AirData Webinar Question and Answer Transcript

From February 9, 2012 webinar, Revised February 21, 2012

Exceptional Events

Q: What is an exceptional event?

A: Exceptional Events are unusual or naturally occurring events that can affect air quality but are not reasonably controllable using techniques that tribal, state or local air agencies may implement in order to attain and maintain the National Ambient Air Quality Standards. For more information, see http://www.epa.gov/ttn/analysis/exevents.htm.

Q: Does "exclude exceptional events" exclude only regionally-concurred exceptional events, or all S/L flagged events?

Q: Are exceptional events defined as agency flagged data or EPA concurred data?

Q: How are exceptional events determined for inclusion? Flagging or concurrence?

A: Choosing the "Exclude exceptional events data" option excludes all flagged exceptional events, regardless of concurrence. Longer answer – States can flag data that may have been influenced by an exceptional event (e.g. high winds, wildfire). As a user of AirData, you can choose to exclude these flagged data. This option is available in the *Air Quality Statistics Report* and *Monitor Values Report*. In the *Air Quality Statistics Report*, there is not a way to tell which, if any, statistics are affected by including/excluding exceptional events. However, in the *Monitor Values Report*, there is a column that indicates whether there were any flagged data ('NONE'), whether flagged data were included ('INCLUDED') or excluded ('EXCLUDED').

Q: In the CSV files, are the EE [exceptional events] data indicated?

A: In the *Air Quality Statistics Report*, there is not a way to tell which, if any, statistics are affected by including/excluding exceptional events. However, in the *Monitor Values Report*, there is a column that indicates whether there were any flagged data ('NONE'), whether flagged data were included ('INCLUDED') or excluded ('EXCLUDED'). This field is in the CSV file also.

PM2.5 data

Q: How does the report handle co-located PM2.5 monitors?

A: Each site-poc is treated as a separate monitor. To see an example of this, you can use the *Concentration Plot* tool for PM2.5.

Q: Does a PM2.5 query pull only data from monitors with a parameter code of 88101 or does it include others such as 88501?

Q: Does PM2.5 stats include FRM, Continuous, FEM or just FRM data?

A: Reports providing <u>annual summary statistics</u> – the *Air Quality Statistics Report* and *Monitor Values Report* – use only PM2.5 data reported as parameter code 88101 (PM2.5 LOCAL CONDITIONS). Reports and visualization tools providing <u>AQI data</u> use both 88101 and 88502 (ACCEPTABLE PM2.5 AQI & SPECIATION MASS). This methodology is consistent with the AQI and how standard AQS reports are generated. The *Concentration Plot* also pulls both 88101 and 88502, and the data for each parameter are plotted separately.

Q: Do the AQI calculations include Non-FEM/FRM continuous PM2.5?

Q: Does it include continuous PM2.5 if they are not FEM, but are still used for AQI reporting purposes?

A: Yes, PM2.5 data reported as parameter code 88101 (PM2.5 LOCAL CONDITIONS) and 88502 (ACCEPTABLE PM2.5 AQI & SPECIATION MASS) are used in the AQI summaries on AirData.

Features

Q: Would it be possible to add the site ID to the roll-over function on the tile plot?

A: Yes, and we will add that to the list of enhancements to implement.

Q: Any plans to allow the selection of more than one year at a time for the reports? Also, is there a link to retrieve hourly data?

A: This was a consideration when we designed the report and visualization tools. Querying across years increased response time dramatically. We may be able to tune queries or create views that will enable

multiple year selections in the future. The raw data query tool available this spring will provide the capability to query multiple years of data and will also provide the hourly data you asked about.

Q: Can you include Design Value by Geography?

A: At this time, design values are not available from the AQS Data Mart. We will discuss what it would take to add them and to develop a design value report.

Q: On the national map the eastern portion of Maine was cut off. Why is that?

A: I was not able to replicate this problem. I wonder if the webinar software might have obscured the map. Please contact me (mintz.david@epa.gov) if you are still having that problem.

Q: Can you do multiple state selection or perhaps all states?

A: Not at this time. This was a consideration when we designed the report and visualization tools. National or multi-state queries increased response time dramatically. We may be able to tune queries or create views that will enable this type of selection in the future.

Q: I see the map only shows the lower 48. Is this function available for AK and HI?

A: At this time, the map shows only the lower 48. It may be possible to add Alaska and Hawaii. If it would be useful, we can put it on the list of enhancements to consider.

Q: Can the tile plot display the monitor name that is responsible for that concentration?

A: Yes, and we will add that to the list of enhancements to implement.

Q: If there's more than one ozone monitor in bakersfield, does that tile plot take the max from all the monitors in bakersfield?

A: Yes. AQI displays/reports always use the maximum daily AQI value in the geographic region represented.

Q: Is it possible to query multiple years?

A: Not at this time. When the raw data query tool is added this spring, it will provide that capability.

Q: Can you select several mid-atlantic states for ozone reports at once?

A: Not at this time. This was a consideration when we designed the report and visualization tools. National or multi-state queries increased response time dramatically. We may be able to tune queries or create views that will enable this type of selection in the future.

Q: Can you compare using plotting two or more monitors for the same pollutants over the same time range?

A: I'm not sure what the intended question is. You cannot plot more than one pollutant at a time.

Q: In the concentration plots, the title of the charts was the same in some cases, although the plot lines were averages instead of daily, for example.

A: The statistic plotted in the concentration plots depends on the pollutant selected. For example, the daily mean is plotted for PM2.5 while the daily max 8-hour average is plotted for ozone.

Q: Can you get a concentration map for a state or is it the whole US?

