

DISCOVER-AQ Daily Observational Status

Date: 18 January 2013

Status definitions:

Green = Full Capability (no comment required)

Yellow = Partial Capability (comment on specific instruments or variables compromised)

Red = Severe or Total Loss of Capability (comment on prognosis for recovery)

P-3B	Status	Comment
LARGE (Anderson)	Green	
NOxyO3 (Weinheimer)	Green	
TD-LIF (Cohen)	Green	
DFGAS (Fried)	Yellow	Computer problems on missed approaches (significant data loss on first circuit, no problems on second and third circuits)
DACOM (Diskin)	Green	
DLH (Diskin)	Red	Instrument failed during warm-up (relied on frost point hygrometer during flight)
AVOCET (Yang)	Green	
PTR-MS (Wisthaler)	Yellow	Minor glitch early in flight (no significant loss of data)
NOAA NH3 (Nowak)	Green	
PDS (Barrick)	Green	
REVEAL (VanGilst)	Green	
B200	Status	Comment
HSRL-2 (Hostetler)	Yellow	Some data loss on morning sortie related to a failed power inverter. Corrected before afternoon sortie launched. Still working on Iridium downlink (not mission critical)
ACAM (Janz)	Green	
Ground	Status	Comment
Pandora (Herman)	Green	2 more to emplace, but all required emplacements complete
NATIVE (Thompson)	Green	(see detailed report on next page)
UMBC (Hoff)	Green	RMAN lidar coming soon
Millersville (Clark)	Green	NO2 not ready (not mission critical)
Aeronet (Holben)	Green	
UC-Davis (Zhang/Cappa)	Green	
UC-Davis (VanCuren)	Green	
UC-Santa Barbara (Leifer)	Red	Not deployed yet (collaboration; not mission critical)
UC-Irvine (Kim/Blake)	Green	
EPA (Long/Szykman)	Green	
NOAA (Michalsky/Lantz)	Green	
ARB/SJV APCD Sites	Status	Comment
Bakersfield Airport	Green	
Fresno-Garland	Green	
Hanford	Green	
Huron	Green	
Oildale	Green	
Porterville	Green	
Tranquility	Green	

Penn State/NATIVE
DISCOVER-AQ 2013
Porterville, CA

Lat: 36.0319
Lon: -119.055
Last Updated: 18-Jan-2013
Contact: Douglas Martins
Email: dkm18@psu.edu
Phone: 814-777-7346

Nominal

Data Suspect/Waiting

Not Recording



Overall Status

Instrument (Mfg/Model)	Status	Constituent
Penn State		
Ozone Analyzer (O3, TECO 49C)		O3
Sulfur Dioxide Analyzer (SO2, TECO 43C)		SO2
Carbon Monoxide Analyzer (CO, TECO 48C)	Needs IR detector, will arrive on Jan 18	CO
Reactive Nitrogen Analyzer (NOy, TECO 42C-Y)		NO, NOy
Temperature Probe (R.M. Young 41382L-90C)		Temperature
Relative Humidity Probe (R.M. Young 41382L-90C)		Relative Humidity
Pressure (R.M. Young 61202)		Pressure
Mechanical Anemometer (R.M. Young 05103)		Wind Speed, Direction
J-NO2 Filter Radiometer (Met-Con)		NO2 Photolysis Rate
Spectral Pyranometer (Eppley PSP)	Working on Data Acquisition	Total Irradiance
Sonic Anemometer (Applied Technologies K-Style)	Sent to manufacturer, expected Jan. 25	u, v, w, temperature
PTR-MS (Ionicon)		Speciated VOCS
VOC canisters	3 UCI and 3 Penn State canister samples	Speciated VOCS
Pandora		Column NO2, O3
Ozone/Radiosondes (DMT, IMet-1)	2 sondes yesterday, 1 sonde today	O3, Temperature, Pressure, Relative Humidity, Wind Speed, Wind Direction
Fast Mobility Particle Sizer		Particles
NOx Analyzer (Ecophysics CLD 60)	Instrument Not Working Properly	NO, NO2, Nox
Cavity Ring-Down Spectrometer		CO2, CH4, 13CO2, 13CH4
*Instrument statuses below are based on Penn State's assessment, true assessment provided by PI		
UMBC		
Nephelometer		Particles
RMAN Lidar	Arrives on Mon, Jan. 21	u, v, w, altitude
Micro-pulse lidar		Aerosols
NASA Goddard		
Pandora		Column NO2, O3
Cimel sun photometer		Aerosol Optical Depth
EPA/NASA Langley		
CAPS NO2		NO2

