Connecticut Department of Energy and Environmental Protection

Connecticut Department of
ENERGY &
ENVIRONMENTAL
PROTECTION

June 7, 2016 OTR Ozone Exceedances

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Connecticut Department of Energy and Environmental Protection

Summary

- Mostly Good to Moderate throughout the OTR;
- USG reported at 5 coastal CT monitors, 1 NY and 1 RI monitor;
  1. 7 sites above 70 ppb ozone NAAQS, 5 sites in CT
  2. 1 sites above (2008) 75 ppb ozone NAAQS, 1 sites in CT
  3. 0 sites above (1997) 84 ppb ozone NAAQS, 0 sites in CT

June 7, 2016 Peak East Coast Ozone

- Good to Moderate levels away from the coast;
- USG for coastal Connecticut, Riverhead NY and West Greenwich RI.

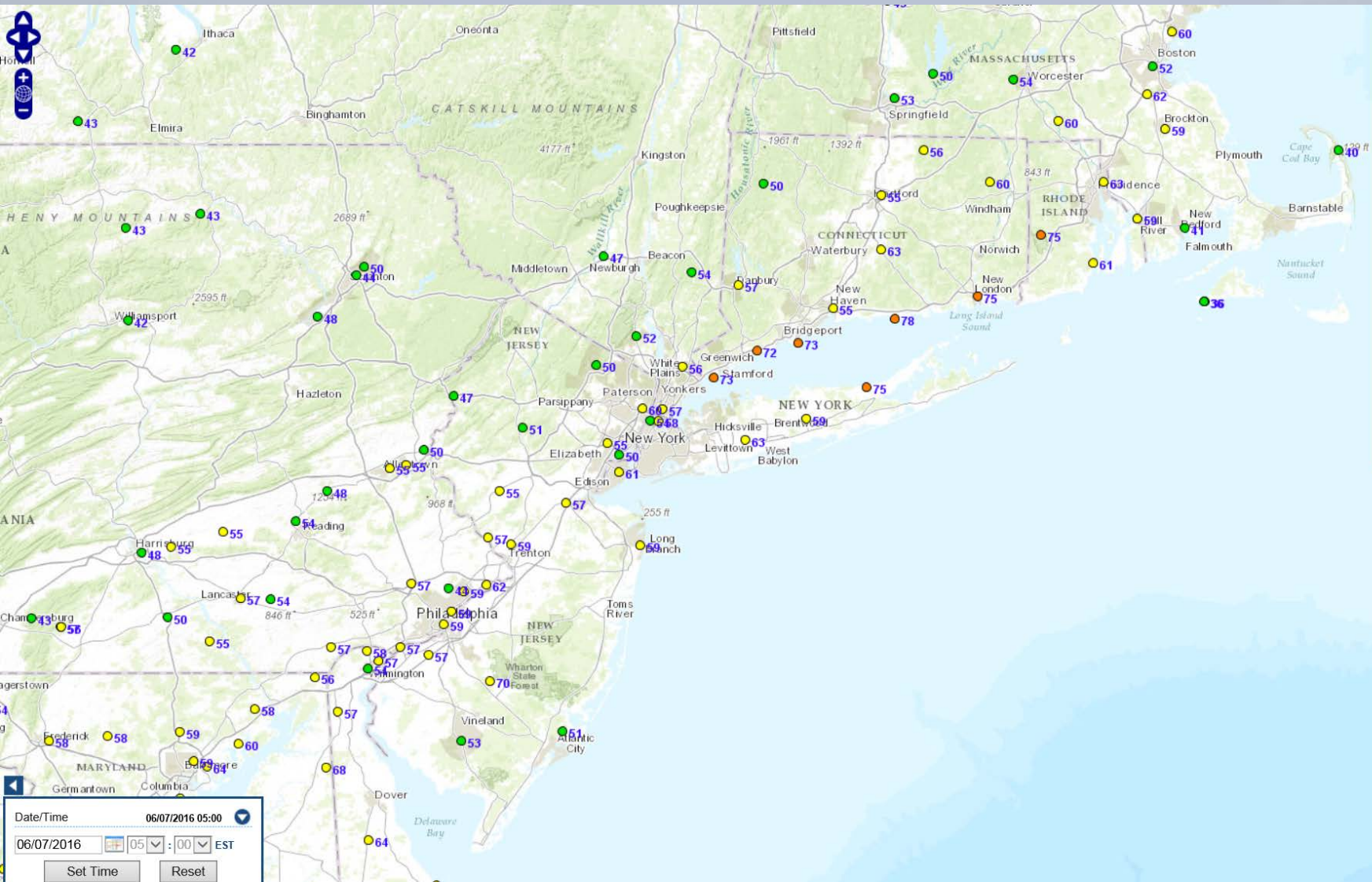
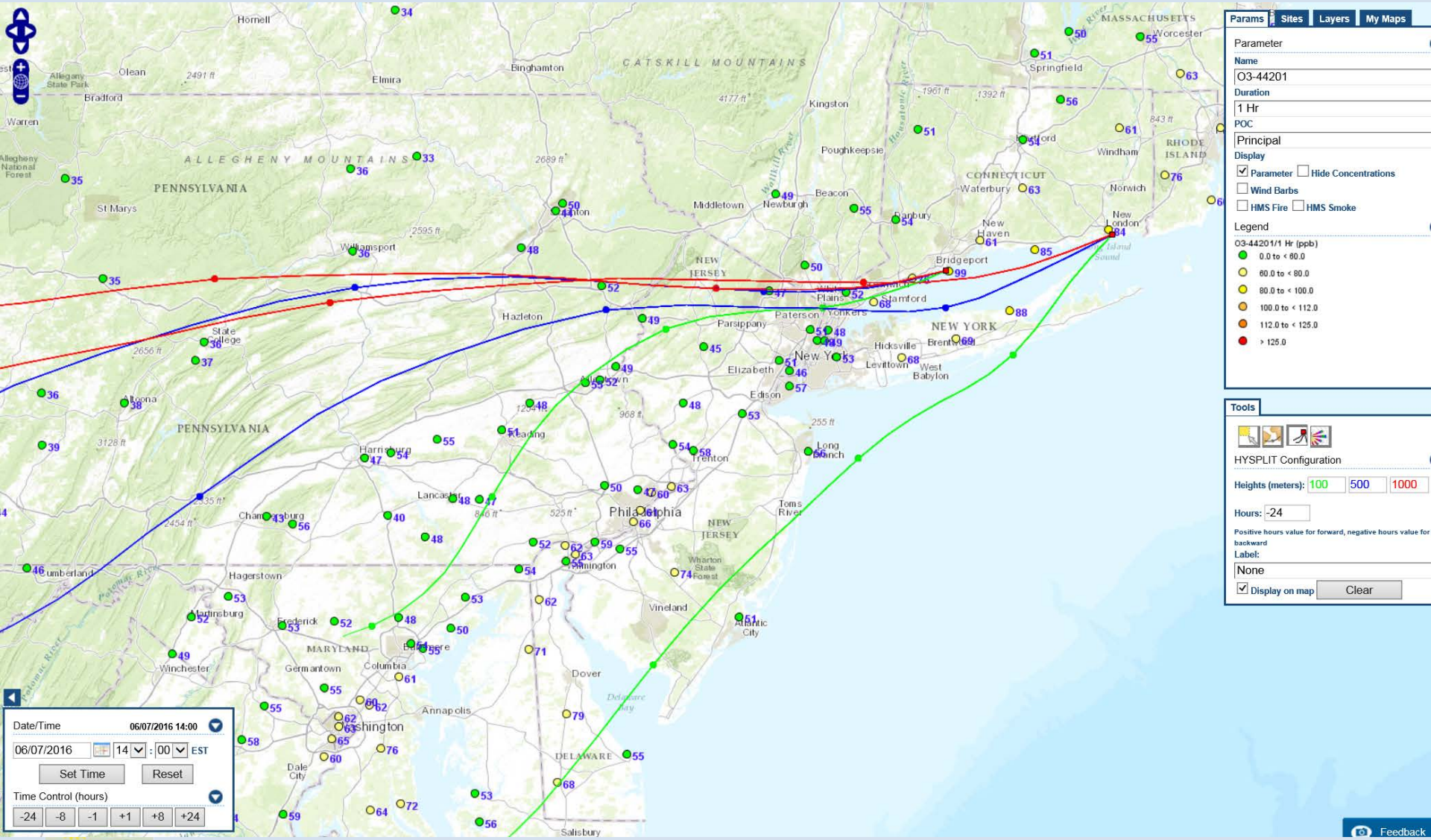


