



The American Meteorological Society

# Certified Consulting Meteorologists

Newsletter

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

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## The Chair's Column

Dear CCM Colleagues:

The BCCM has launched into 2018 with a focused set of priorities. The primary objective this year is to complete the comprehensive overhaul of the CCM written exam. The last time such an ambitious update was undertaken by the BCCM appears to have been in the 1990s. I want to extend a thank you to the ongoing leadership of Mitch Baer in managing this effort as Chair of the Ad Hoc Written Exam Overhaul Committee and acknowledge the 37 active CCMs engaged in the critical and timely project.



An important annual task for the BCCM is adjudicating the nominees for the annual Henry T. Harrison Award for achievement by a consulting meteorologist. The award was established to recognize a consulting meteorologist for outstanding contributions to the profession, clients, and society. Nominees should demonstrate expertise in weather and climate, adherence to ethical behavior, and a high level of service to clients and/or the weather and climate enterprise. Nominations are due to the AMS by May 1. Please consider nominating a fellow CCM for this prestigious honor.

At the AMS Annual Meeting in Austin, the BCCM conducted 9 oral exams out of which 7 candidates successfully passed and have since been awarded their CCM credential. This year the traditional CCM Breakfast morphed into the "Certification Breakfast." It was exciting to see both CBMs and CCMs assembled for a rare, combined gathering which will occur again en masse in two years at the Centennial meeting in Boston.

Professional certification to be administered by a Board of Certified Consulting Meteorologists was proposed to the AMS Council by the AMS Committee on Industrial Meteorology in 1956. The Council established the CCM Program on March 8, 1957 and certified the first three CCM Board members. Henry

Harrison was CCM #1 who was certified along with Robert Elliot and Alfred Glenn. The program was broadly announced in the AMS Bulletin in Nov 1957 and since then the AMS has awarded the CCM credential to 740 professionals.

As of January 1, 2018, the number of active credential holders between both the CCM and CBM programs stood at 815 with 270 CCMs and 561 CBMs. For those of you doing the quick mental math, you will realize those two numbers don't add up to 815. That is because there is a small set of 16 overachievers who hold both the CCM and CBM. An interesting bit of CCM trivia is that 21 of the past AMS Presidents have been awarded the CCM credential during their career.

The CCM Program is a service to the general public by the AMS. It was established so that individuals could be tested in order to demonstrate they meet or exceed the AMS' high standards of technical competency, character, and experience for certified consultants. The AMS created and has maintained the Program for the past 60+ years to achieve four goals. To me, the fourth goal sums it all up:

*To enhance the prestige, authority, success, and emoluments of consulting meteorology specifically, and of professional meteorology generally, by promoting such a high order of professional activity that unqualified practitioners will either labor to achieve this recognition or retire from the field.*

The state of the CCM program is strong but there are contemporary challenges the AMS will need to address in upcoming years. The first challenge is related to branding of the CCM credential. CCMs today serve in a broad array of specializations ranging from climate change, to air quality, to weather risk management. Yet my experience is that a more narrow perspective persists within the AMS community that the CCM credential is essentially meant for practitioners of forensic meteorology and other disciplines within applied meteorology providing support to clients such as insurance companies, lawyers and engineering firms. With respect to the CCM program dating back to its inception in the 1950s, the concept of meteorological consulting is applied in the broadest possible context referring to professional activities by meteorologists in all sectors of the enterprise including government, private and academic.

Insight regarding the second challenge I foresee that is relevant to AMS certifications has emerged from the recent work of the ad hoc committee formed by the AMS to assess the potential need for a separate climate change consulting certification. A fundamental element of the CCM program has been the requirement for candidates to demonstrate through education, experience, and testing by the CCM Board that they possess a basic but comprehensive knowledge of the atmospheric sciences as a predicate for certification. Moving toward and beyond the AMS Centennial in 2020, innovative research and new tools and techniques advancing the state of applied science will reflect the increasingly integrated and interrelated disciplines within Earth science such as hydrology and oceanography. As the AMS tackles important questions about whether and how it will evolve, the Society's leadership will inevitably be pressed to consider new certification programs. Is it likely that new certifications will reflect disciplines whose practitioners may not possess any basic meteorological knowledge through education or experience. Some climate change experts fall into this category. I believe the thought leaders in our Society are going to have to tackle this question as it establishes new vectors for the AMS for its next 100 years.

