

# **Certified Consulting Meteorologist Program**

## **Revised October 2018**

### **1. The program**

In an age of expanded environmental technology, the scope and detail of meteorological applications within agriculture, business, industry, and various sectors of government operations have brought increasing demand for specialized services by meteorologists. These services extend beyond the traditional public service functions and statutory responsibilities of the National Weather Service, and the private practice of consulting meteorology developed in answer to some of the needs that have arisen. In meteorology, as in other technical professions such as engineering and medicine, individuals form and maintain close contact with the public, and in doing so are representatives of their profession. The AMS recognized a need for a professional certification program for the advancement of professional ideals within meteorology and within the other spheres of activity in which meteorologists participate.

Professional certification, as part of a national program of the AMS, to be administered by a Board of Certified Consulting Meteorologists (CCMs), was proposed in a report submitted to the Council by the AMS Committee on Industrial Meteorology in the fall of 1956. The recommendation was approved with slight modifications by the Council, which appointed a board and also certified those first few members. The original announcement was made in the November 1957 *Bulletin*. In a continuing effort to improve the program, the Board constantly assesses its procedures in order to provide the CCM community, the AMS membership and the public with improved knowledge and understanding of the program, and to ensure the objectivity and fairness of the policies procedures.

In 2003, the AMS Council approved a proposal to implement a mandatory continued professional development component for the CCM program in recognition that maintaining certification implies maintaining a currency in the rapidly evolving scientific areas covered by the CCM designation. A structured approach for documenting the continuing professional development efforts of individual CCMs has been developed. This program will give CCMs a formal way of demonstrating that they are working to maintain their professional competence.

### **2. Consulting meteorologist**

Fundamentally, the consulting meteorologist is a professional meteorologist whose practice is founded upon an understanding of the atmosphere and its behavior and upon the beneficial application of his or her abilities to the affairs of humankind. Moreover, these qualities are founded upon knowledge of a more general nature that enables the consulting meteorologist to address a broader spectrum of related activities. Meteorological consulting may entail providing services individually to many on a fee basis, or serving a company, government agency, or academic institution where such work comprises part or all of the meteorologist's functions. In any case, the essential attributes of the certified consulting meteorologist are a specialized knowledge combined with a broad background, an ingrained concept of service, and a clear and unwavering adherence to the rules of professional conduct.

### **3. Purpose of certification**

The CCM program is a service for the general public by the AMS. The Society has established high standards of technical competence, character, and experience for certified consultants who provide meteorological advice to the public. The CCM program was established

so that individuals can choose to be tested in order to demonstrate that they meet or exceed those standards. The certification enables users of meteorological services to select consultants or employees with greater confidence in the quality and reliability of the products or services they will receive. The CCM is also a formal recognition on the part of his or her colleagues, acting through the Society, that an applicant is considered well qualified to carry on the work of a consulting meteorologist. The goal of certification in the CCM program is fourfold:

- 1) To foster the establishment and maintenance of a high level of professional competency and mature and ethical counsel in the field of consulting meteorology;
- 2) To provide a standard upon which a client seeking assistance on problems of a meteorological nature may have the basis to select mature, competent, and ethical professional counsel;
- 3) To provide incentive for the continued professional growth of the meteorologist after completion of his or her academic training;
- 4) 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.

#### **4. Qualifications for certification**

The qualifications for the CCM are centered around the fundamental characteristics of 1) knowledge, 2) experience, and 3) character. No one attribute can be considered sufficient unto itself nor can excellence in any two compensate for a deficiency in the third; the three qualifications comprise a standard to which an individual seeking this recognition should aspire.

*Knowledge.* To attain this recognition, an individual should have a comprehensive, although not necessarily a detailed, understanding of the main aspects of meteorological knowledge. The role of specialization is recognized, but the dangers of all depth and no breadth need to be clearly recognized. The work of a consulting meteorologist is to some extent in the nature of applied research. Thus, an understanding of research and the principles of scientific method, as well as demonstrated competence in applying these principles, is a desirable characteristic. The role of formal education in acquiring knowledge is quite obvious; but, also quite obviously, the two cannot be equated. Qualification on the basis of knowledge is, in first measure, indicated by college education, including successful completion of courses in meteorology, meeting national standards for professional employment. As a minimum, applicants must meet one of the following requirements:

(A) Hold a Bachelor's (or higher) degree in meteorology or atmospheric science.

