

## **Curriculum Vitae**

**Henry E. Fuelberg**

April 17, 2022

### **General Information**

University address: Meteorology  
Earth, Ocean & Atmospheric Sciences  
College of Arts and Sciences  
EOA 6083  
Florida State University  
Tallahassee, Florida 32306-4520  
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### **Professional Preparation**

1976            Ph.D., Texas A&M University. Major: Meteorology.  
1971            M.S., Texas A&M University. Major: Meteorology.  
1970            B.S., Texas A&M University. Major: Meteorology.

### **Professional Experience**

2005–present    David Stuart Professor of Meteorology, Earth, Ocean and Atmospheric  
Science, Florida State University.  
1994–2005      Professor of Meteorology, Earth, Ocean & Atmospheric Science, Florida State  
University.  
1985–1994      Associate Professor of Meteorology, Florida State University.  
1980–1985      Associate Professor of Meteorology, Earth and Atmospheric Science, Saint  
Louis University.  
1977–1980      Assistant Professor of Meteorology, Earth and Atmospheric Sciences, Saint  
Louis University.

### **Honors, Awards, and Prizes**

Outstanding Graduate Teaching Award, Florida State University (2015).  
Group Achievement Award--SEAC4RS, NASA (2014).  
Group Achievement Award-GRIP, NASA (2011).  
Teaching Excellence Award, American Meteorological Society (2011).  
Group Achievement Award--ARCTAS, NASA (2009).  
Outstanding Graduate Mentoring, Florida State University (2008).  
Outstanding Undergraduate Advising, Florida State University (2008).  
Group Achievement Award--INTEX B, NASA (2007).  
Outstanding Undergraduate Teaching Award, Florida State University (2007).  
Group Achievement Award--INTEX-A, NASA (2005).  
Group Achievement Award--SONEX, NASA (1998).  
Outstanding Undergraduate Advisor, Florida State University (1990).

### **Elected Fellow Status**

Elected as a Fellow of American Meteorological Society (2016).

### **Current Membership in Professional Organizations**

American Geophysical Union  
American Meteorological Society  
National Weather Association

### **Teaching**

#### **Courses Taught**

Chemistry Transport Model (MET6906)  
Directed Individual Study (MET4905)  
Honors Work (MET4900)  
WRF Modeling III (MET5905)  
Advanced Synoptic Lecture-Laboratory I (MET5505C)  
Synoptic Lecture-Laboratory I: Basic Analysis Techniques (MET4500C)  
Master's Seminar (MET5930)  
Introduction to the Atmosphere (MET1010)  
Doctoral Seminar (MET6930)  
Meso-Meteorology Lecture Laboratory (MET5511C)  
Meteorology Internship (MET4945)  
Selected Topics in Meteorology (MET4159)  
Operational Meteorology (MET5906)  
Directed Individual Study (MET5905)  
Undergraduate Research (GLY4915)

Directed Individual Study (MET6906)  
Lightning DA (MET6906)  
Numerical Weather Prediction (MET6906)  
Southeast Asia Pollution (MET6906)  
Tropical Cyclone Simulation (MET6906)  
Cloud dynamics & microphysics (MET6906)  
GFS Reforecasts (MET6906)  
GFS TC Precip Fcst (MET6906)  
NCAR Command Language (MET6906)  
Python Programming (MET6906)  
Satellite Instrumentation (MET6906)  
Strategic Ensembling (MET6906)  
Tropical Cyclone Structure (MET6906)  
WRF Modeling IV (MET5905)  
Model Analysis (MET6906)  
Programming in R (MET6906)  
Scientific Publishing (MET6906)  
TC Rainfall (MET6906)  
Meso-Met (MET4905)  
Meso-Met Lab (MET4905)  
Meso-Meteorology Lecture Laboratory (MET5511)  
Advanced Synoptic Lecture-Laboratory I (MET5505)  
Synoptic Lecture-Laboratory I: Basic Analysis Techniques (MET4500)  
General Meteorology (MET2700)

### **Doctoral Committee Chair**

Hall, T., graduate. (2019).  
Preston, A., graduate. (2017).  
Marchand, M. R., graduate. (2016).  
Heath, N. K., graduate. (2015).  
Hansen, A. E., graduate. (2012).  
Hayes, P. D., graduate. (2011).  
Peffer, L. T., graduate. (2011).  
Rudlosky, S. D., graduate. (2011).  
Stano, G. T., graduate. (2007).  
Shafer, P. E., graduate. (2007).  
Kiley, C. M., graduate. (2006).  
Hannan, J. R., graduate. (2002).  
Knabb, R., graduate. (1999).  
Rao, A., graduate. (1998).  
Muller, B., graduate. (1994).  
Belt, C., graduate. (1988).  
Curtis, W. S., doctoral candidate.  
Gard, T. L., doctoral candidate.

Mersiovsky, H. T., doctoral student.

### **Doctoral Committee Cochair**

Porter, M. J., graduate. (2022).

Halperin, D., graduate. (2015).

Ou, Mi-Lim, graduate. (2003).

### **Doctoral Committee Member**

Nissenbaum, M. R., graduate. (2021).

Brannan, A. L., graduate. (2021).

Mackey, B. P., graduate. (2020).

Ahern, K. K., graduate. (2019).

Krishnamurthy, N., graduate. (2018).

Hazelton, A. T., graduate. (2016).

Waller, J. S., graduate. (2010).

Fite, C., doctoral candidate.

### **Doctoral Committee University Representative**

Prather, B. R., graduate. (2021).

Parker, J. J., graduate. (2017).

Baker, J. A., graduate. (2016).

Kuvin, S. A., graduate. (2016).

Strazzo, S. E., graduate. (2015).

Santiago Gonzalez, D., graduate. (2013).

Santiago Gonzalez, D., graduate. (2013).

Amusan, I. O., graduate. (2013).

Peplowski, P. N., graduate. (2009).

McCann, G. W., doctoral candidate.

Temanson, E. S., doctoral student.

### **Master's Committee Chair**

Clear, V. R., student.

Mersiovsky, H. T., student.

Skeen, C. A., graduate. (2021).

Curtis, W. S., graduate. (2020).

Bowen, C. E., graduate. (2020).

Gard, T. L., graduate. (2020).

Sava, A. M., graduate. (2020).

MacNamara, B. R., graduate. (2019).  
Patton, J. R., graduate. (2017).  
Allison, T. D., graduate. (2016).  
Davey, M., graduate. (2016).  
Hall, T., graduate. (2014).  
Lahr, A. D., graduate. (2014).  
Seay, B. A., graduate. (2014).  
Riggi, A. G., graduate. (2013).  
Klich, C. A., graduate. (2012).  
Preston, A., graduate. (2012).  
Visco, T., graduate. (2012).  
Reinhart, B. J., graduate. (2012).  
Halperin, D., graduate. (2012).  
Tamurian, Z. M., graduate. (2012).  
Wagner, G. A., graduate. (2011).  
Austin, M. D., graduate. (2011).  
Taylor, Z. B., graduate. (2011).  
Harrigan, D. L., graduate. (2010).  
Martinaitis, S. M., graduate. (2008).  
Peffer, L. T., graduate. (2008).  
Sullivan, J., graduate. (2008).  
Halland, J., graduate. (2007).  
Rudlosky, S. D., graduate. (2007).  
Turnage, T., graduate. (2007).  
VanCleve, D., graduate. (2006).  
Morse, D., graduate. (2005).  
Marzen, J., graduate. (2004).  
Shafer, P., graduate. (2004).  
Winarchick, J., graduate. (2004).  
Lericos, T., graduate. (2003).  
Stroupe, J., graduate. (2003).  
Kiley, C., graduate. (2002).  
Mrocza, B., graduate. (2002).  
Jarvis, M., graduate. (2001).  
Margolin, D., graduate. (2001).  
Martin, B., graduate. (2001).  
Maloney, J., graduate. (2000).  
Bieberbach, G., graduate. (1999).  
Cantrell, graduate. (1999).  
Duke, M., graduate. (1999).  
Hannan, J., graduate. (1999).  
Lusher, R., graduate. (1999).  
Peffer, L., graduate. (1999).  
Stellman, K., graduate. (1999).  
Board, A., graduate. (1998).  
Kelly, J., graduate. (1998).

Cetola, J., graduate. (1997).  
Cupo, J., graduate. (1997).  
Lenning, E., graduate. (1997).  
Longmore, S., graduate. (1997).  
Watson, M., graduate. (1996).  
Loring, R., graduate. (1995).  
Rao, A., graduate. (1995).  
VanAusdall, J., graduate. (1995).  
Hoepner, W., graduate. (1993).  
Knabb, R., graduate. (1993).  
Nichols, M., graduate. (1993).  
Baker, M., graduate. (1992).  
Biggar, D., graduate. (1992).  
Bradshaw, T., graduate. (1991).  
Guillory, A., graduate. (1991).  
Breidenbach, J., graduate. (1990).  
Olson, S., graduate. (1990).  
Beven, J., graduate. (1988).  
Hevrdeys, G., graduate. (1988).  
Muller, B., graduate. (1988).  
Schudalla, R., graduate. (1988).  
Andrews, M., graduate. (1987).  
Moore, S., graduate. (1987).  
Buechler, D., graduate. (1985).  
Funk, T., graduate. (1985).  
Meyer, P., graduate. (1985).  
Stewart, graduate. (1985).  
Remeika, M., graduate. (1984).  
Ruminski, M., graduate. (1984).  
Printy, M., graduate. (1983).  
Browning, P., graduate. (1982).  
Jedlovec, G., graduate. (1981).  
Duzgun, C., student.

