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Education

Advanced Study Program Postdoc. Fellow, 2017–2018, National Center for Atmospheric Research, Boulder, CO
Postdoc. Fellow, 2015–2017, School of Geosciences, Univ. of South Florida, Tampa, FL
PhD, Geography, 2010–2015, Univ. of South Carolina, Columbia, SC
MS, Geography, 2008–2010, Univ. of Florida, Gainesville, FL
BA, Geography, 2000–2004, Univ. of Oklahoma, Norman, OK; Minor: History

Publications (**Ash** highlighted with bold underlined font; **UF student authors*** indicated with bold font and an asterisk*)

Saba, J.A.*, **K. Ash**, and D. Napton. 2024. Assessing the vulnerability of Cape Coral, Florida, to sea level rise using principal component analysis (2020–2050). *International Journal of Disaster Risk Reduction*, 115: 105014. DOI: <https://doi.org/10.1016/j.ijdr.2024.105014>.

Ash, K.D., **C.L. Williams***, **C.M. Feemster***, M.J. Bunkers, J.L. Demuth, R.E. Morss, F. Bowser, C.D. Karstens, and D. Nietfeld. 2024. Quantifying and Visualizing Severe Thunderstorm Motion Uncertainty for Improved Decision Support. *Weather and Forecasting*, 39(12): 1919–1936. DOI: <https://doi.org/10.1175/WAF-D-24-0041.1>.

Saba, J.A.*, **C.L. Williams***, M.E. Egnoto, S.M. Strader, K. Klockow-McClain, and **K.D. Ash**. 2024. Factors that influenced preferences regarding use of public and private tornado shelters during the COVID-19 pandemic in 2020. *International Journal of Disaster Risk Reduction*, 109: 104580. (**Ash** is corresponding author)
DOI: <https://doi.org/10.1016/j.ijdr.2024.104580>.

Qin, C., S. Joslyn, S. Savelli, J. Demuth, R. Morss, & **K. Ash**. 2024. The Impact of Probabilistic Tornado Warnings on Risk Perceptions and Responses. *Journal of Experimental Psychology: Applied*, 30(1): 206–239. DOI: <https://doi.org/10.1037/xap0000486>.

Seeteram, N.A., **K. Ash**, B.F. Sanders, J.E. Schubert, and K.J. Mach. 2023. Modes of climate mobility under sea-level rise. *Environmental Research Letters*, 18: 114015. DOI: 10.1088/1748-9326/acfe22.

Shah, S.H., C.R. O’Lenick, J.S. Wan, A. Ramos-Valle, **K.D. Ash**, O.V. Wilhelmi, C.M. Edgeley, M.J. Molina, J. Moulite, C.A. Chunga Pizarro, K. Emard, O.Z. Cameron, J.M. Done, C.W. Hazard, T.M. Hopson, M. Jones, F. Lacey, M.A. Lachaud, D. Lombardozzi, M. Mendez, R.E. Morss, K. Ricke, F. Tormos-Aponte, W.R. Wieder, and **C.L. Williams***. 2023. Connecting physical and social science datasets: challenges and pathways forward. *Environmental Research Communications*, 5: 095007. DOI: 10.1088/2515-7620/acf6b4.

- Williamson, M.***, **K. Ash**, M.J. Erickson, and E. Mullens. 2023. Damages Associated with Excessive Rainfall Outlooks (ERO) and Missed Flash Floods. *Weather and Forecasting*, 38(6): 971–984. DOI: <https://doi.org/10.1175/WAF-D-22-0035.1>.
- Alruzuq, A. R.***, J.W. Remo, J. Mossa, & **K. Ash**. 2023. Socio-hydrology and vulnerability of levee systems along the lower Illinois River. *Annals of GIS*, 29(2): 1–19. DOI: <https://doi.org/10.1080/19475683.2023.2166113>.
- Saunders, M. E., **K.D. Ash**, J.M. Collins, & R.E. Morss. 2023. Construal of Situational Risk and Outcomes—Exploring the Use of Weather Radar Displays with Residents of the Tampa Bay Region. *Weather, Climate, and Society*, 15(1): 211–226. DOI: <https://doi.org/10.1175/WCAS-D-22-0069.1>.
- Clarke, K.***, **K. Ash**, E.S. Coker, T. Sabo-Attwood, and E. Bainomugisha, 2022. A Social Vulnerability Index for Air Pollution and its Spatially Varying Relationship to PM_{2.5} in Uganda, *Atmosphere*, 13, 1169. DOI: <https://doi.org/10.3390/atmos13081169>.
- Demuth, J.L, J. Vickery, H. Lazrus, J. Henderson, R.E. Morss, and **K.D. Ash**, 2022. Rethinking Warning Compliance and Complacency by Examining how People Manage Risk and Vulnerability during Real-world Tornado Threats, *Bulletin of the American Meteorological Society*, 103(6): E1553–E1572. DOI: <https://doi.org/10.1175/BAMS-D-21-0072.1>.
- Yang, E.***, J. Kim, L. Pennington-Gray, **K. Ash**, 2021. Does Tourism Matter in Measuring Community Resilience? *Annals of Tourism Research*, 89, 103222. DOI: <https://doi.org/10.1016/j.annals.2021.103222>.
- Lee, Y.J.A.***, J. Kim, S. Jang, **K. Ash**, and **E. Yang***, 2021. Tourism and economic resilience, *Annals of Tourism Research*, 87, 103024. DOI: <https://doi.org/10.1016/j.annals.2020.103024>.
- Hassan, M.M.***, **K. Ash**, J. Abedin, B.K. Paul, and J. Southworth, 2020. A Quantitative Framework for Analyzing Spatial Dynamics of Flood Events: A Case Study of Super Cyclone Amphan, *Remote Sensing*, 12(20), 3454. DOI: <https://doi.org/10.3390/rs12203454>.
- Han, Y.***, **K. Ash**, L. Mao, and Z.R. Peng, 2020. An agent-based model for community flood adaptation under uncertain sea-level rise, *Climatic Change*, 162, 2257–2276. DOI: <https://doi.org/10.1007/s10584-020-02802-6>.
- Ash, K.D.**, M.J. Egnoto, S.M. Strader, W.S. Ashley, D.B. Roueche, K.E. Klockow-McClain, **D. Caplen***, and **M. Dickerson***, 2020. Structural Forces: Perception and Vulnerability Factors for Tornado Sheltering Within Mobile and Manufactured Housing in Alabama and Mississippi, *Weather, Climate, and Society*, 12(3): 453–472. DOI: <https://doi.org/10.1175/WCAS-D-19-0088.1>.

