Edward "Ned" K. Vizy

Department of Earth and Planetary Sciences
Jackson School of Geosciences
2275 Speedway Stop C9000
The University of Texas at Austin
Austin, TX 78712

fax: (512) 471-5585
e-mail: ned@jsg.utexas.edu

EDUCATION

Cornell University, Ithaca, NY
Ph.D. in Atmospheric Sciences, 2003
M.S. in Atmospheric Sciences, 1999

State University of New York at Oswego, Oswego, NY
B.S. in Meteorology, minor in Mathematics, 1995

APPOINTMENTS

Research Engineering/Scientist Associate V **9/2008 – present**
Jackson School of Geosciences
University of Texas, Austin, Texas

- Develop innovative modeling tools/techniques to improve our fundamental understanding of the Earth's climate system.
- Actively seek and apply to external funding from various agencies. This includes serving as a P.I. on grants.
- Manage as a P.I. and Co-P.I. grant related activities and reporting duties. This includes supervising personnel (Postdoctoral fellows and graduate students) through the scientific process of conducting scientific research.
- Write peer-reviewed scientific research papers and present relevant results at scientific meetings.
- Manage climate research group observational database and computational resources.
- Teach undergraduate/graduate course on the fundamentals of climate system modeling.
- Serve as committee member for graduate students and mentor for postdoctoral fellows.
- Perform professional and outreach activities related to the field of atmospheric science.

Collaborative Research Scientist **6/2010 – 6/2013**
The Robert S. Strauss Center for International Security and Law
University of Texas, Austin, Texas

- Collaborative part-time work in the Strauss Center's Climate Change and African Political Stability (CCAPS) program
- Design and conduct regional climate model simulations of climate change over Africa in consultation with other members of the CCAPS team.

- Perform analysis of model output, including the development of diagnostic tools.
- Obtain and analyze output from other atmospheric models.

Research Associate **7/2005 – 9/2008**
Dept. of Earth and Atmospheric Sciences
Cornell University, Ithaca, NY

- Adapt WRF for regional applications over South America and Africa.
- Develop coupled potential vegetation/ mixed-layer ocean model version of MM5 and WRF.
- Devise and test strategies to initialize initial and lateral boundary conditions for paleoclimate and future climate applications.
- Instruct undergraduate and graduate students in how to use the regional model for research efforts.
- Seek and apply to external grant funding opportunities.
- Manage the in-house computer cluster and observational database.
- Undergraduate teaching responsibilities include *Atmospheric Modeling for Research* and *Synoptic II Meteorology.*

Post Doctoral Associate **5/2003 – 7/2005**
Dept. of Earth and Atmospheric Sciences
Cornell University, Ithaca, NY

- Adapt MM5 for use in regional climate modeling applications.
- Train undergraduate and graduate students in using MM5.
- Manage in-house computer cluster and observational database.
- Assist in external grant writing.

Weather Assistant **1/1995 – 6/1996**
ABC affiliate WSYR TV 9
Syracuse, NY

- Prepared short term and extended weather forecasts for broadcast.
- Prepare on-air forecast graphics.

Research Assistant **1/1994 – 5/1996**
Department of Earth Sciences
State University of New York at Oswego, Oswego, NY

- Assisted with the collection and preparation of observational data as part of the Great Lakes Winter Storm Project using MM5
- Prepared figures of analysis of MM5 results.

EXTERNAL SUPPORT (Current*)

*NSF Grant Award #2323648: Collaborative Research: Connecting the past, present, and future climate of the Lake Victoria Basin using high-resolution coupled modeling; P.I. K.H. Cook, **Co-P.I. E.K. Vizy**, Award date: 3/1/2024; Award Amount $826,537.

NSF Grant Award #1939880: Multi-scale analysis of Congo basin precipitation: Understanding the regional rainfall climatology and the potential for change; P.I. K.H. Cook, **Co-P.I. E.K. Vizy**, Award date: 7/15/2020; Award Amount $822,693.

NSF Grant Award #1929074: Understanding high-impact rainfall events over the West African Sahel: Resolving the role of environmental conditions on storm processes; **P.I. E.K. Vizy**, Co-P.I. K.H. Cook, Award date: 7/16/2019; Award Amount $657,103.

NSF Grant Award #1701520: Seasonality of East African rainfall; P.I. K.H. Cook, **Co-P.I. E.K. Vizy**, Award date: 7/27/2017; Award Amount $683,578.

NSF Grant Award #1444505: Role of mesoscale convective systems in determining the diurnal cycle of precipitation over sub-Saharan Northern Africa. **P.I. E. K. Vizy**, Co-P.I. K.H. Cook; Organization University of Texas at Austin; Award date: 1/15/2015; Award Amount $597,379

NSF Grant Award #1356386: Regional climate resilience and sensitivity in the tropics and subtropics; P.I. K.H. Cook, **Co-P.I. E. K. Vizy**; Organization University of Texas at Austin; Award date: 4/01/2014; Award Amount $709,113.

NASA Grant Award # NNX13AQ76G: Influence of the equatorial Atlantic cold tongue and Angola current on Atlantic basin climate variability. **P.I. E. K. Vizy**, Co-P.I. K.H. Cook; Organization University of Texas at Austin; Award date: 9/01/2013; Award Amount $492,585.

USAID Climate Change Resilient Development Award #13-754-UTA: Climate forecasting, adaptation backcasting: Promoting resilient adaptation in Malawi; P.I. B. McCusker, Co-P.I. K.H. Cook, **Co-P.I. E.K. Vizy**, Co-P.I. J. Chimphamba; Award date: 7/1/2013; Award Amount $35,670.

NSF Grant Award #1060116: Collaborative Research: Climate forecasting, adaptation backcasting: Coupling human response to climate change in Malawi; P.I. K.H. Cook, **Co-P.I. E.K. Vizy**; Award date: 7/15/2011; Award Amount $43,353.

NSF Grant Award #1036604: African Monsoon Systems: Basic dynamics and applications to interannual and decadal prediction; P.I. K.H. Cook, **Co-P.I. E. K. Vizy**; Organization University of Texas at Austin; Award date: 2/15/2011; Award Amount $457,282.

DOE Grant Award #DE-SC0005223: Changes in intense precipitation events in West Africa and the central U.S. under global warming; P.I. K.H. Cook, **Co-P.I. E.K. Vizy**, Award date: 9/01/2010; Award Amount $462,550.

DOE Grant Award #DE-FG02-08ER646: Influence of Atlantic SST thresholds on continental climates: Development and application of a coupled atmosphere/ocean/vegetation regional climate model; P.I. K.H. Cook, **Co-P.I. E.K. Vizy**, Award date: 8/01/2008; Award Amount $498,617.

NSF Grant Award #0739965: SGER: Hydrodynamics of the Caribbean low-level jet and its relationship to drought; P.I. K.H. Cook, **Co-P.I. E.K. Vizy**, Award date: 9/13/2007; Award Amount $29,587.

