

## **V. Lynn Harvey**

Laboratory for Atmospheric and Space Physics, University of Colorado, 3665 Discovery Drive Boulder, CO 80303 ([lynn.harvey@lasp.colorado.edu](mailto:lynn.harvey@lasp.colorado.edu), 303-492-2920)

### **Education**

B.S., Atmospheric and Oceanic Sciences, Univ. Wisconsin - Madison, 1992.

M.S., Atmospheric and Oceanic Sciences, Univ. Wisconsin - Madison, 1994.

Thesis Title: *A Climatology of the Aleutian High*

Ph.D., Atmospheric and Oceanic Sciences, Univ. Wisconsin - Madison, 2001.

Dissertation Title: *An Object Oriented Climatology of Stratospheric Anticyclones and Polar Vortices*

### **Professional Experience**

*Research Scientist III 2013-present*

**Laboratory for Atmospheric and Space Physics, University of Colorado – Boulder**

*Researcher 2008-present*

**Atmospheric and Oceanic Sciences Department, University of Colorado – Boulder**

*Research Scientist II 2005-2012*

**Laboratory for Atmospheric and Space Physics, University of Colorado – Boulder**

*Research Scientist I 2003-2005*

**Laboratory for Atmospheric and Space Physics, University of Colorado – Boulder**

*Atmospheric Scientist 1997-2003*

**Science Applications International Corporation, Hampton, Virginia  
Atmospheric Sciences Division at NASA Langley Research Center**

*Research Assistant 1992-2001*

**University of Wisconsin - Madison**

### **Awards and Affiliations**

2014 NASA Group Achievement Award, SEAC<sup>4</sup>RS Mission Team member

2006 American Geophysical Union Editors Citation for Excellence in Refereeing

*Journal of Geophysical Research - Atmospheres*

2003 NASA Group Achievement Award, LIMS Data Analysis Team member

2003 NASA Group Achievement Award, SOLVE Science Team member

2001 American Geophysical Union Editors Citation for Excellence in Refereeing

*Journal of Geophysical Research - Atmospheres*

Best Student Paper - Oral Presentation, *10<sup>th</sup> Conference on the Middle Atmosphere*, Tacoma, Washington, June 1997.

American Geophysical Union member 1997-2015

American Meteorological Society member 1991-2001

### **Professional Service**

Contributor to SPARC Reanalysis/analysis Intercomparison Project (S-RIP) 2013-2016  
ATOC Admissions Committee 2012-2016.  
Judge for ATOC student poster conference, December 2015.  
Co-organizer of the 2015 HEPPA/SOLARIS meeting, November 2015.  
Organizer of the RAISE workshop, November 2015.  
LASP REU Speaker, June, 2015.  
Judge for ATOC student poster conference, December 2014.  
NASA ACMAP Panel Reviewer 2014  
SOARS Poster Judge 2014  
Co-convener of the 2013 CEDAR coupling during SSWs session.  
LASP VIS Team Member 2012-2013.  
Faculty Advisor for the ATOC Seminar 2012-2013  
Organizer of the ATOC seminar series, 2005-2012  
Judge for ATOC student poster conference, December 2012.  
Chair of Odele Coddington's promotion committee 2012.  
Co-organizer of the 2012 HEPPA meeting, October 2012.  
LASP Research Scientist Representative, CU Boulder Faculty Assembly, 2009-2012  
LASP Computer Science Advisory Committee (CSAC) Member, 2008-2010  
Co-organizer of JGR-Atmospheres and Space physics special issue 2010.  
Co-organizer of the 2009 HEPPA meeting, October 2009.  
Co-organizer of the Spring 2009 AGU vertical coupling session.  
Judge for ATOC student poster conference, December 2009.  
Promotion committee member for Xiaohua Fang and Sebastian Schmidt 2009.

