Connecticut Department of Energy and Environmental Protection

Connecticut Department of
ENERGY &
ENVIRONMENTAL
PROTECTION

August 24, 2016 OTR and Connecticut Ozone Exceedances

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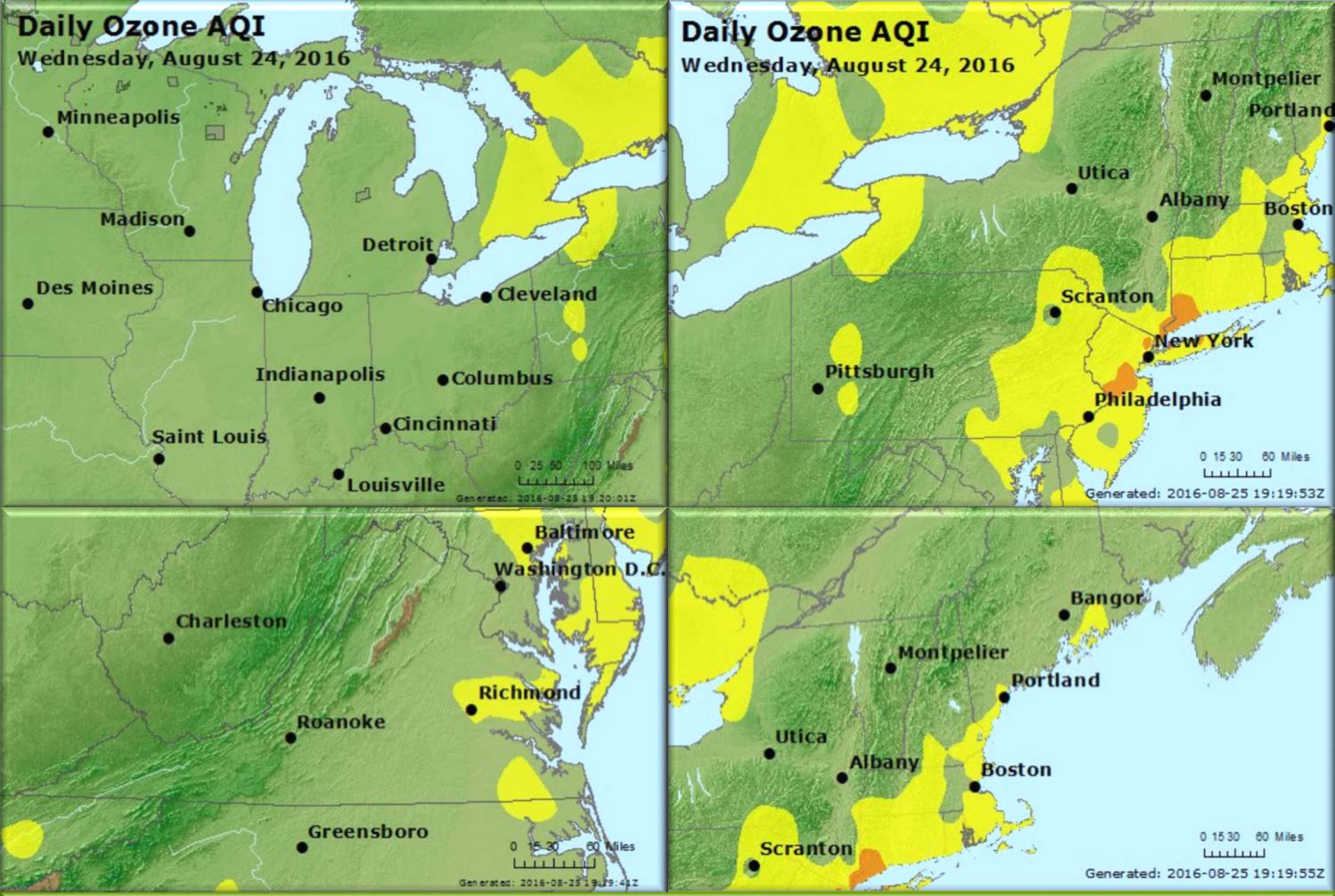
Connecticut Department of Energy and Environmental Protection

Summary

- Connecticut and New Jersey had ozone exceedances;
- MODERATE levels measured along the remainder of the I-95 corridor from Maryland to Maine.
  1. 7 sites above 70 ppb ozone NAAQS, 4 sites in CT
  2. 4 sites above (2008) 75 ppb ozone NAAQS, 3 sites in CT
  3. 0 sites above (1997) 84 ppb ozone NAAQS, 0 sites in CT



Regional AQI Maps

Table of OTR Monitoring Sites

- 4 sites in Connecticut exceeded the 70 ppb NAAQS. Bradley Airport had a high temperature of 86° F.