NASA Grant Award # NNX07AI92G: Using AMMA and satellite observations to improve the simulation of tropical Atlantic cyclogenesis; P.I. K.H. Cook; **Co-P.I. E. K. Vizy**; Award year: 6/01/2007; Award Amount $106,269.

NASA Grant Award # NNG05GR52G: The Influence of the Amazon and Orinoco River Plumes on Tropical Atlantic Climate; P.I. K.H. Cook; **Co-P.I. E. K. Vizy**; Award year: 1/01/2005; Award Amount $200,592.

FELLOWSHIPS AND AWARDS

- Marshall Space Flight Center NASA Graduate Student Research Program Fellowship, MSFC, Huntsville, AL (2001-2002)
- Outstanding Senior in Meteorology Award, State University of New York at Oswego, Oswego NY (1995)
- Foster S. Brown Scholar Award, State University of New York at Oswego, Oswego NY (1994)
- Distinguished Sophomore Award, State University of New York at Oswego, Oswego NY (1993)

TEACHING

- UGS 303, “Extreme Weather and its Impacts”, University of Texas at Austin, fall semesters.
- GEO 347G/387G, “Climate System Modeling”, University of Texas at Austin, fall semesters.
- GEO 391, "Dynamics of Atmospheres and Oceans", University of Texas at Austin, spring semester 2010.

PROFESSIONAL SERVICE & ACTIVITIES

Session organizer of the African Climate Variations and Change for the 40th Conference on Climate Variability and Change at the 107th American Meteorological Society annual meeting, Denver, Colorado, January 2027.

Session organizer of the African Climate Variations and Change for the 39th Conference on Climate Variability and Change at the 106th American Meteorological Society annual meeting, Houston, Texas, January 2026.

Serving on the Computational Geoscientist search committee for Department of Earth and Planetary Sciences, Jackson School of Geosciences. January 2025

Session organizer of the African Climate Variations and Change for the 38th Conference on Climate Variability and Change at the 105th American Meteorological Society annual meeting, New Orleans, Louisiana, January 2025.

Session organizer of the African Climate Variations and Change for the 36th Conference on Climate Variability and Change at the 103rd American Meteorological Society annual meeting, Denver, Colorado, January 2023.

Served on the Department of Geological Sciences high-performance working group, Jackson School of Geosciences, Spring 2023.

Session organizer of the African Climate Variations and Change for the 35th Conference on Climate Variability and Change at the 102st American Meteorological Society annual meeting, Houston, Texas, January 2022.

Session organizer of the African Climate Variations and Change for the 34th Conference on Climate Variability and Change at the 101st American Meteorological Society annual meeting, New Orleans, Louisiana, January 2021.

Session organizer of the African Climate Variations and Change for the 33rd Conference on Climate Variability and Change at the 100th American Meteorological Society annual meeting, Boston, Massachusetts, January 2020.

National Science Foundation scientific panel review member, Arlington, VA, 2019.

Session organizer of the African Climate Variations and Change for the 32st Conference on Climate Variability and Change at the 99th American Meteorological Society annual meeting, Phoenix, Arizona, January 2019.

Session organizer of the African Climate Variations and Change for the 31st Conference on Climate Variability and Change at the 98th American Meteorological Society annual meeting, Austin, Texas, January 2018.

National Science Foundation scientific panel review member, Arlington, VA, 2017.

Member US CLIVAR AMOC Science Team – Task Team 4: Climate Sensitivity to AMOC: Climate/Ecosystem Impacts, November 2014 – 2018.

Journal article peer-reviewer: Reviewed numerous articles from various journals including Bulletin of the American Meteorological Society, Journal of Geophysical Research, Climate Dynamics, Journal of Climate, Scientific Reports, 2003 – present.

National Science Foundation proposal reviewer, various scientific proposals, 2014 – present.

OUTREACH

- Interview regarding the July 04, 2025 Central Texas extreme rainfall event. PBS Austin Insight, 07/2026, https://video.austinpbs.org/video/one-year-later-july-4th-floods-part-2-xyk6ui/
- Interviewed by The Dispatch about the 04 July 2025 Central Texas floods, 07/2025
- Invited speaker at the Magellan International School (Austin, TX), 10/2023
- Science contributor to Washington Post regarding climate change impacts over Africa and the world's oceans. 2019 – 2020 https://www.washingtonpost.com/graphics/2019/world/climate-environment/angola-climate-change/
- Interviewed by a University of Texas staff writer regarding large-scale climate patterns over the US during the summer of 2018. 9/17/2018
- Invited Speaker Jackson School of Geoscience Climate Forum, Towards the use of convection-permitting modeling to improve weather/climate prediction; 9/06/2017.
- Phone interview regarding unusual winter weather in Texas, KEYE (Austin TX), 2/20/2017
- National Mathematics Pentathlon Academic Tournament game monitor, Austin, TX, 2017, 2018.
- Interview regarding impact of climate change on Malawi growing season, TACC, 05/2015.
- Interview regarding cold weather outbreaks in the future, KUT (Austin Radio), 1/28/2014
- Interview regarding mapping the future of climate change in Africa, TACC & Science NODE, 08/2012

GRADUATE DEGREE DISSERTATION COMMITTEE MEMBER

Patrick Andrews (PhD – current student)
Kwun Yip Fung (PhD 2023)
Siyu Zhao (PhD 2023)
Weiran Liu (PhD 2019)
Nan-You Lu (PhD 2019)
Gang Zhang (PhD 2015)

OTHER SUPERVISORY & SUPPORT

Post-doctoral
Dr. Rory Fitzpatrick, Postdoctoral Research Associate, 2019
Dr. Fan Han, Postdoctoral Research Associate, 2018
Dr. Xiaoming Sun, Postdoctoral Research Associate, 2015-2017

Dr. Jaya Khanna, Postdoctoral Research Associate, 2016-2017
Dr. Julien Crétat, Postdoctoral Research Associate, 2012-2014

Graduate Students
Caroline Binkley (MS 2015)
Naresh Neupane (PhD 2014)
Meredith Brown (MS 2012)
Bing Pu (PhD 2010)
Christina Patricola (M.S. 2007; PhD 2010)

Undergraduate researchers
Hunter Wilkes (2019)
Sydney Selman (2019)
Venus Santos (2016)

PEER REVIEWED PUBLICATIONS

Under Review

Cook, K.H., D.J. Peppe. E.K. Vizy, and P.C. Andrews 2026: Causes of the desiccation of Lake Victoria at 17ka. *Submitted Clim. Dyn.*

Published

2026

Cook K.H., E.K. Vizy, and P.C. Andrews 2026: Escalating heat and humidity in the Congo Basin region: Projections and implications for human health and labor. *Clim. Dyn.* 64, 53. https://doi.org/10.1007/s00382-025-08031-w

