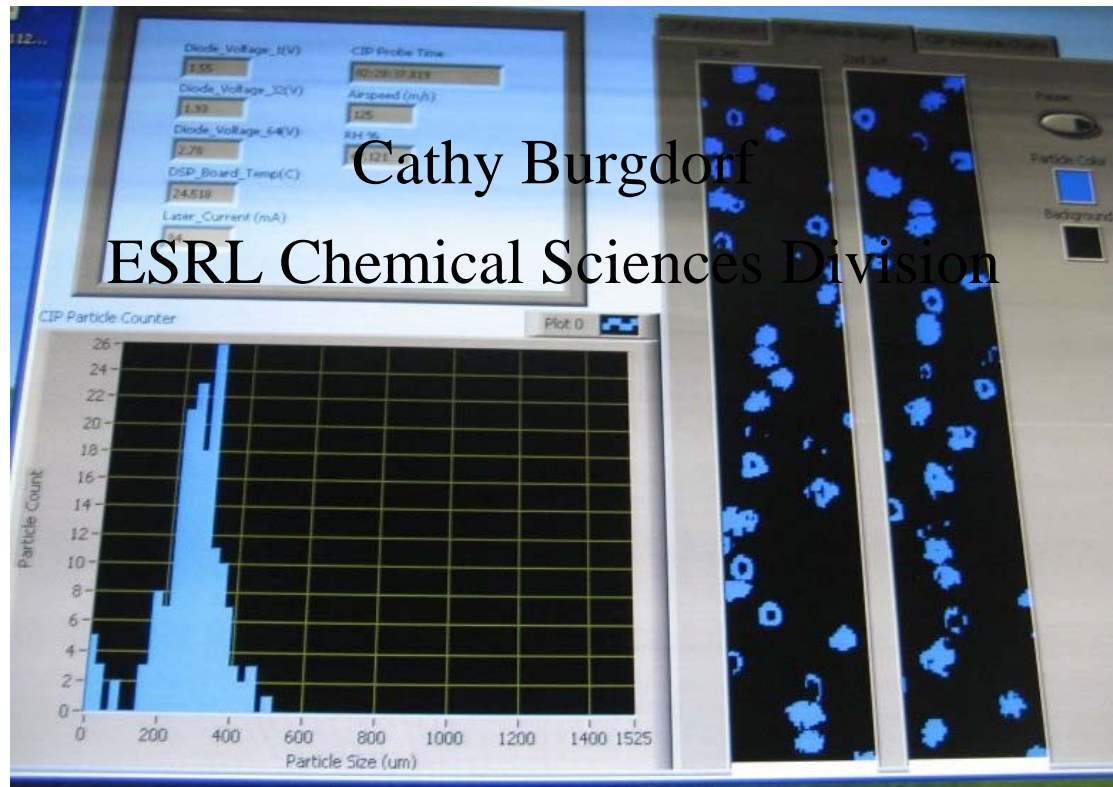




Data Collection in the Field



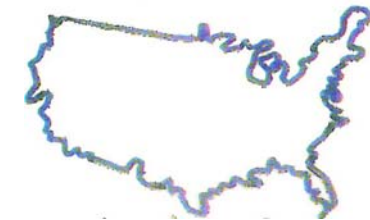
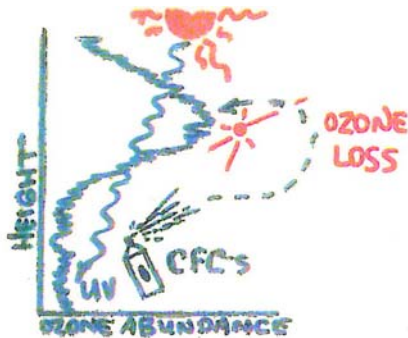
ESRL CSD Field Campaigns



Major Research Emphases:

