



# ***WELCOME TO THE USER INTERFACE COMMITTEE MEETING***

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# ***It's All About Decision-Making***

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- **EPA makes decisions, requires some through regulations & policies to make decisions, and enables/empowers many to make voluntary decisions.**
- **Accountability starts with improved decision-making and ends with metrics showing the resulting Societal Benefits**
- **Research improves decision support tools and delivers data/information systems**



# ***It's Starts and Ends with the Users***

i.e. the Decision-Makers

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- It starts with the **engagement** of a “spectrum” of relevant Users (decision-makers) to learn about what they do and what could help them do it better
- It ends with **feedback** from the Users on whether decision-making improved and the anticipated impacts/benefits were realized

# THE SPECTRUM OF USERS

From observations systems

Earth observations &  
earth system models

Data-to-Information  
archiving & services

Decision support tool  
development

Decision making

Assessment of benefits

To societal benefits

User requirements well known

Earth system scientists  
and modelers

Earth system service  
providers

Environmental process  
modelers & researchers

Policy Makers &  
Environmental managers

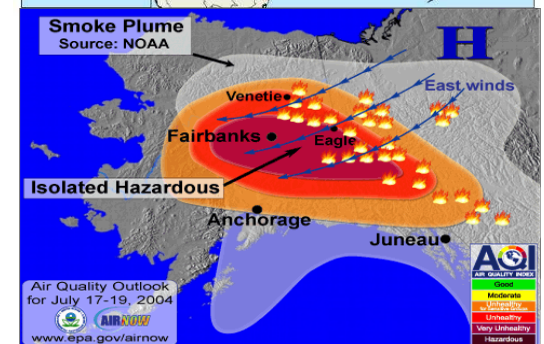
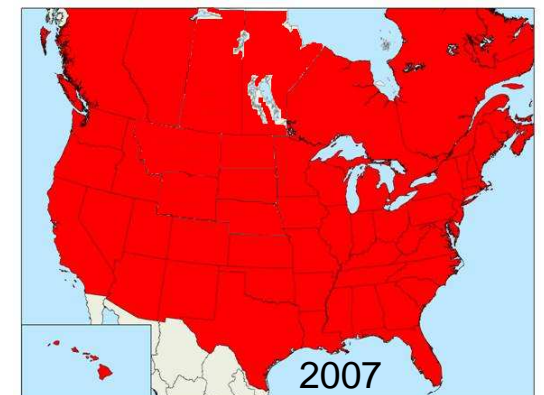
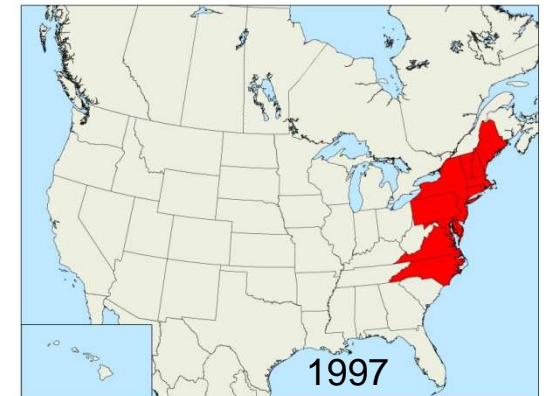
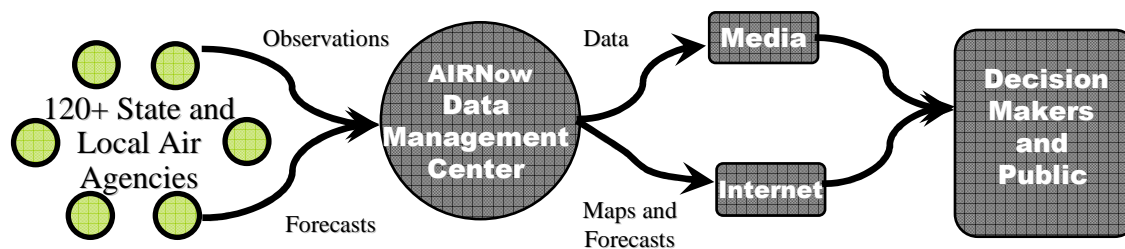
Public officials, advocacy  
groups & the Public