Vizy, E.K., and K.H. Cook 2026: Influence of surface conditions on the 04 July 2025 extreme storms in Central Texas. *Geophys. Res. Lett.* 53: r2026GL123271. https://doi.org/10.1029/2026GL123271

Vizy, E.K., K.H. Cook, and P.C. Andrews 2026: Role of mid-level circulation and moisture accumulation in generating Lake Victoria's extreme storms. *Clim. Dyn.* 64: 81. https://doi.org/10.1007/s00382-026-08046-x

2025

Andrews, P.C., K.H. Cook, and E.K. Vizy 2025: Cloud-top brightness temperature inconsistent predictor of extreme surface rainfall in western and central Equatorial Africa. *Clim. Dyn*. 63: 207. https://doi.org/10.1007/s00382-025-07681-0

Cook, K.H., P.C. Andrews, and E.K. Vizy 2025: Seasonality of rainfall in the Lake Victoria Basin is controlled by the large-scale circulation. *Clim. Dyn.* 63: 221. https://doi.org/10.1007/s00382-025-07701-z

2024

Cook K.H., E.K. Vizy, P.C. Andrews, and Z. Zhao, 2024: Temperature increases threaten the Congo Basin rainforest in the 21st century more than precipitation changes. *J. Climate* 38: 369-386. https://doi.org/10.1175/JCLI-D-24-0289.1

Vizy, E.K., and K.H. Cook, 2024: Understanding extreme rainfall in the Sahel of southwestern Mali. *Clim. Dyn.* 62: 1-25. https://doi.org/10.1007/s00382-024-07241-y

Zhao, S., K.H. Cook, and E.K. Vizy, 2024: Greenhouse gas-induced modification of intense storms over the West African Sahel through thermodynamics and dynamic processes. *Clim. Dyn.* 62: 6097-6122. https://doi.org/10.1007/s00382-024-07193-3

2023

Andrews, P.C., K.H. Cook, and E.K. Vizy, 2023: Mesoscale convective systems in the Congo Basin: Seasonality, regionality, and diurnal cycles. *Clim. Dyn.* 62: 609-630. https://doi.org/10.1007/s00382-023-06903-7

Cook, K.H., and E.K. Vizy, 2023: Understanding the regionality of diurnal cycles of precipitation in the Lake Victoria Basin during boreal fall. *Clim. Dyn.* 62: 1359-1378. https://doi.org/10.1007/s00382-023-06950-0

Vizy, E.K., and K.H. Cook, 2023: West African Sahel extreme rainfall events: Understanding storm development over the Damergou Gap using WRF convection-permitting simulations. *Q. J. Roy. Meteorol. Soc.*, 149, 959-983. https://doi.org/10.1002/qj.4443

Vizy, E.K., H. Manoj, and K.H. Cook, 2023: Is the climate of the Congo Basin becoming less able to support a tropical forest ecosystem? *J. Climate*, 36, 8171-8193. https://doi.org/10.1175/JCLI-D-23-0275.1

Zhao, S., K.H. Cook, and E.K. Vizy 2023: How shrinkage of Lake Chad affects the local climate. *Clim. Dyn*., 61, 595-619. https://doi.org/10.1007/s00382-022-06597-3

Pre 2023

Cook K.H., and E.K. Vizy, 2022: Hydrodynamics of regional and seasonal variations in Congo Basin precipitation. *Clim. Dyn.,* 59, 1775-1797. https://doi.org/10.1007/s00382-021-06066-3

Vizy E.K., and K.H. Cook, 2022: Distribution of extreme rainfall events and their environmental controls in the West African Sahel and Soudan. *Clim. Dyn.* 59, 997-1026. https://doi.org/10.1007/s00382-022-06171-x

Cook, K.H., E.K. Vizy, Y. Liu, and W. Liu, 2021: Greenhouse-gas induced warming amplification over the Arabian Peninsula with implications for Ethiopian rainfall. *Clim. Dyn*., 57, 3113-3133. https://doi.org/10.1007/s00382-021-05858-x

Cook, K.H., R.G.J. Fitzpatrick, W. Liu, and E.K. Vizy, 2020: Seasonal asymmetry of equatorial East African rainfall projections: Understanding differences between the response of the Long Rains and Short Rains to increased greenhouse gases. *Clim. Dyn.,* 55, 1759-1777. https://doi.org/10.1007/s00382-020-05350-y

Cook, K.H., Y. Liu, and E.K. Vizy, 2020: Congo Basin drying associated with poleward shifts of African thermal lows. *Clim. Dyn.,* 54, 863-883. https://doi.org/10.1007/s00382-019-05033-3

Fitzpatrick R.G.J., D.J. Parker, J.H. Marsham, D.P. Rowell, F.M. Guichard, C.M. Taylor, K.H. Cook, E.K. Vizy, L.S. Jackson, D. Finney, J. Crook, R. Stratton, and S. Tucker, 2020: What drives the intensification of mesoscale convective systems over the West African Sahel under climate change? *J. Climate.* 33, 3151-3172. https://doi.org/10.1175/JCLI-D-19-0380.1

Khanna J, K.H. Cook, and E.K. Vizy, 2020: Opposite sensitivity to climate change-induced surface warming trends in dry and wet regions in the tropics and subtropics. *Int. J. Climatol.* 40, 5887-5905. https://doi.org/10.1002/joc.6554

Liu, W., K.H. Cook, and E.K. Vizy, 2020: Influence of Indian Ocean SST regionality on the East African short rains. *Clim. Dyn.* 54, 4991-5011. https://doi.org/10.1007/s00382-020-05265-8

Liu, W., K.H. Cook, and E.K. Vizy, 2020: Role of the West African westerly jet in the seasonal and diurnal cycles of precipitation over West Africa. *Clim. Dyn.,* 54, 843-861. https://doi.org/10.1007/s00382-019-05035-1

Liu, Y., K.H. Cook, and E.K. Vizy, 2020: Delayed retreat of the summer monsoon over the Indochina peninsula linked to surface warming trends. *Int. J. Climatol.* 41, 1927-1938. https://doi.org/10.1002/joc.6938

Vizy, E.K., and K.H. Cook, 2020: Interannual variability of East African rainfall: Role of seasonal transitions of the low-level cross-equatorial flow. *Clim. Dyn.* 54, 4563-4587. https://doi.org/10.1007/s00382-020-05244-z

Cook, K.H., and E.K. Vizy, 2019: Examining the adjustment of the surface heat balance to SST trends of the tropical and subtropical oceans in atmospheric reanalyses. *Int. J. Climatol.* 40, 2253-2269. https://doi.org/10.1002/joc.6330

Cook, K.H., and E.K. Vizy, 2019: Contemporary climate change of the African monsoon systems. *Curr. Clim. Change Rep.*, 5, 145 -159. https://doi.org/10.1007/s40641-019-00130-1

Han, F., K.H. Cook, and E.K. Vizy, 2019: Changes in intense rainfall events and drought across Africa in the 21st century. *Clim. Dyn.*, 53, 2757-2777. https://doi.org/10.1007/s00382-019-04653-z