(B) Hold a Bachelor's degree (or higher) in "other sciences and engineering" and be engaged in an activity in which the applicant's knowledge is being applied to the advancement or application of the atmospheric or related sciences. Acceptable degrees will be determined after a review of the applicant's college/university transcripts. Arts and humanities are not included; therefore, degrees in English, literature, philosophy, languages, journalism, communications and business administration would not lead to eligibility for CCM application.

(C) Have at least 20 semester credit hours in meteorology with 12 of the 20 credits in core classes (a minimum of 2 credits in each of 4 of the 5 core areas is required).

The following criteria will be used to determine the types of courses which count towards the required 20 semester hours:

1. Courses in meteorology or atmospheric sciences, climatology, oceanography or hydrology which are part of a curriculum leading to a Bachelor of Science degree in atmospheric or related oceanic or hydrologic sciences at an accredited institution.

2. Courses in atmospheric or related sciences designed to fulfill a science elective requirement for a non-science major that are offered by a department of atmospheric or related oceanic and hydrologic sciences and the entire course concerns atmospheric or related oceanic or hydrologic sciences.

3. Courses offered through a geography or earth sciences department when it is clear that they are science based and the entire course deals with the atmospheric or related oceanic and hydrologic sciences.

4. Correspondence courses that are accepted by accredited institutions toward a Bachelor of Science in the atmospheric or related oceanic and hydrologic sciences.

At least 12 of the 20 credits must be in areas of:

1. Atmospheric or Oceanographic Dynamics
2. Atmospheric or Oceanographic Thermodynamics
3. Physical Meteorology or Physical Oceanography
4. Synoptic Meteorology (or Weather Systems) or Synoptic Oceanography
5. Hydrology

A minimum of two credits in each of 4 of the 5 areas is required. These core courses must include basic processes relevant to atmospheric or oceanic systems. Thus, for instance, in the area of dynamics the fundamentals (the balance of forces for motions of the atmosphere or ocean) must be covered. Representation using calculus is desirable but not required, but such coverage must not be purely descriptive. Dynamics at the level covered in textbooks for survey courses (such as Atmospheric Science, An Introductory Survey by Wallace and Hobbs) is sufficient provided a significant portion (generally more than half) of the course covers topics in dynamics. Similar comments apply to other such specific areas mentioned in the core requirements. Applicants may expect a written examination on various aspects of science and the profession of meteorology.

*Experience.* The mature judgment and unostentatious self-confidence that come from successful experience in applying knowledge to a useful end are recognized as requirements for maintaining proper stature in time-honored professions. They apply here. Qualification on the basis of experience requires a minimum of five years of work at the professional level in meteorology or a related field. Substitution of a postgraduate degree below the doctorate is permitted for one year of experience, and substitution of the doctorate degree in meteorology for up to two years is allowable.

*Character.* The character of the consultant must be of the finest and be manifest in devotion to the highest professional ideals. Relations with fellow meteorologists, and with clients or employers, should be conducted in a spirit conforming in full to the Society's Guidelines for Professional Conduct (Article XII of the Constitution). There will be one or more questions on ethics on the written examination.

In the matter of qualification on basis of character, the application requires the naming of at least three professional references, preferably including one Certified Consulting Meteorologist.

The applicant's record of professional work should clearly indicate that he or she maintains those traits for conduct complying fully with the Society's Guidelines for Professional Conduct and applying generally in public contacts.

## **5. Board of Certified Consulting Meteorologists**

This Board is a standing committee of the Society under the Commission on Professional Affairs. It is responsible for considering applications and making recommendations in regard to certification. The Board consists of twelve certified members who do not hold elective office in the Society and who contribute their time and interest to the program. An attempt is made to ensure that no more than one member may be professionally employed by the same organization during tenure on the Board. Members are appointed by Council action for terms of four years. Actions of the Board are by majority vote and are reported to the Commissioner of Professional Affairs for review and final action. The Board will submit a report on the CCM Program annually for review by the Council.

To ensure the fairness of the examination procedures, the Board has adopted the policy that its members will avoid conflicts of interest in the evaluation process. Members will continue to avoid such conflicts by disqualifying themselves from evaluating competitors or business associates when such relationships would interfere with their impartiality. If the Chairperson of the Board deems it necessary to recuse himself/herself from the evaluation procedure for a particular candidate or candidates, then an alternate, current or past member of the Board will assume the chair's duties for processing those applications.

