Brief History of the EPA AIRNow program

The U.S. Environmental Protection Agency's (EPA) AIRNow program is a successful e-government model for communicating air quality conditions and forecasts to the public via the internet and other media outlets (television, newspapers, text messaging). AIRNow has become the national resource and focal point for decision makers, the media, and the public to access air quality information for the United States and Canada. AIRNow displays air quality conditions using animated maps with colors that correspond to the Air Quality Index (AQI) and provides air quality forecasts from over 300 major U.S. cities.

Program Background

The roots of the AIRNow program go back to 1995 when the American Lung Association of Maryland developed ozone pollution maps that regularly appeared on television weather broadcasts in the Washington, D.C. area. Although very useful and informative to the public, the effort needed to produce these maps (data transfer, quality control, processing, etc.) was substantial and too costly to continue the following year. In the United States, air pollution problems tend to be regional in nature. Because ozone measurements collected by numerous state and local agencies were not centrally available for mapping, in 1997 EPA developed a regional Ozone Mapping System to automatically transfer data to a central location, perform data conversion and quality control, and generate animated ozone maps in near real-time. This system would be the starting point of AIRNow.

AIRNow expanded rapidly with funding from one of President Clinton's eGovernment initiatives, EMPACT (Environmental Monitoring for Public Access and Community Tracking). The goal of EMPACT was to take advantage of new technologies for providing environmental information to the public in real time, including:

- Collecting, managing, and distributing time-relevant environmental information.
- Providing the public with easy-to-understand information they can use in making informed, day-to-day decisions.

AIRNow is the largest and most successful EMPACT project. Funds from EMPACT enabled states to purchase new hardware and software needed to upgrade their data collection infrastructure and effectively participate in AIRNow.

Today the AIRNow program continues to grow to include other pollutants and meteorological data. AIRNow is currently working on a new initiative to provide broader access and distribution of air quality information using web services, RSS and SMS capabilities for real-time data feeds and text messaging. State and local agencies find the AIRNow program to be a critical tool for protecting public health by providing their citizens with real-time air quality information.

AIRNow Program Recognition

Government Technology Leadership Award – 1998

AIRNow was one of 19 programs selected for Government Executive's annual award. The Government Technology Leadership Awards recognize projects making exceptional contributions to mission accomplishment, cost effectiveness and service to the public.

U.S. EPA Administrator's Award for Visionary Approaches to Environmental Management – 2001

EPA's highest award for the recognition of innovative programs, AIRNow demonstrated creativity, vision, and leadership in providing the public with air quality information.

AIRNow was successful in documenting outcomes and measurements in the following areas:

- programs which substantially increase environmental protection;
- measurement of environmental protection in a creative manner; and
- exceptional or outstanding initiative and creativity.

EPA Leading Edge Award in Recognition of Outstanding Web Application Development – 2001

The AIRNow web site (www.airnow.gov) was recognized during EPA's Office of Environmental Information National Developers Conference for an exceptional e-government application.

NSF Successful Digital Government Project Selection; "Silver Bullet Award" - 2003.

The National Science Foundation funded researchers at Babson College and Harvard Business School to study why some digital government projects succeed. Past studies indicate that 60-75% of major public sector initiatives fail to meet expectations; only 20% achieve the goals their sponsors set for them. Researchers explored a third group of initiatives—those that succeed beyond on all reasonable expectations (called "silver bullets"). AIRNow was selected as one of three government programs in digital government to study and understand how and why they succeed so well to enable public sector executives to increase their rate of success in their projects.