

Ozone Transport Commission



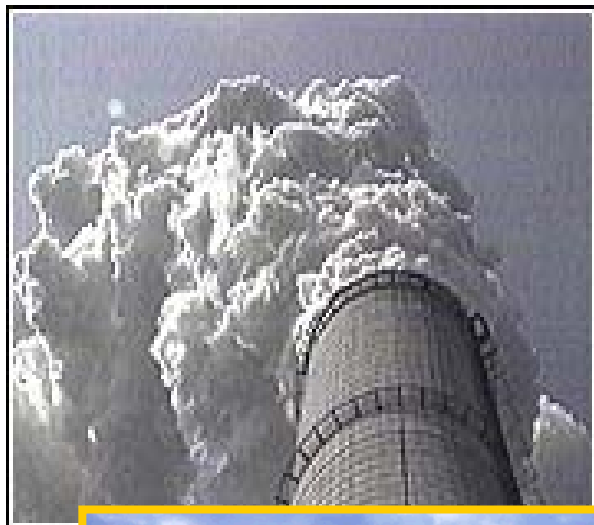
Improving Air Quality Through
Regional Action

Topics

- Background
- Cleaning Up The Air
 - How much has ozone air quality improved?
- Regional Pollution Control Actions – the Key to Success
 - What programs have brought about this progress?
- Other Complimentary Efforts
 - Science and outreach
- Regional Attainment by 2010?
 - Will we make it?



Background




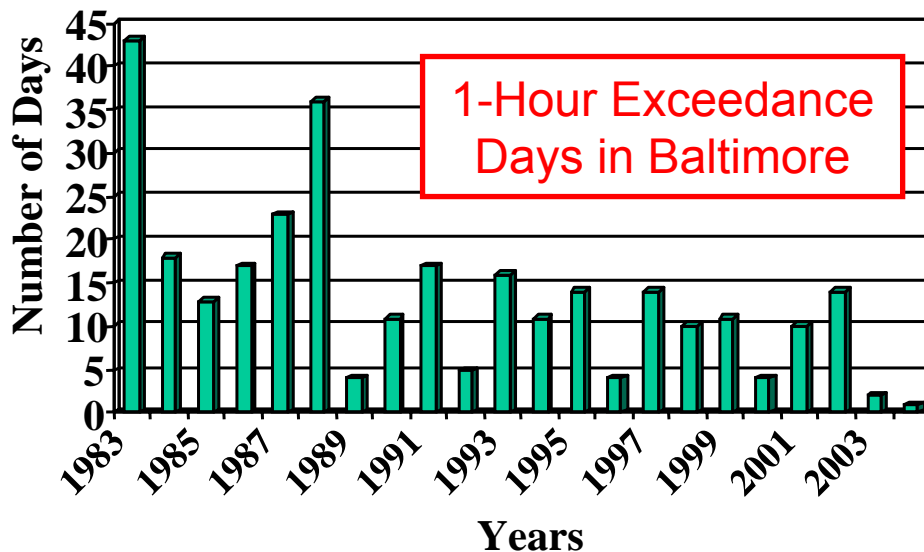
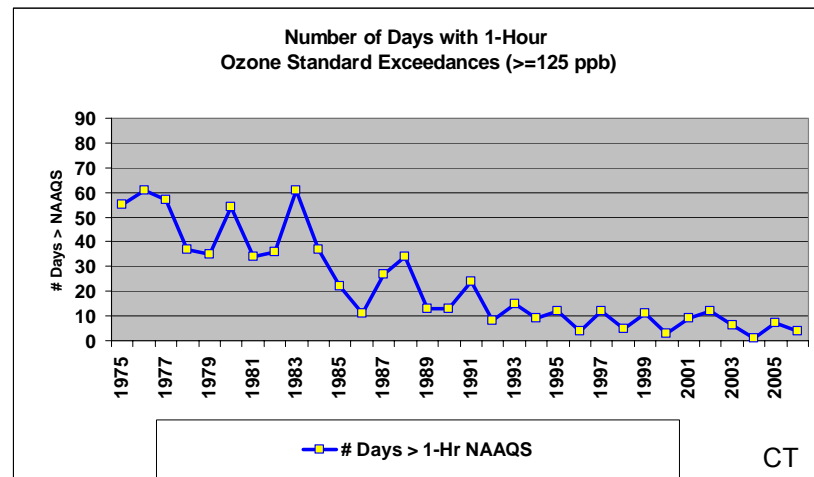
- OTC has been coordinating regional planning and control measure development since the early 1990's
- States submitted plans (SIPs) for 2005 attainment with the old ozone standard that actually worked !!!
 - More later
- SIPs for attaining the new, tougher ozone standard by 2010 are being finalized for submittal
 - Things look very promising !!!

