



# Launch Mission Execution Forecast

**Vehicle:** Falcon 9 SES-10

**Issued:** 28 Mar 2017/1230UTC (0830EDT)

**Valid:** 30 Mar 2017/2200–31/0030UTC (1800–2030EDT)

**Synoptic Discussion:** Another great day is on tap for Central Florida with light surface winds allowing for substantial heating and above average temperatures. On Wednesday, a weak surface boundary will drape across the Mid-Atlantic states and trail back into a developing storm system over Texas. Thursday will see the Texas storm system strengthen and begin to track northeasterly into the Tennessee Valley. Although the system and its associated frontal boundary will not directly impact the Space Coast until late Friday and Saturday, there will be upper-level cloudiness and added instability ahead of the system, north of the Spaceport. The primary weather threat for an attempt Thursday will be cumulus and thick layer clouds ahead of the system. Max upper-level winds will be westerly at 100 knots near 40,000 feet.

On Friday, the surface boundary associated with the system will push into the Florida Panhandle as the low itself tracks towards the Mid-Atlantic states. Surface winds along the Space Coast will turn more southerly and speeds will increase into the 20-25 mile per hour range. Although the boundary will likely weaken as it approaches the Spaceport during the countdown Friday, showers are likely and isolated thunderstorms are possible. Primary weather concerns remain cumulus and thick layer clouds with the addition of liftoff winds. Maximum upper-level winds will be from the west at 115 knots near 40,000 feet.

<u>Clouds</u>	<u>Coverage</u>	<u>Bases (feet)</u>	<u>Tops (feet)</u>
Cumulus	Scattered	3,000	8,000
Cirrus	Broken	28,000	30,000

<b>Weather:</b>	None	<b>Solar Activity:</b>	Low
<b>Surface Visibility:</b>	7 miles	<b>Pressure:</b>	29.97 inHg
<b>Liftoff Winds (MPH):</b>	150° @ 10 P15 (180')	<b>RH:</b>	64%
<b>Temperature:</b>	80°F		

**Launch day probability of violating launch weather constraints:** **30%**  
**Primary concern(s):** Cumulus Cloud Rule, Thick Cloud Layer Rule

**Delay day probability of violating launch weather constraints:** **60%**  
**Primary concern(s):** Cumulus Cloud Rule, Thick Cloud Layer Rule, Liftoff Winds

**Sunrise:** 30/0715 EDT  
31/0713 EDT

**Sunset:** 30/1939 EDT  
31/1940 EDT

**Moonrise:** 30/0915 EDT  
31/1003 EDT

**Moonset:** 30/2238 EDT  
31/2343 EDT

**Illumination:** 9%  
17%

**Next forecast will be issued:** 29 Mar 2017