

Launch Mission Execution Forecast

Falcon 9 CRS-23 Mission: Issued: Valid:

27 Aug 2021 / 0800L (1200Z) 28 Aug 2021 / 0332 – 0342L (0732 – 0742Z)



Forecast Discussion: Deep, tropical moisture is in place over the area along with persistent east/southeasterly flow due to high pressure centered off the coast of the Carolinas. This set-up favors onshore-moving coastal showers and isolated thunderstorms, especially in the overnight and morning hours. Tropical Storm Ida, currently centered just south of Cuba, is expected to move into the Gulf over the weekend. Although it will not directly impact east central Florida, it will usher in plentiful mid and upper level moisture over the Florida peninsula. Because of this and the scattered coastal showers, the primary concerns for the launch window on Saturday morning are the Cumulus Cloud Rule, the Flight Through Precipitation constraint, and the Thick Cloud Layers Rule.

For the back-up window on Sunday morning, we remain in a similar pattern with continued onshore flow. Tropical Storm Ida will continue to develop in the Gulf, but it will likely be far enough west to allow moisture levels to decrease. Thus, the primary concerns remain the same as on Saturday but with a lower probability of violation.

	Probability of Violating Weather Constraints									
Day	60%	60% Primary Concerns: Cumulus Cloud Rule, Flight Through Precipitation, Thick Cloud Layers Rule								
lch	Weather Conditions							Additional Risk Criteria		
aunch	Weather/Visi	bility:	Sct Showers / 7 mi.	Туре	Clouds Coverage	Base (ft)	Tops (ft)	Upper-Level Wind Shear:	Low	
	Temp/Humid	ity:	79°F / 90%	Cumulus	Scattered	2,500	14,000	Booster Recovery Weather:	Low	
	Liftoff Winds	(200') :	110° 15 - 20 mph	Altostratus	Broken	16,000	20,000	Solar Activity:	Low	
	Probability of Violating Weather Constraints									
Delay	40% Primary Concerns: Cumulus Cloud Rule, Flight Through Precipitation, Thick Cloud Layers									
	Weather Conditions							Additional Risk Criteria		
24-Hour	Weather/Visibility: Iso'd Showers / 7 mi.			Туре	Clouds Coverage	Base (ft)	Tops (ft)	Upper-Level Wind Shear:	Low	
24	Temp/Humidity: 78°F / 90%			Cumulus	Scattered	2,500	12,000	Booster Recovery Weather:		
		ity.	78 F / 90 /8					-	Low	
	Liftoff Winds	-	110° 10 - 15 mph	Altostratus	Broken	18,000	21,000	Solar Activity:	Low Low	
	The Probability of	(200') :	110° 10 - 15 mph n (POV) is the chance tha	Altostratus t a Lightning Lau	nch Commit Crit	eria (LLCC,) or certain us	Solar Activity:	Low	