Table of OTR Monitoring Sites

- A good to moderate event across the OTR, with USG levels confined to vicinity of Long Island Sound

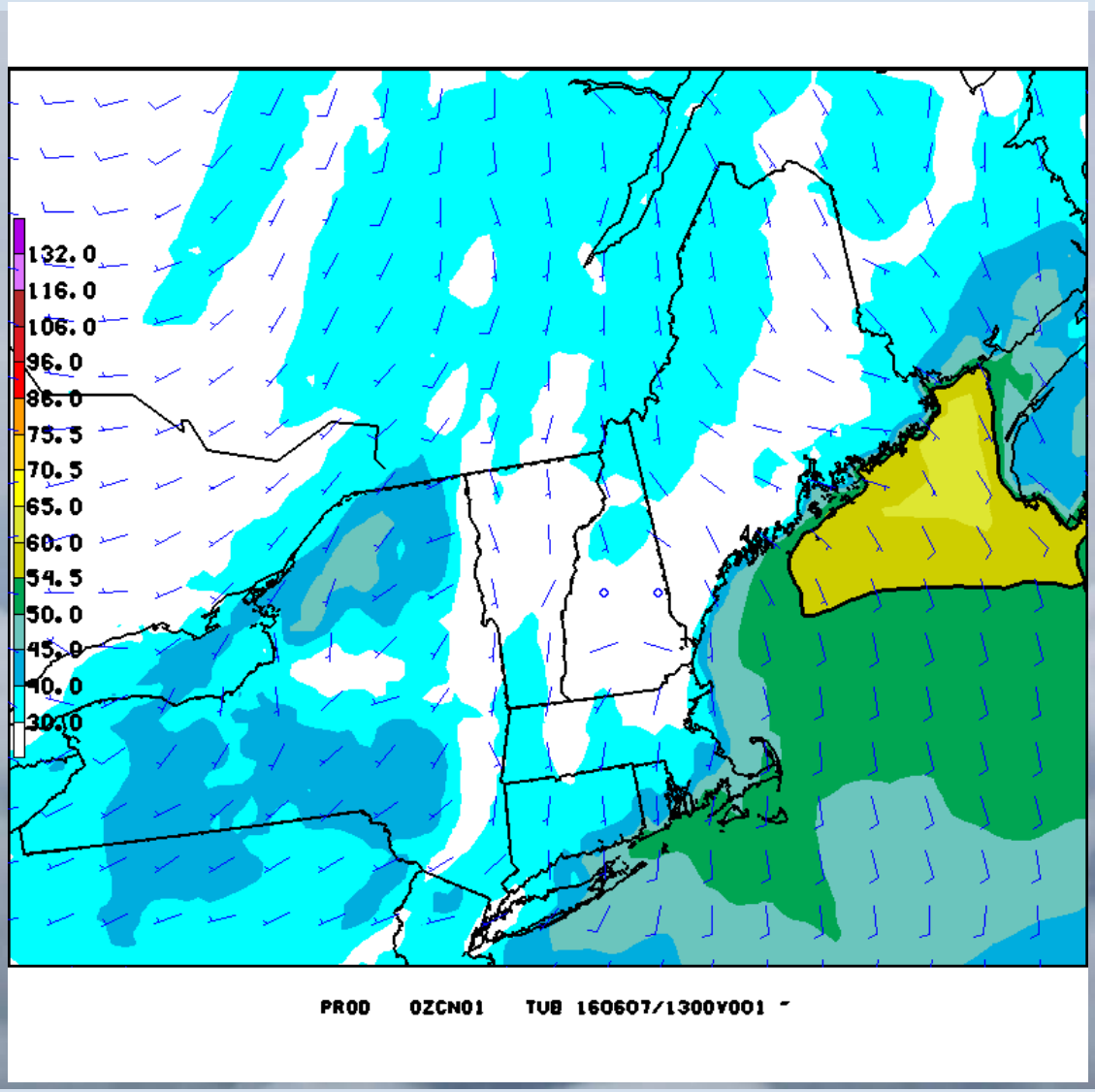
Site	Site AQS	Param	Date (LST)	Max 8hr Ozone
Madison-Beach R	90099002	O3	6/7/2016	78
Groton Fort Gri	90110124	O3	6/7/2016	75
Riverhead	361030004	O3	6/7/2016	75
W Greenwich	440030002	O3	6/7/2016	75
Greenwich	90010017	O3	6/7/2016	73
Stratford	90013007	O3	6/7/2016	73
Westport	90019003	O3	6/7/2016	72
Ancora State Ho	340071001	O3	6/7/2016	70
Millington	240290002	O3	6/7/2016	68
PG Equestrian C	240338003	O3	6/7/2016	68
Essex	240053001	O3	6/7/2016	64
KILLENS	100010002	O3	6/7/2016	64
Babylon	361030002	O3	6/7/2016	63
E Providence	440071010	O3	6/7/2016	63
Middletown	90070007	O3	6/7/2016	63
BRIS	420170012	O3	6/7/2016	62
E. Milton - Blu	250213003	O3	6/7/2016	62
SEAFORD	100051002	O3	6/7/2016	62
Beltsville	240339991	O3	6/7/2016	61
Calvert	240090011	O3	6/7/2016	61
Narragansett	440090007	O3	6/7/2016	61
Susan Wagner	360850067	O3	6/7/2016	61
Abington	90159991	O3	6/7/2016	60
Edgewood	240251001	O3	6/7/2016	60
LYNN	250092006	O3	6/7/2016	60
Leonia	340030006	O3	6/7/2016	60
Uxbridge	250270024	O3	6/7/2016	60

