

## Ethan D. Coffel

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EDUCATION **Columbia University**, New York, NY  
Ph.D Atmospheric Science, expected May 2018  
National Science Foundation Graduate Research Fellowship recipient  
Advisers: Dr. Radley Horton, Dr. Arlene Fiore, Dr. Richard Seager

**Columbia University**, New York, NY  
M.A. Atmospheric Science, May 2015

**Northwestern University**, Evanston, IL  
B.A. with honors, Computer Science, Integrated Science, June 2013

PUBLICATIONS: IN PROGRESS 8. **Coffel, E. D.**, Horton, R. M., Mankin, J. S., Winter, J. M., 2017: *Seasonal warming amplification and land-air coupling*. In Preparation.

7. **Coffel, E. D.**, Sherbinin, A. de, Horton, R. M., Lane, K., Kienberger, S., Wilhelmi, O., 2017: "The Science of Adaptation to Extreme Heat". *Resilience: The Science of Adaptation to Climate Change*. Eds. Frank, T., Zommers, Z. Elsevier. In revision.

6. **Coffel, E. D.**, Horton, R. M., De Sherbinin, A., 2017: *Temperature and humidity based projections of a rapid rise in global heat stress exposure during the 21st century*. In revision at Environmental Research Letters.

PUBLISHED PEER-REVIEWED ARTICLES 5. **Coffel, E. D.**, Thompson, T. R., Horton, R. M., 2017: *The impacts of rising temperatures on aircraft takeoff performance*. Climatic Change Letters.

4. Lesk, C., **Coffel, E. D.**, DAmato, T., Dodds, K., Horton, R. M., 2017: *Significant threat to North American forests from Southern Pine Beetle with warming winters*. Nature Climate Change.

3. Horton, R. M., Mankin, J. S., Lesk, C., **Coffel, E. D.**, Raymond, C., 2016: *A Review of Recent Advances in Research on Extreme Heat Events*. Current Climate Change Reports.

2. Horton, R. M., **Coffel, E. D.**, Winter, J. M., Bader, D. A., 2015: *Projected changes in extreme temperature events based on the NARCCAP model suite*. Geophysical Research Letters.

1. **Coffel, E. D.**, Horton, R. M., 2015: *Climate change and the impact of extreme temperatures on aviation*. AMS Weather, Climate, and Society.

HONORS & FUNDING National Science Foundation Graduate Research Fellowship, 2015 – 2018, \$138,000.  
NSF Funding for the AMS Summer Policy Colloquium, 2016, \$5,000.  
Lamont Climate Center Grant, 2015, \$3,140.  
Columbia Graduate Student Travel Grant, 2015, \$250.  
Northeast Climate Science Center Fellow, 2013 – 2018.  
NOAA Hollings Scholarship, 2011 – 2013, \$24,000.  
NASA Reduced Gravity Student Flight Opportunities Program, 2010 – 2011.

ORAL  
PRESENTATIONS

**Coffel, E. D.**, Thompson, T. R., Horton, R. M. Climate change and aircraft weight restriction. AGU Fall Meeting, New Orleans, LA, 2017 (upcoming).

**Coffel, E. D. (invited)**, Sherbinin, A. de, Horton, R. M., Lane, K., Kienberger, S., Wilhelmi, O. The Science of Adaptation to Extreme Heat. IAPSO-IAMAS-IAGA Assembly, Cape Town, South Africa, 2017.

**Coffel, E. D.**, Thompson, T. R., Horton, R. M. Climate change and aircraft weight restriction. AMS Annual Meeting, New Orleans, LA, 2016.

**Coffel, E. D.**, Horton, R. M., de Sherbinin, A. M. Rapid rise in heat stress exposure during the 21st century. AGU Fall Meeting, San Francisco, CA, 2015.

**Coffel, E. D.**, Horton, R. M. Climate change and the impact of extreme temperatures on aviation. ICNS 2015, Washington, DC, 2015.

**Coffel, E. D.**, Horton, R. M. Climate change and the impact of extreme temperatures on aviation. AMS Annual Meeting, Phoenix, AZ, 2015.

