Wednesday, May 14th, 2008 AGENDA
(Only presenter's name is given; see abstract for complete author listing.)

- Session 1  Setting the Stage – R.C. Schnell (ESRL)
  0830-0840 Welcome and Introduction – J.H. Butler (ESRL) ..................................................... -
  0840-0900 Climate Feedbacks and Information for Policymakers – A.E. MacDonald (ESRL) .............. -
  0900-0920 A New Look at Anthropogenic Atmospheric Carbon Dioxide – D.J. Hofmann (University of Colorado/CIRES) 1
  0920-0940 How High Could CO₂ Go? – P.P. Tans (ESRL) .............................................................. 2
  1000-1030 System S – O. Verscheure (IBM) ................................................................................. 4

- 1030-1050  Break

- Session 2  Carbon Cycle 1 – G. Petron (University of Colorado/CIRES)
  1050-1110 A Lagrangian Particle Dispersion Model Approach for Evaluating CarbonTracker – A. Andrews (ESRL) ........ 5
  1110-1130 Total Column Carbon Observing Network: Variability in Total Column CO₂ and CO – G. Keppel-Aleks (California Institute of Technology) .................................................................. 6
  1130-1150 Bridging Carbon Cycling and Air Quality Studies Using Atmospheric ¹³CO₂ – J.B. Miller (University of Colorado/CIRES) .......................................................... 7
  1150-1210 Quantifying Regional GHG Emissions from Atmospheric Measurements: HFC-134a at Trinidad Head – R.F. Weiss (Scripps Institution of Oceanography) ........................................... 8

- 1210-1300  Lunch

- Session 3  Carbon Cycle 2 – A. Karion (University of Colorado/CIRES)
  1320-1340 Causes of the Anomalous Atmospheric CH₄ Growth Rate During 2007 – L. Bruhwiler (ESRL) ............... 10
  1340-1400 Looking Down the Tail Pipe of North America: A Case Study for the Use of Offshore Towers to Constrain the North American Carbon Budget – C. Sweeney (University of Colorado/CIRES) ....... 11
  1400-1420 Assessing Terrestrial Ecosystem Responses to Climate Change from Analysis of the Shape and Amplitude of the Seasonal Cycle of Atmospheric CO₂ – C. Nevison (National Center for Atmospheric Research) .......... 12
  1420-1440 Progress of the Greenhouse Gases Monitoring Programme by the China Meteorological Administration (CMA) and Cooperative Projects – L.X. Zhou (Chinese Academy of Meteorological Sciences) .......... 13

- 1440-1500  Break

- Session 4  David J. Hofmann Recognition Session – J.H. Butler (ESRL)
  1500-1520 David Hofmann’s Pioneering Observations of Stratospheric Volcanic Aerosols – A. Robock (Rutgers) ............. 14
  1520-1540 Stratospheric Aerosol from Pole to Pole: Balloonborne In Situ Observations – T. Deshler (University of Wyoming) .......................................................... 15
  1540-1600 Increases in Stratospheric Aerosols – J.E. Barnes (ESRL) ....................................................... 16
  1600-1620 Stratospheric Ozone Changes from Five Decades of Ground-Based Observations – S.J. Oltmans (ESRL) .......... 17
  1620-1640 Recent Accelerated Growth Observed for HCFCs in the Atmosphere – S.A. Montzka (ESRL) ............... 18
  1640-1700 Integrating NOAA’s Climate Forcing Observations – The NOAA Annual Greenhouse Gas Index – J.H. Butler (ESRL) .......................................................... 19

