

Jen Henderson
Texas Tech University
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EDUCATION

Ph.D. Science and Technology Studies, Virginia Tech, 2016
Interdisciplinary Graduate Education Program in Remote Sensing

Dissertation Title: "To Err on the Side of Caution:" Ethical Dimensions of the National Weather Service Warning Process. Advisors: Dr. Gary Downey and Dr. Saul Halfon
Certificates: The Future Professoriate, Remote Sensing

PROFESSIONAL APPOINTMENTS

2021-Present Assistant Professor, Geosciences, Texas Tech University, Lubbock, Texas
2018-2020 Research Scientist, Cooperative Institute for Research in Environmental Sciences, University of Colorado, Boulder
2017-2018 Postdoctoral Fellow, Cooperative Institute for Research in Environmental Sciences, University of Colorado, Boulder
2011-2016 Interdisciplinary Graduate Education Program Fellow, Virginia Tech

PUBLICATIONS

Refereed Articles

- Henderson, J., Dilling, L., Morss, R.E., Wilhelmi, O.W., Rick, U. (accepted). "We got in the pilot program to learn from it:" Features of Social Learning in Drought Contexts Along the Arkansas River in Colorado." *Weather, Climate and Society*.
- Cravens, A., Henderson, J., Friedman, J., N. Burkardt, A.E. Cooper, T. Haigh, M. Hayes, J. McEvoy, S. Paladino, A. Wilke, H. Wilmer. (accepted). A Typology of Drought Decision Making: Synthesizing Across Cases to Understand Drought Preparedness and Response Actions. *Weather and Climate Extremes*.
- Henderson, J., Nielsen, E. R., Herman, G. R., & Schumacher, R. S. (2020). A Hazard Multiple: Overlapping Tornado and Flash Flood Warnings in a National Weather Service Forecast Office in the Southeastern United States. *Weather and Forecasting*, 35(4), 1459-1481.
- Lazrus, H., Wilhelmi, O., Morss, R., Henderson, J., & Dietrich, A. (2020). Information as Intervention: How Hurricane Risk Communication Interacted with Vulnerability and Capacities in Superstorm Sandy. *International Journal of Mass Emergencies & Disasters*, 38(1).
- Dilling, L., Berggren, J., Henderson, J., & Kenney, D. (2019). Savior of rural landscapes or Solomon's choice? Colorado's experiment with alternative transfer methods for water (ATMs). *Water Security*, 6, 100027.
- Henderson, J., & Liboiron, M. (2019). Compromise and Action: Tactics for Doing Ethical Research in Disaster Zones. In *Disaster Research and the Second Environmental Crisis* (pp. 295-309). Springer, Cham.
- Henderson, J. (2018). Weather-Ready Nation or Ready-Weather Agency? Empathetic Accuracy and Sociotechnical Resilience in the National Weather Service. In *The Sociotechnical Constitution of Resilience* (pp. 93-116). Palgrave Macmillan, Singapore.
- Demuth, J. L., Morss, R. E., Palen, L., Anderson, K. M., Anderson, J., Kogan, M., Stowe, M.

- Bica, H. Lazrus, O. V. Wilhelmi, Henderson, J. (2018). “Sometimes da# beachlife ain't always da wave”: Understanding People’s Evolving Hurricane Risk Communication, Risk Assessments, and Responses Using Twitter Narratives. *Weather, Climate, and Society*, 10(3), 537-560.
- Morss, R. E., Demuth, J. L., Lazrus, H., Palen, L., Barton, C. M., Davis, C. A., C. Snyder, O. V. Wilhelmi, K. M. Anderson, D. A. Ahijevych, J. Anderson, M. Bica, K. R. Fossell, J. Henderson, M. Kogan, K. Stowe, J. Watts. (2017). Hazardous weather prediction and communication in the modern information environment. *Bulletin of the American Meteorological Society*, 98(12), 2653-2674.
- Schroeder, A. J., Gourley, J. J., Hardy, J., Henderson, J. J., Parhi, P., Rahmani, V., A. Reed, R. S. Schumacher, B.K. Smith, Taraldsen, M. J. (2016). The development of a flash flood severity index. *Journal of Hydrology*, 541, 523-532.

