

## **Launch Mission Execution Forecast**

 Mission:
 Falcon 9 Starlink 4-19

 Issued:
 16 Jun 2022 / 0815L (1215Z)

 Valid:
 17 Jun 2022 / 1203 – 1213L (1603 – 1613Z)



**Forecast Discussion**: Low rain chances and above average temperatures will continue to be the story for the next couple of days as a strong mid to upper level ridge persists over the southeastern US. Tomorrow, a weak pressure gradient at the surface will bring light onshore winds to start the day, allowing the east coast sea breeze to form and push inland by the afternoon. While a very brief, weak onshore moving shower cannot completely be ruled out, overall launch conditions will be favorable for tomorrow. The only concern is the Cumulus Cloud Rule.

On Saturday, a surface boundary will push into the southeastern US. The boundary itself will not reach Central Florida by midday, but it will shift winds west/southwesterly and increase moisture in the area. Shower and storm chances will be higher on Saturday compared to the rest of this week, but most of the activity is still not expected near the Spaceport until after the launch window. However, models have trended the front a bit faster and farther south compared to the last several days, hence the slight increase in the Probability of Violation. The primary concern remains the Cumulus Cloud Rule.

	Probability of Violating Weather Constraints <sup>1</sup>									
Day	10%	Primary Concerns: Cumulus Cloud Rule								
Ich	Weather Conditions								Additional Risk Criteria <sup>2</sup>	
aunch	Weather/Visibility:		None / 7 mi.		Clouds Type Coverage Base (ft)		Tops (ft)	Upper-Level Wind Shear:	Low	
	Temp/Humid	ity:	87°F / 63%	, D	Cumulus	Scattered	3,000	7,000	Booster Recovery Weather:	Low
	Liftoff Winds	<b>(200')</b> :	060° 7 - 12	2 mph	Cirrus	Scattered	30,000	32,000	Solar Activity:	Low
	Probability of Violating Weather Constraints									
Delay	30% Primary Concerns: Cumulus Cloud Rule									
	Weather Conditions								Additional Risk Criteria	
24-Hour	Weather/Visi	None / 7 m	ni.	Туре	Clouds Coverage	Base (ft)	Tops (ft)	Upper-Level Wind Shear:	Low	
24	Temp/Humidity:		88°F / 62%		Cumulus	Scattered	3,000	9,000	Booster Recovery Weather:	Moderate
	Liftoff Winds	<b>(200')</b> :	250° 7 - 12	2 mph	Cirrus	Scattered	28,000	30,000	Solar Activity:	Low
lotes	<ol> <li>The Probability of Violation (PoV) is the chance of a local safety or customer constraint violation occurring anytime during the launch window.</li> <li>Additional Risk Criteria, which are not included in the PoV, are mission-specific constraints that may not include all phenomena within each risk factor.</li> <li>See <u>https://www.patrick.spaceforce.mil/Portals/14/Weather/LaunchFAQ.pdf</u> for more information</li> </ol>									
2										
Next Forecast Will Be Issued As needed										