

**CalNex 2010 Data Analysis Workshop Agenda**  
**May 16 – 19, 2011**

Joe Serna Jr. Cal/EPA Headquarters Building  
 1001 I Street, Sacramento CA

**Monday, May 16**

**Session Chair: Eileen McCauley**

1:00	Welcome	James Goldstene
1:10	Logistics	Eileen McCauley

**Session Chair: Chet Koblinsky**

1:15	Introduction	Chet Koblinsky
1:20	Science Questions to Improve California's Climate and Air Quality Programs	Bart Croes
1:35	NOAA and CalNex: Goals and Contributions	David Parrish
1:50	Collaboration of the Broader Science Community in CalNex	Steven Wofsy
2:05	NOAA's Contribution to Policy Relevant Information: CalNex	A. Ravishankara
2:20	Discussion and Questions	Chet Koblinsky
2:30	<b>Science Questions Related to Emissions &amp; Inventories</b>	<b>David Parrish</b>
2:40	Volatile organic compounds (VOCs) in the greater Los Angeles Basin: Compilation of multi-platform measurements in order to characterize the chemical evolution of air masses and their relative contribution to OH reactivity and potential SOA formation	Gilman, J.B.
3:00	Airborne measurements of volatile organic compounds in the Los Angeles Basin and the Central Valley, California	Warneke, Carsten
3:20	Measurements of pollutants and their spatial distributions over the Los Angeles Basin	Cheung, Ross
3:40	Airborne observations of the weekend ozone effect and precursor emissions in the California Los Angeles Air Basin during CalNex	Pollack, I.B.
<b>4:00</b>	<b>BREAK (20 minutes)</b>	
4:20	Emission and trends of VOC precursors in Los Angeles megacity	Borbon, Agnes
4:40	Traffic related emissions of radical precursors HCHO and HONO in Los Angeles during CalNex	Rappenglück, B.
5:00	Diurnal variations of CO <sub>2</sub> emissions during CalNex-LA: magnitude and sources	Newman, Sally
5:20	Urban CO <sub>2</sub> Emissions from the Los Angeles Basin: Assessing chemistry and dynamics using the suite of tracers measured aboard the CalNex WP-3 Aircraft	Wofsy, Steven

**Tuesday Morning, May 17**

**Session Chair: Joost DeGouw**

8:30	Methane Emissions from Point and Area Sources in California	Peischl, J.
8:50	Constraints on Methane Emissions from California's Central Valley using CalNex WP-3 Aircraft Data and a Lagrangian Transport Model	Santoni, Gregory
9:10	Remote Sensing of Spatial Distributions of Greenhouse Gases in the Los Angeles Basin	Fu, Dejian
9:30	Nitrous Oxide Emissions from California Based on Airborne Measurements During CalNex	Xiang, Bin
9:50	A Tale of Two Extremes: Contrasting NH <sub>3</sub> at the Bakersfield and Pasadena Supersites	Murphy, J. G.
10:10	Airborne Measurements of Ammonia and Implications for Ammonium Nitrate Formation in the Central Valley and the South Coast Air Basin of California	Nowak, John B.
<b>10:30</b>	<b>BREAK (20 minutes)</b>	
10:50	Column observations of NO <sub>x</sub> and OVOC over California during the CalNex and CARES	Volkamer, Rainer

**Poster Previews - 2 minutes each**

11:10	P1	In-situ measurements of a broad range of volatile organic compounds at the CalNex-Bakersfield supersite	Gentner, Drew
11:12	P2	Measurement of Greenhouse Gases (GHGs) and source apportionment in Bakersfield, CA during CalNex 2010	Guha, Abhinav
11:14	P3	Atmospheric Ammonia Measurements in the Northern San Joaquin Valley Using Cavity Ring-Down Spectroscopy	Pendergrass, Will

