EPA’s Global Change Research Program:

Assessing the Consequences of Global Change for Air Quality in the United States

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National Program Director
Office of Research and Development

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Acknowledgments

- Wayne Nastri (Regional Administrator, Region 9)
- Laura Yoshii (Deputy Regional Administrator, Region 9)
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- Darrell Winner (ORD, National Center for Environmental Research)
- Michael Loughran (ORD, Immediate Office of Assistant Administrator)
## Program Mission

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<th>Assess the potential consequences of <em>global change</em> – particularly climate variability and change -- in the U.S.</th>
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<td><strong>Areas of focus:</strong></td>
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<td><em>air quality</em>, water quality, aquatic ecosystems, and human health</td>
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<td><strong>Provide timely and useful scientific information to</strong> support decision making</td>
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<td><strong>Focus on</strong> adaptation – to reduce risks and take advantage of opportunities presented by global change</td>
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The U.S. Climate Change Science Program (CCSP)

- EPA is part of a larger family of 13 federal agencies
- Established by Congress in 1990
- CCSP coordinates and integrates climate change research across the federal government
- All EPA program activities consistent with 2003 CCSP Strategic Plan
- EPA research leveraged with activities of other CCSP agencies

EPA is the only federal agency assessing the impacts of climate change on air quality in the United States.
Global Change & Air Quality

Long-term Goal
Enhance the ability of air quality managers to consider global change in their decisions through improved characterization of the potential impacts of global change on air quality.

• Major objectives:
  ➢ Interim Assessment (FY 2007): Effects of *climate change* on air quality (*completed; in peer review*)
  ➢ Final Assessment (FY 2012): Effects of *global change* on air quality

Unique within CCSP: Focus on the effects of climate change on air quality – rather than the effects of air quality on climate change
How We Conduct Our Air Quality Assessments: Integration of Intramural and Extramural Expertise

- Research, assessments, and development of decision support tools conducted in 4 ORD Labs/Centers
- Extramural research augments areas in which the program has expertise
- “Science to Achieve Results” (STAR) grants awarded through competitive process
- STAR grants provide ongoing, long-term support for selected topic areas
  - Air quality
  - Aquatic ecosystems
  - Human health
Major Commitment to Support Policy-Relevant Research in EPA Regions

1995 – 2007:  
83 grants totaling $68,278,816

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<thead>
<tr>
<th>Region</th>
<th>Total Funding</th>
<th>Number of Projects</th>
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<tbody>
<tr>
<td>1</td>
<td>$6,988,977</td>
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<tr>
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<td>10</td>
<td>$6,729,759</td>
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Over 50 Publications on Climate Change & Air Quality by EPA Scientists (as of 2005) [examples]


24 Publications by Grantees
(examples)


“The Subcommittee concludes that the Program has provided substantial benefits to the nation and that it is on course to make significant further contributions to societal outcomes by informing and facilitating decisions by the public and private sector actors who must consider the prospects of global change.”

- 2005 Peer Review
Board of Scientific Counselors
“Why This Workshop?”

Climate change will affect air quality in the Pacific Southwest

Supports program goal of providing **timely** and **useful** information to decision makers to help them understand and plan for climate change

Program’s Interim Climate Change / Air Quality Assessment completed

Grantees’ research coming to fruition

Supports EPA’s mission to protect human health and the environment