



Launch Mission Execution Forecast



Mission: Falcon 9 Starlink g12-5

Issued: 07 Dec 2024 / 1015L (1515Z)

Valid: 08 Dec 2024 / 0010 – 0410L (0510 – 0910Z)

Forecast Discussion: High pressure across the southeastern U.S. this morning will slide south and east through the remainder of the weekend. This shift will bring cool and dry weather to the Spaceport, with northerly winds veering northeasterly through the day. The onshore flow may bring a low-topped marine stratocumulus deck onshore at times into this evening, though very dry air aloft will limit any growth. Minimal changes to sensible weather are expected for the backup window late Sunday night with winds veering out of the southeast with the movement of the high and a few more clouds present.

Probability of Violating Weather Constraints ¹																									
Launch Day	<5% Primary Concerns: None																								
	Weather Conditions																								
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;">Weather/Visibility:</th> <th style="width: 30%;">None / 7 mi.</th> <th colspan="4" style="text-align: center;">Clouds</th> </tr> <tr> <th></th> <th></th> <th>Type</th> <th>Coverage</th> <th>Base (ft)</th> <th>Tops (ft)</th> </tr> </thead> <tbody> <tr> <td>Temp/Humidity:</td> <td>58°F / 80%</td> <td>Cumulus</td> <td>Few</td> <td>3,000</td> <td>5,000</td> </tr> <tr> <td>Liftoff Winds (200'):</td> <td>350° 8 - 11 mph</td> <td>Cirrus</td> <td>Few</td> <td>28,000</td> <td>30,000</td> </tr> </tbody> </table>	Weather/Visibility:	None / 7 mi.	Clouds						Type	Coverage	Base (ft)	Tops (ft)	Temp/Humidity:	58°F / 80%	Cumulus	Few	3,000	5,000	Liftoff Winds (200'):	350° 8 - 11 mph	Cirrus	Few	28,000	30,000
	Weather/Visibility:	None / 7 mi.	Clouds																						
		Type	Coverage	Base (ft)	Tops (ft)																				
Temp/Humidity:	58°F / 80%	Cumulus	Few	3,000	5,000																				
Liftoff Winds (200'):	350° 8 - 11 mph	Cirrus	Few	28,000	30,000																				
Additional Risk Criteria ²																									
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td style="width: 60%;">Upper-Level Wind Shear:</td> <td>Low</td> </tr> <tr> <td>Booster Recovery Weather:</td> <td>Low</td> </tr> <tr> <td>Solar Activity:</td> <td>Low</td> </tr> </tbody> </table>	Upper-Level Wind Shear:	Low	Booster Recovery Weather:	Low	Solar Activity:	Low																		
Upper-Level Wind Shear:	Low																								
Booster Recovery Weather:	Low																								
Solar Activity:	Low																								
Probability of Violating Weather Constraints																									
24-Hour Delay	<5% Primary Concerns: None																								
	Weather Conditions																								
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;">Weather/Visibility:</th> <th style="width: 30%;">None / 7 mi.</th> <th colspan="4" style="text-align: center;">Clouds</th> </tr> <tr> <th></th> <th></th> <th>Type</th> <th>Coverage</th> <th>Base (ft)</th> <th>Tops (ft)</th> </tr> </thead> <tbody> <tr> <td>Temp/Humidity:</td> <td>62°F / 84%</td> <td>Cumulus</td> <td>Scattered</td> <td>3,000</td> <td>6,000</td> </tr> <tr> <td>Liftoff Winds (200'):</td> <td>130° 10 - 15 mph</td> <td>Cirrus</td> <td>Scattered</td> <td>28,000</td> <td>35,000</td> </tr> </tbody> </table>	Weather/Visibility:	None / 7 mi.	Clouds						Type	Coverage	Base (ft)	Tops (ft)	Temp/Humidity:	62°F / 84%	Cumulus	Scattered	3,000	6,000	Liftoff Winds (200'):	130° 10 - 15 mph	Cirrus	Scattered	28,000	35,000
	Weather/Visibility:	None / 7 mi.	Clouds																						
		Type	Coverage	Base (ft)	Tops (ft)																				
Temp/Humidity:	62°F / 84%	Cumulus	Scattered	3,000	6,000																				
Liftoff Winds (200'):	130° 10 - 15 mph	Cirrus	Scattered	28,000	35,000																				
Additional Risk Criteria																									
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td style="width: 60%;">Upper-Level Wind Shear:</td> <td>Low</td> </tr> <tr> <td>Booster Recovery Weather:</td> <td>Low</td> </tr> <tr> <td>Solar Activity:</td> <td>Low</td> </tr> </tbody> </table>	Upper-Level Wind Shear:	Low	Booster Recovery Weather:	Low	Solar Activity:	Low																		
Upper-Level Wind Shear:	Low																								
Booster Recovery Weather:	Low																								
Solar Activity:	Low																								
Notes	<ol style="list-style-type: none"> 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 Needed																								