- ozone layer depletion
- global climate change
- regional air quality

} NOAA's ARC

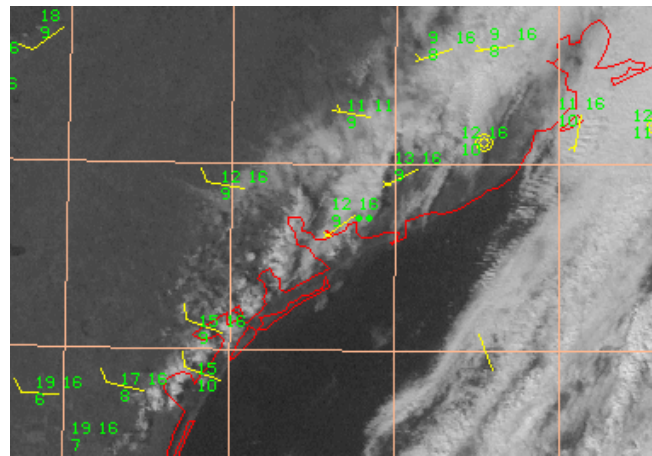


ESRL CSD Field Operations

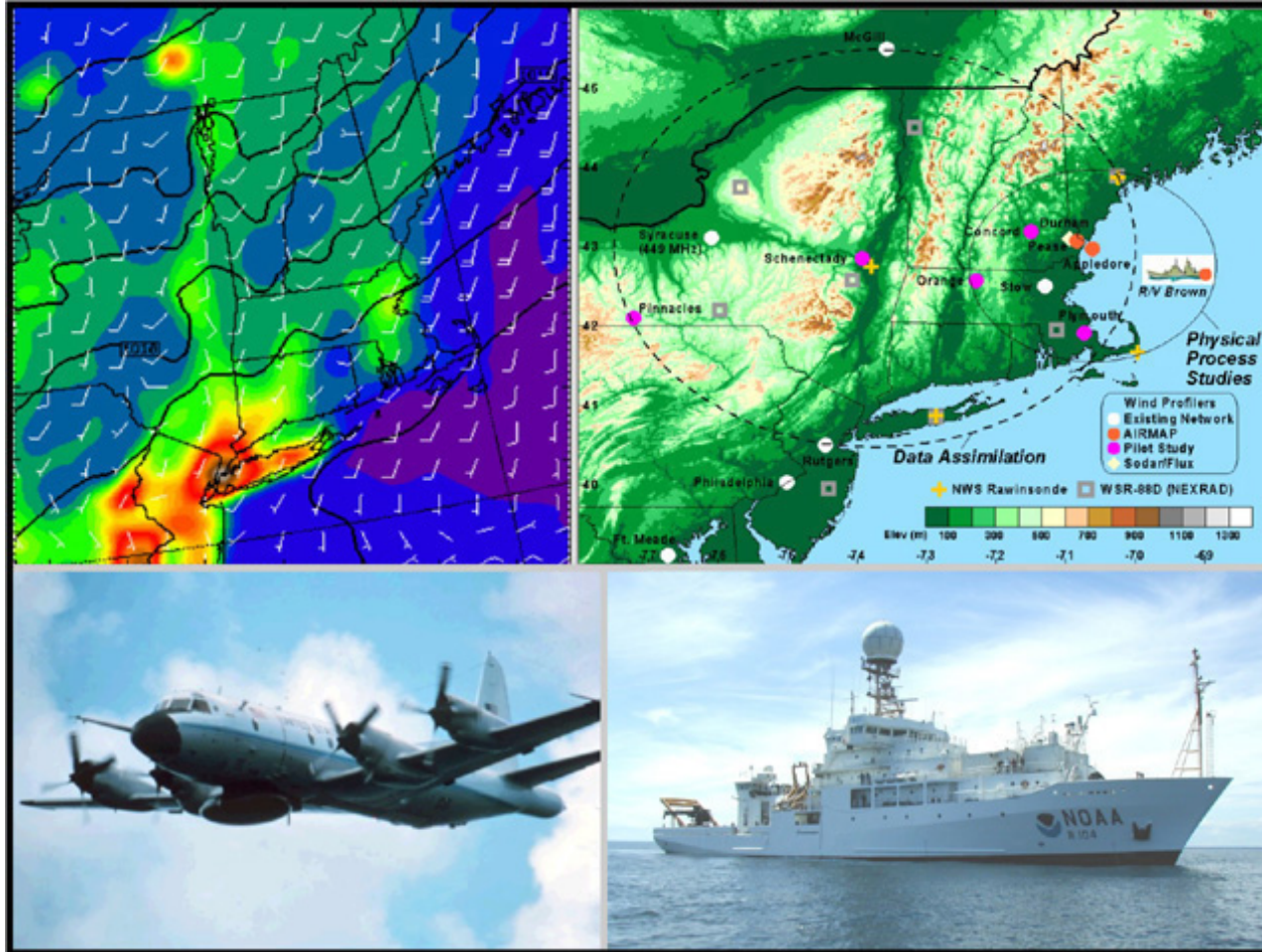


Data Collection from:

- mobile platforms
- surface sites
- satellites and forecasts



NEAQS - ITCT 2004



New England Air Quality Study - Intercontinental Transport and Chemical Transformation

NEAQS - ITCT 2004



Collaborators:

- [AIRMAP](#), University of New Hampshire
- [Harvard Forest](#), Harvard University
- Atmospheric Sciences Research Center ([ASRC](#))
- U.S. Department of Energy ([DOE](#)) [Atmospheric Chemistry Program](#)
- California Institute of Technology ([Caltech](#))
- National Oceanic and Atmospheric Administration ([NOAA](#))
- NOAA Earth System Research Laboratory ([ESRL](#))
- NOAA Pacific Marine Environmental Laboratory ([PMEL](#))
- NOAA Aircraft Operations Center ([AOC](#))
- NOAA [Research Vessel Ronald H. Brown](#)
- International Consortium for Atmospheric Research on Transport and Transformation ([ICARTT](#))
- National Aeronautics and Space Administration ([NASA](#))
- Meteorological Service of Canada ([MSC](#))
- University of Massachusetts ([UMass](#))
- Intercontinental Transport of Pollution ([ITOP](#)) European Contingent

