

Threads of Consensus

How do we find resources to modernize CASTNet & address evolving needs?

- Eliminate met' measurements except where continuous (hourly) concentrations are measured
 - add 3-D sonic anemometers to measure turbulence ($\sigma_{w,u,v}$)
- Reduce the number of sites to 50 -70, focusing the reductions in the Northeast
- Adopt a tiered approach to monitoring

Threads of Consensus

What improvements do we recommend?

- Add measurements to better address the N budget
 - Add NH_3 measurements to filterpacks
 - Add true NO_2 , NO_y , and N_{reac} (all but N_2) to hourly measurements
- Pursue hourly gas/aerosol measurements (MARGA?)
- Add a site for direct deposition measurements
 - Mobile flux site (GREGOR?)
- Install at least three (daily) Super SASS sites
 - Evaluate potential biases in filterpack measurements
 - Provide data for model verification

Threads of Consensus

Other improvements for consideration.

- Measure organic N in wet deposition samples collected at a subset of sites operating on a daily basis

What we've agreed NOT to do.

- No CO routine monitoring
- No NCORE monitoring

Remaining Questions

- Mobile MPI/GREGOR-like/MARGA (S2)
 - What alternatives if operational system not available?
 - Where do they go?
 - Validating existing sites
 - Ameriflux sites
- Accountability
 - How do we construct concentration maps with only 50 sites?
 - Should we consider extended duration filterpacks instead of pruning sites?
 - Are we comfortable with using model-based assessments?

Remaining Questions

- Size cut inlets
 - 2.5 or 10?
- How will we use 24-hour Super SASS results?
 - Would we get more utility from a mobile Super SASS?
- How do we estimate dry deposition velocities?
 - Historical MLM output
 - Meteorological models feeding MLM
 - CMAQ Inputs