11:16	P4	Measurements of hydrocarbons and halogenated hydrocarbons over the Southern California Air Basin and the California Central Valley during the CalNex-2010 mission	Atlas, Elliot
11:18	P5	CU Airborne MAX-DOAS measurements over California during the CalNex and CARES field campaigns	Baidar, Sunil
11:20	P6	Distribution of chlorofluorocarbons (CFCs) and their replacements measured over the South Coast Air Basin (SoCAB) and the Central Valley during the CalNex-2010 study	Barletta, Barbara
11:22	P7	CIMS measurements of gas-phase acids during CalNex - SJV	Beaver, Melinda R.
11:24	P8	Constraints on PAN precursors from day of week measurements of column NO <sub>2</sub>	Valin, L. C.
11:26	P9	Measurements of Formaldehyde and Carbonyl Sulfide aboard R/V Atlantis during CalNex	Herndon, Scott
11:30		<b>Discussion of insights, planned papers and potential collaborations in emissions &amp; inventories</b>	<b>David Parrish &amp; Joost deGouw</b>

**11:45 LUNCH**

**Tuesday Afternoon, May 17**

**Session Chair: Jochen Stutz**

1:00		<b>Science Questions Related to Atmospheric Chemistry and transport</b>	<b>Jochen Stutz</b>
1:10		Aircraft measurements of NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub> over Los Angeles during CalNex 2010	Brown, Steven
1:30		Nocturnal Vertical Gradients of O <sub>3</sub> , NO <sub>2</sub> , NO <sub>3</sub> , HONO, HCHO, and SO <sub>2</sub> in Los Angeles, CA, during CalNex 2010	Tsai, C.
1:50		Glyoxal and Formaldehyde Measurements in the Southern San Joaquin Valley: Comparison with CMAQ Model Results and Analysis of Formaldehyde Sources	Keutsch, Frank N.
2:10		Nocturnal Chemistry Observed from the R/V Atlantis during CalNex	Wagner, Nicholas
2:30		Airborne Measurements of Nitryl Chloride and Implications for Chlorine Activation in the South Coast Air Basin of California	Roberts, James M.

**2:50 BREAK (40 minutes)**

3:30		Sensitivity of ozone production to organic nitrate formation in the urban outflows of Sacramento and Los Angeles	Browne, E. C.
3:50		Contribution of nitrous acid to the urban Los Angeles radical budget	Young, C. J.
4:10		WRF/Chem Simulation of Ozone and NO <sub>x</sub> Precursors in the LA Basin during the 2010 CalNex Campaign	Chen, Dan
4:30		Photochemical Air Quality Modeling in California during the CalNex Period	Kaduwela, Ajith
4:50		Chemical and Aerosol Data Assimilation and Forecasting Experiments during CalNex	Pierce, R. Bradley

**Poster Previews - 2 minutes each**

5:10	P10	VH-TDMA measurements on board the R/V Atlantis during the CalNex 2010 Campaign	Hakala, Jani
5:12	P11	Measurements of OH, HO <sub>2</sub> and total OH reactivity during CalNex LA 2010	Griffith, Stephen
5:14	P12	<i>In-situ</i> , Quantitative Speciation of Aerosols in Pasadena, CA during CalNex 2010	Issacman, Gabriel
5:16	P13	Monoterpene oxidation products in aerosols collected in Los Angeles during the 2010 CalNex campaign	Kristensen, Kasper
5:18	P40	The Use of Photochemical Ages from Different Hydrocarbon Ratios To Describe Emissions and Chemistry of Volatile Organic Compounds in the Los Angeles Basin	de Gouw, Joost
5:20	P41	Molecular Characterization of Organic Compounds in Atmospheric Aerosols	Laskin or Nizkorodov
5:22	P14	Off-line UPLC/ESI-HR-Q-TOFMS Analyses of SOA Heterogeneous-Reaction Products in PM <sub>2.5</sub> Collected from the CalNex-Pasadena Ground Site	Lin, Y.-H.
5:24	P15	Quantification and analysis of nitryl chloride (ClNO <sub>2</sub> ) during CalNex-LA 2010	Mielke, Levi H.
5:26	P16	Measurements of soluble composition of fine atmospheric particulate matter (PM <sub>2.5</sub> ) and associated precursor gases in Bakersfield, CA during CalNex 2010	Murphy, J. G.
5:28	P17	Gas-particle partitioning of atmospheric ammonia at the CalNex-LA ground site	Murphy, J. G.
5:30	P18	Southern San Joaquin Valley ozone production: Relationships with NO <sub>x</sub> abundance, alkyl nitrate formation, VOC reactivity, and rates of primary HO <sub>x</sub> production	Pusede, Sally E.
5:32	P19	On the relationship between nitryl chloride and molecular chlorine and their relative importance as Cl-atom sources from simultaneous ship-borne observations in coastal California	Riedel, Theran P.
5:34	P43	Estimating Fossil Fuel CO <sub>2</sub> , CH <sub>4</sub> , and N <sub>2</sub> O Emissions Using Tower Measurements in California.	Fischer, Mark
5:36	P44	Urban Energy Balance Measurements During CalNex 2010	Pendergrass, Will

