



NOAA-EPA Air Quality Forecasting Initiative



AIRNow Program Updates



Air Quality Focus Group Workshop
Silver Spring, MD
September 6-7, 2006

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Topics

Current Activity

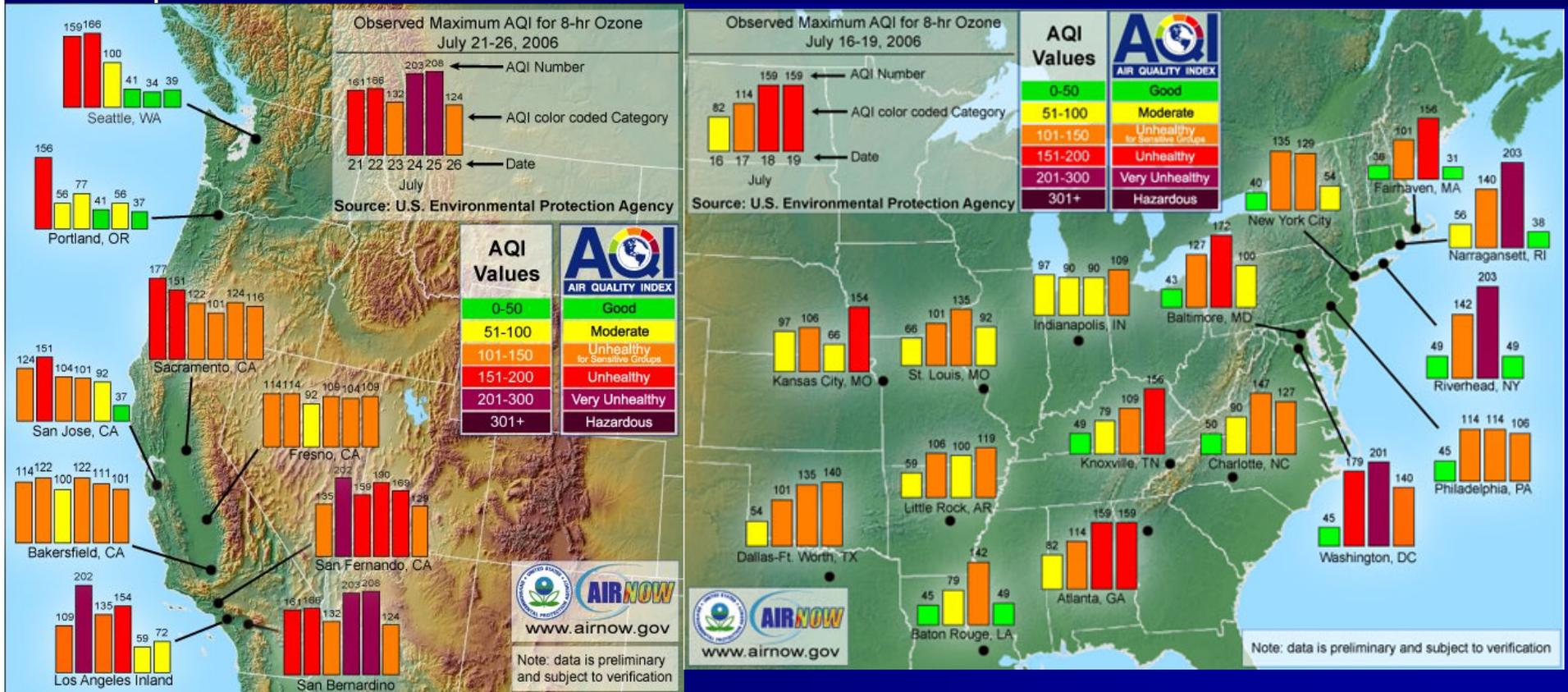
- 2006 Ozone Season
- AIRNow-Tech Upgrades
- EnviroFlash
- Observation Data to Support AQFG

