



# Launch Mission Execution Forecast

**Mission:** Falcon 9 NASA Crew-5

**Issued:** 4 Oct 2022 / 0830L (1230Z)

**Valid:** 5 Oct 2022 / 1155 - 1205L (1555 - 1605Z)



**Forecast Discussion:** Seasonably cool, dry air will continue to filter into Central Florida as the remnants of Hurricane Ian spin off the Mid-Atlantic coast. Ironically, Ian brought the end to the wet season across our area, which is characterized by the daily sea breeze driven shower and thunderstorm activity. A continental high pressure system will continue to slide in from the northwest today, pushing a weak cold front through the region this afternoon. It will spark isolated coastal showers, but the front is expected to be well south of the Spaceport by tomorrow. On launch day, the high will be centered over the southeastern US, bringing northeasterly winds. While a few small, short lived coastal showers cannot be completely ruled out with the onshore flow, very dry air in the mid and upper levels will cap off any significant activity. Launch conditions will be favorable, with the primary concerns being the Cumulus Cloud Rule and Flight Through Precipitation.

By Thursday and Friday, winds will weaken and stay northeasterly as the high slides further south and flattens into a more west-to-east orientation. Launch weather remains favorable, and the concerns are the same as the primary day.

		Probability of Violating Weather Constraints <sup>1</sup>					
<b>Launch Day</b>	<b>&lt;10%</b>	Primary Concerns: Cumulus Cloud Rule, Flight Through Precipitation					
	<b>Weather Conditions</b>				<b>Additional Risk Criteria <sup>2</sup></b>		
	<b>Weather:</b>	None	<b>Clouds</b>				<b>Upper-Level Wind Shear:</b> Low
	<b>Visibility:</b>	7 miles	Type	Coverage	Base (ft)	Tops (ft)	<b>Ascent Corridor Weather:</b> Moderate
<b>Temp/Humidity:</b>	76°F / 60%	Cumulus	Few	3,000	6,000	<b>Booster Recovery Weather:</b> Low	
<b>Liftoff Winds (200'):</b>	030° 10 - 15 mph					<b>Solar Activity:</b> Low	
		Probability of Violating Weather Constraints					
<b>24-Hour Delay</b>	<b>&lt;10%</b>	Primary Concerns: Cumulus Cloud Rule, Flight Through Precipitation					
	<b>Weather Conditions</b>				<b>Additional Risk Criteria</b>		
	<b>Weather:</b>	None	<b>Clouds</b>				<b>Upper-Level Wind Shear:</b> Low
	<b>Visibility:</b>	7 miles	Type	Coverage	Base (ft)	Tops (ft)	<b>Ascent Corridor Weather:</b> Low
<b>Temp/Humidity:</b>	76°F / 55%	Cumulus	Few	3,000	6,000	<b>Booster Recovery Weather:</b> Low	
<b>Liftoff Winds (200'):</b>	010° 7 - 12 mph					<b>Solar Activity:</b> Low	
		Probability of Violating Weather Constraints					
<b>48-Hour Delay</b>	<b>&lt;10%</b>	Primary Concerns: Cumulus Cloud Rule, Flight Through Precipitation					
	<b>Weather Conditions</b>				<b>Additional Risk Criteria</b>		
	<b>Weather:</b>	None	<b>Clouds</b>				<b>Upper-Level Wind Shear:</b> Low
	<b>Visibility:</b>	7 miles	Type	Coverage	Base (ft)	Tops (ft)	<b>Ascent Corridor Weather:</b> Low
<b>Temp/Humidity:</b>	77°F / 60%	Cumulus	Few	3,000	6,000	<b>Booster Recovery Weather:</b> Low	
<b>Liftoff Winds (200'):</b>	020° 7 - 12 mph	Cirrus	Few	35,000	38,000	<b>Solar Activity:</b> Low	
<b>Notes</b>	1. The Probability of Violation (PoV) is the chance of a local safety or customer constraint violation occurring anytime during the launch window.						
	2. Additional Risk Criteria, which are not included in the PoV, are mission-specific constraints that may not include all phenomena within each risk factor. See <a href="https://www.patrick.spaceforce.mil/Portals/14/Weather/LaunchFAQ.pdf">https://www.patrick.spaceforce.mil/Portals/14/Weather/LaunchFAQ.pdf</a> for more information						
<b>Next Forecast Will Be Issued</b>		As required					