National Atmospheric Deposition Program
Fall Meeting 2007, Boulder, CO

Draft – Data Management and Analysis Subcommittee minutes

Monday, 9/10/07

Gerard Van Der Jagt –Chair Frontier Geosciences
Tom Bergerhouse -Secretary
Michael Shaw- Environment Canada
Chul-Un Ro Environment Canada
Barb Suever
Nancy Halbrook
Bob Larson

Flagging MDN Outliers

Larson presented David Gay's proposal that 1st and 99th percentile concentrations be flagged as outliers.

Larson argued against this proposal because in his opinion it would be bad protocol to flag solely because of a high concentration without something wrong with it. It would be better to adjust cutoff volume for classification as low volume instead of sequestering low volume samples on a percentile basis. Low volume threshold is currently 1.5 ppt. This is an arbitrary level. He suggested looking at data to evaluate if threshold should be adjusted.

Motion: Program Office will look at low volume/high concentration samples and investigate need to change low volume threshold and report back in the spring. Seconded.

Motion passed.

Trace Precipitation Events

Gerard: History issue w/ co-located sites. The HAL reads all rain gage charts while the CAL only reads some. As a result of this reading, the HAL may change precipitation values. The result is that two different interpretations of data from the same rain gage results in differing precipitation data. Gerard asks if the Program Office should accept HAL values vs. operator's values. Currently, discrepancies are resolved by Roger Claybrooke.

Bob Larson stated that differing protocols for trace precipitation are what results in different interpretations of rain gage charts. Sometimes a blip on the rain gage chart with no collector opening is marked as dry or no pen movement on the rain gage trace but a collector opening is marked as trace precipitation. Bob points out that currently Roger does not have to look at that many samples.

Discussion

Bob Larson states that the PO position is that trace definition is independent of collector activity.

Gerard asks how to code the precipitation when you don't know what happened.

Bergerhouse asks if electronic gages make this issue moot.

Larson states that it is the QA manager's responsibility to come up with a uniform definition of trace precipitation.

Motion: The HAL will ask the PO to clarify directions for trace events within 60 days. Seconded

Passed

Management of Electronically Submitted Data

Bob Larson stated that he is currently getting electronic rain gage data in 15 minute intervals for precipitation, temperature, and exposure types. Right now this data is being used internally for evaluation purposes. Is there any use in releasing this data to the public? If so, in what form should it be released? Should exposure data be released as well?

Ro stated that this data is not of much use for general public, but it is essential that it be available special research groups. Exposure could be important for equipment function diagnosis. He says that exposure data could be very valuable and should be available to researchers.

Bob Larson states that he is leaning towards making precipitation and temperature values available in a daily and hourly form and making exposure data available in same fashion as to operators.

Traces Revisited

Gerard reads a section of an email from Van Bowersox

Bob clarifies the process at PO for disagreement between CAL/HAL: If the disagreement is less than five percent, the site operator's interpretation is used. If the disagreement is greater than five percent, the chart is reread by Roger Claybrooke, a degreed meteorologist.

Data Presentation for Non-Standard Sites – Larson

NC99 (Smithsonian) is mounted on a 30 meter tower. This does not meet siting criteria, but has been let in as an experimental site. Data from this site is not included in summaries but is available on the web as an experimental site.

Data from experimental sites is flagged as experimental with a link to an explanation. It is included on maps, but is not used to calculate the interpolations.

There is a possibility of treating high elevation sites the same way. Urban sites should be flagged as well.

Break for lunch

Afternoon

Gerard Van Der Jagt –Chair Frontier Geosciences
Tom Bergerhouse -Secretary
Barb Suever
Nancy Halbrook
Bob Larson
Greg Wetherbee
Jane Rothert
Michael Shaw- Environment Canada
Chul-Un Ro Environment Canada
Maria ????

Detection Limits

The issue is a comparison of detection limits online vs. those reported by the CAL. Detection limits for chemistry have decreased, but this decrease is not reflected in data. The effect this produces on trends blocks changing the detection limits in the database.

Larson indicates that discrepancies in significant figures have been corrected.

A MDL, RDL, hybrid system and the effects on data products and calculations was discussed.

Greg Wetherbee submitted a document from the QAAG for DMAS review.

It is noted that the ability of the lab to report low MDLs does not necessarily indicate the ability of the network to measure values that low.

Issue will be revisited at the spring meeting.

Methyl Mercury Flagging

Referring to an issue from the HAL review, Gerard states that methyl mercury values with a total mass of less than 5 picograms should be flagged. Should this flagging be done by the HAL or the PO?

Bob Larson agrees that PO can flag these results.

Trace and Dry samples chemistry results should not have chemistry values reported on the web site. Bob believes this is the case, but will verify.

Issues regarding blind audits were discussed.

New Data Products

Requests for different data products will be discussed at the spring meeting.