Dr. Matthew A. Lazzara

(a) Professional Preparation:

Lyndon State College, Lyndonville, VT, B.S. Meteorology, Minors Mathematics & Physics, 1991
University of Wisconsin-Madison, Madison, WI, M.S. Atmospheric Science, 1997
University of Wisconsin-Madison, Madison, WI, Ph.D. Atmospheric & Oceanic Science, Minor Curriculum and Instruction, 2008

(b) Appointments:

2004-present: Faculty, Madison Area Technical College, School of Arts and Sciences, Department of Physical Sciences
1995-present: Associate Scientist & Research Meteorologist, University of Wisconsin-Madison, Space Science and Engineering Center, Antarctic Meteorological Research Center
1991-1999: Testing and Training Meteorologist, University of Wisconsin-Madison, Space Science and Engineering Center, McIDAS Group

(c) (i) Related Publications/Products:

Costanza C.A., **M.A. Lazzara**, L.M. Keller and J.J. Cassano, 2016: The surface climatology of the Ross Ice Shelf Antarctia. Int. J. Climatol., **36**, 4929-4941, doi: 10.1002/joc.4681.

Jones R.W., I.A. Renfew, A. Orr, B.G.M. Webber, D.M. Holland, and **M.A. Lazzara**, 2016: Evaluation of four global reanalysis products using in situ observations in the Amundsen Sea Embayment, Antarctica. *J. Geophys. Res. Atmos*., **121**, 6240-6257, doi: 10.1002/2015JD024680.

Welhouse, L.J., **M.A. Lazzara**, L.M. Keller, G.J. Tripoli, and M.H. Hitchman, 2016: Composite analysis of the effects of ENSO events on Antarctica, *J. Clim*., **29**, 1797-1808, doi:10.1175/JCLI-D-15-0108.1.

Bromwich, D.H., J.P. Nicolas, A.J. Monaghan, **M.A. Lazzara**, L.M. Keller, G.A. Weidner, and A.B. Wilson, 2013: Central West Antarctica among most rapidly warming regions on Earth, *Nature Geoscience*, **6**, 139-145, doi:10.1038/ngeo1671.

Lazzara, M.A., G.A. Weidner, L.M. Keller, J.E. Thom, J.J. Cassano, 2012: Antarctic automatic weather station program: 30 years of polar observations. *Bull. Amer. Meteor. Soc*., **93**, 1519-1537, doi:10.1175/BAMS-D-11-00015.1.

(c) (ii) Other Significant Publications/Products:

Cassano, J.J., M.A. Nigro, and **M.A. Lazzara**, 2016: Characteristics of the near-surface atmosphere over the Ross Ice Shelf, Antarctica, *J. Geophys. Res. Atmos*., **121**, 3339-3362, doi: 10.1002/2015JD024383.

Wille, J.D., D.H. Bromwich, M.A. Nigro, J.J. Cassano, M. Mateling, **M.A. Lazzara**, and S.H. Wang, 2016: Evaluation of the AMPS boundary layer simulations of the Ross Ice Shelf with tower observations, **55**, 2349-2367, doi: 10.1175/JAMC-D-16-0032.1

Weber N.J., **M.A. Lazzara**, L.M. Keller, and J.J. Cassano, 2016: The extreme wind events of the Ross Island region, *Wea. Forecasting,* **31**, 985-1000. doi: 10.1175/WAF-D-15-0125.1

Lubin, D., B.H. Kahn, **M.A. Lazzara**, P. Rowe, an V.P. Walden, 2015: Variability in AIRS-retrieved cloud amount and thermodynamic phase over west versus east Antarctica influenced by the SAM. *Geophs. Res. Lett*., **42**, doi: 10.1002/2014GL062285.

Lazzara, M.A., L.M. Keller, T. Markle, and J. Gallagher, 2012: Fifty-year Amundsen-Scott South Pole Station climatology. *Atmos. Res*., **118**, 240-259, doi: 10.1016/j.atmosres.2012.06.027.

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(d) Synergistic Activities:

Membership: American Geophysical Union, American Meteorological Society, Mount Washington Observatory, National Weather Association, and International Association of Meteorology and Atmospheric Sciences (International Committee on Polar Meteorology - Secretary from 2011–present)

Member SCAR Expert Group on Operational Meteorology in the Antarctic 2005-Present: a sub group of the SCAR Standing Scientific Group on Physical Sciences.

Member of Polar Networks Science Committee 2012–present: In support of UNAVCO/IRIS polar efforts.

Education and Public Outreach:

1995-Present: Presented lectures and talks and collaborated on educational outreach to local and non-local preK-12 schools as well as public service organizations on Antarctic meteorology and travel experiences to and from Antarctica;

2014-Present: Local community outreach, e.g. Coach of Science Olympiad meteorology/climate team Hamilton Middle School, Madison, WI; co-host Dark Skies Mini-Severe weather seminar with Mid-West Severe Storm Tracking/Response Center, etc.

Research Grants:

National Science Foundation:
MRI: Development of a Modern Polar Climate and Weather Automated Observing System
Antarctic Automatic Weather Station Program 2016-2019
Field Testing Optimized Deployment of Antarctic Surface Weather Observations
Antarctic Meteorological Cyberinfrastructure Sustainability
Sensitivity of Southern Hemisphere Atmospheric Structure to Tropical Forcing
Antarctic Automatic Weather Station Project (2014-2017)
Augmenting the Ross Island-area Automatic Weather Station Network to Develop a Tropospheric Ozone Climatology (2011-2014)
Antarctic Automatic Weather Station Project (2010-2013)
Antarctic Meteorological Research Center (2009-2011)
Antarctic Automatic Weather Station Program (2007-2010)
Arctic Satellite Composite Project (2007-2010)
Antarctic Meteorological Research Center (2006-2009)
McMurdo Ground Station Science Workshop (2003-2006)

SPAWAR System Center Charleston (Department of the Navy)/Scientific Research Corporation:
Real-time Antarctic AWS and Satellite Composite Project
Satellite Derived Fog Forecasting Applications (2006)
Satellite Analyses for Antarctic Aviation Technical Services Operations (Update) (2004) Satellite Analyses for the Antarctic Aviation Technical Services Operations (2002)

National Oceanic and Atmospheric Administration/National Climatic Data Center:
Antarctic Automatic Weather Station CLIMAT Message Project (2010-2012) Amundsen-Scott South Pole Station CLIMAT Message Project (2005-2009)

National Oceanic and Atmospheric Administration/NESDIS:
PSDI - Arctic Composite Satellite Project
GOES-R Risk Reduction - GEO/LEO High Latitude AMVs

National Aeronautics and Space Administration:
Ultra-Low Temperature Weather and Environmental Station

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 flat-topped 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 US-ACAN (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 in nine summer seasons 1994-2010.