- Strader, S., **K. Ash**, E. Wagner, and C. Sherrod, 2019. Mobile Home Resident Evacuation Vulnerability and Emergency Medical Service Access during Tornado Events in the Southeast United States, *International Journal of Disaster Risk Reduction*, 38: 101210. DOI: <https://doi.org/10.1016/j.ijdr.2019.101210>.
- Saunders, M.E., **K.D. Ash**, and J.M. Collins, 2018. Usefulness of the United States National Weather Service Radar Display as Rated by Website Users, *Weather, Climate, and Society*, 10(4): 673–691. DOI: <https://doi.org/10.1175/WCAS-D-17-0108.1>.
- Schumann III, R.L., **K.D. Ash**, and G.C. Bowser, 2018. Tornado Warning Perception and Response: Integrating the Roles of Visual Design, Demographics, and Hazard Experience, *Risk Analysis*, 38(2): 311–332. DOI: <https://doi.org/10.1111/risa.12837>.
- Ash, K.D.**, 2017. A Qualitative Study of Mobile Home Resident Perspectives on Tornadoes and Tornado Protective Actions in South Carolina, USA, *GeoJournal*, 82(3): 533–552. DOI: <https://doi.org/10.1007/s10708-016-9700-8>.
- Cutter, S.L., **K.D. Ash**, and C.T. Emrich, 2016. Urban-Rural Differences in Disaster Resilience, *Annals of the American Association of Geographers*, 106(6): 1236–1252. DOI: <https://doi.org/10.1080/24694452.2016.1194740>.
- Cutter, S.L., **K.D. Ash**, and C.T. Emrich, 2014. The Geographies of Community Disaster Resilience. *Global Environmental Change*, 29:65–77. DOI: <https://doi.org/10.1016/j.gloenvcha.2014.08.005>.
- Ash, K.D.**, R.L. Schumann III, and G.C. Bowser, 2014. Tornado Warning Trade-offs: Evaluating Choices for Visually Communicating Risk. *Weather, Climate, and Society*, 6(1):104–118. DOI: <https://doi.org/10.1175/WCAS-D-13-00021.1>.
- Ash, K.D.**, S.L. Cutter, and C.T. Emrich, 2013. Acceptable Losses? The Relative Impacts of Natural Hazards in the United States, 1980-2009. *International Journal of Disaster Risk Reduction*, 5:61–72. DOI: <https://doi.org/10.1016/j.ijdr.2013.08.001>.
- Ward, S.M., C.T. Emrich, **K. Ash**, and R. Schumann, 2012. Research-Based Decision Support in Hazard Mitigation: Louisiana Northshore Flood and Hurricane Protection. *Risk, Hazards & Crisis in Public Policy*, 3(3):38–68. DOI: <https://doi.org/10.1002/rhc3.11>.
- Ash, K.D.**, and C.J. Matyas, 2012. The influences of ENSO and the subtropical Indian Ocean Dipole on tropical cyclone trajectories in the southwestern Indian Ocean. *International Journal of Climatology*, 32(1):41–56. DOI: <https://doi.org/10.1002/joc.2249>.

Funding and Awards

Funded Research Proposals

Florida Fish and Wildlife Conservation Commission. **Role: Co-PI** with PI Christa Court (Univ. of Florida, Food and Resource Economics Dept); **2023-2024, Total Award: \$295,314**, Title: Composite Red Tide Vulnerability Index (CRTVI): Assessing and communicating socio-economic vulnerability of coastal communities to Red Tide in Florida.

Early Career Faculty Innovators Program, National Center for Atmospheric Research (sponsor), National Science Foundation (prime sponsor). **Role: PI; 2021-2024, Total award: \$401,148**, Title: A Flexible Geospatial Awareness Framework for Weather Warning Communication and Decision Support.

National Oceanic and Atmospheric Administration. **Role: PI; 2020-21, Total award: \$23,523**; Title: Tornado Sheltering Perceptions and Behavior During the COVID-19 Pandemic.

National Oceanic and Atmospheric Administration. Verification of the Origin of Rotation of Tornadoes Experiment, Southeast US (VORTEX-SE), **Role: UF PI** with lead PI Stephen Strader (Villanova Univ.); **2017-2020, Total Award: \$245,769; UF Portion: \$19,357**, Title: Tornadoes and Mobile Homes: An Inter-science Approach to Reducing Vulnerabilities and Improving Capacities for the Southeast's Most Susceptible Population.

National Science Foundation Doctoral Dissertation Research Improvement, Geography and Spatial Sciences; **Role: Co-PI** with PI Susan L. Cutter (Dept. of Geography, Univ. of South Carolina); **2013-2015, Total Award: \$14,756**, Title: Beliefs, Attitudes, and Intended Tornado Sheltering Strategies of Mobile Home Residents.

Academic & Travel Awards

Travel Award. Social & Behavioral Science Participant, University Corporation for Atmospheric Research, National Oceanic and Atmospheric Administration. Verification of the Origin of Rotation of Tornadoes Experiment, Southeast US (VORTEX-SE) Workshop, Huntsville, AL, Nov. 16-17, 2017. **\$485**.