## **6. Procedures for certification**

Application for designation as a Certified Consulting Meteorologist is made through the headquarters office of the Society. The application materials are then forwarded by that office to the Board for its consideration. The requirements are expressed in the application form. Only those individuals with the necessary qualifications and dedication to the ideals of the program will be approved for certification. Certification is applicable to individuals only and not to organizations. The procedures followed by the CCM Board are as follows:

- 1) An application form, with the appropriate nonrefundable fee, is submitted to the American Meteorological Society. The AMS retains the original application and sends copies to the Chairperson of the CCM Board. Headquarters staff requests letters of reference from the three names given by the applicant, one of whom will preferably be a CCM and one of whom will preferably be a former employer. The Chairperson, at his or her discretion, may also request additional letters of reference. As additional materials such as transcripts or letters of reference are received at AMS headquarters, staff will send all materials to the Chairperson. It is then Headquarters' responsibility to follow up on missing items. Any unfavorable letters are immediately sent to AMS counsel for review.
- 2) Headquarters reviews and screens the application to ensure that the basic qualifications have been met. Once all reference letters are received, the Board chairperson initiates the evaluation process. This evaluation constitutes a comprehensive examination of the knowledge, experience and character of the applicant, and which provides evidence of their ability to communicate in English, orally and in writing. There are two parts to this evaluation. The first part is a written examination, which must be successfully completed before the candidate can proceed to the second part, the oral examination. To foster an anonymous, unbiased evaluation, the candidate is known throughout the written examination only by an identifying number assigned by the Chairperson.

- 3) The written examination is in two parts. The first is an “open-book” examination which consists of several standard questions intended to test the applicant’s general meteorological background and several questions intended to probe more deeply his or her own area of specialty or expertise. In order to improve the inventory of question-and answer sets, at the Board’s discretion applicants may be asked to revise sets of questions previously submitted or to develop new ones. In responding to the questions the candidate may use all available resources, except that he or she may not discuss the questions with any other individual person or persons. The candidate must sign, when the material is submitted, a form indicating that no such personal aid has been received. A period of 90 days is normally suggested as sufficient to complete the written part of the examination. In practice, one or more time extensions may be given if an applicant has a need to request extra time.

A report or published paper, and a non-technical summary (abstract) of it, representing the applicant’s professional work is required as the second part of the written assignment. Effective communication skills are essential for anyone contemplating attainment of the CCM credential.<sup>1</sup> A CCM candidate must demonstrate that he/she possesses the ability to apply his or her meteorological knowledge beneficially to the affairs of mankind and communicate that knowledge to the public. Usually a client does not have the same technical expertise as the consultant hired; therefore, it is essential that the consultant be able to provide a written product that communicates effectively to any non-technical user. All CCM applicants are required to submit a written report to accompany their formal application. This report may not be more than five years old at the time of submission. It must adequately address the twin objectives of demonstrating both meteorological analytical skill and effective communication. To meet these objectives, the following guidelines apply:

- a. The abstract should be limited to 250 words, and the technical paper should be not less than 1000 words and not more than 5000 words and should contain no more than 10 graphics.
- b. The report must represent the applicant's professional work. If the applicant is not presently involved in professional work that results in written reports, or cannot provide a written report meeting the five year age restriction, the applicant must prepare a written report that specifically demonstrates his or her ability to meet the report objectives outlined herein.
- c. The report may not be one that has been, or will be submitted for fulfillment of academic degree requirements.
- d. The report must demonstrate the ability to communicate with non-technical clients. Published papers that are so specialized that practitioners in a narrow specialty can only understand them do not meet that criterion and will be rejected.
- e. The report must demonstrate meteorological analytical skill. Reports on subjects allied to meteorology (e.g. communications, computers) that do not contain meteorological analyses are unacceptable.
- f. Reports that simply provide descriptive statistics (e.g. climatological data) and do not contain substantive meteorological analysis of these data are unacceptable.

