

Global Monitoring Division

Indicators of Preeminence 2:

Leadership, Awards and Service



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GLOBAL MONITORING DIVISION

Leadership Roles

2007-Present

Editorships, 2007-present:

- Brad Hall, State of the Climate in 2010, 2011, 2012: Editor, Special Supplement to the Bulletin of the American Meteorological Society, Chapter 2: Climate Change.
- John Ogren, Editorial Board, Advances in Climate Change Research.
- Pieter Tans, Editorial Board, Tellus.
- Russ Schnell, State of the Climate in 2007, 2008, 2009: Editor, Special Supplement to the Bulletin of the American Meteorological Society: Climate Change.

NOAA, 2007-present:

- James Bulter, Co-lead for "Monitoring Climate Forcing" sub-capability in the Climate Observations and Monitoring Program (CL-COM).
- Jim Elkins, NOAA Arctic Regional Collaboration Team (ARCTic) ESRL Representative.
- Russ Schnell, NOAA Polar Committee, OAR Representative, NOAA Pacific Islands Regional Collaboration team.

Other Federal, 2007-present:

- Andrew Jacobson, North American Carbon Program Scientific Steering Group.
- Anne Jefferson, member of the DOE ARM Aerosol Lifecycle Working Group, member of the DOE ARM Instrument Team.
- Arlyn Andrews, Carbon Cycle Science Steering Group for the US Carbon Cycle Science Program.
- Brad Hall, Dept. of Commerce Standards Committee, Member.
- Brian Vasel, NSF/OPP Long Range Planning Team for Summit, Greenland, McMurdo Area Users Committee, Palmer Users Committee, and South Pole Area Users Committee.
- Ellsworth Dutton, DOE ARM Science Advisory Panel, MODIS Science Team, CERES Satellite Team.
- Irina Petropavlovskikh, Science Advisory Board, National Polar-orbiting Operational, Environmental Satellite System (NPOESS) and Ozone Mapping and Profiler Suit (OMPS).
- James Elkins, AGAGE (NASA), NASA ACMAP Panel Review 2013.
- James Butler and D. Hofmann, NOAA representative on the Carbon Cycle Interagency Working Group.

- John Miller, Oak Ridge National Laboratory Terrestrial Ecology Distributed Active Archive Center, NASA Orbiting Carbon-2 Science Team, NASA Carbon Monitoring System Science Team.
- Ken Masarie, DOE CDIAC advisory panel.
- Russ Schnell, Member, Climate Change Technology Program Measurements Committee, Member, U.S. State Department Team, International Climate Change Bi-lateral Agreement Implementation, 2001-present.
- Steve Montzka, NASA UARP Proposal Review Panel Member, 2011.

CIRES/CIRA, 2007-present:

- Steve Montzka, CIRES fellow (elected 2011) and currently serves on its Executive Committee.

U.S. Non-Federal, 2007-present:

- Bryan Johnson, NDACC Ozonesonde Working Group.
- Dale Hurst, member of Marshall Field Site Users Group.
- Ed Dlugokencky, National Center for Ecological Analysis and Synthesis, Methane Working Group, Member, 2006-2008.
- Kathy Lantz. USGCRP UV Group.
- Tom Oda, North American Carbon Program Steering Committee.

NATIONAL AND INTERNATIONAL ASSESSMENTS:

Intergovernmental Panel on Climate Change (IPCC): Climate Change 2007 (Awarded the Nobel Prize with Al Gore)

Chapter 2:

Co-Authors:

Thomas Conway, Ed Dlugokencky, James Elkins, Steve Montzka, Steve Montzka and Colm Sweeney.

Chapter 7:

Contributors:

Ken. Masarie, John Miller.

Reviewers:

James Elkins, Dave Hofmann, Steve Montzka, Ellsworth Dutton and Samuel Oltmans.

Government Review Team: James Butler, John Ogren.

US Carbon Cycle Science SAP 3.4 (Abrupt Climate Change 2008).

Chapter 5:

Contributing Author: Ed Dlugokencky

2010 WMO/UNEP Scientific Assessment of Ozone Depletion

Chapter 1:

Coordinating Lead Author: Steve Montzka.

Coauthor: John Miller.

Contributors: James Butler, Ellsworth Dutton.

Chapter 2:

Coauthor: Irina Petropavlovskikh.

Chapter 5:

Coauthor: Steve Montzka.

Reviewers:

Ellsworth Dutton, James Elkins, Dave Hofmann, Steve Montzka, Samuel Oltmans.

Intergovernmental Panel on Climate Change (IPCC): Climate Change 2014.