Travel Award. Social & Behavioral Science Participant, University Corporation for Atmospheric Research, National Oceanic and Atmospheric Administration. Verification of the Origin of Rotation of Tornadoes Experiment, Southeast US (VORTEX-SE) Workshop, Portland, OR, Nov. 5-6, 2016. **\$1000**.

Travel Award. Social & Behavioral Science Participant, University Corporation for Atmospheric Research, National Oceanic and Atmospheric Administration. Verification of the Origin of Rotation of Tornadoes Experiment, Southeast US (VORTEX-SE) Workshop, Huntsville, AL, Nov. 9-10, 2015. **\$750**.

Teaching Experience as Instructor

Graduate Courses:

- Population GIS (GIS 5505 at UF; 2023–present)
- Weather, Climate, and Society (GEO 5349 at UF; 2021–present)
- GIS Analysis of Hazard Vulnerability (GIS 6325 at UF; 2018–present)

Undergraduate Courses:

- Population GIS (GIS 4500 at UF; 2023–present)
- Weather, Climate, and Society (GEO 4034 at UF; 2021–present)
- Natural Hazards Geography (GEO 2006 at UF; 2020–present)
- Population Geography (GEO 3430 at UF; 2019)
- GIS Analysis of Hazard Vulnerability (GIS 4324 at UF; 2018–present)
- Natural Hazards (GEO 4340 at USF-Tampa; 2017)
- Human Geography (GEO 2400 at USF-Tampa; 2016)
- Geography of Disasters (GEOG 330 at Univ. of South Carolina; 2012)
- Foundations of Geographic Information Systems (GIS 3043 at UF; 2010)

Presentations

As Presenter

#Oral Presentation, ^Poster Presentation

UF student co-authors indicated with **bold font** & asterisk*

#Ash, K., C. Feemster*, C. Williams*, J. Boehnert, J. Demuth, D.J. Gagne, R. Morss, O. Wilhelmi, F. Bowser, M. Bunkers, C. Karstens, J. LaDue, and D. Nietfeld, 2024. A Decision Arc Framework to Facilitate Tornado Threat Awareness and Protective Behaviors, 7th Conference on Weather Warnings and Communication, June 13, Myrtle Beach, SC.

^Ash, K., C. Feemster*, C. Williams*, J. Boehnert, J. Demuth, D.J. Gagne, R. Morss, O. Wilhelmi, F. Bowser, M. Bunkers, C. Karstens, J. LaDue, and D. Nietfeld, 2023. Analysis of Uncertainty in Location and Motion Information in Tornado Warnings. American Meteorological Society, 32nd Conference on Weather Analysis and Forecasting, July 20, Madison, WI.

#Ash, K. D., C. Williams*, C. Feemster*, J. Boehnert, J. Demuth, D.J. Gagne, R. Morss, O. Wilhelmi, F. Bowser, M. Bunkers, C. Karstens, J. LaDue, and D. Nietfeld, 2023. Evaluation of Storm Location and Motion Information in Tornado Warnings for Geospatial Awareness and Decision Support. American Association of Geographers Annual Meeting, March 24, Denver, CO.

^Ash, K. D., C. Feemster*, C. Williams*, J. Boehnert, J. Demuth, D.J. Gagne, R. Morss, O. Wilhelmi, F. Bowser, M. Bunkers, C. Karstens, J. LaDue, and D. Nietfeld, 2022. Evaluation of Storm Location and Motion Information in Tornado Warnings for Geospatial Awareness and Decision Support. Southeastern Division of the American Association of Geographers, November 21, Atlanta, GA.

- #**Ash, K.**, 2022. A Flexible Geospatial Awareness Framework for Weather Warning Communication and Decision Support. NCAR Early Career Faculty Innovators Program, Day of Research, July 27, Boulder, CO.
- ^**Ash, K.D., C.L. Williams***, **C.M. Feemster***, J.L. Demuth, D.J. Gagne, R.E. Morss, O.V. Wilhelmi, & J. Boehnert, 2022. A Flexible Geospatial Awareness Framework and Tool for Weather Warning Communication and Decision Support. American Meteorological Society Annual Meeting, January 24, presentation given virtually due to COVID-19.
- ^**Ash, K.**, M. Egnoto, S. Strader, & K. Klockow-McClain, 2021. Tornado Risk Perceptions and Sheltering Options during the COVID-19 Pandemic in 2020. Southeastern Division of the American Association of Geographers Annual Meeting, November 22, Florence, AL.
- #**Ash, K.**, M. Egnoto, **C. Williams***, & K. Klockow-McClain, 2021. Tornado Sheltering Perceptions During the COVID-19 Pandemic in 2020. Weather-Ready Nation's Role in Advancing Social Equity, NOAA Weather-Ready Nation Ambassador Roundtable, April 27, invited talk as part of national webinar with over 400 NOAA employees, emergency managers, & Weather-Ready Nation partners in attendance.
- ^**Ash, K., D. Caplen***, **M. Dickerson***, M. Egnoto, S.M. Strader, W.S. Ashley, D.B. Roueche, K.E. Klockow-McClain, 2020. Perception and Vulnerability Factors for Tornado Sheltering Within Mobile and Manufactured Housing in Alabama and Mississippi, Florida Society of Geographers Annual Meeting, February 8, Gainesville, FL.
- #**Ash, K.**, M. Egnoto, S.M. Strader, W.S. Ashley, D.B. Roueche, K.E. Klockow-McClain, **D. Caplen***, & **M. Dickerson***, 2020. Perception and Vulnerability Factors for Tornado Sheltering Within Mobile and Manufactured Housing in Alabama and Mississippi, USA, American Meteorological Society Annual Meeting, 15th Symposium on Societal Applications: Policy, Research and Practice, January 13, Boston, MA.
- ^**Ash, K., W. Sargent***, S. Savelli, S. Joslyn, C. Qin, J. Demuth, & R. Morss, 2019. Beyond the Numbers: Spatial Influences in Public Interpretation of Probabilistic Tornado Information, Southeastern Division of the American Association of Geographers, November 25, Wilmington, NC.
- ^**Ash, K.**, M. Egnoto, S. Strader, W. Ashley, D. Roueche, K. Klockow-McClain, & C. Edwards, 2019. Manufactured Home Residents, Risk Perception, & Tornado Sheltering in the American Mid-South, American Association of Geographers Annual Meeting, April 5, Washington, DC.
- ^**Ash, K.**, M. Egnoto, S. Strader, W. Ashley, D. Roueche, K. Klockow-McClain, & C. Edwards, 2019. Manufactured Home Residents, Risk Perception, & Tornado Sheltering in the American Mid-South, University of Florida, Florida Institute for Built Environment Resilience, Poster Session: Towards a Resilient Built Environment, March 20, Gainesville, FL.