5:45 – 7:30		Poster Session P1 - P19, P40, 41, 43, 44	2 <sup>nd</sup> Floor Lobby
<b>Wednesday morning, May 18</b>			
<b>Session Chairs: Jochen Stutz &amp; Jose Jimenez</b>			
8:30		Ozone transport from the free troposphere into the Los Angeles basin	Neuman, J. A.
8:50		Airborne lidar measurements of horizontal and vertical ozone transport in southern California during CalNEX 2010	Senff, C. J.
9:10		Stratosphere-troposphere transport in southern California during CalNex or LRT of Asian pollutants in Central California during CalNex	Langford, A
9:30		<b>Discussion of insights, planned papers and potential collaborations related to atm chemistry and transport</b>	<b>Jochen Stutz</b>
9:50		<b>Science Questions Related to Aerosols</b>	<b>Jose Jimenez</b>
10:00		Characterization of black carbon containing aerosol particles measured by the soot particle aerosol mass spectrometer (SP-AMS) on board the R/V Atlantis during the 2010 CalNex study.	Massoli, Paola
<b>10:20</b>	<b>BREAK (20 minutes)</b>		
10:40		Absorption by ambient aerosols during CalNex	Cappa, Chris
11:00		Measurements of light absorption spectra of fine particle aqueous extracts during CalNex	Zhang, Xiaolu
11:20		Black Carbon and Coating Measurements at Pasadena	Allan, James
<b>11:40</b>	<b>LUNCH</b>		
<b>Wednesday afternoon, May 18</b>			
<b>Session Chair: Jose Jimenez</b>			
1:00		The study of cloud and aerosol properties during CalNex using spectral methods	McBride, Patrick J.
1:20		Regional Assessment of Organic PM during CalNex, Cal-Mex, and CARES	Russell, Lynn M.
1:40		Chemical and Physical Properties of Aerosols Measured Onboard the R/V Atlantis during CalNEX	Bates, Tim
2:00		Optical and Cloud Nucleating Properties of Aerosols Measured during CalNex: Dependence on Sources and Aging	Quinn, Trish
2:20		Molecular Characterization of Organic Aerosols from the Los Angeles Ground Site during the CalNex 2010 Campaign Using High-Resolution Mass Spectrometry	Laskin, Alex
2:40		Aerosol Composition in Los Angeles During the 2010 CalNex Campaign Studied by High Resolution Aerosol Mass Spectrometry	Hayes, Patrick
3:00		Results from thermal-desorption proton-transfer-reaction mass-spectrometry (TD-PTR-MS) measurements at the Caltech ground site in May/June 2010	Holzinger, Rupert
<b>3:20</b>	<b>BREAK (20 minutes)</b>		
3:40		Aircraft Aerosol Mass Spectrometer Measurements over the Los Angeles Basin during CalNex	Craven, Jill
<b>Poster Previews - 2 minutes each</b>			
4:00	P20	Regional CO2 simulation in the Los Angeles Basin with WRF-VPRM mode	Park, Changhyoun
4:02	P21	Los Angeles and Bakersfield HCl During CalNex: Acid Displacement, Reactive Cl Reservoir and Partitioning	VanderBoer, T.C.
4:04	P22	Ozone in the Lower Free Troposphere and its Impact on Surface Levels in the Northern Sacramento Valley	Faloon, Ian
4:06	P23	Black Carbon Measurements over the Los Angeles Basin during CalNex	Metcalfe, Andrew R.
4:08	P24	Understanding the aerosol-cloud droplet link in California: A perspective derived from CalNex data	Nenes, A
4:10	P25	High time-resolution elemental composition of particulate matter in Pasadena	Prévôt, André S.H.
4:12	P26	On the Nature of Water-Soluble Organic Aerosols in the Southern California Region	Sorooshian, Armin
4:14	P27	Contribution of glyoxal to the secondary organic aerosol budget in Los Angeles	Washenfelder, R. A.
4:16	P28	Secondary aerosol formation and oxidation during CalNex-LA: Real-time measurements from a photooxidation flow reactor using high-resolution aerosol mass spectrometry	Ortega, Amber
4:18	P29	Impact of aerosols on photolysis frequencies	Grossberg, Nicole
4:20	P30	Isoprene- and Monoterpene-Derived Organosulfates in PM <sub>2.5</sub> During the CALNEX Campaign in Bakersfield, CA	Rubitschun, Caitlin L.
4:22	P31	Molecular-level Analysis of Size Resolved Secondary Organic Aerosol (SOA) Samples from CALNEX Bakersfield Using High Resolution Mass Spectrometry.	Sellon, R.

