

Regional Cooperation by U.S. Northeast States

by

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Presentation Outline

1. Overview of the Northeast States for Coordinated Air Use Management
2. How NESCAUM works – Example of regional smog
3. Lessons learned and concluding thoughts



What is NESCAUM?

- Association of 8 Northeast state air agencies
- Focus on air quality & climate change
- Formed in 1967



8 State Members

Connecticut
Maine
Massachusetts
New Hampshire
New Jersey
New York
Rhode Island
Vermont



Why does NESCAUM exist?

- Forum to discuss shared state air issues
- Pools scarce State funds
- Avoids redundant work
- “On call” resource for *ad hoc* air issues
- Promotes collective action when federal presence absent or obstructive



Role of NESCAUM

- Types of support for members:
 - Policy development
 - Science & technology assessments
 - Model rules
 - Staff training
- NESCAUM is not regulatory authority



NESCAUM Board

- Board members are State air directors
 - Have regulatory authority in their States
 - Mix of civil service/political appointees
 - Low turnover rates, long term relationships



NESCAUM Process

- Informal Board meetings
- “Minor” decisions made at individual air director level
- “Major” decisions passed up to higher State levels
- Group commitments possible, but not necessary



NESCAUM Structure

- ~20 professional staff
 - Expertise in specific areas
 - Perform own analyses & reports
 - Collaborate with outside experts
- Relationships with state & federal staff
 - Permanent planning workgroups
 - *Ad hoc* workgroups by special topics
 - Direct exchanges between NESCAUM/state staff



Additional Elements

- Develop and advocate consensus positions
- Anticipate and explore emerging issues
- Manage special projects on states' behalf



NESCAUM Funding

- ~\$3.5 million USD annual operational budget
- Manage additional ~\$4 million USD “pass through”
- State dues ~10% of operational budget
- Additional funding sources:
 - U.S. EPA grants and contracts
 - Competitive research grants
 - Private foundations
 - *Ad hoc* state-specific funded projects



Regional Smog

An example of collaborative work
through NESCAUM



Regional Problem Parameters

- Regional smog (ground-level ozone) occurs across eastern Canada & US
- Historically, pollution control efforts state-specific, not regional
- Initial lack of federal pressure to address upwind pollution sources



2 Paths to Promote Action

Northeast States:

