Launch Mission Execution Forecast

Mission: Falcon 9 CRS-22
Issued: 2 June 2021 / 0800L (1200Z)
Valid: 3 June 2021 / 1324 – 1334L (1724 – 1734Z)

Forecast Discussion: Extensive atmospheric moisture currently residing across the Bahamas will continue to be siphoned northwest towards the area around the periphery of the subtropical ridge. Onshore flow will favor night and morning shower activity at the coast, while the East Coast seabreeze gets an early start to its inland journey each day, focusing afternoon storms to the west of the Spaceport. However, the threat for lingering clouds and showers extending into the early afternoon hours over the waters and along the coast appears somewhat higher compared to earlier forecasts. Thus, the main weather concerns for both Launch Day and Delay Day are the Cumulus Cloud Rule and Flight Through Precipitation.

Launch Day

Probability of Violating Weather Constraints

40%

Primary Concerns: Cumulus Cloud Rule, Flight Through Precipitation

Weather Conditions

Weather/Visibility:	Sct showers / 7 mi.
Temp/Humidity:	84°F / 74%
Liftoff Winds (200'):	140° 15 - 20 mph

Clouds

Type	Coverage	Base (ft)	Tops (ft)
Cumulus	Broken	3,000	12,000

Additional Risk Criteria

Upper-Level Wind Shear:	Low
Booster Recovery Weather:	Low
Solar Activity:	Low

24-Hour Delay

Probability of Violating Weather Constraints

40%

Primary Concerns: Cumulus Cloud Rule, Flight Through Precipitation

Weather Conditions

Weather/Visibility:	Sct showers / 7 mi.
Temp/Humidity:	85°F / 68%
Liftoff Winds (200'):	150° 15 - 20 mph

Clouds

Type	Coverage	Base (ft)	Tops (ft)
Cumulus	Broken	3,000	12,000

Additional Risk Criteria

Upper-Level Wind Shear:	Low
Booster Recovery Weather:	Low
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, booster recovery weather, and solar activity.*

Next Forecast Will Be Issued	As Required