Grant Reviewer: Natural Sciences and Engineering Research Council of Canada, NASA Living With a Star Program, NASA Atmospheric Chemistry and Modeling Program, NSF Office of Polar Programs, NASA Heliophysics Technology and Instrument Development for Science Program, Marsden Fund (The Royal Society of New Zealand)

Manuscript Reviewer: *Journal of the Atmospheric Sciences, Journal of Geophysical Research- Atmospheres, Atmospheric Chemistry and Physics, Atmospheric Environment, Geophysical Research Letters, Journal of Atmospheric and Solar-Terrestrial Physics, Quarterly Journal of the Royal Meteorological Society, Annales Geophysicae, Polar Research, and Journal of Climate*

### **Educational Service**

Adrianna Hackett, Ph.D. – Committee Member  
Josh Pettit, Ph.D. – Committee Member  
Ethan Peck, Ph.D. – Committee Member  
Katelynn Greer, Ph.D. – Committee Member  
Matthias Brakebusch, Ph.D. – Committee Member  
Laura Holt, Ph.D. – Committee Member  
Jeff France, Ph.D. – Advisor  
Susanne Benze, Ph.D. – Committee Member  
Chihoko Yamashita, Ph.D. – Committee Member  
Donavan Wheeler, M.S. – Advisor

Katelynn Greer, M.S. – Committee Member  
Cynthia Singleton, Ph.D. – Committee Member

### **Invited Talks**

**Harvey, V. L.**, Earth's Middle Atmosphere, *Research Experience for Undergraduates (REU) Orientation*, CU-LASP, Boulder, Colorado, 9 June 2015.

**Harvey, V. L.**, Chemical and Dynamical Definitions of the Stratospheric and Mesospheric Polar Vortices, *Stockholm University Atmospheric Science Seminar*, Stockholm, Sweden, 16 April 2015.

**Harvey, V. L.**, Stratospheric Vortices: A 4-dimensional perspective, *ATOC Seminar*, Boulder, Colorado, 28 September 2012.

**Harvey, V. L.**, From Surface Cold-Air Outbreaks to Polar Mesospheric Clouds: Observing and Modeling the Earth's Atmosphere, *LASP Seminar*, Boulder, Colorado, 6 September 2012.

**Harvey, V. L.**, and C. E. Randall, Atmospheric Effects of Energetic Particle Precipitation, *NSERC CREATE Training Program in Arctic Atmospheric Science*, Alliston, Ontario, Canada, 26 July 2012.

**Harvey, V. L.**, Using Meteorological, Satellite, and ground-based data to study the Arctic, *NSERC CREATE Training Program in Arctic Atmospheric Science*, Alliston, Ontario, Canada, 25 July 2012.

**Harvey, V. L.**, Middle Atmosphere Dynamics: The Polar Vortices, Anticyclones, and the Stratopause, *NSERC CREATE Training Program in Arctic Atmospheric Science*, Alliston, Ontario, Canada, 24 July 2012.

**Harvey, V. L.**, Mesospheric Transport in WACCM, *High Altitude Observatory Colloquium*, Boulder, Colorado, 30 March 2011.

**Harvey, V. L.**, R. Collins, D. Atkinson, B. Thuraiajah, The stratospheric warming event in 2009, Canadian Network for the Detection of Atmospheric Change (CANDAC) workshop, Toronto, Canada, 16 October 2009.

**Harvey, V. L.**, The Polar Vortex, Cooperative Institute for Research in Environmental Science Prof. Xinzhao Chu Research Group, Boulder, Colorado, 31 August 2009.

**Harvey, V. L.**, et al., HIRDLS observations of the stratopause: Comparisons with SABER and MLS, *HIRDLS Science Team Meeting*, Boulder, Colorado, 14 July 2009.

**Harvey, V. L.**, et al., The four-dimensional evolution of stratospheric warming events during IPY, *Coupling, Energetics and Dynamics of Atmospheric Regions (CEDAR) Workshop*, Santa Fe, New Mexico, 2 July 2009.

**Harvey, V. L.**, et al., The Arctic polar stratosphere and mesosphere during IPY, *Arctic Change Conference*, Toronto, Canada, December 2008.

**Harvey, V. L.**, R. Collins, and B. Thurairajah, The Arctic polar stratosphere and mesosphere during IPY 2007-2008, *NOAA Seminar*, Boulder, Colorado, 30 April 2008.

**Harvey, V. L.**, R. Collins, C. Randall, J. France, and D. Wheeler, The Arctic polar stratosphere and mesosphere during IPY 2007-2008, *Mesosphere Lower Thermosphere Seminar*, Boulder, Colorado, 14 March 2008.

**Harvey, V. L.**, R. Collins, C. Randall, and S. Pawson, The Arctic polar stratosphere and mesosphere during IPY, *Invited Noble Seminar, University of Toronto*, Toronto, Canada, 5 February 2008.

**Harvey, V. L.**, et al., Low-ozone pocket definition using MLS data, *Invited Seminar in the Department of Atmospheric Sciences, University of Reading*, Reading, United Kingdom, September 2006.