As the Board looks toward the future, we are working hard to put the CCM Program on solid ground for the next decade. Through the Written Exam Overhaul project, we will ensure the test reflects the state of the art in disciplines such as climate change, space-based remote sensing and environmental analytics including artificial intelligence. In other efforts, we are performing a 360 degree evaluation of all aspects of the Program including the oral exam protocols, professional development portfolio audit process, marketing and recruiting. If you are interested in being considered for a Board position during these exciting times for a term starting in 2019, 2020 or 2021, please contact Chair-elect, Alicia Wasula at [alicia.wasula@shadetreemeteorology.com](mailto:alicia.wasula@shadetreemeteorology.com).

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

## Outgoing and Incoming CCM Board Members

We would like to thank Tony Lupo, Chair, Mitch Baer, and Ron Baskett for completing their service as members of the Board of Certified Consulting Meteorologists. Incoming board members, who started terms at the 2018 Annual Meeting, are Randy Bass, David Moran, and Mark McGinnis.



Outgoing Chair Tony Lupo (left) with Ron Baskett



Mitch Baer (left) with Tony Lupo



Incoming Chair Tim Hall with Tony Lupo

## New CCMs

Since the last newsletter was published, the following individuals completed all requirements for certification and were added to the roll of active CCMs:

Daniel Minor, Woodbridge, VA CCM 734  
John Lavin, Wichita, KS CCM 735  
Matthew Jones, Lowell, MA CCM 736  
Jared Rennie, Asheville, NC CCM 737  
Tyler Dewvall, Wichita, KS CCM 738  
Mark Estes, Austin, TX CCM 739  
Davis Nolan, Nashville, TN CCM 740

Be sure to welcome them to the CCM ranks at your next opportunity! ■

## Professional Development Opportunities



### COMET's newest publications on MetEd

Contributed by David Russi, Spanish Translator, UCAR/COMET

Please look below for links to COMET's newest publications on MetEd. Once again, we started the year with a bang: in the past three months we published 9 new lessons, 7 of them on satellite topics ranging from the more general on imagery interpretation to the more specific SatFC-J training. We also published 8 new lessons in Spanish and 3 in French. The GOES-R Series Multilingual Training Resources page brings together some GOES-R training that is now available in Spanish and Portuguese, in addition to English.

### New COMET Lessons

#### Satellite

- [SatFC-J: The VIIRS Day/Night Band](#)
- [SatFC-J: The AMSR2 Microwave Imager](#)
- [SatFC-J: The VIIRS Imager](#)
- [SatFC-J: Orbits and Data Availability](#)
- [GOES-R Series Multilingual Training Resources](#)
- [Basic Satellite Imagery Interpretation](#)
- [Rapid Scan Applications and Benefits](#)

#### Other

- [Mesoscale Model Components of the National Blend of Models Version 3.0](#)
- [Geodetic Control in Land Surveying: Active vs. Passive](#)

#### New Spanish Lessons

- [SatFC-G: introducción al GLM](#)
- [SatFC-G: Bandas IR, excepto las de vapor de agua](#)

- [Teledetección por microondas: aplicación a las superficies terrestres y oceánicas, 2a ed.](#)
- [Fundamentos de PNT: la física del modelo](#)
- [Fundamentos de PNT: asimilación de datos](#)
- [Fundamentos de PNT: precipitación y nubes](#)
- [Señales de radar características de tiempo convectivo severo](#)
- [Olas en aguas someras](#)

#### New French Lessons

- [Vagues en eau peu profonde](#)
- [Guide de référence des produits issus de SPE](#)
- [Introduction au SPE](#)



Currently, these materials are freely available to everyone, courtesy of our primary sponsors. They are NOAA's NWS, NESDIS and NOS programs, EUMETSAT, the Naval Meteorology and Oceanography Command, the Meteorological Service of Canada, Bureau of Meteorology, and the USACE and DOI/Reclamation.

