

## **Launch Mission Execution Forecast**

 Mission:
 Falcon 9 Intelsat G-37

 Issued:
 31 July 2023 / 0930L (1330Z)

 Valid:
 3 Aug 2023 / 0005 – 0225L (0405 – 0625Z)



**Forecast Discussion**: An area of low pressure moving well out over the North Atlantic this morning has left a weak surface boundary across the southeastern US and North Florida. Southwesterly flow today and Tuesday ahead of this feature will push storms back towards the Spaceport in the afternoon and evening, with a few strong storms possible. By Wednesday, this boundary is expected to be south of the area as high pressure over the Northeastern US becomes dominant and shifts prevailing low-level flow onshore. This will push storms away from the Spaceport into interior and western Florida during the afternoon and evening, with only a small concern for anvils to linger in their wake during the primary launch window late Wednesday night. There will also be a limited threat for onshore moving Atlantic showers.

The surface high moves out into the Atlantic on Thursday, keeping low level flow onshore, though lighter, as its axis slides overhead. Not much change in local weather over the Spaceport from Wednesday, but a better chance of storms across North Florida brings a small increase in the threat for anvil clouds to reach the Spaceport during the backup window late Thursday night.

	Probability of Violating Weather Constraints <sup>1</sup>									
Launch Day	10% Primary Concerns: Anvil Cloud Rules, Cumulus Cloud Rule									
	Weather Conditions							Additional Risk Criteria <sup>2</sup>		
	Weather/Visibility:		None / 7 mi.	Туре	Clouds Coverage	Base (ft)	Tops (ft)	Upper-Level Wind Shear:	Low	
	Temp/Humid	ity:	81°F / 78%	Cumulus	Scattered	3,000	8,000	Booster Recovery Weather:	Low	
	Liftoff Winds	<b>(200')</b> :	070° 10 - 15 mph	Cirrostratus	Scattered	22,000	25,000	Solar Activity:	Low	
ur Delay	Probability of Violating Weather Constraints									
	15%	15% Primary Concerns: Anvil Cloud Rules								
	Weather Conditions							Additional Risk Criteria		
24-Hour	Weather/Visi	bility:	None / 7 mi.	Туре	Clouds Coverage	Base (ft)	Tops (ft)	Upper-Level Wind Shear:	Low	
24	Temp/Humid	ity:	81°F / 79%	Cumulus	Few	3,000	5,000	Booster Recovery Weather:	Low	
	Liftoff Winds	<b>(200')</b> :	120° 7 - 12 mph	Altostratus	Scattered	10,000	15,000	Solar Activity:	Low	
Notes	<ol> <li>The Probability of Violation (PoV) is the chance of a local safety or customer constraint violation occurring any random time during the launch window.</li> <li>Additional Risk Criteria, which are not included in the PoV, are mission-specific constraints that may not include all phenomena within each risk factor.</li> <li>See <a href="https://www.patrick.spaceforce.mil/Portals/14/Weather/LaunchFAQ.pdf">https://www.patrick.spaceforce.mil/Portals/14/Weather/LaunchFAQ.pdf</a> for more information</li> </ol>									
Next Forecast Will Be Issued 1 Aug 2023										