Liu, W., K.H. Cook, and E.K. Vizy, 2019: The role of mesoscale convective systems in the diurnal cycle of rainfall and its seasonality over sub-Saharan Northern Africa. *Clim. Dyn.* 52, 729-745. https://doi.org/10.1007/s00382-018-4162-y

Sun, X., E.K. Vizy, and K.H. Cook, 2019: Land-atmosphere interactions in the southeastern Atlantic: Interannual variability. *Clim. Dyn.* 52, 539-561. https://doi.org/10.1007/s00382-018-4155-x

Vizy, E.K., and K.H. Cook, 2019: Understanding the summertime diurnal cycle of precipitation over sub-Saharan West Africa: Regions with daytime rainfall peaks in the absence of significant topographic features. *Clim. Dyn,* 52, 2903-2922. https://doi.org/10.1007/s00382-018-4315-z

Vizy, E.K., and K.H. Cook, 2019: Observed relationship between the Turkana low-level jet and boreal summer convection. *Clim. Dyn.*, 53, 4037 – 4058. https://doi.org/10.1007/s00382-019-04769-2

Cook, K.H., E. K. Vizy, and X. Sun, 2018: Multidecadal-scale adjustment of the ocean mixed layer heat budget in the tropics: Examining ocean reanalyses. *Clim. Dyn,.* 50, 1513-1532. https://doi.org/10.1007/s00382-017-3703-0

Vizy, E.K., and K.H. Cook, 2018: Mesoscale convective systems and nocturnal rainfall over the West African Sahel: Role of the Inter-tropical front. *Clim. Dyn.* 50, 587-614. https://doi.org/10.1007/s00382-017-3628-7

Vizy, E.K., K.H. Cook, and X. Sun, 2018: Decadal changes of the South Atlantic ocean Angola-Benguela frontal zone since 1980. *Clim. Dyn.,* 51, 3251-3273. https://doi.org/10.1007/s00382-018-4077-7

Sun, X., K.H. Cook, and E.K. Vizy, 2017: The South Atlantic subtropical high: Climatology and interannual variability. *J. Climate*. 30, 3279 – 3296. https://doi.org/10.1175/JCLI-D-16-0705.1

Thiaw, W. M., S. Janicot, E. Bekele, K.H. Cook, B. Fontaine, A. Mekonnen, O. Ndiaye, P.-H. K. Tamo, E. K. Vizy, and G. Kiladis 2017: Chapter 7: Subseasonal forecasting. *Meteorology of Tropical West Africa: The Forecasters' Handbook,* D.J. Parker, M. Diop-Kane Ed., John Wiley & Sons Ltd, 255-288. https://doi.org/10.1002/9781118391297.ch7

Vizy, E.K., and K. H. Cook, 2017: Seasonality of the observed amplified Sahara warming trend and implications for Sahel rainfall. *J. Climate*. 30, 3073-3094. https://doi.org/10.1175/JCLI-D-16-0687.1

Cook, K. H., and E. K. Vizy, 2016: The Congo basin Walker circulation: Dynamics and connections to precipitation. *Clim. Dyn.*, 47, 697-717. https://doi.org/10.1007/s00382-015-2864-y

Justino, F., F. Stordal, E. K. Vizy, K. H. Cook, and M. P. S. Pereira, 2016: Greenhouse gas induced changes in the seasonal cycle of the Amazon basin in coupled climate-vegetation regional model. *Climate*, 4, 3 1-12, https://doi.org/10.3390/cli4010003

Vizy, E.K., and K.H. Cook, 2016: Understanding long-term (1982-2013) multi-decadal change in the equatorial and subtropical South Atlantic climate. *Clim. Dyn.* 46, 2087-2113. https://doi.org/10.1007/s00382-015-2691-1

Zhang, G., K.H. Cook, and E.K. Vizy, 2016a: The diurnal cycle of warm season rainfall over West Africa. Part I: Observational analysis. *J. Climate*, 29, 8423-8437. https://doi.org/10.1175/JCLI-d-15-0874.1

Zhang, G., K.H. Cook, and E.K. Vizy, 2016b: The diurnal cycle of warm season rainfall over West Africa. Part II: Convection-permitting simulations. *J. Climate*, 29, 8439-8454. https://doi.org/10.1175/JCLI-d-15-0875.1

Cook, K.H., and E.K. Vizy, 2015: Detection and analysis of an amplified warming of the Sahara Desert. *J. Clim.*, 28, 6560-6580. https://doi.org/10.1175/JCLI-D-14-00230.1

Crétat, J., E. K. Vizy, and K. H. Cook, 2015: The relationship between African easterly waves and daily rainfall over West Africa. Observations and regional climate simulations. *Clim. Dyn.*, 44, 385-404. https://doi.org/10.1007/s00382-014-2120-x

Rodrigues-Fonseca, B., E. Mohino, C.R. Mechoso, C. Caminade, M. Biasutti, M. Gaetani, J. García-Serrano, E. K. Vizy, K. Cook, Y. Xue, I. Polo, T. Losada, L. Druyan, B. Fontaine, J. Bader, Francisco J. Doblas-Reyes, L. Goddard, S. Janicot, A. Arribas, W. Lau, A. Colman, M. Vellinga, D. P. Rowell, F. Kucharski, and A. Voldoire, 2015: Variability and Predictability of West African Droughts. A review in the role of Sea Surface Temperature Anomalies. *J. Climate*, 28, 4034-4060. https://doi.org/10.1175/JCLI-D-14-00130.1

Vizy, E.K., K.H. Cook, J. Chimphamba, and B. McCusker, 2015: Projected changes in Malawi's growing season. *Clim. Dyn.*, 45, 1673-1698. https://doi.org/10.1007/s00382-014-2424-x

Busby, J.W., K.H. Cook, E.K. Vizy, T.G. Smith, and M. Bekalo, 2014: Identifying hot spots of security vulnerability associated with climate change in Africa. *Climatic Change,* 124, 717-731. https://doi.org/10.1007/s10584-014-1142-z

Crétat, J., E. K. Vizy, and K. H. Cook, 2014: How well are daily intense rainfall events captured by current climate models over Africa? *Clim. Dyn.*, 42, 2691-2711. https://doi.org/10.1007/s00382-013-1796-7

Vizy, E. K., and K. H. Cook, 2014: Impact of cold air surges on rainfall variability in the Sahel and wet African tropics: A multi-scale analysis. *Clim. Dyn.*, 43, 1057-1081. https://doi.org/10.1007/s00382-013-1953-z

Vizy, E. K., and K. H. Cook, 2014: Capturing the Atlantic cold tongue and coastal upwelling in an intermediate-level ocean model coupled to a regional climate model. *Clim. Dyn.*, 42, 345-366. https://doi.org/10.1007/s00382-013-1807-8