AMS certification holders receive .5 – 1.25 professional development points (depending on difficulty level) for completing COMET modules.

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## **2018 North American Workshop on Hail & Hailstorms** **August 14 -16, 2018 Boulder, Colorado** **NCAR Center Green Campus**

Contributed by Ian Giammanco, PhD – Insurance Institute for Business & Home Safety



The National Science Foundation, the National Center for Atmospheric Research and the Insurance Institute for Business & Home Safety are organizing the first North American Workshop on Hail and Hailstorms. This workshop will contain a blend of invited speakers, expert panel discussions, traditional symposia and poster sessions related to the topics listed below over the course of three full days.

The workshop will focus on the following topics:

- Convection & hail in a changing climate
- Hail climatology & risk
- Hail damage, losses, and mitigation
- Hail detection & forecasting
- Microphysics and dynamics of hailstorms

For more details, please visit [here](#).

AMS Certified Consulting Meteorologists (CCM), Certified Broadcast Meteorologists (CBM), and Sealholders earn one professional development point per day of attendance.

For a full list of acceptable professional development activities and point values visit the [AMS Professional Development page](#) for CCMs. ■

## CCM Jim Purpura Visits Naypyitaw, Myanmar

Contributed by Elizabeth Austin, PhD, CCM



Jim Purpura, CCM, pictured in the middle of the image, blue shirt and sunglasses.

In March, [WeatherExtreme Ltd.'s](#) Director of Weather Forecasting & International Operations James “Jim” Purpura, CCM, gave a talk on lighting safety at Hilton Nay Pyi Taw in Naypyitaw, Myanmar. In attendance were some of our friends from the Myanmar Department of Meteorology and Hydrology (DMH), Daw Ye Ye Nyein, DMH Director of Meteorology, and Dr. Zin Mie Mie Sein, DMH Staff Officer. Thanks to Ayesha Paiva, Director of the Hilton Training Academy, for organizing this great event! ■

## CCM Board Needs Help with Exam Revisions

The CCM Board could use additional assistance with their on-going comprehensive review and update of the written exam. They are seeking CCMs with expertise in the following professional practice areas to assist with review and creation of questions: financial business weather risk, weather modification, weather analytics (machine learning/AI), agriculture, and instrumentation. If interested, please email [Tim Hall](#). ■

## 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](#). ■



## AMS Awards Portal is Open!



Please consider nominating a worthy colleague or peer for an AMS Award. Of particular interest to CCMs, are the following awards:

- [The Henry T. Harrison Award for Outstanding Contributions by a Consulting Meteorologist](#)
- [Fellows](#)

AMS has a new online awards portal that is much more user-friendly than the prior interface. We have created a tutorial on [how to submit an award nomination](#) to help you get acquainted with the new system. The deadline for award nominations is **May 1st** so start your nominations early to ensure that you receive all supporting documents by the due date. ■

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## Private weather service providers – time for an update?

Contributed by Matthew Bunkers, PhD, CCM

NOAA maintains a [list of Private Weather Service Providers](#) by affiliation. If you have not checked this out in a few years, you may want to verify that the information is accurate for your location and/or state. The contact person is [Wendy Levine](#), National Weather Service, Office of the Chief Operating Officer (Sr. Policy Lead). Just send her your changes and she will take care of the rest. ■



# AMS Online Weather and Climate Service Providers Directory

We would like to remind you about the online Weather and Climate Service Providers Directory. As a benefit to our CCMs, you are eligible for a complimentary listing. CCMs will show up first in search results followed by AMS members and then non-members.

