



Launch Mission Execution Forecast



Mission: Atlas V GOES-T

Issued: 25 Feb 2022 / 0800L (1300Z)

Valid: 1 Mar 2022 / 1638 – 1838L (2138 – 2338Z)

Forecast Discussion: Dry weather and above average temperatures are expected through Sunday as high pressure lingers over central Florida. For Roll Day on Monday, a cold front is expected to move through, likely in the afternoon. This will bring scattered showers and a few thunderstorms through the Spaceport in the afternoon or evening, especially along the coast and just offshore. For Tuesday into Wednesday, model guidance diverges. The ECMWF and GALWEM/UKMET stall the front just to our south and develop a coastal trough or even closed low right off the coast, lingering until possibly even mid Wednesday before clearing out. This would bring scattered showers moving onshore, with the potential for elevated field mills and breezy winds 15-20kt, depending on exactly where the surface trough or low develops. The GFS stalls the front further south with lower chances for showers Tue-Wed. Either way, lightning chances on launch or backup day are low at this time, being on the north side of the stalled boundary. This forecast leans more towards the ECMWF and GALWEM for the primary and backup launch days, with the expectation that the stalled boundary to our south will start to dissipate by Wednesday with slightly lower chances and coverage of showers in the area.

Probability of Violating Weather Constraints¹

Launch Day

40%

Primary Concerns: Cumulus Cloud Rule, Surface Electric Fields Rule

Weather Conditions

Additional Risk Criteria²

		Clouds			
		Type	Coverage	Base (ft)	Tops (ft)
Weather/Visibility:	Scattered Showers / 7 mi.				
Temp/Humidity:	67°F / 85%	Cumulus	Scattered	2,000	14,000
Ground Winds (230'):	050° 15 - 20 knots	Stratus	Broken	2,500	5,000

Solar Activity: Low

Probability of Violating Weather Constraints

24-Hour Delay

30%

Primary Concerns: Cumulus Cloud Rule

Weather Conditions

Additional Risk Criteria

		Clouds			
		Type	Coverage	Base (ft)	Tops (ft)
Weather/Visibility:	Few Showers / 7 mi.				
Temp/Humidity:	68°F / 80%	Cumulus	Few	2,000	10,000
Ground Winds (230'):	050° 13 - 18 knots	Stratocumulus	Scattered	2,500	5,000

Solar Activity: Low

Notes

1. The Probability of Violation (PoV) is the chance of a local safety or customer constraint violation occurring anytime during the launch window.
 2. Additional Risk Criteria, which are not included in the PoV, are mission-specific constraints that may not include all phenomena within each risk factor.
- See <https://www.patrick.spaceforce.mil/Portals/14/Weather/LaunchFAQ.pdf> for more information.

Next Forecast Will Be Issued

26 Feb 2022