## Refereed Publications (Students that I Advise or Mentor)

**Harvey, V. L.**, C. E. Randall, A Climatology of the Mesospheric Polar Vortices in High Top Models and Meteorological Reanalyses Data Sets, *J. Geophys. Res.*, in prep, 2016.

Randall, C. E., **E. D. Peck**, **V. L. Harvey**, **L. A. Holt**, X. Fang, M. Mills, D. Marsh, C. Jackman, and B. Funke, Auroral Energy Particle Precipitation: An Atmospheric Coupling Agent?, *J. Geophys. Res.*, in prep, 2016.

Randall, C. E., **V. L. Harvey**, **J. A. France**, **L. A. Holt**, Southern Hemisphere 2014-2015 PMC Season, *J. Geophys. Res.*, in prep, 2016.

**France, J. A.**, C. E. Randall, **V. L. Harvey**, D. E. Siskind, J. Lumpe, J. M. Russell III, and S. Bailey, Interhemispheric Coupling and 5-day wave effects on Polar Mesospheric Clouds during the Northern Hemisphere during 2014 season, *Geophys. Res. Lett.*, in prep, 2016.

Goncharenko, L. P., **V. L. Harvey**, C. E. Randall, A. J. Coster, S.-R. Zhang, A. Zalizovsky, I. Galkin, and M. Spraggs, Observations of pole-to-pole stratosphere to ionosphere connection, *Journal TBD*, in prep, 2016.

Remsberg, E. E., and **V. L. Harvey**, On the detection of Arctic polar stratospheric clouds and the effects of improvements in the NIMBUS 7 LIMS version 6 data, *Atmos. Meas. Tech.*, in prep, 2016.

(57) Siskind, D. E., F. Sassi, C. E. Randall, **V. L. Harvey**, M. E. Hervig, and S. M. Bailey, Is a high-altitude meteorological analysis necessary to simulate thermosphere-stratosphere coupling?, *Geophys. Res. Lett.*, doi:10.1029/2015GL065838, 2015.

(56) **Harvey, V. L.**, C. E. Randall, and R. L. Collins, Chemical definition of the mesospheric polar vortex, *J. Geophys. Res. Atmos.*, doi:10.1029/2015JD023488, 2015.

(55) Siskind, D. E. D. R. Allen, C. E. Randall, **V. L. Harvey**, M. E. Hervig, J. Lumpe, **B. Thurairajah**, S. M. Bailey, and J. M. Russell III, Extreme stratospheric springs and their consequences for the onset of Polar Mesospheric Clouds, *J. Appl. Sol. Terr. Phys.*, 132, 74-81, 2015.

(54) Randall, C. E., **V. L. Harvey**, **L. A. Holt**, D. Marsh, D. Kinnison, and B. Funke, Simulation of energetic particle precipitation effects during the 2003-2004 Arctic winter, *J. Geophys. Res. Space Physics*, doi:10.1029/2015JA021196R, 2015.

(53) **Peck, E. D.**, C. E. Randall, **V. L. Harvey**, D. R. Marsh, Simulated solar cycle effects on the middle atmosphere: WACCM3 vs. WACCM4, *Journal of Advances in Modeling Earth Systems*, doi:10.1029/2014JD022533, 2015.

(52) **Holt, L. A.**, C. E. Randall, **V. L. Harvey**, **J. A. France**, and J. M. Russell III, Summertime polar mesospheric clouds linked to wintertime surface cold air outbreaks,

*Geophys. Res. Lett.*, doi:10.1029/2014GL062478, 2015.

(51) Greer, K., J. P. Thayer, **V. L. Harvey**, H. Liu, **E. D. Peck**, and C. Randall, Dynamical Mechanism of Upper Stratosphere Lower Mesosphere Disturbances Studied in WACCM, *J. Geophys. Res.*, doi:10.1029/2014JD021820, 2015.

(50) France, J. A., **V. L. Harvey**, C. E. Randall, R. L. Collins, A. K. Smith, **E. Peck**, and X. Fang, A Climatology of Planetary Wave-Driven Mesospheric Inversion Layers in the Extratropical Winter, *J. Geophys. Res.*, 120, 399-413, doi:10.1029/2014JD022244, 2015.

