



Launch Mission Execution Forecast

Mission: SpaceX Falcon 9 Dragon Crew Demo-2

Issued: 30 May 2020 / 0800L (1200Z)

Valid: 30 May 2020 / 1522L (1922Z)



Forecast Discussion: A low-pressure area is moving into the Canadian Maritimes while trailing a frontal boundary along the Atlantic Coast States. This boundary will bring pre-frontal weather into the Atlantic and nudge the subtropical ridge axis over the Spaceport. This will impede the inland progression of the east coast sea breeze and, coupled with the westerly steering flow, push inland convection towards the Space Coast. The morning sounding shows instability in the moderate range, meaning the convection may hold off until after T-0. The primary concerns are flight through precipitation, as well as the anvil and cumulus cloud rules from the convection.

On Sunday, the late season frontal boundary will provide some added cloudiness over the Spaceport early, but will likely push just south of the area by T-0. The primary weather concerns for launch are flight through precipitation, the thick cloud layer rule, and the cumulus cloud rule, associated with the frontal boundary.

Monday and Tuesday will bring a noticeable change to Central Florida, with limited convection and strong onshore winds. The primary concerns for launch are cumulus clouds and flight through precipitation with coastal showers.

		Probability of Violating Weather Constraints				
30-May	50%	Primary Concerns: Flight Through Precipitation, Anvil Cloud Rule, Cumulus Cloud Rule				
	Weather Conditions			Additional Risk Criteria		
	Weather/Visibility: Isold Showers / 7 mi.			Clouds		
	Temp/Humidity: 84°F / 65%	Type	Coverage	Base (ft)	Tops (ft)	Upper-Level Wind Shear: Low
Liftoff Winds (200'): 150° 10 - 15 mph	Cumulus	Scattered	3,000	10,000	Booster Recovery Weather: Low	
	Cirrostratus	Broken	25,000	28,000	Solar Activity: Low	
		Probability of Violating Weather Constraints				
31-May	40%	Primary Concerns: Flight Through Precipitation, Thick Cloud Layer Rule, Cumulus Cloud Rule				
	Weather Conditions			Additional Risk Criteria		
	Weather/Visibility: Isold Showers / 7 mi.			Clouds		
	Temp/Humidity: 82°F / 64%	Type	Coverage	Base (ft)	Tops (ft)	Upper-Level Wind Shear: Moderate
Liftoff Winds (200'): 300° 7 - 12 mph	Cumulus	Scattered	3,000	8,000	Booster Recovery Weather: Low	
	Altostratus	Broken	12,000	14,000	Solar Activity: Low	
		Probability of Violating Weather Constraints				
2 June	30%	Primary Concerns: Flight Through Precipitation, Cumulus Cloud Rule				
	Weather Conditions			Additional Risk Criteria		
	Weather/Visibility: Isold Showers / 7 mi.			Clouds		
	Temp/Humidity: 80°F / 64%	Type	Coverage	Base (ft)	Tops (ft)	Upper-Level Wind Shear: Low
Liftoff Winds (200'): 080° 17 - 22 mph	Cumulus	Scattered	3,000	8,000	Booster Recovery Weather: Low	
					Solar Activity: Low	
<p>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.</p>						
Next Forecast Will Be Issued		As Required				