

Launch Mission Execution Forecast

Mission: Falcon 9 Starlink V0.9

Issued: 22 May 2019/1030 EDT(1430 UTC)

Valid: 23 May 2019/2230-2400 EDT (24/0230-0400 UTC)

<u>Synoptic Discussion</u>: A very strong upper-level ridge remains over the Southeast U.S., keeping convection very isolated and limited mainly to shower activity along the Florida sea breezes. Temperatures will remain unseasonably warm across Central Florida, as this ridge pattern will persist for several days. The Space Coast will see isolated morning showers each day as the east coast sea breeze develops, then clearing by early afternoon as it pushes inland. Winds will increase Thursday as the surface ridge repositions, but should decrease after sunset. The primary concern is higher surface winds lingering into the evening. Maximum upper-level winds will be from the northwest at 30 knots near 42,000 feet.

On Friday, expect much the same with isolated morning showers over the Spaceport, followed by another spectacular day. The main weather concern will be cumulus clouds associated with onshore flow. Maximum upper-level winds remain from the north at 35 knots near 45,000 feet.

<u>Clouds</u> <u>Coverage</u> <u>Bases (feet)</u> <u>Tops (feet)</u>

Cumulus Few 2,500 4,000

Weather: None

Surface Visibility: 7 Miles Solar Activity: Low

Liftoff Winds (MPH): 080° @ 17-22 (200') **Pressure:** 30.18 inHg

Temperature: 77°F RH: 65%

Launch day probability of violating launch weather constraints: 10%

Primary concern(s): Liftoff Winds

Delay day probability of violating launch weather constraints: <10%

Primary concern(s): Cumulus Cloud Rule

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

Sunrise: 23/0628 EDT 24/0628 EDT Sunset: 23/2010 EDT 24/2011 EDT

Moonrise: 22/2350 EDT 24/0036 EDT Moonset: 23/1032 EDT 24/1126 EDT Illumination: 77% 69%

Next forecast will be issued: As Required