

**Message from Department Chair, Mike Poellot**

Greetings!

Another school year is well underway! We have some exciting news to share with you in this edition of our newsletter, along with profiles of some Atmospheric Sciences alumni. First I would like to announce that the Regional Weather Information Center area is now the Leon F. Osborne Weather Center. Details of this change are highlighted in a story within this newsletter.

We are very pleased to announce that Dr. Cathy Finley will be joining our faculty in January. Cathy has previous academic experience at the University of North Colorado and St. Louis University, and has worked in the wind energy industry with WindLogics. Her areas of research are tornadogenesis, storm scale modeling and atmospheric boundary layer processes.

Our graduates continue to find employment with the public and private sectors of our industry, including the National Weather Service, Iteris, NetJets, Jet Propulsion Laboratory, NASA, DOE, Weatherology, Rockwell Collins, Accuweather, Innovate!, Antarctic Support Contract, Mission Support Alliance, Wisconsin DNR, Weather Modification Inc.

A number of our current faculty have recently been awarded new research grants or informed of impending awards. Aaron Kennedy received an award from DOE to study blowing snow at the ARM sites and a grant funded by NSF to study falling and lofted snow. Mark Askelson has two new grants from the FAA for UAS-related activities. Gretchen Mullendore has a recent award from the University of Illinois for Blue Water supercomputing resources. And Gretchen and I are on teams that have been notified of successful proposals in the NASA EV (Earth Venture) program to study the impact of strong storms on the stratosphere (Gretchen) and east coast-threatening winter storms (Mike).

In closing, I would like to let you know that through the donations of alumni and friends we are very close to reaching our goal of funding for the Leon F. Osborne Science in Society Award. If you have not yet had the opportunity to contribute, please consider a donation at any level in Leon's memory. And a big "Thank You" to those who have already participated. Additional details of how to help can be found at the end of this newsletter.

Mike

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American Geophysical Union (AGU) Annual Meeting

The 49th Annual Meeting of the American Geophysical Union (AGU) was held December 11 – 15, 2017 in New Orleans. Associate Professor Dr. Aaron Kennedy, along with MS Students Austin King and Alex Trellinger, and PhD student Jared Marquis attended the conference.

Posters or talks were presented by the following people: Austin King's oral presentation was titled "Severe Weather Environments in Atmospheric Reanalyses"; Alex Trellinger's oral presentation

was titled "Northern Plains Blizzards in Past and Future Climates"; and Dr. Kennedy's poster titled "Simulating Land Surface Change Impacts on Climate in the Northern Plains"; Jared Marquis's two posters were titled "Quantitative Impact of Aerosols on Numerical Weather Prediction Part I: Direct Radiative Forcing" and "Quantitative Impact of Aerosols on Numerical Weather Prediction Part II: Impacts to IR Radiance Assimilation".



Leon F. Osborne Weather Center

The Department of Atmospheric Science will now be utilizing the space in Odegard Hall that was developed by Professor Leon Osborne as the Regional Weather Information Center (RWIC). This area has been renamed the Leon F. Osborne Weather Center, in Leon's honor.

The initial remodeling has converted the large enclosed area into a computer lab for classes and student use. The RWIC classroom remains and Leon's former office will be remodeled into a possible library along with an area outside his office for students to gather and work on homework.

Department News

New Atmospheric Sciences Graduate Director

Dr. Gretchen Mullendore, Associate Professor of Atmospheric Sciences, has accepted the additional position as the Graduate Program Director for Atmospheric Sciences. She began these duties in August 2018. Mike Poellot served as the Interim Director after the passing of Leon Osborne.

Atmospheric Sciences SkyCam

Thanks to a recent crowdfunding effort, the next generation Skycam is now operational! The Skycam is a fixed, HD Axis network camera that provides a view from on top of Clifford Hall. The camera points west and overlooks Ryan and Robin Halls as well as the airport. A live stream of the Skycam is available at: <https://www.youtube.com/UNDAtmosphericSciences>

The Skycam is also recording daily time lapse videos. These are currently being posted at: <http://faculty.atmos.und.edu/kennedy/skycam/>

As time allows, these will also be uploaded to our Youtube channel.