A: Whole U.S.

Q: Can we make the concentration map available by state and if so, when could this be available?

A: I think this is possible. If this would benefit you please e-mail me (mintz.david@epa.gov) so I can get an idea of how many users it would benefit.

Q: In the tile plot, is there a way to determine the number of sites in each region.

A: I think so.

Q: Is the Tile Plot available for monitor values?

A: Not at this time, but I think it could be updated to do this.

Data Availability

Q: Do you plan to make hourly data available through this site?

A: Yes. Raw data will be available with the new query tool on the Download Data section of the site in the spring of 2012.

Q: Do you plan to add emissions data to the site in the future?

Q: Will emission data be added to AIRDATA and if so when?

A: We are considering the most efficient and effective way to integrate emissions data.

Q: When the raw data becomes available, will there be a need to go to data mart to download raw data?

A: No. If you use the Download Data section of AirData you will be using the Data Mart. We hope the new interface will be much easier to use and we plan to eventually retire the old one.

Q: Can pollen be added to the web page because pollen is part of our air quality especially during pollen season?

A: While I understand the relevance, the focus of this website is to report information regarding monitored air pollution data in AQS. Since pollen is not an AQS parameter, we don't have an efficient way to incorporate it.

Q: When do you expect to have IMPROVE data on this site

A: There is a map layer for the IMPROVE network. So, you can see where the monitors are and you can download annual and daily summary data (albeit one site at a time). When the raw data query tool is added this spring, you will be able to query all the IMPROVE data at once.

Q: Can you get DESIGN VALUES on this site

A: At this time, design values are not available from the AQS Data Mart. We will discuss what it would take to add them and to develop a design value report.

Q: What about individual facility data that I need to download for Haps?

A: I'm not sure if this is an emissions or ambient monitoring question. For emissions data, the best source for facility level HAP data is http://www.epa.gov/ttn/chief/net/2008inventory.html. For ambient data, you'll have to find the site nearest the facility and use one of the existing reports or use Download Data when it becomes available.

Q: What is the timeline for adding air toxics data? PM2.5 speciation?

A: Currently, you can access daily and annual summary air toxics data from the NATTS monitoring sites using that layer in the interactive map. In the spring of 2012, we plan to add two tools that will provide better access to air toxics data. First, we plan to add a monitor-level annual summary HAP report to the Reports section. Second, we plan to add a raw data query tool to the Download Data section.

PM2.5 speciation data will be available via the raw data query tool as well. Any visualization tools or reports that utilize PM2.5 speciation data will be added later in 2012. It's difficult to say exactly when given competing priorities.

Q: Any plans to include air toxics data?

A: Yes. Currently, you can access daily and annual summary air toxics data from the NATTS monitoring sites using that layer in the interactive map. In the spring of 2012, we plan to add two tools that will provide better access to air toxics data. First, we plan to add a monitor-level annual summary HAP report to the Reports section. Second, we plan to add a raw data query tool to the Download Data section.

Other

Q: Could you explain what the AQS data mart is?

A: Sorry. I should have provided more background in the webinar. The AQS Data Mart is a database containing all of the information from the AQS system. The AQS Data Mart was built as a storehouse of air quality information that allows users to make queries of unlimited quantities of data while not affecting the primary AQS database. Here's more information - http://www.epa.gov/ttn/airs/aqsdatamart/index.htm.

Q: How does a state agency limit those who have access to the raw data?

A: There is no limitation. If the data are (posted to production) in AQS, then they flow to AirData and any other downstream application.

Q: Are you using business intelligence software? Which one?

A: Yes - this interface was built using the SAS tools that EPA has available via an enterprise license.

Q: Do all AQI plots use the most current AQI cutpoints - regardless of what year you request?

A: Yes. Every AQI summary (report, graph, etc.) from AirData is based on the current AQI breakpoints regardless of year. (Keep in mind, the current AQI 100 level for PM2.5 is 40 micrograms per cubic meter. See 40 CFR Part 58, Appendix G for more detail.)

Q: I frequently refer people to the following web page: http://www.epa.gov/oar/airpolldata.html which still contains links to the old air data and air explorer websites. Could the links be updated?

A: We'll do that - thanks!

Q: Who uses 40 for PM2.5 AQI of 100?

A: The current AQI 100 level for PM2.5 is 40 micrograms per cubic meter. AQS uses that level for AQI calculations and summary statistics. See 40 CFR Part 58, Appendix G for the current AQI breakpoints.

Q: What is the lag between the data being posted on AQS and it being used in AIRDATA?

A: One to two days. The AQS Data Mart is updated each week night with data from AQS.

Q: To confirm; data available for use is whatever is currently loaded into AQS for a particular year. All data may not yet be certified.

A: That is correct.

Q: Are the chemical speciation data parameters available for review in Air Data?

A: Currently, you can access daily and annual summary chemical speciation data from the CSN monitoring sites using that layer in the interactive map. In the spring of 2012, we plan to add the raw data query tool which will provide access to the raw data.

Q: Are the chemical speciation sites available for the visual map?

A: Yes. See the *PM2.5 Chemical Speciation Network* layer on the Interactive Map page.

Q: Is any local agency embedding this web app into their own site?

A: I'm not aware of any at this time.

Q: How do AirData and AirNow differ?

A: AirData provides monitoring data from AQS which can date back to 1980 depending on the pollutant. So you can do retrospective analysis on a number of pollutants. AirNow reports real-time and forecast air quality data with respect to the Air Quality Index, mostly based on ozone and PM2.5 concentrations. While there is some archive data available, its primary purpose is to report what's happening now and what is forecast to happen tomorrow.