



Launch Mission Execution Forecast

Mission: Falcon 9 Starlink L-17

Issued: 3 Feb 2021/ 1400L (1900Z)

Valid: 5 Feb 2021/ 0505 – 0525L (1005 – 1025Z)



Forecast Discussion: Another cold day is expected across the Space Coast as upper level troughing continues across the eastern US, maintaining cold air advection across the state. Breezy conditions will gradually diminish as the surface low near New England accelerates northeast and high pressure builds across Florida. Temperatures will struggle to reach the 50s today, despite the clear and sunny skies. Winds will drop to the single digits tonight, and radiational cooling will cause temperatures to fall into in the upper 30s tomorrow morning. Thursday, temperatures will begin to rebound into the upper 60s as winds veer out of the south on the backside of the exiting high pressure ridge. A quick change in the pattern occurs late Thursday as a cold front approaches the Deep South, causing winds to increase to 20-25 miles per hour during the primary launch window. As a result, the primary concern will be Liftoff Winds. Temperatures will be near 50 degrees during the backup window.

The cold front will slowly slide into the Deep South Friday, reaching northeast Florida Friday evening. The front will weaken and stall somewhere along the Florida Peninsula Saturday, with its position near or northwest of the Spaceport during the backup launch window. Isolated showers will be possible, but most of the moisture will be limited to the low levels of the atmosphere, alleviating thunderstorm concerns during the backup window. The primary concern will be the Cumulus Cloud Rule, with a slight concern for Liftoff Winds should the front not weaken as much as expected.

Probability of Violating Weather Constraints																					
Launch Day	30% Primary Concern: Liftoff Winds																				
	Weather Conditions																				
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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	4 Feb 2021																				