

MATTHEW A. LAZZARA
CURRICULUM VITAE

Education:

Ph.D. Atmospheric and Oceanic Science, University of Wisconsin-Madison, Madison, WI **May 2008**

Ph.D. Minor in Curriculum and Instruction (Science)

Thesis: A Diagnostic Study of Antarctic Fog

Advisor: Professor Steven A. Ackerman

M.S. Atmospheric Sciences, University of Wisconsin-Madison, Madison, WI **August 1997**

Thesis: Atmospheric Predictability during TOGA COARE

Advisor: Professor John A. Young

B.S. Meteorology, Lyndon State College, Lyndonville, VT **May 1991**

Minor in Mathematics and Physics (Now Vermont State University – Lyndon)

Thesis: Chaos and Atmospheric Predictability

Advisors: Professors Bruce Berryman and Barry Richwien

Professional Experience:

Full-time Faculty **2014-Present**

Madison Area Technical College, School of Science, Technology, Engineering, and Mathematics, Department of Physical Sciences.

Teaching and developing courses in weather and climate science including Weather and Climate; Weather and Climate Laboratory; Climate and Climate Change; Aviation Meteorology; Honors Meteorology; and Independent Studies in Meteorology. Department Chair for Physical Sciences since 2018. Member of Information Technology Council 2015-2018. Principal Investigator of the Polar Climate and Weather Station Project and Antarctic Meteorological Research and Data Center. Participate in College initiatives including unit planning, focus-on-focus, diversity/equity/inclusion efforts, etc.

Senior Scientist (part time) **2014-Present**

University of Wisconsin-Madison, Space Science and Engineering Center, Antarctic Meteorological Research and Data Center

Principal investigator of the US Antarctic Automatic Weather Station (AWS) program, and several other Antarctic and Arctic meteorology projects. Managing and directing a staff of up to five members with several undergraduate and graduate students as a part of the projects. Collaborate with scientists globally. Participating on cooperative projects, peer reviewed published papers, and science conferences. Deployed to Antarctica as a part of the AWS project. Conduct educational outreach activities.

Part-time Adjunct Faculty**2004-2014**

Madison Area Technical College, School of Arts and Science, Department of Physical Sciences.

Taught the Weather and Climate course to undergraduate students. Aided in the development of the Climate and Climate Change course.

Research Meteorologist**1995-2014**

University of Wisconsin-Madison, Space Science and Engineering Center, Antarctic Meteorological Research Center

Support and maintain the generation, archiving and distribution of Antarctic meteorological data, including the Antarctic satellite composite in McIDAS. Also aid in the processing of University of Wisconsin-Madison Automatic Weather Station data. Deployed and worked on site at McMurdo Station, Antarctica seven times, and once at South Pole Station, Antarctica. Conduct educational outreach activities with schools and public organizations.

Testing and Training Meteorologist**1991-1999**

University of Wisconsin-Madison, Space Science and Engineering Center, McIDAS Group

Provided user support, conducted software testing, and was a trainer/demonstrator on McIDAS. Conducted training sessions and site visits to Australian Bureau of Meteorology, Boeing/Kent Defense Space Center, Cape Canaveral Forecast Facility/Range Operations Control Center (NASA), Johnson Space Center/Space Flight Meteorology Group (NASA), National Centers for Environmental Prediction/World Weather Building (NOAA), University Corporation for Atmospheric Research/Unidata, and National Transportation Safety Board.

Weather Data Organizer**1990-1991**

Lyndon State College, Electronic Weather Bulletin Board Project

Uploaded weather data for a grant from the Vermont Department of Education for elementary school students' use.

Weather Intern**1990**

WLNE Channel 6, Providence, RI

Assisted the Chief Meteorologist, prepared forecasts, prepared marine forecasts, and utilized a Doppler weather radar.

On Air Meteorologist, PSA Director and Assistant General Manager**1989-1990**

Lyndon State College, WWLR-FM

Prepared and gave weather forecasts for the Lyndonville and St. Johnsbury Vermont area. Also managed the stations public service announcements (PSA) and aided with management of the station.

Assistant Meteorology Lab Supervisor

1987-1989

Lyndon State College, Meteorology Department

Coordinated with Lab Monitor in the care and upkeep of the meteorology lab including the posting of DiFAX charts, alphanumeric products, monitoring McIDAS weather display systems, etc.

Substitute Science Teacher

1987-1995

King Philip Regional High School, Wrentham, MA

Substitute taught Environmental Sciences, Earth Science and Chemistry classes, and often taught specific course content.