Manuscripts Under Review

- Bica, M., Henderson, J., Spinney, J., Palen, L., Weinberg, J., and Nielsen, E. The Liminality of Uncertainty: What Happens When Social Media is Employed by Those in Highly Constrained Disaster Situations.

Conference Proceedings

- J. Anderson, M. Kogan, M. Bica, L. Palen, K. Anderson, R. Morss, J. Demuth, H. Lazrus, O. Wilhelmi, J. Henderson (2016). Social Media Studies. Far Far Away in Far Rockaway: Responses to Risks and Impacts during Hurricane Sandy through First-Person Social Media Narratives. Preprint: *International Conference on Information Systems for Crisis Management*.
- K. Droegemeier, L. P. Rothfusz, A. J. Knoedler, J. T. Ferree, J. Henderson, K. L. Nemunaitis-Monroe, D. Nagele, and K. E. Klockow (2016). Living with Extreme Weather Workshop: Summary and Path Forward. Preprint: *American Meteorological Society 96th Annual Conference*, New Orleans.

White Papers and Reports

- National Weather Service. [The Historic Derecho of June 29, 2012](#) (2013). National Oceanic and Atmospheric Administration. Social Science Consultant.
- National Weather Service. [May 2013 Oklahoma Tornadoes and Flash Flooding](#) (2014). National Oceanic and Atmospheric Administration. Social Science Consultant.

GRANTS AND FELLOWSHIPS

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| 2021-2023 | National Oceanic and Atmospheric Administration, Weather Prediction Office, Social and Behavioral Sciences grant, PI. “Improving Knowledge about NWS Forecaster Core Partner Needs for Reducing Vulnerability to Compound Threats in Landfalling Tropical Cyclones Amid Covid-19. Co-PI Erik Nielsen, Texas A&M. [\$355,519] |
| 2021-2024 | National Oceanic and Atmospheric Administration, VORTEX Southeast grant, co-PI. “Faster, Clearer, Stronger Communication and Action: Building IWT and Vulnerable Resident Connections to Improve Severe Weather Literacy and Outcomes.” PI Stephen Strader, Villanova University; Co-PI Alex Haberlie and Co-PI Walker Ashley, Northern Illinois University. [\$149,697] |
| 2018-2020 | National Oceanic and Atmospheric Administration, VORTEX Southeast grant, PI. |

- “Improving Forecaster and Partner Interpretation of Uncertainty and Confidence in Risk Information: Cool and Warm Season Tornado Threats in the Southeastern U.S. Co-PIs Julie Demuth, National Center for Atmospheric Research, and Jennifer Spinney, York University. [\$203,278]
- 2018-2020 National Oceanic and Atmospheric Administration, VORTEX Southeast grant, PI. “Multi-disciplinary investigation of concurrent tornado and flash flood threats in landfalling tropical cyclones.” Co-PIs Jennifer Spinney, York University, and Russ Schumacher and Erik Nielsen, Colorado State University. [\$142,382]
- 2018-2020 National Oceanic and Atmospheric Administration, Joint Technical Transfer Initiative grant, Co-PI. “Improving Convection-Permitting Ensemble Based Uncertainty Communication for Decision Support using the Weather Archive and Visualization Environment (WAVE). PI Julie Demuth, National Center for Atmospheric Research. [\$220,826]
- 2018-2020 National Oceanic and Atmospheric Administration, IRAP grant, Co-PI. “Integrating Seasonal and Sub-Seasonal Climate Information into Public Health Contexts: Co-Producing Decision Support Applications in Puerto Rico and Dominica.” Co-PIs, Benét Duncan, Western Water Assessment, Zack Guido, University of Arizona, and Maureen Litchveld, Tulane University. [\$133,434]
- 2016-18 National Oceanic and Atmospheric Administration, VORTEX Southeast grant, Improving Risk Communication and Reducing Vulnerabilities for Dynamic Tornado Threats in the Southeastern US.” Co-PI with Julie Demuth, PI, National Center for Atmospheric Research. [\$149,813]
- 2015-16 National Oceanic and Atmospheric Administration, VORTEX Southeast grant, Co-PI. “Multi-disciplinary investigation of concurrent tornadoes and flash floods in the Southeastern US.” PI Russ Schumacher, Colorado State University. [\$143,000]