- #Ash, K.**, 2018. Perception & Response to Probabilistic Severe Weather Warnings Shown in Visual Formats, University of Florida, Department of Geography Colloquium, October 4, Gainesville, FL.
- #Ash, K.**, 2018. Risk Perception & Flood Events. Haskell Environmental Research Studies Intern Program, National Center for Atmospheric Research, July 9, Boulder, CO.
- #Ash, K.**, 2018. Risk Perception, Vulnerability, & Communication for Extreme Weather Events. Mesoscale & Microscale Meteorology Laboratory Seminar, National Center for Atmospheric Research, January 18, Boulder, CO.
- #Ash, K.D.**, M.E. Saunders, J. Collins, and C.H. Paxton, 2018. Factors Influencing the Usefulness of the NWS Website Radar Display, American Meteorological Society Annual Meeting, 13th Symposium on Societal Applications: Policy, Research and Practice, January 10, Austin, TX.
- #Ash, K.**, R. Schumann, and G. Bowser, 2017. Do Personal Characteristics and Prior Experiences Matter When Interpreting a Visual Warning Graphic? American Association of Geographers Annual Meeting, April 8, Boston, MA.
- #Ash, K.**, 2017. Mobile Home Resident Perspectives on Tornado Preparedness and Protective Action, University of Florida, Department of Geography Colloquium, March 30, Gainesville, FL.
- #Ash, K.**, 2017. Risk Perception and Risk Communication, University of South Florida Global Scholars Circuit, February 13, Tampa, FL.
- #Ash, K.**, 2016. Statistical Modeling of Tornado Warning Evacuation Intentions for Mobile Home Occupants, American Association of Geographers Annual Meeting, March 31, San Francisco, CA.
- #Ash, K.**, 2016. Mobile Home Resident Perspectives on Protective Actions for Wind Hazards, University of South Florida Provost Postdoctoral Research Symposium, The Great Divergence: Methodologies of Space, Place, and Movement, March 25, Tampa, FL.
- #Ash, K.**, 2015. Tornado Preparedness and Protective Action Beliefs Among Mobile Home Occupants: A Latent Class Analysis, Southeastern Division of the Association of American Geographers Annual Meeting, November 23, Pensacola, FL.
- #Ash, K.**, 2015. Explaining Tornado Sheltering Intentions of Manufactured Home Residents: Experiences, Perceptions, and Expectations, American Meteorological Society Annual Meeting, 10th Symposium on Societal Applications: Policy, Research and Practice, January 6, Phoenix, AZ.

- #**Ash, K.**, 2014. Should I Stay or Should I Go Now? Perspectives on Tornado Sheltering Among Manufactured Home Residents in South Carolina, American Association of Geographers Annual Meeting, April 10, Tampa, FL.
- #**Ash, K.**, R. Schumann, and G. Bowser, 2013. Am I Really in Danger? How Varying the Visual Representation of a Tornado Warning Can Alter Threat Perception, International Research Committee on Disasters Researchers Meeting, July 17, Broomfield, CO.
- #**Ash, K.**, 2013. Mobile Homes and Tornadoes: Multivariate Mapping of Exposure and Social Vulnerability to Suggest Future Research Directions, Association of American Geographers Annual Meeting, April 10, Los Angeles, CA.
- ^**Ash, K.**, G.C. Bowser, and R.L. Schumann, III, 2012. Trade-offs in Threat Perception: Evaluating Responses to Tornado Warning Graphics, Southeast Division of the Association of American Geographers Annual Meeting, November 19, Asheville, NC.
- #**Ash, K.**, S. Cutter, and C. Emrich, 2011. Geographic Variability of the Relative Economic Impacts of Natural Hazards in the United States, International Research Committee on Disasters Researchers Meeting, July 12, Broomfield, CO.
- #**Ash, K.**, J. Webb, C. Emrich, and S. Cutter, 2011. Geographic Variability in the Direct Economic Impacts of Natural Hazards in the United States, Association of American Geographers Annual Meeting, April 12, Seattle, WA.
- #**Ash, K.D.**, 2010. A Cluster Analysis of South Indian Ocean Tropical Cyclone Trajectories: Clarifying the El Nino-Southern Oscillation Association, Association of American Geographers Annual Meeting, April 15, Washington, DC.
- ^**Ash, K.D.**, and C.J. Matyas, 2010. The influence of ENSO on tropical cyclone trajectories in the South Indian Ocean, 90th American Meteorological Society Annual Meeting, January 17, Atlanta, GA.
- #**Ash, K.**, 2009. A Cluster Analysis of Tropical Cyclone Trajectories in the South Indian Ocean, Southeast Division of the Association of American Geographers Annual Meeting, November 23, Knoxville, TN.
- ^**Ash, K.**, and C.J. Matyas, 2009. Testing consistency of TC frequency and genesis location in the Southwest Indian Ocean Using IBTrACS, International Best Tracks Archive for Climate Stewardship (IBTrACS) Workshop, May 6, Asheville, NC.
- #**Ash, K.**, and C.J. Matyas, 2009. Tropical cyclone formation and landfall probabilities for the Southwest Indian Ocean Basin, Florida Society of Geographers annual meeting, January 24, St. Augustine, FL.