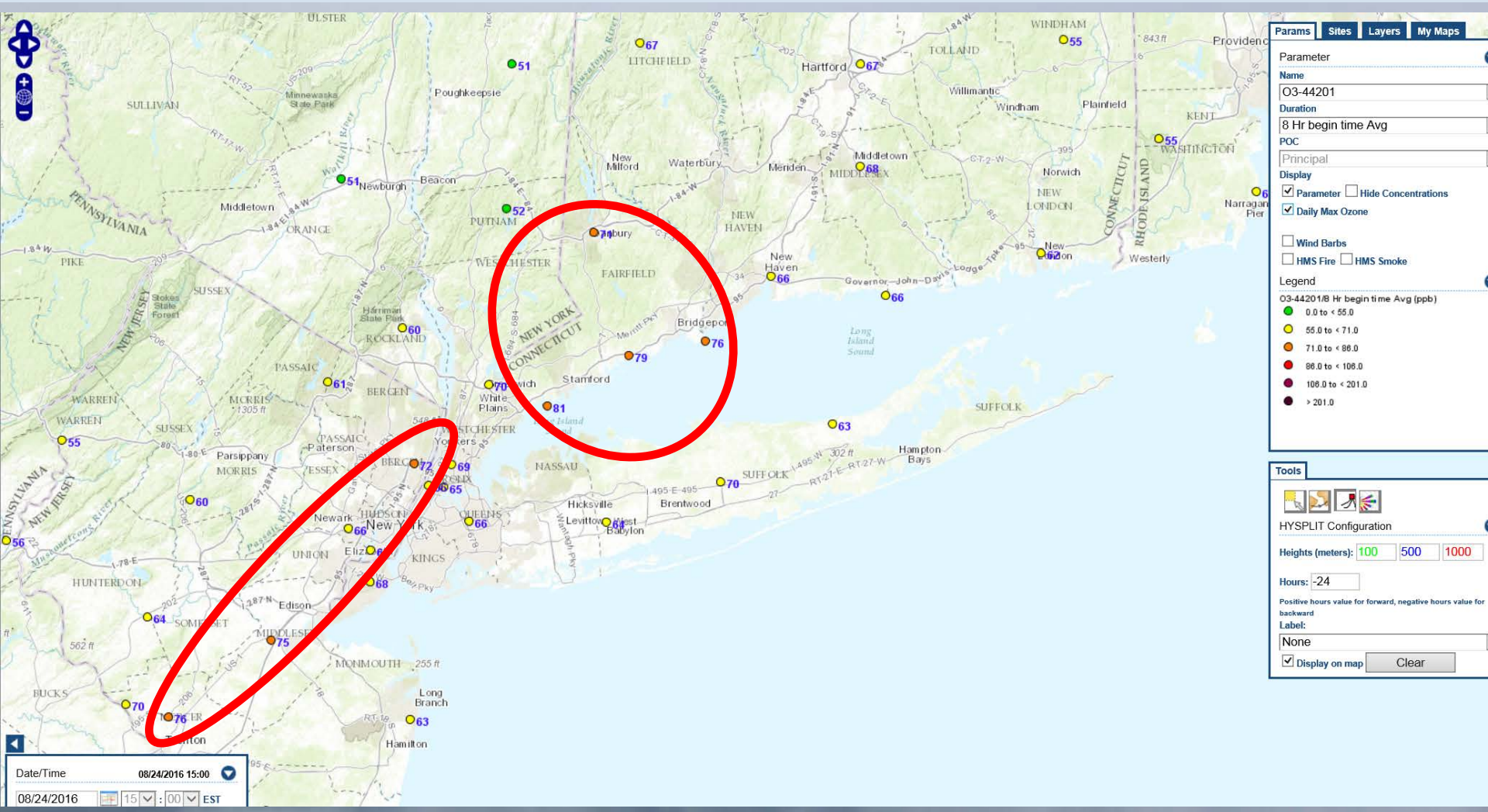
Site AQS	Date (LST)	Site	Max 8-hour Ozone ppb
090010017	8/24/2016	Greenwich	81
090019003	8/24/2016	Westport	79
340210005	8/24/2016	Rider Universit	76
090013007	8/24/2016	Stratford	76
340230011	8/24/2016	Rutgers Univers	75
340030006	8/24/2016	Leonia	72
090011123	8/24/2016	Danbury	71
361030009	8/24/2016	Holtsville	70
361192004	8/24/2016	White Plains	70
360050133	8/24/2016	Pfizer Lab	69
090070007	8/24/2016	Middletown	68
360850067	8/24/2016	Susan Wagner	68
090050005	8/24/2016	Cornwall	67
090031003	8/24/2016	East Hartford	67
421010024	8/24/2016	NEA	67
360610135	8/24/2016	CCNY	66
340290006	8/24/2016	Colliers Mills	66
250051004	8/24/2016	Fall River	66
090099002	8/24/2016	Madison-Beach R	66
440090007	8/24/2016	Narragansett	66
090090027	8/24/2016	New Haven - Cri	66
340130003	8/24/2016	Newark Firehous	66
360810124	8/24/2016	Queens	66
420170012	8/24/2016	BRIS	65
230090102	8/24/2016	Bar Harbor - Ca	65
360050110	8/24/2016	IS52	65
250094005	8/24/2016	Newburyport	65
361030002	8/24/2016	Babylon	64