(49) Bailey, S. M., **B. Thuraiajah**, C. E. Randall, **L. Holt**, **V. L. Harvey**, D. E. Siskind, K. Venkataramani, M. E. Hervig, P. Rong, and J. M. Russell, III, A multi tracer analysis of thermosphere to stratosphere descent triggered by the 2013 Stratospheric Sudden Warming, *Geophys. Res. Lett.*, doi:10.1029/2014GL059860, 2014.

(48) Chandran, A., R. L. Collins, **V. L. Harvey**, Stratosphere-mesosphere coupling during stratospheric sudden warming events, *Adv. Space Research*, 53(9), 1265-1289, 2014.

(47) Jackman, C. H., C. E. Randall, **V. L. Harvey**, S. Wang, E. L. Fleming, M. Lopez-Puertas, B. Funke, and P. F. Bernath, Middle Atmospheric Changes caused by the January and March 2012 Solar Proton Events, *Atmos. Chem. Phys.*, 14, 1025-1038, doi:10.5194/acp-14-1025-2014.

(46) Holt, L. A., C. E. Randall, **E. D. Peck**, D. R. Marsh, A. K. Smith, and **V. L. Harvey**, The influence of major sudden stratospheric warming and elevated stratopause events on the effects of energetic particle precipitation in WACCM, *J. Geophys. Res.*, doi:10.1029/2013JD020294, 2013.

(45) Tweedy, O. V., V. Limpasuvan, Y. J. Orsolini, A. K. Smith, R. R. Garcia, D. Kinnison, C. E. Randall, O. K. Kvissel, F. Stordal, **V. L. Harvey**, A. Chandran, Nighttime Secondary Ozone Layer during Major Stratospheric Sudden Warmings in Specified-Dynamics WACCM, *J. Geophys. Res.*, doi:10.1029/2013JD019902, 2013.

(44) Greer, K., J. P. Thayer, and **V. L. Harvey**, A Climatology of polar winter stratopause warmings and associated planetary wave breaking, *J. Geophys. Res.*, doi:10.1029/2012JD018549, 2013.

(43) von Clarmann, T., B. Funke, M. Lopez-Puertas, S. Kellmann, A. Linden, G. P. Stiller, C. H. Jackman, and **V. L. Harvey**, The Solar Proton Events in 2012 as Observed by MIPAS, *Geophys. Res. Lett.*, doi:10.1029/2012GL054591, 2013.

(42) Smith, A. K., **V. L. Harvey**, M. G. Mlynczak, M. Garcia-Comas, M. Kaufmann, E. Kyrola, M. Lopez-Puertas, I. McDade, C. E. Randall, J. M. Russell III, P. E. Sheese, M. Shiotani, W. R. Skinner, M. Suzuki, K. A. Walker, Satellite Observations of Ozone in the Upper Mesosphere, *J. Geophys. Res.*, doi:10.1029/2012JD019201, 2013.