As Collaborator

#Oral Presentation, ^Poster Presentation

UF student co-authors indicated with **bold font** & asterisk *

#**Williams, C.***, **K. Ash**, **C. Feemster***, J. Boehnert, J. Demuth, D.J. Gagne, R. Morss, O. Wilhelmi, F. Bowser, M. Bunkers, C. Karstens, J. LaDue, and D. Nietfeld, 2024. Demonstrating Decision Arc Model Robustness Using Tornado Case Studies, American Association of Geographers Annual Meeting, April 16, Honolulu, HI.

^**Saba, J.***, and **K. Ash**, 2023. Tornado Risk Perceptions and Sheltering Behaviors during the COVID-19 Pandemic in 2020. Southeastern Division of the American Association of Geographers Annual Meeting, November 20, Norfolk, VA.

#Barq, A., R.B. Hawkins, **D. Das***, **K. Ash**, L. Mao, S.D. Larson, J.A. Taylor, C. Bazacliu, and R.T. Petroze, 2023. The Influence of Social Determinants of Health on Outcomes in Severe Necrotizing Enterocolitis. American College of Surgeons Clinical Congress, October 23, Boston, MA.

#**Chen, K.***, **K. Ash**, and R. Steiner, 2023. Exploring the Relationships between Social Vulnerability and Americans' Multi-dimensional Travel Adaptation Following COVID-19. Association of Collegiate Schools of Planning Annual Meeting, October 21, Miami, FL.

^**Saba, J.***, **K. Ash**, and **C. Williams***, 2023. Tornado Risk Perceptions and Sheltering Behavior during the COVID-19 Pandemic in 2020. Natural Hazards Research & Applications Workshop, July 9, Broomfield, CO.

#**Chen, K.***, **K. Ash**, and R. Steiner, 2023. Exploring the Correlations between Social Vulnerability and Americans' Multi-dimensional Travel Adaptation Following COVID-19. International Association for China Planning Conference, June 29, Tianjin, China. Presentation given remotely by K. Chen in online session).

#Seeteram, N. A., **K. Ash**, M. Bhat, E. Anderson, K. Grove, B. F. Sanders, J. E. Schubert, and K. J. Mach, 2022. An Assessment of Climate Mobility Pressures in Response to Dynamic Sea-Level Rise. American Geophysical Union Fall Meeting, December 14, Chicago, IL.

^**VanSchoick, S.***, C. Matyas, and **K. Ash**, 2022. Exploratory Analysis of FEMA Individual Assistance for Tropical Cyclone Induced Flooding. Southeastern Division of the American Association of Geographers, November 21, Atlanta, GA.

#Demuth, J., J. Vickery, H. Lazrus, J. Henderson, R. E. Morss, and **K. Ash**, 2022. Rethinking Warning Compliance and Complacency by Examining how People Manage Risk and Vulnerability during Real-world Tornado Threats. American Meteorological Society, 30th Conference on Severe Local Storms, October 26, Santa Fe, NM.

- ^Clarke, K.A.*, & K. Ash, 2022. Creating a social vulnerability index for Uganda and determining the spatially varying relationship between PM2.5 exposure and social vulnerability. Society of Toxicology Annual Meeting, March 30, San Diego, CA.
- #Lusk, M.G., K. Ash, B. Gao, J. Jones, D. Kadyampakeni, A.J. Reisinger, & A. Zimmerman, 2022. Beneficial Reuse of Wastewater: An Update on Trends in Florida and Interdisciplinary Research Opportunities. UF Water Institute Symposium, February 23, Gainesville, FL.
- ^Donovan, M.*, and K. Ash, 2022. Social and Agricultural Vulnerability to Climate Change Hazards in the Southern Region. UF Water Institute Symposium, February 22, Gainesville, FL.
- ^Childs, S.J., J.L. Demuth, R.E. Morss, K. Ash, S. Joslyn, S. Savelli, & C. Qin, 2021. Evaluating Probabilistic Tornado Warning Graphics—Unprimed Interpretations of and Responses Motivated by Four Designs, American Meteorological Society Annual Meeting, January 14, presentation given virtually due to COVID-19.
- #Williams, C.*, K. Ash, M. Egnoto, K. Klockow-McClain, J. Demuth, P. Kucera, R. Morss, & O. Wilhelmi, 2021. Situating People, Places, and Peril: Tornado Sheltering during the COVID-19 Pandemic. American Association of Geographers Annual Meeting, April 9, presentation given virtually due to COVID-19.
- #Williamson, M.*, K. Ash, M.J. Erickson, & E. Mullens, 2021. How much do flash flooding events outside an Excessive Rainfall Outlook (ERO) matter? American Association of Geographers Annual Meeting, April 8, presentation given virtually due to COVID-19.
- #Seeteram, N., K.J. Mach, & K. Ash, 2020. Resilience for Whom? A Climate Mobility Framework for Evaluating Equity Outcomes in Climate Change Adaptation, American Geophysical Union Fall Meeting, December 9, presentation given virtually due to COVID-19.
- #Seeteram, N., K. Ash, & K. Mach, 2020. Resilience for Whom? A Climate Mobility Framework for Assessing Equity Outcomes in Sea Level Rise Adaptation, Annual Meeting of the Society for Decision Making Under Deep Uncertainty, November 11, presentation given virtually due to COVID-19.
- ^Williamson, M.*, K. Ash, M.J. Erickson, & E. Mullens, 2020. How much do flash flooding events outside of an Excessive Rainfall Outlook (ERO) matter? Southeastern Division of the American Association of Geographers Annual Meeting, November 7, presentation given virtually due to COVID-19.
- #Strader, S.M., & K.D. Ash, Mobile Home Resident Evacuation Vulnerability during Tornado Events in the Southeast United States, 2020. American Meteorological Society Annual Meeting, 15th Symposium on Societal Applications: Policy, Research and Practice, January 16, Boston, MA.

