NOAA ESRL GLOBAL MONITORING ANNUAL CONFERENCE 2015

David Skaggs Research Center, Room GC-402
325 Broadway, Boulder, Colorado 80305 USA

Tuesday Morning, May 19, 2015 AGENDA

(Only presenter's name is given; please refer to abstract for complete author listing.)

- ***07:00*** ***Registration Opens in GC-402 - lunch orders and posters collected at registration table***
- ***07:30 - 08:15*** ***Morning Snacks - coffee, tea, fruit, bagels and donuts served***

- ***12:00 - 13:00*** ***Catered Lunch - Outreach Classroom GB-124 (pre-payment of $12.00 at registration)***

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Tuesday Afternoon, May 19, 2015 AGENDA

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Wednesday Morning, May 20, 2015 AGENDA

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• 07:00 ***Registration Opens in GC-402 - lunch orders collected at registration table***

• 07:30 - 08:15 ***Morning Snacks - coffee, tea, fruit, bagels and donuts served***

• 10:00 - 10:30 ***Morning Break***

• 12:00 - 13:00 ***Catered Lunch - Outreach Classroom GB-124 (pre-payment of $12.00 at registration)***

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Wednesday Afternoon, May 20, 2015 AGENDA

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David Skaggs Research Center, Cafeteria
325 Broadway, Boulder, Colorado 80305 USA

Tuesday, May 19, 2015 17:00 - 20:00 POSTER SESSION AGENDA

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• *Carbon Cycle & Greenhouse Gases - Global Observing Systems*

P-1 Initial Validation and Bias Correction of OCO-2 Carbon Dioxide Retrievals

Chris O'Dell (Colorado State University, Fort Collins, CO)

P-2 Aerosol First Guess Sensitivity in the Atmospheric CO_2 Observations from Space (ACOS) XCO_2 Retrieval Algorithm

Robert R. Nelson (Colorado State University, Department of Atmospheric Science, Fort Collins, CO)

P-3 Surface CO_2 Fluxes Implied by 5 Years of ACOS V3.5 GOSAT X_{CO2} Retrievals, 2009-2014

David F. Baker (Cooperative Institute for Research in the Atmosphere (CIRA), Colorado State University, Fort Collins, CO)

P-4 Uncertainties in Preliminary Estimates of CO_2 and CH_4 Trends

Molly Crotwell (Cooperative Institute for Research in Environmental Sciences (CIRES), University of Colorado, Boulder, CO)

P-5 Atmospheric Carbon and Transport – America: An Earth Venture Mission Dedicated to Improving the Accuracy, Precision and Resolution of Atmospheric Inverse Estimates of CO_2 and CH_4 Sources and Sinks

Kenneth J. Davis (The Pennsylvania State University, University Park, PA)

P-6 Influence of CO_2 Observations on the Optimized CO_2 Flux in the CarbonTracker Framework

Jinwoong Kim (Yonsei University, Department of Atmospheric Sciences, Seoul, South Korea)

P-7 Evaluating Planetary Boundary Layer Depths in CarbonTracker for a Region Around the Moody Tall Tower in Texas

Stephan F.J. De Wekker (University of Virginia, Charlottesville, VA)

P-8 GEOS-Chem-CarbonTracker

Andrew E. Schuh (Cooperative Institute for Research in the Atmosphere (CIRA), Colorado State University, Fort Collins, CO)

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• Carbon Cycle & Greenhouse Gases - Regional Emissions Quantification

P-9 Results from the Multi-species Analysis of Discrete Air Samples Collected in the Denver-Julesburg Oil and Natural Gas Basin Between 2008 and 2014
Gabrielle Petron (Cooperative Institute for Research in Environmental Sciences (CIRES), University of Colorado, Boulder, CO)

P-10 Fugitive Emissions from Unconventional Wells in Northeastern Pennsylvania: Tower Network Design
Zachary Barkley (The Pennsylvania State University, University Park, PA)

P-11 Wintertime Airborne Measurements of Greenhouse Gases and Criteria Pollutants in Washington D.C.
Olivia Salmon (Purdue University, Department of Chemistry, West Lafayette, IN)

P-12 Methane Observations in Alberta and Saskatchewan (Canada): Distinct Signals from Oil and Gas Activities.
M. Lopez (Environment Canada, Toronto, Ontario, Canada)

P-13 In-Situ Greenhouse Gas Measurements from Boreal Alaska
Anna Karion (Cooperative Institute for Research in Environmental Sciences (CIRES), University of Colorado, Boulder, CO)

P-14 Sensitivity of Flux Accuracy to Setup of Fossil Fuel and Biogenic CO_2 Inverse System in an Urban Environment
Kai Wu (The Pennsylvania State University, University Park, PA)

P-15 A Study of Carbon Monoxide Stable Isotopes at the Indianapolis Flux Project (INFLUX)
Isaac Vimont (Institute of Arctic and Alpine Research (INSTAAR), University of Colorado, Boulder, CO)

P-16 Urban Inversion of CO_2 Emissions at High Resolution Over Indianapolis
Thomas Lauvaux (The Pennsylvania State University, University Park, PA)