1. Participated in multi-state regional process
2. Petitioned US federal government for action and went to court



NESCAUM Approach

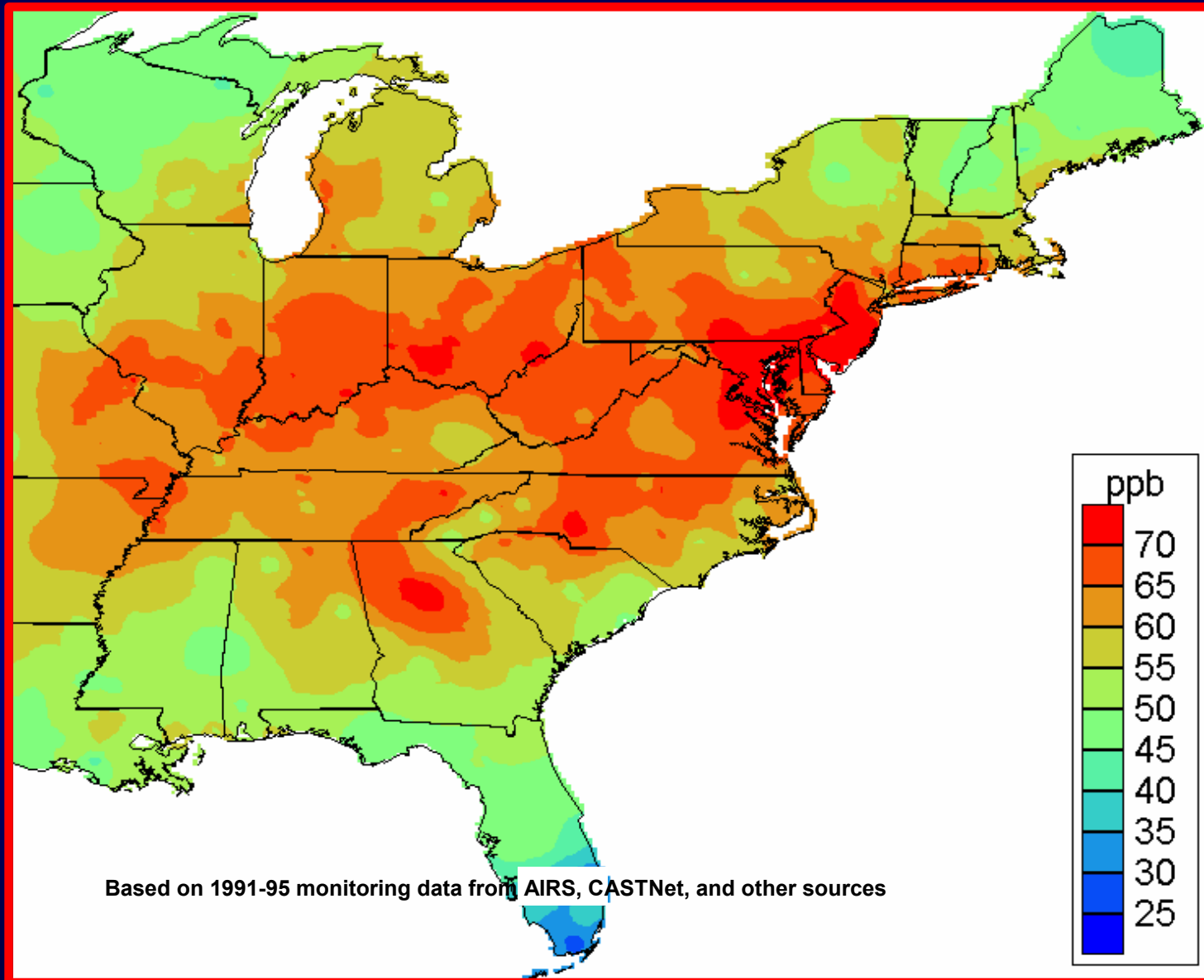
- Science support/coordination – “Weight of Evidence”
 - Observation
 - Modeling
- Consensus building among members as bloc