Meeting the 1-Hour Standard in 2005

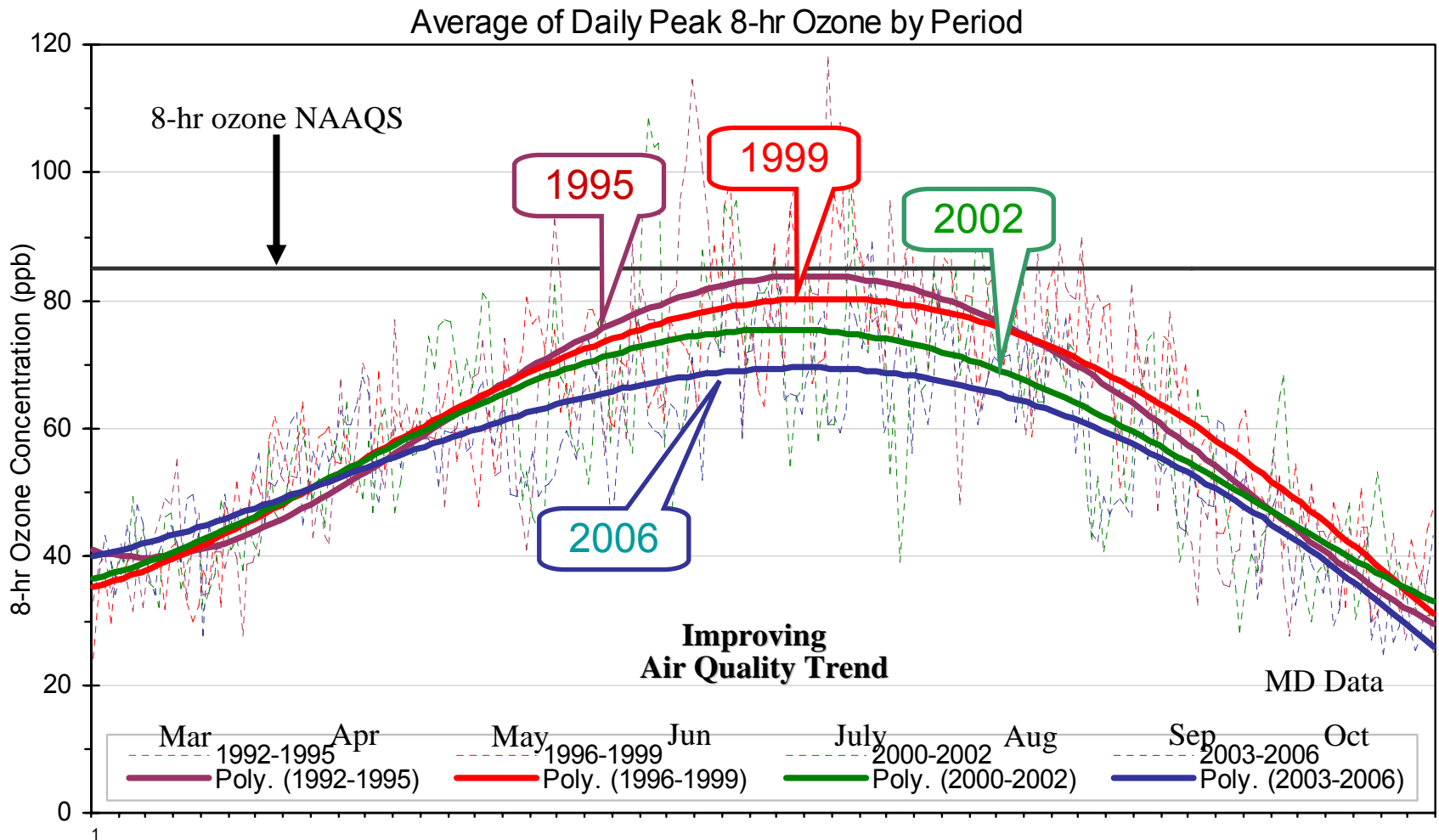
- A huge challenge
 - Many thought 2005 attainment would be impossible

- Who made it?

- Washington 
- Philadelphia 
- Boston 
- Baltimore  **ALMOST**
- New York/CT  **Not Quite**