CT Monitoring Site Design Value Update

- Connecticut has 27 exceedance days to date
- No change to table with this episode

	Site Name	To Date: 2016 DV	To Date 2016 Compliance Status x = Violating NAAQS: 2015 NAAQS	2008 NAAQS	1997 NAAQS	Next Possible NAAQS in Violation (key monitor in each NA is highlighted in RED)
SWCT Portion of NYC Area	Danbury	78	X	X		Four more 102+ ppb days violates 1997 NAAQS
	Greenwich	82	X	X		Four more 93+ ppb days violates 1997 NAAQS
	Madison	76	X	X		Four more 105+ ppb days violates 1997 NAAQS
	Middletown	79	X	X		Three more 97+ ppb days violates 1997 NAAQS
	New Haven - Criscuolo Park	76	X	X		Four more 101+ ppb days violates 2008 NAAQS
	Stratford	81	X	X		Three more 95+ ppb days violates 1997 NAAQS
	Westport	85	X	X	X	**Violates all NAAQS**
Greater CT	Cornwall	72	X			Three more 86+ ppb days violates 2008 NAAQS
	East Hartford	75	X			**One more 76+ ppb days violates 2008 NAAQS**
	Groton Fort Griswold	72	X			Three more 86+ ppb days violates 2008 NAAQS
	Stafford	73	X			Three more 79+ ppb days violates 2008 NAAQS
	Abington (CASTNET)	68				One more 76+ ppb days violates 2015 NAAQS