Membership:

- American Geophysical Union (AGU)
- American Meteorological Society (AMS)
 - Graduate student member of the AMS Board of Higher Education 2004-2007
 - Faculty member of the AMS Board of Higher Education 2023-present
 - Member of the Working Group on 2-Year Colleges 2023-present
- Mount Washington Observatory (MWO)
- Scientific Committee on Antarctic Research (SCAR)
 - Expert Group on Operational Meteorology in the Antarctic
- International Association of Meteorology and Atmospheric Sciences (IAMAS) - International Commission on Polar Meteorology (ICPM), 2007-present
 - Secretary of ICPM 2011-2019
 - President of ICPM 2019-present
- Antarctic Advisory Group (AntAG), Executive Council Panel on Polar and High Mountain Observations, Research, and Services (EC-PHORS), World Meteorological Organization (WMO)
- Working Group for Observational Data (WG/OD) (both satellite and conventional data) as a part of the Interagency Council for the Advancement of Meteorological Services (ICAMS) as a part of the Office of Science and Technology Policy (OSTP).

Research Grants:

National Science Foundation:

- McMurdo Ground Station Science Workshop (2003-2006)
- Antarctic Automatic Weather Station Program (2007-2010)
- Arctic Satellite Composite Project (2007-2010)
- Antarctic Meteorological Research Center (2006-2009)
- Collaborative Research: Antarctic Meteorological Research Center (2006-2009)
- Collaborative Research: Antarctic Automatic Weather Station Program: 2007-2010
- Arctic Satellite Composite Project
- Antarctic Meteorological Research Center (2009-2011)
- Collaborative Research: Antarctic Automatic Weather Station Program
- Collaborative Research: Augmenting the Ross Island-area automatic weather station network to develop a tropospheric ozone climatology

- Antarctic Meteorological Research Center
- Collaborative Research: Synoptic and mesoscale storms in the Southern Ocean and their impact on the cryosphere (2013-2016)
- Collaborative Research: Antarctic Automatic Weather Station Program (2013-2017)
- Sensitivity of Southern Hemispheric Atmospheric Structures to Tropical Forcing
- Antarctic Meteorological Cyberinfrastructure Sustainability
- Collaborative Research: Optimized Deployment of Antarctic Surface Weather Observations
- Collaborative Research: Antarctic Automatic Weather Station Program (2016-2019)
- Collaborative Research: Observing the Atmospheric Boundary over the West Antarctic Ice Sheet
- MRI: Development of a Modern Polar Climate and Weather Automated Observing System (MATC)
- Collaborative Research: Antarctic Automatic Weather Station Program (2019-2022)
- Collaborative Research: Antarctic Meteorological Research and Data Center (MATC)
- Collaborative Research: The Automatic Weather Station Program: Antarctic Meteorological Sentinel Service (2024-2027)

SPAWAR System Center Charleston - Department of the Navy (now called NIWC):

- Satellite Analyses for the Antarctic Aviation Technical Services Operations (2002)
- Satellite Analyses for Antarctic Aviation Technical Services Operations (Update) (2004)
- Satellite Derived Fog Forecasting Applications (2006)
- Antarctic Meteorological Research Center Task List (2012-2014)
- AWS Forecasting and QC Project (2021-2023)

National Climatic Data Center (now called National Center for Environmental Information):

- Amundsen-Scott South Pole Station CLIMAT Message Project (2005-2009)

National Oceanic and Atmospheric Administration:

- Blended Arctic Composites/Arctic Composite Satellite Imagery
- Assimilation and forecast impact of high temporal resolution Leo/Geo AMVs in the high-latitude data-gap corridor
- Product Systems Development and Implementation (PSDI) for 2020: Arctic Composites: Addition of S-NPP, JPSS, and MetOp-C
- MTG-I large dataset performance for Arctic Composite Imagery

National Aeronautical and Space Administration (via University of Colorado-Boulder):

- Ultra-Low Temperature Weather and Environmental Station (2014-2015)

Scientific Committee on Antarctic Research:

- AMRDC AntClimNow Data Stewardship and Coordination (MATC)
- SCAR Travel Award (MATC)

Unidata Program Center, University Corporation for Atmospheric Research:

- Meteorological Interactive Processing Project (MATC)

Awards and Honors:

Antarctic Service Medal – Awarded in 1999 by Dr. Rita Colwell, Director of the National Science Foundation. Awarded to deploying members of US Antarctic Program who have spent over 30 days in Antarctica.