#### **Master's Committee Member**

Dmitruk, G. M. D., graduate. (2020).  
Kung, J. J., graduate. (2020).  
Wirks, C. K., graduate. (2019).  
Doane, J. B., graduate. (2019).  
Dawson, M. G., graduate. (2017).  
Jo, E., graduate. (2017).  
Visin, L. E., graduate. (2016).  
Bielli, J. A., graduate. (2015).  
Ahern, K. K., graduate. (2015).  
Belles, J., graduate. (2015).

Hazelton, A. T., graduate. (2013).  
Meech, S. P., graduate. (2013).  
Christman, R. E., graduate. (2011).  
Moeller, L. E., graduate. (2011).  
Frumkin, A. J., graduate. (2011).  
Truchelut, R. E. J., graduate. (2011).  
Sherrod, T. J. M., student.  
Smoot, A., student.

### **Bachelor's Committee Chair**

Anand, M., graduate. (2020). *Investigating Causes of the Flooding Event Near Tallahassee of December 2-3, 2018.*

Clear, V., graduate. (2020). *High Resolution Lightning Climatologies in the Orlando, FL Area.*

Lappin, F., graduate. (2019). *Study of Derechos.* [UROP Program]

Leahy, C., graduate. (2018). *Know Your Risk: What hour is lightning most likely in Tallahassee.* [UROP Program]

Mazzetti, T., graduate. (2016). *Lightning Flash Rates.* [Honors in the Major]

Freeman, S., graduate. (2014). *Vertical transport of sea salt in typhoons.*

Ahern, K., graduate. (2013). *Analysis of Convective Transport of Biomass Burning Emissions in Southeast Asia.* [Honors in the Major]

Jackson, K., graduate. (2013). *IC to CG ratio distributions in the Tallahassee NWS forecast region.*

Trombetta, N., graduate. (2013). *HYSPLIT analysis of topographic influences on Colorado fires.*

Kalina, E., graduate. (2010). *Predicting the initiation of cloud-to-ground lightning.*

Sitkowski, M., graduate. (2003). *Determining precipitation frequencies over the southern United States.*

Nicholas Amundsen, student. *Forecasting Extreme Low Level Turbulence at Salt Lake City.*

Randy Gaynor, student. *The Impact of Thunderstorm Injection of Wildfire Smoke on the Polarity of Lightning Flashes.*

Jacob Azriel, student. *A Study of the EF-3 Tornado in Easter Leon County.*

### **Bachelor's Committee Member**

Agastra, A., graduate. (2020).  
Hollis, M., graduate. (2019).

### **Additional Teaching Not Reported Elsewhere**

Fuelberg, H. (2009–2016). *Guest Lecturer*. NASA Student Airborne Program (SARP).

### **Research and Original Creative Work**

#### **Publications**

#### **Refereed Journal Articles**

- Gard, T., Fuelberg, H., & Cintineo, J. The Utility of ProbSevere v2.0 for Predicting Pulse Severe Thunderstorms. *Weather and Forecasting*. Manuscript submitted for publication.
- MacNamara, B., Schultz, C., & Fuelberg, H. (2020). Flash Characteristics and Precipitation Metrics of Western U.S. Lightning Initiated Wildfires from 2017. *Fire*, 3, 20. doi:doi:10.3390/fire3010005
- Preston, A. D., Fuelberg, H. E., & Barth, M. (2019). Simulation of chemical transport by Typhoon Mireille (1991). *Journal of Geophysical Research*, 11614-11639. doi:https://doi.org/10.1029/2019JD030446
- Patton, J. R., & Fuelberg, H. E. (2019). Using radar-derived parameters to develop probabilistic guidance for lightning cessation within isolated convection near Cape Canaveral, Florida. *Weather and Forecasting*. doi:https://doi.org/10.1175/WAF-D-18-0144.1
- Allison, T., Fuelberg, H., & Heath, N. (2018). Simulations of Vertical Water Vapor Transport for TC Ingrid (2013). *Journal of Geophysical Research-Atmospheres*, 123, 1-28. doi:https://doi.org/10.1029/2018JD028334
- Mazzetti, T. O., & Fuelberg, H. E. (2017). An analysis of lightning flash rates over Florida. *Journal of Geophysical Research-Atmospheres*, 122, 1. doi:https://doi.org/10.1002/2017JD027579
- Teegavarapu, R., Aly, A., Pathak, C., Ahlquist, J., Fuelberg, H., & Hood, J. (2017). Infilling missing precipitation records using variants of spatial interpolation and data-driven methods: Use of optimal weighting parameters and nearest neighbor-based corrections. *International Journal of Climatology*, 1-2. doi:10.1002/joc.5209
- Halperin, D. J., Hart, R. E., Fuelberg, H. E., & Cossuth, J. H. (2017). The development and evaluation of a statistical-dynamical tropical cyclone genesis guidance tool. *Weather and Forecasting*, 32, 27-46.
- Davey, M. J., & Fuelberg, H. E. (2017). Using radar-derived parameters to forecast lightning cessation for nonisolated storms. *Journal of Geophysical Research--Atmospheres*, 1-2. doi:10.1002/2016JD025734



- Heath, N. J., Fuelberg, H. E., Tanelli, S., Turk, F. J., Lawson, R. P., Woods, S., & Freeman, S. (2017). WRF nested large-eddy simulations of deep convection during SEAC4RS. *Journal of Geophysical Research--Atmospheres*, 1-2. doi:10.1002/2016JD025465
- Halperin, D. J., Fuelberg, H. E., Hart, R. E., & Cossuth, J. H. (2016). Verification of Tropical Cyclone Genesis Forecasts from Global Numerical Models: Comparisons between the North Atlantic and Eastern North Pacific Basins. *Weather and Forecasting*, 31(3), 947-955. doi:10.1175/waf-d-15-0157.1
- Preston, A. D., & Fuelberg, H. E. (2015). Improving Lightning Cessation Guidance Using Polarimetric Radar Data. *Weather and Forecasting*, 30(2), 308-328. doi:10.1175/waf-d-14-00031.1
- Onderlinde, M. J., & Fuelberg, H. E. (2014). A parameter for forecasting tornadoes associated with landfalling tropical cyclones. *Wea. Forecasting*, 29, 1238-1255.
- Marchand, M. R., & Fuelberg, H. E. (2014). Assimilation of lightning data using a nudging method involving low-level warming. *Mon. Wea. Rev.*, 142, 4850-4871.
- Fuelberg, H. E., Walsh, R. J., & Preston, A. D. (2014). The extension of lightning flashes from thunderstorms near Cape Canaveral, Florida. *J. Geophys. Res.*, 119, 9965-9979. doi:10.1002/2014JD022105
- Klich, C. A., & Fuelberg, H. E. (2014). The role of horizontal model resolution in assessing the transport of CO in a middle latitude cyclone using WRF-Chem. *Atmospheric Chemistry and Physics*, 14(2), 609-627. doi:10.5194/acp-14-609-2014
- Reinhart, B., Fuelberg, H., Blakeslee, R., Mach, D., Heymsfield, A., Bansemmer, A., Durden, S. L., Tanelli, S., Heymsfield, G., & Lambrigtsen, B. (2014). Understanding the Relationships between Lightning, Cloud Microphysics, and Airborne Radar-Derived Storm Structure during Hurricane Karl (2010). *Monthly Weather Review*, 142(2), 590-605. doi:10.1175/mwr-d-13-00008.1
- Heath, N. K., & Fuelberg, H. E. (2014). Using a WRF simulation to examine regions where convection impacts the Asian summer monsoon anticyclone. *Atmospheric Chemistry and Physics*, 14(4), 2055-2070. doi:10.5194/acp-14-2055-2014
- Atkinson, D. E., Sassen, K., Hayashi, M., Cahill, C. F., Shaw, G., Harrigan, D., & Fuelberg, H. (2013). Aerosol properties over Interior Alaska from lidar, DRUM Impactor sampler, and OPC-sonde measurements and their meteorological context during ARCTAS-A, April 2008. *Atmospheric Chemistry and Physics*, 13(3), 1293-1310. doi:10.5194/acp-13-1293-2013