Not aware that observational  
Requirements are even needed



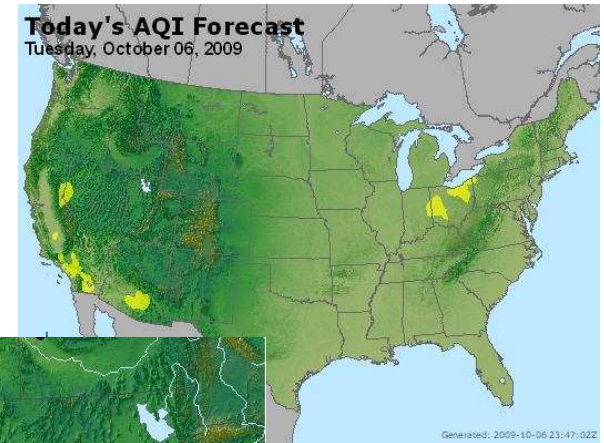
# About AIRNow

- Began in 1997
- Funded by United States Environmental Protection Agency (EPA)
- Diverse stakeholder community
  - Federal, state, provincial, tribal and local air agencies (120+)
  - Scientific and health research organizations (15+)
  - Media and public outreach groups (30+)
- Education and outreach
- Substantial growth and data exchange
- International activities



# AIRNow Products

- Real-time, hourly maps and data
- Forecasts (300+ cities)
- News stories, e.g. wildfires
- Web cams (air quality)
- Seasonal air comparisons



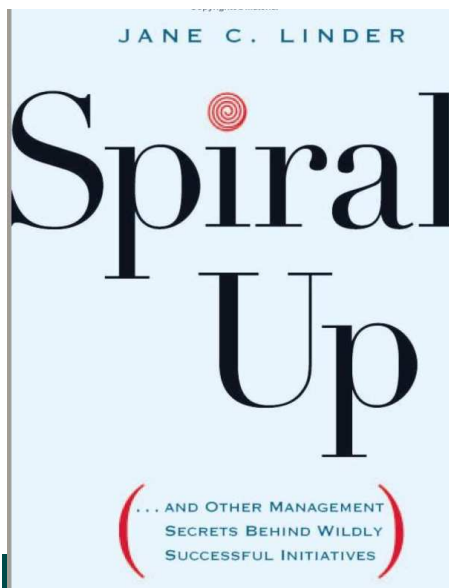
# AIRNow's "Human Side"

It's not just a system, it's a community

- Annual conference
- Regional cooperation
- Daily interaction with stakeholders
- Support during air quality events, emergencies



- Leveraging state, local, and federal resources by collecting and distributing data back to partners, as well as to media outlets



|  |     |
|--|-----|
| 5. Secret #2: Make Space   | 89  |
| 6. The Bigger Dig: Unconventional Scientists Break New Ground in Underwater Mining | 113 |
| 7. Secret #3: Get It Right   | 129 |
| 8. AIRNow: EPA Mavericks Show That Good Air Quality Has Grass Roots                | 149 |
| 9. Secret #4: Energize People  | 170 |

# From AIRNow to GEOSS

- The AIRNow experience has taught us several lessons
  - Community is KEY – 40% technology, 60% people
  - The public wants environmental information, but depends upon the community to interpret it
  - The community provides the context that lies between the data and the public, e.g. Shanghai pilot

# A vision of GEOSS for Air Quality Decisionmakers

## Data Needs

Ambient Meteorology  
Emissions Models  
Satellite



## Decision Makers

**Policy maker** assessing intercontinental transport

**AQ manager** assessing an exceptional event

**Public** planning activities today and tomorrow

*Decision-makers depend on  
common observations and data*

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**NOVICE USERS**



## The “Novice” User

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- science-to-policy analysts, decision makers, public officials, & the public
- working/interested in specific issues that fall within one or more SBAs
- not SOA- or GEOSS-experienced
- looking for any and all observational data relevant to their issues
- want to **easily** find it and **view it**



## The “Novice” User

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**For the Novice User, EPA believes**

- The GEOSS Common Infra-structure is not **YET** user friendly
- Metadata is important, but **not useful**
- Components (data/services) need to provide sample data sets **for easy viewing geographically**



## IN SUMMARY

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- EPA is investing in GEOSS, in partnership with NASA & NOAA, on air quality information delivery in the US and internationally.
- EPA believes that the biggest challenge for itself and GEO is the delivery of observational and other data to the decision makers.
- EPA would like to work with “provider” Organizations to make GEOSS components/ services more user-friendly.