Lazzara Ledge, Victoria Land, Antarctica: 77° 22' 35" South Latitude, 160°46'30" East Longitude. A flattopped ridge rising to 1900 meters Northeast of Mount Dragovan in Apocalypse Peaks, Victoria Land. The ledge comprises the central part of the divide between Haselton Glacier and Wreath Valley. Named by USACAN (2005) after Matthew A. Lazzara of the USAP Antarctic Meteorological Research Center field team, who worked in McMurdo Station area and at other Antarctic locations.

Peer Reviewed Publications:

Simon, S., J. Turner, T. Meloth, P. Deb, I.V. Gorodetskaya, and M. Lazzara, 2024: An extreme precipitation event over Dronning Maud Land, East Antarctica – A case study of an atmospheric river event using the Polar WRF Model. *Atmospheric Research*, 311, <https://doi.org/10.1016/j.atmosres.2024.107724>.

Bromwich, D. H., ...M.A. Lazzara...and Coauthors, 2024: Winter Targeted Observing Periods during the Year of Polar Prediction in the Southern Hemisphere (YOPP-SH). *Bull. Amer. Meteor. Soc.*, **105**, E1662–E1684, <https://doi.org/10.1175/BAMS-D-22-0249.1>.

Wille, J. D., ...Lazzara, M.A., ...and Coauthors, 2024: The Extraordinary March 2022 East Antarctica “Heat” Wave. Part I: Observations and Meteorological Drivers. *J. Climate*, 37, 757–778, <https://doi.org/10.1175/JCLI-D-23-0175.1>.

Wille, J. D., ...Lazzara, M.A., ...and Coauthors, 2024: The Extraordinary March 2022 East Antarctica “Heat” Wave. Part II: Impacts on the Antarctic Ice Sheet. *J. Climate*, 37, 779–799, <https://doi.org/10.1175/JCLI-D-23-0176.1>.

Garreaud, R., ...Lazzara, M.A., ...and Coauthors, 2023: Cooling the Coldest Continent: The 4 December 2021 Total Solar Eclipse over Antarctica. *Bull. Amer. Meteor. Soc.*, 104, E2265–E2285, <https://doi.org/10.1175/BAMS-D-22-0272.1>.

Gorodetskaya, I.V., Durán-Alarcón, C., González-Herrero, S. ...Lazzara, M.A....et al. Record-high Antarctic Peninsula temperatures and surface melt in February 2022: a compound event with an intense atmospheric river. *npj Clim Atmos Sci* 6, 202 (2023). <https://doi.org/10.1038/s41612-023-00529-6>

Kurita, N., ...Lazzara, M.A...and Coauthors, 2024: Near-Surface Air Temperature Records over the Past 30 Years in the Interior of Dronning Maud Land, East Antarctica. *J. Atmos. Oceanic Technol.*, 41, 179–188, <https://doi.org/10.1175/JTECH-D-23-0092.1>.

Zou, X., Rowe, P. M., Gorodetskaya, I., Bromwich, D. H., Lazzara, M. A., Cordero, R. R., et al. (2023). Strong warming over the Antarctic Peninsula during combined atmospheric River and foehn

events: Contribution of shortwave radiation and turbulence. *Journal of Geophysical Research: Atmospheres*, 128, e2022JD038138. <https://doi.org/10.1029/2022JD038138>

Zhai, Z., Wang, Y., Lazzara, M. A., Keller, L. M., & Wu, Q. (2023). Snow accumulation variability at the South Pole from 1983 to 2020, associated with central tropical Pacific forcing. *Journal of Geophysical Research: Atmospheres*, 128, e2023JD039388. <https://doi.org/10.1029/2023JD039388>

Hansen, N., Orr, A., Zou, X., Boberg, F., Bracegirdle, T. J., Gilbert, E., Langen, P. L., Lazzara, M. A., Mottram, R., Phillips, T., Price, R., Simonsen, S. B., and Webster, S.: The importance of cloud phase when assessing surface melting in an offline coupled firm model over Ross Ice shelf, West Antarctica, 2024, *The Cryosphere*, <https://doi.org/10.5194/tc-2023-145>.

Tomanek, A. J., ...M.A. Lazzara...and Coauthors, 2024: Extreme Antarctic cold of late winter 2023. *Adv. Atmos. Sci.*, <https://doi.org/10.1007/s00376-024-4139-1>.

Andersson TR, Bruinsma WP, Markou S, ...M.A. Lazzara...et al. Environmental sensor placement with convolutional Gaussian neural processes. *Environmental Data Science*. 2023;2:e32. <https://doi.org/10.1017/eds.2023.22>

Clem, K. R., ...M.A.Lazzara...and Coauthors, 2023: Antarctica and the Southern Ocean. *Bull. Amer. Meteor. Soc.*, 104, S322–S365, <https://doi.org/10.1175/BAMS-D-23-0077.1>.

