



Launch Mission Execution Forecast



Mission: Falcon 9 Galileo L13

Issued: 16 Sep 2024 / 1200L (1600Z)

Valid: 17 Sep 2024 / 1840 – 1901L (2240 – 2301Z)

Forecast Discussion: Several factors are in play for the weather this week. Primarily an area of low pressure spinning off the southeast U.S. coastline will gradually move onshore near South Carolina by Tuesday afternoon. This circulation pattern, along with several waves of upper-level vorticity will help generate convergent bands of clouds and associated showers rotating through most of Florida into Tuesday. Additionally, expect west coast seabreeze convection to make its way across Florida nearing the spaceport Tuesday afternoon further enhancing possibilities for showers and thunderstorms. For Wednesday, drier air will filter into Florida restricting any significant convection from occurring. Primary concerns during the launch windows will be surface electric fields, cumulus clouds, and anvil clouds.

		Probability of Violating Weather Constraints ¹				
Launch Day	60%	Primary Concerns: Surface Electric Fields Rule, Cumulus Cloud Rule, Anvil Cloud Rules				
	Weather Conditions				Additional Risk Criteria ²	
	Weather/Visibility: Sct Showers / 7 mi.	Clouds			Upper-Level Wind Shear: Low	
	Temp/Humidity: 80°F / 82%	Type	Coverage	Base (ft)	Tops (ft)	Booster Recovery Weather: Moderate
Liftoff Winds (200'): 030° 10 - 15 mph	Cumulus	Broken	2,500	21,000	Solar Activity: Low	
	Cirrostratus	Broken	23,000	28,000		
		Probability of Violating Weather Constraints				
24-Hour Delay	20%	Primary Concerns: Cumulus Cloud Rule				
	Weather Conditions				Additional Risk Criteria	
	Weather/Visibility: Iso Showers / 7 mi.	Clouds			Upper-Level Wind Shear: Low	
	Temp/Humidity: 81°F / 79%	Type	Coverage	Base (ft)	Tops (ft)	Booster Recovery Weather: Low
Liftoff Winds (200'): 050° 5 - 10 mph	Cumulus	Few	2,500	15,000	Solar Activity: Low	
	Altostratus	Scattered	18,000	22,000		
Notes	<ol style="list-style-type: none"> 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				