Cook, K. H., and E. K. Vizy, 2013: Projected changes in East African rainy seasons. *J. Climate*, 26, 5931-5948. https://doi.org/10.1175/JCLI-D-12-00455.1

Vizy, E. K., K. H. Cook, J. Crétat, and N. Neupane, 2013: Projections of a wetter Sahel in the 21st century from global and regional models. *J. Climate*, 26, 4664-4687. https://doi.org/10.1175/JCLI-D-12-00533.1

Cook, K. H., and E. K. Vizy, 2012: Impact of climate change on mid-21st century growing seasons in Africa. *Clim. Dyn.*, 39, 2937-2955. https://doi.org/10.1175/2009JCLI3210.1

Pu, B., E. K. Vizy, and K. H. Cook, 2012: Warm season response over North America to a shutdown of the Atlantic meridional overturning circulation and CO_2 increases. *J. Clim.*, **25**, 6701-6720. https://doi.org/10.1175/JCLI-D-11-00611.1

Vizy, E. K., and K. H. Cook, 2012: Mid-21st century changes in extreme events over northern and tropical Africa. *J. Clim.*, 25, 5748-5767. https://doi.org/10.1175/JCLI-D-11-00693.1

Cook, K. H., and E. K. Vizy, 2010: Hydrodynamics of the Caribbean low-level jet and its relationship to precipitation. *J. Climate*, 23, 1477-1494. https://doi.org/10.1175/2009JCLI3210.1

Druyan, L., J. Feng, K. H. Cook, Y. Xue, M. Fulakeza, S. M. Hagos, A. Konare, W. Moufouma-Okia, D. P. Rowell, and E. K. Vizy, 2010: The WAMME regional model intercomparison study. *Clim. Dyn.,* 35, 175-192. https://doi.org/10.1007/s00382-009-0676-7

Vizy, E. K., and K. H. Cook, 2010: Influence of Amazon/Orinoco plume on the summertime Atlantic climate, *J. Geophys. Res.*, 115, D21112. https://doi.org/10.1029/2010JD014049

Vizy, E. K., and K. H. Cook, 2009: Tropical storm development from African easterly waves in the eastern Atlantic: A comparison of two successive waves using a regional model as part of NASA AMMA 2006. *J. Atmos. Sci.*, 66, 3313-3334. https://doi.org/10.1175/2009JAS3064.1

Vizy, E. K., and K. H. Cook, 2009: A mechanism for African monsoon breaks: Mediterranean cold air surges. *J. Geophys. Res.*, 114, D01104. https://doi.org/10.1029/2008JD010654

Cook, K. H., and E. K. Vizy, 2008: Influence of the Amazon/Orinoco plume on Atlantic hurricanes. *Bull. Amer. Meteorol. Soc.*, 89, 1645-1646.

Cook, K. H., E. K. Vizy, Z. S. Launer, and C. M. Patricola, 2008: Springtime intensification of the Great Plains low-level jet in coupled GCM simulations of the 21st century. *J. Climate*, 21, 6321-6340. https://doi.org/10.1175/2008JCLI2355.1

Cook, K. H., and E. K. Vizy, 2008: Effects of 21st century climate change on the Amazon rainforest. *J. Climate*, 21, 542-560. https://doi.org/10.1175/2007JCLI1838.1

Vizy, E. K., and K. H. Cook, 2007: Relationship between Amazon and High Andes Rainfall. *J. Geophys. Res . – Atmos.*, 112, D7107. https://doi.org/10.1029/2006JD007980

Cook, K. H., and E. K. Vizy, 2006: South American climate during the Last Glacial Maximum: Delayed onset of the South American monsoon. *J. Geophys. Res*., 111 (D2), 2110. https://doi.org/10.1029/2005JD005980

Cook, K. H., and E. K. Vizy, 2006: Coupled model simulations of the West African monsoon system: 20th century simulations and 21st century predictions. *J. Climate*, 19, 3681-3703. https://doi.org/10.1175/JCLI3814.1

Vizy, E. K., and K. H. Cook, 2005: Evaluation of Last Glacial Maximum sea surface temperature reconstructions through their influence on South American climate, *J. Geophys. Res*., 110, D11105. https://doi.org/10.1029/2004JD005415

Vizy, E. K., and K. H. Cook, 2003: Connections between the summer East African and Indian rainfall regimes. *J. Geophys. Res.*, 108 (D16), 4510. https://doi.org/10.1029/2003JD003452

Vizy, E. K., and K. H. Cook, 2002: Development and application of a mesoscale climate model for the tropics: Influence of sea surface temperature anomalies on the West African monsoon, *J. Geophys. Res.- Atmos.,* 107 (D3), 4023. https://doi.org/10.1029/2001JD000686

Vizy, E. K., and K. H. Cook, 2001: Mechanisms by which Gulf of Guinea and Eastern North Atlantic sea surface temperatures can influence African rainfall. *J. Climate*, 14, 795-821. https://doi.org/10.1175/1520-0442(2001)014<0795:MBWGOG>2.0.CO;2

CONFERENCE PRESENTATIONS

2026

Cook, K.H., **E.K. Vizy**, P.C. Andrews 2026: Seasonality of rainfall in the Lake Victoria Basin is controlled by the large-scale circulation. 106th American Meteorological Society's Annual Meeting, 25-29 January, Houston, TX

Cook, K.H., **E.K. Vizy**, P.C. Andrews 2026: Escalating heat and humidity in the Congo Basin Region: Projections and implications for human health and labor. 106th American Meteorological Society's Annual Meeting, 25-29 January, Houston, TX

Vizy, E.K., K.H. Cook, P.C. Andrews 2026: Role of mid-level circulation and moisture accumulation in generating Lake Victoria's extreme storms. 106th American Meteorological Society's Annual Meeting, 25-29 January, Houston, TX

2025

Cook, K.H., **E.K. Vizy**, P.C. Andrews, S. Zhao 2025: Temperature increases threaten the Congo Basin rainforest in the 21st century more than precipitation changes. 105th American Meteorological Society's Annual Meeting, 12-16 January, New Orleans, LA

2024

Andrews, P.C., K.H. Cook, and **E.K. Vizy** 2024: Cloud-top brightness temperature inconsistent predictor of extreme surface rainfall in Western and Equatorial Africa. VIII Convection-Permitting Climate Modeling (CPCM) Workshop, 3 – 6 September, Fort Collins CO

Vizy, E.K., and K.H. Cook 2024: Has the climate of the Congo Basin become less able to support a tropical forest ecosystem? 36th Conference on Hurricanes and Tropical Meteorology, 6 – 10 May, Long Beach CA

Andrews, P.C., K.H. Cook, and **E.K. Vizy** 2024: Cloud-top brightness temperature inconsistent predictor of extreme surface rainfall in Equatorial Africa. 36th Conference on Hurricanes and Tropical Meteorology, 6 – 10 May, Long Beach CA

