GROUND SITES

Name	Latitude	Longitude	Alt (ft)	Description	Spiral	Overflight	Pandora	Aeronet	EPA NO2	Missed Approach	J-values	O3	NO2	NO	NOy	H2CO	WS/WD/T	SO2	CO	CO2, CH4	NMHC / VOC	CH4 Isotopes	(Fast) C2H6	N2O	NH3	PANs	HNO3	H2O	OH/ HOx	OH Reactivity	Aerosol param.	PM2.5	PM10	Lidars	Balloons	Profilers	Comment
BAO Tower	40.050030	-105.003835	5186	NOAA site	X		2	X			j(NO2) (NCAR)	CSU, NOAA, UWI vert prof, TOPAZ	CSU, NOAA	NOAA	NOAA		NOAA, T, Q vert prof (Uwi)	CSU	CSU, NOAA, UWI vert prof	CSU, NOAA, Uwi vert prof CH4	UCI Flask***, CSU in-situ	U Cin / UCIFlasks		NOAA Uwi vert prof	U Toronto (elevatr)	CSU				CSU	SMPS and aer. Ext. on elevator, vert resolved backsc xc, depol, ext. (UWL);backsc prof (NOAA)			NOAA-TOPAZ and HRDL, UW-HSRL, H2O DIAL		WindCube (2)	aiddl meas: NOAA N2O5, carboxyl acids, RONO2 (CSU) all on elevator, 3 mobile hookups, small sensors on tower; aeronet already in place,
Chatfield Park	39.534500	-105.070365	5498	CDPHE, 08-035-0004	X		1	X	Photolytic			CDPHE	EPA				CDPHE				CDPHE Flask	U Cin / UCIFlasks														
Denver-LaCasa Ncore	39.779490	-105.005180	5254	CDPHE, 08-031-0026	X		2	X	CAPS			CDPHE	EPA		CDPHE			CDPHE			UCI Flask**	U Cin / UCIFlasks									CDPHE	CDPHE				
Fort Collins-West	40.592795	-105.141410	5156	CDPHE, 08-069-0011	X		1	X	Photolytic	500 feet		CDPHE	EPA								CDPHE flask	U Cin / UCIFlasks											GSFC TOLNET-O3, MPL	Limited Ozonesondes		
NREL-Golden	39.743725	-105.177990	6015	CDPHE, 08-059-0011	X		2	X	FRM/CRDS			CDPHE	EPA		Millersville						UCI Flask*	U Cin / UCIFlasks											MPL, LaRC TOLNet-O3, and Leosphere	Tethersonde radiosondes	NOAA	Millersville also brings sodar, flux tower, nephelometer; Pandoras by EPA here, EPA ceilometer, UMBC trailer, NOAA profiler
Platteville	40.182765	-104.726100	4997	NOAA site	X		1	X	CAPS			NOAA/ NATIVE	EPA/ NATIVE		NATIVE		NATIVE	NATIVE	NATIVE	NATIVE	Wisthaler, UCI Flask*	U Cin / UCIFlasks												Ozonesondes	NOAA	NATIVE; NOAA radiation; 3 mobile hookups; Pandora by NATIVE here; extra trailer for PTR-MS
Aurora East/DU-ARTI	39.638540	-104.569130	5912	CDPHE, 08-005-0006				X				CDPHE					CDPHE																				Nothing extra planned for this site
Boulder	39.991859	-105.261325	5447	NOAA site		X	1	X																													Pandora already at this location
CAMP	39.751190	-104.987610	5226	CDPHE, 08-031-0002		X						CDPHE	CDPHE		CDPHE		CDPHE	CDPHE	CDPHE													CDPHE	CDPHE				
I-25 Denver	39.732146	-105.015317	5207	971 Yuma St.			1		CAPS				CDPHE/EPA																								near-road NO2 monitor; small sensors
Niwot Ridge C1	40.031795	-105.533313	9467	NOAA site			1	X				NOAA																									exact location TBD
Rocky Flats - N	39.912795	-105.188575	5915	CDPHE, 08-059-0006		X	1	X				CDPHE	EPA?				CDPHE																				
Squaw Mtn	39.679690	-105.493284	11456				1	X				CDPHE																									
Table Mountain	40.124741	-105.236979	5535	NOAA site		X	1	X				CHPHE																									possible ozone monitor
Welch	39.638780	-105.139510	5719	CDPHE, 08-059-0005		X						CDPHE					CDPHE																				
Weld Co. Tower	40.386360	-104.737445	4869	CDPHE, 08-123-0009		X	1	X				CDPHE	EPA?				CDPHE								CSU											NOAA	remote sensors on county building
Greeley-Weld Co. Airport	40.441377	-104.631188	4672							X																											Missed approach along BL run
Parkland Airport	40.070854	-105.027530	5053							500 feet																										Windcube	Missed approach with BAO spiral
Aspen Park-RTD	39.541515	-105.298410	8125	CDPHE, 08-059-0013								CDPHE					CDPHE																				
Fort Collins-CSU	40.577470	-105.078920	5002	CDPHE, 08-069-1004								CDPHE					CDPHE		CDPHE																		Nothing extra planned for this site
South Boulder Creek	39.957205	-105.238460	5483	CDPHE, 08-013-0011								CDPHE																									Nothing extra planned for this site
Welby	39.838200	-104.949845	5105	CDPHE, 08-001-3001								CDPHE			CDPHE		CDPHE	CDPHE	CDPHE														CDPHE				Nothing extra planned for this site
Fritz Peak	39.908062	-105.491687	8797																																		Possible Pandora and/or ozone monitor
Squaw Mtn	39.679690	-105.493284	11456	CDPHE-temp, 08-019-7777			?	?				CDPHE																									Addl ozone site, possible Pandora nearby
Mines Peak	39.794099	-105.764158	12458	CDPHE-temp, 08-049-7777								CDPHE																									Addl ozone site, possible Pandora
Daniels Park	39.482200	-104.930600	6491	CDPHE-temp, 08-035-7777								CDPHE																									Addl ozone site
Golden Gate Fire St.	39.776725	-105.368150	8045	CDPHE-temp, 08-059-7777								CDPHE																									Addl ozone site
North Fork Fire St.	39.361600	-105.244925	7620	CDPHE-temp, 08-059-7777								CDPHE																									Addl ozone site
Jackson Reservoir SP	40.388150	-104.094610	4467	CDPHE-temp, 08-059-7777								CDPHE																									Addl ozone site