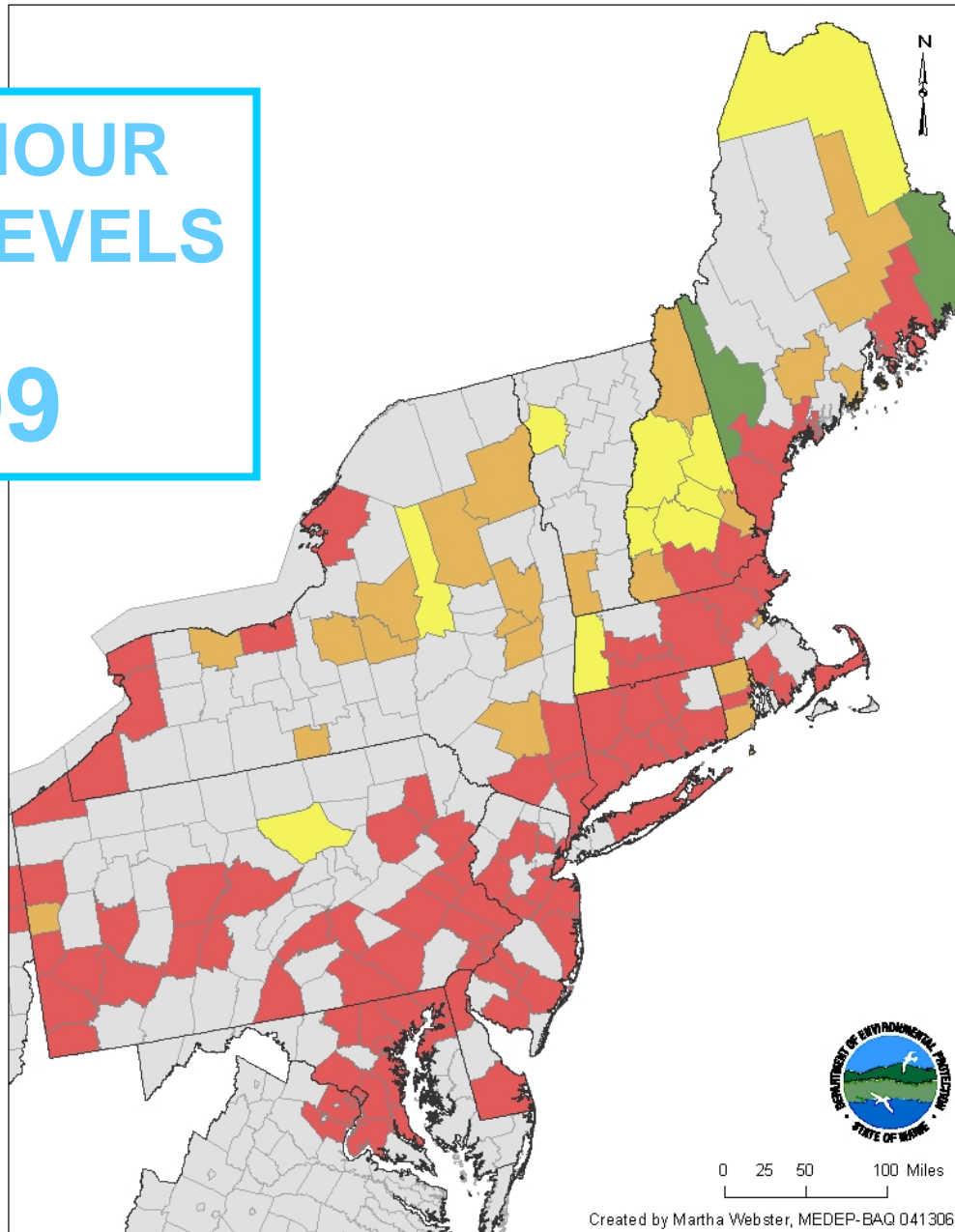


8-Hour Ozone Levels Continuous Improvement



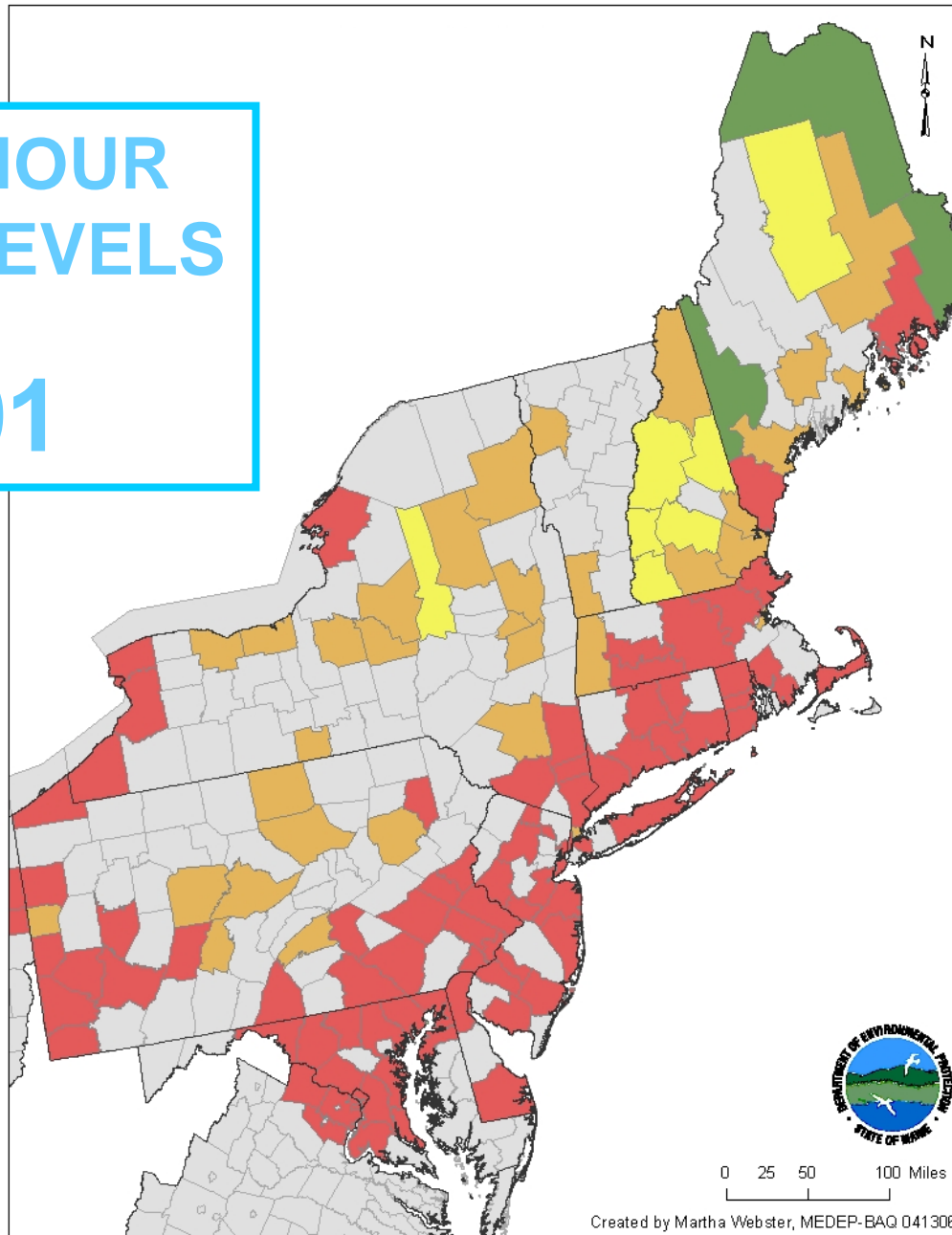
OTC 8-HOUR OZONE LEVELS

1999



OTC 8-HOUR OZONE LEVELS

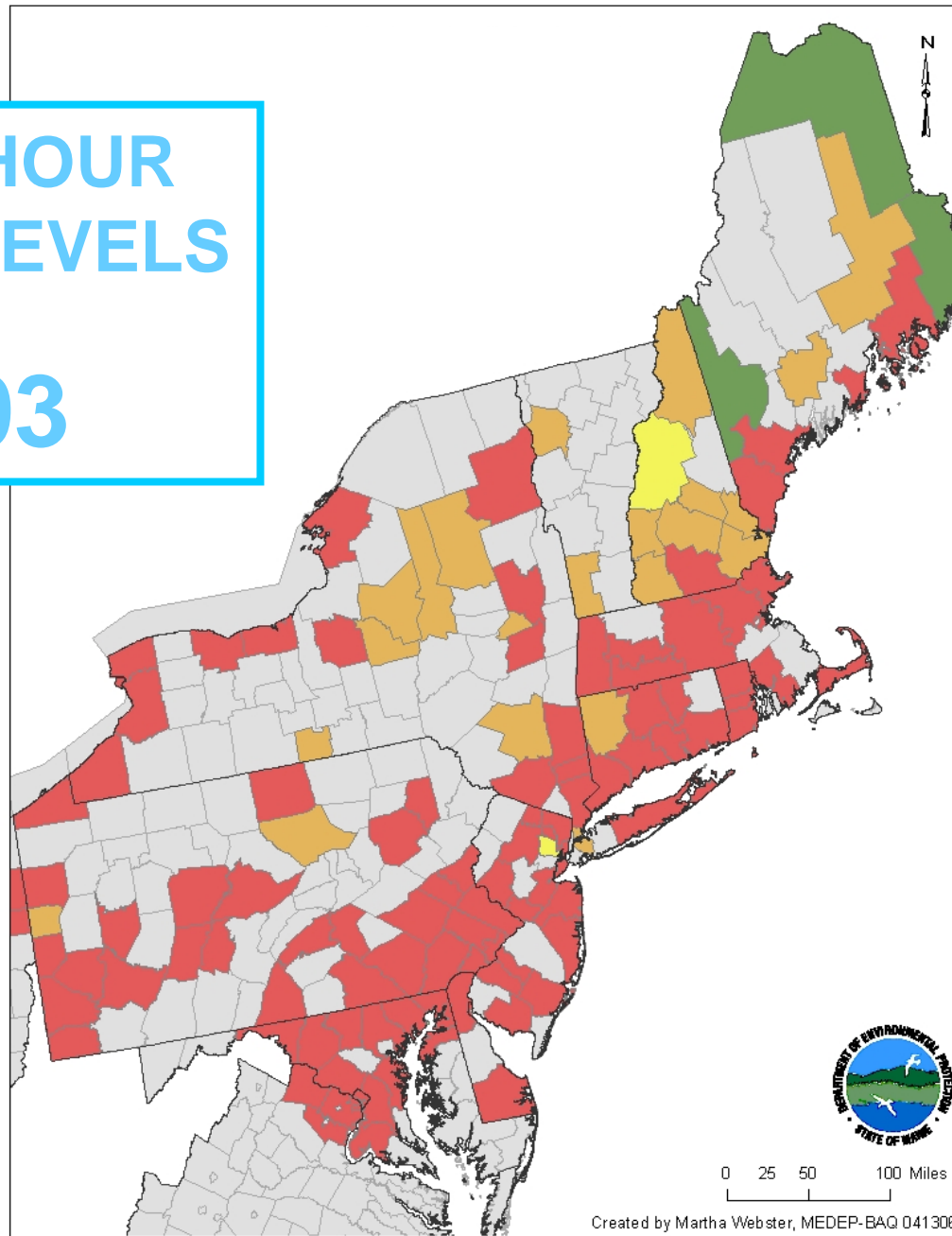
2001



Created by Martha Webster, MEDEP-BAQ 041306