- (41) Chandran, A., R. L. Collins, R. R. Garcia, D. R. Marsh, **V. L. Harvey**, J. Yue, and L. de la Torre, A Climatology of Elevated Stratopause Events in the Whole Atmosphere Community Climate Model, *J. Geophys. Res.*, doi:10.1029/2012JD018030, 2013.
- (40) **France, J. A.** and **V. L. Harvey**, A Climatology of the Stratopause in WACCM and the Zonally Asymmetric Elevated Stratopause, *J. Geophys. Res.*, doi:10.1029/2012JD018796, 2013.
- (39) **France, J. A.**, **V. L. Harvey**, M. J. Alexander, C. E. Randall, and J. C. Gille, HIRDLS Observations of the Gravity Wave-driven Elevated Stratopause in 2006, *J. Geophys. Res.*, doi:10.1029/2012JD017958, 2012.
- (38) **Benze, S.**, B. Karlsson, C. E. Randall, **V. L. Harvey**, J. Lumpe, K. Nielsen, S. M. Bailey, M. Hervig, and J. M. Russell III, On the onset of polar mesospheric cloud seasons as observed by SBUV, *J. Geophys. Res.*, 117, D7, doi:10.1029/2011JD017350, 2012.
- (37) **France, J. A.**, **V. L. Harvey**, C. E. Randall, M. H. Hitchman, and M. J. Schwartz, Stratopause Height and Temperature in the Polar Vortex and Anticyclones, *J. Geophys. Res.*, doi:10.1029/2011JD016893, 2012.
- (36) **Holt, L.**, C. E. Randall, **V. L. Harvey**, E. Remsberg, G. Stiller, B. Funke, P. Bernath, and K. A. Walker, Atmospheric Effects of Energetic Particle Precipitation in the Arctic Winter 1978-1979 Revisited, *J. Geophys. Res.*, doi:10.1029/2011JD016663, 2012.
- (35) Karlsson, B., C. E. Randall, T. G. Shepherd, **V. L. Harvey**, J. Lumpe, K. Nielsen, S. M. Bailey, M. Hervig, and J. M. Russell III, On the seasonal onset of polar mesospheric clouds and the breakdown of the stratospheric polar vortex in the southern hemisphere, *J. Geophys. Res.*, doi:10.1029/2011JD015989, 2011.
- (34) Feng, W., M. P. Chipperfield, S. Davies, G. W. Mann, K. S. Carslaw, S. Dhomse, **V. L. Harvey**, C. Randall, and M. L. Santee, Modeling the effect of denitrification on polar ozone depletion for Arctic winter 2004/2005, *Atmos. Chem. Phys.*, 11, 6559–6573, 2011.
- (33) **Wheeler, D.**, **V. L. Harvey**, R. L. Collins, D. E. Atkinson, and M. J. Mills, A Climatology of Cold Air Outbreaks over North America: ERA-40 and WACCM comparison and analysis, *J. Geophys. Res.*, doi:10.1029/2011JD015711, 2011.
- (32) Thayer, J. P., **K. Greer**, and **V. L. Harvey**, Front-like behavior in the Arctic wintertime upper stratosphere and lower mesosphere, *J. Geophys. Res.*, 115, D00N04, doi:10.1029/2010JD014278, 2010.
- (31) **Thurairajah, B.**, R. L. Collins, **V. L. Harvey**, R. S. Liebermann, M. Gerding, K. Mizutani, and J. M. Livingston, Gravity Wave Activity in the Arctic Stratosphere and Mesosphere during the 2007-2008 and 2008-2009 Stratospheric Sudden Warming, *J. Geophys. Res.*, 115, D00N06, doi:10.1029/2010JD014125, 2010.

- (30) [Thurairajah, B.](#), R. L. Collins, **V. L. Harvey**, R. S. Lieberman, and K. Mizutani, Rayleigh lidar observations of reduced gravity wave activity during the formation of an elevated stratopause in 2004 at Chatanika, Alaska (65°N, 147°W), *J. Geophys. Res.*, 115, D13109, doi:10.1029/2009JD013036, 2010.
- (29) Karlsson, B., C. E. Randall, [S. Benze](#), M. Mills, **V. L. Harvey**, S. M. Bailey, and J. M. Russell III, Intra-seasonal variability of polar mesospheric clouds due to inter-hemispheric coupling, *Geophys. Res. Lett.*, 36, 20, doi:10.1029/2009GL040348, 2009.
- (28) **Harvey, V. L.**, C. E. Randall, and M. H. Hitchman, Breakdown of potential vorticity-based equivalent latitude as a vortex-centered coordinate in the polar winter mesosphere, *J. Geophys. Res.*, 114, D22, doi:10.1029/2009JD012681, 2009.
- (27) Randall, C. E., **V. L. Harvey**, D. E. Siskind, [J. France](#), P. F. Bernath, C. D. Boone, and K. A. Walker, NO<sub>x</sub> descent in the Arctic middle atmosphere in early 2009, *Geophys. Res. Lett.*, doi:10.1029/2009GL039706, 2009.
- (26) Farahani, E., N. McFarlane, R. L. Batchelor, R. L. Collins, **V. L. Harvey**, N. J. Livesey, G. L. Manney, M. L. Santee, K. Strong, and K. A. Walker, Features of the Arctic Stratosphere during IPY, Stratospheric Processes and their role in Climate (SPARC) Newsletter, July, 2009.
- (25) [Bardeen C. G.](#), O. B. Toon, E. J. Jensen, D. R. Marsh, and **V. L. Harvey**, Numerical simulations of the three-dimensional distribution of meteoric dust in the mesosphere and upper stratosphere, *J. Geophys. Res.*, 113, D17202, doi:10.1029/2007JD009515, 2008.
- (24) Nardi, B., et al., Initial Validation of Ozone Measurements from the High Resolution Dynamic Limb Sounder (HIRDLS), *J. Geophys. Res.*, 113, D16S36, doi:10.1029/2007JD008837, 2008.
- (23) Gille, J., et al., The High Resolution Dynamics Limb Sounder (HIRDLS): Experiment Overview, Recovery and Validation of Initial Temperature Data, *J. Geophys. Res.*, 113, D16S43, doi:10.1029/2007JD008824, 2008.
- (22) Kinnison, D., et al., Global Observations of HNO<sub>3</sub> from the High Resolution Dynamics Limb Sounder (HIRDLS) - First results, *J. Geophys. Res.*, 113, D16S44, doi:10.1029/2007JD008814, 2008.
- (21) **Harvey, V. L.**, C. E. Randall, G. Manney, and [S. Singleton](#), Low-ozone pockets observed by EOS-MLS, *J. Geophys. Res.*, 113, D17112, doi:10.1029/2007JD009181, 2008.
- (20) Polyakov, A., C. Randall, **V. L. Harvey**, and K. Hocke, New Improved Algorithm for Interpreting the SAGE III Occultation Measurements, *Earth Research from Space*, 31-36 (in Russian), 2008.
- (19) Manney, G. L., et al., Solar occultation satellite data and derived meteorological products: Sampling issues and comparisons with Aura Microwave Limb Sounder, *J.*