Some of the great features of the directory include the ability for you to add:

- company logo
- profile photo
- social media links
- Website URL
- CV
- photo albums
- videos
- text articles
- up to ten specialties

To enter your free listing, go to the following [sign up page](#) created exclusively for CCMs, and follow the prompts; have your AMS Member Account Number and CCM Number available. The directory is linked from the AMS home page under [Finding an Expert](#) in the 'Information For' section of the site. To date, 105 CCMs have taken advantage of a free listing in the directory. If you currently have a listing, you may want to review it on an annual basis to make sure content stays up to date. ■

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## Articles of Interest

Below please find a select group of articles from upcoming AMS journals we thought would be of interest to you. To access these articles, follow the listed links to the abstracts. To access the full article, click on the PDF tab and enter the following credentials on the resulting login screen:

press@ametsoc.org  
password: MarchAMSLeads

The select articles will be available for thirty days.

### [Improvements in Hurricane Intensity Forecasts from a Multi-Model Superensemble Utilizing a Generalized Neural Network Technique](#)

*Weather and Forecasting*

Hurricane intensity forecasts are much-needed yet still a challenge with no dynamical computer model performing reliably in a consistent manner. Individual model forecasts can be combined to make consensus forecasts, and such ensembles have now been improved utilizing the principle of learning through experience. This artificial neural network approach reveals that using as few as five models to form consensus results in improved intensity guidance useful for operations and informing emergency managers.

Twitter: #WeaForecasting

### [Defining Single Extreme Weather Events in a Climate Perspective](#)

*Bulletin of the American Meteorological Society*

Weather extremes are the showcase of climate variability, given their societal and environmental impacts. But before a single event can be scrutinized, it must be properly defined. Automatically selecting the space



and time scales that maximize the rarity could provide an objective definition of a single extreme weather event for climate monitoring and event attribution.

Twitter: #BulletinAMS

### **[Climate Impacts on Density Altitude and Aviation Operations](#)**

*Journal of Applied Meteorology and Climatology*

Warmer temperatures due to climate variability = less dense air = greater need for longer runways (can't do easily) or lighter airplane loads = lost cargo revenue or smaller passenger loads to get planes off the ground safely = headaches for the airline industry. A new study looks only at El Niño and the Arctic Oscillation as drivers of this variability, but the findings could point to significant problems for aviation in a warmer world.

Twitter: #JApplMeteorClimatol

### **[Model Assessment of Observed Precipitation Trends Over Land Regions: Detectable Human Influences and Possible Low Bias in Model Trends](#)**

*Journal of Climate*

Future precipitation projections are a critical issue for possible forthcoming societal impacts, including drought and flooding risks. A new study assesses their consistency with observed precipitation trends in the 20th century, finding human-caused increases over regions of the north-central U.S., southern Canada, Europe, and southern South America and decreases in the Mediterranean and North Africa. An overall low bias in models points to potential overestimation of drought and underestimation of flood risk.

Twitter: #JClimate ■

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## **Upcoming AMS Conferences**

### **[33rd Conference on Hurricanes and Tropical Meteorology](#)**

16–20 APRIL 2018 PONTE VEDRA, FL

### **[2018 AMS Washington Forum](#)**

24–26 APRIL 2018 WASHINGTON, DC

### **[33rd Conference on Agricultural and Forest Meteorology/12th Fire and Forest Meteorology Symposium/Fourth Conference on Biogeosciences](#)**

14–18 MAY 2018, BOISE, ID

### **[29th Conference on Weather Analysis Forecasting \(WAF\)/25th Conference on Numerical Weather Prediction \(NWP\)](#)**

4–8 JUNE 2018, DENVER, CO

### **[23rd Symposium on Boundary Layers and Turbulence/21st Conference on Air-Sea Interaction](#)**

11–15 JUNE 2018 OKLAHOMA CITY, OK

### **[18th Conference on Mountain Meteorology](#)**

25–29 JUNE 2018, SANTA FE, NEW MEXICO

### **[15th Conference on Cloud Physics/15th Conference on Atmospheric Radiation](#)**

9–13 JULY 2018, VANCOUVER, BC

### **[10th International Conference on Urban Climate/14th Symposium on the Urban Environment](#)**

6–10 AUGUST 2018, NEW YORK, NY

### **[2018 Summer Community Meeting](#)**

7 – 8 AUGUST 2018 BOULDER, CO

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

22–26 OCTOBER 2018, STOWE, VT

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 Summer 2018 Newsletter submission deadline is June 15.