NCAR Mesa Lab	39.978318	-105.275031	6110	NCAR SOARS								2B Tech																									
Aspen	39.196250	-106.836385	7930	City of Aspen, 08-097-0007								FEM																									
Aurora East/DU-ARTI	39.638540	-104.569130	5910	CDPHE, 08-005-0006								CDPHE																									
Briggsdale	40.650007	-104.334735	4860	USFS, 08-123-0011 (No shelter)								non-FEM (2BTech)																									
Cortez	37.350090	-108.587050	6210	CDPHE, 08-083-0006								CDPHE																									
Deadman Pass	40.830120	-105.751765	10710	USFS, 08-069-7777 (No shelter)								non-FEM (2BTech)																									
DRI Storm Peak	40.455125	-106.744510	10520	DRI, 08-107-7777								non-FEM																									
Flattops #3	39.773360	-107.649075	9320	USFS, 08-045-0014 (No shelter)								non-FEM (2BTech)																									
Gothic CASTNET	38.956400	-106.985800	9580	EPA CASTNET (GTH 161), 08-051-9991								FEM																									
Grand Mesa	39.029695	-108.224590	9980	USFS, 08-077-0021 (No shelter)								non-FEM (2BTech)																									
Kenosha Pass	39.410680	-105.749245	10190	USFS, 08-093-0001 (No shelter)								non-FEM (2BTech)																									
Kremmling	40.057490	-106.368900	7410	USFS, 08-049-7777 (No shelter)								non-FEM (2BTech)																									
Lay Peak/Maybell	40.506889	-107.891022	6430	CDPHE, 08-081-0002								CDPHE																									
Manitou Springs	38.853070	-104.901335	6420	CDPHE, 08-041-0016								CDPHE																									
McClure Pass	39.090000	-107.234000	8490	USFS, 08-051-0008 (No shelter)								non-FEM (2BTech)																									
Meeker	40.003899	-107.847504	6550	BLM, 08-103-0005								FEM																									
Mesa Verde NP	37.198300	-108.490300	7120	NPS, 08-083-0101								FEM																									
Mt. Goliath	39.630460	-105.596050	11460	USFS, 08-019-0004 (No shelter)								non-FEM (2BTech)																									
Norwood	38.132185	-108.285135	7030	USFS, 08-113-0008 (No shelter)								non-FEM (2BTech)																									
Palisade Water	39.130575	-108.313835	5000	CDPHE, 08-077-0020								CDPHE																									
Pawnee Buttes	40.808000	-103.989400	5250	USFS, 08-123-7777 (No shelter)								non-FEM (2BTech)																									
Rangely	40.086941	-108.761002	5410	BLM, 08-103-0006								FEM																									
Rifle - Health	39.541820	-107.784125	5390	CDPHE, 08-045-0012								CDPHE																									
Ripple Creek Pass	40.085040	-107.311725	9610	USFS, 08-045-0015 (No shelter)								non-FEM (2BTech)																									
Shamrock	37.304005	-107.484220	7770	USFS, 08-067-1004								FEM																									
Slt Collbran	39.328045	-107.671220	8060	USFS, 08-077-0022 (No shelter)								non-FEM (2BTech)																									
Southern Ute-Hwy. 550	37.102660	-107.870220	6410	Tribal, 08-067-7003								FEM																									
Southern Ute-Ignacio	37.136715	-107.628785	6530	Tribal, 08-067-7001								FEM																									
Sunlight Mtn.	39.426195	-107.380365	10590	USFS, 08-045-0016								non-FEM																									
Trout Creek Pass	38.910100	-105.975100	9510	USFS, 08-015-0001 (No shelter)								non-FEM (2BTech)																									
U.S. AF Academy	38.958345	-104.817220	6470	CDPHE, 08-041-0013								CDPHE																									
Walden/Cowdrey	40.882198	-106.306107	7920	USFS, 08-057-0003								FEM																									Addl ozone site
INSTAAR Boulder	40.013202	-105.253002	5280									INSTAAR									INSTAAR**															
Dawson School Boulder	40.063732	-105.110166	5125									INSTAAR									INSTAAR**															
Betasso	40.017006	-105.357608	6500									INSTAAR									INSTAAR**															
Sugar Loaf	40.019014	-105.404089	7860									INSTAAR									INSTAAR**															
Coughlin Meadows	40.003686	-105.478697	8300									INSTAAR									INSTAAR**															
Niwot RidgeC1	40.031795	-105.533313	9450				1	X				NOAA																									
Niwot Ridge Saddle Site	40.047778	-105.570833	11020									INSTAAR									INSTAAR**															
Niwot Ridge Saddle	40.05418	-105.58891	11570									NOAA																									
Rocky Mountain NP	40.277800	-105.545300	9000	NPS, 08-069-0007 (CASNET collocated)								NPS			NPS (NOx/y)			NPS	NPS		NPS (in-situ, cans, PTR-MS)				CSU****	NPS (GC)	NPS (hour)				ions (Cl-, NO3-, SO42-, NH4+, K+, Ca2+, Mg2+, Na+)						
Rocky Mountain NP High Alt.	40.38782	-105.687952	11630	Tundra Trail Ridge Road								NPS						NPS																			
Ft.Collins-RMNP Transect																					NPS canisters															
Foothills Lab	40.037652	-105.242594	5300	FTIR Integrated Column Measurements								x	x			x			x	x			x	x	x		x	x									
Mesa Lab, Boulder Mtn Parks (NCAR SOARS), RMNP				personal monitors while hiking																																	