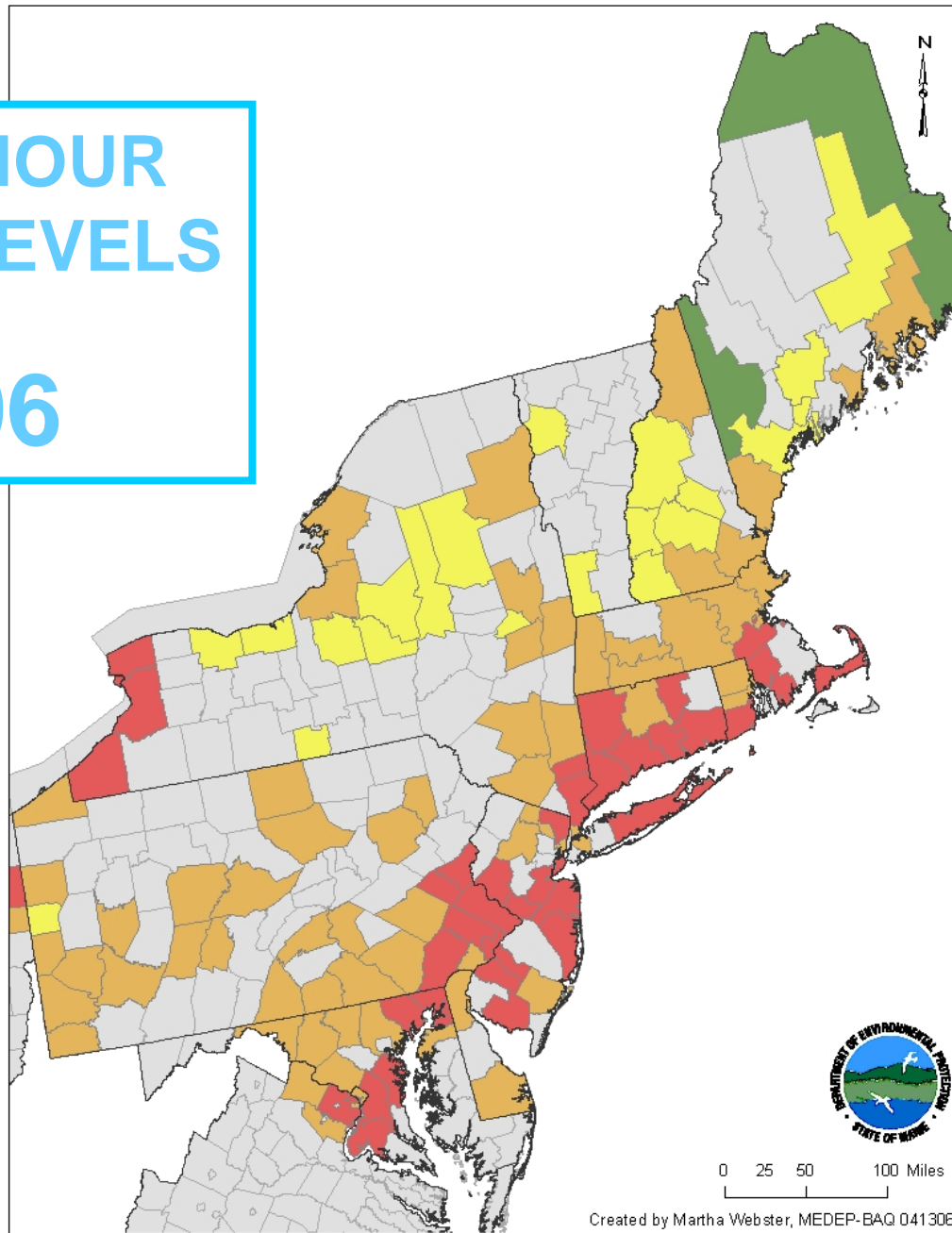
OTC 8-HOUR OZONE LEVELS

2003



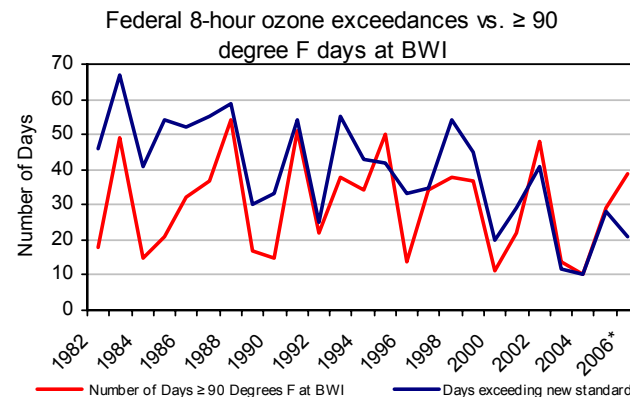
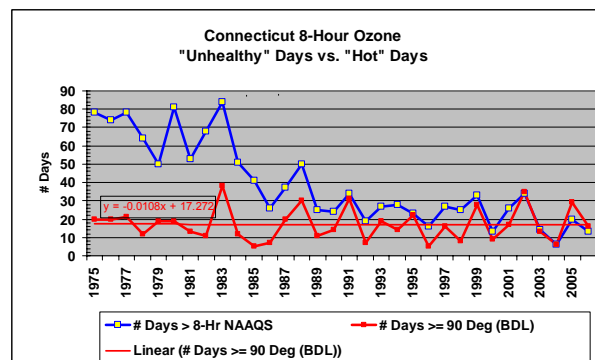
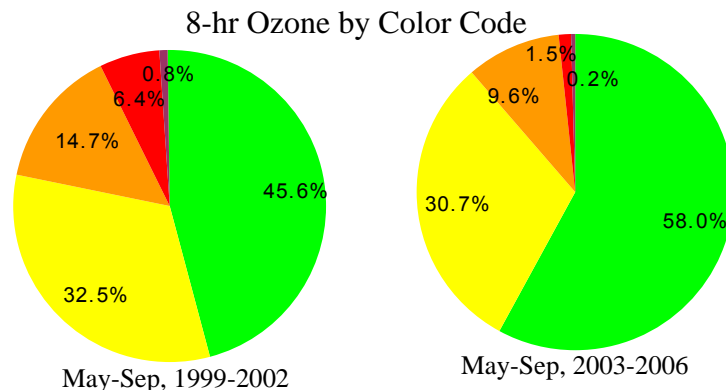
OTC 8-HOUR OZONE LEVELS

2006



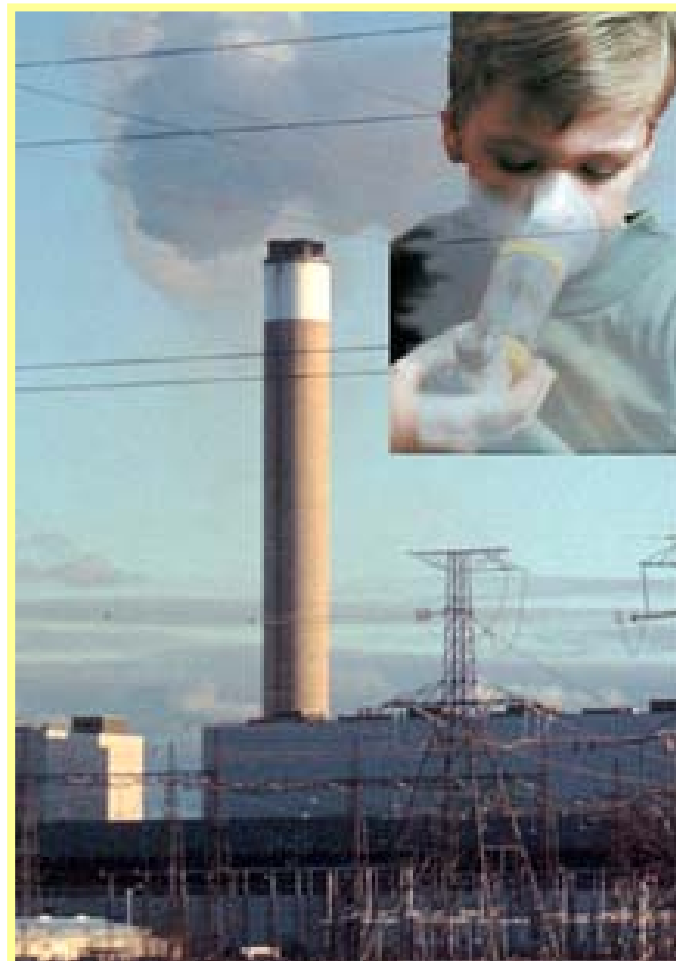
More Good News on Ozone Levels

- Typical trends ...
 - CT/MD as examples
- Fewer Code Orange and Code Red days
 - More Code Green days
- Fewer exceedances on hot days
- Bad ozone days generally see lower peaks and are often geographically limited