- Halperin, D. J., Fuelberg, H. E., Hart, R. E., Pasch, R. J., Cossuth, J. C., & Sura, P. (2013). An evaluation of tropical cyclone genesis forecasts from global numerical models. *Wea. Forecasting*, *28*, 1423-1445.
- Rudlosky, S. D., & Fuelberg, H. E. (2013). Documenting storm severity in the Mid-Atlantic region using lightning, radar, and sounding information. *Mon. Weather Rev*, *141*, 3186-3202.
- Bian, H., Colarco, P. R., Chin, M., Chen, G., Rodriguez, J. M., Liang, Q., Blake, D., Chu, D. A., da Silva, A., Darmenov, A. S., Diskin, G., Fuelberg, H. E., Huey, G., Kondo, Y., Nielsen, J. E., Pan, X., & Wisthaler, A. (2013). Source attributions of pollution to the Western Arctic during the NASA ARCTAS field campaign. *Atmospheric Chemistry and Physics*, *13*(9), 4707-4721. doi:10.5194/acp-13-4707-2013
- Klich, C. A., & Fuelberg, H. E. (2013). The role of horizontal model resolution in assessing the transport of CO in a middle latitude cyclone using WRF-Chem. *Atmos. Chem. Phys*, *14*, 609-627.
- Reinhart, B., Fuelberg, H. E., Blakeslee, R., Mach, D., Heymsfield, A., Bansemer, A., & Lambriksen, B. (2013). Understanding the Relationships between Lightning, Cloud Microphysics, and Airborne Radar-Derived Storm Structure during Hurricane Karl (2010). *Mon. Wea. Rev*, *142*, 590-605.
- Heath, N. K., & Fuelberg, H. E. (2013). Using a WRF simulation to examine regions where convection impacts the Asian summer monsoon anticyclone. *Atmos. Chem. Phys*, *14*, 2055-2070.
- Apel, E. C., Olson, J. R., Crawford, J. H., Hornbrook, R. S., Hills, A. J., Cantrell, C. A., Emmons, L. K., Knapp, D. J., Hall, S., Mauldin, III, R. L., Weinheimer, A. J., Fried, A., Blake, D. R., Crouse, J. D., St Clair, J. M., Wennberg, P. O., Diskin, G. S., Fuelberg, H. E., Wisthaler, A., Mikoviny, T., Brune, W., & Riemer, D. D. (2012). Impact of the deep convection of isoprene and other reactive trace species on radicals and ozone in the upper troposphere. *ATMOSPHERIC CHEMISTRY AND PHYSICS*, *12*(2), 1135-1150. doi:10.5194/acp-12-1135-2012
- Matsui, H., Kondo, Y., Moteki, N., Takegawa, N., Sahu, L. K., Koike, M., Zhao, Y., Fuelberg, H. E., Sessions, W. R., Diskin, G., Anderson, B. E., Blake, D. R., Wisthaler, A., Cubison, M. J., & Jimenez, J. L. (2011). Accumulation-mode aerosol number concentrations in the Arctic during the ARCTAS aircraft campaign: Long-range transport of polluted and clean air from the Asian continent. *JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES*, *116*, 1-x. doi:10.1029/2011JD016189
- Jimenez, J. L., Cubison, M. J., Ortega, A. M., Hayes, P. L., Farmer, D. K., Day, D. A., Lechner, M. J., Brune, W. H., Apel, E., Diskin, G. S., Fisher, J. A., Fuelberg, H. A., Hecobian, A., Knapp, D. J., Mikoviny, T., Riemer, D., Sachse, G. W., Sessions, W., Weber, R. J., Weinheimer, A. J., & Wisthaler, A. (2011). Effects of aging on organic aerosol from

open biomass burning smoke in aircraft & lab studies. *ABSTRACTS OF PAPERS OF THE AMERICAN CHEMICAL SOCIETY*, 242, 1-x.

- Kondo, Y., Matsui, H., Moteki, N., Sahu, L., Takegawa, N., Kajino, M., Zhao, Y., Cubison, M. J., Jimenez, J. L., Vay, S., Diskin, G. S., Anderson, B., Wisthaler, A., Mikoviny, T., Fuelberg, H. E., Blake, D. R., Huey, G., Weinheimer, A. J., Knapp, D. J., & Brune, W. H. (2011). Emissions of black carbon, organic, and inorganic aerosols from biomass burning in North America and Asia in 2008. *JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES*, 116, 1-x. doi:10.1029/2010JD015152
- Matsui, H., Kondo, Y., Moteki, N., Takegawa, N., Sahu, L. K., Zhao, Y., Fuelberg, H. E., Sessions, W. R., Diskin, G., Blake, D. R., Wisthaler, A., & Koike, M. (2011). Seasonal variation of the transport of black carbon aerosol from the Asian continent to the Arctic during the ARCTAS aircraft campaign. *JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES*, 116, 1-x. doi:10.1029/2010JD015067
- Matsui, H., Kondo, Y., Moteki, N., Takegawa, N., Sahu, L. K., Koike, M., Zhao, Y., Fuelberg, H. E., Sessions, W. R., Diskin, G., Anderson, B. E., Blake, D. R., Wisthaler, A., Cubison, M. J., & Jimenez, J. L. (2011). Accumulation-mode aerosol number concentrations in the Arctic during the ARCTAS aircraft campaign: Long-range transport of polluted and clean air from the Asian continent. *Journal of Geophysical Research-Atmospheres*, 116, 1-2. doi:10.1029/2011jd016189
- Sessions, W. A., Fuelberg, H. E., Kahn, R. A., & Winker, M. M. (2011). An investigation of methods for injecting emissions from boreal wildfires using WRF-Chem during ARCTAS. *Atmos. Chem Phys*, 11, 5719-5744.
- Simpson, I. J., Akagi, S. K., Barletta, B., Blake, N. J., Choi, Y., Diskin, G. S., Fried, A., Fuelberg, H. E., Meinardi, S., Rowland, F. S., Vay, S. A., Weinheimer, A. J., Wennberg, P. O., Wiebring, P., Wisthaler, A., Yang, M., Yokelson, R. J., & Blake, D. R. (2011). Boreal forest fire emissions in fresh Canadian smoke plumes: C-1-C-10 volatile organic compounds (VOCs), CO<sub>2</sub>, CO, NO<sub>2</sub>, NO, HCN and CH<sub>3</sub>CN. *ATMOSPHERIC CHEMISTRY AND PHYSICS*, 11(13), 6445-6463. doi:10.5194/acp-11-6445-2011
- Fried, A., Cantrell, C., Olson, J., Crawford, J. H., Weibring, P., Walega, J., Richter, D., Junkermann, W., Volkamer, R., Sinreich, R., Heikes, B. G., O'Sullivan, D., Blake, D. R., Blake, N., Meinardi, S., Apel, E., Weinheimer, A., Knapp, D., Perring, A., Cohen, R. C., Fuelberg, H., Shetter, R. E., Hall, S. R., Ullmann, K., Brune, W. H., Mao, J., Ren, X., Huey, L. G., Singh, H. B., Hair, J. W., Riemer, D., Diskin, G., & Sachse, G. (2011). Detailed comparisons of airborne formaldehyde measurements with box models during the 2006 INTEX-B and MILAGRO campaigns: potential evidence for significant impacts of unmeasured and multi-generation volatile organic carbon compounds. *Atmospheric Chemistry and Physics*, 11(22), 11867-11894. doi:10.5194/acp-11-11867-2011
- Cubison, M. J., Ortega, A. M., Hayes, P. L., Farmer, D. K., Day, D., Lechner, M. J., Brune, W. H., Apel, E., Diskin, G. S., Fisher, J. A., Fuelberg, H. E., Hecobian, A., Knapp, D. J., Mikoviny, T., Riemer, D., Sachse, G. W., Sessions, W., Weber, R. J., Weinheimer, A. J.,

- Wisthaler, A., & Jimenez, J. L. (2011). Effects of aging on organic aerosol from open biomass burning smoke in aircraft and laboratory studies. *Atmospheric Chemistry and Physics*, *11*(23), 12049-12064. doi:10.5194/acp-11-12049-2011
- Kondo, Y., Matsui, H., Moteki, N., Sahu, L., Takegawa, N., Kajino, M., Zhao, Y., Cubison, M. J., Jimenez, J. L., Vay, S., Diskin, G. S., Anderson, B., Wisthaler, A., Mikoviny, T., Fuelberg, H. E., Blake, D. R., Huey, G., Weinheimer, A. J., Knapp, D. J., & Brune, W. H. (2011). Emissions of black carbon, organic, and inorganic aerosols from biomass burning in North America and Asia in 2008. *Journal of Geophysical Research-Atmospheres*, *116*, 1-2. doi:10.1029/2010jd015152
- Hornbrook, R. S., Blake, D. R., Diskin, G. S., Fried, A., Fuelberg, H. E., Meinardi, S., Mikoviny, T., Richter, D., Sachse, G. W., Vay, S. A., Walega, J., Weibring, P., Weinheimer, A. J., Wiedinmyer, C., Wisthaler, A., Hills, A., Riemer, D. D., & Apel, E. C. (2011). Observations of nonmethane organic compounds during ARCTAS - Part 1: Biomass burning emissions and plume enhancements. *ATMOSPHERIC CHEMISTRY AND PHYSICS*, *11*(21), 11103-11130. doi:10.5194/acp-11-11103-2011
- Rudlosky, S. D., & Fuelberg, H. E. (2011). Pre- and postupgrade distributions of NLDN reported cloud- to-ground lightning characteristics in the contiguous United States. *Mon. Wea. Rev*, *138*, 3623-3633.
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Fuelberg, H. E., & Scoggins, J. R. (1977). RELATIONSHIP BETWEEN KINETIC-ENERGY BUDGET AND INTENSITY OF CONVECTION. *Bulletin of the American Meteorological Society*, 58(7), 683-683.

Arnold, J. E., Scoggins, J. R., & Fuelberg, H. E. (1976). COMPARISON BETWEEN NIMBUS-5 THIR AND ITPR TEMPERATURES AND DERIVED WINDS WITH RAWINSONDE DATA OBTAINED IN AVE-2 EXPERIMENT. *Bulletin of the American Meteorological Society*, 57(8), 1080-1080.