August 24 , 2016 Peak Northeast Ozone



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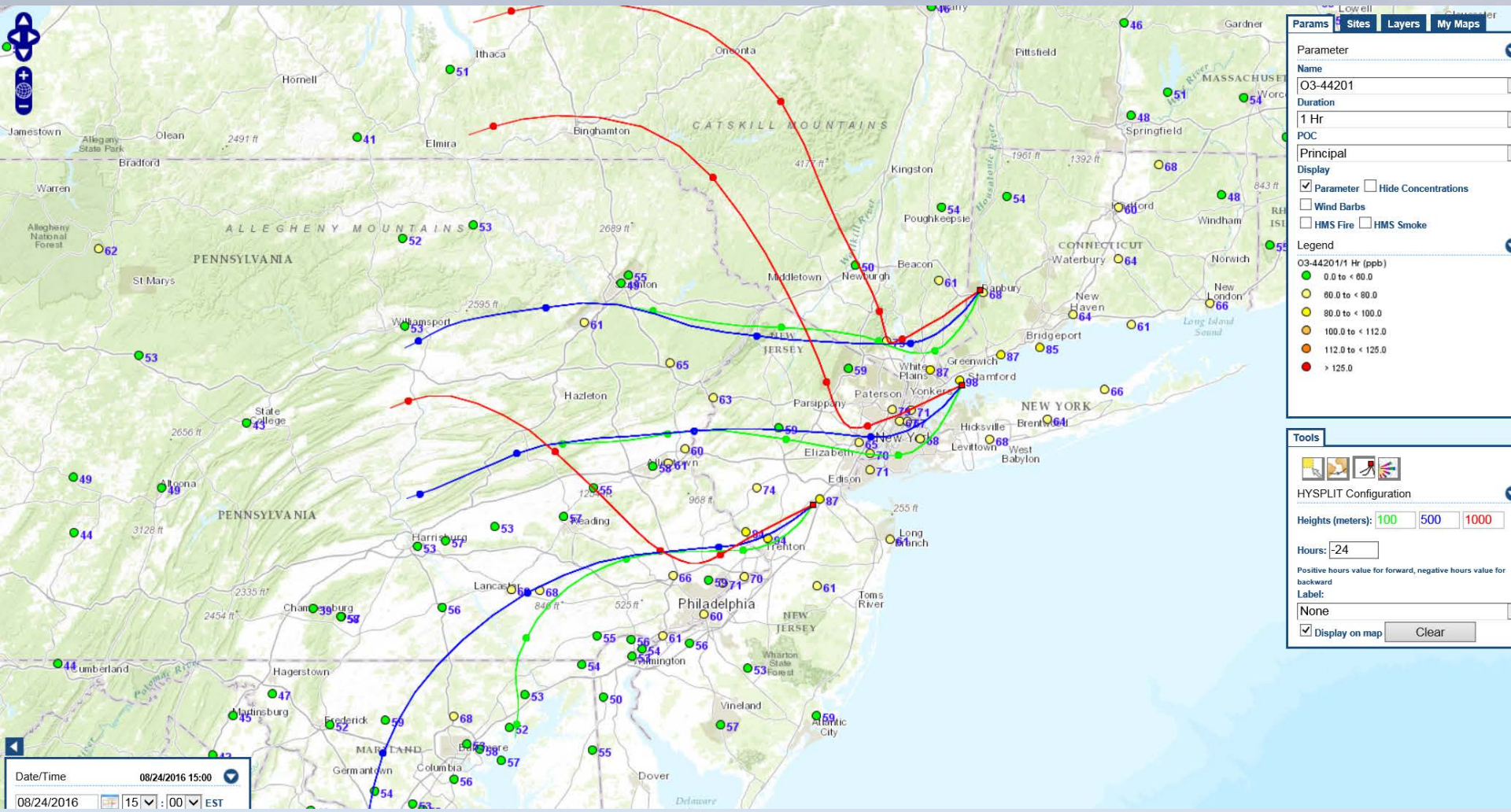
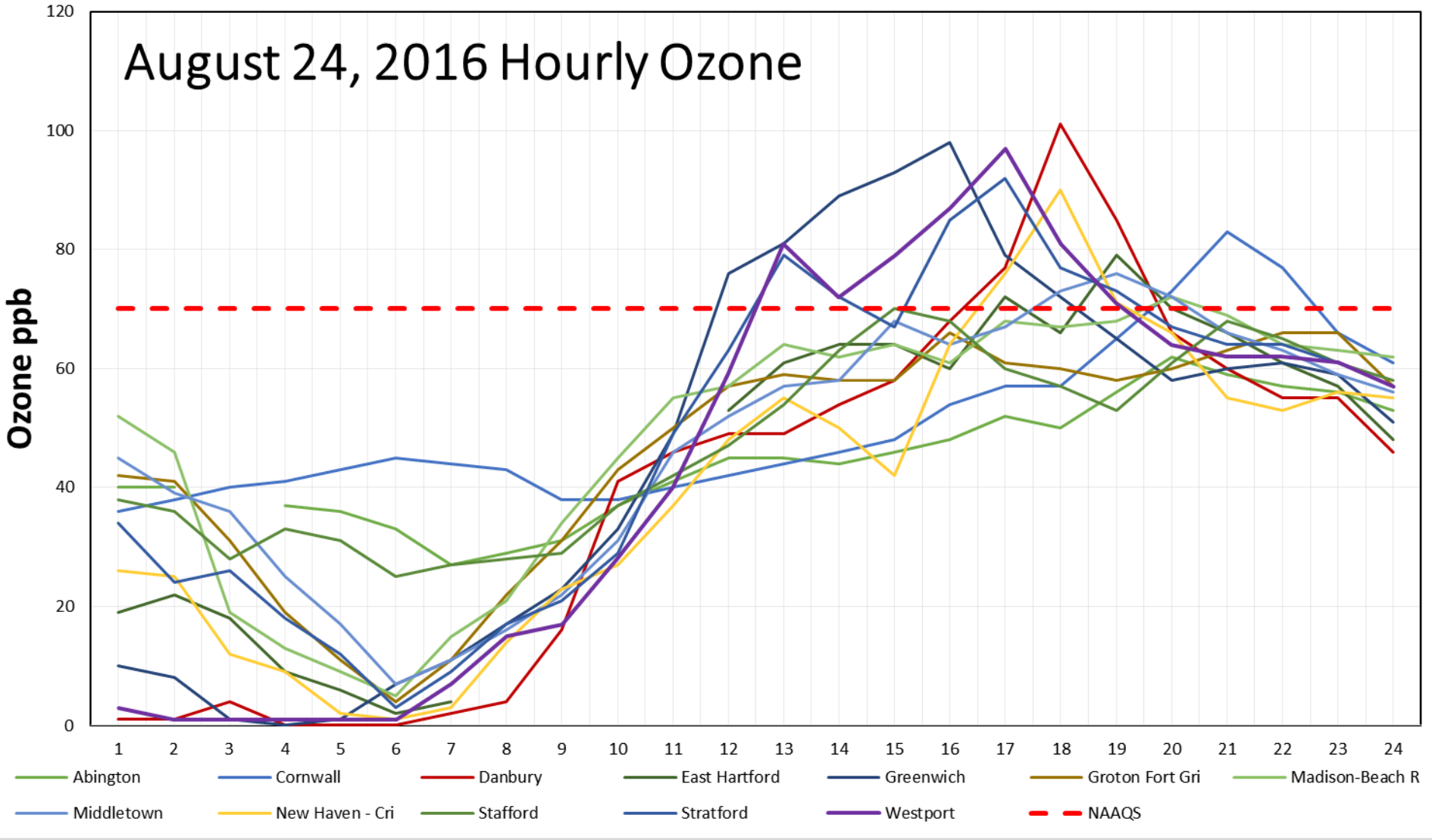
August 24 , 2016 Back Trajectories 3:00 pm EST