- 1800-2100  David J. Hofmann Retirement Dinner (Carelli’s Restaurant, 645 30th Street, Boulder, 6:00 PM - 9:00PM)
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• Session 5  Radiation and Aerosols – J.A. Augustine (ESRL)
  0830-0850  Observationally Closing the Gap between Climate Radiative Forcing and Changes in Radiation Climate
          – E.G. Dutton (ESRL) ................................................................. 20
  0850-0910  Development and Implementation of a Variational Cloud Retrieval Scheme for the Measurements of the
          SURFRAD Observation System – S.J. Cooper (ESRL) ................. 21
  0910-0930  Comparison of UV-RSS Spectral Measurements and TUV Model Runs for the May 2003 ARM Aerosol
          Intensive Observation Period – J.J. Michalsky (ESRL) ................. 22
  0930-0950  Comparison of Aerosol Vertical Profiles from Spaceborne Lidar with In Situ Measurements
          – J.A. Ogren (ESRL) ................................................................. 23
  0950-1010  Elemental and Organic Carbon Measurements in Fine PM from Urban to Rural to Background Air Over
          Canada: Understanding Human Impacts on Atmospheric Compositions – L. Huang (Env. Canada) ....... 24

• 1010-1030  Break

• Session 6  International Programs and Measurements – T.J. Conway (ESRL)
  1030-1050  Atmospheric Monitoring of the Malaysian Meteorological Department, Ministry of Science, Technology
          and Innovation, Malaysia – L.L. Kwok (Malaysian Meteorological Department) .................. 25
  1050-1110  GAW Activities at Empa – J. Klausen (Empa Dübendorf) ........................................ 26
  1110-1130  Quality Assurance and Quality Control in the WMO-GAW-VOC Network – R. Steinbrecher (IMK-IFU) ....... 27
  1130-1150  Climate Variability in the Region of Future Tiksi Hydrometeorological Observatory from a new Digital
          Archive of Meteorological Data, Sakha Republic, Russia – A. Makshtas (Roshydromet) ........ 28
  1150-1210  Observations of Mercury Species and Halogens at Summit, Greenland – S.B. Brooks (NOAA ATTD) ....... 29

• 1210-1300  Lunch

• Session 7  Halocarbons and Hydrocarbons – S.A. Montzka (ESRL)
  1300-1320  In Situ Ground and Aircraft Observations of Carbonyl Sulfide (COS): Evidence for Uptake
          – J.W. Elkins (ESRL) ................................................................. 30
  1320-1340  Selected Results from Trace Gas Inter-Comparisons between AGAGE In Situ and NOAA Flask Data
          – P.B. Krummel (Commonwealth Scientific and Industrial Research Organization (CSIRO)) .......... 31
  1340-1400  Measurements of Light Alkanes (C2-C4) in Firn Air at Summit, Greenland and the West Antarctic Ice Sheet
          Divide: Is There Evidence for a Recent Decline in Polar Tropospheric Levels? M. Aydin (UC-Irvine)...... 32
  1400-1420  Identifying and Quantifying Sources of Halogenated Greenhouse Gases Using Lagrangian Dispersion
          Methods – M. Maione (University of Urbino) ........................................ 33

• 1420-1440  Break

• Session 8  Ozone – B.J. Johnson (ESRL)
  1440-1500  Stratospheric Air Sampled at the Surface at Mauna Loa Observatory – G.S. Dutton
          (University of Colorado/CIRES) .................................................... 34
  1500-1520  Primary Study on the Characteristics of Trace Gases in a Clean Area of North China – B. Jianhui
          (Chinese Academy of Sciences) ..................................................... 35
  1520-1540  Ozone Chemistry and Transport Along a 2000 meter Altitude Gradient in the Colorado Front Range from
          Twelve Surface Sites and Balloon Sonde Observations – D. Helmig (University of Colorado/INSTAAR) ... 36
  1540-1600  The Short-Term and Long-Term Stratospheric and Tropospheric Ozone Variability Available from Zenith
          Sky Measurements – I. Petrovaplovskikh (University of Colorado/CIRES) ............................... 37

• 1615-1845  Poster Session (Room GC-402) - Refreshments will be served (Snacks and Wine)
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- **Carbon Dioxide and Methane**
  
P-1 CO₂ Source/Sink Information from OCO Column CO₂ Data – D.F. Baker (Woods Hole Oceanographic Institution)
  
P-2 Temporal and Spatial Patterns in Regional and Continental-Scale CO₂ Mixing Ratio Measurements – N.L. Miles (Pennsylvania State University)
  
