



Launch Mission Execution Forecast

Vehicle: Falcon 9 Crew Demo-1

Issued: 01 Mar 19 / 0900 EST (1400 UTC)

Valid: 02 Mar 19 / 0245-0250 EST (0745-0750 UTC)

Synoptic Discussion: A mid-level disturbance positioned over the Gulf Coast states and extending into the Florida panhandle is currently pushing eastward. This will continue to bring mid and upper-level cloud cover to the spaceport for much of the day. With this disturbance, isolated showers may also be possible throughout the day supplemented by the lingering low-level moisture. Tonight, weak high pressure will build across the southern Florida peninsula. As a result, showers and a majority of the cloud cover should be able to clear up prior to the launch window late tonight. The primary concerns during the launch window continue to be the Thick Cloud and Cumulus Cloud Rules. Maximum upper-level winds will be from the west near 80 knots at 45,000 feet.

A cold front is expected to shift into the Florida peninsula Sunday, slowly moving through Central Florida Monday night and into Tuesday. The cold front is expected to be within the vicinity of the Space Coast during the back-up launch window early Tuesday morning, and isolated to scattered showers are likely. The main weather concerns for this launch window will remain the same, with the addition of flight thru precipitation. Maximum upper-level winds will be from the west near 90 knots at 40,000 feet.

<u>Clouds</u>	<u>Coverage</u>	<u>Bases (feet)</u>	<u>Tops (feet)</u>
Stratocumulus	Few	2,000	3,500
Alto cumulus	Scattered	13,000	16,000
Cirrostratus	Scattered	25,000	32,000

Weather: None	Solar Activity: Low
Surface Visibility: 7 miles	Pressure: 30.12 inHg
Liftoff Winds (MPH): 260° @ 10-15 (200')	RH: 90%
Temperature: 65°F	

Launch day probability of violating launch weather constraints: **20%**
Primary concern(s): Thick Cloud Rule, Cumulus Cloud Rule

Delay day probability of violating launch weather constraints: **40%**
Primary concern(s): Cumulus Cloud Rule, Thick Cloud Rule, Flight Thru Precip

Sunset: 01/1822 EST 02/1823 EST	Sunrise: 02/0647 EST 03/0645 EST
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Moonset: 01/1414 EST 02/1505 EST	Moonrise: 02/0420 EST 03/0503 EST	Illumination: 13% 8%
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Next forecast will be issued: As Required