Orr, Andrew; Deb, Pranab; Clem, Kyle R.; Gilbert, Ella; Bromwich, David H.; Boberg, Fredrik; Colwell, Steve; Hansen, Nicolaj; Lazzara, Matthew A.; Mooney, Priscilla A.; Mottram, Ruth; Niwano, Masashi; Phillips, Tony; Pishniak, Denys; Reijmer, Carleen H.; Van De Berg, Willem Jan; Webster, Stuart and Zou, Xun. Characteristics of Surface Melt Potential over Antarctic Ice Shelves based on Regional Atmospheric Model Simulations of Summer Air Temperature Extremes from 1979/80 to 2018/19. *Journal of Climate*, Volume 36, Issue 10, 2023, pp.3357-3383.

Wang, Yetang; Zhang, Xueying; Ning, Wentao; Lazzara, Matthew A.; Ding, Minghu; Reijmer, Carleen H.; Smeets, Paul C. J. P.; Grigioni, Paolo; Heil, Petra; Thomas, Elizabeth R.; Mikolajczyk, David; Welhouse, Lee J.; Keller, Linda M.; Zhai, Zhaosheng; Sun, Yuqi and Hou, Shugui. The AntAWS dataset: a compilation of Antarctic automatic weather station observations. *Earth System Science Data*, Volume 15, Issue 1, 2023, pp.411-429.

Adusumilli, Susheel.; Baiman, Rebecca; Banwell, Alison F; Barreira, Sandra; Beadling, Rebecca L.; Clem, Kyle R.; Colwell, Steve; Coy, Lawrence; Datta, Rajashree T.; De Laat, Jos; Dunmire, Devon; Fogt, Ryan L.; Freeman, Natalie M.; Fricker, Helen Amanda; Gardner, Alex S.; Johnson, Bryan; Keller, Linda M.; Kramarova, Natalya A.; Lazzara, Matthew A.; Lieser, Jan L.; MacFerrin, Michael; MacGilchrist, Graeme A.; MacLennan, Michelle L.; Massom, Robert A.; Mazloff, Matthew R.; Mote, Thomas L.; Nash, Eric R.; Newman, Paul A.; Norton, Taylor; Petropavlovskikh, Irina; Pitts, Michael; Raphael, Marilyn N.; Reid, Phillip; Santee, Michelle L.; Scambos, Ted A.; Shi, Jia-Rui; Stammerjohn, Sharon; Strahan, Susan E.; Thompson, Andrew F.; Wille, Jonathan D. and Wilson, Earle. State of the climate in 2021: Antarctica and the Southern Ocean. *Bulletin of the American Meteorological Society*, Volume 103, Issue 8, 2022, S308-S340.