Regional Control Programs

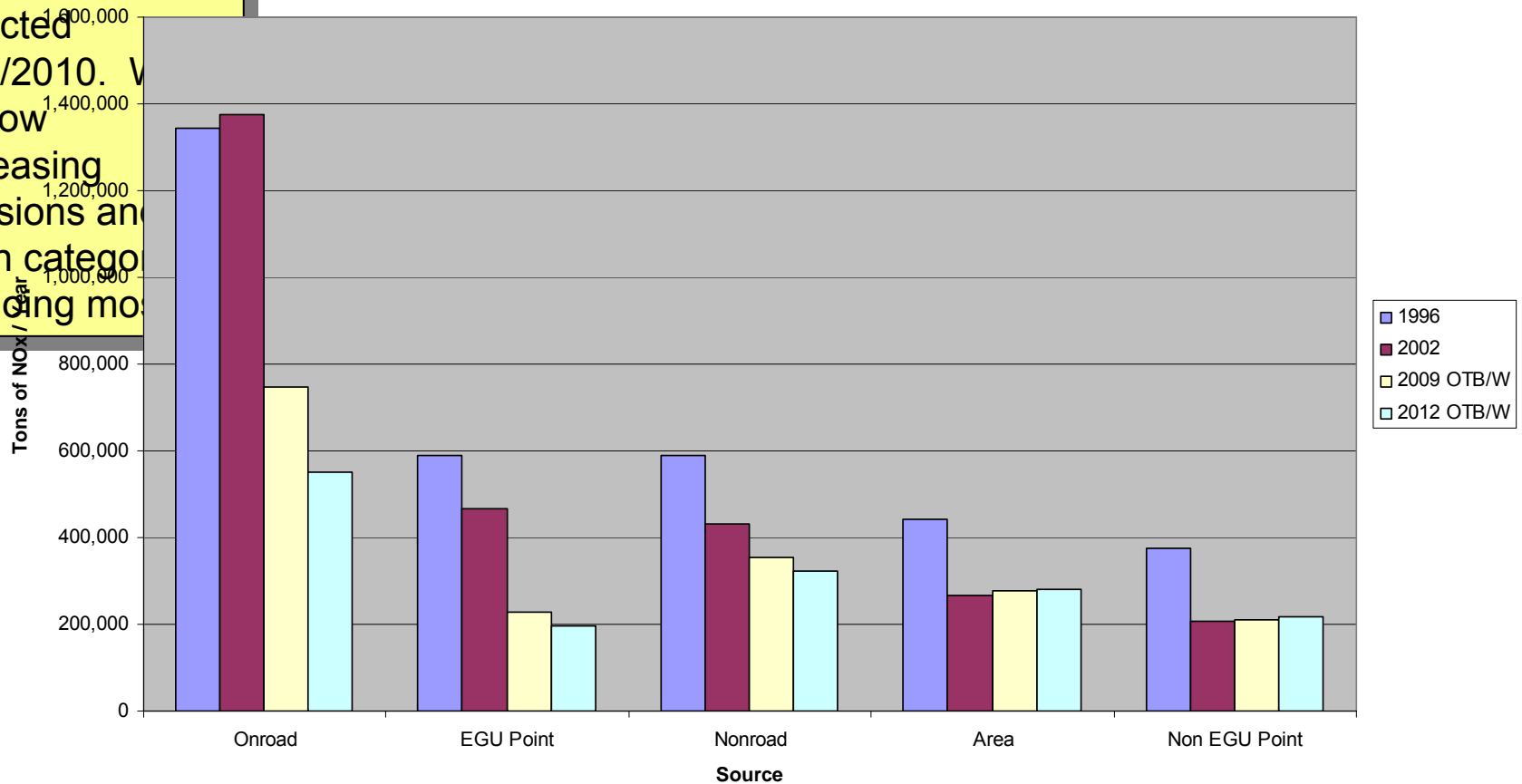
- Early years
 - Mobile sources/LEV
- 1990s
 - Power Plants/Electric Generating Units (EGUs)
 - NOx Budget Program
 - OTAG and the NOx SIP Call
 - State “Multi-P” Programs
- More recently ...
 - Area sources
 - Paints
 - Consumer products
 - Gas cans
 - More ...
- Critical role of national rules



gaburn:
 Bar charts. NOx and VOC. Also by category – Point, Mobile Area/NR. May need 2 slides. 1990, 2005 and projected 2009/2010. V to show decreasing emissions and which categories are doing mo

Percent Emission Reductions Across the OTR

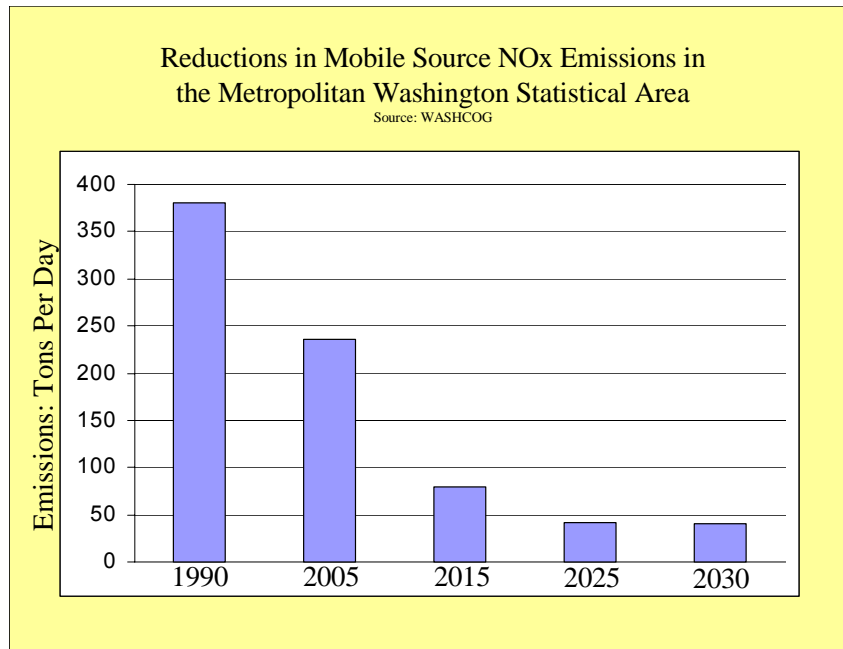
NOx Emissions by Sector (1996 - 2012)



Reducing Mobile Source Emissions

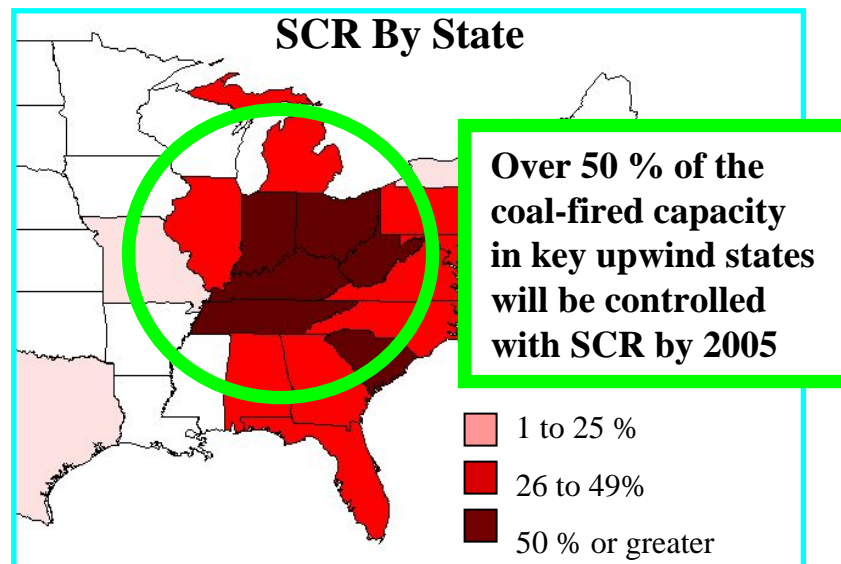
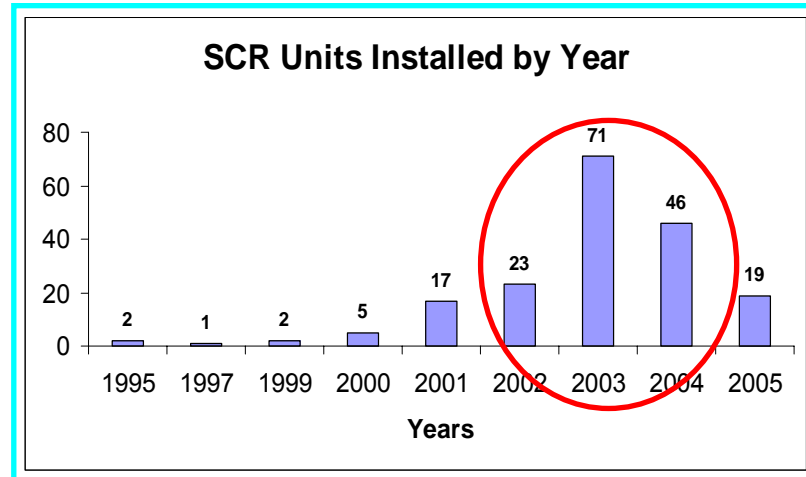


