

Halogen Breakout

Preliminary Findings

- HCl over the continent pretty much everywhere in the boundary layer at few ten's of pptv levels.
- Continental short-lived bromine compounds might be a source of bromine to the lower stratosphere. May not be important but worth looking into
- particulate mercury and halogens?

Papers

- Possible paper on short-lived halocarbons – May fit within WAS- TOGA intercomparison paper focused on low mixing ratio species - Eric Apel et al.
- Possible HCl paper with distribution and thermodynamic modeling with aerosol composition and compare to observations – if their significant insight gained.

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- list of things to do ...
 - Look at HCl in biomass burning plumes – Probably Not
 - HCl compare to PALMS data – fraction of sea salt, etc.
 - Compare these results to previous missions.
 - Thermodynamic modeling to get partitioning between particle and gas phases.
 - Sources of the halocarbons? Ideas?
 - Biomass burning for bromoform? compare to acetylnitrile? Probably not.
 - Need to look at UNH measurements and AMS measurements to have data for thermo modeling i.e. full inorganic composition.