MOBILE UNITS

NOAA CSD				Mobile Van								x	x	x			x		x	x			?	x	x			x									WIBS (otal supermicron particle counts and sup
NOAA GMD				Mobile Van								x					x		x	x	flask	flask						x								
CU VIS/IR Spectrometer				Mobile trailer								column		column					column		column				column												integrated column measurements
Aerodyne				Mobile Van								x	x	x			x	x	x	x	x (PTRMS)	x	x	x	x			x			AMS, CAPS-Pmex, MAAS						AMS, PM2.5, size resolved chem comp.,organic
INSTAAR				Mobile Van													x			x		x															Infrared leak detection camera
Princeton				Mobile															x	x				x	x			x									open path IR

AIRCRAFT

C-130											x	x	x	x		x	x	x	x	x	UCI flasks, TOGA, PTR-MS	U. Cin selected UCI flasks	x		x	CIMS, TDLIF (+ ANs)	x	x	x		AMS, CAPS-PMex, SMPS, size dist, CN, wing probes						
P-3											JNO2	x	x	x	x	x	x		x	x	PTR-MS		x	x		TDLIF (+ ANs)	x	x			comprehensive-LARGE, CAR, OINeph						
B-200												column	column			column																			HSRL			
Falcon												column	column			column		column														AOD						Glyoxal column also measured
Mooney TLS												x	x				x			x			x															

x in-situ measurement

* one ground site sample each P3 spiral

** limited flask samling - integrated samples on 6 flight days 12:00-15:00 local

*** limited sampling as directed by science team

**** including particulate ammonium