- Keller, Linda M.; Maloney, Kathryn J.; Lazzara, Matthew A.; Mikolajczyk, David E. and Di Battista, Stefano. An investigation of extreme cold events at the South Pole. *Journal of Climate*, Volume 35, Issue 6, 2022, pp.1761-1772.
- Tardif, Robert; Hakim, Gregory J.; Bumbaco, Karin A.; Lazzara, Matthew A.; Manning, Kevin W.; Mikolajczyk, David E. and Powers, Jordan G.. Assessing observation network design predictions for monitoring Antarctic surface temperature. *Quarterly Journal of the Royal Meteorological Society*, Volume 148, Issue 743, 2022, pp.727-746.
- Turner, John; Lu, Hua; King, John C.; Carpentier, Scott; Lazzara, Matthew; Phillips, Tony and Wille, Jonathan. An extreme high temperature event in coastal East Antarctica associated with an atmospheric river and record summer downslope winds. *Geophysical Research Letters*, Volume 49, Issue 4, 2022, e2021GL097108.
- Ghiz, Madison L.; Scott, Ryan C.; Vogelmann, Andrew M.; Lenaerts, Jan T. M.; Lazzara, Matthew and Lubin, Dan. Energetics of surface melt in West Antarctica. *Cryosphere*, Volume 15, Issue 7, 2021, pp.3459-3494.
- Li, Xichen; Cai, Wenju; Meehl, Gerald A.; Chen, Dake; Yuan, Xiaojun; Raphael, Marilyn; Holland, David M.; Ding, Qinghua; Fogt, Ryan L.; Markle, Bradley R.; Wang, Guojian; Bromwich, David H.; Turner, John; Xie, Shang-Ping; Steig, Eric J.; Gille, Sarah T.; Xiao, Cunde; Wu, Bingyi; Lazzara, Matthew A.; Chen, Xianyao; Stammerjohn, Sharon; Holland, Paul R.; Holland, Marika M.; Cheng, Xiao; Price, Stephen F.; Wang, Zhaomin; Bitz, Cecilia M.; Shi, Jiuxin; Gerber, Edwin P.; Liang, Xi; Goosse, Hugues; Yoo, Changhyun; Ding, Minghu; Geng, Lei; Xin, Meijiao; Li, Chuanjin; Dou, Tingfeng; Liu, Chengyan; Sun, Weijun; Wang, Xinyue and Song, Chentao. Tropical teleconnection impacts on Antarctic climate changes. *Nature Reviews Earth & Environment*, Volume 2, 2021, pp.680-698.
- Marcio Rocha, Francelino; Carlos, Schaefer; de Los Milagros Skansi, Maria; Colwell, Steve; Bromwich, David H.; Jones, Phil; King, John C.; Lazzara, Matthew; Renwick, James; Solomon, Susan; Brunet, Manola and Cervený, Randall S.. WMO evaluation of two extreme high temperatures occurring in February 2020 for the Antarctic Peninsula Region. *Bulletin of the American Meteorological Society*, Volume 102, Issue 11, 2021, E2053-E2061.
- Morino, Shohei; Kurita, Naoyuki; Hirasawa, Naohiko; Motoyama, Hideaki; Sugiura, Konosuke; Lazzara, Matthew; Mikolajczyk, David; Welhouse, Lee; Keller, Linda and Weidner, George. Comparison of ventilated and unventilated air temperature measurements in inland Dronning Maud Land on the East Antarctic Plateau. *Journal of Atmospheric and Oceanic Technology*, Volume 38, Issue 12, 2021, pp.2061-2070.
- Bromwich, David H.; Werner, Kirstin; Casati, Barbara; Powers, Jordan G.; Gorodetskaya, Irina, V.; Massonnet, Francois; Vitale, Vito; Heinrich, Victoria J.; Liggett, Daniela; Arndt, Stefanie; Barja, Boris; Bazile, Eric; Carpentier, Scott; Carrasco, Jorge F.; Choi, Taejin; Choi, Yonghan; Colwell, Steven R.; Cordero, Raul R.; Gervasi, Massimo; Haiden, Thomas; Hirasawa, Naohiko; Inoue, Jun; Jung, Thomas; Kalesse, Heike; Kim, Seong-Joong; Lazzara, Matthew A.; Manning, Kevin W.; Norris, Kimberley; Park, Sang-Jong; Reid, Phillip; Rigor, Ignatius; Rowe, Penny M; Schmithusen, Holger; Seifert, Patric; Sun, Qizhen; Uttal, Taneil; Zannoni, Mario and Zou, Xun. The year of polar

prediction in the southern hemisphere (YOPP-SH). *Bulletin of the American Meteorological Society*, Volume 101, Issue 10, 2020, E1653-E1676.