*Geophys. Res.*, 112, doi:10.1029/2007JD008709, 2007.

(18) Kinnison, D. E., et al., Sensitivity of chemical tracers to meteorological parameters in the MOZART-3 chemical transport model, *J. Geophys. Res.*, 112, doi:10.1029/2006JD007879, 2007.

(17) Singleton, C., C. E. Randall, V. L. Harvey, M. P. Chipperfield, W. Feng, G.L. Manney, L. Froidevaux, C.D. Boone, P. F. Bernath, K. A. Walker, C.T. McElroy, and K. Hoppel, Quantifying Arctic ozone loss during the 2004-2005 winter using satellite observations and a chemical transport model, *J. Geophys. Res.*, 112, doi:10.1029/2006JD007463, 2007.

(16) Randall, C. E., V. L. Harvey, S. Bailey, C. S. Singleton, P. Bernath, C. Boone, J. Russell III, H. Nakajima, D. Evans, and M. Codrescu, Energetic particle precipitation effects on the southern hemisphere stratosphere in 1992-2005, *J. Geophys. Res.*, 112, doi:10.1029/2006JD007696, 2007.

(15) Randall, C. E., V. L. Harvey, C. S. Singleton, P. F. Bernath, C. D. Boone, and J. U. Kozyra, Enhanced NO<sub>x</sub> in 2006 linked to strong upper stratospheric Arctic vortex, *Geophys. Res. Lett.*, 33, doi:10.1029/2006GL027160, 2006.

(14) Lumpe, J. D., et al., Validation of Polar Ozone and Aerosol Measurement (POAM) III version 4 stratospheric water vapor, *J. Geophys. Res.*, 111, doi:10.1029/2005JD006763, 2006.

(13) Wang, P., J. Fishman, V. L. Harvey, and M. H. Hitchman, Southern tropical upper tropospheric zonal ozone wave-1 from SAGE II observations (1985-2002), *J. Geophys. Res.*, 111, doi:10.1029/2005JD006221, 2006.

(12) Singleton, C., et al., 2002-2003 Arctic Ozone Loss Deduced from POAM III Satellite Observations and the SLIMCAT Chemical Transport Model, *Atmos. Chem. Phys.*, 5, 597-609, 2005.

(11) Randall, C. E., V. L. Harvey, G. L. Manney, Y. Orsolini, M. Codrescu, C. Sioris, S. Brohede, C. S. Haley, L. L. Gordley, J. M. Zawodny, and J. M. Russell III, Stratospheric effects of energetic particle precipitation in 2003-2004, *Geophys. Res. Lett.*, 32(5), doi:10.1029/2004GL022003, 2005.

(10) Knox, J. A., and V. L. Harvey, Global Climatology of Inertial Instability and Rossby Wave Breaking in the Stratosphere, *J. Geophys. Res.*, 110, doi:10.1029/2004JD005068, 2005.

(9) Harvey, V. L., R. B. Pierce, M. H. Hitchman, C. E. Randall, and T. D. Fairlie, On the distribution of ozone in stratospheric anticyclones, *J. Geophys. Res.*, 109, doi:10.1029/2004JD004992, 2004.