98TH AMERICAN METEOROLOGICAL SOCIETY ANNUAL MEETING, STUDENT CONFERENCE AND CAREER FAIR

The 98th Annual Meeting of the American Meteorological Society was held January 6 - 11, 2018 in Austin, TX. The Atmospheric Sciences department had a table at the Career Fair, which is intended to facilitate the networking process for both applicants and recruiters. Those attending from UND were: Faculty members Mike Poellot and David Delene; Staff member Wanda Seyler; Graduate Students Aaron Scott, Grant Gutierrez, Jared Marquis, Nick Gapp, Nikki Carson, Travis Toth, Matt Tuftedal; Undergraduates Blake Sorenson (UND student chapter AMS president), Jonathan Rosencrans, Kaela Lucke, Lance Wilson, Bailey Mueller, Alexa Otto and Toshio Osuga.

The following presented posters at the AMS Student Conference: BS Student Alexa Otto titled “*Laboratory Measurements of the Size Distribution and Cloud Condensation Nuclei Spectrum Potential Ice Nuclei*”; MS Student Nick Gapp

titled “*Comparison of Concurrent Radar and Aircraft Measurements of Cirrus Clouds*”; and PhD Student Jared Marquis titled “*The Potential Impact of Using OMI Data for Aerosol Analysis over the Arctic Region*”.

UND Atmospheric Sciences Alumni that joined current undergraduate and graduate students, faculty and staff for dinner at Corner at JW Marriott were: **Nick Anderson**, MS Graduate; **Wenjun Cui**, MS Graduate; **Ben Hershey**, MS Graduate; **Mitchell Kern**, BS Graduate; **Paul Kucera**, BS Graduate; **Clint Leeper**, BS Graduate; **Tim Logan**, MS & PhD graduate; **Mac Simms**, BS Graduate; **Adam Caskey**, BS Graduate, **Marcia Conce**, BS Graduate; **Jamie (Vogt) Wolff**, BS Graduate.

It was a fun evening of reminiscing with current and former students.

Atmospheric Sciences Alumni Dinner at AMS in Austin on January 8, 2018



Front row L-R: Paul Kucera, Ben Hershey, **Jonathan Rosencrans**, Kendell LaRoche, **Nikki Carson**, Mike Poellot, **Lance Wilson**, **Kaela Lucke**, Wanda Seyler and David Delene

2nd row L-R: **Nick Gapp**, Adam Caskey, **Alexa Otto**, **Grant Gutierrez**, Wenjun Cui, Ted McHardy, **Jared Marquis**, Mitch Kern, **Toshio Osuga**, Marcia Conce, Nick Anderson, **Bailey Mueller**, Jamie Wolff and Adam Theisen

3rd row L-R: **Matt Tuftedal**, Mac Simms, Kyle Hilburn, Tim Logan, **Travis Toth**, Ryan Stanfield, Josh Markel, **Blake Sorenson** and Clint Leeper

** current students in bold type

29th Annual Awards & Scholarship Banquet

The 29th Annual Awards & Scholarship Banquet was held on April 13, 2018 at the Memorial Union on the campus of UND. The guest speaker was **Karen Kosiba**, Atmospheric Scientist, Center for Severe Weather Research, Boulder, Colorado.

Special guests were Aerospace College Associate Dean **Beth Bjerke**, MIC at the Grand Forks NWS office **Ryan Knutsvig** and his wife, **Stephanie** and **Kathy Osborne**, Vice President, Operations, Iteris.

The UND AMS Student Chapter presented the following awards to the faculty: *Best Freshman & Sophomore Professor* – PhD Student **Jared Marquis**; *Best Junior & Senior Professor* – **Fred Remer**; *Best Academic Advisor* – **Matt Gilmore**; *Golden Reamer Award* – **David Delene**; *7-Eleven / Most Available Professor* – **Al Borho**; *Department Powerhouse Award* – **Sue McWilliams** and **Wanda Seyler**.

The following awards were presented to the following undergraduates: *Outstanding Undergraduate*

Teaching Assistant – **Bailey Mueller**; *Outstanding Undergraduate Student Researcher* – **Jonathan Rosencrans**; *Outstanding Student Broadcaster* – **Kaela Lucke** and **Lydia Blume**; *Outstanding Sophomore* – **Harrison Rademacher**; *Outstanding Junior* – **John D. Odegard** Aerospace Sciences *Scholarship* – (**Joel**) **Braxton Aldridge**; *Outstanding Freshman* – **Jacob Zaker**; *Outstanding Graduating Senior* – **Lance Wilson**; *Outstanding Service to the Department* – **Kaela Lucke** and **Blake Sorenson**. The *Science Engineering Associates Scholarship* was presented to **Alexa Otto**; the *Carlton Bjerkaas Atmospheric Sciences Scholarship* was presented to **Jacob Zanker**, **Kyle Pederson** and **Ian Gulsvig** and the *Bavendick Scholarship* was presented to **Erin Doyle**. The award for a Graduate Student Outstanding Service to the Department was given to **Katelyn Barber**, a 2nd year PhD student.