- Lazzara, Matthew A.; Orendorf, Sophie A.; Norton, Taylor P.; Powers, Jordan G.; Bromwich, David H.; Carpentier, Scott; Cassano, John J.; Colwell, Steven R.; Cayette, Arthur M. and Werner, Kirstin. The 13th and 14th Workshops on Antarctic Meteorology and Climate. *Advances in Atmospheric Sciences*, Volume 37, 2020, pp.423-430
- Weidner, George; King, John; Box, Jason E.; Colwell, Steve; Jones, Phil; Lazzara, Matthew; Cappelen, John; Brunet, Manola and Cervený, Randall S.. WMO evaluation of northern hemispheric coldest temperature: -69.6 degrees C at Klinck, Greenland, 22 December 1991. *Bulletin of the American Meteorological Society*, 2020
- Choi, Taej In; Kim, Seong-Joong; Kim, Ji Hee; Kwon, Hataek and Lazzara, Matthew A.. Characteristics of Surface Meteorology at Lindsey Islands, Amundsen Sea, West Antarctica. *Journal of Geophysical Research-Atmospheres*, Volume 124, Issue 12, 2019, pp.6294-6306
- Lazzara, Matthew A.; Powers, Jordan G.; Costanza, Carol A.; Bromwich, David H.; Carpenter, Scott and Colwell, Steve R.. The 12th Workshop on Antarctic Meteorology and Climate. *Advances in Atmospheric Sciences*, Volume 35, Issue 7, 2018, pp.753-756.
- Mateling, Marian E.; Lazzara, Mathew A.; Keller, Linda M.; Weidner, George A. and Cassano, John J.. Alexander Tall Tower! A study of the boundary layer on the Ross Ice Shelf, Antarctica. *Journal of Applied Meteorology and Climatology*, Volume 57, Issue 2, 2018, pp.421-434
- de Los Milagros Skansi, Maria; King, John; Lazzara, Matthew A.; Dervený, Randall S.; Stella, Jose Luis; Solomon, Susan; Jones, Phil; Bromwich, David; Renwick, James; Burt, Christopher C.; Peterson, Thomas C.; Brunet, Manola; Driouech, Fatima; Vosse, Russell and Krahenbuhl, Daniel. Evaluating highest temperature extremes in the Antarctic. *EOS Earth and Space Science News*, Volume 98, 2017.
- Keller, L. M.; Colwell, S.; Lazzara, M. A. and Fogt, R. L.. State of the Climate in 2016: Surface observations. *Bulletin of the American Meteorological Society*, Volume 98, Issue 8, 2017, S158-S160.
- Nigro, Melissa A.; Cassano, John J.; Wille, Jonathan; Bromwich, David H. and Lazzara, Matthew A., A self-organizing-map-based evaluation of the Antarctic mesoscale prediction system using observations from a 30-m instrumented tower on the Ross Ice Shelf, Antarctica. *Weather and Forecasting*, Volume 32, Issue 1, 2017, pp.223-242.
- Verezemskyaya, Polina; Tilinina, Natalia; Gulev, Sergey; Renfrew, Ian A. and Lazzara, Matthew. Southern Ocean mesocyclones and polar lows from manually tracked satellite mosaics. *Geophysical Research Letter*, Volume 44, Issue 15, 2017, pp.7985-7993
- Wille, Jonathan D.; Bromwich, David H.; Cassano, John J.; Nigro, Melissa A.; Mateling, Marian and Lazzara, Matthew A.. Evaluation of the AMPS boundary layer simulations on the Ross Ice Shelf, Antarctica, with unmanned aircraft observations. *Journal of Applied Meteorology and Climatology*, Volume 56, Issue 8, 2017, pp.2239-2258.

- Cassano, John J.; Nigro, Melissa A. and Lazzara, Matthew A.. Characteristics of the near-surface atmosphere over the Ross Ice Shelf, Antarctica. *Journal of Geophysical Research-Atmospheres*, Volume 121, Issue 7, 2016, pp.3339-3362.
- Colwell, S.; Keller, L. M.; Lazzara, M. A.; Setzer, A.; Fogt, R. L. and Scambos, T.. State of the climate in 2015: Surface manned and automatic weather station observations. *Bulletin of the American Meteorological Society*, Volume 97, Issue 8, 2016, S157-S159.
- Colwell, Steve R.; Cayette, Arthur M.; Lazzara, Matthew A.; Powers, Jordan G.; Bromwich, David H.; Cassano, John J. and Carpenter, Scott. The 10th Antarctic Meteorological Observation, Modeling, and Forecasting Workshop. *Advances in Atmospheric Sciences*, Volume 33, Issue 5, 2016, pp.656-658.
- Costanza, Carol A.; Lazzara, Matthew W.; Keller, Linda M. and Cassano, John J.. The surface climatology of the Ross Ice Shelf Antarctica. *International Journal of Climatology*, Volume 36, Issue 15, 2016, pp.4929-4941.
- Jolly, Ben; McDonald, Adrian J.; Coogins, Jack J. H.; Zawar-Reza, Peyman; Cassano, Joh; Lazzara, Matthew; Graham, Geoffery; Plank, Graeme; Petterson, Orlon and Dale, Ethan. A validation of the Antarctic mesoscale prediction system using self-organizing maps and high-density observations from SNOWWEB. *Monthly Weather Review*, Volume 144, Issue 9, 2016, pp.3181-3200.
- Jones, R. W.; Renfrew, I. A.; Orr, A.; Webber, B. G. M.; Holland, D. M. and Lazzara, M. A.. Evaluation of four global reanalysis products using in situ observations in the Amundsen Sea Embayment, Antarctica. *Journal of Geophysical Research-Atmospheres*, Volume 121, Issue 11, 2016, pp.6240-6257.
- Welhouse, Lee J.; Lazzara, Matthew A.; Keller, Linda M.; Tripoli, Gregory J. and Hitchman, Matthew H.. Composite analysis of the effects of ENSO events on Antarctica. *Journal of Climate*, Volume 29, Issue 5, 2016, pp.1797-1808.
- Wille, Jonathan D.; Bromwich, David H.; Nigro, Melissa A.; Cassano, John J.; Mateling, Marian; Lazzara, Matthew A. and Wang, Sheng-Hung. Evaluation of the AMPS boundary layer simulations on the Ross Ice Shelf with tower observations. *Journal of Applied Meteorology and Climatology*, Volume 55, Issue 11, 2016, pp.2349-2367.
- Colwell, S.; Keller, L. M.; Lazzara, M. A.; Setzer, A. and Fogt, R. L.. State of the climate in 2014: Surface staffed and automatic weather station observations. *Bulletin of the American Meteorological Society*, Volume 96, Issue 7, 2015, S151-S153.
- Lazzara, Matthew A.; Welhouse, Lee J.; Mikolajczyk, David E.; Tsukernik, Maria; Thom, Jonathan E.; Keller, Linda M.; Weidner, George A.; Snarski, Joseph; Cassano, John J. and Kalnajs, Lars. Automatic Weather Station (AWS) Program operated by the University of Wisconsin-Madison during the 2012-2013 field season: Challenges and successes. *Antarctic Record*, Volume 59, Issue 1, 2015, pp.73-86.