- Programs like vehicle inspection programs, clean fuels and the motor vehicle tailpipe standards have reduced mobile source emissions significantly since 1990.
- Significant additional reductions continue to be phased in.
- By 2030 mobile source emissions are projected to be about 10% to 15% of what they were in 1990.
- These reductions include significant projected growth in Vehicle Miles Traveled



Reducing Power Plant Emissions

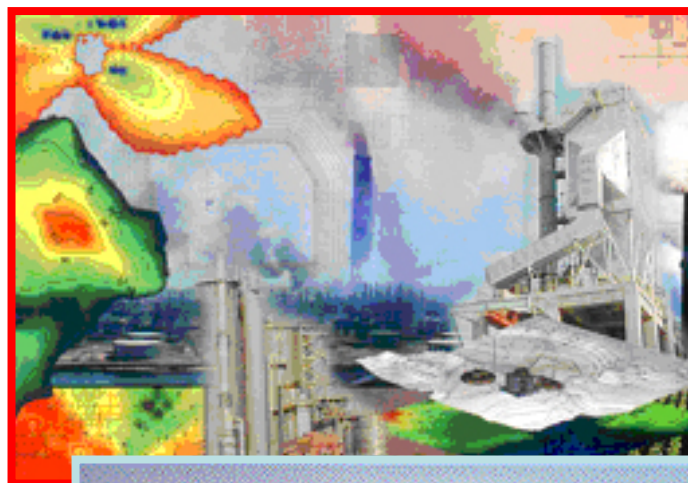
- Power plant NOx emissions are going down
- Suite of control programs
 - OTC NOx Budget Program
 - The NOx SIP Call
 - The federal Clean Air Interstate Rule (CAIR)
 - State multi-pollutant control programs
- Billions of dollars being invested in “Selective Catalytic Reduction” (SCR) technology to reduce emissions
- Significant additional SCR investment since 2005



