



Launch Mission Execution Forecast

Mission: Falcon 9 NASA Crew-1

Issued: 14 Nov 2020 / 0900L (1400Z)

Valid: 15 Nov 2020 / 1922 – 1932L (16/0022 – 0032Z)



Forecast Discussion: North-northeasterly flow will continue to bring onshore moving showers off and on through much of the day into the evening. By late tonight, a diffuse frontal boundary across South Florida will lift back into Central Florida and the Spaceport. This will bring better rain chances into Sunday as this boundary stalls out across the region ahead of another frontal system moving into the southeastern US. This will bring scattered showers through the day, continuing into the primary launch window Sunday evening. The primary launch weather concerns will be the cumulus clouds and precipitation associated with this activity, along with electric fields from any more robust showers.

The system moving over the southeastern US will leave another front stuck across the Florida peninsula to start the upcoming week, with a strong area of high pressure pushing across the eastern third of the country clearing it through Central Florida by Tuesday. This will setup a relatively stable atmosphere that will be in place for the remainder of the week with gusty northeasterly winds. The primary weather concern for the delay launch window mid-week will be the gusty winds and scattered cumulus clouds.

		Probability of Violating Weather Constraints				
Launch Day	50%	Primary Concerns: Cumulus Cloud Rule, Flight Through Precipitation, Surface Electric Field Rule				
	Weather Conditions			Additional Risk Criteria		
	Weather/Visibility: Sct. Showers / 7 mi.	Clouds				Upper-Level Wind Shear: Low
	Temp/Humidity: 77°F / 85%	Type	Coverage	Base (ft)	Tops (ft)	Booster Recovery Weather: Low
Liftoff Winds (200'): VRB 5 mph	Cumulus	Broken	3,000	14,000	Solar Activity: Low	
		Probability of Violating Weather Constraints				
72-Hour Delay	20%	Primary Concerns: Liftoff Winds, Cumulus Cloud Rule				
	Weather Conditions			Additional Risk Criteria		
	Weather/Visibility: None / 7 mi.	Clouds				Upper-Level Wind Shear: Low
	Temp/Humidity: 68°F / 68%	Type	Coverage	Base (ft)	Tops (ft)	Booster Recovery Weather: Moderate
Liftoff Winds (200'): 050° 20 - 25 mph	Cumulus	Scattered	3,500	6,000	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		15 Nov 2020				