**Coffel, E. D.**, Horton, R. M. Climate change and the impact of extreme temperatures on aviation. AGU Fall Meeting, San Francisco, CA, 2014.

POSTER  
PRESENTATIONS

**Coffel, E. D.**, Horton, R. M., Mankin, J. S., Winter, J. M. Seasonal warming amplification and land-air coupling. AGU Fall Meeting, New Orleans, LA, 2017 (upcoming).

**Coffel, E. D.**, Thompson, T. R., Horton, R. M. Climate change and aircraft weight restriction. AMS Annual Meeting, Seattle, WA, 2017.

**Coffel, E. D.**, Horton, R. M. Geographic extent of future heat waves. AGU Fall Meeting, San Francisco, CA, 2016.

**Coffel, E. D.**, Horton, R. M., de Sherbinin, A. M. Rapid rise in heat stress exposure during the 21st century. Graduate Climate Conference, Woods Hole, MA, 2015.

Morelli T. L, Palmer R., **Coffel E. D.**. Regional collaborations to combat climate change: the climate science centers as strategies for climate adaptation. AGU Fall Meeting, San Francisco, CA, 2014.

**Coffel, E. D.**, Horton, R. M. Climate change and the impact of extreme temperatures on aviation. Columbia First Year Symposium, New York, NY, 2014.

**Coffel, E. D.**. Tornado Detection with Machine Learning. Northwestern Undergraduate Research Symposium, Evanston, IL, 2013.

**Coffel, E. D.**. Development and Performance Analysis of a Cyclone Tracker for use in Seasonal Hurricane Prediction. NOAA Hollings Scholarship Program Conference, Silver Spring, MD, 2012.

CONFERENCES &  
WORKSHOPS

- AMS Summer Policy Colloquium. Washington, DC, Jun. 2016.
- University of Graz “Climate change thresholds” workshop. Graz, Austria, Feb. 2016.
- Northwest Climate Science Center “Climate boot camp.” Oregon, Aug. 2014.
- South Central Climate Science Center “Communicating climate change” workshop. Dallas, TX, Feb. 2014.

TEACHING	<b>Columbia University</b> , New York, NY	
	<i>Teaching Assistant.</i> Regional Climate and Climate Impacts.	<b>Spring 2017</b>
	<i>Teaching Assistant.</i> Introduction to Sustainable Development.	<b>Fall 2016</b>
	<i>Teaching Assistant.</i> Dynamics of climate variability and climate change.	<b>Fall 2014 - 2015</b>
	<b>Northwestern University</b> , Evanston, IL	
	<i>Instructor.</i> Accelerated Scientific Computing.	<b>Sept. 2012 – March 2013</b>
	<i>Teaching Assistant.</i> Accelerated Scientific Computing.	<b>Sept. 2010 – March 2012</b>
COMMUNICATION	<b>Media:</b> Coverage in over 500 news outlets including The New York Times, The Washington Post, The Guardian, NPR, Science, National Geographic, and Scientific American.	
	<i>Blogger.</i> Northwestern Science in Society.	<b>June 2012 – 2015</b>
GENERAL PUBLICATIONS	3. <b>Coffel, E. D.</b> , 2017. <i>Climate change and infrastructure impacts</i> . Early Career Climate Forum.	
	2. <b>Coffel, E. D.</b> , Horton, R. M, 2017. <i>How hot weather and climate change affect airline flights</i> . The Conversation.	
	1. <b>Coffel, E. D.</b> , 2016. <i>Climate science in the Trump years</i> . Early Career Climate Forum.	
SERVICE	<b>Journal referee:</b> Environmental Research Letters, Climatic Change, Journal of Applied Meteorology and Climatology, International Journal of Climatology, and Journal of Air Transport Management.	
	<b>Conference session organizer:</b> Climate change impacts on transportation. AGU Fall Meeting, 2016.	
TECHNICAL SKILLS	Python, Matlab, C/C++, Java, C#, HTML/CSS, L <sup>A</sup> T <sub>E</sub> X, Unix/Linux, machine learning	
PROFESSIONAL SOCIETIES	American Meteorological Society	<b>2013 – Present</b>
	American Geophysical Union	<b>2013 – Present</b>