New York Thunderstorms, HIRES

July 14, 2025

Climavision

CASE STUDY

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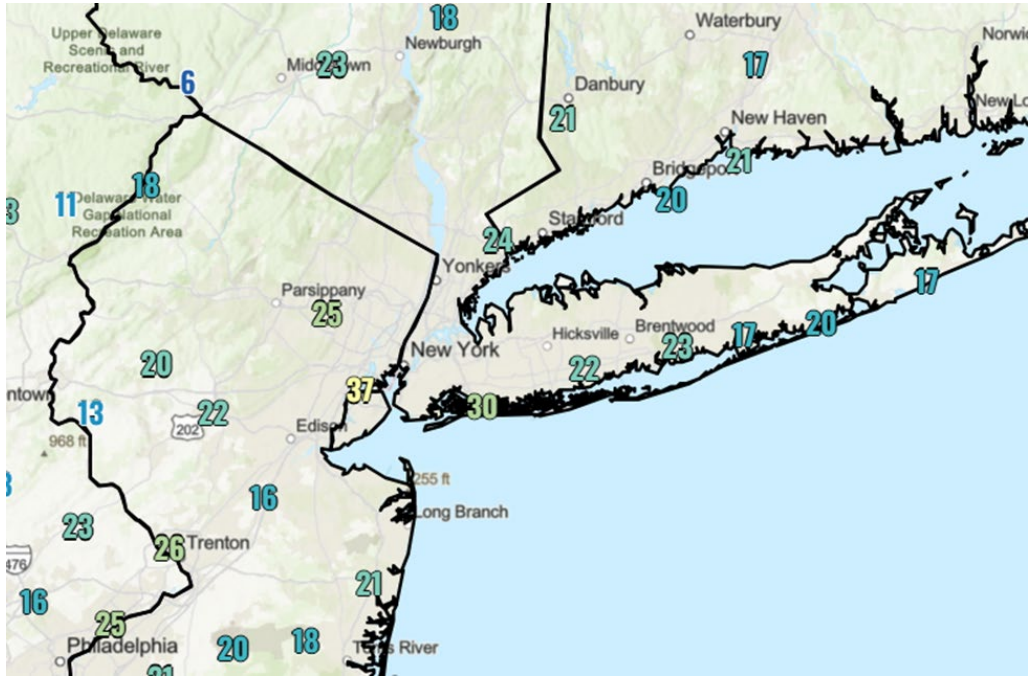
New York
Thunderstorms

Thunderstorms pushed through the Mid-Atlantic and Northeast U.S., including the ConEd service area, between 19 UTC and 01 UTC (3pm and 9pm EDT), with the heaviest activity between 23 UTC and 00 UTC (7pm and 8pm EDT). There were no official damage reports in the ConEd area, although there was a downed tree report just to the northwest. Peak wind gusts in the service area were recorded around 30 mph. These gusts, along with lightning, caused power outages in the New York area.

Radar Loop, 19 UTC July 14 – 01 UTC July15
Source: NOAA



Maximum observed wind gusts (mph), July 14
Source: NOAA

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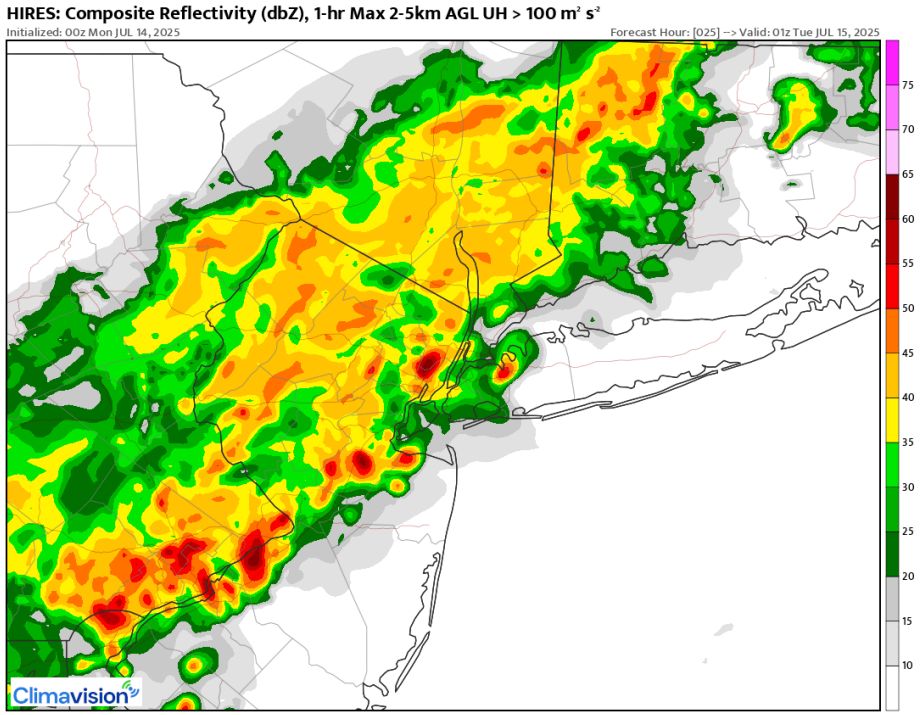
About 24 hours before the event, the Climavision HIRES model was forecasting heavy rain and thunderstorms to move through in the evening hours. The HRRR had storms in the area, but they were not as widespread and were predicted to move through NYC later than HIRES was forecasting.

