



Launch Mission Execution Forecast



Mission: Falcon 9 SES-22

Issued: 27 Jun 2022 / 0830L (1230Z)

Valid: 29 Jun 2022 / 1703 – 1913L (2103 – 2313Z)

Forecast Discussion: The weak surface trough responsible for the unsettled weather over the last few days will slowly shift northwest away from the state as high pressure across the central Atlantic builds into northern Florida. The resultant deep easterly flow will still support periods of showers, however a gradual downward trend is anticipated for coastal sections especially during the afternoon and evening hours over the next several days. This pattern also keeps the highest risk for thunderstorms across interior portions of the state each afternoon. An increase in atmospheric moisture is expected to arrive Thursday into Friday ahead of a wave moving in from the Atlantic, resulting in greater cloud cover and higher chances for precipitation across the region.

Therefore the primary weather concern for both launch day and in the event of a 24-hour delay is extensive and sufficiently tall cumulus clouds.

Probability of Violating Weather Constraints ¹																																	
Launch Day	20% Primary Concerns: Cumulus Cloud Rule																																
	Weather Conditions																																
	<table border="1"> <thead> <tr> <th>Weather/Visibility:</th> <th>Isol Showers / 7 mi.</th> <th colspan="4">Clouds</th> <th>Upper-Level Wind Shear:</th> <th>Low</th> </tr> <tr> <th>Temp/Humidity:</th> <th>84°F / 65%</th> <th>Type</th> <th>Coverage</th> <th>Base (ft)</th> <th>Tops (ft)</th> <th>Booster Recovery Weather:</th> <th>Low</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td>Cumulus</td> <td>Scattered</td> <td>3,000</td> <td>12,000</td> <td></td> <td></td> </tr> <tr> <th>Liftoff Winds (200'):</th> <td>120° 15 - 20 mph</td> <td></td> <td></td> <td></td> <td></td> <th>Solar Activity:</th> <td>Low</td> </tr> </tbody> </table>	Weather/Visibility:	Isol Showers / 7 mi.	Clouds				Upper-Level Wind Shear:	Low	Temp/Humidity:	84°F / 65%	Type	Coverage	Base (ft)	Tops (ft)	Booster Recovery Weather:	Low			Cumulus	Scattered	3,000	12,000			Liftoff Winds (200'):	120° 15 - 20 mph					Solar Activity:	Low
	Weather/Visibility:	Isol Showers / 7 mi.	Clouds				Upper-Level Wind Shear:	Low																									
Temp/Humidity:	84°F / 65%	Type	Coverage	Base (ft)	Tops (ft)	Booster Recovery Weather:	Low																										
		Cumulus	Scattered	3,000	12,000																												
Liftoff Winds (200'):	120° 15 - 20 mph					Solar Activity:	Low																										
Additional Risk Criteria ²																																	
24-Hour Delay	Probability of Violating Weather Constraints																																
	40% Primary Concerns: Cumulus Cloud Rule																																
	Weather Conditions																																
	<table border="1"> <thead> <tr> <th>Weather/Visibility:</th> <th>Sct Showers / 7 mi.</th> <th colspan="4">Clouds</th> <th>Upper-Level Wind Shear:</th> <th>Low</th> </tr> <tr> <th>Temp/Humidity:</th> <th>84°F / 70%</th> <th>Type</th> <th>Coverage</th> <th>Base (ft)</th> <th>Tops (ft)</th> <th>Booster Recovery Weather:</th> <th>Low</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td>Cumulus</td> <td>Broken</td> <td>3,000</td> <td>16,000</td> <td></td> <td></td> </tr> <tr> <th>Liftoff Winds (200'):</th> <td>110° 15 - 20 mph</td> <td>Cirrostratus</td> <td>Broken</td> <td>25,000</td> <td>30,000</td> <th>Solar Activity:</th> <td>Low</td> </tr> </tbody> </table>	Weather/Visibility:	Sct Showers / 7 mi.	Clouds				Upper-Level Wind Shear:	Low	Temp/Humidity:	84°F / 70%	Type	Coverage	Base (ft)	Tops (ft)	Booster Recovery Weather:	Low			Cumulus	Broken	3,000	16,000			Liftoff Winds (200'):	110° 15 - 20 mph	Cirrostratus	Broken	25,000	30,000	Solar Activity:	Low
Weather/Visibility:	Sct Showers / 7 mi.	Clouds				Upper-Level Wind Shear:	Low																										
Temp/Humidity:	84°F / 70%	Type	Coverage	Base (ft)	Tops (ft)	Booster Recovery Weather:	Low																										
		Cumulus	Broken	3,000	16,000																												
Liftoff Winds (200'):	110° 15 - 20 mph	Cirrostratus	Broken	25,000	30,000	Solar Activity:	Low																										
Additional Risk Criteria																																	
Notes	<ol style="list-style-type: none"> The Probability of Violation (PoV) is the chance of a local safety or customer constraint violation occurring anytime 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	28 Jun 2022																																