## **Presentations**

### **Invited Papers at Conferences**

Fuelberg, H. E., & Allison, T. D. (presented 2016). *Comparing and verifying WRF simulations of water vapor for TC Ingrid (September 2013)*. Paper presented at 18th Conference on Atmospheric Chemistry, American Meteorological Society, New Orleans, LA. (National)

### Nonrefereed Papers at Conferences

- Mersiovsky, H., & Fuelberg, H. E. (presented 2022, January). *Improved Numerical Modeling at Cape Canaveral, Florida*. Paper presented at Annual Meeting, American Meteorological Society, Houston. (National)
- Gard, T., Fuelberg, H. E., & Cintineo, J. (presented 2022, January). *The Utility of ProbSevere v2.0 for Predicting Pulse Severe Thunderstorms*. Paper presented at Annual Meeting, American Meteorological Society, Houston. (National)
- Lanicci, J., Allison, T., & Fuelberg, H. (presented 2019, November). *Analysis of a sub-tropical cyclone over Florida in the present and projected future climates*. Paper presented at CERF 2019 25th Biennial Conference, Coastal and Estuarine Research Federation, Mobile, AL. (National)
- Lanicci, J., Allison, T., & Fuelberg, H. (presented 2019, November). *Analysis of a sub-tropical cyclone over Florida in the present and projected future climates*. Paper presented at CERF 2019 25th Biennial Conference, Coastal and Estuarine Research Federation, Mobile, AL. (National)
- Lappin, F. M., & Fuelberg, H. E. (presented 2019, January). *Effects of changing land use on simulated convective systems in the Florida panhandle*. Paper presented at 18th Annual Student Conference-Mesoscale Meteorology, American Meteorological Society, Phoenix, AZ. (International)
- Lanicci, J., Allison, T., & Fuelberg, H. (presented 2018). *Numerical Modeling of a Heavy Rainfall Event in a Future Climate*. Paper presented at 31st Conf. Climate Variability and Change, American Meteorological Society, Austin. (National)
- Lanicci, J., Allison, T., & Fuelberg, H. (presented 2017). *Numerical modeling of a heavy rainfall event in present and future climates*. Paper presented at 27th Conf. Climate Change and Variability, American Meteorological Society, Seattle. (International)
- Marchand, M., & Fuelberg, H. E. (presented 2016). *Assimilation of lightning observations and GOES infrared imagery at convection-permitting scales*. Paper presented at 4th American Meteorological Society Symposium on the Joint Center for Satellite Data Assimilation, American Meteorological Society, New Orleans, LA. (National)
- Fuelberg, H. E., & Allison, T. D. (presented 2016). *Comparing and verifying WRF simulations of water vapor for TC Ingrid (September 2013)*. Paper presented at 18th Conference on Atmospheric Chemistry, American Meteorological Society, New Orleans, LA. (National)
- Marchand, M., & Fuelberg, H. E. (presented 2016). *Precipitation forecast verification from operational weather models*. Paper presented at 6th Conference on Transition from Research to Operations, American Meteorological Society, New Orleans, LA. (National)

Preston, A., & Fuelberg, H. E. (presented 2016). *The impact of tropical cyclones on atmospheric chemistry using WRF-Chem and satellite observations*. Paper presented at 18th Conference of Atmospheric Chemistry, American Meteorological Society, New Orleans, LA. (National)

Hall, T. J., Fuelberg, H. E., & Hart, R. E. (presented 2016). *U.S. Tropical cyclone precipitation characteristics based on NCEP STIV and GFS data*. Paper presented at 14th Symposium on the Coastal Environment, American Meteorological Society, New Orleans, LA. (National)

Freeman, S., & Fuelberg, H. (presented 2015). *A high resolution atmospheric chemistry simulation of Hurricane Sandy (2012)*. Paper presented at 17th Conference of Atmospheric Chemistry, American Meteorological Society, Phoenix, AZ. (National)

Halperin, D. J., Hart, R. E., Fuelberg, H. E., & Cossuth, J. (presented 2015). *Developing a tropical cyclone genesis forecast tool using global model output*. Paper presented at 5th Conference on Transition of Research to Operations, American Meteorological Society, Phoenix, AZ. (National)

Halperin, D. J., Hart, R., Fuelberg, H. E., & Cossuth, J. (presented 2015). *Developing a tropical cyclone genesis forecast tool: Updates on real-time operations, accuracy, and capabilities*. Paper presented at 69th Interdepartmental Hurricane Conference, NOAA-NHC. (National)

Marchand, M., & Fuelberg, H. (presented 2014). *Assimilation of lightning data using a nudging method involving low-level warming*. Paper presented at 2nd Symposium on the Joint Center for Satellite Data Assimilation, American Meteorological Society, Atlanta, GA. (National)

Heath, N., Fuelberg, H. E., Tanelli, S., & Turk, J. (presented 2014). *Convection during SEARC4RS: Comparing aircraft observations to WRF large-eddy simulations*. Paper presented at 2014 Fall American Geophysical Union Meeting, AGU, San Francisco, CA. (National)

Thompson, A. M., Ott, L. E., Duncan, J. C., Witte, J. C., Selkirk, H. B., Miller, S. K., Stauffer, R. M., Morris, G. A., Fuelberg, H. E., Fishman, J., Wilkins, K. R., Minschwaner, K. R., Johnson, B. J., & Newchurch, M. J. (presented 2014). *Overview of ozone variability during SEAC4RS from the SEACIONS ozonesonde network*. Paper presented at 2014 Fall American Geophysical Union Meeting, American Geophysical Union, San Francisco, CA. (National)

Freeman, S., Heath, S. N., & Fuelberg, H. (presented 2014). *Simulated convectively influenced vs. lightning influenced air: Methods for calculation and associated uncertainties*. Paper presented at 2014 Fall American Geophysical Union Meeting, AGU, San Francisco, CA. (National)

- Halperin, D. J., Hart, R. E., Fuelberg, H. E., & Cossuth, J. H. (presented 2014). *Tropical cyclone genesis: Verifying historical forecasts and developing a statistical model from NWP output*. Paper presented at 68th Interdepartmental Hurricane Conference, American Meteorological Society, Miami. (National)
- Halperin, D. J., Fuelberg, H. E., Hart, R. E., & Cossuth, J. (presented 2014). *Verification of TC genesis forecasts from global models: Updates and real-time applications*. Paper presented at 31st AMS Conference on Hurricanes and Tropical Meteorology, American Meteorological Society, San Diego, CA. (National)
- Halperin, D. J., Fuelberg, H. E., Hart, R. E., & Cossuth, J. H. (presented 2013). *An evaluation of tropical cyclone genesis forecasts from five global models over the North Atlantic and Eastern North Pacific basins has been submitted for conference*. Paper presented at 4th International Summit on Hurricanes and Climate Change, AGU, Kos, Greece. (International)
- Marchand, M., & Fuelberg, H. E. (presented 2013). *Assimilating lightning data into WRF using a nudging approach that modifies the vertical profiles of temperature and humidity*. Paper presented at Joint Satellite Data Assimilation Symposium, American Meteorology Society, Austin, TX. (National)
- Marchand, M., & Fuelberg, H. E. (presented 2013). *Assimilation of lightning data using a nudging method involving low-level warming*. Paper presented at 2013 GLM Annual Science Team Meeting, GLM, Huntsville, AL. (National)
- Halperin, D. J., Fuelberg, H. E., Hart, R. E., & Cossuth, J. H. (presented 2013). *Determining relevant parameters for a statistical tropical cyclone genesis tool based upon global model output*. Paper presented at 2013 American Geophysical Union Fall Meeting, American Geophysical Union, San Francisco, CA. (National)
- Fuelberg, H. E. (presented 2013). *How I Teach*. Paper presented at 22nd Conference on Education, American Meteorological Society, Austin, TX. (National)
- Shea, D. T., Rudlosky, S. D., Fuelberg, H. E., & Goodman, S. (presented 2013). *Persistence of lightning and radar parameters in consecutive storm samples*. Paper presented at 6th Conference on Lightning, American Meteorological Society, Austin, TX. (National)
- Halperin, D. J., Cossuth, J., Fuelberg, H. E., & Hart, R. E. (presented 2013). *Short and extended range probabilistic tropical cyclone genesis forecasts based on a climatology of global numerical model output*. Paper presented at Tropical Symposium, American Meteorological Society, Austin, TX. (National)
- Preston, A., & Fuelberg, H. E. (presented 2013). *Using dual polarimetric radar products as forecast guidance for lightning cessation*. Paper presented at 6th Conference on Lightning, American Meteorological Society, Austin, TX. (National)

- Tamurian, Z., & Fuelberg, H. E. (presented 2012). *Determining the lengths of lightning strokes near Kennedy Space Center*. Paper presented at 4th Vaisala International Lightning Meteorology Conference, International Lightning Meteorology, Broomfield, CO. (National)
- Halperin, D. J., Fuelberg, H. E., Hart, R. E., Sura, P., Cossuth, J., Truchelut, R., & Pasch, R. J. (presented 2012). *Evaluating Tropical Cyclogenesis Forecasts from Four Global Numerical Models*. Paper presented at 30th Conference on Hurricanes and Tropical Meteorology, American Meteorological Society, Ponte Vedra Beach, FL. (National)
- Halperin, D. J., Fuelberg, H. E., Hart, R. E., Cossuth, J., & Truchelut, R. (presented 2012). *Evaluating tropical cyclogenesis forecasts in four global models*. Paper presented at 21st Conference on Probability and Statistics, American Meteorological Society, New Orleans, LA. (National)
- Rudlosky, S., Fuelberg, H., & Goodman, S. (presented 2012). *Examining serial dependence in consecutive storm samples*. Paper presented at 4th Vaisala International Lightning Meteorology Conference, International Lightning Meteorology, Broomfield, CO. (National)
- Hansen, A., Fuelberg, H. E., Pickering, K. E., Peckham, S. E., & Hart, R. E. (presented 2012). *Lightning NO<sub>x</sub> parameterization for WRF-Chem at the regional scale*. Paper presented at 14th Conference on Atmospheric Chemistry, American Meteorological Society, New Orleans, LA. (National)
- Preston, A., & Fuelberg, H. E. (presented 2012). *The use of polarimetric radar data in determining lightning cessation*. Paper presented at 4th Vaisala International Lightning Meteorology Conference, International Lightning Meteorology, Broomfield, CO. (National)
- Reinhart, B. J., Fuelberg, H. E., Heymsfield, A. J., Blakeslee, R. J., & Durden, S. L. (presented 2012). *Understanding the Relationships Between Lightning, Cloud Microphysics, and Airborne Radar-Derived Storm Structure During Hurricane Karl*. Paper presented at 30th Conference on Hurricanes and Tropical Meteorology, American Meteorological Society, Ponte Vedra Beach, FL. (National)
- Rudlosky, S. D., & Fuelberg, H. E. (presented 2011). *Determining the relationships between lightning and radar in severe and non-severe storms*. Paper presented at 5th Conference on Meteorological Application of Lightning Data, American Meteorological Society, Seattle, WA. (National)
- Hodanish, S. J., Wolyn, P., Saunders, P., Fuelberg, H. E., & Gibbs, A. (presented 2011). *Evaluation of lightning threat guidance for operational use at NWS offices*. Paper presented at 5th Conference on Meteorological Application of Lightning Data, American Meteorological Society, Seattle, WA. (National)



