



Launch Mission Execution Forecast

Mission: ASTRA VCLS DEMO 2

Issued: 6 Feb 2022 / 0800L (1300Z)

Valid: 7 Feb 2022 / 1300 – 1600L (1800 – 2100Z)



Forecast Discussion: As the surface low develops off the coast today, lingering low clouds through the day and a few spotty showers are forecast by late afternoon. The low gradually moves away Monday, with just some showers possible over southern Florida, where conditions improve locally just for a day on Monday. Still, a lower broken to overcast stratiform cloud deck is still expected to linger into Monday, with a slight possibility of getting tall enough to violate the Cumulus Cloud Rule. For backup day Tuesday, another front moves through slowly. This front is expected to bring significant cloud cover through the mid-levels and rain likely, especially towards the end of the window. Winds will also elevate to near 20 kt from the north, making for a cold, wet, windy day. Therefore, there is a high POV for the backup day Tuesday with the primary concerns being the Thick Cloud Layer Rule, Cumulus Cloud Rule, and Liftoff winds

		Probability of Violating Weather Constraints					
Launch Day	20%	Primary Concerns: Cumulus Cloud Rule					
	Weather Conditions				Additional Risk Criteria		
	Weather/Visibility: None / 7 mi.	Clouds				Upper-Level Wind Shear:	Low
	Temp/Humidity: 67°F / 82%	Type	Coverage	Base (ft)	Tops (ft)	Solar Activity:	N/A
Liftoff Winds (30'): 330° 8 - 13 kts	Stratocumulus	Overcast	3,000	6,000			
24-Hour Delay	Probability of Violating Weather Constraints						
	70%	Primary Concerns: Thick Cloud Layer Rule, Cumulus Cloud Rule, Liftoff Winds					
	Weather Conditions				Additional Risk Criteria		
	Weather/Visibility: Showers / 7 mi.	Clouds				Upper-Level Wind Shear:	Low
Temp/Humidity: 58°F / 90%	Type	Coverage	Base (ft)	Tops (ft)	Solar Activity:	N/A	
Liftoff Winds (30'): 350° 15 - 20 kts	Cumulus	Scattered	3,000	12,000			
	Altostratus	Overcast	13,000	22,000			
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.							
Next Forecast Will Be Issued		As required					