Climavision HIRES

Model Run time: 8PM EDT 13 July 2025

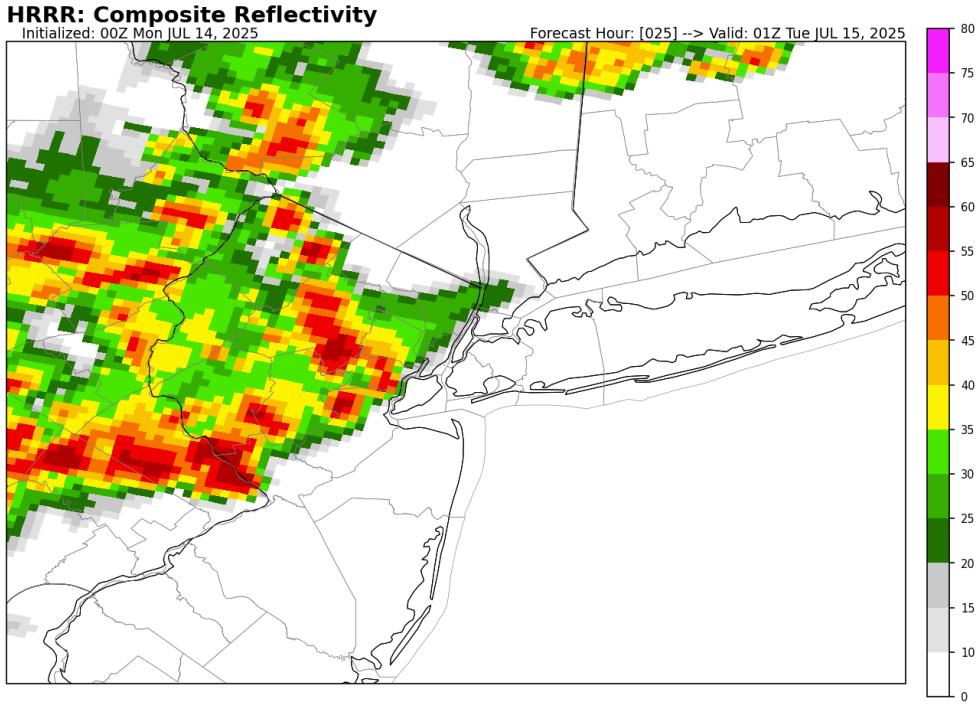
Forecast Valid time: 9PM EDT 14 July 2025



HRRR

Model Run time: 8PM EDT 13 July 2025

Forecast Valid time: 9PM EDT 14 July 2025



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On the same model run, Climavision's HIRES model did a better job at forecasting wind gusts. HIRES was not predicting widespread strong winds, but accurately forecasted pockets of gusts as high as 30 mph. Wind gust forecasts from the HRRR were lower for the NYC area, peaking at 20 mph.

