

Launch Mission Execution Forecast

Vehicle: Falcon 9 SES-12

Issued: 2 June 2018/1100 EDT(1500 UTC)

Valid: 4 June 2018/0029-0429 EDT(0429-0829 UTC)

<u>Synoptic Discussion</u>: Drier air over Central Florida will keep afternoon convection isolated and mainly on the eastern third of the peninsula today. On Sunday, a short wave trough will pull a weak surface boundary into the Southeast, tightening the pressure gradient over the Space Coast. Winds will become gusty out of the southwest as the front approaches northern Florida during the launch window. The primary weather concern is Liftoff Winds. Maximum upper-level winds will be from the west at 30 knots near 35,000 feet.

On Monday, the weak front should push through the Spaceport, bringing some additional cloud cover and act to focus much of the thunderstorm activity. The front should be south of the area by launch time, allowing the winds to weaken slightly and turn more northwesterly. The weather concerns are lingering frontal clouds and liftoff winds. Maximum upper-level winds will be northwest at 50 knots near 40,000 feet.

| <u>Clouds</u> | <u>Coverage</u> | Bases (feet) | Tops (feet) |
|---------------|-----------------|--------------|-------------|
| Stratocumulus | Few | 2,500 | 3,000 |
| Cirrus | Scattered | 25,000 | 27,000 |

Weather: None

Surface Visibility: 7 miles Solar Activity: Low

Liftoff Winds (MPH): 260° @ 20-25 (200') **Pressure:** 29.82 inHg

Temperature: 76°F RH: 95%

Launch day probability of violating launch weather constraints: 30%

Primary concern(s): Liftoff Winds

Delay day probability of violating launch weather constraints: 20%

Primary concern(s): Thick Cloud Layers Rule, Liftoff Winds

 Sunrise:
 4/0625 EDT 5/0625 EDT
 Sunset:
 4/2017 EDT 5/2017 EDT

 Moonrise:
 4/0021 EDT 5/0059 EDT
 Moonset:
 4/1127 EDT 5/1220 EDT
 Illumination:
 70% 61%

Next forecast will be issued: As Required