Chapter 2:

Co-Lead Author: Ed Dlugokencky.

Review Editor:

Pieter Tans

Reviewers:

Dale Hurst, James Butler

International, 2007-present:

- Bob Evans, WMO/GAW Scientific Advisory Group for Ozone, WMO/GAW-103C Absorption Cross Sections Of Ozone Committee, International Ad-Hoc Committee on Dobson Operations.
- Bob Stone, BSRN Surface Albedo Working Group, Polar-AOD, NOAA-SEARCH Program (Arctic Network sites).
- Brad Hall, WMO/GAW Scientific Advisory Group – Greenhouse Gases.
- Dale Hurst, working group member of GCOS Reference Upper Air Network (GRUAN) and chair of GRUAN task team of representatives.
- Ed Dlugokencky, WMO/GAW Science Advisory Group for Greenhouse Gases (Chair), IGOS Scientific Advisory Board, WMO/GAW Joint Scientific Committee of the Open Programme Area Group on Environmental Pollution and Atmospheric Chemistry, Scientific Advisory Board member EU Integrated non-CO₂ Greenhouse Gas Observing System, WMO GAW Joint Scientific Steering Committee.
- Ellsworth Dutton, Baseline Surface Radiation Network Project Manager, GEWEX Radiation Panel

- James Butler, WMO Commission for Atmospheric Sciences; GCOS Atmospheric Observations Panel for Climate; GEO Carbon Co-Chair; IAGOS Advisory Committee; IGAS A Scientific Advisory Board.
- Gabrielle Petron, Advisor, South American Emissions, Megacities and Climate, student program.
- Irina Petropavlovskikh, Member, Member of the International Ozone Commission (IOC), IOC Umkehr sub-committee under the WMO, member of the SPARC/IOC/IGACO-03/NDACC (SI2N) Initiative, member of the IGACO's ACSO expert team, member of the diurnal ozone change investigation team under the ISSI and the Stratospheric ozone trend analysis Tiger team.
- James Butler, Advisory Board, Organics over the Ocean Modifying Particles in Both Hemispheres (OOMPH), European Union, Framework 6 Programme for Sustainable Development, Global Change and Ecosystems; GCOS Atmospheric Observation Panel for Climate (AOPC), Co-chair, GEP Carbon, European Community EC06-1 Plan; Scientific Advisory Board for European Community Framework 6 Programme.
- James Elkins, NDACC Steering Committee.
- John Augustine, BSRN Aerosol Optical Depth (AOD) working group.
- John Barnes, Member of Science Utilization Team for SAGE III on the International Space Station.
- John Ogren, WMO/GAW Scientific Advisory Group for Aerosols (Chair), WMO/GAW Joint Scientific Steering Committee of the Open Programme Area Group on Environmental Pollution and Atmospheric Chemistry.
- Joseph Michalsky, BSRN Broadband IR and Aerosol Optical Depth Working Groups, Chair, BSRN Spectral Measurements Working Group, acting project manager Baseline Surface Radiation Network.
- Kathy Lantz, WMO UV Panel.
- Lori Bruhwiler, Member Arctic Monitoring and Assessment Program (AMAP) Methane Expert Committee.
- Patrick Disterhoft, National Science Foundation, Office of Polar Programs, Palmer Area Users Committee.
- Pieter Tans, Scientific Steering Committee, Inter-agency North American Carbon Program, AIMES/IGBP, 2007-present, 9th ICDC and Scientific Committee.
- Russ Schnell, member of the Swedish Research Council board evaluating Swedish infrastructures for monitoring the environment, NDACC Steering Committee.
- Sam Oltmans, Member International Ozone Commission of the ICSU, SPARC/IGACO-IOC/NDACC (SI2n), Initiative on Past Changes in the Vertical Distribution of Ozone – Ozone Sonde Data Quality Assessment (O3SDQS) co-chair.
- Steve Montzka, Member, European Commission Research Directorate-General starting Grants Evaluation Panel for Earth System Science, August, 2007, Review panel member of proposals for the German "Conference of Science-driven evaluation of Large Research Infrastructure Projects for a National Roadmap Pilot phase, 2012, TEAP/UNEP Task Force on Emissions Discrepancies (Co-chair).

ESRL GLOBAL MONITORING DIVISION AWARDS: 2007-2012

2007:

- The Nobel Peace Prize for 2007 was awarded to the Intergovernmental Panel on Climate Change (IPCC) and Mr. Albert Gore, Junior.