The “*Faculty Award*” to the *Outstanding Undergraduate* was presented to B.S. senior **Blake Sorenson** at the AtSc end of semester potluck in December 2017. This included a scholarship to be used for his last semester at UND.



2018-2019 AMS OFFICERS



Left to Right: **Al Borho**, AMS Advisor; **Alexa Otto**, **Jacob Zanker**, **Kyle Pederson**, **Harrison Rademacher**, **Evan Rys** and **Tony Weiss** (missing Summer Schnellbach)

National Weather Service Training Center—Kansas City



NWS New Employee Training in Kansas City, MO in May 2018 including UND Alumni

L to R: **Marco Bohorquez**, AtSc BS 1996, NWS Training Center; **Andrew Moore**, NWS Grand Forks; **Becca Anderson**, AtSc B.S. 2017, NWS Anchorage, AK; **Carl Jones**, NWS Grand Forks; **Melissa Dye**, AtSc B.S. former student, NWS, Honolulu, HI; **Brooke Hagenhoff**, AtSc M.S. 2017, Des Moines, IA; and **Jeff Zeltwanger**, AtSc BS 2000, NWS Training Center. (UND Alumni)

UND-AMS Officers 2018—2019

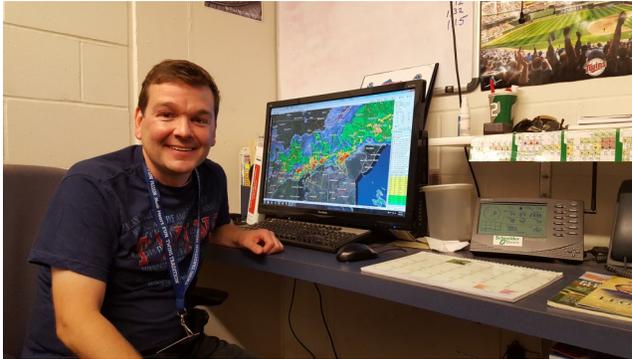
President - Kyle Pederson
Vice President - Alexa Otto
Secretary - Evan Rys
Treasurer - Jacob Zanker
Historians - Summer Schnellbach & Tony Weiss
Liaison to Undergraduate Curriculum Committee - Harrison Rademacher

"A Lifetime of Impact: Leon Osborne"

The Atmospheric Sciences Graduate Student Association have put together a hard copy version of the book titled "*A Lifetime of Impact: Leon Osborne*". To view this product follow the link to Shutterfly and set up an account. From Shutterfly you will be able to purchase a copy of this book.

<https://share.shutterfly.com/action/welcome?sid=sAbOWrhy2as2Lyw&cid=SM-PBAPP>

Alumni News



Mace Twigg grew up in Crosby, Minnesota and attended UND obtaining a BS in Atmospheric Sciences in 1993.

He worked a lot of radio in high school and college, including XL93 and Magic 96 in Grand Forks. After that, lots of TV Meteorology- Wausau, WI, Grand Rapids MI, Fort Myers, FL, Tampa, Cedar Rapids, IA. He then worked for a national weather network, WeatherNation. He now goes by the name Mace Michaels. ‘Michaels’ was given to him in his first TV job, and it has stuck.

Currently he has a few different jobs: Minnesota Twins as a game day Meteorologist at Target Field, freelance TV weather at FOX9 in Minneapolis & KAAL in Rochester, radio weather for SevereStudios Radio Network (that's how we can hear him on Iheart Radio), and Digital Meteorologist for WeatherNation writing online articles and helping with social media. I am also part owner and Vice President of WRPQ Radio and TV in Baraboo, WI.

His wife, Kim is the Director of Accounting for Trillium Woods, a Senior Living community. They live in Plymouth, MN with their two Yorkies and a kitty. My folks are retired, still living in Crosby. My brother is in Fargo and owns the Fargo Running Company, a specialty running store.

Mace’s hobbies include traveling, playing with the kitty and puppies.

Scott Rowe, Platteville, Wisconsin, attended UND and received his BS in Atmospheric Sciences with a Math Minor in 2012. He then attended the University of Iowa receiving his MS in 2014 in Civil/Environmental Engineering with an emphasis in Hydraulics & Water Resources.

