

2015 AGU Fall Meeting

CSD Talk/Poster Events

Prepared by: Ronda Knott, 1 Dec 2015

Monday, December 14 Talks:

Fahey: Talk Dec. 14 A11S-01 Moscone West - 3001 8:00 am- 8:15 am
"The role of aviation in climate change"
D. Fahey
McDonald: Talk Dec. 14 A11O-06 Moscone West - 3010 9:15 am- 9:30 am
"Modeling Ozone in the Eastern United States Using a Fuel-Based Mobile Source Emissions Inventory"
B. McDonald; R. Ahmadov; S. McKeen; G. Frost; M. Trainer
Monks: Talk Dec. 14 A11O-07 Moscone West - 3010 9:30 am- 9:45 am
"Dependence of Simulated Tropospheric Ozone Trends on Uncertainties in U.S. Mobile Fleet Emissions"
S. Monks; T. Ryerson; L. Emmons; S. Tilmes; B. Hassler; J. Lamarque
Neely: Talk Dec. 14 A12C-06 Moscone West - 3010 11:35 am- 11:50 am
"Dual-Polarised Doppler X-band Radar Observations of Mixed Phased Clouds from the UK's Ice in Clouds Experiment-Dust (ICE-D)"
R. Neely; A. Blyth; L. Bennett; D. Dufton; Z. Cui; Y. Huang
Neuman: Talk Dec. 14 A12A-07 Moscone West - 3010 11:50 am- 12:05 pm
"Quantifying atmospheric nitrogen outflow from the Front Range of Colorado"
J. Neuman; S. Eilerman; C. Brock; S. Brown; W. Dube; S. Herndon; J. Holloway; J. Nowak; J. Rosciolo; T. Ryerson; S. Sjostedt; C. Thompson; M. Trainer; P. Veres; R. Wild
deGouw: Invited Talk Dec. 14 A13F-03 Moscone West - 3010 2:10 pm- 2:25 pm
"Anthropogenic and Biogenic Emissions, and their Contributions to Summertime Haze in the Southeast U.S.: Results from the NOAA SENEX Study in 2013"
J. deGouw
deGouw: Invited Talk Dec. 14 A13G-08 Moscone West- 3004 3:25 pm- 3:40 pm
"Enhanced Removal of Biogenic Hydrocarbons in Power Plant Plumes Constrains the Dependence of Atmospheric Hydroxyl Concentrations on Nitrogen Oxides"
J. deGouw; M. Trainer; D. Parrish; S. Brown; P. Edwards; J. Gilman; M. Graus; T. Hanisco; J. Kaiser; F. Keutsch; S. Kim; B. Lerner; J. Neuman; I. Pollack; J. Roberts; T. Ryerson; P. Veres; C. Warneke; G. Wolfe
Ravishankara: Talk Dec. 14 B14A-01 Moscone West - 2002 4:00 pm- 4:15 pm
"Nitrous Oxide: A Greenhouse Gas That is Also an Ozone Layer Depleting Gas"
A. Ravishankara

Granier: Talk Dec. 14 A14A-01 Moscone West - 3010 4:00 pm- 4:15 pm
“Quantification of surface emissions: An historical perspective from GEIA”
C. Granier; H. Van Der Gon; E. Doumbia; G. Frost; A. Guenther; B. Hassler; G. Janssens-Maenhout; G. Lasslop; M. Melamed; P. Middleton; K. Sindelkrova; L. Tarrason; M. van Marle; J. Kaiser; G. van der Werf

Monday, December 14 Posters:

Gorchov-Negron: Poster Dec. 14 A11M-0254 Moscone South Poster Hall 8am- 12:20 pm
“A spatially resolved fuel-based inventory of Utah and Colorado oil and natural gas emissions”
A. Gorchov Negron; B. McDonald; J. deGouw; G. Frost

Eilerman: Poster Dec. 14 A11M-0248 Moscone South - Poster Hall 8 am - 12:20 pm
“Source Attribution of Methane Emissions in Northeastern Colorado Using Ammonia to Methane Emission Ratios”
S. Eilerman; J. Neuman; J. Peischl; K. Aikin; T. Ryerson; A. Perring; E. Robinson; M. Holloway; M. Trainer

