### 2009 NOAA/ESRL GLOBAL MONITORING ANNUAL CONFERENCE

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

### POSTER SESSION AGENDA

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

# Wednesday, May 13th, 2009: 1645-1830

## • Carbon Cycle

P-1	The Cape Verde Atmospheric Observatory (CVAO) Observatório Atmosferico De Cabo Verde: Humberto Duarte Fonsec
	- K.A. Read (University of York, UK)

- P-2 Long-Term Decline in Global Ethane Levels, 1984-2008 I. Simpson (University of California, Irvine)
- P-3 Validation of *In Situ* Measurements for Analysis of CO<sub>2</sub>, CH<sub>4</sub>, and H<sub>2</sub>O in Aircraft *C. Sweeney (University of Colorado/CIRES)*
- P-4 Vertical Profiles of CO, CH<sub>4</sub>, and CO<sub>2</sub> above Poker Flat, Alaska, Molokai, Hawaii, and Rarotonga, Cook Islands *P. Novelli (ESRL)*
- P-5 Carbon Tracker  $CH_4$  L. Bruhwiler (ESRL)
- P-6 Quantifying CH<sub>4</sub> Emissions with Airborne Differential Absorption LIDAR Data S.V. Stearns (ITT, Space Division)
- P-7 Column CO<sub>2</sub> Estimates at ARM-SGP M.L. Fischer (Lawrence Berkeley National Lab)
- P-8 Comparison of LM3V and Carbon Tracker Data: Initial Results N. Golaz (Princeton Environmental Institute)
- P-9 Identification of Greenhouse Gas Source Signatures in the San Francisco Bay Area Using *In Situ* Aircraft Measurements A. Karion (University of Colorado/CIRES)
- P-10 Reconciling Modeled Ocean Carbon Fluxes with Atmospheric <sup>13</sup>C Observations C. Alden (University of Colorado/INSTAAR)
- P-11 Quantification of Fossil Fuel CO<sub>2</sub> Emissions from East Asia Using Atmospheric Observations of <sup>14</sup>CO<sub>2</sub> *J. Turnbull* (ESRL)
- P-12 Carbon Tracker: Sensitivity to Potential Systematic Bias in CO<sub>2</sub> Observations K. Masarie (ESRL)
- P-13 Data Quality and Continuity for the ESRL/GMD Tall Tower Network A. Andrews (ESRL)
- P-14 Interpreting Dense CO<sub>2</sub> Measurements: Ensemble Filters vs. Variational Data Assimilation D. Baker (Colorado State University/CIRA)
- P-15 High Latitude Carbon Exchange Estimated From Co-Variation of CO<sub>2</sub> and Potential Temperature G. Keppel-Aleks (California Institute of Technology)
- P-16 Observing Regional CO<sub>2</sub> Plumes with an Airborne Differential LASER Absorption System T.S. Zaccheo (Atmospheric and Environmental Research, Inc.)
- P-17 On-Road Study of Colorado Front Range Greenhouse Gases Distribution and Sources G. Petron (University of Colorado/CIRES)

#### Ozone

- P-18 Continuous Tower-Based Tropospheric Ozone Measurements L.C. Patrick (University of Colorado/CIRES)
- P-19 Statistical Analysis and Estimation of the External Effects on the Total Ozone Field Over Russia in 1973-2007

  E.A. Titova (Main Geophysical Observatory)
- P-20 Long-Term Ozone Trends in Umkehr Measurements at Japanese Stations K. Miyagawa (Japan Meteorological Agency)
- P-21 Boundary Layer Ozone Depletion Events Measured by Ozonesondes at Barrow, AK in 2009 B. Johnson (ESRL)
- P-22 Boulder and the Global Climate Observing System (GCOS) Reference Upper Air Network (GRUAN)

  D. Hurst (University of Colorado/CIRES)

### • Halocarbons and Other Trace Species

- P-23 Long-Term Monitoring and Trends of Halocarbons G.S. Dutton (University of Colorado/CIRES)
- P-24 A Comparison of Seasonal Cycles in Nitrous Oxide Among Different Monitoring Networks C.D. Nevison (University of Colorado/INSTARR)
- P-25 New Estimates of Global Sulfur Hexafluoride Emissions Using AGAGE and NOAA Measurements M. Rigby (Center for Global Change Sciences, MIT)
- P-26 Isotopic Constraints on the Global Budget of Atmospheric Nitrous Oxide: Analysis of Recent Data Y.L. Yung (California Institute of Technology)
- P-27 Improvements to the NOAA/GMD Cryogenic Frost Point Hygrometer (FPH), New Digital Control E. Hall (University of Colorado/CIRES)
- P-28 On the Definition of a European Baseline for Climate Altering Halogenated Gases F. Furlani (University of Urbino, Institute of Physics)

