

The American Meteorological Society

Certified Consulting Meteorologists

Newsletter

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Fall 2018

This newsletter is intended to enhance communications between CCMs, the BCCM, and the AMS. It is published quarterly to provide information about the ongoing activities of the CCM program. Please remember to use the **CCM LinkedIn page** for your communication and exchanges between CCMs.

Alicia Wasula
CCM Newsletter Editor
Kelly Savoie and Sangjun Lee
CCM Newsletter Managing Editors

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The Chair's Column

Dear CCM Colleagues:

Over the summer the BCCM was active and made progress on several key initiatives and business items.

First, the Board confirmed Pam Knox to serve as Chair-elect in 2019. This will afford Pam the opportunity to lead the BCCM during the AMS Centennial year in 2020. Congratulations and thank you to Pam for stepping up to fill this leadership role.



Second, I am pleased to announce three new Board members whose 4-year terms will begin at the Annual Meeting in Phoenix this coming January. They are Mr. Thomas Bellinger of Knoxville, TN, Dr. Charles Paxton of Tampa, FL, and Mr. Elliot Abrams of State College, PA.

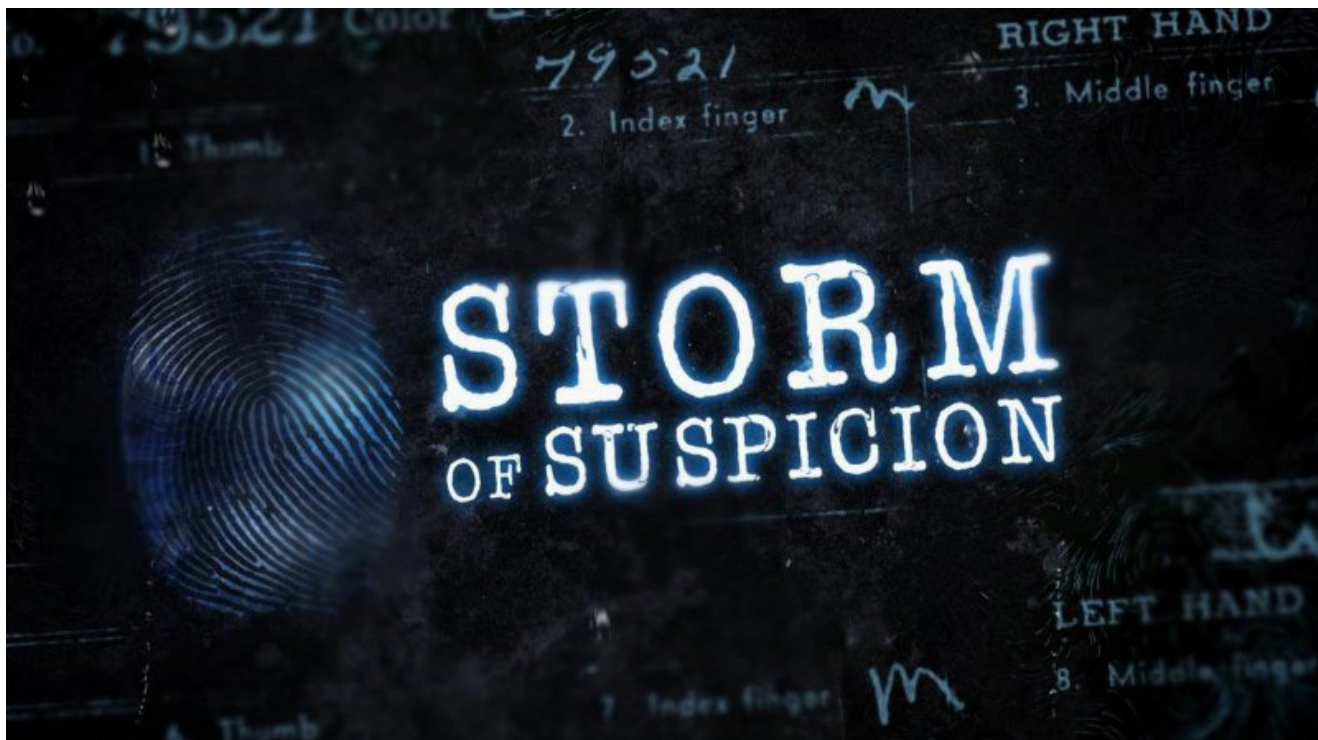
The third key activity is the on-going work of the written exam overhaul committee. Since June, the committee has added new remote sensing questions in satellite and radar meteorology to the exam bank. Another area of emphasis has been a review and refresh of the questions on climate dynamics, physical climatology and climate change. Based on completion of work in this topic area, the CCM credential will continue to be an aspirational achievement for candidates of solid character who demonstrate a mastery of core meteorological knowledge, meet the CCM educational requirements and specialize in the practice of climate consulting. The overall work of the overhaul committee is targeted for completion by December 2018.