Yuan: Poster Dec. 14 A11M-0250 Moscone South- Poster Hall 8 am – 12:20 pm
“Emissions and Chemistry of Volatile Organic Compounds in Early Spring of Western U.S.: Interactions between Oil/Gas Emissions and Biogenic Emissions”
B. Yuan; A. Koss; C. Warneke; J. Gilman; B. Lerner; J. Peischl; T. Ryerson; S. Sjostedt; C. Thompson; R. Wild; S. brown; J. Neuman; S. Eilerman; G. Wolfe; J. St.Clair; T. Hanisco; M. Thayer; F. Keutsch; J. deGouw

Neely: Poster Dec. 14 A11A-0027 Moscone South- Poster Hall 8 am – 12:20 pm
“Multiple Linear Polarization Lidar with Improved Polarization Retrievals for Enhanced Atmospheric Observation in the Arctic”
R. Neely; R. Stillwell; J. Thayer; M. O’Neill; R. Barton-Grimley

Thornberry: Poster Dec. 14 A13C-0354 Moscone South- Poster Hall 1:40 pm- 6 pm
“A comparison of ATTREX H ₂ O observations in the TTL with values derived from reanalysis-based back trajectories”
T. Thornberry; A. Rollins; T. Bui; L. Pfister; R. Gao

Davis: Poster Dec. 14 A13C-0348 Moscone South - Poster Hall 1:40 pm- 6 pm
“Reanalysis water vapor and ozone intercomparison as part of the SPARC Reanalysis Intercomparison Project (S-RIP)”
S. Davis; B. Hassler; M. Fujiwara; M. Hegglin; T. Wang

Monday, December 14 Town Hall Meeting: (of Interest)

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Spinrad: Town Hall Meeting Dec. 14 TH15H Moscone West- 2002 6:15 pm- 7:15 pm
“NOAA's Research And Development Enterprise”
R. Spinrad

Tuesday, December 15 Talks:

Ahmadov: Talk Dec. 15 A23N-06 Moscone West - 3014 2:48 pm- 3:01 pm
“Contribution of Oil and Natural Gas Emissions on Summertime Air Quality over the Continental US from an Air Quality Modeling Perspective”
R. Ahmadov; S. McKeen; W. Angevine; J. deGouw; G. Frost; J. Gilman; J. Peischl; T. Ryerson; C. Warneke; S. Brown; M. Trainer; A. Middlebrook; B. Lerner

Warneke: Talk Dec. 15 A24F-01 Moscone West - 3014 4:00 pm- 4:12 pm
“Airborne Trace Gas and Aerosol Measurements in Several Shale Gas Basins during the SONGNEX (Shale Oil and Natural Gas Nexus) Campaign 2015”
C. Warneke; M. Trainer; J. deGouw

Peischl: Invited Talk Dec. 15 A24A-06 Moscone West - 3014 4:12 pm- 4:27 pm
“A Quantification of Methane Emissions from Oil and Natural Gas Extraction Regions in the Central/Western U.S. and a Comparison to Previous Studies”
J. Peischl; K. Aikin; S. Eilerman; J. Gilman; J. deGouw; S. Herndon; B. Lerner; J. Neuman; T. Tokarek; M. Trainer; C. Warneke; T. Ryerson

Gilman: Talk Dec. 15 A24F-03 Moscone West - 3014 4:27p-4:40pm
“Emissions of volatile organic compounds (VOCs) from oil and natural gas activities: compositional comparison of 13 major shale basins via NOAA airborne measurements”
J. Gilman; B. Lerner; K. Aikin; J. deGouw; A. Koss; B. Yuan; C. Warneke; J. Peischl; T. Ryerson; J. Holloway; M. Graus; T. Tokarek; G. Isaacman-VanWertz; D. Sueper; D. Worsnop