After graduation from University of Iowa he worked at Epic Systems Corporation as a Technical Services Analyst for a year. He was then hired at the National Weather Service in Hanford, California as a Meteorologist Intern. In 2017 he transferred to the National Weather Service San Francisco Bay Area in Monterey, California as a General Forecaster.

Scott enjoys visiting his twin brother and other family across the country.

His hobbies include traveling, exploring the California beaches, cities, mountains, and outdoors, Netflix binging and trying new California wines and beers.

His picture was taken on the Boronda Trail around 3000 feet elevation with the ocean in the background, Big Sur, California



Recent AtSc Graduates

May 2018 B.S. Graduate

Lydia Blume
 Krista Carrothers
 Kyle Hannon
 Seth Hoglo
 Kaela Lucke
 Erika Monson
 Bailey Mueller
 Max Mueller
 Jeff Nordeen
 Toshio Osuga
 Jonathan Rosencran
 Blake Sorenson
 Courtney Steimann
 Alyssa Triplett
 Lance Wilson

May 2018 M.S. Graduate

Nathan Smith
 Austin King

May 2018 Ph.D. Graduate

Travis Toth

August 2018 M.S. Graduates

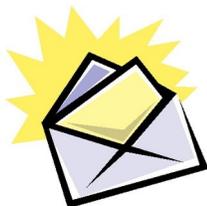
Samantha Carr
 Alex Trellinger
 Tyrus Skaer

August 2018 Ph.D. Graduate

Erica Dolinar

Congratulations Graduates!!

If you received a copy of this newsletter in the mail and would prefer to receive it via email, please drop Wanda an email at seyler@atmos.und.edu and I will get you added to the email list.



Incoming Graduate Students

Fall 2018 brought in five new graduate students.

They are Master Students **Nicole Loeb**, Winnipeg, Manitoba, Canada, a 2018 B.S. graduate of the University of Manitoba in Winnipeg; **Kaela Lucke**, Wolverton, Minnesota, a 2018 B.S. graduate of the University of North Dakota; **Caitlyn Mensch**, Nesconset, New York, a 2017 B.S. graduate of State University of New York in Oswego; **Lucas Reilly**, Latham, New York, a 2018 B.S. graduate of State University of New York in Oswego.

Blake Sorenson, Fisher, Minnesota, a 2018 B.S. graduate of the University of North Dakota is a direct to PhD candidate.

Spring 2018 semester we had one new Master's student. **Sankha Subhra Maitra**, Kolkata, India, is a 2013 B.S. graduate of West Bengal University of Technology in Kolkata, India and received a meteorology diploma from Dalhousie University in Halifax, Nova Scotia..

ALUMNI NEWS WANTED

We are looking for news about you to share with other alumni in our upcoming newsletters (information about your current position, significant achievements, family activities, etc.). Also if you could please send us your current e-mail address and address changes it would be appreciated. If you have any ideas or comments about the newsletter, please send them to Wanda at: seyler@atmos.und.edu.

DEPARTMENT OF ATMOSPHERIC SCIENCES

As you can see in this newsletter there is a lot going on in the Department of Atmospheric Sciences and we have been able to celebrate many successes. We would not have been able to accomplish much of what we do without the support we have enjoyed from the University and from the Dean's Office in the Odegard School. Still, we have ongoing needs to further help our students and programs thrive. To improve the educational opportunities for our students, we have determined two specific priorities that would greatly benefit from additional funding support: student scholarships and academic equipment.

At this time, we are asking friends, colleagues and former students of Leon Osborne to join in cementing his legacy by establishing a scholarship endowment in his honor. The Leon F. Osborne Science and Society Award endowment will provide scholarships to students enrolled in Atmospheric Sciences within the Odegard School. The Award will target students who have demonstrated an understanding of the importance of atmospheric science to society and who are pursuing a career that would provide a direct benefit to the needs of society by promoting enhanced applications of the atmospheric sciences to address societal issues.

The other goal I would like to highlight is to upgrade several hardware and software components of our Doppler weather radar. This system, dubbed the "NorthPol" radar, was last upgraded in 2004 so some parts are at the end of their useful life. Students use NorthPol in their weather radar coursework and for collecting data for Senior Project research. We want our students to have the opportunity to work with state-of-the-art tools to adequately prepare them for entry into the work force.

If you are able to help with these priorities, please contact myself or Jonathan Gehrke. Our contact information is listed below. Your support is greatly appreciated.

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