The fourth activity I'd like to discuss is the Board's progress on CCM applicants for 2018. To date, eight new candidates have submitted applications in 2018. Since most of the applications were filed between May and July, the Board is anticipating a flurry of written exams to be completed in October and September. The Board will work hard to complete grading in time for

successful candidates to be offered the opportunity to participate in the oral exam in Phoenix. Looking forward to the future, the Board has started to plan for the Centennial meeting in 2020. The CCM Board will sponsor a short course. The planning effort is being co-led by current Board members Pam Knox and Rick Shema. We are excited that the NCIM has agreed to co-sponsor and help plan the course.

We are always keen to recruit new talent for the CCM Board and are gathering applicants to join the Board for the 2020-2024 term. This is your opportunity to join the BCCM for the historic Centennial year! If you are interested in helping to plan the 2020 short course or join the BCCM, please contact current Board Chair-elect (for 2019 term as Chair), [Alicia Wasula](#).

Tim Hall, CCM #641
Chair, Board of Certified Consulting Meteorologists
American Meteorological Society ■



Contributed by Elizabeth Austin, CCM

WeatherExtreme Ltd.'s CEO & Founder Dr. Elizabeth Austin, CCM, will be appearing on The Weather Channel's new series "Storm of Suspicion" which premieres this October 7 at 8PM EDT/7PM CDT! Ever wondered what a day in the life of a forensic meteorologist is like? Check out TWC's Q&A with Dr. Austin, and learn more about the coming series [here](#).

The Weather Channel described the new series, "Each episode of the new series follows a criminal case where weather helped commit a crime, cover it up, or was a useful tool in revealing the culprit(s). The cases highlighted in the series are bone-chilling and nearly unbelievable, and you'll never be able to see some weather events the same again. Footprints in snow lead to the arrests of murderers. Dew drops point to potential perpetrators. Puddles of rain preserve criminals' DNA.

During the series, you'll be introduced to Dr. Elizabeth Austin, a forensic meteorologist who has worked on countless cases where weather and crime came head to head. Her expertise is unparalleled, and we guarantee you'll be captivated when you hear her talk about her unique career field." ■



Photo of Dr. Elizabeth Austin, CCM, being interviewed for one of the episodes of Storm of Suspicion.

CCM Volunteers Needed for Participation in Early Career Events at the AMS Annual Meeting

Contributed by Morgan Yarker, CCM and Alicia Wasula, CCM

The Board of Early Career Professionals (BECF) is looking to facilitate the connection of current CCMs with potential applicants. It can be challenging for someone early in their career to connect with current CCMs, particularly those who work as sole proprietors or in small companies in specialized fields of expertise. As a result, the value of the CCM for each industry is unknown and alternative career paths are unexplored.

For those who are considering the CCM, many have questions regarding the application process as well as the value it will have for their specific aspirations. Without the benefit of personally knowing an active CCM, it can be challenging for a potential applicant to find someone who can answer these and other questions. As such, we are looking for CCMs who would be available to network with early career professionals, either on an informal level or through a more formal program, such as [Mentoring365](#).

