T1 Site Aerosol

Measurements

- Chem. Comp.
- Size Distributions
- Physical Properties
- Vertical Dist.
- Radiative Properties

Instruments

AMS, PILS, Filters, TD-CIMS (ultrafine), OC/EC, WSOC, Radionuclides

Various DMAs, CN counters, APS (3 nm – 5 mm)

CCN counters, Tensiometer, Ion Mobility Analyzer (charged particles), HTDMA

LIDAR and tethered balloon OPC and CPC (0.01-3 mm)

UV and Vis. Photometers, Nephelometers, PSAP

T1 Meteorology

Measurements

- Surface – Temp, RH, Wind Speed and Direction, Energy Fluxes, Radiation, PAR direct and diffuse
- Vertical – Temp and RH (0-20 km), Wind Speed and Direction (0.01 – 5 km)

Instruments

- Surface: Basic Weather Station, Sonic Anemometers,Radiometers, Cloud Camera
- Vertical: SODAR, Profiler, Radiosonde, Tethersonde, LIDAR

T1 Trace Gases

Measurements

- Reactive Nitrogen, Hydrocarbons (non-continuous), OVOC, Radicals, O_3, SO_2, H_2SO_4, CO, CO_2, Hg, Photolysis Frequencies

Instruments

- TD-LIF, CIMS, Canister Samples, Chemiluminescence, UV and IR abs., Fluor., mini-DOAS, GC-MS

T2 Measurements

	Confirmed Measurements	Needed Measurements	Issues
Aerosol	Nephelometer, PSAP/aethalometer, OC/EC, particle count (1, 10 mm),PCASP, transient aerosol collector (TRAC), black carbon		
Gas	CO, Hidalgo mobile unit (CO, NOx, O3, SO2)		
Radiation	MFRSR, sun photometer, net radiation, pyranometer, spectrometer,		
Meteorology	Hidalgo Mobile Unit (T, RH, WS, WD), wind profiler, sodar, rawinsonde, lidar	Fuel moisture	Lidar eye safety

Other Measurements

	Confirmed Measurements	Needed Measurements	Issues
Veracruz	Wind profiler, surface meteorology (T, RH, WD, WS), radiosondes (SMN)		
U. of Iowa Mobile Laboratory	Lidar, sun photometer, solar spectrometer		Lidar eye safety
U. of Montana Van	FTIR: H_2O, O_3, CO_2, methane, NO, NO_2, ethylene, acetylene, methanol, acetic acid, HCHO, HCOOH, NH_3, hydrogen cyanide		

T0 Gaps

WISH LIST (for Urban areas)

O3 profiler

Organic acids (gas and aerosol)

VOC sampling (speciated)

HOx concentrations and reactivity

PAN

Student assistants

T1 Gaps

- Continuous VOC (PTR-MS, de Gouw?)
- HCHO (Junkerman?)
- NH_3 (TDLS, DOE?)
- H_2O_2 (Lloyd?)
- Speciated PAN (several options?)
- HONO (?)

Action items

- permission for balloons
- logistics: location of trailers at T1 (minimize interferences)
- power and communications at all sites
- Data management at all sites
- laser eye safety
- coordination for intensive measurement period