Future

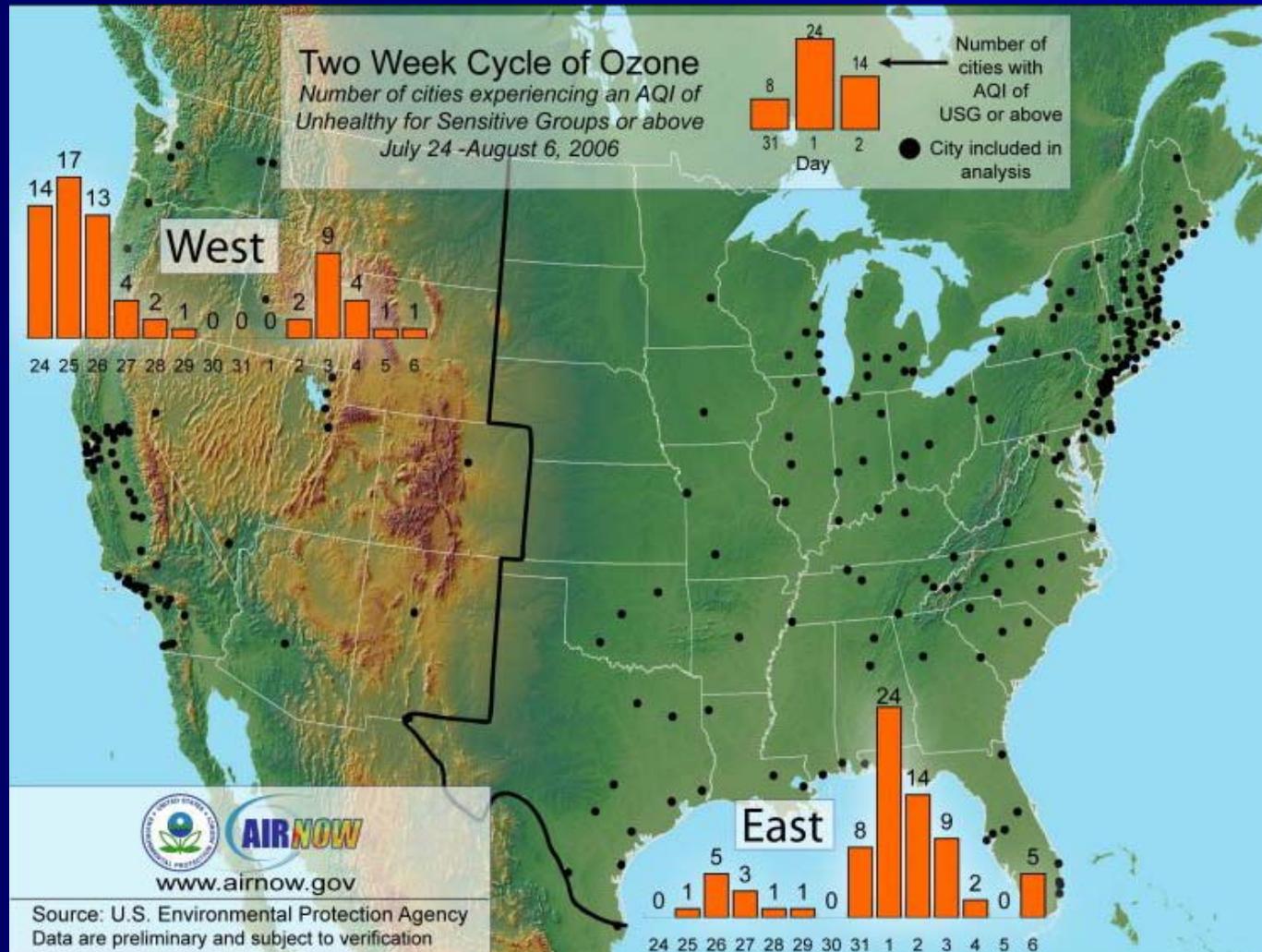
- AIRNow Gateway and AIRNow Mapper
- 2007 Air Quality Awareness Week
- AIRNow Program Future