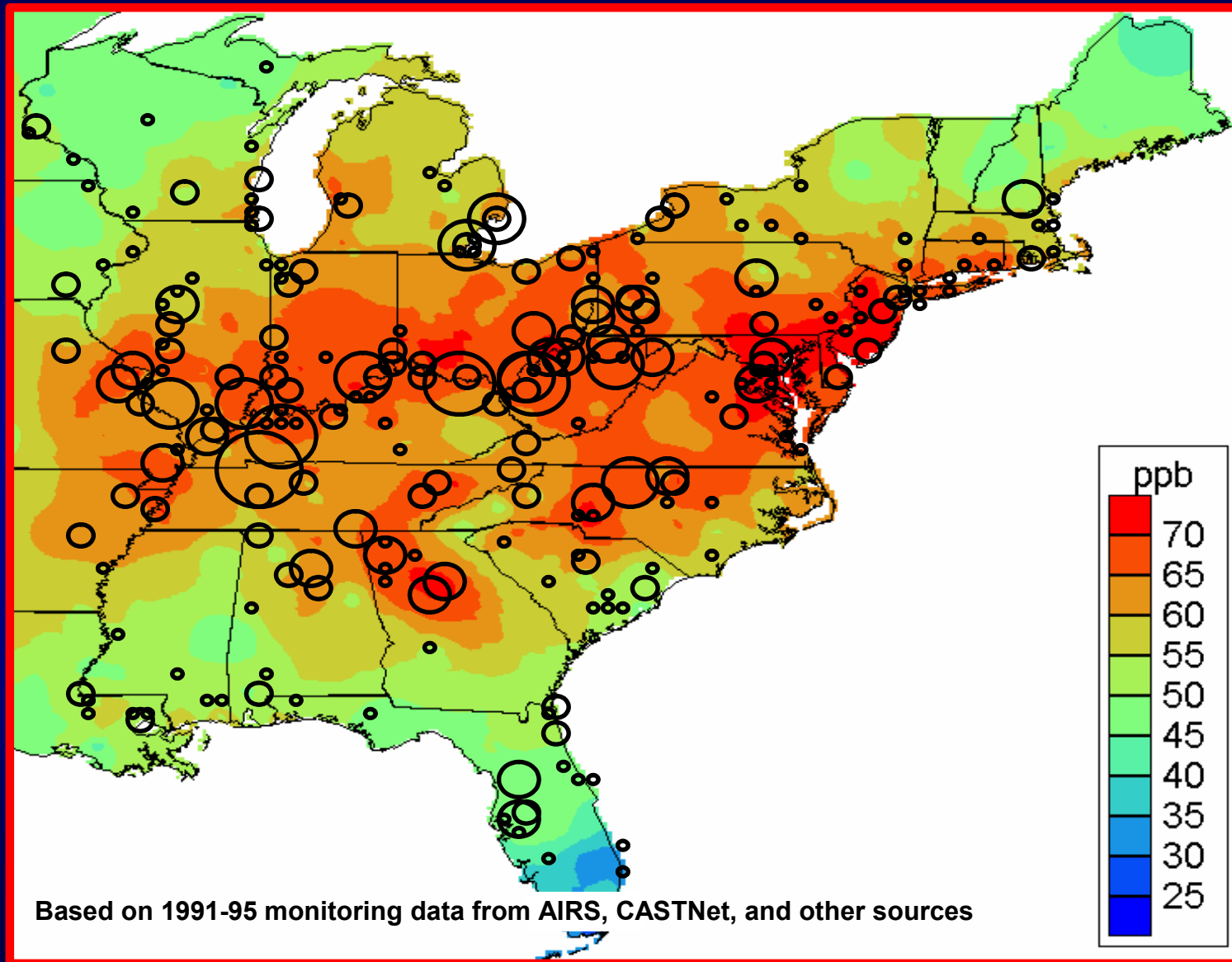
The role of observation



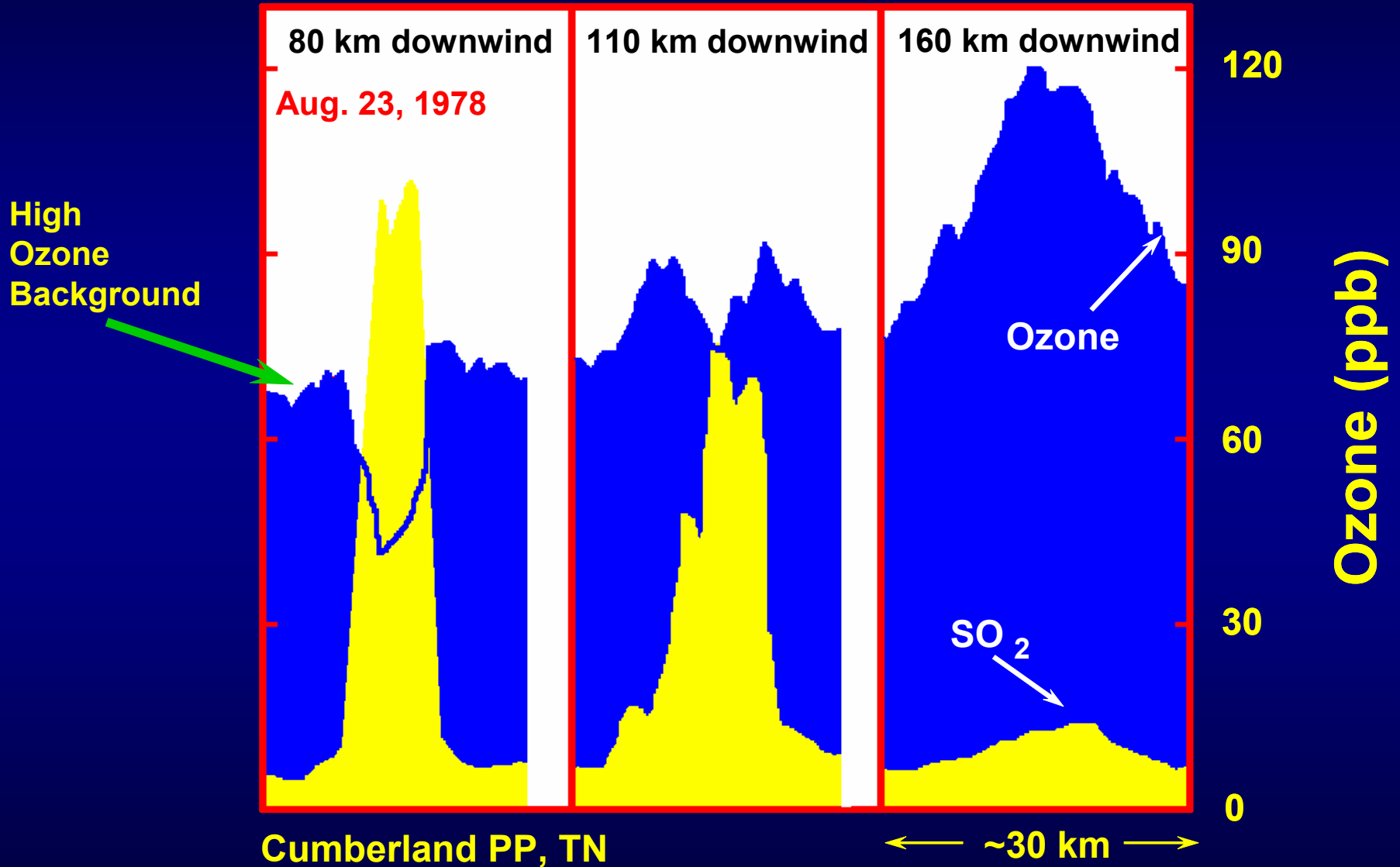
Eastern ozone is regional



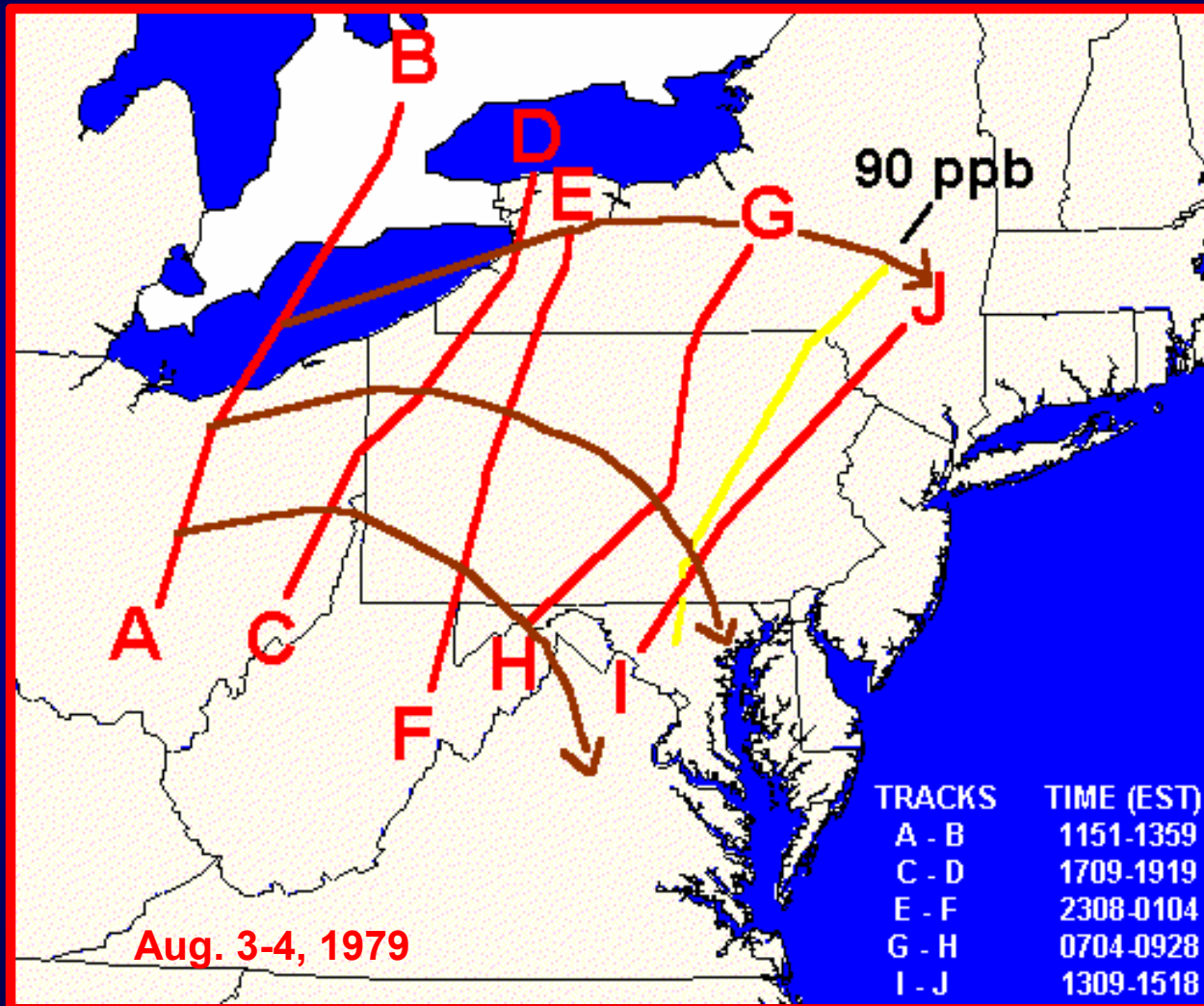
It's where the power plants are



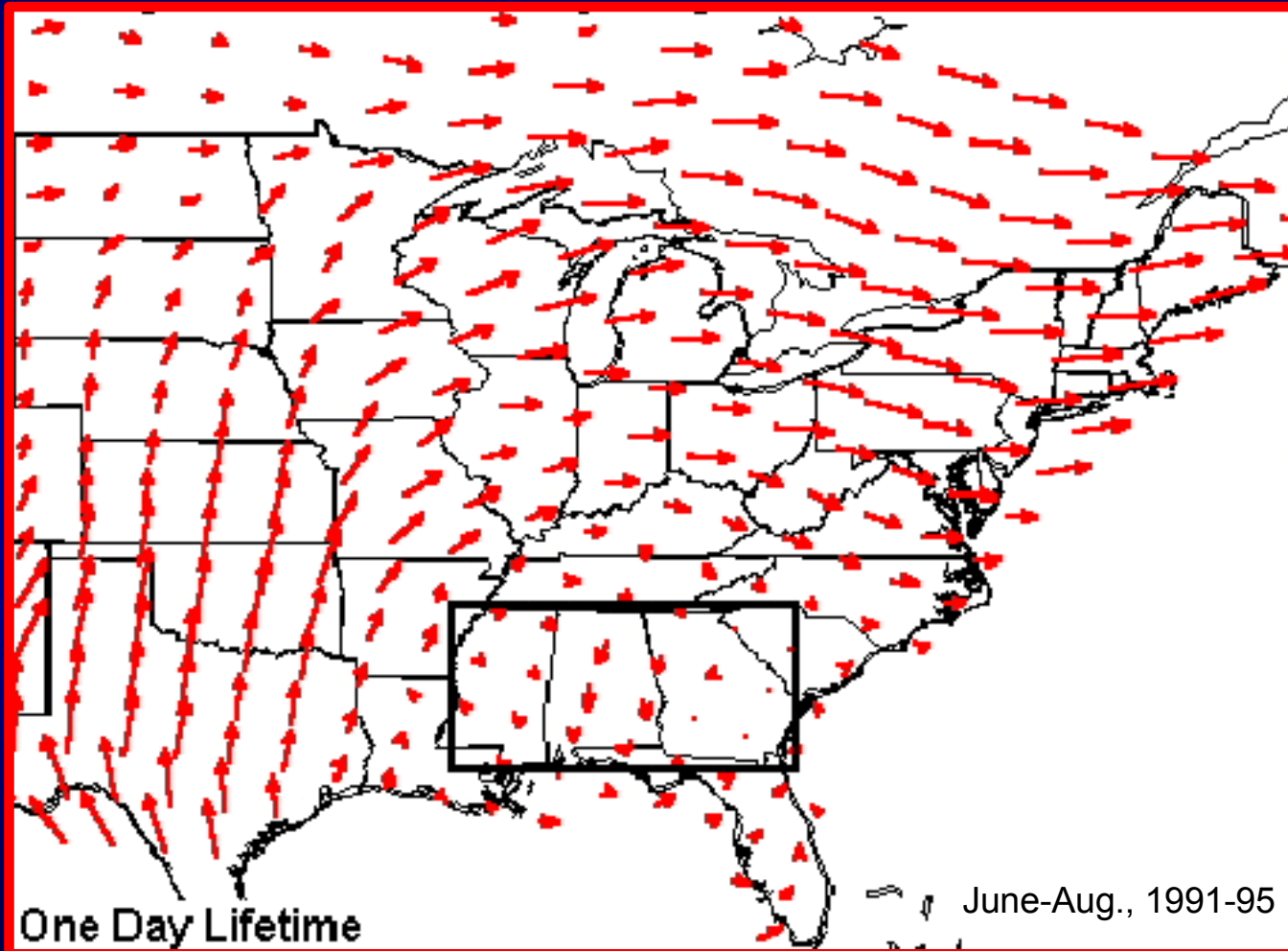
It's in power plant plumes



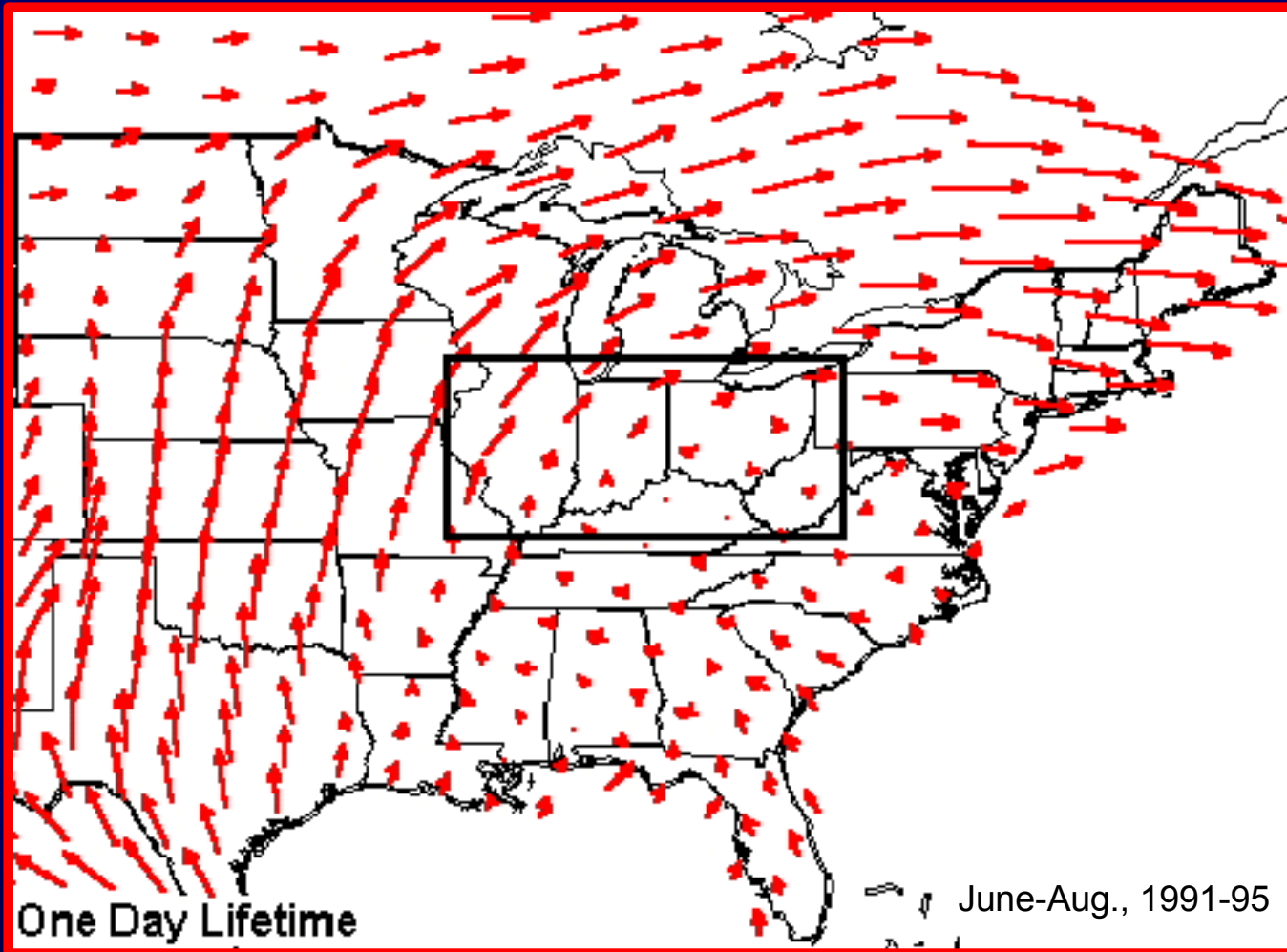
It moves



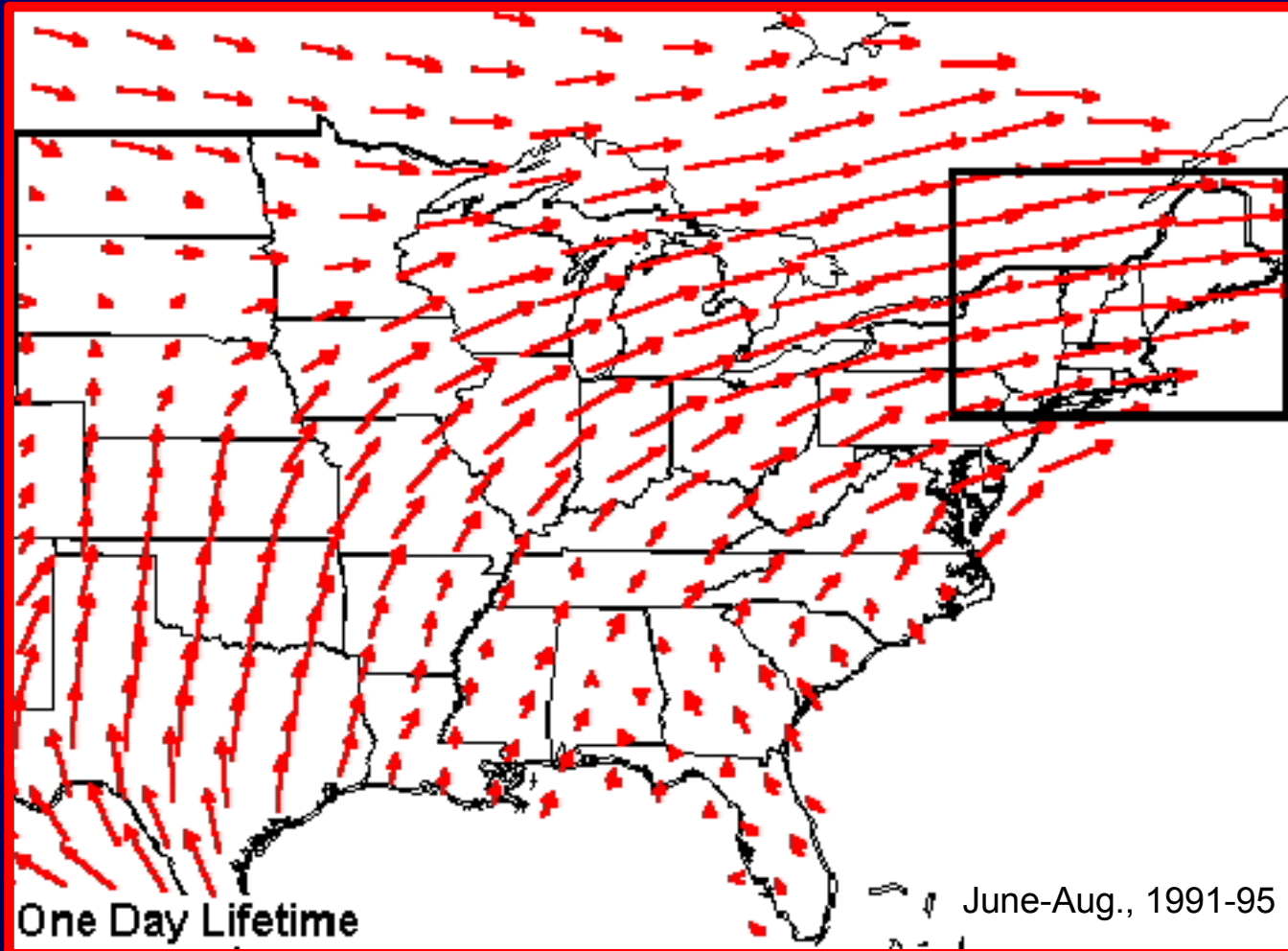