Low level winds (100-500 meters) were westerly, but turned southwest during the morning. This allowed for pollutant transport northeast from the NYC area to CT and from Philadelphia area to New Jersey.

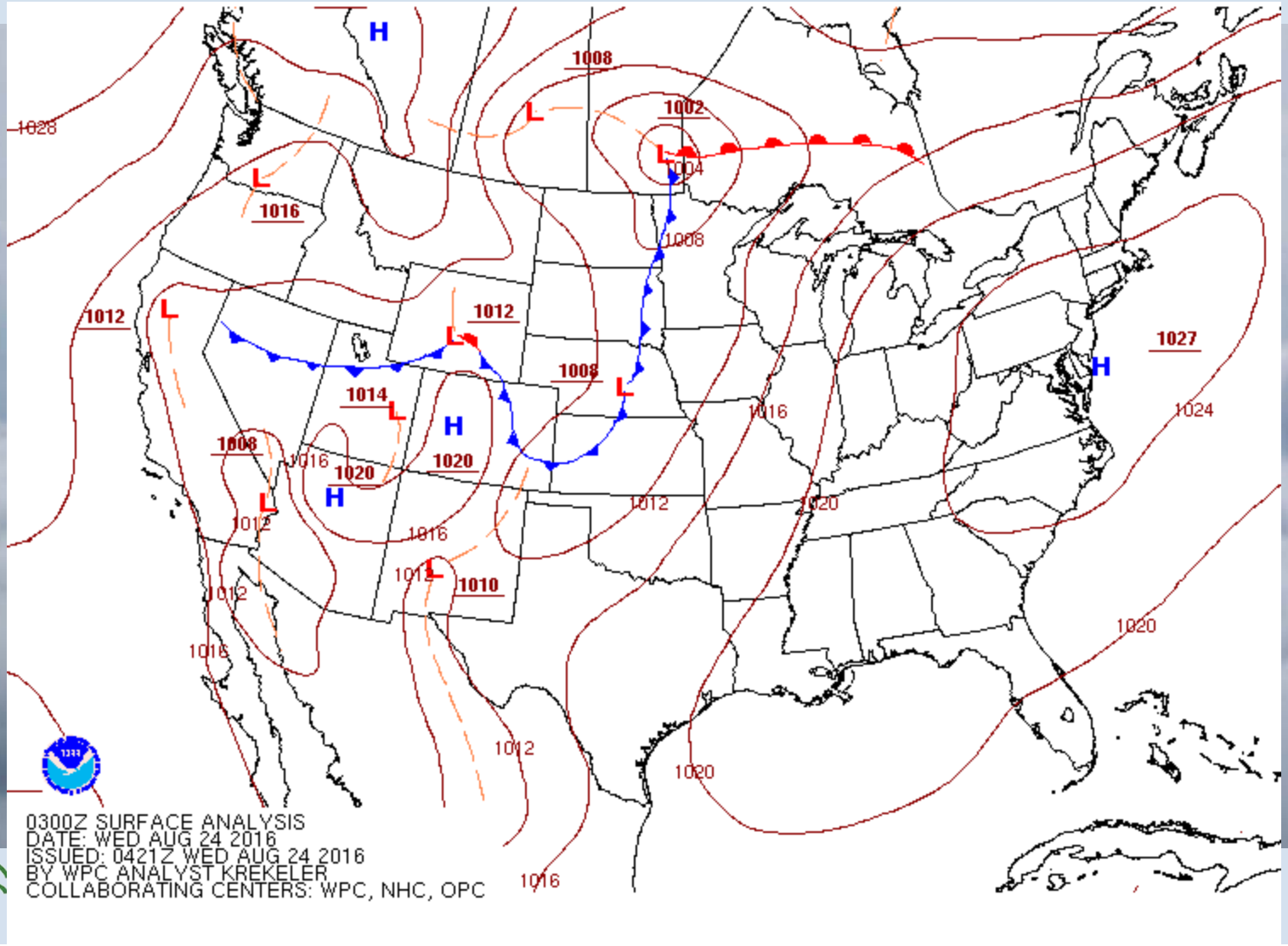
CT Ozone Monitors August 24 , 2016

USG ozone mainly confined to monitors in Fairfield and New Haven Counties. Hourly ozone peaked at 101 ppb at Danbury.