2023

Cook, K.H., and **E.K. Vizy**, 2023: Understanding the diurnal cycle of precipitation in the Lake Victoria Basin. 103rd American Meteorological Society's Annual Meeting, 8 - 12 January, Denver, CO

Vizy, E.K., and K.H. Cook, 2023: Understanding the development of extreme rainfall in the West African Sahel. 103rd American Meteorological Society's Annual Meeting, 8 - 12 January, Denver, CO

Zhao, S., K.H. Cook, and **Vizy, E.K.**, 2023: How climate change modifies intense storms over the West African Sahel through thermodynamic and dynamic processes. 103rd American Meteorological Society's Annual Meeting, 8 - 12 January, Denver, CO

Zhao, S., K.H. Cook, and **Vizy, E.K.**, 2023: Applications of convective-permitting modeling over West Africa. The TCCS high-resolution modeling workshop, 22 – 25 January, College Station, TX

Pre 2023

Cook, K.H., and **E.K. Vizy**, 2022: Hydrodynamics of regional and seasonal variations in Congo Basin precipitation. 102nd American Meteorological Society's Annual Meeting, 23 - 27 January, Houston, TX

Vizy, E.K., and K.H. Cook, 2022: Extreme rainfall events and their environmental controls in the West African Sahel. 102nd American Meteorological Society's Annual Meeting, 23 - 27 January, Houston, TX

Zhao, S., K.H. Cook, and **Vizy, E.K.**, 2022: How shrinkage of Lake Chad affects the local climate. 102nd American Meteorological Society's Annual Meeting, 23 - 27 January, Houston, TX

Cook, K.H., and **E.K. Vizy**, 2021: Observing and projecting climate change in the Congo Basin. 34th Conference on Hurricanes and Tropical Meteorology Virtual Meeting, 10 – 14 May, New Orleans, LA.

Vizy, E.K., and K.H. Cook, 2021: Interannual variability of East African rainfall: Role of seasonal transitions of the low-level cross-equatorial flow. 101st American Meteorological Society's Annual Meeting, 10 - 15 January, New Orleans, LA

Vizy, E.K., and K.H. Cook, 2020: Observed relationship between the Turkana low-level jet and boreal summer convection. 100th American Meteorological Society's Annual Meeting, 12 - 16 January, Boston, MA

Zhao, S., K.H. Cook, and **E.K Vizy**, 2020: The role of overturning zonal circulations in determining the seasonality of East African precipitation. 100th American Meteorological Society's Annual Meeting, 12 - 16 January, Boston, MA

Liu, W., K.H. Cook, and **E.K Vizy**, 2020: Influence of Indian Ocean SSTs on the East African Short Rains. 100th American Meteorological Society's Annual Meeting, 12 - 16 January, Boston, MA

Fitzpatrick, R., D Finney, L. Jackson, D. Parker, J. Marsham, J. Crook, D. Rowell, C. Taylor, F. Guichard, K. Cook, and **E. Vizy**, 2019: What drives the intensification of long-lived storms over the West African Sahel under climate change? European Geophysical Union General Assembly, 7 – 12 April, Vienna, Austria.

Cook, K.H., F. Han, and **E.K. Vizy**, 2019: Changes in intense rainfall events and drought across Africa in the 21st century. 99th American Meteorological Society's Annual Meeting, 6 - 10 January, Phoenix, AZ.

Liu, Y., K.H. Cook, and **E.K. Vizy**, 2019: Delayed retreat of the monsoon over the Indochina peninsula linked to surface warming trends. 99th American Meteorological Society's Annual Meeting, 6 - 10 January, Phoenix, AZ.

Vizy, E.K., and K.H. Cook, 2019: Understanding the diurnal cycle of summer precipitation over Sub-Saharan West Africa. 99th American Meteorological Society's Annual Meeting, 6 - 10 January, Phoenix, AZ

Cook, K.H., **E.K. Vizy, E.K**., and J. Khanna, 2018: One drier, one wetter: A tale of two rainforests. 98th American Meteorological Society's Annual Meeting, 7 - 11 January, Austin, TX.

Fitzpatrick, R.G.J., K.H. Cook, D.J. Parker, C.M. Taylor, and **E.K. Vizy,** 2018: The midday atmospheric controls on mesoscale convective system intensity in two convection-permitting regional atmosphere models. 98th American Meteorological Society's Annual Meeting, 7 - 11 January, Austin, TX.

Khanna J., K.H. Cook, and **E.K. Vizy**, 2018: Wet and dry tropical/subtropical regions show opposite sensitivities to observed greenhouse gas warming. 98th American Meteorological Society's Annual Meeting, 7 - 11 January, Austin, TX.

Liu, W., K.H. Cook, and **E.K. Vizy**, 2018: Diurnal cycle of West African westerly jet and mesoscale convective systems over the Sahel. 98th American Meteorological Society's Annual Meeting, 7 - 11 January, Austin, TX.

Sun, X., **E.K. Vizy**, and K.H. Cook, 2018: Land-atmosphere-ocean interactions in the southeastern Atlantic: Interannual variability. 15th annual meeting of the Asia Oceania Geosciences Society, 3 – 8 June, Honolulu, HI.

Vizy, E.K., K.H. Cook, and X. Sun, 2018: Decadal changes of the South Atlantic Ocean Angola-Benguela front. 98th American Meteorological Society's Annual Meeting, 7 - 11 January, Austin, TX.

Cook, K.H., **E.K. Vizy**, and S. Chi, 2017: Projected and observed changes in East African climate. 97th American Meteorological Society's Annual Meeting, 22 - 26 January, Seattle, WA.

Liu, W., K.H. Cook, and **E.K. Vizy**, 2017: The role of mesoscale convective systems in the diurnal cycle of rainfall over sub-Saharan northern Africa. 97th American Meteorological Society's Annual Meeting, 22 - 26 January, Seattle, WA.

Sun, X., K.H. Cook, and **E.K. Vizy**, 2017: The South Atlantic subtropical high: Climatology and interannual variability. 97th American Meteorological Society's Annual Meeting, 22 - 26 January, Seattle, WA.

Zhang, G., K.H. Cook, and **E.K. Vizy**, 2017: The diurnal cycle of warm season rainfall over West Africa. 97th American Meteorological Society's Annual Meeting, 22 - 26 January, Seattle, WA.

Cook, K. H., **E. K. Vizy**, G. Zhang, and W. Liu, 2016: Improved simulation of the diurnal cycle of precipitation with convection-permitting climate modeling. GEWEX Convection-Permitting Climate Modeling Workshop, 6 – 8 September, Boulder, CO.

Cook, K.H., **E.K. Vizy**, and X. Sun, 2016: Relationship between sea surface temperature and surface heat balance trends in the tropical oceans: The crucial role of surface wind trends. Fall Meeting of the American Geophysical Union, 12 – 16 December, San Francisco, CA.