- g. The CCM applicant must be the principal author or the principal author of a substantial part of the report. The report may be one prepared under the technical supervision of the applicant; however, administrative supervision, such as in the role of a contract officer, is not sufficient. The applicant must be a significant contributor to the technical meteorological analysis and must be able to defend the concepts in the report during the oral interview. In cases of multiple authors, the applicant must indicate his or her role in the preparation of the report when he/she submits it to the BCCM for consideration.
  - h. Reports interpreting meteorological information presented previously (within the last five years) for a non-technical client (audience) are acceptable providing they are technically correct and display a greater understanding of meteorology than would be expected of a journalist. In lieu of the non-technical summary (abstract) described above, such reports should be supplemented with a 250 word or less technical summary describing or demonstrating the meteorological analysis or insight involved in the process of creating the report.
- 4) On receipt of the completed written examination, the Chairperson sends the material to four members of the Board without comment or other documentation. Board members assign a numerical score to each answer based upon their evaluation of the knowledge and methodology demonstrated by the candidate. Board members then determine an overall score in the range of 0 to 100 for the written examination. The technical paper/publication and non-technical summary, treated together, are similarly graded and given a numerical score between 0 and 100. These documents are evaluated on the basis of the following criteria: identification of the (client's or research) problem, writing skill, technical knowledge, and objectivity and clarity of the writer's conclusion or recommendation. Equal weight is given to each of these four criteria.

Board members send the scores for the written exam and the technical paper to the Chairperson, who then determines the average score for both the exam and the report, and combines them, giving twice as much weight to the written exam as to the technical report, to create the final score. A final score below 70 is deemed a failure, and no oral review will be conducted for that applicant. The failed applicant's identity will remain confidential, and the matter will be referred to the Commissioner on Professional Affairs for further consideration.

If the applicant achieves a passing grade on the combined written exam and technical report, the letter notifying them that they are qualified for an oral exam will contain a list of any questions and/or the technical report for which their aggregate score across all graders was less than 70, to assist them with preparing for the oral exam. No information on the identity of, or scoring from, individual graders will be provided.

- 5) Following successful completion of the written examination, the Chairperson indicates the name of the candidate to each Board member and prior to the oral examination forwards the materials previously retained at AMS Headquarters:
- a) copies of the application;
  - b) all favorable letters of reference and all favorable comments from any other source;
  - c) all negative letters or comments previously approved by AMS counsel (those not sent to the Board members will be retained in the permanent AMS files); and
  - d) any other documents deemed relevant by the Chairperson.

- 6) The oral portion of the examination is normally conducted during the Annual Meeting of the AMS. Commonly the full Board participates, but a panel of at least 3 Board members is required. Regional orals, serving to expedite the whole certification process and minimizing inconvenience for all concerned, may be given at other times and locations upon the recommendation of the Board. Such orals are conducted by a panel consisting of at least one current or recent (within the past three years) Board member and at least two other Certified Consulting Meteorologists. The Panel provides a report of the oral examination for evaluation by the full Board. The Chairperson makes a final determination as to the time and location of the oral examination and the composition of the panel, based upon the Board's recommendations and all other materials in hand. The Chair also appoints a senior individual to act as the examination chief to organize and conduct the examination. Regional examinations are conducted using the same procedure as a full BCCM oral examination.
- 7) If one or more Board members find cause for concern in the written materials, they can request a "Board-members-only" oral review. The purpose of the Board-members-only review is to provide a more thorough evaluation of the applicant in question by the Board as a whole. A Board-members-only examining panel consists of the Chairperson and at least two current Board members. Board-members-only reviews are normally given only in association with the annual meeting of the full Board of Certified Consulting Meteorologists, which takes place in conjunction with the Annual Meeting of the AMS.
- 8) Immediately prior to the oral examination the candidate will be given a short written quiz on basic meteorological knowledge.
- 9) The oral examination may cover any hydro-meteorological topic. It usually consists of a discussion of the applicant's written examination materials, his or her technical report and summary, and any other topics deemed appropriate by the Panel. Questions also are used to explore the candidate's knowledge of areas identified by the candidate as their area of specialization. The Board, at their discretion, may pose questions using visual material such as isobaric maps, Doppler radar maps, satellite maps or numerical weather prediction products. The oral exam always includes a discussion of hypothetical situations that arise in consulting activities and a discussion of professional ethics.

