Air Quality Graphical Products
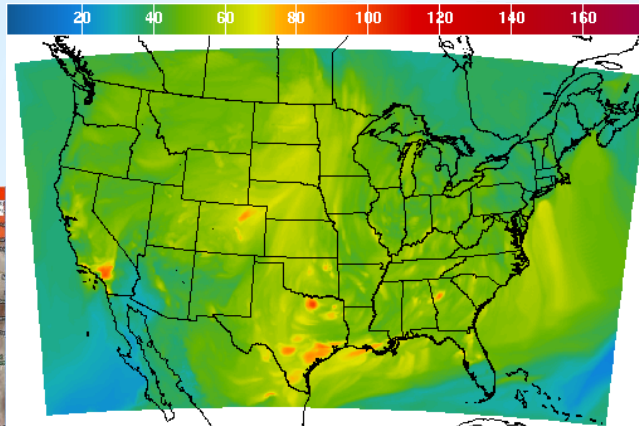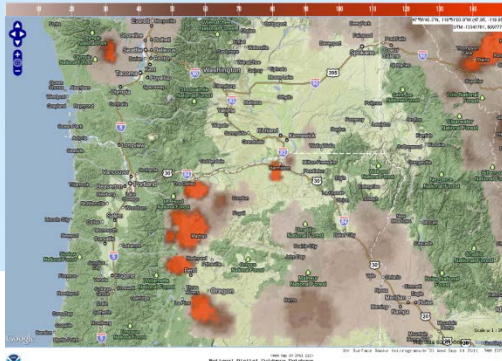
http://airquality.weather.gov/ | http://airquality.weather.gov/expr/
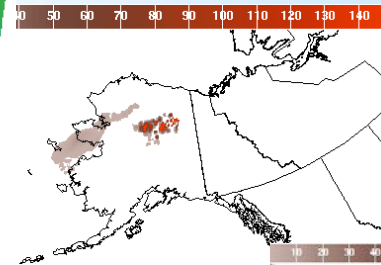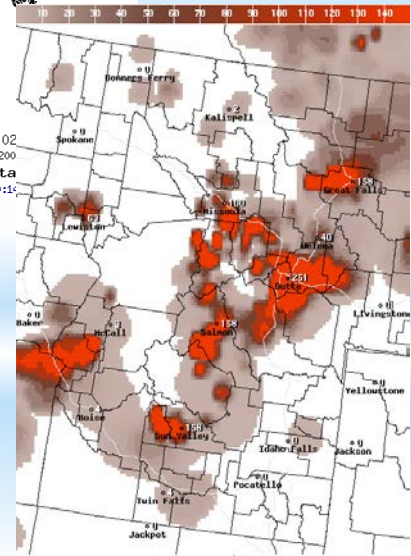
Air Quality Forecaster Focus Group Workshop
September 13, 2012

Marc Saccucci
NWS/OST Meteorological Development Laboratory
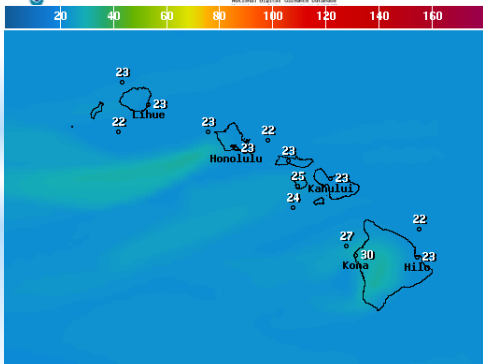
Air Quality Images on the Web

• **CONUS Operational Products**

• 1hr/8hr Average Ozone Concentration

• Maximum 1hr/8hr Ozone Concentration

• 1hr Average Surface Smoke

• 1hr Average Vertical Smoke Integration

• **1hr Surface Dust (Now Operational)**

• **1hr Vertical Dust (Now Operational)**
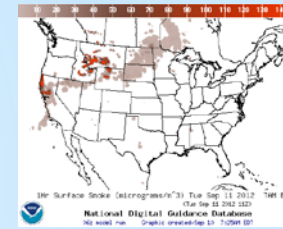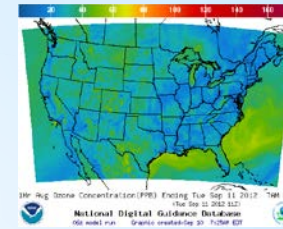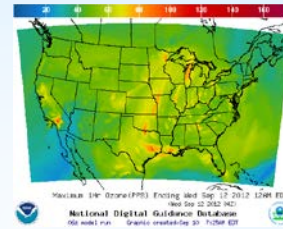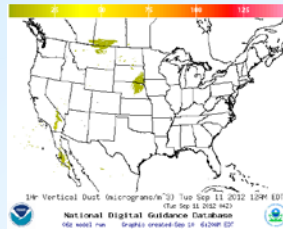
• **Hawaii Operational Products**