Vizy, E. K., and K.H. Cook, 2016: Influence of mesoscale convective systems on the diurnal cycle of rainfall over sub-Saharan Northern Africa. 32nd Conference on Hurricanes and Tropical Meteorology, 17 - 22 April, San Juan, PR.

Vizy, E. K., and K.H. Cook, 2015: Understanding decadal variations in the Southeastern Atlantic climate. 95th American Meteorological Society's Annual Meeting, 4-8 January, Phoenix, AZ.

Vizy, E. K., and K.H. Cook, 2015: The future of Malawi's Growing Season. 95th American Meteorological Society's Annual Meeting, 4-8 January, Phoenix, AZ.

Vizy, E.K., and K.H. Cook, 2015: Understanding the long-term 1982-2013 multi-decadal change in the South Atlantic climate. AGU Chapman Conference on the Width of the Tropics: Climate Variations and their Impacts. 27 – 31 July 2015, Santa Fe, NM.

Vizy, E. K., and K.H. Cook, 2014: Influence of mid-latitude cold air surges on rainfall variability in the Sahel and tropical Africa. 31st Conference on Hurricanes and Tropical Meteorology, 31 March – 4 April, San Diego, CA.

Cook, K.H., and **E.K. Vizy**, 2014: Intensification of the Saharan heat low: Observations, attribution, and implications for Sahel rainfall. 31st Conference on Hurricanes and Tropical Meteorology, 31 March – 4 April, San Diego, CA.

Cook, K.H., and **E.K. Vizy**, 2013: Impact of climate change on mid 21st century growing season in Africa. 93rd American Meteorological Society's Annual Meeting, 6-10 January, Austin, TX.

Crétat, J., K. H. Cook , and **E. K. Vizy**, 2013: How well is the physics of intense rainfall events in the Sahel captured by a regional climate model? 93rd American Meteorological Society's Annual Meeting, 6-10 January, Austin, TX.

Vizy, E. K., and K.H. Cook, 2013: Projections of a wetter Sahel in the 21st century from global and regional models. 93rd American Meteorological Society's Annual Meeting, 6-10 January, Austin, TX.

Vizy, E. K., and K.H. Cook, 2013: Capturing the Atlantic cold tongue and coastal upwelling in a coupled atmosphere/ocean regional model. 93rd American Meteorological Society's Annual Meeting, 6-10 January, Austin, TX.

Cook, K. H., and **E. K. Vizy**, 2012: East African climate prediction: shorter long rains and longer short rains. 30th Conference on Hurricanes and Tropical Meteorology, 15-22 April, Ponte Vedra, FL.

Cook, K. H., **E. K. Vizy**, J. Crétat, and N. Neupane, 2012: 21st century climate prediction for West Africa and the Sahel. 4th African Monsoon Multidisciplinary Analyses International Conference, 2 – 6 July 2012, Toulouse, France.

Crétat, J., K. H. Cook, and **E. K. Vizy**, 2012: How well are extreme rainfall events captured by a regional climate model over West Africa. 4th African Monsoon Multidisciplinary Analyses International Conference, 2 – 6 July 2012, Toulouse, France.

Vizy, E. K., and K. H. Cook, 2012: Impact of Climate Change on mid-21st century growing seasons in Africa. 92nd American Meteorological Society's Annual Meeting, 22-26 January, New Orleans, LA.

Vizy, E. K., and K. H. Cook, 2012: Mid-21st century changes in extreme events over northern and tropical Africa. 30th Conference on Hurricanes and Tropical Meteorology, 15-22 April, Ponte Vedra, FL.

Brown, M. G. L., **E. K. Vizy** and K. H. Cook 2011: Combined effects of global warming and an AMOC shutdown on West African and European climate. 91st American Meteorological Society's Annual Meeting, 23-27 January, Seattle, WA.

Brown, M. G. L., **E. K. Vizy** and K. H. Cook 2011: Combined effects of global warming and a shutdown of the Atlantic meridional overturning circulation on West African and European climate. American Geological Society's Fall Meeting, 5-9 December, San Francisco, CA.

Neupane, N., **E. K. Vizy**, and K. H. Cook 2011: The potential for an abrupt failure of the West African monsoon as climate warms. AMS 25th Conference on Hydrology, 23-27 January, Seattle, WA.

Pu, B., M. G. L. Brown, **E. K. Vizy**, and K. H. Cook, 2011: Warm season climate responses over North America, Europe, and Africa to an AMOC shutdown under global warming. U.S. Department of Energy P.I. meeting, 19-22 September 2011, Washington D.C.

Cook, K. H., and **E. K. Vizy**, 2010: Influence of Atlantic SST thresholds on continental climates. U.S. DOE Climate Change Prediction Program Meeting, 30 March – 1 April 2010, Gatesville, MD.

Neupane, N., **E. K. Vizy**, and K. H. Cook, 2010: Abrupt climate change in the West African monsoon system in response to Atlantic warming. In Proceedings of the U.S. DOE Climate Change Prediction Program Meeting, 30 March – 1 April 2010, Gatesville, MD.

Neupane, N., **E. K. Vizy**, and K. H. Cook 2010: The potential for an abrupt failure of the West African monsoon as climate warms. AMS 29th Conference on Hurricanes and Tropical Meteorology, 10-14 May, Tucson, AZ.

Vizy, E. K., and K. H. Cook, 2009: Mediterranean cold air surges: A mechanism for Northern African rainfall variability and monsoon breaks. In Proceedings of the African Monsoon Multidisciplinary Analyses 3rd International Conference, 20 – 24 July 2009, Ouagadougou, Burkina Faso.

L. M. Druyan, J. Feng, K. H. Cook, Y. Xue, M. Fulakeza, S. M. Hagos, A. Konare, W. Moufouma-Okia, D. P. Rowell, and **E. K. Vizy,** 2009: Four climate models simulate the West African monsoon: a WAMME initiative. In Proceedings of the African Monsoon Multidisciplinary Analyses 3rd International Conference, 20 – 24 July 2009, Ouagadougou, Burkina Faso.

Vizy, E.K., and K. C. Cook, 2009: Influence of Atlantic SST thresholds on continental climates: Development and application of a coupled atmosphere/ocean/vegetation regional climate model system. In Proceedings of the U.S. DOE Climate Change Prediction Program Meeting, 7-9 April 2009, Bethesda, MD.

Cook, K. H., C. M. Patricola, and **E. K. Vizy**, 2008: Use of a coupled atmosphere/vegetation regional climate model for studying abrupt climate change: Green Sahara, brown Amazon, and atmospheric jet dynamics. In Proceedings of the 2008 American Geophysical Union fall meeting, 15 - 19 December, San Francisco, CA.

Cook, K. H., and **E. K. Vizy**, 2008: Hydrodynamics of the Caribbean low-level jet and its relationship to drought. In Proceedings of NOAA's 33rd Climate Diagnostic and Prediction workshop, 20 - 24 October, Lincoln, NE.