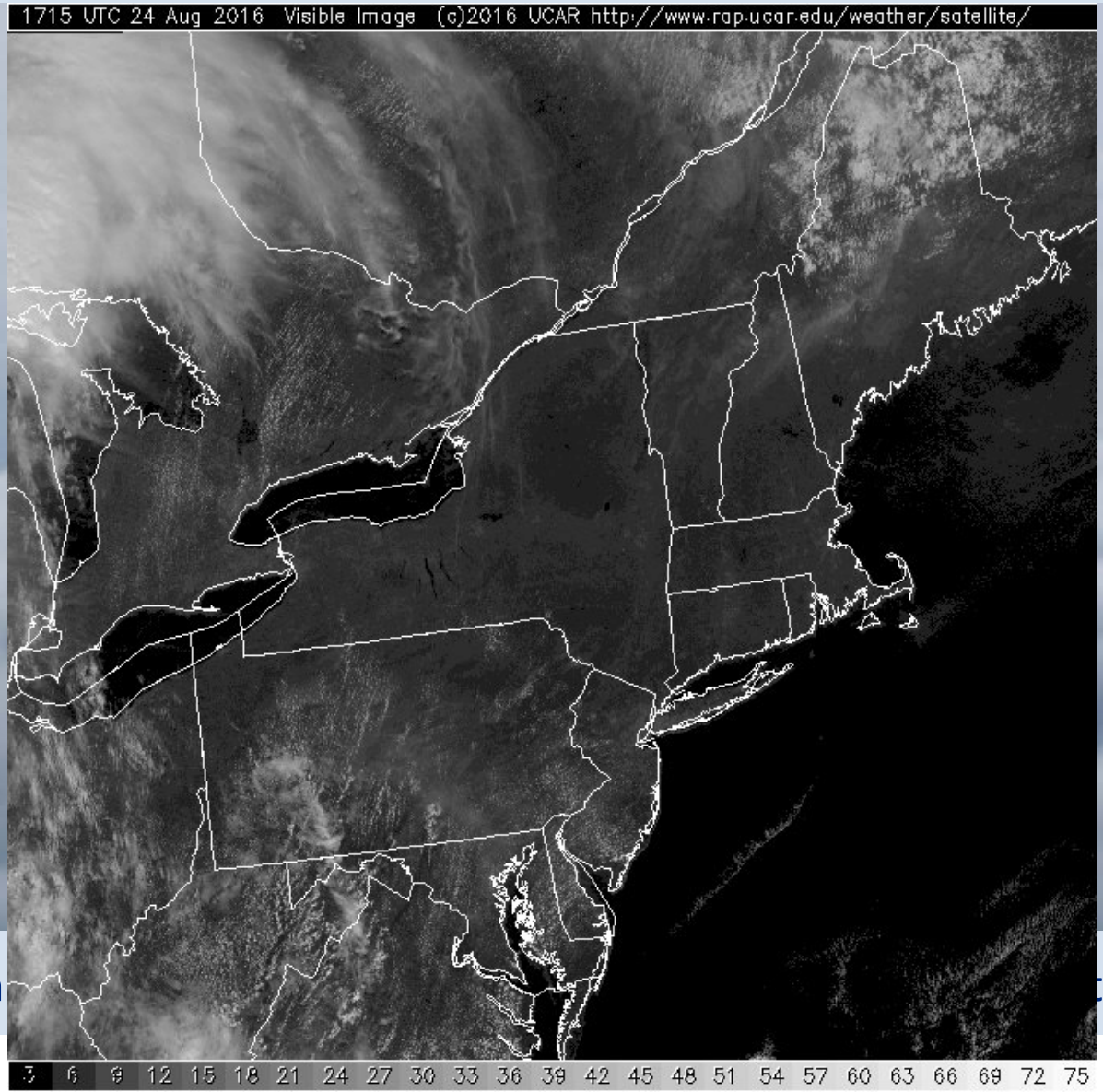
August 24 , 2016 Surface Analysis Animation

- High pressure moves offshore and allows a southwest surface wind to develop.



August 24 , 2016 Satellite Animation

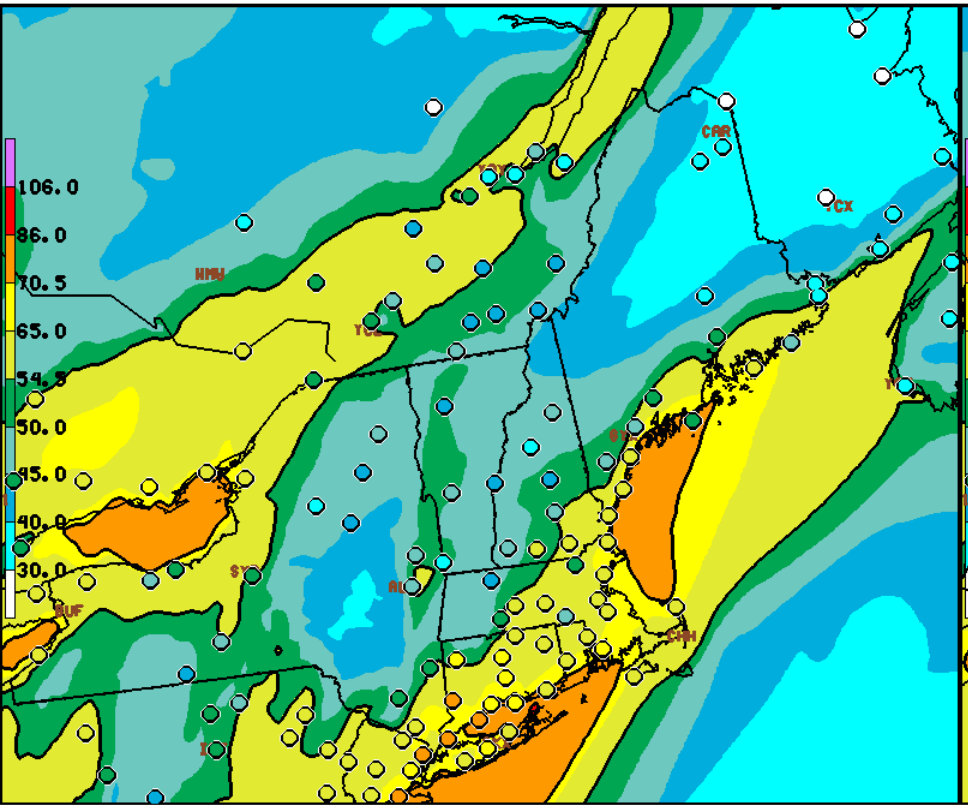
- Skies remained sunny all day, allowing for maximum ozone production.