AWARDS AND HONORS

- 2018 Early Career Leadership Academy, American Meteorological Society (competitively selected)
- 2015 College of Liberal Arts and Human Sciences Outstanding Doctoral Student, Virginia Tech, Blacksburg
- 2015 Warner Internship for Scientific Enrichment. Research Applications Lab, National Center for Atmospheric Research
- 2014 Advanced Study Program Graduate Student Visitor. Mesoscale & Microscale Meteorology, National Center for Atmospheric Research
- 2014 Summer Workshop on Environmental Sociology, Vanderbilt University with David Hess (competitively selected)
- 2013 International Higher Education Study Abroad, Virginia Tech (competitively selected)
- 2013 Interdisciplinary Flood Research Group (SPREAD), Colorado State University with Russ Schumacher (competitively selected)
- 2012 Summer Policy Colloquium, American Meteorological Society Policy Program, Washington, D.C. (competitively selected)

SELECTED CONFERENCE PRESENTATIONS

- 2020 J. Henderson, Nielsen, E., Obermeier, H., Mazurek, A., Spinney, J., and Demuth, J. “Overlapping Tornado and Flash Flood Hazards in Hurricane Harvey: Compound Hazards in a Long Duration Events.” American Meteorological Society, Online.
- 2019 J. Henderson. “Finding Fujita” in author panel “Telling Lives in Meteorology: A Dialogue between Readers and Writers.” American Meteorological Society, Phoenix.

- 2018 J. Henderson. Dynamics of Vulnerability in Drought Contexts. American Meteorological Society, Austin.
- 2017 J. Henderson. "Social Sciences and National Weather Service Forecasters." National Academy of Sciences. (Invited presentation)
- 2017 J. Henderson. "Tornado and Flash Flood Communication Challenges in the National Weather Service." American Meteorological Society, Severe and Local Storms Symposium, Seattle. (Invited presentation)
- 2016 J. Henderson. "Infrastructures of Time and Space in the Weather Warning Process." Society for the History of Technology (SHOT), Singapore.
- 2016 N. Doesken, J. Henderson, P. Higgins, and P. A. Newman. "Beyond the Weather: Getting the Word Out: Science Policy and Communication." Panelist, Student Conference. American Meteorological Society Annual Conference, New Orleans. (Invited panelist)
- 2015 J. Henderson. "To Err on the Side of Caution: Ethics in the Weather Warning Process." Interdisciplinary Hazards Researcher Meeting. Natural Hazards Center, Boulder.

SELECTED SERVICE

- 2020-Present Chair, Board on Societal Impacts, American Meteorological Society
- 2018-2021 Scientific Planning Committee, Verification of the Origins of Rotation in Tornadoes EXperiment-Southeast (VORTEX) Southeast
- 2020-2021 Planning Committee, American Meteorological Society Annual Meeting
- 2018-2021 Chair, Societal Applications Symposium, American Meteorological Society
- 2018-2020 Council Member, American Meteorological Society
- 2018-2019 Task Force on Diversity and Inclusion, American Meteorological Society
- 2018-2019 Task Force on Early Career Participation in the Society, American Meteorological Society
- 2018-2019 Drought Social Sciences Synthesis Team, USGS and Colorado State University
- 2015-2018 Chair, Social Impacts Committee, National Weather Association
- 2015-2017 Writing Team, [The Alliance for Integrative Approaches to Extreme Environmental Events](#)
- 2014 Organizing Committee, Virginia Tech Academy of Teaching Excellence
- 2013-2015 Organizing Committee Member, [Living with Extreme Weather Workshop](#)
- 2013 Social Scientist Consultant on [NWS OKC Tornado Service Assessment](#)
- 2012 Social Scientist Consultant on [NWS Mid-Atlantic Derecho Service Assessment](#)