• 1hr Average Surface Smoke

• 1hr Average Vertical Smoke Integration

• 1hr/8hr Ozone Concentrations
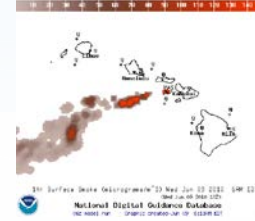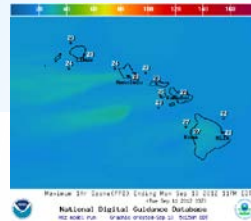
• **Alaska Operational Products**

• 1hr Average Surface Smoke

• 1hr Average Vertical Smoke Integration

• 1hr/8hr Ozone Concentrations

Ozone Online Graphics History

2004

2005 (3X domain)

2006 Experimental

2007 Operational

2010 Max Ozone Products introduced

2008 Improved Legend

2009 Continued support of existing product, testing of new mechanism ozone

2011/2012 Full set of regional operational Ozone
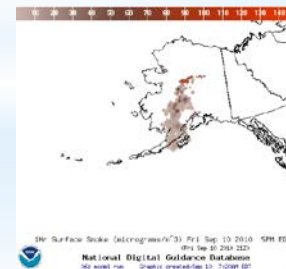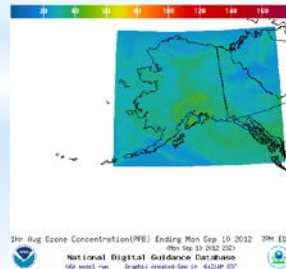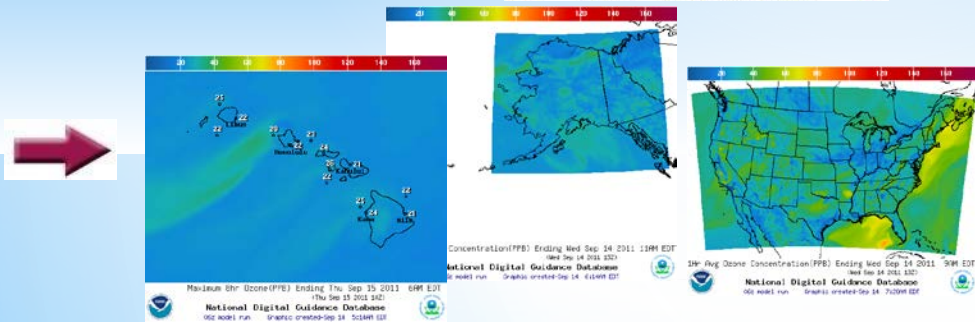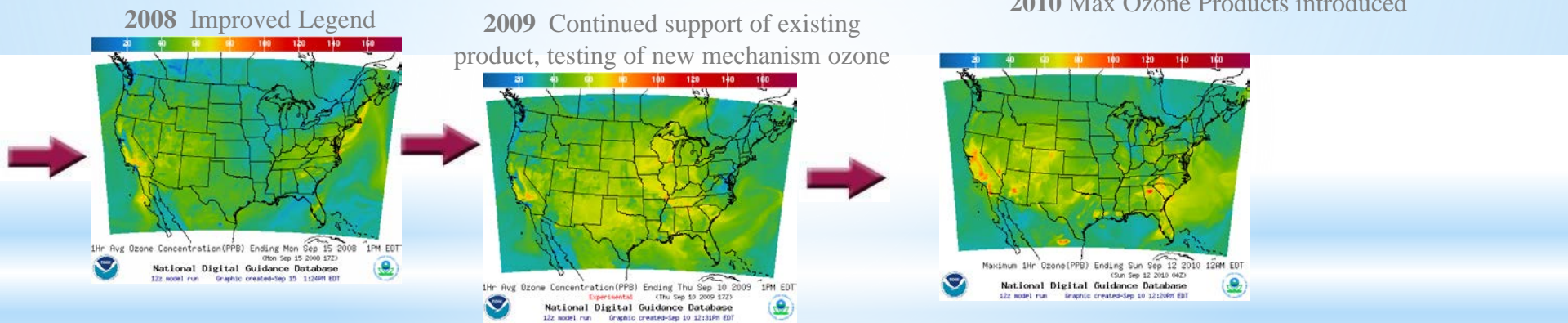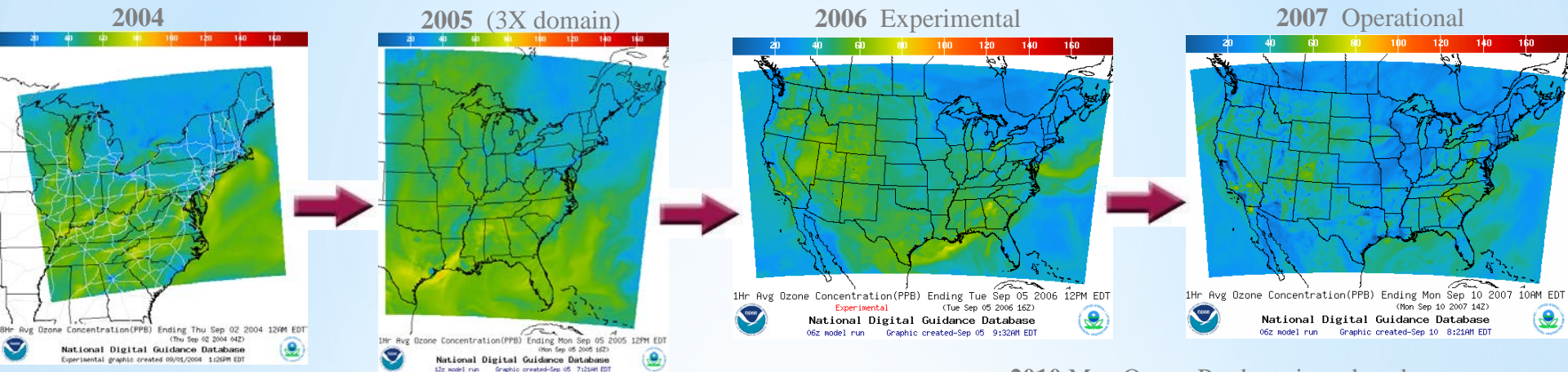
Smoke Online Graphics History