- #Demuth, J.L., R.E. Morss, **K.D. Ash**, S. Savelli, S. Joslyn, & C. Qin, 2020. The Impact of Color-Coded Probabilistic Tornado Warnings on Risk Perceptions and Responses. Part II: Interviews, American Meteorological Society Annual Meeting, 15th Symposium on Societal Applications: Policy, Research and Practice, January 13, Boston, MA.
- #Joslyn, S., S. Savelli, C. Qin, J. Demuth, R. Morss, & **K.D. Ash**, 2020. The Impact of Color-Coded Probabilistic Tornado Warnings on Risk Perceptions and Responses. Part I: Experiment, American Meteorological Society Annual Meeting, 15th Symposium on Societal Applications: Policy, Research and Practice, January 13, Boston, MA.
- #Smith, D.C., J.L. Demuth, J. Vickery, J. Henderson, H. Lazrus, R.E. Morss, & **K.D. Ash**, 2020. “Hey @weather, I’m really getting tired of huddling my little girls in the closet”: Using Twitter to examine risk messages, risk perceptions, and responses during tornadoes, American Meteorological Society Annual Meeting, 15th Symposium on Societal Applications: Policy, Research and Practice, January 13, Boston, MA.
- #Demuth, J.L., D. Smith, J. Vickery, H. Lazrus, J. Henderson, R. Morss, & **K. Ash**, 2019. “Hey @weather, I’m really getting tired of huddling my little girls in the closet”: Using Twitter to examine risk messages, risk perceptions, and responses during tornadoes, Society for Risk Analysis Annual Meeting, December 10, Arlington, VA.
- ^Strader, S., W. Ashley, K. Klockow-McClain, **K. Ash**, D. Roueche, & M. Egnoto, 2019. Tornadoes and Mobile Homes: An Inter-science Approach to Reducing Vulnerabilities and Improving Capacities for the Southeast’s Most Susceptible Population, NOAA VORTEX-SE Workshop, September 12, Huntsville, AL.
- ^Savelli, S., S. Joslyn, C. Qin, J. Demuth, R. Morss, & **K. Ash**, 2019. Understanding and Enhancing Public Interpretation and Use of Probabilistic Tornado Warnings in the Southeastern United States, NOAA VORTEX-SE Workshop, September 12, Huntsville, AL.
- ^Li, X.*, **K. Ash**, & C. Matyas, 2019. Integrated Vulnerability: Case Studies of Tropical Storm Allison and Hurricane Harvey, American Association of Geographers Annual Meeting, April 4, Washington, DC.
- #Demuth, J.L., H. Lazrus, J. Henderson, J. Vickery, R.E. Morss, **K.D. Ash**, D.C. Smith, K.M. Anderson, and L. Palen, 2019. Risk, Information, and Vulnerability for Evolving Tornado Threats, American Meteorological Society Annual Meeting, 14th Symposium on Societal Applications: Policy, Research and Practice, January 9, Phoenix, AZ.
- ^Egnoto, M., **K.D. Ash**, S.M. Strader, W.S. Ashley, K.E. Klockow-McClain, D. Roueche, and C. Edwards, 2019. Investigating Mobile Home Residents, Tornadic Weather, and Vulnerability: A Review of Survey Data Focused on Social and Physical Resources and Responses to Tornadic Information, American Meteorological Society Annual Meeting, 14th Symposium on Societal Applications: Policy, Research and Practice, January 8, Phoenix, AZ.

- ^Strader, S.M., **K.D. Ash**, and E. Wagner, 2019. Using Network and Near Analyses to Examine Mobile Home Resident Evacuation Potential and Emergency Medical Service Response during Tornado Events in the Southeast United States, American Meteorological Society Annual Meeting, 14th Symposium on Societal Applications: Policy, Research and Practice, January 8, Phoenix, AZ.
- ^Demuth, J., S. Joslyn, S. Savelli, C. Qin, R. Morss, and **K. Ash**, 2018. Assessing public understanding, risk perception, and responses to probabilistic tornado warnings, Society for Risk Analysis Annual Meeting, December 3, New Orleans, LA.
- #Demuth, J.L., J. Vickery, H. Lazrus, J. Henderson, R.E. Morss, **K.D. Ash**, D.C. Smith, K.M. Anderson, and L. Palen, 2018. Risk, Information, and Vulnerability for Evolving Tornado Threats in the Southeast, American Meteorological Society, 29th Conference on Severe Local Storms, October 25, Stowe, VT.
- ^Strader, S.M., **K. Ash**, E. Wagner, and C. Sherrod, 2018. Using Network and Near Analyses to Examine Mobile Home Resident Evacuation Potential and Emergency Medical Service Response During Tornado Events in the Southeast U.S., American Meteorological Society, 29th Conference on Severe Local Storms, October 23, Stowe, VT.
- ^Demuth, J.L., H. Lazrus, J. Henderson, J. Vickery, R.E. Morss, **K.D. Ash**, K.M. Anderson, and L. Palen, 2018. Risk, Information, and Vulnerability for Evolving Tornado Threats: Examining the 22 January 2017 EF-3 Tornadoes in Adel and Albany, Georgia, American Meteorological Society, Joint Session of 29th Conference on Weather Analysis and Forecasting & 25th Conference on Numerical Weather Prediction, June 7, Denver, CO.
- ^Saunders, M.E., **K.D. Ash**, and J.M. Collins, 2017. Factors Influencing the Usefulness of the NWS Website Radar Display, Southeast Division of the American Association of Geographers Annual Meeting, November 20, Starkville, MS.
- #Savelli, S., S. Joslyn, C. Qin, J. Demuth, R. Morss, & **K. Ash**, 2017. Probabilistic Tornado Warnings: Understanding and Enhancing Public Interpretation and Use of Probabilistic Tornado Warnings in the Southeastern United States, NOAA VORTEX-Southeast Workshop, November 16, Huntsville, AL.
- #Strader, S., W. Ashley, K. Klockow, M. Egnoto, **K. Ash**, & D. Roueche, 2017. Tornadoes and Mobile Homes: An Inter-science Approach to Reducing Vulnerabilities and Improving Capacities for the Southeast's Most Susceptible Population, NOAA VORTEX-Southeast Workshop, November 16, Huntsville, AL.
- ^Demuth, J., H. Lazrus, J. Henderson, J. Vickery, R. Morss, **K. Ash**, K. Anderson, & L. Palen, 2017. "There's no safe place" and "There's not really anywhere you can go": Risk, Information, and Vulnerability for Evolving Tornado Threats, NOAA VORTEX-Southeast Workshop, November 16, Huntsville, AL.

