



# Launch Mission Execution Forecast



**Mission:** Astra V3.3 Tropics-1

**Issued:** 10 Jun 2022 / 0800L (1200Z)

**Valid:** 12 Jun 2022 / 1200 – 1400L (1600 – 1800Z)

**Forecast Discussion:** The only change in the forecast is distinguishing a POV gradient from start to end of the windows. A mid-level trough is digging into the southeast, pushing a frontal boundary south near the Florida Panhandle and moving the Bermuda high ridge axis south of Florida. This brings enhanced instability and moderate southwest steering flow, bringing scattered to numerous storms to the Spaceport each afternoon through evening today through Sunday. For launch day Sunday, a few storms are expected to start along a weak east coast sea breeze in the beginning of the window, increasing in coverage by the end of the launch window. For backup day Monday, the mid-level trough flattens and high pressure starts to build back in, bringing a lower chance and coverage of storms in the early afternoon during the launch window.

		Probability of Violating Weather Constraints				
<b>Launch Day</b>	<b>50→80%</b>	<b>Primary Concerns:</b> Cumulus Cloud Rule, Lightning Rule, Surface Electric Fields Rule				
	Weather Conditions			Additional Risk Criteria		
	<b>Weather/Visibility:</b> Sct Storms / 7 mi.	<b>Clouds</b>				<b>Upper-Level Wind Shear:</b> Low
	<b>Temp/Humidity:</b> 86°F / 85%	Type	Coverage	Base (ft)	Tops (ft)	<b>Solar Activity:</b> N/A
<b>Liftoff Winds (30'):</b> 180° 6 - 10 kts	Cumulonimbus	Few	2,500	26,000		
	Cumulus	Scattered	3,000	16,000		
<b>24-Hour Delay</b>	Probability of Violating Weather Constraints					
	<b>30→50%</b>	<b>Primary Concerns:</b> Cumulus Cloud Rule, Surface Electric Fields Rule				
	Weather Conditions			Additional Risk Criteria		
	<b>Weather/Visibility:</b> Isol. Storms / 7 mi.	<b>Clouds</b>				<b>Upper-Level Wind Shear:</b> Low
<b>Temp/Humidity:</b> 84°F / 85%	Type	Coverage	Base (ft)	Tops (ft)	<b>Solar Activity:</b> N/A	
<b>Liftoff Winds (30'):</b> 140° 7 - 12 kts	Cumulus	Scattered	3,000	16,000		
<b>Note:</b> 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.						
<b>Next Forecast Will Be Issued</b>	11 Jun 2022					