- Austin, S. D., & Fuelberg, H. E. (presented 2011). *Linking lightning to tropical cyclone intensity change: A composite study of frequency and distribution*. Paper presented at 5th Conference on Meteorological Application of Lightning Data, American Meteorological Society, Seattle, WA. (National)
- Saunders, P., Fuelberg, H. E., Hodanish, S., Mittelstadt, J., Watson, A., & Zubrick, S. (presented 2011). *Mesoscale lightning threat guidance for operational use at NWS offices*. Paper presented at 5th Conference on Meteorological Application of Lightning Data, American Meteorological Society, Seattle, WA. (National)
- Onderlinde, M., Fuelberg, H. E., Weiss, S. J., & Watson, A. I. (presented 2010). *A new parameter for forecasting tornadoes in landfalling tropical cyclones*. Paper presented at 25th Conference on Severe Local Storms, American Meteorological Society, Denver, CO. (National)
- Austin, M. D., & Fuelberg, H. E. (presented 2010). *Assessing tropical cyclone lightning patterns and intensity changes using GIS-based methods*. Paper presented at Vaisala 2010 ILDC/ILMC Lightning Conference, ILDC/ILMC, Orlando, FL. (National)
- Austin, M. D., & Fuelberg, H. E. (presented 2010). *Assessment of synoptic and microphysical parameters related to lightning in tropical cyclones and storm intensification*. Paper presented at 29th Conference on Hurricanes and Tropical Meteorology, American Meteorological Society, Tucson, AZ. (National)
- Rudlosky, S. D., & Fuelberg, H. E. (presented 2010). *Determining relationships between lightning and radar in severe and non-severe storms*. Paper presented at Vaisala 2010 ILDC/ILMC Lightning Conference, ILDC/ILMC, Orlando, FL. (National)
- Saunders, P., & Fuelberg, H. E. (presented 2010). *Development and evaluation of mesoscale lightning threat guidance for operational use at NWS forecast offices*. Paper presented at 20th Conference on Probability and Statistics, American Meteorological Society, Atlanta, GA. (National)
- Halperin, D. J., & Fuelberg, H. E. (presented 2010). *Initialization techniques for tropical cyclones using the Advanced Hurricane WRF*. Paper presented at UCAR 50th Anniversary Special Symposium, UCAR, Atlanta, GA. (National)
- Melvin, H., & Fuelberg, H. E. (presented 2010). *Lightning cessation at Cape Canaveral, FL*. Paper presented at Vaisala 2010 ILDC/ILMC Lightning Conference, ILDC/ILMC, Orlando, FL. (National)
- Alvarado, M. J., Logan, J. A., Mao, J., Apel, E. C., Riemer, D. D., Blake, D. R., Cohen, R. C., Min, K., Perring, A. E., Browne, E. C., Wooldridge, P. J., Diskin, G. S., Sachse, G. W., Fuelberg, H. E., Sessions, W., Harrigan, D. L., Huey, L. G., Liao, J., Case Hanks, A. T., Jimenez, J. L., Cubison, M., Wisthaler, S. A., & Vay, S. A. (presented 2010). *Nitrogen oxides and PAN in plumes from boreal fires during ARCTAS-B and their impact on*

- ozone: An integrated analysis of aircraft and satellite observations*. Paper presented at Fall Meeting of the American Geophysical Union, American Geophysical Union, San Francisco, CA. (National)
- Halperin, D. J., & Fuelberg, H. E. (presented 2010). *The sensitivity of TC intensity and structure to grid spacing in the Advanced Hurricane WRF*. Paper presented at 29th Conference on Hurricanes and Tropical Meteorology, American Meteorological Society, Tucson, AZ. (National)
- Fuelberg, H., Elfring, C., & Geller, L. (presented 2010). *The significance of international transport of air pollutants*. Paper presented at 16th Conference on Air Pollution, American Meteorological Society, Atlanta, GA. (National)
- Hansen, A., Fuelberg, H. E., Pickering, K. E., & Peckham, S. E. (presented 2010). *WRF-Chem lightning NOx parameterization at Florida State University*. Paper presented at 16th Conference on Air Pollution, American Meteorological Society, Atlanta, GA. (National)
- Cubison, W., Jimenez, J. L., Sueper, D., Burkhardt, J. F., Wisthaler, A., Mikovny, T., Apel, E. C., Hills, A. J., Weinheimer, A., Knapp, D. J., Emmons, L. K., Fuelberg, H. E., Sessions, W., Diskin, G. S., Sachse, G. W., & Huey, L. J. (presented 2009). *A Lagrangian case study of the evolution of aerosol composition from a boreal fire plume during the ARCTAS campaign*. Paper presented at Fall Meeting of the American Geophysical Union, American Geophysical Union, San Francisco, CA. (National)
- Harrigan, D., Fuelberg, H. E., Shaw, G., & Sassen, K. (presented 2009). *Determining sources and pathways of anthropogenic emissions contributing to Arctic haze*. Paper presented at Fall Conference of the American Geophysical Union, American Geophysical Union, San Francisco, CA. (National)
- Anderson, H., & Fuelberg, H. E. (presented 2009). *Developing a forecasting scheme for lightning cessation at the Kennedy Space Center*. Paper presented at Southern Thunder Workshop, NASA, Cocoa Beach, FL. (National) Retrieved from <http://weather.msfc.nasa.gov/sport/southernthunder/presentations.html>
- Hansen, A., Fuelberg, H. E., Pickering, K. E., & Peckham, S. (presented 2009). *Development of a lightning NOx algorithm for WRF-Chem*. Paper presented at 4th Conference on Meteorological Applications of Lightning Data, American Meteorological Society, Phoenix, AZ. (National)
- Martinaitis, S. M., Fuelberg, H. E., & Pathak, C. (presented 2009). *Effects of multi-sensor radar and rain gauge data on hydrologic modeling in relatively flat terrain*. Paper presented at 23rd Conference on Hydrology, American Meteorological Society, Phoenix, AZ. (National)
- Peffer, L. T., Fuelberg, H. E., & Rao, P. A. (presented 2009). *Evaluation of smoke plume dispersion in complex terrain using a Lagrangian particle dispersion model driven by*

- WRF output*. Paper presented at 11th Conference on Atmospheric Chemistry, American Meteorological Society, Phoenix, AZ. (National)
- Rudlosky, S. D., & Fuelberg, H. E. (presented 2009). *Investigating total lightning using the Warning Decision Support System - Integrated Information software*. Paper presented at Southern Thunder Workshop, NASA, Cocoa Beach, FL. (National) Retrieved from <http://weather.msfc.nasa.gov/sport/southernthunder/presentations.html>
- Vay, S. A., Choi, Y., Vadrevu, K. P., Woo, J., Tyler, S. C., Blake, D. R., Diskin, G. S., & Fuelberg, H. E. (presented 2009). *Patterns of CO<sub>2</sub> and radiocarbon across high northern latitudes during IPY 2008*. Paper presented at Fall Meeting of the American Geophysical Union, American Geophysical Union, San Francisco, CA. (National)
- Fisher, J. A., Jacob, D. J., Purdy, M. T., Kopacz, M., LeSager, P., Carouge, C., Holmes, C., Yantosca, R. M., Batchelor, R., Strong, K., Diskin, G. S., Fuelberg, H. E., Holloway, J., Hyer, E., McMillan, W. W., Warner, J. X., Streets, D. G., Zhang, Q., Wang, Y., & Wu, S. (presented 2009). *Source attribution and interannual variability of Arctic pollution in spring constrained by aircraft (ARCTAS, ARCPAC) and satellite (AIRS) observations of carbon monoxide*. Paper presented at Fall Meeting of American Geophysical Union, American Geophysical Union, San Francisco, CA. (National)
- Fuelberg, H. E. (presented 2009). *Statistically-derived lightning forecast guidance prepared at Florida State University*. Paper presented at 4th Conference on Meteorological Applications of Lightning Data, American Meteorological Society, Phoenix, AZ. (National)
- Sessions, W., & Fuelberg, H. (presented 2009). *Transport simulations of carbon monoxide and aerosols from boreal wildfires during ARCTAS using WRF-Chem*. Paper presented at Fall Meeting of the American Geophysical Union, American Geophysical Union, San Francisco, CA. (National)
- Fuelberg, H. E., Harrigan, D., & Sessions, W. (presented 2009). *Transport to the Arctic during the ARCTAS 2008 Mission*. Paper presented at Fall Meeting of the American Geophysical Union, American Geophysical Union, San Francisco, CA. (National)
- Pathak, C., Onderlinde, M., & Fuelberg, H. E. (presented 2009). *Use of NEXRAD rainfall data to develop climatologically homogeneous rain areas for Central and South Florida*. Paper presented at World Environmental and Water Resources Conference 2009, American Society for Civil engineers, Kansas City. (National)
- Rudlosky, S. D., & Fuelberg, H. E. (presented 2009). *Utilizing WDSS-II to automate dataset preparation for a statistical investigation of total lightning and radar echoes within severe and non-severe storms*. Paper presented at 4th Conference on Meteorological Applications of Lightning Data, American Meteorological Society, Phoenix, AZ. (National)