24-hr Back Trajectories 2:00 pm EST



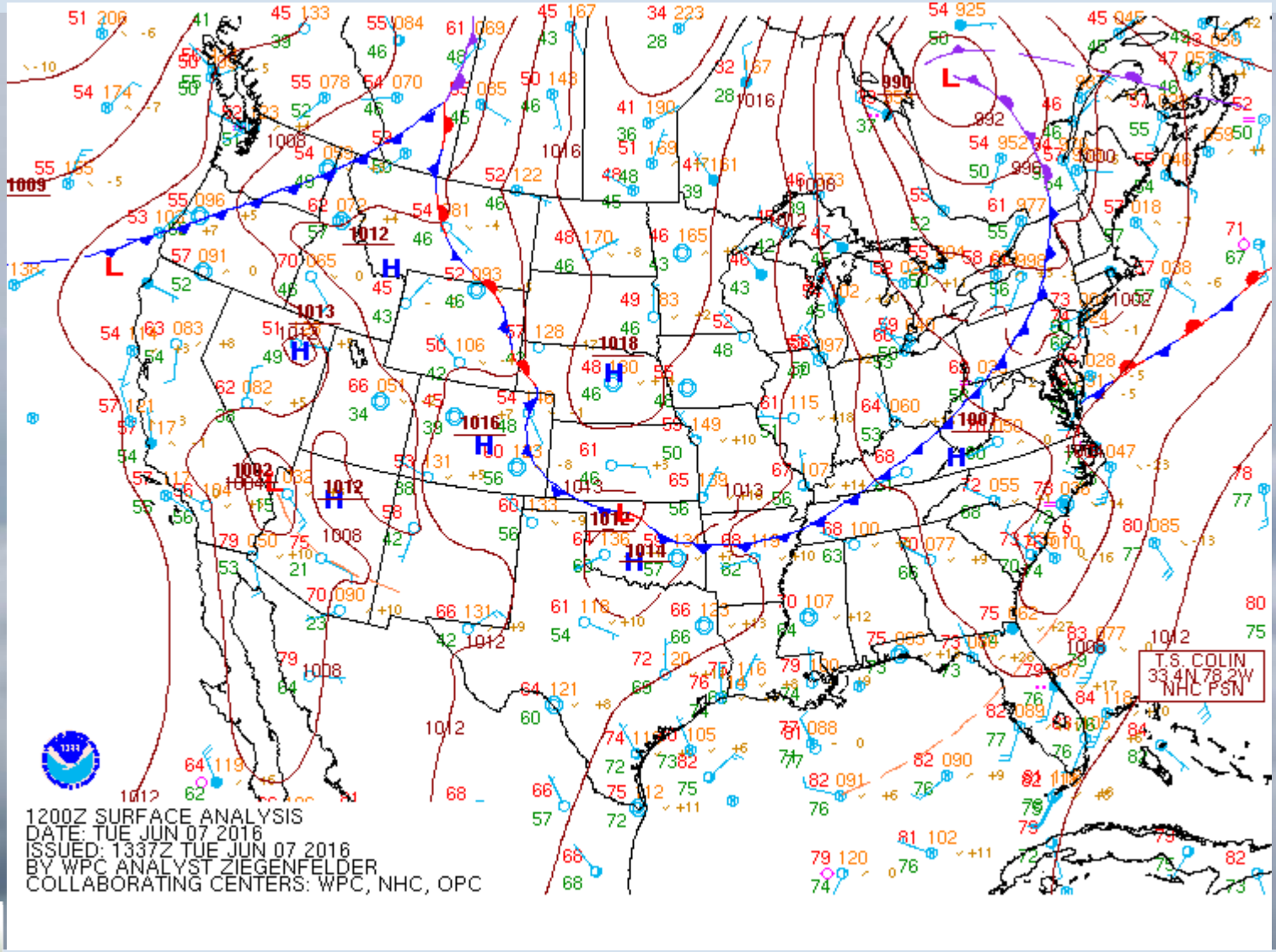
It appears that the 24 hour back trajectories at 100 meters transported the precursors to the LIS region after passing over the I-95 corridor region.

June 7, 12z NOAA Ozone Model



NOAA model 3-hr animation confirms elevated ozone advected from southwest surface winds.

June 7, 2016 Surface Front Animation



Approaching cold front produced southwest winds that transported ozone from I-95 corridor region into LIS. Frontal passage occurred around 7:00 pm local time in CT.

Conclusions

- High temperatures peaked in the mid-80's across CT;
- Approaching cold front produced a swath of southwest winds that was responsible for transporting ozone/precursors into LIS region;
- It was a fast moving and narrow plume of elevated ozone that was produced;
- Ozone levels are expected to remain good to moderate for the foreseeable future with an upper-level trough establishing itself over New England and Eastern Canada.