2006 Ozone Season

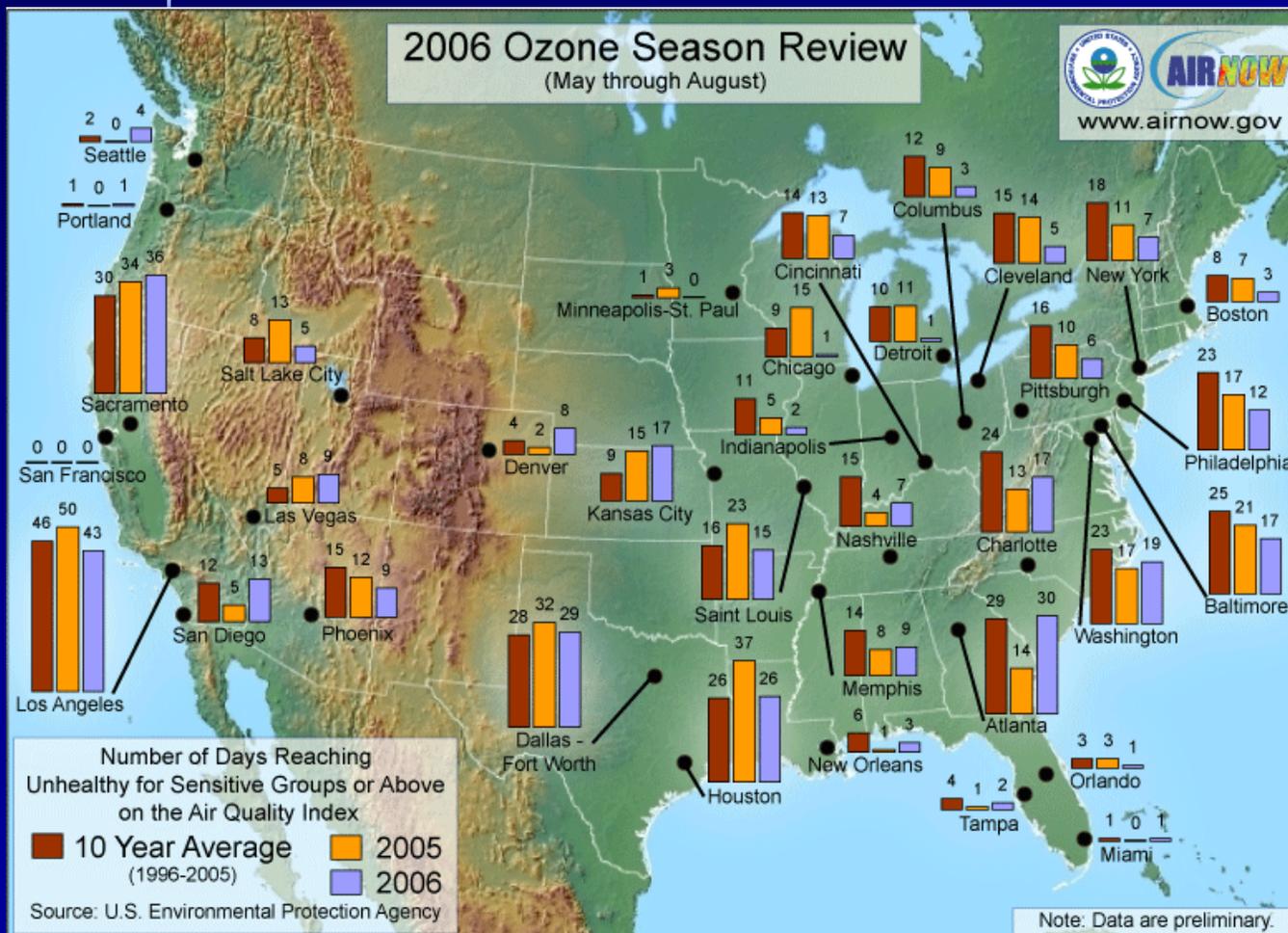
Significant episodes on each coast



2006 Ozone Season



2006 Ozone Season

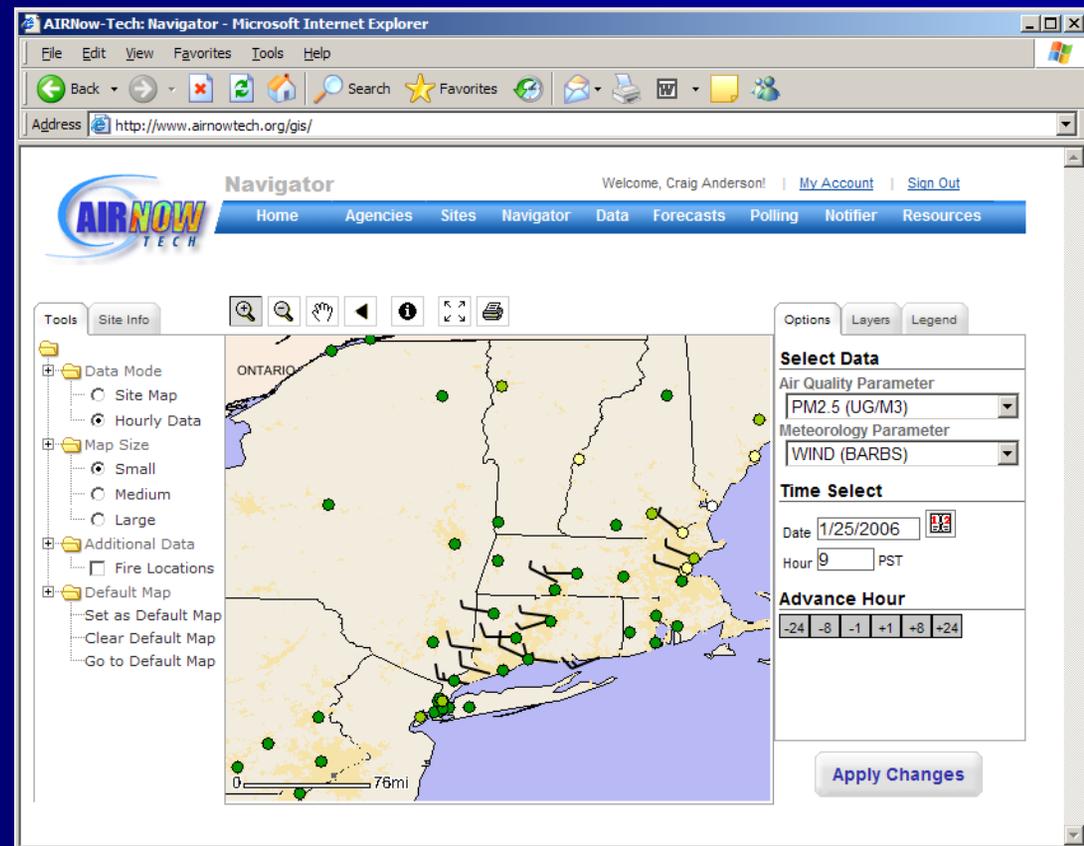


"Highlights"

- 3 consecutive weeks of regional ozone episodes (7/16-8/4)