All applicants are advised before the oral exam begins the names and affiliations of the members of the Panel who will administer the exam. Any applicant may request that any member be disqualified for reasons of conflict of interest. The Chairperson or senior Board member of the Panel, however, reserves the final decision on all such requests.
- 10) Candidates will be offered the opportunity at the time of scheduling of their oral exam to prepare a 10 minute or less briefing on their current involvement with meteorological duties or on the meteorological topic of their choice to demonstrate their meteorological communication skills.
- 11) Following each examination the participating members vote individually on their recommendation for each candidate. The ballot contains a statement that "To the best of his or her knowledge, the voting Board member has no conflict of interest with this applicant." The ballot poses a series of questions each of which require the grader to assign a numerical value from 1 to 10. At the bottom of the ballot there is a space for the mean score (sum of question grades divided by the number of questions.) A passing grade is a mean score of 7 or higher. Below that is a space for remarks explaining the grades assigned to the various questions and a signature and date block. Certification will be recommended if a majority of graders have scored the candidate at or above 7 points.

The Chairperson of the Board (or alternate if the Chairperson has recused himself/herself from the process for a particular candidate(s); see section 5 above) shall review the results of the Board's vote and communicate his/her recommendation to the Commissioner of Professional Affairs for review and final decision. If the Commissioner deems it necessary to recuse himself/herself from the process because of a conflict of interest or otherwise, then the recommendation of the Chairperson (or alternate) shall constitute the final decision to be conveyed to the applicant.

- 12) With the Commissioner's concurrence, names of applicants for whom the Board recommends certification are published in the Bulletin. The applicant is notified by the AMS that he or she has been certified and is sent his or her certificate, along with a press release from Society headquarters for possible use.
- 13) The master file on each applicant, upon completion of the Board's actions, is returned to the AMS for retention and all other copies are destroyed.
- 14) All unsuccessful candidates are allowed to reapply for certification two years after the date of denial of their application. Applicants not approved by the Board may appeal in writing within 90 days from the receipt of notice to the Executive Committee (see "Organizational Procedures of the AMS").
- 15) All CCM certificates shall be renewed upon application and payment of appropriate fees every year, provided the applicant certifies that he or she has been actively engaged in the atmospheric, hydrospheric, or related sciences for at least three of the preceding five years, and completion of the required continuing professional development activities over each five-year evaluation period.

## **7. Re-Application Process**

Re-application will be allowed starting two years after the date of denial of a candidate's application. The re-applying candidate will be required to complete all aspects of the application and examination process, although different optional questions will be assigned, a different technical paper must be submitted, new/different references must be submitted, a new applicant presentation will be made at the oral examination, and a different short quiz and satellite photo/meteorology descriptive quiz will be administered. The candidate must start the new process and complete the application and examination process as a new applicant would.

An exception may be made if every grader scored the candidate higher than an 85 aggregate score on the combined written (open book) exam and the technical report during the initial application process, but the candidate failed the oral examination. Such a candidate would not be required to submit new letters of reference, re-take the written exam or submit a new technical report, but would be required to re-take their oral examination as a Board-members-only exam before the full board.

## **8. Fees**

Please see the [fee schedule](#).

## **9. Procedures for recognition of continuing professional development**

One of the purposes of the CCM program is to provide an incentive for the continued professional growth of the meteorologist. In January 2004, the AMS Council approved the addition of a mandatory continuing professional development component for all of the Society's certification programs to be administered by each program's respective Boards. The procedures for documenting professional development activities to satisfy the requirements under the CCM program are provided below. The years 2004 through 2008 represent a transition period in which the program is moving from a voluntary professional development guideline to mandatory procedures as outlined below. At the completion of this transition period, these procedures will be amended to remove the transitional component.

The Program to Recognize Continuing Professional Development by CCMs is based on the development and maintenance of a "Professional Portfolio" by each individual CCM. A Professional Portfolio is developed from an extensive list of activities and accomplishments related to an individual's professional career. This list was developed from input submitted by the CCM community. Each activity is assigned a Professional Development Score (PDS). To maintain active status, a CCM must amass a total of 28 PDS points in a portfolio of continuing professional development during a five-year period, which must be submitted no later than the end of the fifth calendar year after the year in which the CCM received his or her certification or the year of the most recent submission of his or her portfolio.