- Bromwich, David H.; Nicolas, Julien P.; Monaghan, Andrew J.; Lazzara, Matthew A.; Keller, Linda M.; Weidner, George A. and Wilson, Aaron B.. Central West Antarctica among the most rapidly warming regions on Earth: Corrigendum. *Nature Geoscience*, Volume 7, 2014, pp.76.
- Kohrs, Richard A.; Lazzara, Matthew A.; Robaidek, Jerrold O.; Santek, David A. and Knuth, Shelley L.. Global satellite composites - 20 years of evolution. *Atmospheric Research*, Volume 135, 2014, pp.8-34.
- Lazzara, Matthew A.; Dworak, Richard; Santek, David A.; Hoover, Brett T.; Velden, Christopher S. and Key, Jeffrey R.. High-latitude atmospheric motion vectors from composite satellite data. *Journal of Applied Meteorology and Climatology*, Volume 53, Issue 2, 2014, pp.534-547.
- Scambos, T.; Campbell, G. G.; Pope, A.; Haran, T. and Lazzara, M.. State of the climate in 2013: Ultra-low temperatures near Dome A, Antarctica. *Bulletin of the American Meteorological Society*, Volume 95, Issue 7, 2014, S154-S155.
- Bromwich, David H.; Nicolas, Julien P.; Monaghan, Andrew J.; Lazzara, Matthew A.; Keller, Linda M.; Weidner, George A. and Wilson, Aaron B.. Central West Antarctica among the most rapidly warming regions on Earth. *Nature Geoscience*, Volume 6, 2013, pp.139-145
- Colwell, S.; Keller, L. M.; Lazzara, M. A. and Setzer, A.. State of the climate in 2012: Surface manned and automatic weather station observations. *Bulletin of the American Meteorological Society*, Volume 94, Issue 8, 2013, S135-S136.
- Lazzara, Matthew A.; Welhouse, Lee J.; Thom, Jonathan E.; Cassano, John J.; DeVivier, Alice K.; Weidner, George A.; Keller, Linda M. and Kalnajs, Lars. Automatic Weather Station (AWS) Program operated by the University of Wisconsin-Madison during the 2011-2012 field season. *Antarctic Record*, Volume 57, Issue 1, 2013, pp.125-135.
- Bromwich, David H.; Nicolas, Julien P.; Hines, Keith M.; Kay, Jennifer E.; Key, Erica L.; Lazzara, Matthew A.; Lubin, Dan; McFarquhar, Greg M.; Gorodetskaya, Irina V.; Grosvenor, Daniel P.; Lachlan-Cope, Thomas and van Lipzig, Nicole P. M.. Tropospheric clouds in Antarctica. *Reviews of Geophysics*, Volume 50, Issue 1, 2012, doi:10.1029/2011RG000363.
- Colwell, S.; Keller, L. M. and Lazzara, M. A.. State of the climate in 2011: Surface manned and automatic weather station observations. *Bulletin of the American Meteorological Society*, Volume 93, Issue 7, 2012, S151-S156.
- Lazzara, Matthew A.; Keller, Linda M.; Markle, Timothy and Gallagher, John. Fifty-year Amundsen-Scott South Pole station surface climatology. *Atmospheric Research*, Volume 118, 2012, pp.240-259
- Lazzara, Matthew A.; Weidner, George A.; Keller, Linda M.; Thom, Jonathan E. and Cassano, John J.. Antarctic Automatic Weather Station Program: 30 years of polar observations. *Bulletin of the American Meteorological Society*, Volume 93, Issue 10, 2012, pp.1519-1537.
- Lazzara, Matthew A.; Weidner, George A.; Keller, Linda M.; Thom, Jonathan E. and Cassano, John J.. Antarctic Automatic Weather Station Program: 30 years of polar observations.