- General decrease in exceedances in Midwest and Northeast
- Isolated increases in exceedances (Seattle, Atlanta, and Charlotte)
- Overall, most areas down from 10-year average

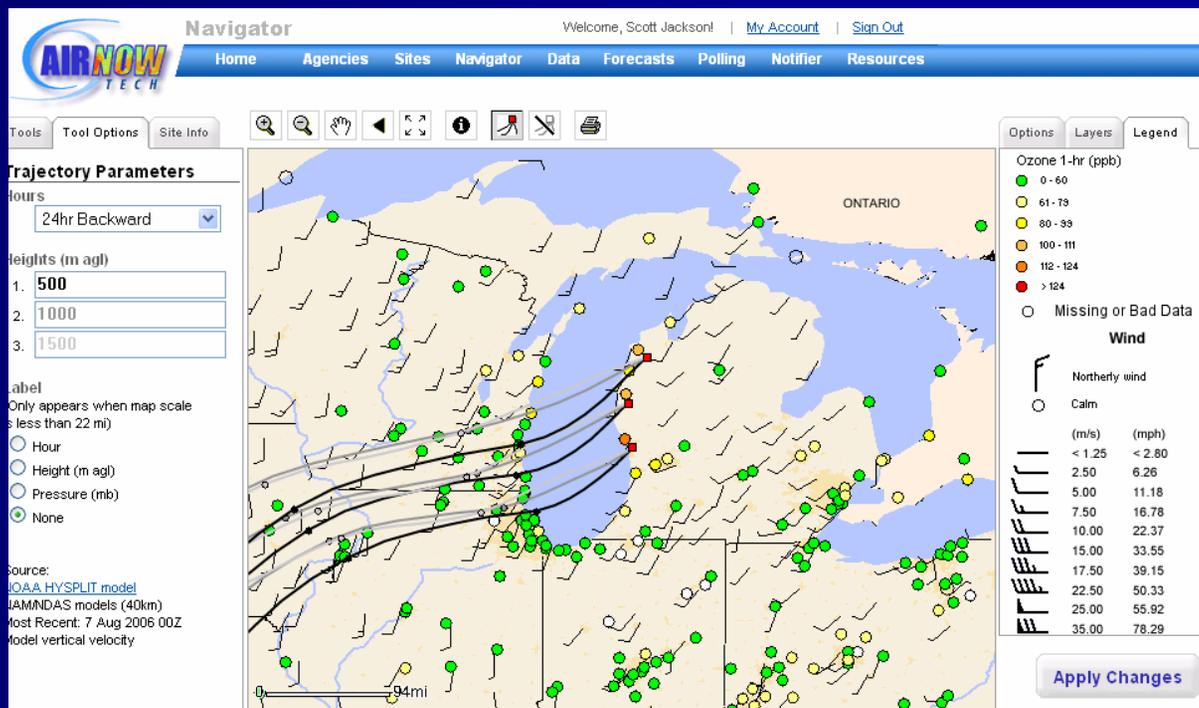
AIRNow-Tech Upgrades (2005)

