

Launch Mission Execution Forecast

Vehicle: Falcon 9 GovSat-1

Issued: 26 Jan 2018/0900 EST(1400 UTC)

Valid: 30 Jan 2018/1625-1846 EST (2125-2346 UTC)

Synoptic Discussion: Expect another day of gusty winds along the Space Coast as the high pressure to the north slowly moves away. Winds will subside this evening and turn southeasterly tomorrow as a low pressure area begins to develop in the Gulf of Mexico. This will allow temperatures to reach over 70F with a very slight chance of coastal showers. On Sunday, weather will deteriorate as the low pressure area strengthens and moves across northern Florida. Gusty winds and rain showers are likely along with a few strong thunderstorms. Conditions begin to improve Monday as the low pressure area moves off to the northeast. Winds become northerly and brisk as cold air filters in behind the system. Launch day should be partly cloudy with northerly winds gusting to 30mph. Winds will slowly diminish though the launch window. The primary concern is liftoff winds. Max upper-level winds will be westerly at 120 knots at 40,000 feet.

Winds continue dropping off overnight, allowing maximum cooling and a very cold Wednesday morning with lows below 40F. Temperatures rebound quickly as winds turn easterly, bringing in low-level cloudiness and a risk of coastal showers. Mid-level moisture will also increase, creating a threat of thick cloud layers. Maximum upper-level winds will be from the west at 100 knots near 40,000 feet.

<u>Clouds</u>	<u>Coverage</u>	Bases (feet)	Tops (feet)
Stratocumulus	Few	2,500	4,000
Cirrus	Scattered	28,000	30,000

Weather: None

Surface Visibility: 7 miles Solar Activity: Low

Liftoff Winds (MPH): 360° @ 25 P30 (200') **Pressure:** 30.30 inHg

Temperature: 62°F RH: 62%

Launch day probability of violating launch weather constraints: 20%

Primary concern(s): Liftoff Winds

Delay day probability of violating launch weather constraints: 20%

Primary concern(s): Thick Cloud Layer Rule

 Sunrise:
 30/0711 EST 31/0711 EST 31/1802 EST

 Moonrise:
 30/1718 EST 31/1825 EST 31/0710 EST 01/0801 EST
 Illumination:
 99% 100%

Next forecast will be issued: 27 January 2018