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## • Halocarbons and Other Trace Species (continued)

- P-29 Snapshot of Atmospheric Trace Gases "Pole to Pole" Results From the HIPPO B.R. Miller (University of Colorado/CIRES)
- P-30 Global Trends in SF<sub>6</sub> from the Halocarbon Flask Sampling Network B. Hall (ESRL)
- P-31 START-08 and HIPPO: Airborne Projects of the HATS Group in ESRL/GMD F.L. Moore (University of Colorado/CIRES)

### • Aerosols and Radiation

- P-32 Decadal Brightening of Downwelling Shortwave in the Continental U.S. J. Augustine (ESRL)
- P-33 Shortwave Spectral Radiative Closure Studies at the ARM Southern Great Plains Climate Research Facility

  J. Delamere (Atmospheric & Environmental Research, Inc.)
- P-34 Aerosol Climatology for the ARM Climate Research Facility in North-Central Oklahoma: 1992-2008

  J. Michalsky (ESRL)
- P-35 The NOAA/ESRL Airborne Aerosol Observatory: Climatology and Seasonal Variations of Aerosol Properties Over Central Illinois *P. Sheridan (ESRL)*
- P-36 The NOAA/ESRL Collaborative Global Surface Aerosol Monitoring Network P. Sheridan (ESRL)
- P-37 Measurements of Sub-Micron Particles Using an Ultra-High Sensitivity Aerosol Spectrometer (UHSAS) from the Mauna Loa Observatory during HAVAIKI, October and November, 2009 D.W. Toohey (University of Colorado)
- P-38 Synoptic Transport of Anthropogenic BC to the Arctic S. Sharma (Environment Canada)
- P-39 Spatial and Temporal Variations of Aerosol Optical and Chemical Properties at Five Canadian Sites S. Sharma (Environment Canada)
- P-40 Using a Camera LIDAR and Nephelometer for Aerosol Profiling J. Barnes (ESRL)
- P-41 Aerosol Single Scattering Albedo from Direst-to-Diffuse UV Solar Irradiance at the Table Mountain NEUBrewer Site

  K. Lantz (University of Colorado/CIRES)

### • Observatories, Cooperative Measurements and Global Databases

- P-42 Micro-Pulse LIDAR Network (MPLNET) Status and LIDAR Observations from the NOAA ESRL Trinidad Head Observatory Site *T. Berkoff (Goddard Earth Science and Technology Center)*
- P-43 Comparison of Barrow, AK and Tiksi, Russia Climate Variability Using Historical Meteorological Records
  L. Matrosova (University of Colorado/CIRES)
- P-44 The International Arctic Systems for Observing the Atmosphere Synergistic Potentials with the NOAA Baseline Observatories *T. Uttal (ESRL)*
- P-45 A Real Time Display of Meteorological Parameters from the NOAA ESRL Baseline Observatories D. Endres (ESRL)
- P-46 Long-Term Climate Variability in the Area Surrounding Tiksi, Russia A. Makshtas (Arctic and Antarctic Research Institute)
- P-47 ARM Climate Research Facilities on the North Slope of Alaska: An Update on Field Campaigns, Instruments, and Team Changes in 2008, IOPs and Changes in Facilities Planned for 2009 *M.D. Ivey (Sandia National Laboratories)*
- P-48 Chemical Precipitation on the Russian Arctic Territory A.I. Polischuk (Main Geophysical Observatory)
- P-49 Detection and Characterization of Systematic Errors in Atmospheric Models S. Gutman (ESRL)
- P-50 Zero Waste: A Practical and Effective Approach to Reducing Human Impacts on Climate M.J. Heller (University of Colorado/CIRES)
- P-51 Wind-Flow Characteristics at the Heights of Modern Wind Turbines from LIDAR Measurements *Y.L. Pichugina* (*University of Colorado/CIRES*)
- P-52 The Nonhydrostatic Icosahedral Model *Jin-l Lee (ESRL)*
- P-53 Ozone Characteristics on Mt. Kenya and Nairobi (Kenya) J. Nguyo (Kenya Meteorological Department)
- P-54 Hardware and Software Improvements to the Epply Solar Tracker A. Jordan (Science Technology Corporation)
- P-55 Carbon Monoxide as an Indicator of Ozone Concentration J. Mitei (Kenya Meteorological Department)
- P-56 Temporal Patterns on Stratospheric Ozone and Nitric Oxide over a Tropical Station and their Connection to Sea Surface Temperatures M. Muthama (Department of Meteorology, University of Nairobi)
- P-57 Climate Change Signals and Global Atmospheric Watch Activities in Kenya *C.C.Okuku (Kenya Meteorological Department)*