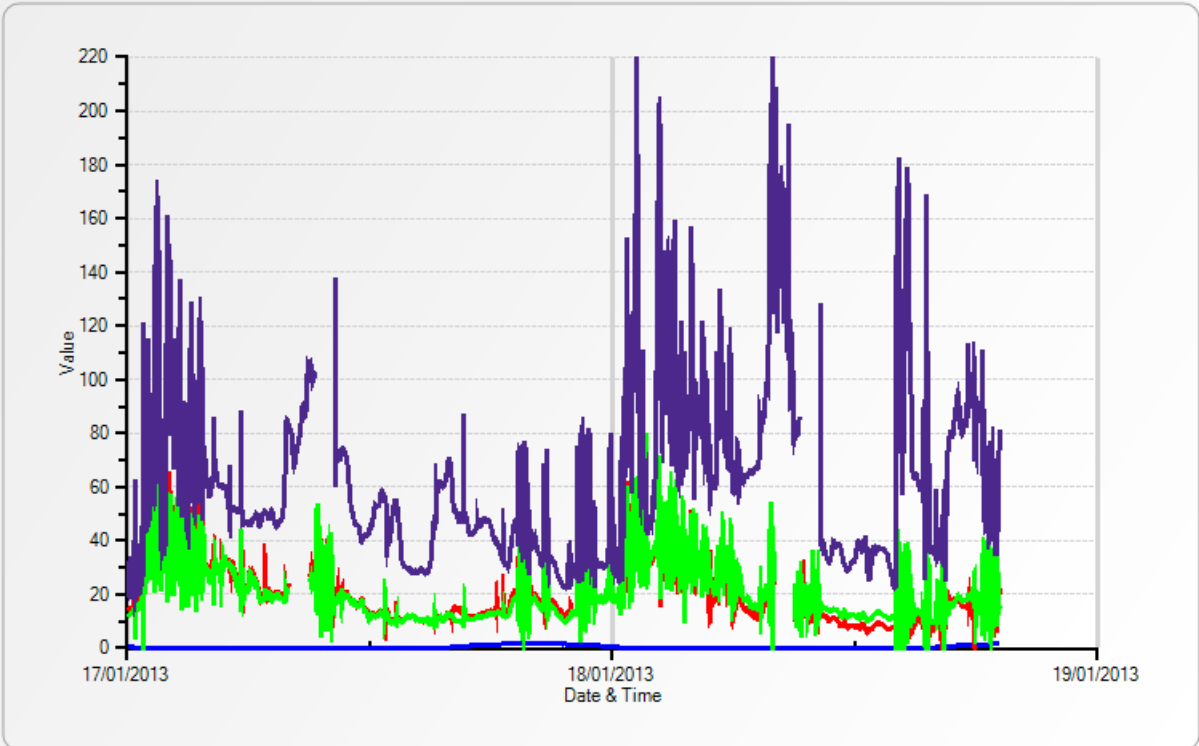
U.S. EPA Office of Research and Development – DISCOVER-AQ Site Status Report

Date: 18 January 2013

Instrument	Parameters	Operation Status	Comments
Visalia			
Teledyne-API 200E w/ molybdenum converter	NO, NO ₂ and NO _x		Nightly zeroes and spans within 5% of reference value
Teledyne-API 200EU w/ photolytic converter	NO, NO ₂ and NO _x		Nightly zeroes and spans within 5% of reference value
Teledyne-API 200EU w/ external molybdenum converter	NO, NO ₂ and NO _y		Nightly zeroes and spans within 10% of reference value
jNO ₂ filter radiometers	UV actinic flux		
2B Tech analyzer	O ₃		Nightly zeroes and spans within 5% of reference value
Met Station	T, rH, P, WS, and WD		
Bakersfield			
Teledyne-API 200EU w/ photolytic converter	NO, NO ₂ and NO _x		
Porterville			
Aerodyne CAPS	NO ₂		Report supplied by NATIVE

See plot below for 1 minute NO₂, NO_y data 0from 00:00 (GMT) 011713 to 19:00 (GMT) 011813

Periodic:[17/01/2013 00:00:00 - 19/01/2013 00:00:00] Time Base Average:[1 min] Average Type:[AVG]



JNO2[] FRM_NO2[ppb] Photo_NO2[ppb] NOYextmoly[ppb]