- Fuelberg, H. E. (presented 2008). *Adventures in creating an historical multi-sensor precipitation dataset*. Paper presented at Joint Assembly, American Geophysical Union, Fort Lauderdale, FL. (National)
- Rudlosky, S., & Fuelberg, H. E. (presented 2008). *Characteristics of positive cloud-to-ground lightning*. Paper presented at 3rd Conference on Meteorological Applications of Lightning Data, American Meteorological Society, New Orleans, LA. (National)
- Hayes, P., Fuelberg, H., & Hart, R. (presented 2008). *Determining Surface winds from Doppler radar data during hurricane passages over Florida*. Paper presented at 28th Conference on Hurricanes and Tropical Meteorology, American Meteorological Society, Orlando, FL. (National)
- Hayes, P., Fuelberg, H. E., & Hart, R. (presented 2008). *Determining surface winds from Doppler radar data during hurricane passages over Florida*. Paper presented at Hurricanes and Tropical Meteorological Special Symposium, American Meteorological Society, New Orleans, LA. (National)
- Stano, G., Fuelberg, H., & Roeder, W. (presented 2008). *Empirical forecasting of lightning cessation at the Kennedy Space Center*. Paper presented at 3rd Conference on Meteorological Applications of Lightning Data, American Meteorological Society, New Orleans, LA. (National)
- Rudlosky, S. D., & Fuelberg, H. E. (presented 2008). *Lightning and radar applications using WDSS-II*. Paper presented at 2nd International Lightning Meteorology Conference, Vaisala, Tucson, AZ. (International)
- Rudlosky, S. D., Fuelberg, H. E., Shafer, P. E., Stano, G. T., Wagner, G. A., Hanson, A. E., Anderson, H. A., & Saunders, P. A. (presented 2008). *Lightning studies at Florida State University*. Paper presented at 2nd International Lightning Meteorology Conference, Vaisala Corporation, Tucson, AZ. (International)
- Sullivan, J. L., Jr., Fuelberg, H. E., Martinaitis, S., Bottcher, D., Jacobson, B., Bradberry, J., Mandrup-Poulsen, J., Gilbert, D., & Wu, T. S. (presented 2008). *Modeling streamflow using Gauge-only versus radar-derived rainfall*. Paper presented at 22nd Conference on Hydrology, American Meteorological Society, New Orleans, LA. (National)
- Sullivan, J. L., Fuelberg, H. E., Martinaitis, S., Bottcher, D., Jacobson, B., Bradberry, J., Mandrup-Poulsen, J., Gilbert, D., & Wu, T. S. (presented 2008). *Modeling streamflow using Gauge-only versus radar-derived rainfall*. Paper presented at Fall Meeting of the American Geophysical Union, American Geophysical Union, San Francisco, CA. (National)
- Shafer, P. E., & Fuelberg, H. E. (presented 2008). *Producing gridded probabilistic guidance for warm season lightning over Florida*. Paper presented at 3rd Conference on

- Meteorological Applications of Lightning Data, American Meteorological Society, New Orleans, LA. (National)
- Rudlosky, S., & Fuelberg, H. E. (presented 2008). *The relation between lightning and wildfires in Florida*. Paper presented at 3rd Conference on Meteorological Applications of Lightning Data, American Meteorological Society, New Orleans, LA. (National)
- Martinaitis, S., Fuelberg, H., Sullivan, J., Jr., & Pathak, C. (presented 2008). *Using independent NCDC gauges to analyze precipitation values from the OneRain Corporation algorithm and the National Weather Service procedure*. Paper presented at 22nd Conference on Hydrology, American Meteorological Society, New Orleans, LA. (National)
- Singh, H. B., Apel, E., Brune, W., Carmichael, G., Cohen, R., Crawford, J., Czech, E., Emmons, L., Flocke, F., Fried, A., Fuelberg, H., Heikes, B., Jacob, D., & Pierce, B. (presented 2007). *A Brief Overview of INTEX-B and OVOC Observations Over Mexico City, Gulf of Mexico, and the Pacific Ocean*. Paper presented at Fall Meeting of the American Geophysical Union, American Geophysical Union, San Francisco, CA. (National)
- VanCleve, D. D., Fuelberg, H. E., Mandrup-Poulsen, J., & Wu, T. S. (presented 2007). *An intercomparison between mean areal precipitation from gauges and a multisensor procedure*. Paper presented at World Environmental and Water Resources Conference 2007, American Society for Civil Engineers, Tampa, FL. (National)
- VanCleve, D. D., & Fuelberg, H. E. (presented 2007). *An intercomparison between mean areal precipitation from gauges and a multisensor procedure*. Paper presented at 21st Conference on Hydrology, American Meteorological Society, San Antonio, TX. (National)
- Martinaitis, S. M., Fuelberg, H. E., Sullivan, J., Jr., & Pathak, C. (presented 2007). *An intercomparison of precipitation values from the One Rain Corporation's algorithm and the National Weather Service procedure*. Paper presented at World Environmental and Water Resources Conference, American Society for Civil Engineers, Tampa, FL. (National)
- Martinaitis, S. M., Fuelberg, H. E., Sullivan, J. L., Jr., & Pathak, C. (presented 2007). *An intercomparison of precipitation values from the OneRain Corporation algorithm and the National Weather Service procedure*. Paper presented at 21st Conference on Hydrology, American Meteorological Society, San Antonio, TX. (National)
- Thornhill, L., Anderson, B. E., Winstead, E. L., Chen, G., Clarke, A., Dibb, J., Scheuer, E., Sachse, G., Blake, D., & Fuelberg, H. (presented 2007). *Chemical and Aerosol Characteristics of Asian Outflow as Observed During INTEX-B and TRACE-P*. Paper presented at Fall Meeting of the American Geophysical Union, American Geophysical Union, San Francisco, CA. (National)

- Kim, S., Talbot, R., Mao, H., Blake, D., Vay, S., & Fuelberg, H. (presented 2007). *Convective Outflow From the U.S. to the Upper Troposphere Over the North Atlantic During the NASA INTEX-NA Airborne Campaign*. Paper presented at Fall Meeting of the American Geophysical Union, American Geophysical Union, San Francisco, CA. (National)
- Talbot, R., Mao, H., Scheuer, E., Dibb, J., Avery, M., Browell, E., Sachse, G., Vay, S., Blake, D., Huey, G., & Fuelberg, H. (presented 2007). *Factors Influencing the Large-Scale Distribution of Hg(0) in the Mexico City Area and Over the North Pacific*. Paper presented at Fall Meeting of the American Geophysical Union, American Geophysical Union, San Francisco, CA. (National)
- Fuelberg, H. E. (presented 2007). *FSU's MPE Experience*. Paper presented at 2nd Workshop on Multi-sensor Precipitation Reanalysis, National Climatic Data Center, Asheville, NC. (National)
- Wu, T. S., Gilbert, D., North, J., Gopalan, H., Fuelberg, H. E., Cooper, H., Bottcher, D., & Reed, C. (presented 2007). *FSU's MPE Experience*. Paper presented at World Environmental and Water Resources Conference, American Society for Civil Engineers, Tampa, FL. (National)
- Halland, J., Fuelberg, H., Pickering, K., Luo, M., & Millet, D. (presented 2007). *Identifying convective transport of carbon monoxide through the intercomparison of remote sensing observations and cloud modeling simulations*. Paper presented at Fall Meeting of the American Geophysical Union, American Geophysical Union, San Francisco, CA. (National)
- Olson, J., Chen, G., Crawford, J., Fuelberg, H. E., Weinheimer, A., Campos, T., Flocke, F., Karl, T., Blake, D., Apel, E., Clarke, A., Avery, M., Sachse, G., Cohen, R., Singh, H., Barrick, J., Diskin, G., & Anderson, B. (presented 2007). *Photochemistry Within Plumes of Various Origin During INTEX-B: A Case Study From May 5th*. Paper presented at Fall Meeting of the American Geophysical Union, American Geophysical Union, San Francisco, CA. (National)
- Latto, A., & Fuelberg, H. E. (presented 2007). *Quasi-Lagrangian Chemical Sampling during INTEX-B*. Paper presented at Fall Meeting of the American Geophysical Union, American Geophysical Union, San Francisco, CA. (National)
- Martinaitis, S., Fuelberg, H., Sullivan, J., Jr., & Pathak, C. (presented 2007). *Using independent NCDC gauges to analyze precipitation values from the OneRain Corporation algorithm and the National Weather Service procedure*. Paper presented at Fall Meeting of the American Geophysical Union, American Geophysical Union, San Francisco, CA. (National)
- Wagner, G. A., Fuelberg, H. E., Kann, D., Wynne, R., & Cobb, S. (presented 2006). *A GIS-based Approach to Lightning Studies for West Texas and New Mexico*. Paper

presented at 2nd Conference on Meteorological Applications of Lightning Data, American Meteorological Society, Atlanta, GA. (National)