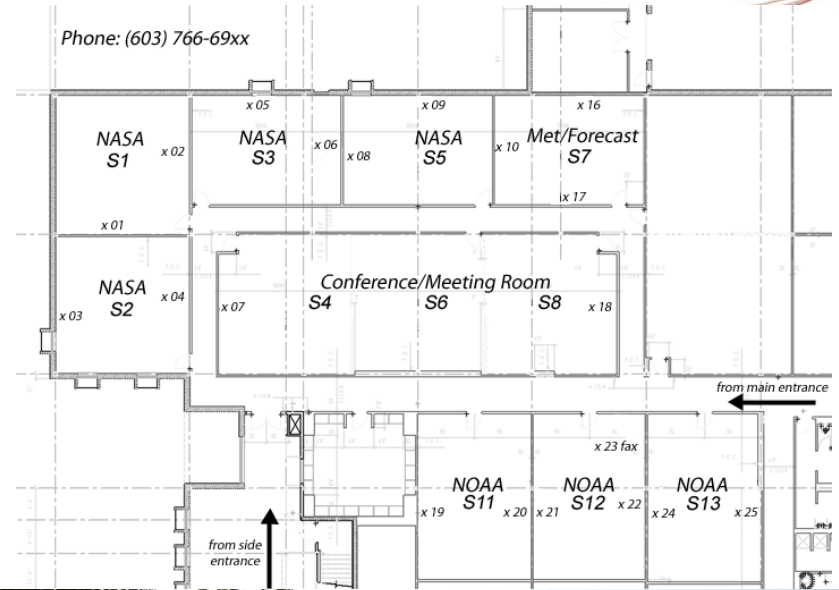
NEAQS - ITCT 2004



Site Logistics:
ESRL CSD provides
service and support
on site and remotely.

Considerations...

- power
- bandwidth requirements
- voice and data lines
- existing resources
- local providers
- file, print, email services
- web services
- physical and IT security
- conference facility



NH Community Technical College, Pease Int'l Tradeport, Portsmouth, NH

ESRL CSD Field Operations



The Process:

Infrastructure is in place

Communications operational from platforms

Organizational resources preconfigured

Data starts moving...



WP-3D aircraft interior



RHB ship deck

ESRL CSD Field Operations



The Challenges:

networks

- land/sat lines to interim file servers to web servers
- connecting to resources beyond organizational firewalls
- allow all deny necessary routing protocols on site

servers and hosts

- passwords, encryption
- patching, virus protection
- backups
- hardware failures
- software configurations
- connecting to local resources
- identify administrators

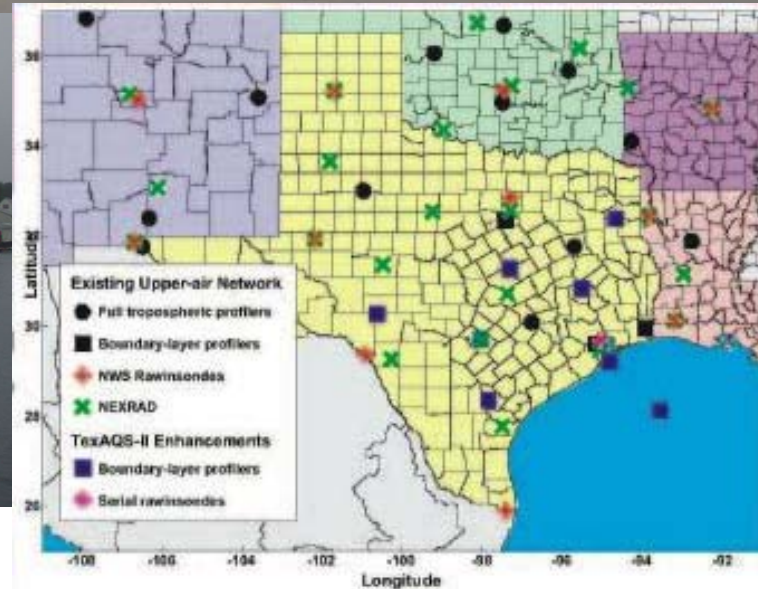


Photo courtesy Richard Marchbanks, NOAA ESRL CSD

ESRL CSD Field Campaigns



Continued efforts
2006 TexAQS,
2008 ARCPAC,
2010 CalNex...





The Plan:

6 short talks ...

- We Have to Get There from Here
- Giving Researchers What They Want
- Saving Lives & Property
- Times They Are A Changing
- Web 2.0 and an Interactive Government
- Resistance is Futile

Cathy Burgdorf (CSD)

Ken Masarie (GMD)

& Cathy Smith (PSD)

Carl Bullock (GSD)

Leslie Hart (GSD)

Eric Hackathorn (GSD)

John Parker (DO)

and 1 panel discussion ...

- Questions from the floor
- What do we need to overcome the barriers?
- How will we get to a unified network?
- How can we make things happen?