P-17 Improving and Assessing Aircraft-based Greenhouse Gas Emission Rate Measurements for the City of Indianapolis (INFLUX Project)
Alexie Heimburger (Purdue University, Department of Chemistry, West Lafayette, IN)

P-18 Exploring Spatial and Temporal Gradients in Atmospheric CO_2 and CO Using in situ Observations in the Los Angeles Megacity
Kristal R. Verhulst (Jet Propulsion Laboratory, California Institute of Technology, Pasadena, CA)

P-19 Long Term Trends in Carbon Dioxide Enhancements in an Urban Region
Logan Mitchell (University of Utah, Salt Lake City, UT)

P-20 Spatial and Temporal Observation of Urban Trace Gases and Pollutants from a Light Rail Vehicle Platform
Logan Mitchell (University of Utah, Salt Lake City, UT)

P-21 An Emerging Greenhouse Gas Observational Network in the Intermountain West: Observing Greenhouse Gas Mixing Ratios and Isotopes Across Rural to Urban Gradients
John C. Lin (University of Utah, Salt Lake City, UT)

P-22 Bayesian Optimization of NEE and NEP in Oregon Using a Dense CO_2 Observation Tower Network and the Community Land Model (CLM4.5)
Andres Schmidt (Oregon State University, Corvallis, OR)

P-23 Atmospheric Inversions and Satellite Data Reveal Recent Amazon Carbon Balance Variability Driven by Climate Anomalies
Caroline Alden (Stanford University, Stanford, CA)

P-24 Preliminary Studies of Carbon Isotopic Composition of Methane in the Marine Atmosphere Over the Arabian Coast.
D.K. Rao (Physical Research Laboratory, Ahmedabad, India)

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• *Halocarbons*

P-25 Large and Small Unmanned Aircarft Systems (UAS) for Trace Gas Measurements in Climate Change Studies

Fred L. Moore (Cooperative Institute for Research in Environmental Sciences (CIRES), University of Colorado, Boulder, CO)

P-26 A Prototype Instrument for Measuring SO_2 Using Laser Induced Fluorescence

Andrew Rollins (Cooperative Institute for Research in Environmental Sciences (CIRES), University of Colorado, Boulder, CO)

P-27 Recently Detected CFCs: UV Absorption Spectra, Atmospheric Lifetimes, Global Warming and Ozone Depletion Potentials

Francois Bernard (Cooperative Institute for Research in Environmental Sciences (CIRES), University of Colorado, Boulder, CO)

P-28 Assessing the Atmospheric Impact of CF_3CClH_2 (HCFC-133a): Laboratory Measurements of OH Kinetics and UV and Infrared Absorption Spectra

Max R. McGillen (Cooperative Institute for Research in Environmental Sciences (CIRES), University of Colorado, Boulder, CO)

P-29 The Very Short-lived Ozone Depleting Substance, $CHBr_3$ (bromoform): Revised UV Absorption Spectrum, Atmospheric Lifetime and Ozone Depletion Potential

Dimitrios K. Papanastasiou (Cooperative Institute for Research in Environmental Sciences (CIRES), University of Colorado, Boulder, CO)

P-30 Carbon Tetrachloride Emissions from the U.S. During 2008 – 2012

Lei Hu (Cooperative Institute for Research in Environmental Sciences (CIRES), University of Colorado, Boulder, CO)

P-31 Methyl Chloride as a Tracer of Tropical Tropospheric Air in the Lowermost Stratosphere Inferred from CARIBIC Passenger Aircraft Measurements

Taku Umezawa (Max Planck Institute for Chemistry, Mainz, Germany)

P-32 Characterizing the Niwot Ridge, Colorado C1 Site: Local and Regional Pollution

Geoffrey S. Dutton (Cooperative Institute for Research in Environmental Sciences (CIRES), University of Colorado, Boulder, CO)

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• Ozone & Water Vapor

P-33 Three Years of Stable Water Isotope Data at the Boulder Atmospheric Observatory Site: Insights Into Boundary Layer Moisture Dynamics and Atmosphere-land Surface Water Fluxes

Aleya Kaushik (Cooperative Institute for Research in Environmental Sciences (CIRES), University of Colorado, Boulder, CO)

P-34 Water Vapor Isotope Ratio Measurements at NOAA/GMD Sites to Constrain the Isotope-enabled Community Earth System Model.

Jesse Nusbaumer (Cooperative Institute for Research in Environmental Sciences (CIRES), University of Colorado, Boulder, CO)

P-35 Observations of TTL Water Vapor and Cirrus Properties from the NASA Global Hawk During the Airborne Tropical TRopopause EXperiment

Troy Thornberry (Cooperative Institute for Research in Environmental Sciences (CIRES), University of Colorado, Boulder, CO)

P-36 Techniques for Analyzing a Long-Term Observational Dataset Using Global Water Vapor Data from the NVAP-M Blended TPW Dataset

Heather Q. Cronk (Cooperative Institute for Research in the Atmosphere (CIRA), Colorado State University, Fort Collins, CO)