- #Schumann, R., **K. Ash**, and G. Bowser, 2016. Tornado Warning Cognition: The Roles of Visual Design, Demographics, and Hazard Experience, Southwest Division of the American Association of Geographers Annual Meeting, October 21, Denton, TX.
- #Saunders, M. E., **K. Ash**, and J. M. Collins, 2016. Public Understanding and Use of Weather Radar, American Association of Geographers Annual Meeting, March 29, San Francisco, CA.
- #Gottlieb, R., D. Morath, **K. Ash**, R. Schumann III, and C. Emrich, 2013. Spatial Analysis of Sampling Error in the American Community Survey, International Research Committee on Disasters Researchers Meeting, July 17, Broomfield, CO.
- #Schumann III, R., S. Cutter, C. Emrich, D. Morath, and **K. Ash**, 2013. Extending the Recovery Divide: Long-Term Trends and Local Perspectives in Post-Katrina Mississippi, International Research Committee on Disasters Researchers Meeting, July 17, Broomfield, CO.
- ^Morath, D.P., **K. Ash**, and R. Schumann, III, 2012. Moving Forward Without the Long Form: A Spatial Assessment of Error for the Census' American Community Survey Five-year Estimates, Association of American Geographers Annual Meeting, February 26, New York, NY.
- ^Bowser, G., R. Schumann, III, and **K. Ash**, 2011. Understanding the Roles of Color and Position in User Responses to Tornado Warning Graphics, Southeast Division of the Association of American Geographers Annual Meeting, November 21, Savannah, GA.
- #Schumann, III, R., **K. Ash**, and G. Bowser, 2011. Warning? Where?! Understanding the Roles of Color and Spatial Cognition in User Responses to Tornado Warning Graphics, International Research Committee on Disasters Researchers Meeting, July 12, Broomfield, CO.
- ^Garfield, U., M.L. Jones, **K. Ash**, and A. Foster, 2009. Potential Human Impacts on Atlantic Sturgeon Habitat, Southeast Division of the Association of American Geographers Annual Meeting, November 23, Knoxville, TN.
- #Foster, A., U. Garfield, M. Jones, **K. Ash**, and S. Bolden, 2009. Mapping Atlantic and shortnose sturgeon habitat along the US Atlantic coast—where are they now? American Fisheries Society Annual Meeting, September 1, Nashville, TN.
- ^Cartaya, M., **K. Ash**, and C.J. Matyas, 2008. Sampling convective rainfall rates in relation to the distance from the center of Tropical Storm Fay, Southeast Division of the Association of American Geographers Annual Meeting, November 23, Greensboro, NC.

Professional Service

Journal Manuscript Referee (2011-2025)

Applied Geography

BMC Public Health

Bulletin of the American Meteorological Society

Climate Risk Management

Climatic Change

Environmental Monitoring and Assessment

Environment Systems and Decisions

International Journal of Disaster Risk Reduction

International Journal of Hospitality Management

International Journal of Mass Emergencies and Disasters

Journal of Economics, Race, and Policy

Journal of Flood Risk Management

Journal of Operational Meteorology

Natural Hazards

Natural Hazards Research

Natural Hazards Review

Papers in Applied Geography

Risk Analysis

Society & Natural Resources

Southeastern Geographer

Sustainability

Sustainable Cities and Society

The Professional Geographer

Transactions in GIS

Transactions of the Institute of British Geographers

Weather and Forecasting

Weather, Climate, and Society

Proposal Reviews

NCAR Early Career Faculty Innovators Program 2025–2027 Cohort, 2024, 2 reviews completed.

NCAR Early Career Faculty Innovators Program 2023–2025 Cohort, 2022, 2 reviews completed.

Social and Behavioral Science Reviewer, Verification of the Origin of Rotation in Tornadoes Experiment (VORTEX-USA), National Oceanic and Atmospheric Administration, 2021, 2 reviews completed.

Social and Behavioral Science Reviewer, Verification of the Origin of Rotation in Tornadoes Experiment, Southeast US (VORTEX-SE), National Oceanic and Atmospheric Administration, 2016, 4 reviews completed.

Invited Board, Committee, and Panel Participation

Advisory Panel member, Understanding Hurricane Effects on Manufactured Homes, funded by Florida Division of Emergency Management, 2022.

Participating Universities:

- Florida International Univ.
- Univ. of Kansas
- Univ. of Alabama

UF Water Institute, Strategic Planning Committee, Fall 2021–Spring 2022.

Invited Panelist: Building Stronger: Bringing Together Geospatial, Social Scientific, and Engineering-Based Perspectives on Weak-Framed Housing in the Southeastern United States, American Meteorological Society Annual Meeting, January 13, 2020, Boston, MA.

Workshop Contributor/Participant

Connecting Physical and Social Science Datasets, Early Career Faculty Innovators Program, National Center for Atmospheric Research (NCAR), July 21, 2022, Boulder, CO.

Verification of the Origin of Rotation of Tornadoes Experiment, Southeast US (VORTEX-SE) Workshop, Huntsville, AL, Sep. 12-13, 2019.

Verification of the Origin of Rotation of Tornadoes Experiment, Southeast US (VORTEX-SE) Workshop, Huntsville, AL, Nov. 16-17, 2017.

Verification of the Origin of Rotation of Tornadoes Experiment, Southeast US (VORTEX-SE) Workshop, Portland, OR, Nov. 5-6, 2016.