Thompson: Talk Dec. 15 A24F-04 Moscone West - 3014 4:40 pm- 4:53 pm
“Partitioning of NO _y and Implications for Ozone Formation in Western US Shale Plays”
C. Thompson; S. Sjostedt; J. Peischl; T. Ryerson; K. Aikin; S. Brown; J. Gilman; J. deGouw; J. Holloway; A. Koss; B. Lerner; J. Neuman; P. Veres; C. Warneke; B. Yuan

Tuesday, December 15 Posters:

Burkholder: Poster Dec. 15 A21B-0130 Moscone South - Poster Hall 8am-12:20 pm
“NASA Data Evaluation (2015): Chemical Kinetics and Photochemical Data for Use in Atmospheric Studies”
J. Burkholder; S. Sander; J. Abbatt; J. Barker; R. Huie; C. Kolb; M. Kurylo; V. Orkin; D. Wilmouth; P. Wine

Bernard: Poster Dec. 15 A21B-0127 Moscone South - Poster Hall 8am-12:20 pm
“Detected CFCs: UV Absorption Spectra, Atmospheric Lifetimes, Global Warming and Ozone

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Depletion Potentials for CFC-112, CFC-112a, CFC-113a and CFC-114a”
F. Bernard; M. Davis; M. McGillen; E. Fleming; J. Burkholder

Fibiger: Poster Dec. 15 ED21A-0822 Moscone South - Poster Hall 8am-12:20 pm
“Gone to Dust: Building and Deploying a Particle Sensor”
D. Fibiger; C. Wiley

McDuffie: Poster Dec. 15 A21A-0002 Moscone South - Poster Hall 8am-12:20 pm
“Toward a Quantitative Assessment of the Influence of Regional Emission Sources on Ozone Production in the Colorado Front Range”
E. McDuffie; W. Dube; D. Wolfe; A. Tevlin; J. Gilman; B. Lerner; J. deGouw; J. Murphy; E. Fischer; S. Brown; W. Angevine; P. Edwards; E. Williams

Froyd: Poster Dec. 15 A23F-0393 Moscone South - Poster Hall 1:40pm-6pm
“Airborne Measurements of Coarse Mode Aerosol Composition and Abundance”
K. Froyd; D. Murphy; C. Brock; L. Ziemba; B. Anderson; J. Wilson

Tuesday, December 15 Town Hall Meeting: (of Interest)

Melamed: Town Hall Dec. 15 TH25C Moscone West- 2011 6:15 pm – 7:15 pm
“Celebrating the International Atmospheric Chemistry Project (IGAC) as part of the IGBP Landmark Synthesis Event”
M. Melamed; G. Frost; C. Granier; A. Goldstein; M. Lawrence

Wednesday, December 16 Talks:

Rosenlof: Talk Dec. 16 A32F-03 Moscone West - 3010 10:50 am- 11:05 am
“Stratospheric Water Vapor, Tropical Tropopause Temperatures and Tropical Upwelling”
K. Rosenlof; R. Neely; S. Davis; A. Butler; D. Hurst

Washenfelder: Talk Dec. 16 A332A-05 Moscone West - 3004 11:20 am – 11:35 am
“Applications of broadband cavity enhanced spectroscopy for measurements of trace gases and aerosols”
R. Washenfelder; A. Atwood; C. Brock; S. Brown; W. Dube; J. Flores; A. Langford; K. Min; Y. Rudich; J. Stutz; N. Wagner; C. Young; K. Zarzana

Ray: Talk Dec. 16 A32F-07 Moscone West - 3010 11:50 am- 12:05 pm
“Better Understanding Transport Related Differences Between CCMs and Trace Gas Measurements With an Idealized Stratospheric Model”
E. Ray; F. Moore; K. Rosenlof; D. Plummer; F. Kolonjari; K. Walker

Koss: Talk Dec. 16 A32A-07 Moscone West - 3004 11:50 am- 12:05 pm
“Development of a High-Resolution H ₃ O ⁺ Chemical Ionization Mass Spectrometer for Gas-

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phase Hydrocarbons and its Application During the 2015 SONGNEX Aircraft Campaign”
A. Koss; B. Yuan; J. deGouw; C. Warneke; H. Stark

