



Launch Mission Execution Forecast

Mission: Falcon 9 Intelsat G-33/G-34

Issued: 7 Oct 2022 / 1800L (2200Z)

Valid: 8 Oct 2022 / 1904 – 2015L (2304 – 9/0015Z)



Forecast Discussion: A strong area of high pressure will continue to move out of the Central US to start the weekend, settling west to east across the southeastern US. The increasing pressure gradient between this feature and lower pressure across the NW Caribbean will result in breezy east-northeast flow. As the high center will move eastward this weekend, it will push a cool front through the state where it will stall out across South Florida early next week. The approach of the boundary along with moisture creeping northward will bring an increasing threat for Atlantic showers into the weekend. The shower threat will remain relatively low for a Saturday evening launch attempt, though more cumulus clouds will be around during the window than today. However, these showers are expected to remain low-topped and the chance for a Cumulus Cloud rule violation to be very low.

The front is expected to be moving through Central Florida on Sunday, bringing isolated onshore moving showers at times during the day, which will continue into the launch window Sunday evening. While these showers are still expected to remain fairly low-topped and quick moving, they will lead to a higher threat for Cumulus Cloud Rule violation, especially if showers are able to move directly over the launch pad.

Probability of Violating Weather Constraints ¹																													
Launch Day	10% Primary Concerns: Cumulus Cloud Rule																												
	Weather Conditions																												
	<table border="1"> <thead> <tr> <th rowspan="2">Weather/Visibility:</th> <th rowspan="2">None / 7 mi.</th> <th colspan="4">Clouds</th> <th rowspan="2">Upper-Level Wind Shear:</th> <th rowspan="2">Low</th> </tr> <tr> <th>Type</th> <th>Coverage</th> <th>Base (ft)</th> <th>Tops (ft)</th> </tr> </thead> <tbody> <tr> <td>Temp/Humidity:</td> <td>77°F / 60%</td> <td>Cumulus</td> <td>Scattered</td> <td>3,500</td> <td>7,000</td> <td>Booster Recovery Weather:</td> <td>Low</td> </tr> <tr> <td>Liftoff Winds (200'):</td> <td>050° 12 - 17 mph</td> <td></td> <td></td> <td></td> <td></td> <td>Solar Activity:</td> <td>Low</td> </tr> </tbody> </table>	Weather/Visibility:	None / 7 mi.	Clouds				Upper-Level Wind Shear:	Low	Type	Coverage	Base (ft)	Tops (ft)	Temp/Humidity:	77°F / 60%	Cumulus	Scattered	3,500	7,000	Booster Recovery Weather:	Low	Liftoff Winds (200'):	050° 12 - 17 mph					Solar Activity:	Low
	Weather/Visibility:			None / 7 mi.	Clouds					Upper-Level Wind Shear:	Low																		
Type		Coverage	Base (ft)		Tops (ft)																								
Temp/Humidity:	77°F / 60%	Cumulus	Scattered	3,500	7,000	Booster Recovery Weather:	Low																						
Liftoff Winds (200'):	050° 12 - 17 mph					Solar Activity:	Low																						
Additional Risk Criteria ²																													
Probability of Violating Weather Constraints																													
24-Hour Delay	20% Primary Concerns: Cumulus Cloud Rule																												
	Weather Conditions																												
	<table border="1"> <thead> <tr> <th rowspan="2">Weather/Visibility:</th> <th rowspan="2">Isold. Showers / 7 mi.</th> <th colspan="4">Clouds</th> <th rowspan="2">Upper-Level Wind Shear:</th> <th rowspan="2">Low</th> </tr> <tr> <th>Type</th> <th>Coverage</th> <th>Base (ft)</th> <th>Tops (ft)</th> </tr> </thead> <tbody> <tr> <td>Temp/Humidity:</td> <td>78°F / 68%</td> <td>Cumulus</td> <td>Scattered</td> <td>3,500</td> <td>12,000</td> <td>Booster Recovery Weather:</td> <td>Low</td> </tr> <tr> <td>Liftoff Winds (200'):</td> <td>060° 12 - 17 mph</td> <td></td> <td></td> <td></td> <td></td> <td>Solar Activity:</td> <td>Low</td> </tr> </tbody> </table>	Weather/Visibility:	Isold. Showers / 7 mi.	Clouds				Upper-Level Wind Shear:	Low	Type	Coverage	Base (ft)	Tops (ft)	Temp/Humidity:	78°F / 68%	Cumulus	Scattered	3,500	12,000	Booster Recovery Weather:	Low	Liftoff Winds (200'):	060° 12 - 17 mph					Solar Activity:	Low
	Weather/Visibility:			Isold. Showers / 7 mi.	Clouds					Upper-Level Wind Shear:	Low																		
Type		Coverage	Base (ft)		Tops (ft)																								
Temp/Humidity:	78°F / 68%	Cumulus	Scattered	3,500	12,000	Booster Recovery Weather:	Low																						
Liftoff Winds (200'):	060° 12 - 17 mph					Solar Activity:	Low																						
Additional Risk Criteria																													
Notes	1. The Probability of Violation (PoV) is the chance of a local safety or customer constraint violation occurring anytime 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																												