ESRL scientists who have contributed to the four IPCC Assessment Reports are: Daniel L. Albritton; **James Butler**; **Thomas Conway**; John Daniel; **Edward Dlugokencky**; **James Elkins**; David W. Fahey; Fred Fehsenfeld; **Kenneth Masarie**; **John Miller**; **Dave Hofmann**; **Stephen Montzka**; Daniel Murphy; **Paul Novelli**; George Reid; Karen Rosenlof; **Russ Schnell**; Susan Solomon; **Geoff Dutton** and **Pieter Tans**.

- **S. Montzka, J. Butler, B. Hall, J. Elkins** and **G. Dutton** (The NOAA Ozone-Depleting Gas Measurement Team), Environmental Protection Agency, Stratospheric Ozone Protection Award, 2007
- **Pieter Tans**, Carbon Cycle & Greenhouse Gases Group, Presidential Rank Award, Meritorious, 2007
- **James Elkins** and **Sam Oltmans**, Halocarbons and Other Trace Species Group and Ozone & Water Vapor Group, NOAA Bronze Medal Award, 2007.
- **Fred Moore, Geoff Dutton, Brian Vasel and Dale Hurst**: CIRES Superior Service Award for NOAA UAS work.
- **J. Augustine**, Radiation Group, NOAA Research Employee of the Year Award, 2007
- 2007 OAR Outstanding Scientific Paper Award: **Hofmann David J., James H. Butler, Edward J. Dlugokencky, James W. Elkins, Kenneth Masarie, Stephen A. Montzka and Pieter Tans**, 2006. The role of carbon dioxide in climate forcing from 1979 to 2004: introduction of the Annual Greenhouse Gas Index. *Tellus*, 58B, 614-619.
- 2007 OAR Outstanding Scientific Paper Award: Cooper, O.R., A. Stohl, M. Trainer, A.M. Thompson, J.C. Witte, **S. Oltmans**, G.A. Morris, K.E. Pickering, J. Crawford, G. Chen, R.C. Cohen, T.H. Bertram, P. Wooldridge, A. Perring, W.H. Brune, J. Merrill, J.L. Moody, D. Tarasick, P. Nedelec, G. Forbes, M. Newchurch, F. Schmidlin, **B. J. Johnson**, S. Turquety, S.L. Baughcum, X. Ren, F.C. Fehsenfeld, J.F. Meagher, N. Spichtinger, C.C. Brown, S.A. McKeen, I.S. McDermid, and T. Leblanc (2006), Large upper tropospheric ozone

enhancements above midlatitude North America during summer: In situ evidence from the IONS and MOZAIC ozone measurement network. *J. Geophys. Res.*, 111.

- **Samuel Oltmans:** Elected American Geophysical Union Fellow.
- **Jonathan Kofler:** CIRES Outstanding Performance Award - Science and Engineering.
- **John Barnes:** 2007-present, Stratospheric Sulfur and its Role in Climate (SSiRC) panel for the Stratospheric Processes and their Role in Climate (SPARC) program.

2008

- DOC Silver Medal Award: **David Hofmann, James Butler, Russell Schnell, Thomas Conway, Edward Dlugokencky, Steve Montzka, James Elkins, Kenneth Masarie, and Pieter Tans.** For developing a Global Greenhouse Gas Index.
- **Gary Hodges:** CIRES Outstanding Performance Award for his work and dedication to the SURFRAD Network.
- **Steve Montzka:** American Geophysical Union Excellence in Refereeing Award.
- JIMAR Performance Award: **Preston Sato, David Nardini and Nash Kobayashi.** for the month long Mauna Loa Observatory 50th Anniversary exhibit and the 50th Anniversary Global Carbon Dioxide Record Symposium & Celebration.
- NOAA Administrator's Award: Arun Kumar (NWS), Martin Hoerling (OAR), Chad McNutt (USEC), Pedro Restrepo (NWS), Graham Feingold (OAR), Patricia Quinn (OAR), David Fahey (OAR), John Daniel (OAR), **Stephen Montzka** (OAR), V. Ramaswamy (OAR), Brian D. Keller (NOS), Isaac M. Held (OAR), Alice Gilliland (OAR), M. Daniel Schwarzkopf (OAR), Larry W. Horowitz (OAR), Stephen K. Gill (NOS), Christopher D. Miller (OAR), David H. Levinson (NESDIS), David M. Anderson (NESDIS), David R. Easterling (NESDIS), Eileen Shea (NESDIS), Glenn Tallia (OGC). For outstanding dedication to developing U.S. CCSP Synthesis & Assessment Products integrating climate research for decision support.