Climavision HIRES

Model Run time: 8PM EDT 13 July 2025

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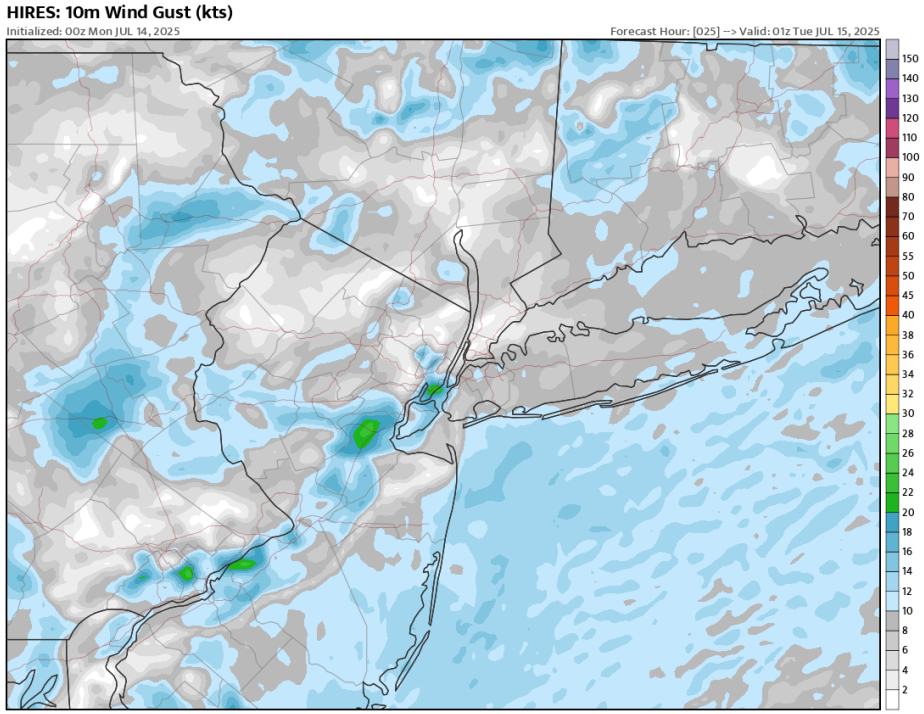
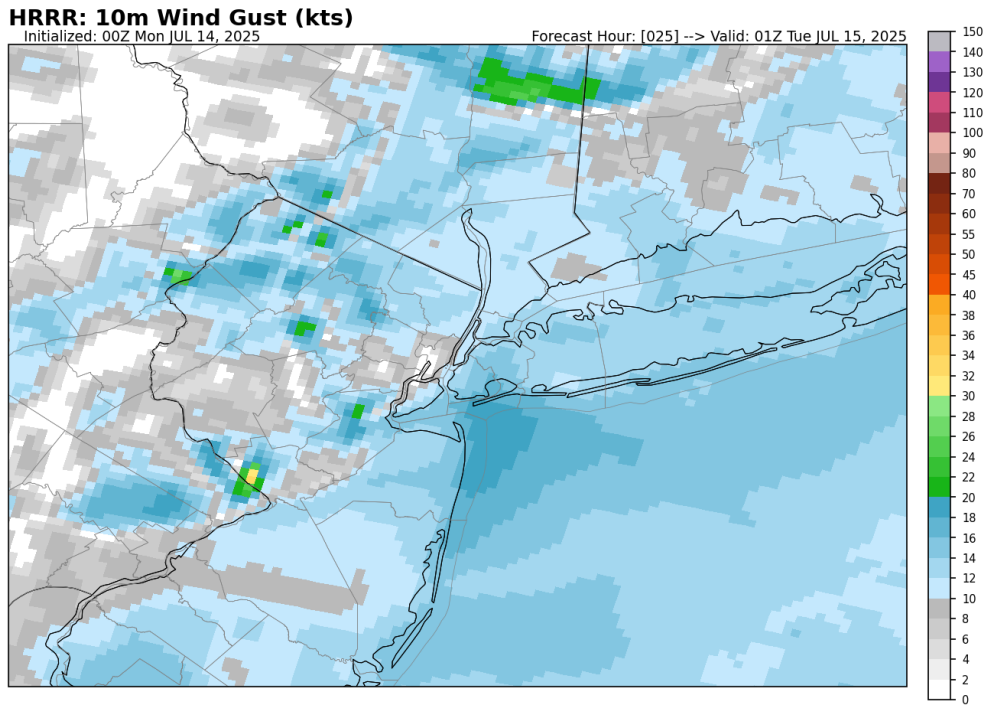