- Customization features
 - Personal accounts
 - Site lists
 - Home page
 - E-mail reports
- Additions
 - Navigator
 - More air quality variables
 - Meteorological variables
 - Agency & site status pages
- Ability to handle data from mobile monitoring sites
- Improved overall speed



AIRNow-Tech Upgrades (2006)

- Upgrades in 2006
- New data layers
 - MODIS fire locations
 - Hazard Mapping System (HMS) smoke polygons
 - NWS meteorological data
- New tools
 - HYSPLIT trajectories



EnviroFlash

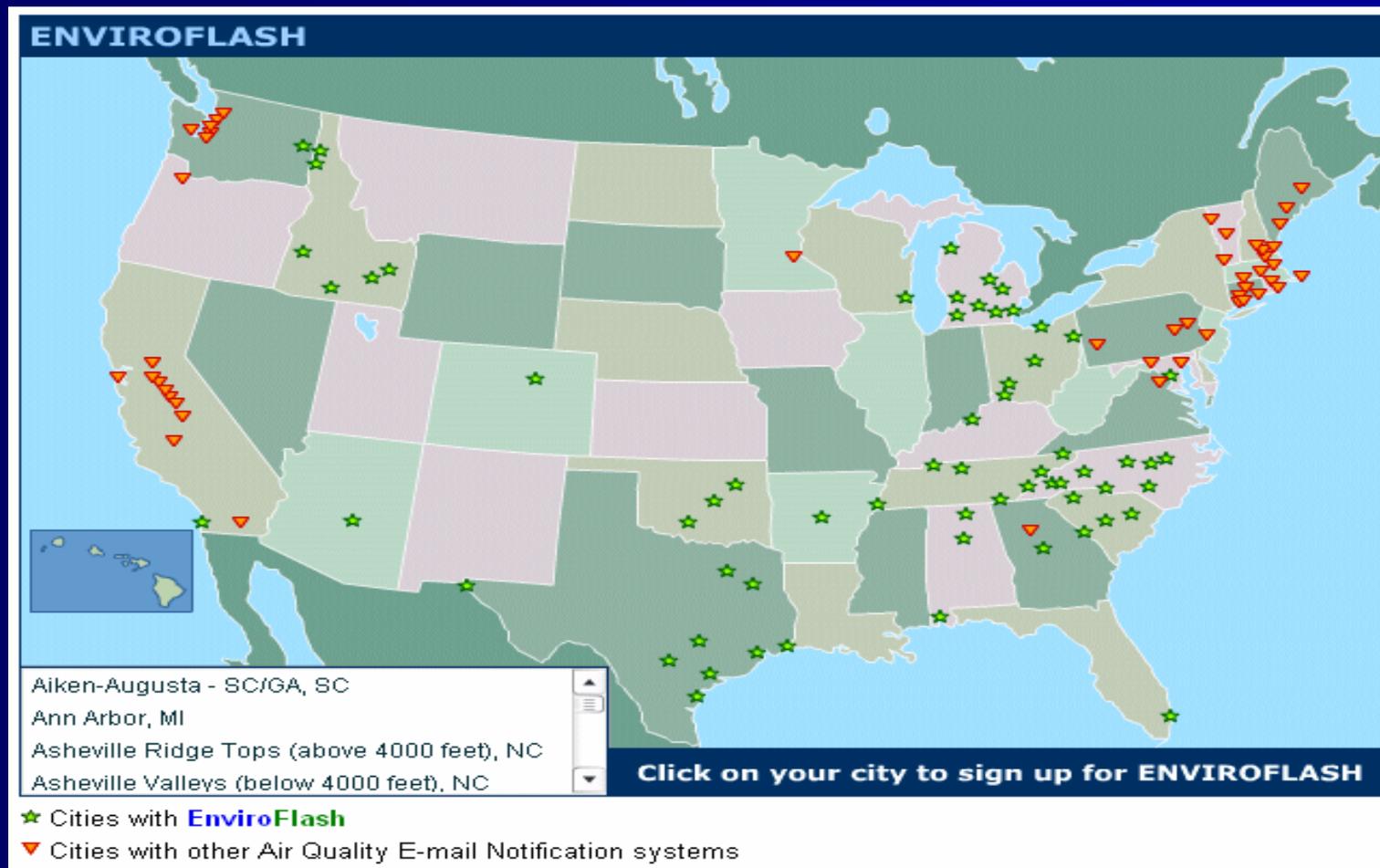
Current

- Forecasts delivered to the public via email or text message
- 50+ cities using EnviroFlash
- EPA created the infrastructure, state and local agencies administer
 - Agencies can customize the message/content