2009

- DOC Bronze Medal Award: **Brad Hall** for contributions to the accurate calibration of greenhouse and other important atmospheric gases for NOAA, the nation, and the global community.
- OAR Outstanding Scientific Paper Award: **Stephen Montzka, B. Hall, J. Elkins, T. Conway, P. Tans, and C. Sweeney**: On the global distribution, seasonality, and budget of atmospheric carbonyl sulfide (COS) and some similarities to CO₂. *J. Geophys. Res.*, Volume 112, Issue D9
- CIRES Meritorious Service to Science Award: **Geoff Dutton** for improvements made to the Chromatograph for Atmospheric Trace Species (CATS) at the Mauna Loa Observatory.
- CIRES Silver Medal Award: **Andrew Crotwell, G. Dutton, M. Heller, D. Mondeel, C. Siso** and **K. Sours**.
- CIRES Outstanding Performance Awards: **Sonja Wolter, D. Guenther,** and **F. Moore** for upgrading the Programmable Flask Sampling Packages in order to meet stringent FAA flammability requirements for on-board instrumentation.
- NASA Group Achievement Award for the TC4 Mission: **James Elkins, Brad Hall, Geoff Dutton, Dale Hurst, Fred Moore, David Nance** and **Irina Peropavlovskikh**.
- **Paul Fukumura**. OAR Employee of the Year Award for Customer service.
- Haagen-Smit Prize for outstanding paper published in Atmospheric Environment: Turpin, B.J., P. Saxena, **E. Andrews**. Measuring and simulating particle organics in the atmosphere. Problems and prospects. *Atmos. Environ.*, 34, 2983-3013, 2000.
- CIRES Service Award: **Molly Crotwell** for initiating the recycling and composting program at the David Skaggs Research Center.
- NOAA OAR Natural Phenomena Photography Contest, first place: **Geoff Dutton**
- Frohlich Fellowship from the Commonwealth Scientific and Industrial Research Organization (CSIRO): **Ben Miller**. To help develop a program for tracking greenhouse gas levels and evaluating the effect of policies.
- CIRES Silver Award: **Debra Mondeel**: for contributions to the NOAA Annual Greenhouse Gas Index which assesses human produced greenhouse gases and allows the public to track its net influence on climate.

- CIRES cash award: **Laura Patrick**, for building two weatherproof ozone instruments for a tall tower in Moody, Texas.

2010

- DOC Gold Medal: Lt. Amy Cox, NOAA Corps and GMD: For exceptional leadership and heroism during two life threatening incidents at the remote and isolated Summit Greenland Observatory during the spring of 2009.
- American Geophysical Union Revelle Medal Award: **Pieter Tans** for his work in expanding our understanding of the global carbon cycle and raising awareness for climate change.
- OAR Outstanding Scientific Paper Award: **Hofmann, David J., John Barnes, Michael O'Neill, Michael Trudeau, and Ryan Neely**. Increase in background stratospheric aerosol observed with lidar at Mauna Loa Observatory and Boulder, Colorado, *Geophys. Res. Lett.*, 36, doi: 10.1029
- OAR Employee of the Year Award: **Bill Cushman** for personal and professional excellence.
- DOC Gold Medal Award: **Mark C. Cunningham** for extraordinary efforts assisting injured victims of the September 2009 Samoa tsunami.
- CIRES Science and Engineering Award: **Anna Karion**
- NOAA Distinguished Career Award: **Russell C. Schnell** for exemplary vision and leadership of the laboratory and baseline observatory network throughout nineteen years of service to NOAA.
- **Lori Bruhwiler**: American Geophysical Union Excellence in Refereeing Award.
- **Dale Hurst, Emrys Hall, Allen Jordan, Eric Hintsa, Fred. Moore and James Elkins**: NASA Group Achievement Award for the GLOPAC Mission.

2011

- DOC Silver Medal Award: **Samuel Oltmans** for developing reliable balloon borne measurements of stratospheric water vapor and conducting monthly profiles for 30 years of world class data.
- **Russ Schnell**: OAR Outstanding Science Communicators Award.

- **Russ Schnell:** NOAA Distinguished Career Award.
- **Derek Hageman:** NOAA Team Member of the Month Award.

2012

- CIRES Science and Engineering Award: **Anna Karion, Tim Newberger,** and **Colm Sweeney** for developing a new atmospheric sampling instrument, the AirCore, which can profile altitude gradients of greenhouse gases.
- NOAA Administrator's Award: **Matthew Martinsen** for accomplishments in improving student STEM science education and internship opportunities in the Barrow, Alaska Inupiat community.
- NASA Group Achievement Award for the MACPEX Mission: **Dale Hurst, Emrys Hall** and **Allen Jordan**.