P-37 NOAA FPH Vs APicT During the AquaVIT-2 Water Vapor Intercomparison

Emrys Hall (Cooperative Institute for Research in Environmental Sciences (CIRES), University of Colorado, Boulder, CO)

P-38 Ozone Soundings Restarted at NOAA/SHODOZ Site in Suva, Fiji

Patrick Cullis (NOAA Earth System Research Laboratory, Global Monitoring Division, Boulder, CO)

P-39 Southern Hemisphere Additional Ozonesondes (SHADOZ) Updates: 2014-2015

Patrick Cullis (NOAA Earth System Research Laboratory, Global Monitoring Division, Boulder, CO)

P-40 Homogenization of the Boulder, Colorado Ozonesonde Record: 1986-2014

Bryan J. Johnson (NOAA Earth System Research Laboratory, Global Monitoring Division, Boulder, CO)

P-41 Retrieving Vertical Ozone Profiles from Measurements of Spectral Global Irradiance

Germar Bernhard (Biospherical Instruments Inc, San Diego, CA)

P-42 Boulder Ozone Sonde Data Analyses for Multiple Tropopause Origins

Irina Petropavlovskikh (Cooperative Institute for Research in Environmental Sciences (CIRES), University of Colorado, Boulder, CO)

P-43 Ozone Vertical Profiles Measured During The Front Range Air Pollution and Photochemistry Experiment (FRAPPE) from Tethered Ozonesondes in July-August 2014.

Chance W. Sterling (NOAA Earth System Research Laboratory, Global Monitoring Division, Boulder, CO)

P-44 Colorado Front Range Ozone Analysis

Audra McClure-Begley (Cooperative Institute for Research in Environmental Sciences (CIRES), University of Colorado, Boulder, CO)

P-45 First Tropospheric Ozone Measurements at the Observatory of Huancayo, Peru

Luis Suarez-Salas (Laboratory of Atmospheric Microphysics and Radiation, Observatory of Huancayo, Instituto Geofisico del Peru, Huancayo, Peru)

P-46 Recent Stratospheric Water Vapor Variability as Revealed by SWOOSH, a New Merged Satellite Data Set

Sean Davis (Cooperative Institute for Research in Environmental Sciences (CIRES), University of Colorado, Boulder, CO)

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• *Aerosols*

P-47 Measuring Aerosol Optical Depth (AOD) and Aerosol Profiles Simultaneously with a Camera Lidar
John Barnes (NOAA Earth System Research Laboratory, Global Monitoring Division, Boulder, CO)

P-48 Volcanic Aerosol Forcing of the Global Climate Derived from Lunar Eclipse Observations, 1979-2014
Richard A. Keen (University of Colorado, Emeritus, Department of Atmospheric and Oceanic Sciences, Boulder, CO)

P-49 A High-Efficiency Condensation Growth Sampler for Collecting Concentrated Aerosol Particles on a Solid Substrate and in Liquids
Pat Keady (Aerosol Devices Inc., Fort Collins, CO)

• *Radiation*

P-50 Pan-Arctic Surface Radiation Measurements for Analysis of Arctic Climate Change
Christopher J. Cox (Cooperative Institute for Research in Environmental Sciences (CIRES), University of Colorado, Boulder, CO)

P-51 The Infrared Sky Imager: A New Instrument at the ARM Southern Great Plains Site
Dimitri Klebe (Denver Museum of Nature and Science, Denver, CO)

P-52 Update on the Calibration and System Upgrades of the NOAA GRAD UV Monitoring Networks
Patrick Disterhoft (NOAA Earth System Research Laboratory, Global Monitoring Division, Boulder, CO)

• *Science, Service, & Stewardship - Special Section*

P-53 The Tricks of the Climate Politicians – Translated
James H. Butler (NOAA Earth System Research Laboratory, Global Monitoring Division, Boulder, CO)

P-54 Global Monitoring Division Education
Kelsey Tayne (NOAA Earth System Research Laboratory, Global Monitoring Division, Boulder, CO)

P-55 Enabling Data Discovery and Data Re-use by Improving Software Usability
Antonia Rosati (National Snow and Ice Data Center (NSIDC), Boulder, CO)

P-56 GEIA'S Vision for Improved Emissions Information
Gregory Frost (NOAA Earth System Research Laboratory, Chemical Sciences Division, Boulder, CO)

• *International Stations & Partners*

P-57 Observations of Trace Gases and Methane at the Cape Verde Atmospheric Observatory: Evaluation of Methane "Trend"
Chris Reed (University of York, York, United Kingdom)

P-58 Temperature Variability of AWS Sensors Operating at the Greenland Summit (2008–13)
Christopher A. Shuman (Joint Center for Earth Systems Technology (JCET), University of Maryland, Baltimore County (UMBC), Baltimore, MD)

P-59 Observation and Analysis of the Zero-curtain Effect in Tiksi (Siberia).
Elena Konopleva (NOAA Earth System Research Laboratory, Physical Sciences Division, Boulder, CO)

P-60 Inhomogeneity of Conductive Heat Fluxes Around the Tiksi Meteorological Tower
Sara Crepinsek (Cooperative Institute for Research in Environmental Sciences (CIRES), University of Colorado, Boulder, CO)