Supplement. *Bulletin of the American Meteorological Society*, Volume 93, Issue 10, 2012, ES92-ES95.

- Nigro, Melissa A.; Cassano, John J.; Lazzara, Matthew A. and Keller, Linda M.. Case study of a barrier wind corner jet off the coast of the Prince Olav Mountains, Antarctica. *Monthly Weather Review*, Volume 140, Issue 7, 2012, pp.2044-2063.
- Colwell, S.; Keller, L. M. and Lazzara, M. A.. State of the Climate in 2010: Surface manned and automatic weather station observations. *Bulletin of the American Meteorological Society*, Volume 92, Issue 6, 2011, S163-S164.
- Genthon, Christophe; Six, Delphine; Favier, Vincent; Lazzara, Matthew and Keller, Linda. Atmospheric temperature measurement biases on the Antarctic Plateau. *Journal of Atmospheric and Oceanic Technology*, Volume 28, Issue 12, 2011, pp.1598-1605
- Lazzara, Matthew A.; Coletti, Alex and Diedrich, Benjamin L.. The possibilities of polar meteorology, environmental remote sensing, communications and space weather applications from Artificial Lagrange Orbit. *Advances in Space Research*, Volume 48, Issue 11, 2011, pp.1880-1889
- Roiger, A.; Schlager, H.; Schaffer, A.; Huntrieser, H.; Scheibe, M.; Aufmhoff, H.; Cooper, O. R.; Sodemann, H.; Stohl, A.; Burkhart, .; Lazzara, M.; Schiller, C.; Law, K. S. and Arnold, F.. In-situ observation of Asian pollution transported into the Arctic lowermost stratosphere. *Atmospheric Chemistry and Physics*, Volume 11, Issue 21, 2011, pp.10975-10994.
- Colwell, S.; Keller, L. M. and Lazzara, M. A.. State of the climate in 2009: Surface manned and automatic weather station observations. *Bulletin of the American Meteorological Society*, Volume 91, Issue 7, 2010, S128-S129.
- Lazzara, Matthew. Picture composition: The University of Wisconsin-Madison Antarctic Meteorology Program. *Meteorological Technology International*, 2010, pp.88-92
- Keller, L.M., K.A. Hill, M.A. Lazzara and J. Gallagher, 2009: A comparison of meteorological observations from South Pole Station before and after installation of a new instrument suite. *J.Tech.* 26, pp.1605-1613.
- Steinhoff, D.F.; Bromwich, D.H.; Lambertson, M.; Knuth, S.L., and Lazzara, M.A., 2008: A dynamical investigation of the May 2004 McMurdo Antarctica severe wind event using AMPS. *Monthly Weather Review* v.136, no.1, pp7-26.
- Davis, D.D., F. Eisele, G. Chen, J. Crawford, G. Huey, D. Tanner, D. Slusher, L. Mauldin, S. Oncley, D. Lenschow, S. Semmer, R. Shetter, B. Lefer, R. Arimoto, A. Hogan, P. Grube, M. Lazzara, A. Bandy, D. Thornton, H. Berresheim,, H. Bingemer, M. Hutterli, J. McConnell, R. Bales, J. Dibb, M. Buhr, J. Park, P. McMurry, A. Swanson, S. Meinardi and D. Blake, 2004: An overview of ISCAT 2000. *Atmospheric Environment*, 38, No. 32. 5363-5373.
- Monaghan, A.J., A.J., D.H. Bromwich, H. Wei, A.M. Cayette, J.G. Powers, Y.H. Kuo, and M.A. Lazzara, 2003: Performance of weather forecast models in the rescue of Dr. Ronald Shemenski from South Pole in April 2001. *Weather and Forecasting*, 18, 142-160.

- Lazzara, M.A., L.M. Keller, C.R. Stearns, J.E. Thom, and G.A. Wiedner, 2003: Antarctic Satellite Meteorology: Applications for Weather Forecasting. *Monthly Weather Review*, 131, 371-383.
- Lazzara, M.A., K.C. Jezek, T.A. Scambos, D.R. MacAyeal, and C.J. van der Veen, 1999: On the Recent Calving of Icebergs from the Ross Ice Shelf. *Polar Geography*, 23, 201-212.
- Lazzara, M.A., J.M. Benson, R.J. Fox, D.J. Laitsch, J.P. Rueden, D.A. Santek, D.M. Wade, T.M. Whittaker, and J.T. Young, 1999: The Man computer Interactive Data Access System: 25 Years of Interactive Processing. *Bulletin of the American Meteorological Society*, 80, 271-284.