Future

- Deliver real-time data along with forecasts
- Zip code sign-up

EnviroFlash



Observation Data to Support AQ Forecast Guidance

- Sending PM2.5 data now

PM2.5 data are continuous data that are corrected using a regression equation. These are not the filter based measurements that EPA uses for official attainment decisions thus some caution should be used with these data

- Data flowing properly to NCEP
- Centralized data flow from Canada
- AIRNow Gateway

AIRNow Gateway

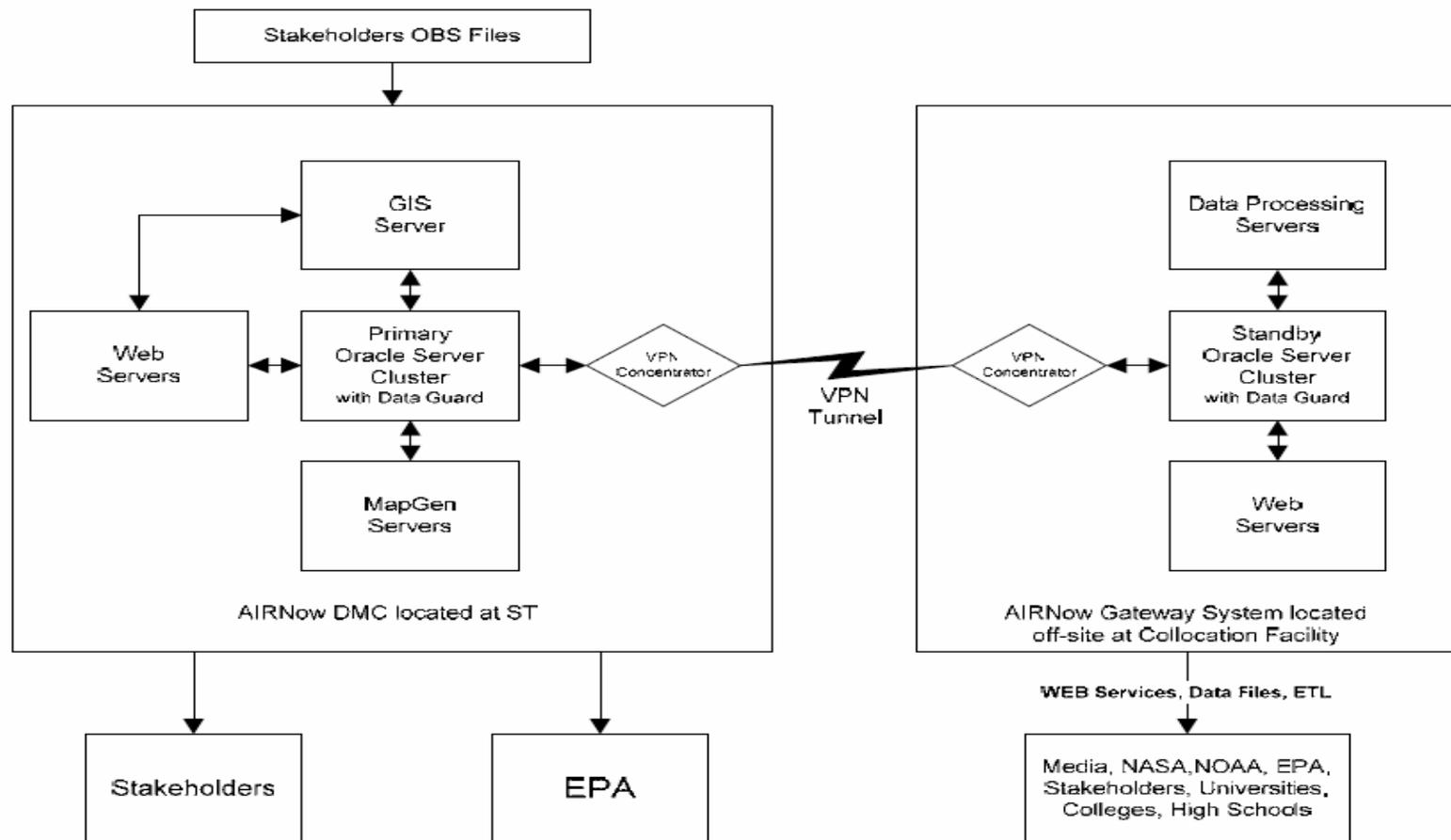
- AIRNow Gateway
 - Funded for FY 2007
 - Will improve AIRNow data delivery to vast user community
 - Variety of data formats and delivery times will be available
 - Will become data hub for the AIRNow system