4:24	P32	Major components of summertime atmospheric organic aerosols in Bakersfield, CA during CalNex	Zhao, Yunliang
4:26	P33	TEM study of CalNex aerosol particles	Adachi, Kouji
4:28	P34	Polarimetric remote sensing of clouds and aerosols during CALNEX 2010	Cairns, Brian
4:30	P35	Aerosol extinction profiles and columns distribution of NO <sub>2</sub> obtained in the CALNEX field Campaign by means of the CU-MAXDOAS instrument	Ortega, Ivan
4:32	P36	Investigating the partitioning of organic acids in LA During the 2010 CalNex Campaign	Liu, Jiumeng
4:34	P37	LED-CE-DOAS and MAX-DOAS measurements of glyoxal and NO <sub>2</sub> at Milliken Library during CalNex	Thalman, Ryan
4:36	P38	Heterogeneous ice nucleation on organic containing particles collected during CalNex campaign	Wang, Bingbing
4:38	P39	Aerosol Composition in Los Angeles During the 2010 CalNex Campaign Studied by High Resolution Aerosol Mass Spectrometry	Hayes, Patrick
4:40	P42	Long Range Transport of Asian pollutants in Central California during CalNex or Stratosphere-troposphere transport in SoCal	Langford, Andy
4:42	P45	Airborne High Spectral Resolution Lidar Aerosol Measurements during CalNex and CARES	Ferrare, Richard
4:44	P46	A Summary of the Optical Properties of Aerosols Observed at the Pasadena CALNEX Site	Thompson, Jon
4:46	P47	Organic compound analysis from CalNex-LA PM filter samples	van Drooge, Barend

**Thursday, May 19**

**Session Chair: Allen Goldstein**

<b>8:30 – 10:30</b>	<b>Poster Session</b>	<b>2<sup>nd</sup> Floor Lobby</b>
10:30	Temporal variations of aerosol components in Tijuana, Mexico, during the Cal-Mex campaign	Takahama, S.
10:50	Source Signatures of Organic Compounds and Particle Growth in Bakersfield, CA	Liu, Shang
11:10	Secondary Organic Aerosol Contributions during CALNEX, Bakersfield	Kleindienst, T.E.
11:30	Ambient aerosol measurement during CalNex2010 using a newly developed combined Thermal desorption Aerosol GC (TAG) and Aerodyne Aerosol Mass Spectrometer (AMS) instrument: TAG-AMS	Hohaus, Thorsten
<b>11:50</b>	<b>LUNCH</b>	
1:00	Insights from the CARES Campaign in Northern California – Biogenic SOA formation and roles in New Particle Growth	Setyan, A
1:20	Characterization of Organic Aerosol Formation and Processing in California from Airborne Measurements	Bahreini, Roya
1:40	Contrasting SOA formation mechanisms observed at two urban sites	Zhang, Xiaolu
2:00	Diurnal cycle of fossil and non-fossil total carbon using <sup>14</sup> C analyses during CalNex	Zotter, P.
2:20	<b>Discussion of insights, planned papers and potential collaborations related to aerosols</b>	<b>Allen Goldstein</b>
2:40	Policy Relevant Summary Document	Parrish, David
2:50	Future Activities	
<b>3:00</b>	<b>End</b>	