HRRR

Model Run time: 8PM EDT 13 July 2025

Forecast Valid time: 9PM EDT 14 July 2025



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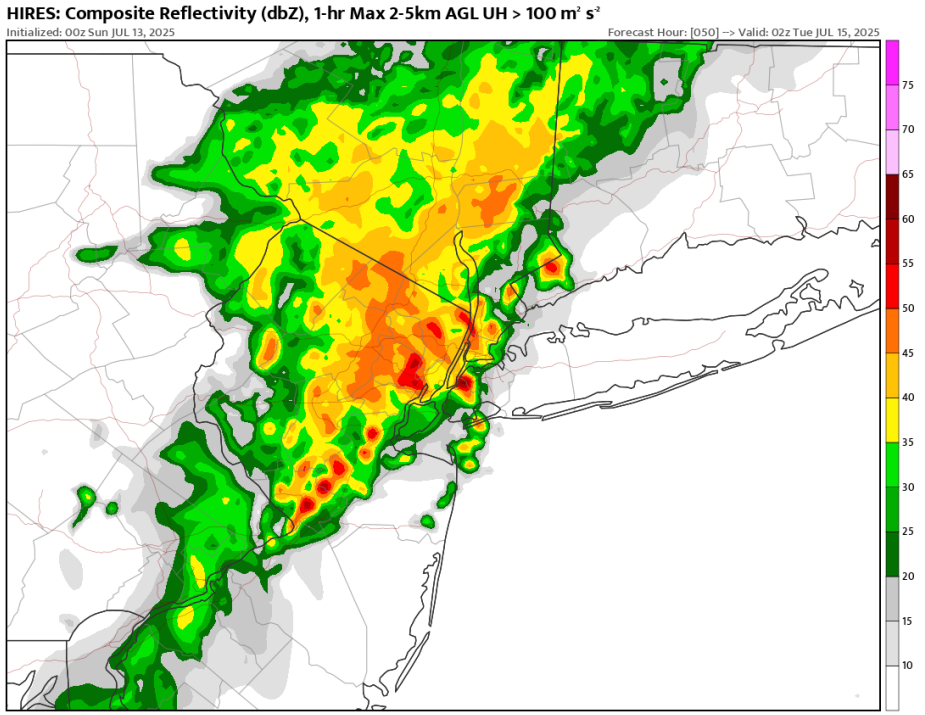
Climavision's HIRES Forecast Model was accurately forecasting these thunderstorm wind gusts two days before the event, hours before the HRRR was in range.

Climavision HIRES

Model Run time: 8PM EDT 13 July 2025

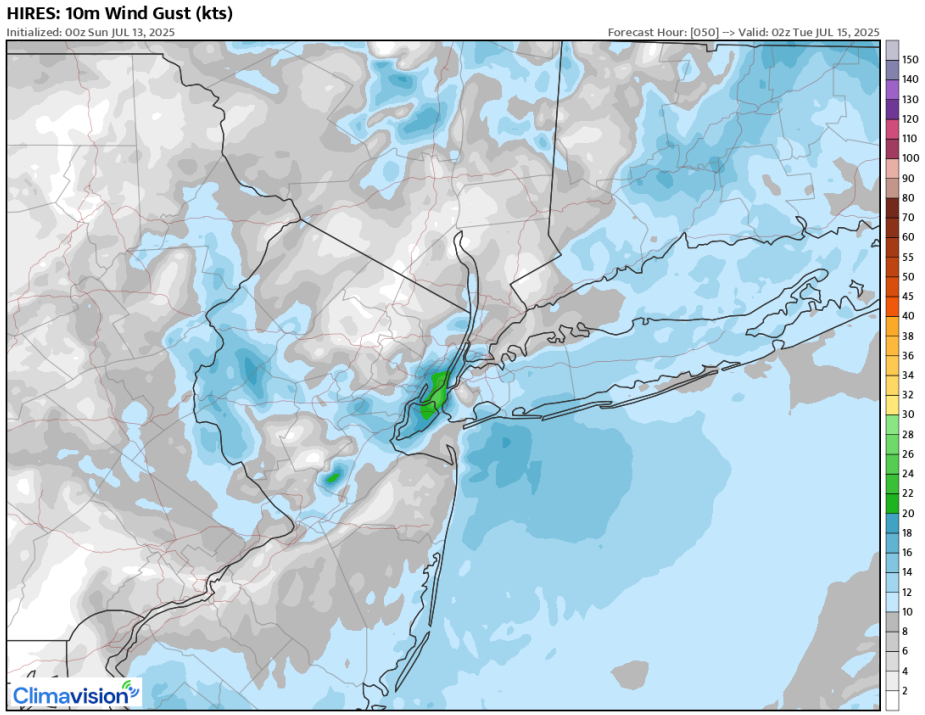
Forecast Valid time: 10PM EDT 14 July 2025



Climavision HIRES

Model Run time: 8PM EDT 13 July 2025

Forecast Valid time: 10PM EDT 14 July 2025



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