



Launch Mission Execution Forecast

Mission: Falcon 9 Astranis MicroGEO

Issued: 21 Dec 2024 / 0030L (0530Z)

Valid: 22 Dec 2024 / 0000 – 22/0229L (22/0500 – 0729Z)



Forecast Discussion: A broad area of high-pressure over the central United States will continue to bring northwest flow and drier air to the cape Saturday night. There is a slight chance of a flight-through Cumulus Cloud Rule violation on the primary day. By Sunday night, winds should shift more onshore, increasing the potential for onshore showers and a Cumulus Cloud Rule violation on the backup day.

Launch Day	Probability of Violating Weather Constraints¹					
	5%	Primary Concerns: Cumulus Cloud Rule				
	Weather Conditions				Additional Risk Criteria²	
	Weather/Visibility: None / 7 mi.	Clouds			Upper-Level Wind Shear: Low-Mod	
	Type	Coverage	Base (ft)	Tops (ft)	Booster Recovery Weather: Low	
Temp/Humidity: 55°F / 70%	Cumulus	Few	2,000	5,000	Solar Activity: Low	
Liftoff Winds (200'): 340° 12 - 18 mph						

24-Hour Delay	Probability of Violating Weather Constraints					
	25%	Primary Concerns: Cumulus Cloud Rule				
	Weather Conditions				Additional Risk Criteria	
	Weather/Visibility: None / 7 mi.	Clouds			Upper-Level Wind Shear: Low-Mod	
	Type	Coverage	Base (ft)	Tops (ft)	Booster Recovery Weather: Low	
Temp/Humidity: 61°F / 75%	Cumulus	Scattered	2,000	7,500	Solar Activity: Low	
Liftoff Winds (200'): 050° 10 - 16 mph						

Notes

- The Probability of Violation (PoV) is the chance of a local safety or customer constraint violation occurring any random time during the launch window.
- 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 <https://www.patrick.spaceforce.mil/Portals/14/Weather/LaunchFAQ.pdf> for more information

Next Forecast Will Be Issued	AS REQUIRED
-------------------------------------	-------------