Launch Mission Execution Forecast

Mission: Atlas V CST-100 OFT-2
Issued: 28 Jul 2021 / 0800L (1200Z)
Valid: 30 Jul 2021 / 1443 – 1503L (1843 – 1903Z)

Forecast Discussion: *There has been no significant change to the forecast reasoning.* Light southwest steering flow, combined with deep moisture over the area, will lead to a typical summer pattern of afternoon showers and thunderstorms over the Space Coast. Convection is expected to develop along the east coast sea breeze early each afternoon before the boundary pushes slowly inland and storms increase in coverage through the day. This pattern of showers and storms favoring the eastern half of the peninsula is expected to hold through much of the upcoming week, though there is some indication that the overall coverage of storms will begin to decrease by Friday. Surface winds are expected to remain below constraints outside of any thunderstorms, which could produce brief wind gusts in excess of 30 knots. Given the time of day of the launch on Friday, a weather-related violation is likely during Friday's countdown due to isolated to scattered showers and thunderstorms in the vicinity, particularly west, of Space Launch Complex 41. At this time, the probability of violation remains at 60%, with the primary concerns being the Cumulus Cloud, Surface Electric Fields, and Lightning Rules.

Launch Day

Probability of Violating Weather Constraints

60%

Primary Concerns: Cumulus Cloud Rule, Surface Electric Fields Rule, Lightning Rule

Weather Conditions

Weather/Visibility:	Isolated Storms / 7 mi.
Temp/Humidity:	87°F / 74%
Ground Winds (230'):	180° 8 - 14 knots

Clouds

Type	Coverage	Base (ft)	Tops (ft)
Cumulonimbus	Scattered	3,000	30,000
Cirrus	Scattered	28,000	34,000

Additional Risk Criteria

Solar Activity: Low

***Note**: The Probability of Violation (POV) is the chance that a Lightning Launch Commit Criteria (LLCC) or certain user constraints (surface winds, precipitation, and temperatures, etc.) will be violated during the launch window. It does not take into account upper-level wind shear and solar activity.*

Next Forecast Will Be Issued 29 Jul 2021