Senff: Talk Dec. 16 A32A-04 Moscone West - 3009 12:05 pm-12:20 am
“Lidar-derived Correlations Between Lower-tropospheric Column and Surface Ozone: Implications for Satellite Observations”
C. Senff; A. Langford; R. Alvarez II; G. Kirgis; A. Choukulkar; A. Brewer; R. Banta; A. Weickmann; S. Sandberg; E. Olson

Murphy: Talk Dec. 16 A33N-08 Moscone West - 3004 3:25pm – 3:40pm
“Miniature instruments for aerosol extinction at ambient conditions”
D. Murphy

Veres: Talk Dec. 16 A34F-06 Moscone West - 3010 5:15 pm- 5:30 pm
“Nitrous acid (HONO) observations during the Uintah Basin Wintertime Ozone Studies (UBWOS) and the Wintertime Investigation of Transport, Emission, and Reactivity (WINTER) study: sources, measurements interferences, and implications beyond.”
P. Veres; J. Roberts; S. Alvarez; T. Bates; S. Brown; P. Edwards; J. Flynn; J. deGouw; J. Johnson; B. Lee; B. Lefer; J. Liggio; F. Lopez-Hilfiker; P. Quinn; J. Stutz; J. Thornton; J. Yi Tsai; J. Wentzell; R. Wild; B. Yuan

Gao: Invited Talk Dec. 16 U34A-08 Moscone South - 102 5:31 pm- 5:44 pm
“An Airborne Mission to Study Background Sulfur and Prepare for a Rapid Response to a Large Volcanic Eruption
R. Gao; K. Rosenlof; T. Thornberry; A. Rollins; B. Toon; D. Murphy; E. Jensen; M. Mills; R. Neely; D. Fahey

Wednesday, December 16 Posters:

Cui: Poster Dec. 16 A31B-0043 Moscone South - Poster Hall 8am-12:20 pm
“Inverse Estimation of California Methane Emissions and Their Uncertainties using FLEXPART-WRF”
Y. Cui; J. Brioude; W. Angevine; S. McKeen; J. Peischl; J. Nowak; D. Henze; N. Bousserrez; M. Fisher; S. Jeong; Z. Liu; H. Michelsen; G. Santoni; B. Daube; E. Kort; G. Frost; T. Ryerson; S. Wofsy; M. Trainer

Yu: Poster Dec. 16 A31D-0090 Moscone South- Poster Hall 8am- 12:20pm
“Rim Fire and its Radiative impact Simulated in CESM/CARMA”
P. Yu; O. Toon; C. Bardeen; A. Bucholtz; K. Rosenlof; P. Saide; A. DaSilva; L. Ziemba; J. Jimenez; J. Schwarz; N. Wagner; D. Lack; M. Mills; J. Reid

Katich: Poster Dec. 16 A33D-0184 Moscone South - Poster Hall 1:40 pm- 6pm
“Measurements of BC-Containing Aerosol and Ice Nucleation Active Residuals in Colorado”

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J. Katich; J. P. Schwarz; K. Froyd; D.J. Cziczo

Schwarz: Poster Dec. 16 A33D-0208 Moscone South - Poster Hall 1:40 pm – 6 pm

“Longitudinal variability of black carbon vertical profiles”

Schwarz, J; B. Weinzierl; B. Samset; A. Perring; M. Dollner; K. Heimerl; M. Markovic; L. Ziemba

Wednesday, December 16 Town Hall Meetings:

Roberts: Town Hall Meeting Dec. 16 TH331 Moscone West - 2010 12:30pm – 1:30 pm

“The Future of Laboratory Studies in Atmospheric Chemistry”

J. Roberts; J. Burkholder; J. Abbatt; I. Barnes

Thursday, December 17 Talks:

Brock: Talk Dec. 17 A41L-05 Moscone West - 3002 9:00am – 9:15am

“Optical Extinction and Aerosol Hygroscopicity in the Southeastern United States”

C. Brock; T. Gordon; D. Lack; M. Richardson; A. Middlebrook; J. Liao; D. Murphy; A. Atwood; R. Washenfelder

Kazil: Talk Dec. 17 A410-05 Moscone West - 3014 9:00 am- 9:15 am

“Stratocumulus updrafts as drivers of boundary layer growth and entrainment”