(8) Remsberg, E. E., et al., The Nimbus 7 LIMS version 6 radiance conditioning and

temperature retrieval methods and results, *Journal of Quantitative Spectroscopy and Radiative Transfer*, 86, 395-424, 2004.

(7) Poole, L. R., C. R. Trepte, **V. L. Harvey**, G. C. Toon, and R. L. Van Valkenburg, SAGE III Observations of Arctic Polar Stratospheric Clouds - December 2002, *Geophys. Res. Lett.*, 30(23), doi:10.1029/2003GL018496, 2003.

(6) Remsberg, E. E., G. S. Lingenfelter, **V. L. Harvey**, W. L. Grose, J. M. Russell III, M. L. Mlynczak, L. L. Gordley, and B. T. Marshall, On the verification of the quality of SABER temperature, geopotential height, and wind fields by comparison with Met Office assimilated analyses, *J. Geophys. Res.*, 108, 10.1029/2003JD003720, 2003.

(5) Pierce, R. B., et al., Large-scale chemical evolution of the Arctic vortex during the 1999/2000 winter: HALOE/POAM III Lagrangian photochemical modeling for the SAGE III Ozone Loss and Validation Experiment (SOLVE) campaign, *J. Geophys. Res.*, doi:10.1029/2001JD001063, 2002.

(4) **Harvey, V. L.**, R. B. Pierce, T. D. Fairlie, and M. H. Hitchman, An object oriented climatology of stratospheric polar vortices and anticyclones, *J. Geophys. Res.*, doi:10.1029/2001JD001471, 2002.

(3) **Harvey, V. L.**, M. H. Hitchman, R. B. Pierce, and T. D. Fairlie, Tropical aerosol in the Aleutian High, *J. Geophys. Res.*, 104, 6281-6290, 1999.

(2) Hitchman, M. H., et al., Mean winds in the tropical stratosphere and mesosphere during January 1993, March 1994, and August 1994, *J. Geophys. Res.*, 102, 26033-26052, 1997.

(1) **Harvey, V. L.**, and M. H. Hitchman, A climatology of the Aleutian High, *J. Atmos. Sci.*, 53, 2088-2101, 1996.

## Unrefereed Conference Proceedings (Students that I Advise or Mentor)

Remsberg, E. E., and **V. L. Harvey**, Effects of polar stratospheric clouds within the Nimbus 7 LIMS version 6 dataset for the Arctic winter of 1978-1979, *European Geosciences Union General Assembly*, Vienna, Austria, 17-22 April 2016.

Goncharenko, L. P., A. J. Coster, S.-R.Zhang, P. J. Erickson, N. Aponte, **V. L. Harvey**, N. Pedatella, A. Maute, Impacts of sudden stratospheric warmings on the ionosphere and thermosphere worldwide, *European Geosciences Union General Assembly*, Vienna, Austria, 17-22 April 2016 (invited).

Simpson, W. R., R. L. Collins, and **V. L. Harvey**, Observing the Arctic Ozone Layer, Stratosphere, and Mesosphere, *Arctic Science Summit Week-Arctic Observing Summit 2016*, Fairbanks, Alaska, 12-18 March, 2016.

**France, J. A.**, C. E. Randall, **V. L. Harvey**, CIPS observations of the quasi 5-day planetary wave, *ATOC Poster Conference*, Boulder, Colorado, 13 November, 2015.

Randall, C. E., et al., NO<sub>x</sub> descent in 2004 and 2009 in WACCM, *HEPPA/SOLARIS Workshop*, Boulder, Colorado, 4-6 November, 2015.

**Harvey, V. L.**, Status of the RAISE Public Web Page, *RAISE Meeting*, Boulder, Colorado, 3 November, 2015.

Kinnison, D., et al., Status of WACCM Simulations for Data/Model Intercomparisons, *RAISE Meeting*, Boulder, Colorado, 3 November, 2015.

**France, J. A.**, C. E. Randall, **V. L. Harvey**, The 5-day wave during the AIM PMC seasons, *AIM Science Team Meeting*, Boulder, Colorado, 28 October, 2015.

**Harvey, V. L.**, SRIP Status Report on Chapter 11: The Upper Stratosphere and Lower Mesosphere, *SPARC Reanalysis Intercomparison Project Workshop*, Paris, France, 13 October, 2015.

Randall, C. E., et al., Interhemispheric coupling in the CIPS data, *Layered Phenomena in the Mesopause Region (LPMR) Workshop*, Boulder, Colorado, August, 2015 (invited).

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