



# Launch Mission Execution Forecast

**Mission:** Atlas V SBIRS GEO-6

**Issued:** 31 Jul 2022 / 1000L (1400Z)

**Valid:** 4 Aug 2022 / 0629 – 0709L (1029 – 1109Z)



**Forecast Discussion:** An unusually dry and warm air mass that has been in place since last week will linger for a couple of more days. As a result, shower and thunderstorm chances will remain well below normal through Monday. Atmospheric moisture is forecast to gradually increase into midweek, which when combined with light south to southwest flow due to a suppressed Atlantic ridge axis, will bring a slightly better chance of afternoon showers and thunderstorms. Thus, during MLP Roll operations on Tuesday, isolated storms are forecast to develop near the coast early in the afternoon before the inland-moving sea breeze concentrates activity west of I-95 later in the day. Forecast models indicate the Atlantic ridge will re-strengthen and push north of the area later in the week, bringing a return to deep easterly flow by Thursday morning's launch window. Typically, onshore winds bring a chance of showers, and even thunderstorms, in the morning; however, yet another swath of dry air is forecast to move over the area, resulting in more favorable launch weather conditions during the initial launch attempt. At this time, there is only a small concern for isolated cumulus clouds and showers over the nearshore Atlantic waters, and the probability of a weather-related violation has been set at 20%. In the event of a 24-hour delay, the probability of violation is a bit higher due to increased moisture and a better chance of early-morning shower and storm activity over the Atlantic.

		Probability of Violating Weather Constraints <sup>1</sup>					
<b>Launch Day</b>	<b>20%</b>	Primary Concerns: Cumulus Cloud Rule					
	Weather Conditions				Additional Risk Criteria <sup>2</sup>		
	<b>Weather/Visibility:</b>	None / 7 mi.	Clouds				<b>Solar Activity:</b> Low
			Type	Coverage	Base (ft)	Tops (ft)	
<b>Temp/Humidity:</b>	81°F / 84%	Cumulus	Few	2,500	5,000		
<b>Ground Winds (230'):</b>	140° 7 - 12 knots						
		Probability of Violating Weather Constraints					
<b>24-Hour Delay</b>	<b>30%</b>	Primary Concerns: Cumulus Cloud Rule					
	Weather Conditions				Additional Risk Criteria		
	<b>Weather/Visibility:</b>	Isolated Showers / 7 mi.	Clouds				<b>Solar Activity:</b> Low
			Type	Coverage	Base (ft)	Tops (ft)	
<b>Temp/Humidity:</b>	82°F / 85%	Cumulus	Scattered	2,500	6,000		
<b>Ground Winds (230'):</b>	150° 10 – 15 knots		Cirrus	Scattered	25,000	30,000	
<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>		1 Aug 2022					