Stagnation in Southeast



Stagnation in Ohio River Valley



Transport in Northeast



Modeling

“All models are wrong ... Some are useful.”

- *George Box, a statistics guy*



Modeling predicts large reductions in downwind ozone exposure >120 ppb

Upwind source of emissions	Downwind reduction in ozone exposure over 120 ppb			
	New England area	New York City area	Philadelphia area	Baltimore-Wash., DC area
Parts of IN, MI, OH	-7%	-11%	-15%	-12%
Parts of IL, IN, KY, MO	-4%	-5%	-11%	-11%
Parts of IN, KY, OH, WV	-12%	-16%	-41%	-43%

OTAG “zero-out” subregional modeling, July 1995 episode

Results

- U.S. EPA granted State petitions
- U.S. EPA adopted 1st-ever regional power plant control program
- After >5 years in force ...



Title:

**“The Surprising Decline in
Rural Ozone Concentrations in the
Eastern United States”**

**– An industry conference presentation,
March 2006**

NE States Moving Ahead in Other Areas

1. Climate change
2. Mercury pollution from coal burning

<http://www.nescaum.org>



Lessons for Regional Cooperation

- Clear organizing principle
- Information is key
 - Objective
 - Transparent to all
 - Accessible to all
 - Used by all

Elements of Success

- Single theme (e.g., land, air or water)
- Board with subject expertise & regulatory authority
- Expert professional staff as regional resource
- Size of organization fits scale of regional issues



States Still Needed Help

- Cooperation is nice, but progress may still require a kick-in-the-pants
 - Some larger pressure (e.g., federal govt.)
 - Neutral arbitrator (e.g., courts)



Concluding Thoughts

- Common issues in other regions?
 - Regional air sheds (“bubbles”)
 - Ozone, particulates, mercury, etc.
 - Urban air pollution/climate change
 - Advanced technology vehicles
 - Low carbon fuels/clean diesel
 - Green buildings/sustainable infrastructure



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