IASOA Ozone Working Group Meeting Notes

February 3, 2016

Attendees: Irina Petropavlovskikh, Sara Crepinsek, Taneil Uttal, Audra McClure, Germar Bernhard, Detlev Helmig, Henrik Skov, Kjetil Torseth

- IASOA collaboration for advancement of the ozone science (Presentation by Irina)
- Villum station update (AMAP, NILU, GAW station)
    - Will need to do an IASOA harvest of metadata from NILU location
    - Surface ozone data from 1997-present
- Taneil will send out 1 pager about how IASOA works
- Irina/Taneil: future analysis of TIK, SUM, ALT, BRW surface ozone data to be led by Sara and Audra
- Henrik: strong necessity for analysis of data since models struggle to catch depletion events in the spring
    - Taneil: Analysis would provide a validation exercise
    - Henrik: Canadian model (GRAHM) is closest to attempt to catch the depletion in arctic. They use data assimilation of surface BrO data from e.g. GOME satellite
- Share trajectory model information
    - Irina: NOAA uses HYSPLIT, can be uncertain in the Arctic due to gridding issues
    - Analyze difference between types of trajectory models
- Taneil: partition data using trajectory method from aerosol group (developed by Elena Konopleva)
    - Generates simple file with trajectory information
    - Sector information is specific to each station and instrument location
    - Will need to define height for trajectory files of stations not yet in the program (i.e. Villum)
- Henrik: likes idea of defining sectors at each station with respect to instrument location
    - Henrik will get sector information to Taneil/Sara for addition to trajectory aerosol software
- Irina: Barrow surface ozone doesn't have defined clean air sector
    - Need to define sources of pollution at Barrow, and separate from background ozone depletion events
- Detlev: Summit → interested in reviewing past papers analysis
    - Look at ozone in snow, surface, and above surface → these results are yet to be published
    - Will give a presentation in the future on Summit ozone
- Irina: developing wind rose ozone plots for other stations (tik, alt, sum, brw)
- Taneil: promote young researchers to also participate in plots/publications/presentations
- Irina working with Simone Tilmes at NCAR with CCMI and CAM models
    - Can't share data/results yet
    - Models of surface chemistry, wind analysis forcing → look at variability
    - Scatter plots of observation vs. model outputs

- Henrik: Kaj is main point of contact for model analysis (ask to present at next meeting)
- Detlev: would like to collaborate with model analysis at Summit
    - Irina to connect Detlev to Simone Tilmes at NCAR
- Germar: working to get vertical profiles from UV data
- Taneil: starting in April, meetings to explore upper atmosphere ozone and not just surface
- Irina: needs comments back from group on objectives and science questions
- Taneil: discuss adoption of old data sets where PI's are no longer associated with data sets
- Henrik: include surface and in-snow and above-snow ozone profiles into science questions
- Taneil: make sure to articulate why we care about ozone depletion events and profiles in science questions and group objectives

Action Items:

- Taneil will send out 1 page description to group about how IASOA works
- Henrik will email Taneil/Sara sector and height information from Villum, to be added to aerosol trajectory software developed from aerosol working group
- Detlev will present on Summit ozone on April 27th
- Audra will produce wind rose ozone plots for other stations (TIK, ALT, SUM, BRW)
- Sara to ask Kaj to present at next IASOA meeting on March 16th
- Irina to connect Detlev to Simone Tilmes at NCAR
- ALL: Beginning in April meeting the group will begin to explore upper atmosphere ozone, and not just surface
- ALL: respond to Irina regarding group objectives and science questions