2013

- DOC Bronze Medal Award: **Elkins, J. W., Hall, B.D.,** Fahey, D.W., Ciciora, S., Gao, R., Rosenlof, K.: For the successful demonstration of the Global Hawk Unmanned Aircraft Systems for NOAA's Climate Goal.
- American Geophysical Union Excellence in Refereeing Award: **John Augustine:**
- CIRES Bronze Medal Award: **Geoffrey Dutton, Emrys Hall, Eric Hintsa, Dale Hurst, Allen Jordan, Fred Moore, Samuel Oltmans** and **Audra McClure**. For the successful demonstration of the Global Hawk Unmanned Aircraft Systems for NOAA's Climate Goal.

ESRL GLOBAL MONITORING DIVISION

Public Tours: 2007-2012

2007

- 54 Public tours of the David Skaggs Research Center (DSRC)
(The public tours spend 1/3 of the hour long tour viewing GMD presentations)
- 67 student tours of the DSRC
- 9 teacher specific tours of the DSRC
- 4 senior center tours of the DSRC
- 8 international visitor tours of the DSRC
- 15 unidentified tours of the DSRC (scouting groups, church groups, etc)
- 16 tours of the Barrow, Alaska Observatory
- 11 tours of the Summit, Greenland
- 4 tours of the Trinidad Head, California Observatory
- 33 tours of the Mauna Loa Observatory
- 12 tours of the American Samoa Observatory
- 20 tours of the South Pole, Antarctica Observatory

2008

- 54 Public tours of the DSRC
- 61 student tours of the DSRC
- 5 teacher specific tours of the DSRC
- 2 senior center tours of the DSRC
- 5 international visitor tours of the DSRC
- 11 unidentified tours of the DSRC
- 14 tours of the Barrow, Alaska Observatory
- 11 tours of the Summit, Greenland Observatory
- 5 tours of the Trinidad Head, California Observatory
- 36 tours of the Mauna Loa Observatory

- 14 tours of the American Samoa Observatory
- 22 tours of the South Pole, Antarctica Observatory

2009

- 54 Public tours of the DSRC
- 59 student tours of the DSRC
- 3 teacher specific tours of the DSRC
- 3 senior center tours of the DSRC
- 14 unidentified tours of the DSRC
- 14 tours of the Barrow, Alaska Observatory
- 9 tours of the Summit, Greenland Observatory
- 4 tours of the Trinidad Head, California Observatory
- 29 tours of the Mauna Loa Observatory
- 12 tours of the American Samoa Observatory
- 21 tours of the South Pole, Antarctica Observatory

2010

- 54 Public tours of the DSRC (849 people)
- 57 student tours of the DSRC
- 2 teacher specific tours of the DSRC
- 4 senior center tours of the DSRC
- 8 international visitor tours of the DSRC
- 20 unidentified tours of the DSRC
- 13 tours of the Barrow, Alaska Observatory
- 10 tours of the Summit, Greenland Observatory
- 5 tours of the Trinidad Head, California Observatory
- 37 tours of the Mauna Loa Observatory
- 13 tours of the American Samoa Observatory
- 19 tours of the South Pole, Antarctica Observatory

2011

- 54 Public tours of the David Skaggs Research Center (1926 people)
- 65 student tours of the DSRC
- 4 senior center tours of the DSRC
- 3 tours for international visitors of the DSRC
- 1 teacher specific tour of the DSRC
- 18 undefined tours of the DSRC
- Heather Moe (NOAA Corps.) gave 2 tours of the NOAA ship Miller Freeman
- 12 tours of the Barrow, Alaska Observatory
- 11 tours of the Summit, Greenland Observatory
- 5 tours of the Trinidad Head, California Observatory
- 35 tours of the Mauna Loa Observatory
- 13 tours of the American Samoa Observatory
- 21 tours of the South Pole, Antarctica Observatory

2012

- 54 Public tours of the DSRC (3280 people)
- 70 student tours of the DSRC
- 5 senior center tours of the DSRC
- 3 tours for international visitors of the DSRC
- 3 teacher specific tours of the DSRC
- 12 undefined tours of the DSRC
- 31 tours of the Mauna Loa Observatory
- 10 tours of the Summit, Greenland Observatory
- 12 tours of the Barrow, Alaska Observatory
- 4 tours of the Trinidad Head, California Observatory
- 12 tours of the American Samoa Observatory
- 20 tours of the South Pole, Antarctica Observatory