore.

The next storm system will move along the Gulf coast through the day on Thursday, with the main surface low expected to cross Georgia into the Carolinas Thursday night. The associated cold front will move through the Florida panhandle on Thursday, moving through the peninsula late Thursday night. While the front itself is not forecast to arrive until after the Thursday evening launch window, increasing mid and high clouds and the potential for a passing shower will precede the boundary during the window. The primary weather concern for a Thursday evening launch attempt will be cumulus clouds and thick mid-level clouds.

Launch Day	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: 61°F / 60%	Cumulus	Scattered	3,500	6,000	Booster Recovery Weather: Moderate	
Liftoff Winds (200'): 060° 5 - 10 mph	Cirrus	Broken	25,000	35,000	Solar Activity: Low	

24-Hour Delay	Probability of Violating Weather Constraints					
	40%	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'): 200° 17 - 22 mph	Altostratus	Scattered	15,000	22,000	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 5 Jan 2021