2006 Experimental
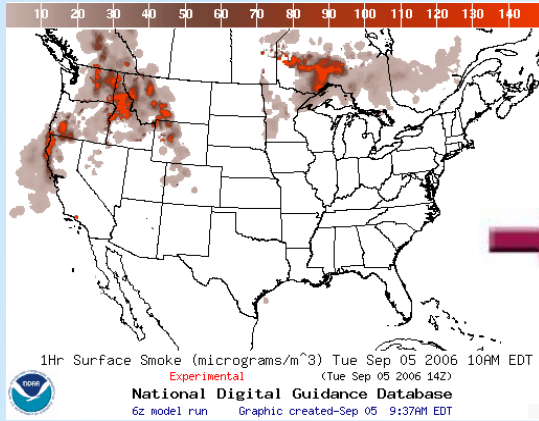
2007 Operational

2008 CONUS & Exp. Alaska Smoke

2009 CONUS, Experimental Alaska Smoke, Experimental Hawaii Smoke

2010-2012 Operational CONUS, Alaska, & Hawaii
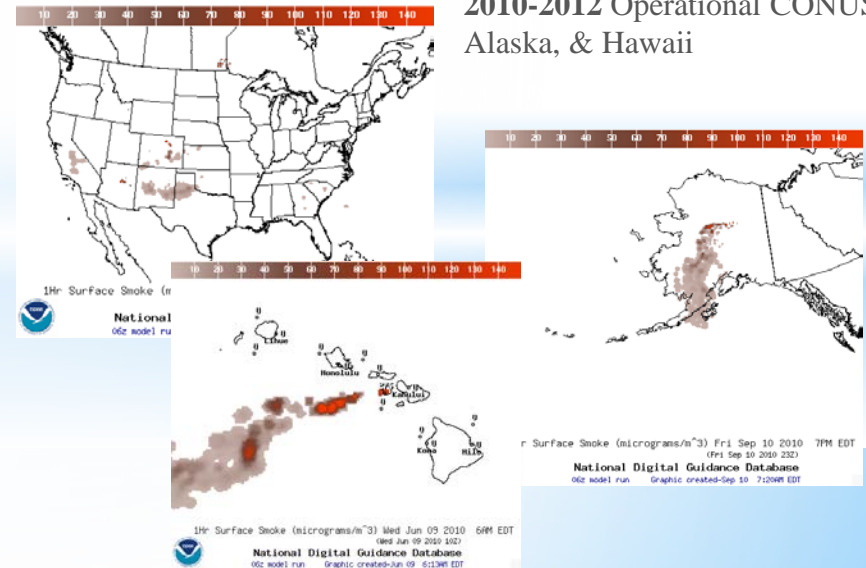
NWS Web Farm Changes