- Status: Design Phase
 - Currently soliciting input from potential users –
 - What data do you need?
 - Format?
 - When do you need it?

- Completion Date: Summer 2007

AIRNow Gateway

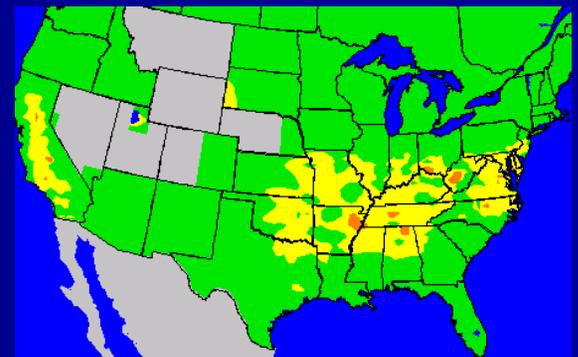
AIRNow Gateway Schematic



AIRNow Mapper

■ Current AIRNow Map Limitations

- Non-georeferenced static images
- No associated metadata
- Poor cartographic detail (roads, rivers, etc.)
- No sharing mechanism



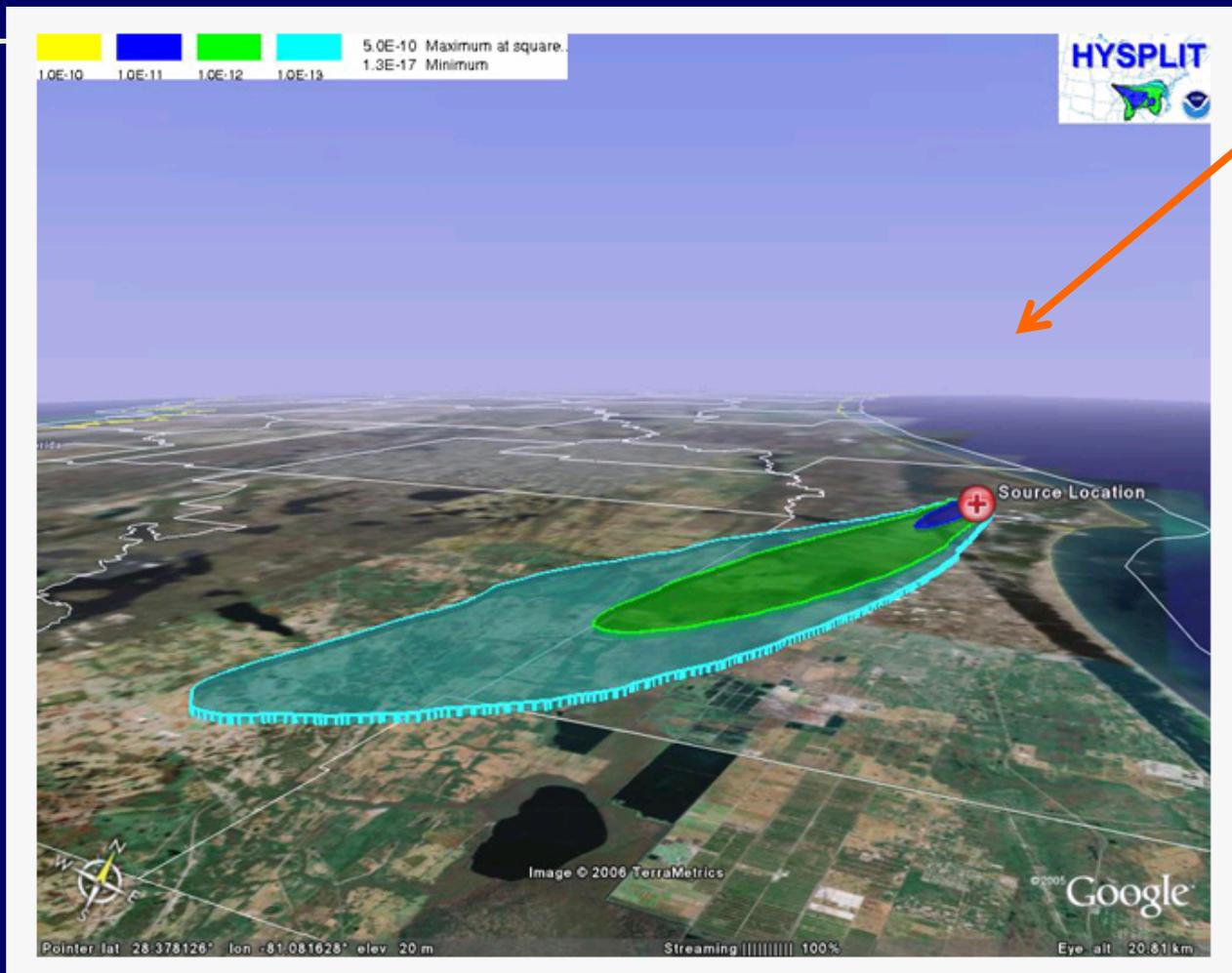
■ AIRNow Mapper would:

- Produce standard format, geospatial maps
- Allow systems such as Google Earth and GIS to map AIRNow data.
- Allow for new AQI mapping techniques to be implemented

■ Status: Proposal Phase

- Awaiting award decision in October 2006

AIRNow Mapper



HYSPLIT Model concentrations displayed in Google Earth using Keyhole Markup Language (KML).

- If AIRNow Mapper is funded, similar maps could be created with AIRNow data

Image courtesy of HYSPLIT training document:
http://www.arl.noaa.gov/workshop/Spring2006/HTML_Docs/gfile.html

2007 Air Quality Awareness Week

- 2006 Activities (5/15-5/19)
 - Press Event in Washington D.C.
 - Special website highlighting each day's message.
 - Several state and local events

- 2007 Plans
 - Potentially move week to coincide with kickoff of ozone season.
 - Earlier planning to get more involvement from all partners.
 - Expanded press event

AIRNow Program Future

OAQPS Re-Organization and AIRNow

- Creation of new Outreach and Information Division (OID)
- AIRNow Team personnel changes:
 - Chet Wayland – Associate Division Director for OID
 - Phil Dickerson – Information Transfer Group (ITG) leader (Chet's previous position)
 - John White – AIRNow Program Manager
 - Scott Jackson – Technical Lead for Forecasting and Monitoring

MOST IMPORTANT: State and Local agencies