P-3 Decreasing Anthropogenic Methane Emissions in Europe and Siberia Inferred from Continuous Carbon Dioxide and Methane Observations at Alert, Canada and Barrow, USA – D. Worthy (Environment Canada)

- **Ozone**
  
P-24 Observations of Ground-Level Ozone in Lithuania: Monitoring Network and Results – R. Girgediene (Institute of Physics)
  
P-25 Daily Ozonesonde Launches at Barrow, Alaska: April 1-20, 2008 – B.J. Johnson (ESRL)
  
P-26 Ozone Observations Over Mt. Kenya and Nairobi GAW (Global Atmosphere Watch) Stations – J. Nguyo (Kenya Meteorological Department)
Thursday, May 15th: 1615-1845

- **Halocarbons and SF₆**
  P-27 Initial Results from the International Halocarbon in Air Comparison Experiment (IHALACE) – B. Hall (ESRL)
  P-28 Measurement of Internal Stray Light within Dobson Ozone Spectrophotometers – R.D. Evans (ESRL)
  P-29 Reconciling Estimates of SF₆ Emissions Using NOAA Observations – M.J. Heller (University of Colorado/CIRES)

- **Aerosols and Radiation**
  P-30 Forecast of UV Index by Means of an Empirical Model in the Republic of Panama – A. Pino (University of Panama)
  P-31 U.S. Trends in Aerosol Optical Depth and Solar Radiation over the Past 10 Years – J.A. Augustine (ESRL)
  P-33 Temporal Variability of Aerosol Optical Properties, Ozone and CO Vertical Profiles over Rural Oklahoma – E. Andrews (University of Colorado/CIRES)
  P-34 The NOAA ESRL Airborne Aerosol Observatory: The First Two Years of Operation – P.J. Sheridan (ESRL)
  P-35 Comparison of RSS Spectral Measurements andLBLRTM/CHARTS Model Calculations for Clear Skies – J.S. Delamere (ESRL)
  P-36 NEUBrew – The NOAA EPA Brewer Spectrophotometer UV Monitoring Network – P. Disterhoft (University of Colorado/CIRES)

- **Observatories, Cooperative Measurements and Global Databases**
  P-37 MPLNET Measurements of Polar Stratospheric Clouds at the South Pole in 2007 – J.R. Campbell (Science Systems and Applications Inc.)
  P-38 Cloud Properties Observed by an All-Sky Camera System at the South Pole Station – M. Shiobara (National Institute of Polar Research)
  P-39 Researcher and Educator Long Term Collaboration with NOAA Earth System Research Laboratory Regarding Atmospheric Ozone Changes at the South Pole through the NSF PolarTREC Program – E. Bergholz (United Nations International School)
  P-40 Comparison of UV Climates at Summit, Greenland; Barrow, Alaska; and South Pole Station, Antarctica – G. Bernhard (Biospherical Instruments Inc.)
  P-41 Results of Snowfall/Blowing Snow Observations in Barrow – D. Yang (University of Alaska Fairbanks)
  P-42 Annual Cycles of Atmospheric Trace Gases in the Tropical Marine Boundary Layer: First Measurements from the Cape Verde Observatory – K.A. Read (University of York)
  P-43 GEOSSummit Baseline Measurements: Results and Interpretations of Year-Round Measurements – R. Banta (Desert Research Institute)
  P-44 Circum Arctic Monitoring of the Environment from Research Aircraft – R.S. Stone (University of Colorado/CIRES)
  P-45 A New Global Database of Trace Gases and Aerosols at High Vertical Resolution – G.E. Bodeker (National Institute of Water and Atmospheric Research)
  P-47 Inter-Comparisons of Satellite, Dobson Spectrophotometer and Ozonesonde Ozone Data Observations Over Nairobi, Kenya – C.C. Okuku (Kenya Meteorological Department)
  P-48 The Nonhydrostatic Icosahedral Model – A.E. MacDonald (ESRL)