In 2011, the hardware/web farm setup was failing, resulting in poor timeliness and system stability.

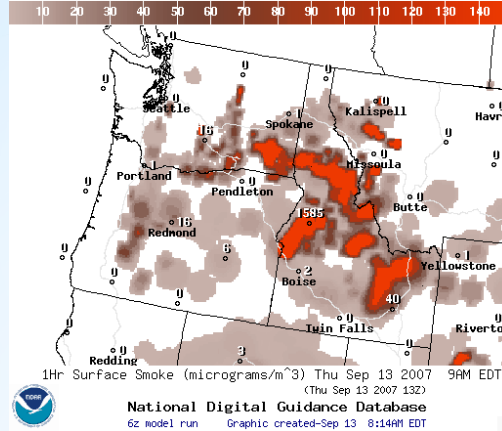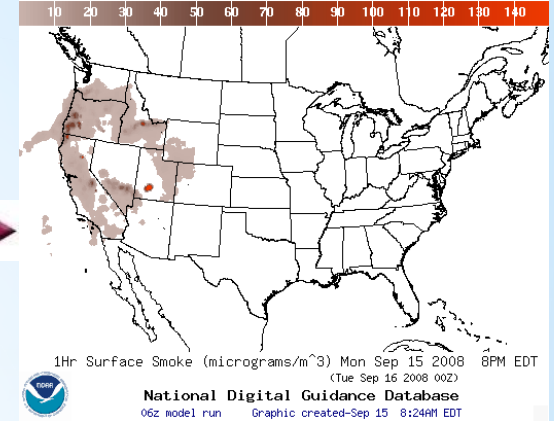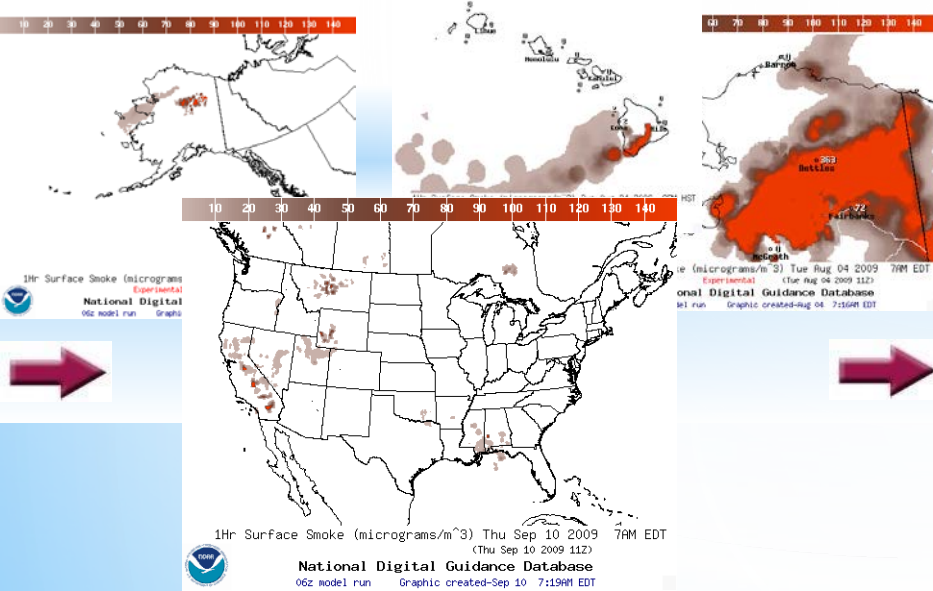The transition of Air Quality's weather.gov presence to the new load balanced web farm/new hardware known as the National Information Dissemination System (NIDS) was completed.

System performance and stability have been excellent since the transition. Users were redirected to the new URL: airquality.weather.gov

Some features, such as the point and click maps were discontinued because of security concerns with the CGI program.