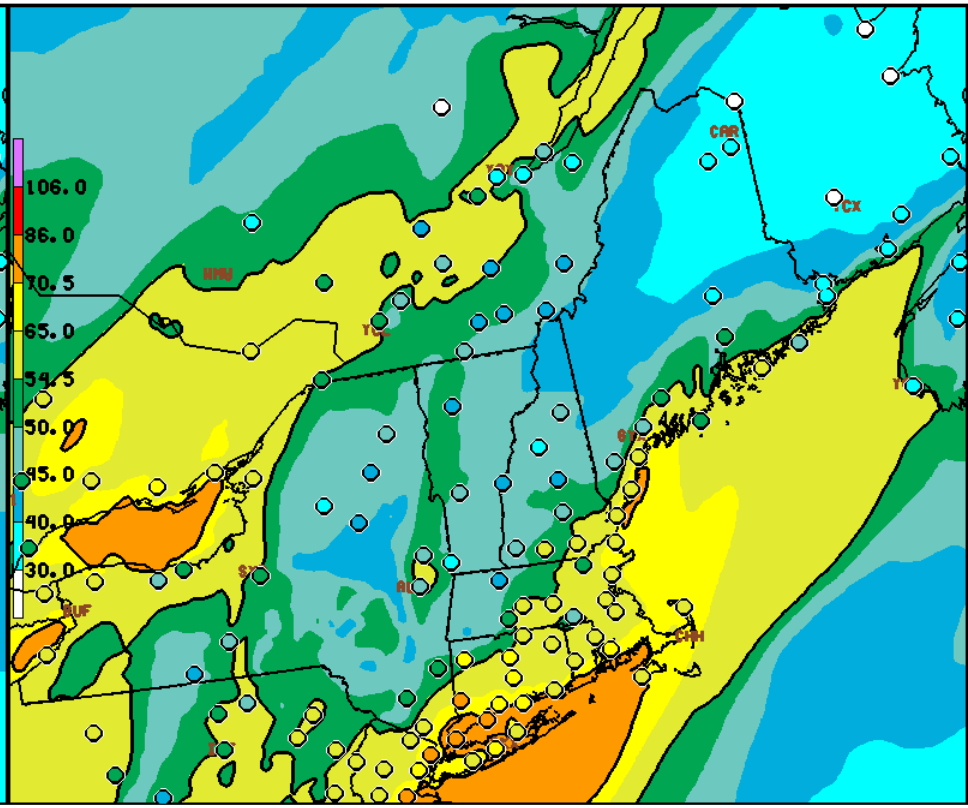


Con tection

August 24 , 2016 NOAA Model Performance

- Same day NOAA model showed potential for USG ozone levels over southwest CT





Conclusion

- USG ozone event just for Connecticut and New Jersey
- Southwest winds over NYC caused elevated ozone to form over southwest CT for several hours;
- Skies remained nearly cloud-free the entire day, which allowed ozone to reach full potential;
- Same day NOAA model did well predicting USG ozone from the NYC plume over southwest Connecticut. The day before model run placed USG over east coastal Connecticut.