



Launch Mission Execution Forecast



Mission: Falcon 9 Starlink 6-21

Issued: 3 Oct 23 / 0900L (1300Z)

Valid: 4 Oct 23 / 2216 - 5/0215L (5/0216-0615Z)

Forecast Discussion: Surface high pressure east of the New England states will continue to reinforce breezy onshore flow locally through mid-week. While total atmospheric moisture has dropped significantly since the weekend, shallow moisture will begin to rebound tonight into Wednesday. This additional moisture combined with robust onshore flow will give rise to scattered low-topped showers rolling off the Atlantic and onto the coast, mainly during the night and morning hours tonight through Thursday. Thus, the main weather threat for the primary and delay day launch attempts will be cumulus clouds associated with onshore-moving showers, with breezy liftoff winds an additional concern on the primary day.

		Probability of Violating Weather Constraints ¹															
Launch Day	50%	Primary Concerns: Cumulus Cloud Rule, Liftoff Winds															
	Weather Conditions			Additional Risk Criteria ²													
	Weather/Visibility: Sct Showers / 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>Scattered</td> <td>2,500</td> <td>15,000</td> </tr> </tbody> </table>			Clouds				Type	Coverage	Base (ft)	Tops (ft)	Cumulus	Scattered	2,500	15,000	Upper-Level Wind Shear: Low
	Clouds																
Type	Coverage	Base (ft)	Tops (ft)														
Cumulus	Scattered	2,500	15,000														
Temp/Humidity: 76°F / 85%				Booster Recovery Weather: Low													
Liftoff Winds (200'): 060° 20 - 25 mph				Solar Activity: Low													
		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	Scattered	2,500	13,000														
Temp/Humidity: 76°F / 80%				Booster Recovery Weather: Low													
Liftoff Winds (200'): 060° 12 - 17 mph				Solar Activity: Low													
Notes	1. The Probability of Violation (PoV) is the chance of a local safety or customer constraint violation occurring any random time 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 https://www.patrick.spaceforce.mil/Portals/14/Weather/LaunchFAQ.pdf for more information																
Next Forecast Will Be Issued		As Required															