J. Kazil; G. Feingold; T. Yamaguchi

Yamaguchi: Talk Dec. 17 A410-06 Moscone West – 3014 9:15 am- 9:30 am

“Stratocumulus to Cumulus Transition Capped by a Light-Absorbing Smoke Layer”

T. Yamaguchi; G. Feingold; J. Kazil; A. McComiskey

Perring: Talk Dec. 17 A42B-05 Moscone West - 3004 11:20 am- 11:35 am

“Hygroscopicity of Black-Carbon-Containing Aerosol in Wildfire Plumes”

A. Perring; J. Schwartz; M. Markovic; D. Fahey; R. Yokelson; J. Jimenez; P. Campuzano Jost; D. Day; B. Palm; A. Wisthaler; L. Ziemba; B. Anderson; G. Diskin; L. Huey; R. Gao

Davis: Talk Dec. 17 A42E-07 Moscone West - 3012 11:50 am – 12:05 pm

“How well can interannual to decadal-scale variability in stratospheric ozone and water vapor be quantified using limb-based satellite measurements?”

S. Davis; K. Rosenlof; D. Hurst; B. Hassler; W. Read

Roberts: Talk Dec. 17 A44E-08 Moscone West, 3002 5:30 pm- 5:45 pm

“Experiments on the Multiphase Chemistry of Isocyanic Acid, HNCO”

J. Roberts; Y. Liu

Thursday, December 17 Posters:

Mason: Poster Dec. 17 A41A-0040 Moscone South - Poster Hall 8 am- 12:20 pm

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<p>“Characterization of a Photoacoustic Aerosol Absorption Spectrometer for Aircraft-based Measurements”</p>
<p>B. Mason; N. Wagner; M. Richardson; C. Brock; D. Murphy</p>
<p>Williamson: Poster Dec. 17 A41A-0047 Moscone South - Poster Hall 8 am-12:20 pm</p>
<p>“Calibrations and Comparisons of Aerosol Spectrometers linking Ground and Airborne Measurements”</p>
<p>C. Williamson; C. Brock; F. Erdesz</p>
<p>Rollins: Poster Dec. 17 A41A-0023 Moscone South - Poster Hall 8 am-12:20 pm</p>
<p>“A new laser induced fluorescence instrument for in-situ measurements of SO₂ throughout the troposphere and lower stratosphere”</p>
<p>A. Rollins; T. Thornberry; S. Ciciora; R. McLaughlin; L. Watts; J. Holloway; T. Hanisco; D. Fahey; R. Gao</p>
<p>Lerner: Poster Dec. 17 A41A-0021 Moscone South - Poster Hall 8 am-12:20 pm</p>
<p>“An Improved, Automated Whole-Air Sampler and VOC Analysis System: Results from SONGNEX 2015”</p>
<p>B. Lerner; J. Gilman; T. Tokarek; J. Peischl; A. Koss; B. Yuan; C. Warneke; G. Isaacman-VanWertz; D. Sueper; J.deGouw</p>
<p>Brown: Poster Dec. 17 A41K-0228 Moscone South - Poster Hall 8 am-12:20 pm</p>
<p>“The impact of ClNO₂ production on tropospheric nitrogen oxides and oxidants in a global model”</p>
<p>S. Brown; A. Saiz-Lopez; J. Lamarque; D. Kinnison; F. Lopez-Hilfiker; J. Thornton; L. Jaegle; D. Fibiger; E. McDuffie</p>
<p>Dube: Poster Dec. 17 A41K-0228 Moscone South - Poster Hall 8 am-12:20 pm</p>
<p>“NOAA’s Van-Based Mobile Atmospheric Emissions Measurement Laboratory”</p>
<p>W. Dube; J. Peischl; J. Neuman; S. Eilerman; M. Holloway; O. Roberts; K. Aikin; T. Ryerson</p>
<p>Fibiger: Poster Dec. 17 A41K-0226 Moscone South - Poster Hall 8 am-12:20 pm</p>
<p>“Nighttime NO_x Chemistry in Coal-Fired Power Plant Plumes”</p>
<p>D. Fibiger; E. McDuffie; W. Dube; P. Veres; F. Lopez-Hilfiker; B. Lee; J. Green; M. Fiddler; C. Ebben; T. Sparks; A. Weinheimer; D. Montzka; T. Campos; R. Cohen; S. Bililgn; J. Holloway; J. Thornton; S. Brown</p>
<p>Zarzana: Poster Dec. 17 A41A-0011 Moscone South - Poster Hall 8 am-12:20 pm</p>
<p>“Airborne Measurements of NO_x, NO_y, and O₃ Using Cavity Ring-Down Spectroscopy”</p>
<p>K. Zarzana; R. Wild; C. Thompson; S. Sjostedt; C. Womack; R. Washenfelder; W. Dube; T. Ryerson; S. Brown</p>
<p>Portmann: Poster Dec. 17 OS41A-1991 Moscone South - Poster Hall 8 am-12:20 pm</p>

