

## IASOA Trace Gases Working Group

January 17, 2018

**Attendees:** Sara Morris, Barbara Casati, Audra McClure, Kristof Bognar, Kim Strong, Xiaoyi Zhao, Xin Yang, Detlev Helmig, Taneil Uttal, Von Walden

### Role Call of group members

*Presentation: Large-scale transport ODE case selection work:*

- Illustrate in changes if ODE transportation
- Working with Eureka, Alert, and Resolute Bay sites
- ACE/OSIRIS satellite validation campaign: Feb 25 - Mar 14, extended phase: Mar 15 – Apr 1
- Transport cases identified: Mar 2007, Apr-May 2008, Mar-Apr 2011
- FLEXPART, SSA-TRACER 6-day backward run
- ERA-Interim, 10-m wind gust and boundary layer heights (need collaboration w/ BRW surface o3 data – McClure)
- Evolution of ODE at Barrow using model runs
- Case of BrO plume across Eureka, Alert and Ny-Alesund stations 2011-2012
- Proposed study cases:
  - o April: 2009, 2011, 2015, 2016
  - o March – April: 2007, 2013
  - o NEED: 1-hr ozone data from all IASOA stations, ozonesonde data, BrO measurements
- CATCH program, see if they have any observations to contribute (Uttal)

*Discussion of IASOA WG and YOPP:*

- YOPP supersites multivariate process-based evaluation
- Arctic and Antarctic supersites: use both direct and remote techniques
  - o IASOA sites primarily, sites span diversity in climatology and topography found in polar regions
- NWP model output
  - o Upper-air atm. Variables, Cloud microphysics, hydrometers vertical profiles, clouds microphysics, surface atm. Variables, Cryosphere-Surface properties, radiation and energy and momentum fluxes, tendencies and those due to advection
- Example of Iqaluit Super-Site
  - o Data will be publically available on future YOPP data portal (in Norway)
    - Both observations and model output data
    - IASOA (Uttal) recommendation to produce Gold-Files for IASOA observations
- Discuss format of gold-files: netCDF
  - o Work with YOPP data management team to determine obs. data files
- Special Observing Period: Feb-Mar 2018, July-Aug 2018
- Mid-2017 to Mid-2019 total YOPP period
- MOSAiC will also be a super-site that will contribute to YOPP

**Action Items:**

- Casati to send document/table for YOPP obs details (Morris)
- WG to create table similar to model example (Morris, Uttal, ALL)
- Get BRW o3 data obs to Xiaoyi (McClure)
- Get SUM o3 data obs to Xiaoyi (Walden)