Vizy, E. K., and K. H. Cook, 2008: Monsoon breaks over Northern Africa: Role of cold air surges. In Proceedings of the 88th American Meteorological Society's Annual Meeting, 20 -24 January, New Orleans, LA.

Vizy, E. K., and K. H. Cook, 2008: Debby vs. Ernesto: Tropical cyclogenesis in the Eastern Atlantic. In Proceedings of the 88th American Meteorological Society's Annual Meeting, 20 -24 January, New Orleans, LA.

Cook, K. H., and **E. K. Vizy**, 2008: Influence of the Amazon/Orinoco plume on Atlantic Hurricanes. In Proceedings of the 88th American Meteorological Society's Annual Meeting, 20 -24 January, New Orleans, LA.

Vizy, E. K., K. H. Cook, S. Hagos, C. M. Patricola, and E. Riddle, 2008: Designing regional model simulations of the West African monsoon: Lessons learned. In Proceedings of the 1st WAMME workshop, 20 January, New Orleans, LA.

Vizy, E. K., and K. H. Cook, 2006: Relationship between Amazon and High Andes rainfall. In Proceedings of the 27th Conference on Hurricanes and Tropical Meteorology, 24 - 28 April, Monterey, CA.

Vizy, E. K., and K. H. Cook, 2005: Coupled Model Simulations of the West African Monsoon System: 21st Century Predictions., Proceedings of the Second Northeast Tropical Workshop, 7-9 June, Rensselaerville, NY.

Vizy, E. K., and K. H. Cook, 2005: Future trends in West African precipitation., Proceedings of the Workshop on Analyses of Climate Model Simulations for the IPCC AR4, 1-4 March, Honolulu, Hawaii.

Cook, K. H., and **E. K. Vizy**, 2005: Sensitivity of the West African monsoon to Gulf of Guinea SSTs., Proceedings of the Workshop on Analyses of Climate Model Simulations for the IPCC AR4, 1-4 March, Honolulu, Hawaii.

Cook, K. H., and **E. K. Vizy,** 2004: Delayed onset of the South American monsoon during the Last Glacial Maximum., Proceedings from the AGU fall meeting, 13-17 December, San Francisco, California.

Vizy, E. K., and K. H. Cook, 2004: South American rainfall during the Last Glacial Maximum: A regional modeling study. Proceedings of the 1st International CLIVAR Science Conference, Baltimore, MD.

Patricola, C. M., **E. K. Vizy**, and K. H. Cook, 2004: Easterly waves in the tropical Atlantic: Climatology and variability., Proceedings of the 1st International CLIVAR Science Conference, Baltimore, MD.

Cook, K. H., and **E. K. Vizy,** 2003: Mechanisms by which sea surface temperature anomalies perturb the West African monsoon system., Proceedings of the XXIII General Assembly of the International Union of Geodesy and Geophysics, Sapporo, Japan.

Neary, N. J., **E. K. Vizy**, N. G. Saltzman, and K. H. Cook 2003: Regional paleoclimate modeling of the Last Glacial Maximum over South America. Proceedings of the XVI International Union for Quarternary Research Congress, Reno, NV.

Neary, N. J., **E. K. Vizy,** N. G. Saltzman, and K. H. Cook 2003: Development of a mesoscale model for paleoclimate studies of the tropics. Proceedings of the XVI International Union for Quarternary Research Congress, Reno, NV.

Neary, N. J., **E. K. Vizy,** and K. H. Cook 2003: Mesoscale modeling of the African Humid Period. Proceedings of the XVI International Union for Quarternary Research Congress, Reno, NV.

Vizy, E. K., 2002: Connections between the East African and Indian rainfall regimes., In Proceedings of the 25th Conference on Hurricanes and Tropical Meteorology, San Diego, CA.., 29 April - 3 May 2002, AMS, 273-274.

Vizy, E. K., B. N. Belcher, and K. H. Cook, 2002: A mesoscale climate model for the tropics. Proceedings of the 25th Conference on Hurricanes and Tropical Meteorology, San Diego, CA.

Vizy, E. K., and K. H. Cook, 2001: Atmospheric hydrodynamics of the response of the West African monsoon to SST anomalies. Proceedings of the 8th Scientific Assembly of the International Association of Meteorology and Atmospheric Sciences, Innsbruck, Austria.

Vizy, E. K., and K. H. Cook, 2001: Development of the MM5 for climate modeling over Africa. Proceedings of the 11th PSU/NCAR Mesoscale Model Users' Workshop, Boulder, CO.

Vizy, E. K., and K. H. Cook, 2000: Sensitivity of the West African Monsoon to Atlantic SST anomalies. Proceedings of the 24th Conference on Hurricanes and Tropical Meteorology, Fort Lauderdale, FL., 366-367.

Vizy, E. K., and K. H. Cook, 2000: The influence of SST anomalies on West African precipitation in a mesoscale and a global climate model. Proceedings of the Workshop on modeling the West African climate system with global and regional scale climate models: Relevance to understanding climate variability, land-use, and climate change, Washington, DC.

Belcher, B. N., **E. K. Vizy**, and K. H. Cook, 2000: Development of MM5 for use as a tropical climate model. Proceedings of the 10th PSU/NCAR Mesoscale Model Users' Workshop, Boulder, CO., 159-161.

Cook, K. H., and **E. K. Vizy**, 1999: Influence of regional SST anomalies on West African precipitation. Proceedings of the 24th Annual Climate Diagnostics and Prediction Workshop, Tucson, AZ., 201-204.

Cook, K. H., and **E. K. Vizy**, 1999: Mechanisms connecting the West African monsoon with Gulf of Guinea SSTs. Proceedings of the International Workshop on West African Monsoon Variability and Predictability, Dakar, Senegal.

Vizy, E. K., and K. H. Cook, 1998: Mechanisms by which SST anomalies can influence West African rainfall. Proceedings of the 23rd Annual Climate Diagnostics and Prediction Workshop, Miami, FL., 297-300.

Ballentine, R., G. Byrd, **E. Vizy**, and D. Schleede, 1996: Mesoscale model simulation of a lake effect snowstorm: Implications for operational forecasting. Preprints, Joint Session of 15th Conference on Weather Analysis and Forecasting and 11th Conference on Numerical Weather Prediction, Norfolk, VA.

Byrd, G. R., R. Ballentine, **E. Vizy**, and D. Schleede, 1996: Simulation of the 4-5 January 1995 central New York lake-effect snowstorm using the Penn State/NCAR mesoscale model (MM5). Preprints, 7th Conference on Mesoscale Processes, Amer. Meteor. Soc., Reading, U.K.

Ballentine, R. J., L. Keshishian, E. Chermack, A. Stamm, **N. Vizy**, G. P. Byrd, and J. Hall, 1995: Observational and modeling studies of two intense lake-effect snowstorms. Proceedings of the 4th US/Canada Workshop on Great Lakes Operational Meteorology, Syracuse, NY.