The Great Divergence: Methodologies of Space, Place, and Movement, University of South Florida Provost Postdoctoral Research Symposium, Tampa, FL, March 25, 2016.

Verification of the Origin of Rotation of Tornadoes Experiment, Southeast US (VORTEX-SE) Workshop, Huntsville, AL, Nov. 9-10, 2015.

International Best Tracks Archive for Climate Stewardship (IBTrACS) Tropical Cyclone Data Workshop, Asheville, NC, May 5-7, 2009.

Media Appearances, Features, and Attention Metrics

Research featured and quoted in article from the series Yale Climate Connections: Eye on the Storm, “A dangerous spring for severe weather gains momentum,” by B. Henson. March 28, 2023.

<https://yaleclimateconnections.org/2023/03/a-dangerous-spring-for-severe-weather-gains-momentum/>.

Research linked in *NPR* article “The exact link between tornadoes and climate change is hard to draw. Here’s why,” by R. Treisman. March 27, 2023.

Interviewed & quoted in *USA Today* article “The South is more vulnerable to deadly tornadoes as land, sea, air and government collide,” by A. Friedman, C. Herrington, M. Landers, and G. Szymanowska. June 16, 2021.

Invited feature as a Paper of Note in *Bulletin of the American Meteorological Society*. Citation: **Ash, K.D.**, M.J. Egnoto, S.M. Strader, W.S. Ashley, D.B. Roueche, K.E. Klockow-McClain, **D. Caplen***, and **M. Dickerson***, 2020. Are Manufactured Homes as Safe as Tornado Shelters? Most Owners Think So. *Bulletin of the American Meteorological Society*, 101(4): 283.

Invited guest on *WeatherBrains* podcast, episode 710, August 2019.
<https://weatherbrains.com/?m=201908>.

Notable Altmetric Attention Scores

- 375 (top 5% of all research outputs scored by Altmetric) for 2020 paper in *Weather, Climate, and Society* (DOI: <https://doi.org/10.1175/WCAS-D-19-0088.1>)
- 256 (top 5% of all research outputs scored by Altmetric) for 2023 paper in *Environmental Research Letters* (DOI: 10.1088/1748-9326/acfe22)

Educational & Mentoring Opportunities

Graduate student mentor, NCAR-UCAR Significant Opportunities in Atmospheric Research and Science (SOARS) program. May-July 2020.

Student mentor and workshop presenter, Haskell Environmental Research Studies Intern Program, National Center for Atmospheric Research, Boulder, CO, July 9-13, 2018.

Great American Teach-In, Thonotosassa Elementary, Thonotosassa, FL, Nov. 19, 2015.

Geography Awareness Week, Chapin Middle School, Chapin, SC, Nov. 17, 2011.

Graduate Student Advising and Committees

University of Florida (2018-present)

Role: Advisor (4 PhD, 2 MS)

Donal Bissainte (PhD, Geography, expected graduation Spring 2027)

Michelle Ruiz (PhD, Geography, expected graduation Spring 2026)

Jawata Saba (PhD, Geography, expected graduation Summer 2025)

Christopher Williams (PhD, Geography, expected graduation Summer 2025)

Caley Feemster (MS, Geography, graduated August 2023)

Christopher Williams (MS, Geography, graduated August 2021)

Role: Committee Member (21 PhD, 6 MS)

Md. Shamsudduha Sami (PhD, Geography, expected graduation Spring 2026)

Ian Pshea-Smith (PhD, Geography, expected graduation Spring 2026)

Gavriella Hecht (PhD, Geography, expected graduation Spring 2026)

Md. Shaharier Alam (PhD, Geography, expected graduation Spring 2027)

Austin Britton (PhD, Geography, expected graduation Spring 2026)

Zeyu He (PhD, Geography, expected graduation Spring 2026)

Ziyi Guo (PhD, Urban and Regional Planning, expected graduation Spring 2025)
Holli Capps Herron (PhD, Geography, expected graduation Spring 2025)
Forough Foroutan (PhD, School of Architecture, expected graduation Summer 2025)
Liliane Poincon (PhD, Interdisciplinary Ecology, expected graduation Fall 2025)
Sarah VanSchoick (MS, Geography, expected graduation Summer 2025)
Erin Mariotti (MS, Geography, graduated Summer 2024)
Amer Abukhalaf (PhD, Construction Management, graduated December 2023)
Kanglin Chen (PhD, Urban and Regional Planning, graduated August 2023)
Megan Donovan (PhD, Interdisciplinary Ecology, graduated August 2023)
Maram Alrehaili (PhD, Geography, graduated May 2023)
Yong Liu (PhD, Youth Development & Family Sciences, graduated May 2023)
Samantha Timmers (MS, Geography, graduated August 2022)
Maria Del Pilar Morales Giner (PhD, Sociology, graduated August 2022)
Eyrika Orlando (MS, Food & Resource Economics, graduated December 2021)
Meirah Williamson (MS, Geography, graduated August 2021)
Mohammad Mehedy Hassan (PhD, Geography, graduated August 2021)
Eunjung Yang (PhD, Recreation, Parks and Tourism, graduated August 2021)
Wei Zhai (PhD, Urban and Regional Planning, graduated May 2021)
Yu Han (PhD, Urban and Regional Planning, graduated August 2020)
Faxi Yuan (PhD, Construction Management, graduated August 2020)
Jiawen Zhang (MS, Geography, graduated May 2019)

University of South Florida (2015-2017)

Kerri Dickey (MA, Geography, graduated August 2017, Role: Co-Advisor)
Steven Koster (MA, Environmental Science and Policy, graduated May 2017, Role:
Committee Member)

Professional Memberships

American Association for the Advancement of Science
American Association of Geographers
American Meteorological Society
Cartography and Geographic Information Society
Florida Society of Geographers
International Research Committee on Disasters
National Weather Association
Southeast Division of the American Association of Geographers