We are currently working to enhance the visibility of CCMs at some of the various events scheduled for the Annual Meeting in Phoenix this year. Consider setting aside time in your calendar to participate in these free events:

- Early Career Professionals Networking Reception: Sunday Jan 6, 9pm-11pm.
- Speed Networking Event for Students and Early Career Professionals: Monday Jan 7, 7:00pm-9:30pm.
- Early Career Professionals Mock Trial Lunch: Sunday, 11:45am-1:00pm
 - o Approximately 6 volunteers are needed to guide participants through a mock trial scenario. Lunch is provided.

If you will be at the Annual Meeting and are interested in any of these events, please contact Morgan for more information and to be kept up-to-date as schedules are finalized. If you will not be present in Phoenix but would still be willing to connect with potential applicants please contact Morgan or Alicia.

Morgan: morgan@yarkerconsulting.com

Alicia: alicia.wasula@shadetreemeteorology.com ■

Additional Volunteer Opportunities for CCMs at the AMS Annual Meeting

We would also love to have a few CCMs available at the CCM Table during the **Student Conference and Career Fair** reception on Saturday night January 6th from 5:30pm – 7:30pm, if anyone is available. The table would also need some staffing during the Career Fair on Sunday January 7th from 6:30pm – 8:30pm. Staffing by both CCM's and NCIM members would help students fully appreciate the scope of the CCM program (both implementation and real-world applications). Please email [Kelly Savoie](#) if you are interested in volunteering at the AMS Annual Meeting during any of the above days/times.

Also, if any CCMs are available during the coffee breaks in the Exhibit Hall, and have time to answer potential questions at the **AMS Certification Booth** in the AMS Resource Center, please stop by. ■

PowerPoint Display at the AMS Certification Booth

As usual there will be a PowerPoint display at the AMS Certification booth at the Annual Meeting profiling the background and interests of active CCMs. If you would like to include a slide for the display, please email it to [Kelly Savoie](#) by **December 15th**. A [PowerPoint template](#) may be found online. If you participated last year, your slide will once again be included. Please email Kelly a revised slide if there are changes. Otherwise, your previous slide will be included. You may view the [current PowerPoint display](#) online. ■

Airbus Perlan Mission II Sets New World Record Soaring to over 76,000 feet

Contributed by Elizabeth Austin, CCM

WeatherExtreme Ltd. and its team of scientists, including three CCMs, proudly announce that on September 2, 2018, the Airbus Perlan 2 glider claimed its third world record soaring to just over 76,000 feet pressure altitude. The FAI (FÉDÉRATION AÉRONAUTIQUE INTERNATIONALE) World Air Sports Federation uses GPS altitude, which was just over 74,000 feet. These numbers will be adjusted after the instrument calibration is performed in the next two months post flight as the rules require. The flight took place in Argentina and originated on the lee side of the Andes in El Calafate, Argentina, just over 50° South latitude.

The Perlan 2 glider was being piloted by Chief Pilot, Jim Payne, and Co-Pilot, Tim Gardner. The glider was towed behind the Grob G 520 "Egrett", a high-altitude reconnaissance and surveillance turboprop long-

endurance aircraft. The tow on September 2 took just over an hour where the Perlan 2 glider released from tow around 44,000 feet. The flight after release from tow to land took just over 5 hours.

The WeatherExtreme team has a large Intel server (donated by Intel and powerful enough to run an entire city!) dedicated solely to running the Weather Research and Forecasting System (WRF) model in near real time for Perlan. The on-ground forecasters in El Calafate then utilized the WRF model forecasts along with Perlan Team balloon launches and other standard meteorological data to provide forecasts for the team.

Dr. Elizabeth Austin, CCM, CEO & Founder of WeatherExtreme, is the Chief Scientist on the Perlan Project (since 1998). Elizabeth explains that in order for the glider to soar to these high altitudes it takes a unique combination of meteorological conditions including the fact that the atmosphere must be influenced by the polar night jet (associated with the polar vortex) along with prefrontal conditions (although post frontal is ok at times) which enables the mountain waves to extend well into the stratosphere. It is these stratospheric mountain waves that the Perlan 2 glider used to reach these high altitudes.