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"The Earth's Energy Budget Across CMIP5 Models"
R. Portmann; E. Larson

Papadimitriou: Poster Dec. 17 A43G-0398 Moscone South - Poster Hall 1:40 pm-6 pm
"(CF ₃) ₂ CFCH=CHF (HFO-1438ezy): OH Radical Rate Coefficient, Infrared Spectrum Measurements and Estimated Global Warming Potentials and Photochemical Ozone Creation Potential"
V. Papadimitriou; J. Burkholder

Telg: Poster Dec. 17 A43A-0252 Moscone South - Poster Hall 1:40 pm-6 pm
"A study of aerosol optical properties using a lightweight optical particle spectrometer and sun photometer from an unmanned aerial system"
H. Telg; D. Murphy; T. Bates; J. Johnson; R. Gao

Thursday, December 17 Town Hall Meetings:

Brown: Town Hall meeting Dec 17 TH43F Moscone West- 2011 12:30 pm- 1:30 pm
"Nitrate Radicals and Biogenic Volatile Organic Compounds"
S. Brown; N. Ng

Friday, December 18 Talks:

Feingold: Talk Dec 18 A54B-04 Moscone West, 3008 4:45p-5:00 pm
"Detection of Aerosol Radiative Forcing Associated with Aerosol-Cloud Interactions"
G. Feingold; A. McComiskey; T. Yamaguchi; J. Johnson; K. Carslaw; S. Schmidt

Friday December 18 Posters:

Kazil: Poster Dec. 18 A51E-0112 Moscone South- Poster Hall 8 am- 12:20 pm
"Shear, vertical moisture transport, and decoupling in the marine stratocumulus-topped boundary layer"
J. Kazil; G. Feingold; T. Yamaguchi

Larson: Poster Dec. 18 A51C-0070 Moscone South- Poster Hall 8 am- 12:20 pm
"A kernel method for calculating effective radiative forcing in transient climate simulations"
E. Larson; R. Portmann

Sjoberg: Poster Dec. 18 A51H-0175 Moscone South- Poster Hall 8 am- 12:20 pm
"The Sudden Stratospheric Warming Atlas"
J. Sjoberg; A. Butler; D. Seidel

Banta: Poster Dec. 18 GC53E-1254 Moscone South- Poster Hall 1:40 pm- 6 pm
"Measurements of the Spatial Variability of Mean Wind Profiles Using Multiple Doppler Lidars over Distances less than 1 Km"

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R. Banta; A. Choukulkar; A. Brewer; J. Lundquist; V. Lungo; Y. Pichugina; P. Quelet; D. Wolfe; S. Oncley; S. Sandberg; A. Weickmann; R. Delgado; K. McCaffrey
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Pichugina: Poster Dec. 18 GC53E-1251 Moscone South- Poster Hall 1:40 pm- 6 pm
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“Representativeness of Lidar Wind Measurements over Moderately Complex Terrain”

Y. Pinchugina; A. Brewer; A. Choukulkar; R. Banta; J. Lundquist; C. Clack; B. Carroll; R. Delgado; C. Lee
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** RED indicates a time conflict. **

** BLUE indicates an invited talk. **