Next Generation of AQ on the Web

Next Generation of AQ on the Web
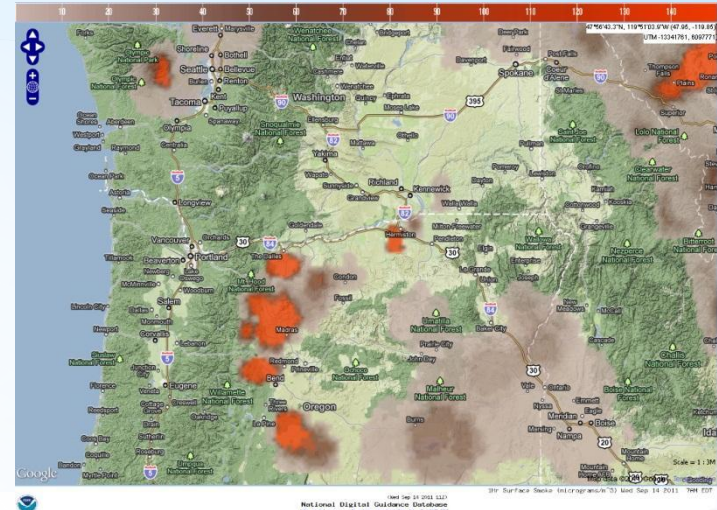
Pros:

* Uses a PostgreSQL Database to manage data

* Very interactive

* Potential to add custom overlays

* Better data interrogation/sampling

* Flexible zoom and domain views that can be saved by users

* Much quicker refresh of the site with data updates

* Easier to add additional elements, configuration changes

Cons:

* Much more complicated to maintain

* More difficult to capture data images for other uses
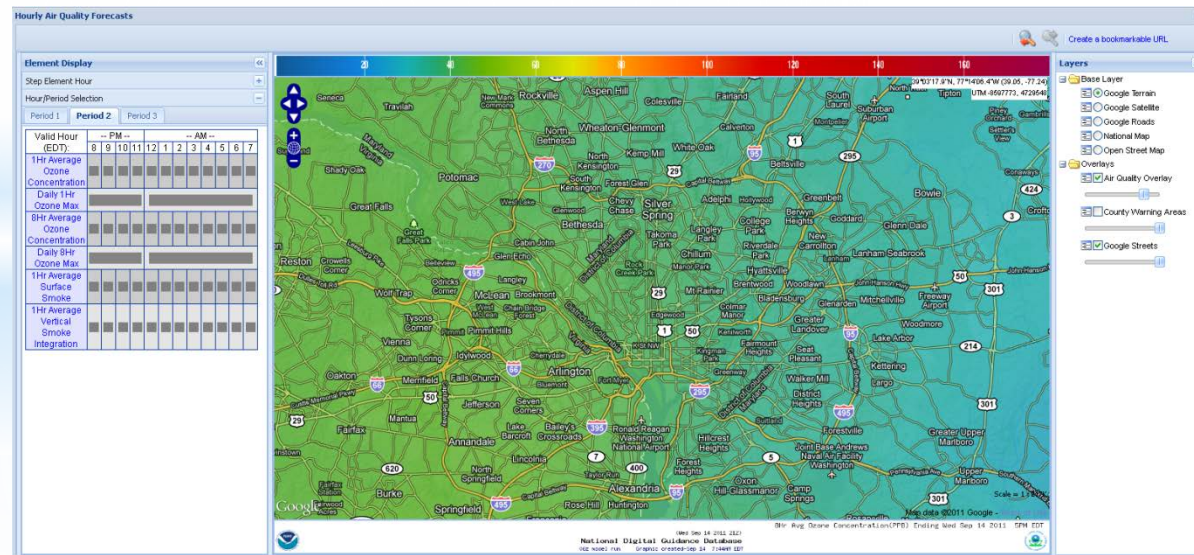
Air Quality Guidance: Data access from www.weather.gov

- Graphical Ozone & Smoke Guidance Displays:

  http://airquality.weather.gov/

  http://airquality.weather.gov/expr/

- GRIB2 Data Download:

  ftp://tgftp.nws.noaa.gov/SL.us008001/ST.opnl/DF.gr2/DC.ndgd/GT.aq/AR.conus

  ftp://tgftp.nws.noaa.gov/SL.us008001/ST.expr/DF.gr2/DC.ndgd/GT.aq/AR.alaska

- Web Questions, Suggestions:

  Email Marc.Saccucci@noaa.gov