Shafer, P., & Fuelberg, H. E. (presented 2006). *A Statistical Procedure to Forecast Warm Season Lightning Over Portions of the Florida Peninsula*. Paper presented at 2nd Conference on Meteorological Applications of Lightning Data, American Meteorological Society, Atlanta, GA. (National)

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- Jedlovec, G. J., & Fuelberg, H. E. (presented 1982). *The Kinetic Energy Balance of the AVE-SESAME I Period*. Paper presented at 12th Conference on Severe Local Storms, American Meteorological Society, San Antonio, TX. (National)
- Berrecek, E. M., & Fuelberg, H. E. (presented 1980). *An Error Analysis of Basic Kinematic Quantities*. Paper presented at 8th Conference on Weather Forecasting and Analysis, American Meteorological Society, Denver, CO. (National)
- Fuelberg, H. E. (presented 1979). *Kinetic Energy Budgets of Storm Areas*. Paper presented at 11th Conference on Severe Local Storms, American Meteorological Society, Kansas City. (National)
- Arnold, J. E., Scoggins, J. R., & Fuelberg, H. E. (presented 1977). *A Comparison Between NIMBUS 5 THIR and ITPR Temperatures and Derived Winds with Rawinsonde Data Obtained in the AVE II Experiment*. Paper presented at 7th Conference on Aerospace and Aeronautical Meteorology, American Meteorological Society, Melbourne. (National)
- Fuelberg, H. E., & Scoggins, J. R. (presented 1977). *Atmospheric Energetics Associated with Convective Activity in the Texas HIPLEX Area*. Paper presented at 6th Conference on Planned and Inadvertent Weather Mod, American Meteorological Society, Champaign-Urbana, IL. (National)

Fuelberg, H. E., & Scoggins, J. R. (presented 1977). *Relationships Between the Kinetic Energy Budget and Intensity of Convection*. Paper presented at 10th Conference on Severe Local Storms, American Meteorological Society, Omaha, NE. (National)

## Contracts and Grants

### Contracts and Grants Funded

Fuelberg, Henry E (PI). (Sep 2021–Sep 2024). *Developing an Optimized NWP Model for the Cape Canaveral Area*. Funded by United States Space Force. (FA252121C0035). Total award \$205,448.

Fuelberg, H. E. (Mar 2021–Mar 2024). *Combining Aircraft Observations and Lightning Assimilation in a Multiscale Model Framework to Study Deep Convective Transport during DC3 and SEAC4RS*. Funded by NASA Awarded to AER Corp. who subcontracted to FSU. Total award \$228,153.

Fuelberg, Henry E (PI). (Aug 2020–Aug 2021). *NASA FSGC Masters Fellowship Program - Haiden Mersiovsky*. Funded by University of Central Florida. (FSGC-10 TO#01). Total award \$10,000.

Fuelberg, Henry E (PI). (Jul 2020–Jul 2023). *Cumulus Electrification Study—Phase II*. Funded by United States Department of the Air Force. (FA252120P0042). Total award \$209,000.

Fuelberg, Henry E (PI). (May 2020–Apr 2023). *Extending the Forecast Lead Time of Pulse Severe Storms using ProbSevere, GLM, and Radar Data*. Funded by National Oceanic and Atmospheric Association. (NA20NWS4680044). Total award \$255,595.

Fuelberg, Henry E (PI). (Sep 2018–Sep 2020). *Unexplained Nocturnally Forming Lightning in the CCAFS/KSC Area*. Funded by United States Department of the Air Force. (FA252118P0126). Total award \$86,384.

Fuelberg, Henry E (Co-PI), & Holmes, Christopher D (PI). (Jul 2018–Jun 2022). *Flight Planning Services for FIREChem: Meteorological and Smoke Forecasts, Bias-Corrected Satellite Fire Observations, and Scheduled Prescribed Fires*. Funded by National Aeronautics & Space Administration. (80NSSC18K0625). Total award \$362,725.

Fuelberg, Henry E (PI). (May 2017–May 2020). *Cumulus Electrification Study*. Funded by United States Department of the Air Force. (FA252117P0041). Total award \$124,322.

Fuelberg, Henry E (Co-PI), & Hart, Robert E (PI). (May 2016–Apr 2020). *Collaborative Research On Improved Understanding & Prediction Of Warm-Season (Derecho) & Cold-Season (Mesoscale Snow Banding) High Impact Events*. Funded by National Oceanic and Atmospheric Association. (NA16NWS4680007). Total award \$449,019.

Fuelberg, Henry E (PI). (Jan 2016–Mar 2017). *Numerically Modeling Extreme Rainfall Events Near Kennedy Space Center, FL: The Effects of Climate Change*. Funded by Embry-Riddle Aeronautical University. (61346-02). Total award \$57,270.

Fuelberg, Henry E (PI), & Hart, Robert E (Co-PI). (Sep 2013–Aug 2017). *Improved Forecasting of Extreme Rainfall Events Associated with Tropical Cyclones*. Funded by National Oceanic and Atmospheric Association. (NA13NWS4680005). Total award \$299,307.

Fuelberg, Henry E (Co-PI), & Hart, Robert E (PI). (Sep 2013–Aug 2016). *A Probabilistic TC Genesis Forecast Tool Utilizing an Ensemble of Global Models*. Funded by National Oceanic and Atmospheric Association. (NA13OAR4590185). Total award \$197,792.

Fuelberg, Henry E (PI). (Sep 2013–Aug 2018). *Impacts of Asian Summer Monsoon Convection On the Chemical Composition of the Upper Troposphere and Lower Stratosphere*. Funded by National Aeronautics & Space Administration. (NNX13AM90H). Total award \$70,005.

Fuelberg, Henry E (PI). (Aug 2013–Jul 2014). *Year 2 of 2 -Master's Degree Fellowship 2013 (Brannon Seay)*. Funded by University of Central Florida. (0000271292). Total award \$12,000.

Fuelberg, Henry E (PI). (Oct 2012–Dec 2017). *Upward Lightning Flash Structure at Kenedy Space Center*. Funded by National Aeronautics & Space Administration. (NNX13AB95G). Total award \$152,303.

Fuelberg, Henry E (PI). (Aug 2012–Jul 2013). *Nasa Earth-Space Science Fellowship 2012*. Funded by University of Central Florida. (UCF01-0000257650). Total award \$12,000.

Fuelberg, Henry E (PI). (Dec 2011–Dec 2015). *Diagnostic Studies and Numerical Simulations of Chemical Transport to the Upper Troposphere/Lower Stratosphere in the South Asian Monsoon during SEAC4RS*. Funded by National Aeronautics & Space Administration. (NNX12AC07G). Total award \$404,972.

Fuelberg, Henry E (PI). (Dec 2011–Aug 2012). *Understanding the Significance of Fluctuations in the Ar*. Funded by The Citadel Group. Total award \$8,923.

Fuelberg, Henry E (PI). (Dec 2011–Dec 2013). *Meteorological Modeling and Tracer Capabilities Study*. Funded by United States Department of the Air Force. (FA7022-12-C-0004). Total award \$96,876.

Fuelberg, Henry E (PI), & Hart, Robert E (Co-PI). (Nov 2011–Sep 2012). *Determining the Abilities of Operational Numerical Models to Forecast Tropical Cyclogenesis*. Funded by University Corporation for Atmospheric Research. (Z12-93225). Total award \$11,880.

- Fuelberg, Henry E (PI). (Sep 2011–Sep 2013). *Lightning Cessation with Dual Polarization Radar*. Funded by United States Department of the Air Force. (FA2521-11-P-0091). Total award \$55,979.
- Fuelberg, Henry E (PI). (Sep 2010–Sep 2011). *Lightning Cessation with Dual Polarization Radar*. Funded by United States Department of the Air Force. (FA2521-10-P-0153). Total award \$48,975.
- Fuelberg, Henry E (PI). (Sep 2010–Sep 2011). *Lightning Launch Commit Criteria Improvement (LLCC) - Radar/Lightning Climatology*. Funded by United States Department of the Air Force. (FA2521-10-P-0149). Total award \$52,965.
- Navon, Ionel M (Co-PI), & Fuelberg, Henry E (PI). (Jun 2010–May 2014). *Data Assimilation of Lightning in WRF 4-D VAR Using Observation Operators*. Funded by National Oceanic and Atmospheric Association. (NA10NES4400008). Total award \$443,461.
- Fuelberg, Henry E (PI). (Nov 2009–Nov 2011). *Modeling Uncertainties of Atmospheric Transport - the WRF Numerical Model with In-Line Transport Capabilities*. Funded by United States Department of the Air Force. (FA2521-10-C-8004). Total award \$116,265.
- Fuelberg, Henry E (PI). (Nov 2008–Nov 2009). *Sensitivity Studies on Atmospheric Transport*. Funded by United States Department of the Air Force. (FA2521-09-P-0005). Total award \$53,999.
- Fuelberg, Henry E (PI). (Aug 2008–Aug 2009). *Space Grant Fellowship Program*. Funded by University of Central Florida. (UCF01-0000157916). Total award \$12,000.
- Fuelberg, Henry E (PI). (Mar 2008–Feb 2009). *Use of NEXRAD Data to Develop climatologically Homogeneous*. Funded by University of Florida. (UF-EIES-0804003-FSU). Total award \$5,000.
- Fuelberg, Henry E (PI). (Feb 2008–Jan 2013). *Research on Arctic Transport Using a Synthesis of Satellite Data, In-Situ Data, and Numerical Models*. Funded by National Aeronautics & Space Administration. (NNX08AH72G). Total award \$490,619.
- Fuelberg, Henry E (PI). (Jan 2008–Sep 2008). *Use of NEXRAD Data to Develop Climatologically Homogeneous Rainfall Areas for the SFWMD*. Funded by South Florida Water Management. (4500020199). Total award \$17,000.
- Fuelberg, Henry E (PI). (Nov 2007–Nov 2008). *Sensitivity Studies On Atmospheric Transport--The WRF Numerical Model and FLEXPART Transport Model*. Funded by United States Department of the Air Force. (FA2521-08-P-0021). Total award \$52,000.