Jim Payne stated, "We believe that this is the highest sustained flight by a winged, manned, subsonic aircraft".

[YouTube of 3 minutes inside Perlan 2 as they break the previous record.](#)

[YouTube of 2:45 minutes of tail camera above 76,000 feet \(pressure\) altitude.](#) ■



Photograph from the Perlan 2 glider tail cam while setting the new world record of just over 76,000 feet (pressure) altitude.



Photograph of Chief Pilot, Jim Payne (right) and Co-Pilot, Tim Gardner, just after setting the new world record and landing back in El Calafate Argentina on September 2, 2018.

ACM - An Association of Certified Meteorologists

Contributed by Mark McGinnis, CCM

NCIM-ACM is the oldest, continuously active professional association of private sector consulting and industrial meteorologists. Since 1968, ACM members play active roles in the private public partnership of the climate and weather enterprise. Our diverse [membership](#) ranges from professors to entrepreneurs and we actively collaborate with each other.

ACM is entering an exciting time. To assist our members, ACM is growing a social media presence to educate the public and promote our members through [Twitter](#), [LinkedIn](#), [Facebook](#) and our [website](#). The goal is to grow followers and make our members more visible on the web. By increasing our virtual footprint, we will spread awareness about what our members have to offer to help industry solve their weather and climate problems.

ACM members are proud to be well represented across many boards within the American Meteorological Society. ACM also supports outstanding students through the \$1000 Loren W. Crow Memorial Scholarship. This scholarship is awarded annually to a student pursuing a degree in atmospheric, oceanic and hydrologic sciences.

There are four levels of membership in ACM. Consultant Members are Certified Consulting Meteorologists whose principal occupation is consulting or industrial meteorology. Associate members are students, recent graduates, university or government employees who don't qualify as Consultant Members, but are on a career track directed towards Consultant Member. Affiliate Members are observers, counselors and

contributors of ACM whose professional interests shall intersect with the climate and weather enterprise. Retired Members are Consultant Members that no longer practice full time.

If you are interested in learning more about ACM, use this [link](#) or reach out to one of our members. ■

Short-term Prediction Research and Transition Center (SPoRT) Program

Contributed by William Vaughan, CCM

Short-term prediction and transition (SPoRT) of unique experimental/quasi-operational satellite observations and research capabilities to the operational weather community is a program to improve short-term weather forecasts on a regional and local scale. SPoRT is a NASA project and the end users include National Weather Service (NWS) forecast offices, national forecast centers, government agencies and private sector parties.

NASA SPoRT uses a research-to-operations/operations-to-research paradigm to introduce new products and capabilities to end users

SPoRT staff members work closely with NWS regional offices, NOAA testbeds and national centers, and individual forecasters at weather forecast offices to identify forecast problems and develop and test solutions using timely, high-resolution satellite observations and weather model forecasts.

Visit the NASA SPoRT web site at

<http://weather.msfc.nasa.gov/sport>

Twitter: [@NASA_SPoRT](#)

Facebook: [NASA SPoRT Center](#)

Blog: <https://nasasport.wordpress.com>

National Aeronautics and Space Administration ■

19th NUMUG Meeting, October 17 - 19, 2018 Las Vegas, NV Meeting Announcement and Call for Presenters, Abstracts, Papers

Contributed by Jennifer Call, CCM

Background and Objectives

The nineteenth Nuclear Utility Meteorological Data Users Group (NUMUG) meeting will be held at the [Tuscany Suites & Casino](#) in Las Vegas Nevada during October 17-19, 2018. This technical meeting will include papers and panel discussion presentations, combined with ample opportunities for group and individual information exchanges, on meteorological monitoring and operations related to nuclear-powered electric-generating facilities.

