



Launch Mission Execution Forecast



Mission: ASTRA VCLS DEMO 2

Issued: 8 Feb 2022 / 0800L (1300Z)

Valid: 10 Feb 2022 / 1300 – 1600L (1800 – 2100Z)

Forecast Discussion: A cold front moves through today, bringing a steady rain by the afternoon, lingering into Wednesday morning. Clearing begins by Wednesday late morning as a surface high moves into north Florida behind it through early Friday before retreating to the northeast. This will bring dry, sunny skies with a cool morning for launch day Thursday with the only concern being a rare cumulus cloud moving right over the pad. For backup day Friday, moisture increases as we get into deep onshore flow from the east with a weak trough over south Florida. This could bring isolated showers northward towards the Spaceport, especially later in the day towards the end of the window. Therefore, the POV is 30% Friday for the Cumulus Cloud Rule.

		Probability of Violating Weather Constraints																			
Launch Day	<10%	Primary Concerns: Cumulus Cloud Rule																			
	Weather Conditions			Additional Risk Criteria																	
	Weather/Visibility: None / 7 mi.	<table border="1"> <thead> <tr> <th colspan="4">Clouds</th> </tr> <tr> <th>Type</th> <th>Coverage</th> <th>Base (ft)</th> <th>Tops (ft)</th> </tr> </thead> <tbody> <tr> <td>Cumulus</td> <td>Few</td> <td>3,500</td> <td>5,000</td> </tr> </tbody> </table>			Clouds				Type	Coverage	Base (ft)	Tops (ft)	Cumulus	Few	3,500	5,000	Upper-Level Wind Shear: Low				
	Clouds																				
Type	Coverage	Base (ft)	Tops (ft)																		
Cumulus	Few	3,500	5,000																		
Temp/Humidity: 67°F / 62%				Solar Activity: N/A																	
Liftoff Winds (30'): 030° 7 - 12 kts																					
		Probability of Violating Weather Constraints																			
24-Hour Delay	30%	Primary Concerns: Cumulus Cloud Rule																			
	Weather Conditions			Additional Risk Criteria																	
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Type	Coverage	Base (ft)	Tops (ft)																		
Cumulus	Broken	2,500	11,000																		
Cirrus	Broken	25,000	27,000																		
Temp/Humidity: 68°F / 70%				Solar Activity: N/A																	
Liftoff Winds (30'): 080° 8 - 13 kts																					
<i>Note: 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.</i>																					
Next Forecast Will Be Issued		9 Feb 2022																			