

IASOA Aerosol Working Group

February 21, 2018

Attendees: Sara Morris, Taneil Uttal, Heike Wex, Robin Stevens, Angelo Lupi, Aki Virkkula, Rachel Chang, Betsy Andrews, Chuck Brock, Andreas Massling, Patrick Hayes, Nicholas Spada, John Backman, Kerri Pratt, Sangetta Sharma, Rebecca Sheesley

Role Call of group members

IASOA and YOPP:

- ***IASOA AODF's: Amalgamated Observatory Data Files***
 - Will have standard format, to match model output files
 - Files can also be created for stations not within IASOA
 - Standard time series
 - Observation variables will be incorporated into one file
 - Per supersite
 - Observation specialists will determine most usable and representative values for variables that have multiple measurement outputs or derived techniques
 - Additional non-YOPP variables will be included that supports observation science
 - Identify observation specialists via IASOA
 - Data flagging protocols
 - Initial focus will be on SOP's (special observing periods)
 - Publication of AODF data sets with doi and full author-list
 - Suggest that Antarctic supersites generate the same AODF's
- YOPP: valuable to have any/all values available per measurement, don't have to decide on one specific value
- YOPP: working on file name formatting and metadata formatting
 - Files will be classic netCDF, determining global attributes
 - CF conventions for variable names
 - Will be difficult to identify single organization in naming convention for observations
 - Lat/lon information will also be included in metadata
 - Observatory files will have start and end times
 - Need to identify file time range for observation files (daily, etc.)
 - Model output will be station based – spatial or point, depends on model
 - Models have different array sizes, dimensions, parameters – so files will differ by model
- Observation files: need to determine time series
 - Sub-hourly variability
 - 10 minutes could be nice for turbulent flux data
 - Need to get finalized YOPP data formatting document in order for observations to make decision on their files

- AODF's will start with 15 minute time series
 - Time convention: have both day fraction and individual date columns
 - Look into netCDF time format availability/standard
- Aerosol contribution details
 - Need to determine parameters/variables to include from aerosol community
 - Determining time frequency of measurements will differ based on variable
 - Start with list of what models are including in regard to aerosol parameters; how models are representing aerosols
 - Then can better define list of observations needed for the AODF
 - Discuss how best to split up bins/distributions that is most informative to YOPP modelers
 - Relationship of EBAS as host for data needed for AODF
 - Hourly averages most common in EBAS
 - Not all data sets use same correction methods applied to data
 - For AODF do we need to use all the same correction method or can download data from EBAS where different methods are used
 - The aerosol WG can decide if several methods are sufficient, or if need to reprocess for SOP's with one method

Action Items:

- Ask YOPP modeling community how they are representing aerosols (Uttal)
- Follow up discussions to determine measurement leads