Call for Presenters, Abstracts and Papers

Technical paper presentations and panel discussions will address areas such as:

- meteorological monitoring – including equipment and data processing upgrade issues

- evolving regulations and guidance for meteorological monitoring at nuclear facilities
- atmospheric dispersion modeling for accidental and routine airborne releases, including control room habitability issues
- meteorological case studies
- data requirements for decommissioning/onsite spent fuel storage (ISFSIs)
- concerns related to proposed new plants
- other applications for weather information within nuclear electric utility operations

Abstracts are solicited on all aspects of the above referenced topics, and are requested as soon as possible. Final Paper, PowerPoint presentation, and speaker bio due: **October 12, 2018.**

Further Information on Registration, Presentations, Accommodations

Contact: Francis J. Hickey
Chemistry Support Sr. Health Physicist
Susquehanna Nuclear, LLC
E-mail: Francis.Hickey@TalenEnergy.com
PHONE: 570-542-3056

Jennifer M. Call, CCM
OASYS, INC
E-mail: jennifer.m.call@gmail.com
PHONE: 256-603-1159

We look forward to seeing you in Las Vegas in October 2018. ■

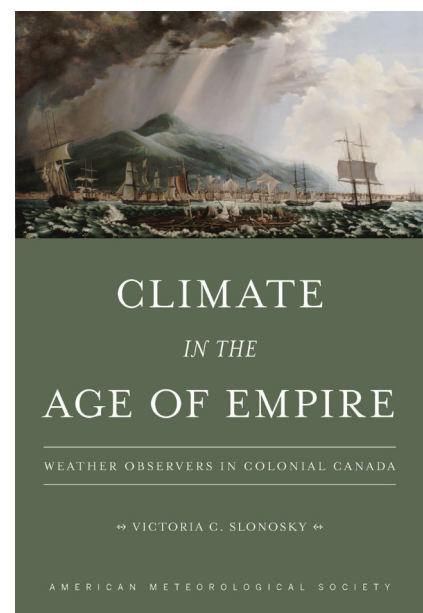
AMS Releases New Book: *Climate in the Age of Empire: Weather Observers in Colonial Canada*

by Victoria C. Slonosky

Weather observers have been paying close attention to the climate for centuries, at points even hoping human activity would bring change. This book shows how and why the colonial era scientific community amassed a remarkable body of detailed knowledge about Canada's climate and its fluctuations. Covering work by early French and British observers, the book presents excerpts from weather diaries and other records that, more than the climate itself, reveal colonial attitudes toward it.

Victoria C. Slonosky studied climatology at McGill University and the Climatic Research Unit in the UK

© 2018, paperback, 352 pages
ISBN: 978-1-944970-20-8
List price: \$35 AMS Member price: \$25



Certification Breakfast at AMS Annual Meeting

Please join fellow AMS certification holders on Wednesday, **January 9, 2019** at 7am for breakfast at the AMS Annual Meeting. The breakfast is open to all CCMs, CBMs, and Sealholders who will be in attendance. This is a great opportunity to meet up with friends and colleagues and to hear from the Board of Broadcast Meteorologists and the Board of Certified Consulting Meteorologists on their activities. A plated breakfast will be served and space is limited so **please RSVP by November 15th** [here](#) if you plan to attend. ■

Don't Forget to Vote for the Future Leaders of AMS

Voting for the 2019 AMS President-Elect (President in 2020) and Council is now open! The elected leaders of AMS are charged with advancing AMS's goals in the areas of weather, water and climate. We value and appreciate your vote. [The deadline to vote is 7 November 2018.](#) ■

Save the Date! The Future Science and Technology of Environmental Monitoring—Online Event

Join IEEE for an exclusive online event on October 24th. More details will be posted [here](#) in the coming weeks. ■



JOIN A HOST OF EXPERTS ON **OCTOBER 24TH 2018**

AS WE DISCUSS THE FUTURE SCIENCE AND TECHNOLOGY OF

ENVIRONMENTAL MONITORING

AT AN EXCLUSIVE **ONLINE EVENT** BROUGHT

TO YOU BY THE IEEE ENVIRONMENTAL ENGINEERING

INITIATIVE **MORE DETAILS SOON**

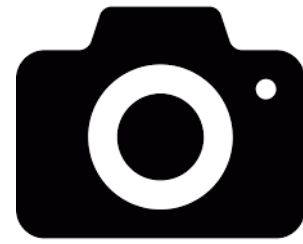
The IEEE Environmental Engineering Initiative (EEI) is a global action launched by IEEE to promote technologies and innovations that help to monitor and control natural and artificial physical environments in order to ensure livability and a sustainable future of our habitat, and the well-being of individuals and the entire community.