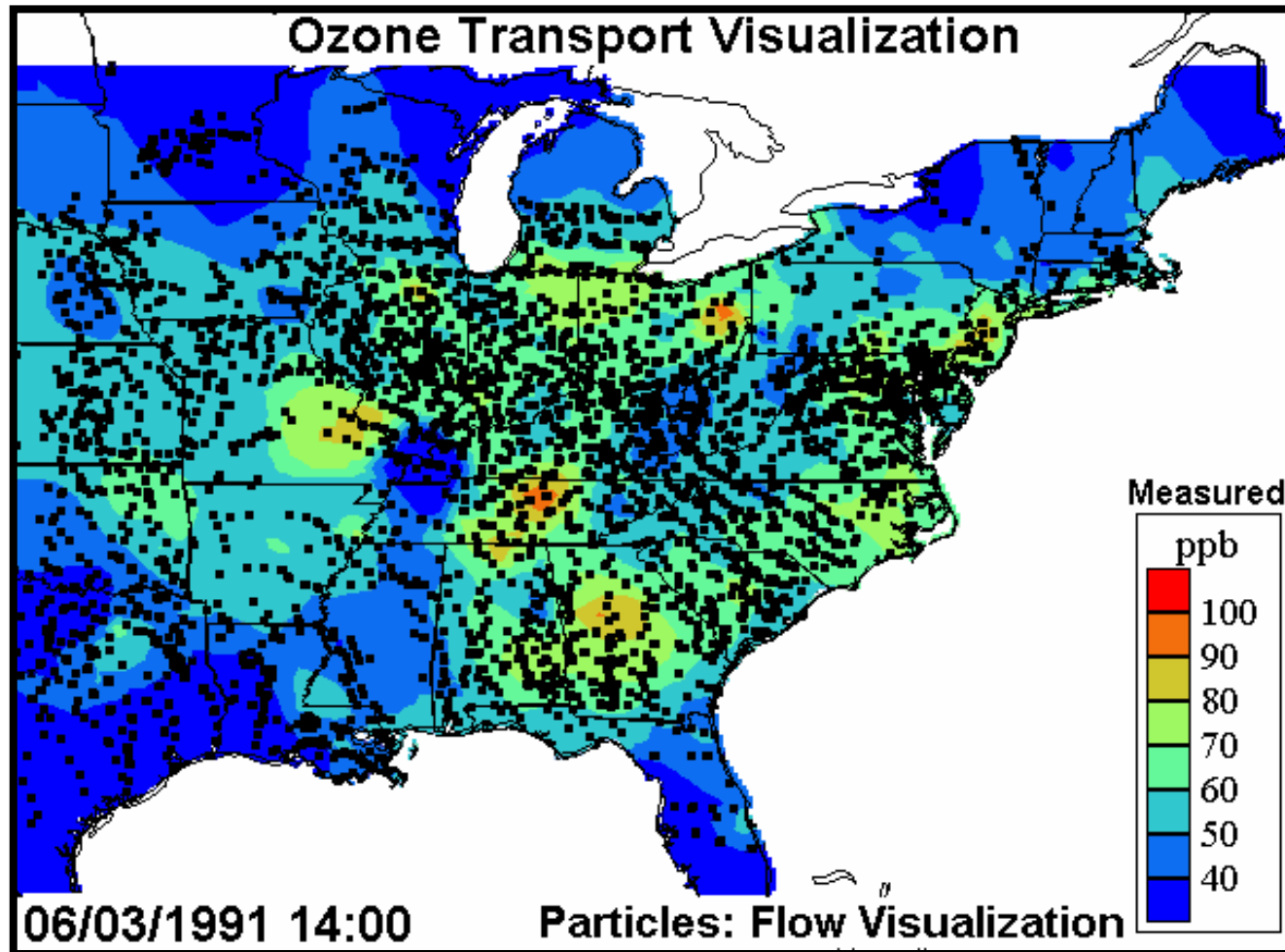
* 2005 data – Thanks to ICAC

Other Complimentary OTC Efforts

- Pushing the science of air pollution transport
 - Modeling
 - Research
 - Airplanes, balloons and more
 - Collaboration
- Outreach
 - Stakeholder processes
 - Communicating air quality
 - Ozone mapping
 - Color-coded Air Quality Index
 - More ...
- The regional planning process itself



Pushing the Science

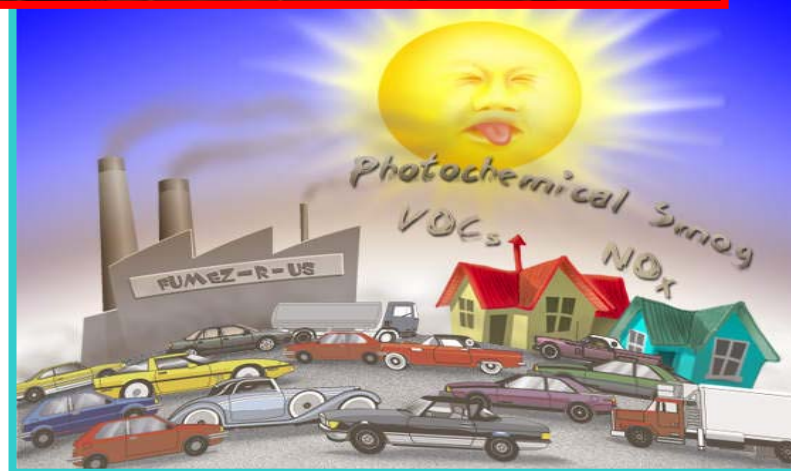


Communicating Air Quality



So Will We Attain by 2010?

- 4 Year comprehensive planning process coming to an end
- Multiple control programs selected
- Modeling and Weight-of-Evidence complete
- June SIP submittals “in process”



Control Programs for 2010 Attainment

- Old and new control programs both contribute considerably towards 2010 attainment
- Older programs - “On The Books” or “On The Way”
 - State and federal mobile source controls, earlier NO_x controls at EGUs, NO_x and VOC RACT, earlier efforts on consumer products, coatings, gas cans, other area sources, etc., etc., etc.
- More recent programs
 - State Multi-P EGU control programs and CAIR
 - 2nd, sometimes 3rd ratcheting down of consumer products, coatings and gas can controls
 - Industrial, commercial and institutional (ICI) boilers, asphalt, cement and glass manufacturing
 - Paving and other amended VOC rules.
 - Non-traditional efforts like the High Electricity Demand Day (HEDD) Program and voluntary local efforts

Photochemical Modeling is Complete

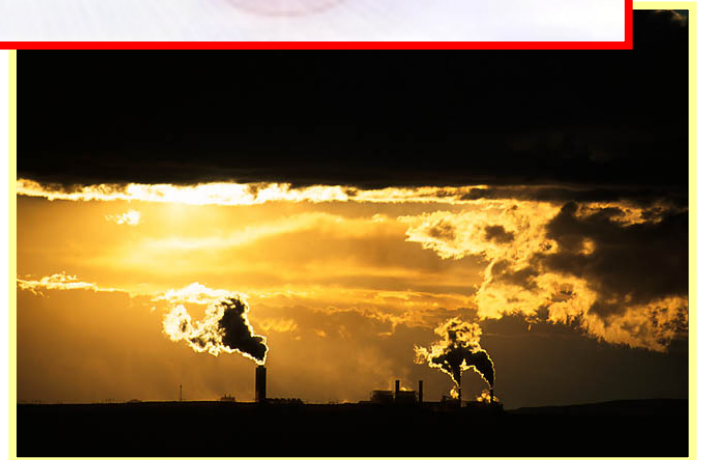
- Much thanks to NYDEC and Barbara Kwetz
- Projected progress in reducing 2010 ozone is clear
- All states supplementing modeling with “Weight of Evidence” (WOE) demonstration

AIRS-ID	State	Monitor	2002	2009 OTB/OTW	2009 BOTB/OTW	2009 Advanced CAIRPLUS	2012 BOTB/OTW
340290006	NJ	Colliers Mills	106.0	92	92	91	86
90013007	CT	Stratford	98.3	90	90	90	86
361030009	NY	Holtsville	97.0	90	89	89	86
420170012	PA	Bristol	99.0	88	88	88	84
90093002	CT	Madison	98.3	89	88	88	83
340070003	NJ	Camden	98.3	88	88	87	83
340155001	NJ	Clarksboro	98.3	88	88	87	83
90010017	CT	Greenwich	95.7	87	87	87	83
340071001	NJ	Ancora St. Hos	100.7	87	87	87	82
421010024	PA	Northeast	96.7	87	87	86	82
340210005	NJ	Rider Univ.	97.0	86	86	85	81
510130020	VA	Arlington Co.	96.7	86	86	85	80
510590018	VA	Fairfax Co.	96.7	86	86	85	79
361030002	NY	Babylon	93.7	85	85	85	82
361192004	NY	White Plains	91.3	85	85	85	82
90011123	CT	Danbury	95.7	86	85	85	81
90019003	CT	Westport	94.0	85	85	85	81
90099005	CT	Hamden	93.3	85	85	85	81
340030005	NJ	Teaneck	91.7	85	85	84	81
240251001	MD	Edgewood	100.3	85	85	85	80

Meeting the 8-Hr Ozone Standard

- So ... Who's projected to make it?

- Washington 
- Philadelphia 
- Boston 
- Baltimore 
- New York/CT 



Closing Slide from November 2, 2005 OTC Planning Meeting



Prediction for Spring 2007 OTC Meeting

- Big Party
- Raises for key staff

