



Launch Mission Execution Forecast

Mission: Falcon 9 Dragon CRS-19

Issued: 3 Dec 2019/1200L (1700Z)

Valid: 4 Dec 2019/1248-1253L (1748-1753Z)

Synoptic Discussion: Clear skies and cool temperatures abound across Central Florida today, and will remain much the same Wednesday. Winds will diminish overnight, allowing temperatures will drop into the lower 40s at the Spaceport. A few areas of fog or stratus may form in the early morning hours, but should dissipate well before launch. Winds will pick up again Wednesday as dry and weak front moves through. The primary weather concern for launch is higher surface winds associated with the secondary cold push. Maximum upper-level winds will be from the northwest at 120 knots near 40,000 feet.

On Thursday, clouds associated with an upper-level wave will encroach over the Space Coast. There is a risk these clouds will build down to the 20,000-foot level, making them a Thick Cloud Layer rule concern. Maximum upper-level winds will remain from the northwest, but decrease to 90 knots near 45,000 feet.

<u>Clouds</u>	<u>Coverage</u>	<u>Bases (feet)</u>	<u>Tops (feet)</u>
Cirrostratus	Few	25,000	28,000

Weather: None			
Surface Visibility: 7 Miles		Solar Activity: Low	
Liftoff Winds (MPH): 290° @ 15-20 (200')		Pressure: 30.00 inHg	
Temperature: 62°F		RH: 42%	

Launch day probability of violating launch weather constraints: **10%**

Primary concern(s): Liftoff Winds

Delay day probability of violating launch weather constraints: **20%**

Primary concern(s): Thick Cloud Layer Rule

The probability of violation does not include mission & launch vehicle specific upper-level wind criteria.

Sunrise: 4/0659L
5/0700L

Sunset: 4/1725L
5/1725L

Moonrise: 4/1315L
5/1347L

Moonset: 5/0053L
6/0145L

Illumination: 49%
59%

Next forecast will be issued: As Required