IEEE EEI provides a multi-disciplinary cross-IEEE forum designed to foster knowledge dissemination and innovation in environmental engineering. Focusing on related technologies, methodologies, systems, and applications, IEEE EEI brings together the vast amount of knowledge and information available through multiple IEEE Societies, Councils, and groups, creating a comprehensive view of all IEEE efforts in this area.

IEEE EEI involves all scientific and technological engineering areas in the IEEE-designated fields of interest, including civil engineering, chemistry, earth/soil science, hydrology, hydraulics, physics, climate science, biology, management, economics, social science, and more. Ethics, public policy, law, education, and public awareness also have a significant role in achieving the global goals of environmental engineering. To become part of this cutting-edge initiative and explore all the benefits of engaging in the IEEE Environmental Engineering Initiative and the related Community, visit: environmental.ieee.org.

Wanted: Photos of CCMs in Action

AMS is in the process of updating its web pages and we would love to include more photos of CCMs working in the field. If you have any photos that you would like to share with us, please email them to [Kelly Savoie](#). ■



Share Your Story!



Join your friends and colleagues and share your story on the AMS Centennial page! Let us know why you value being a part of AMS. We are collecting stories to recognize the strength, diversity, and accomplishments of our community. Visit our [Centennial website](#) and let us hear from you! #AMS100 ■

Upcoming AMS Conferences

[29th Conference on Severe Local Storms](#)

22–26 October 2018, Stowe, VT

[Automated Vehicles & Meteorology Summit](#)

23–24 October 2018, Washington, DC

[99th AMS Annual Meeting](#)

6–10 January 2019, Phoenix, AZ

[2019 AMS Washington Forum](#)

27–29 March 2019, Washington, DC

[15th Conference on Polar Meteorology and Oceanography](#)

20–23 May 2019, Boulder, CO

[18th Conference on Mesoscale Processes](#)

29 July–1 August 2019, Savannah, GA

[39th International Conference on Radar Meteorology](#)

16–20 September 2019, Nara, Japan

[2019 Joint Satellite Conference](#)

28 September–4 October 2019 Boston, MA

Upcoming [meetings of interest](#) being offered by other organizations may also be found on the AMS website. ■

Connect on Social Media

[LinkedIn](#)

The LinkedIn page is becoming more active. If you have not joined, please do! The LinkedIn page is accessible and open only to CCMs. You must join LinkedIn (it is free) first before requesting to join the CCM page. Once you join LinkedIn (or if you are already a member), then just simply type "Certified Consulting Meteorologist" in the search box on the top right to search for our group. We anticipate the LinkedIn site to be an easy way for CCMs to communicate with each other and keep us all abreast of news, developments, and items of interest to CCMs.



[Facebook](#)

For all CCMs, colleagues, and the general public, we have a CCM Facebook page. It can be found by searching in Facebook for "Certified Consulting Meteorologist (CCM)." This page needs much more interest to be generated, beginning with every CCM "liking" the page.



Twitter

For all CCMs, colleagues and the general public, we have a new Twitter account. Leading up to the Annual Meeting, this year we intend to market the CCM booths at the Student & Career Fairs and AMS Resource Center via Twitter. If you are on Twitter, please follow the handle [@AMS_BCCM](#) ■



Thanks to all of our contributors
for this issue.

We encourage you to share your experiences, views,
findings, or studies for the next newsletter.

E-mail your articles to:
[Alicia Wasula](#)

The Winter 2018 Newsletter submission deadline is December 15.