- Fuelberg, Henry E (PI). (Aug 2007–May 2010). *Development and Evaluation of Mesoscale Lightning Threat Guidance for Operational Use at NWS Forecast Offices*. Funded by University Corporation for Atmospheric Research. (S07-66809). Total award \$77,498.
- Fuelberg, Henry E (PI). (Jan 2007–Feb 2008). *A Comparison Of FSU/NWS And OneRain Precipitation Data And Their Insertion Into The WAM Hydrologic Model*. Funded by South Florida Water Management. (4500007892). Total award \$15,000.
- Fuelberg, Henry E (PI). (Jan 2007–Jun 2008). *Determining Surface Winds from Doppler Radar Data During*. Funded by Florida Power and Light Company. (PO 4500363513). Total award \$83,468.
- Fuelberg, Henry E (PI). (Jun 2006–May 2007). *Documenting the Spatial, Temporal, and Electrical Characteristics of Positive Cloud-to-Ground Lightning Over the Florida Power & Light Service Territory*. Funded by Florida Power and Light Company. (PO NUMBER 4500313630). Total award \$42,001.
- Fuelberg, Henry E (PI). (Mar 2006–Feb 2008). *Comparing Radar Derived Precipitation Values*. Funded by University of Florida. (UF-EIES-0604009-FSU). Total award \$10,000.
- Fuelberg, Henry E (PI). (Mar 2006–Mar 2007). *A comparison of NW/FSU and OneRain Precipitation Data and their insertion into the WAM Hydrologic model*. Funded by South Florida Water Management. (PC P601207). Total award \$15,000.
- Fuelberg, Henry E (PI). (Mar 2006–Feb 2008). *Statistical Forecasting Of Lightning Cessation At The Kennedy Space Center*. Funded by National Aeronautics & Space Administration. (NNK06EB17G). Total award \$59,470.
- Fuelberg, Henry E (PI). (Jan 2006–Jul 2008). *WAM-MPE Modeling*. Funded by Florida Department of Environmental Protection. (WM902). Total award \$106,020.
- Fuelberg, Henry E (PI). (Oct 2005–Feb 2009). *Analysis of DATA from INTEX-A and B in Support of Aura and Aqua Validation*. Funded by National Aeronautics & Space Administration. (NNG06GB43G). Total award \$283,809.
- Fuelberg, Henry E (PI). (Oct 2004–Oct 2005). *Adding Two Additional Years to the High Resolution Historical Precipitation Database for Florida*. Funded by Florida Department of Environmental Protection. (WM874). Total award \$51,220.
- Fuelberg, Henry E (PI). (Aug 2004–Sep 2005). *Completion of Tasks for Contract WM-849*. Funded by Florida Department of Environmental Protection. (S 3700 210946). Total award \$10,691.

- Fuelberg, Henry E (PI). (Jan 2004–Dec 2004). *Analysis of 3,6,12, and 24 Hour Precipitation Freq.* Funded by University Corporation for Atmospheric Research. (S04 44685). Total award \$7,172.
- Fuelberg, Henry E (PI). (Jan 2004–Jan 2008). *Diagnostic and Numerical Studies of Atmospheric Tr.* Funded by National Aeronautics & Space Administration. (NNG04GC33G). Total award \$365,779.
- Fuelberg, Henry E (Co-PI), Ahlquist, Jon E (PI), & Cooper, Henry J (Co-PI). (Oct 2003–Sep 2007). *Improvements in the Operational Forecasting of Pre.* Funded by National Oceanic and Atmospheric Association. (NA03NWS4680018). Total award \$371,290.
- Foo, Simon (PI), Kwan, Bing W (Co-PI), Elsner, James B (Co-PI), & Fuelberg, Henry E (Co-PI). (Feb 2003–Aug 2004). *Development of a Road Weather Information System f.* Funded by University of North Florida. (002-079). Total award \$126,090.
- Fuelberg, Henry E (PI). (Oct 2002–May 2004). *Completing the High Resolution Seven Year Historic.* Funded by Florida Department of Environmental Protection. (WM849). Total award \$71,590.
- Fuelberg, Henry E (PI). (Oct 2002–May 2007). *Statistical Tools for Forecasting Warm Season Afte.* Funded by Florida Power and Light Company. (PO#4500120225). Total award \$206,995.
- Fuelberg, Henry E (PI). (Nov 2001–Oct 2003). *Determining Precipitation Frequencies Over the Sou.* Funded by University Corporation for Atmospheric Research. (S02-32804). Total award \$7,302.
- Foo, Simon (PI), Kwan, Bing W (Co-PI), Elsner, James B (Co-PI), & Fuelberg, Henry E (Co-PI). (Sep 2001–Jun 2003). *Utilizing FDOT Meteorological Data to Investigate.* Funded by University of North Florida. (001-008). Total award \$123,200.
- Fuelberg, Henry E (PI). (Aug 2000–Dec 2020). *FUEL-PI RESEARCH SUPPORT.* Funded by FSU. Total award \$17,106.
- Ruscher, Paul H (Co-PI), & Fuelberg, Henry E (PI). (Jun 2000–May 2003). *Joint Research between Florida State University an.* Funded by University Corporation for Atmospheric Research. (S00-19127). Total award \$116,327.

### **Mission Meteorologist for NASA Airborne Campaigns**

Fuelberg, H. (2004–2006). *INTEX NA*.  
Fuelberg, H. (2000–2003). *TRACE-P*.  
Fuelberg, H. (1995–1999). *PEM-Tropics A*.  
Fuelberg, H. (1998–2001). *PEM-Tropics B*.  
Fuelberg, H. (1997–1999). *SONEX*.  
Fuelberg, H. (1991–1995). *TRACE A*.  
Fuelberg, H. (2012–2015). *SEAC4RS*.  
Fuelberg, H. (2005–2007). *INTEX B*.

### **Service**

#### **Florida State University**

##### **FSU University Service**

Discipline Coordinator for Meteorology, Florida statewide course numbering system (2022–present).

Faculty Advisor, The Impact Movement at Florida State University (2018–present).

Faculty Advisor, FSU Campus Crusade for Christ (2008–present).

Member, FSU Undergraduate Policy Committee (2017–2020).

##### **FSU College Service**

Chair, Search Committee for Chair of EOAS (2015–2016).

Member, Science Area Committee on Promotion and Tenure (2008).

Member, Physics Dept. Building Committee (2006–2008).

Member, Search Committee for Chair of Dept. of Meteorology (2006–2007).

##### **FSU Department Service**

Chair, Committee to Revise the Undergraduate Meteorology Program (2018–present).

Director, Meteorology Undergraduate Program (2021–2022).

Member, Executive Committee for EOAS (2015–2019).

Member, Search Committee for Meteorology Faculty Position (2015–2016).

Member, Meteorology Undergraduate Program Committee (2006–2010).

Member, Executive Committee for Dept. of Meteorology (1998–2010).

Member, Meteorology Graduate Program Committee (2004–2005).

Director, Meteorology Graduate Program (2001–2003).

Member, Graduate Admissions Committee-Meteorology (1996–2003).

Member, Undergraduate Program Committee (1989–2001).

Director, Undergraduate Program Committee--Meteorology (1989–1995).

### **FSU Institute or Center Service**

Member, Faculty Search Committee for Coastal Marine Initiative (2014–2015).

## **The Profession**

### **Editor for Refereed Journals**

Associate Editor, *Weather and Forecasting* (2013–present).

### **Editorial Board Membership(s)**

*Atmospheric Environment* (2013–present).

### **Guest Reviewer for Refereed Journals**

*Journal of Operational Meteorology* (Sep 2018–present).

*Weather and Forecasting* (2000–present).

*Atmospheric Chemistry and Physics* (1995–present).

*Journal of Applied Meteorology* (1990–present).

*Monthly Weather Review* (1990–present).



*Bulletin of the American Meteorological Society* (1989–present).

*Journal of Geophysical Research--Atmospheres* (1988–present).

### **Reviewer or Panelist for Grant Applications**

NSF (1992–present).

NASA (1991–present).

NASA Panel "Earth Venture" proposals (2013–2014).

### **Service to Professional Associations**

Member of Review Panel for Meteorological Development Lab, National Weather Service (2010–2011).

Panel Member on International Transport of Air Pollutants, National Academy of Science (2008–2009).

Co-Convenor of session "Multi-sensor Precipitation Estimation", American Geophysical Union (2008).

Program Committee for 4th Conf. on Meteor. Applications of Lightning Data, American Meteorological Society (2008).

Chairman, Committee on Severe Local Storms, American Meteorological Society (1999–2000).

Program Committee for 20th Conf. Severe Local Storms, American Meteorological Society (1999–2000).

Committee on Severe Local Storms, American Meteorological Society (1998–2000).

Program Chairman, 1988 Conf. on Severe Local Storms, American Meteorological Society (1986–1988).

Member, Panel on NASA Shuttle Flight Rules (1987).

Program Committee, 1985 Severe Local Storms Conf, American Meteorological Society (1985).

Member of Committee on Meteorological Education in Universities, American Meteorological Society (1981–1983).