The list of recognized professional activities and their PDS values is provided in Table 1 (<http://www.ametsoc.org/amscert/ccmpointstable.cfm>). A CCM can review or update his or her portfolio by logging onto the CCM Web page on the AMS Web site (<http://www.ametsoc.org/PDTS/>) using the username and password created in the CCM's AMS membership profile. This Web site will allow the CCM to update his or her portfolio by filling in the appropriate cells on a preformatted form. To protect client confidentiality, specifics of many activities will not be required. Each CCM should keep personal records, however, that will provide tangible evidence of accomplishments in case their records are selected for audit. CCMs who do not have ready access to the Internet can file a paper copy of the portfolio information form with the AMS Manager of Marketing and Special Programs. AMS Headquarters staff will then enter it into the portfolio database.

Each activity listed must have occurred within the last five years. The portfolio database will be maintained at the AMS Headquarters. When a CCM wishes to have his/her portfolio evaluated to fulfill the five-year professional development requirement, he/she initiates the submission of the current portfolio through the AMS Web site. Each portfolio will be confidential. Only the filing CCM, the Chair of the CCM Board or designee, and appropriate AMS Headquarters staffers will have access to an individual portfolio (except in the case where a CCM seeks an appeal). The submission of portfolios will be an automated process adding an additional level of security to the portfolios.

The portfolio Web site will, for each CCM logging into his or her portfolio, include a running total of the number of PDS points accumulated since the CCM's certification was granted or the most recent submission of the portfolio. After a successful submission — that is, one with a portfolio containing at least 28 PDS points accumulated in the past five years — a new, clear, portfolio will be initialized and the date for the five-year professional development period will be reset.

### Audits

No more than 5% of the portfolios submitted each year will be randomly selected to be audited as a means of evaluating the program. The audits are conducted in the calendar year immediately following when they are submitted. For example, up to 5% of portfolios submitted in 2018 would be randomly selected for audit in 2019. CCMs are to submit their portfolio every five years. Submitting a portfolio more frequently than five years will increase the chance of being audited.

Outside of the random selection procedures, an audit of a CCM's portfolio may be requested by any member of the Society. The request must be made in writing with justification to the Chair of the Commission on Professional Affairs. The Chair may dismiss the request with notice and a statement of reasons to the individual making the request. If the Chair approves the request, such an audit would not count against the 5% cap.

#### **Instructions for conducting an audit:**

1. The CCM Chair may delegate one board member to conduct the audits each year.
2. To initiate the process, the AMS notifies the CCM that they have been selected for audit with an explanation for how the audit will be conducted.
3. No action will be required by the audited CCM upon notification. Any questions regarding the audit by the CCM will be referred to the CCM Chair, who should respond in 10 days.
4. Audits should begin within 10-30 days after the CCM is notified and completed within 90 days.
5. Audits will be conducted with the assumption that the CCM has truthfully, and in good faith entered activities they successfully completed over the period of record. Therefore, the CCM Board Chair's (or delegate's) primary audit responsibilities include:
  - a. Ensuring the portfolio contains enough entries to fulfill the 28 point criteria.
  - b. Ensuring there are no duplicate entries.
  - c. Validating the point amount for each entry.
6. Note that there is no need for the audit to review every entry in the record. The audit can be completed once the minimum of 28 valid points are accounted for. If there are issues associated with items outside the core needed for 28, they can be pointed out to the CCM for correction but don't need to impact the pass/fail determination.
7. If, in the opinion of the delegate, no aspects of the portfolio show cause for concern, the audit will be recorded as a PASS and the CCM will be notified of such.
8. If an issue or concern is identified in the course of the audit:
  - a. The issue will be communicated by the BCCM Chair to the CCM whose portfolio is being audited with a detailed explanation and offer to work with the CCM for a resolution.
  - b. The audited CCM will have 30 days to respond with additional information or documentation as appropriate.
  - c. If the additional information satisfies the concern, the audit will be recorded as a pass with notification in writing to the CCM by the BCCM Chair.
  - d. If the BCCM Chair is uncertain whether the additional information satisfies the concern, the Chair will form an ad hoc committee comprised of three members of the Board to review the portfolio and all associated communications with candidate along with documentation provided, and provide a pass/fail recommendation with rationale to the full Board for a decision by majority vote.
9. If the Board decides that the audit result is a fail, the Board will recommend to the AMS through the Professional Affairs Commissioner that the CCM should be placed in Inactive status.
10. The CCM may appeal the Inactive status decision in writing (stating the reasons for the appeal) to the AMS Executive Committee, 45 Beacon St., Boston, MA 02108-3693.

#### **10. Maintaining the list of acceptable continuing professional development activities**

The list of recognized professional activities and their PDS values provided in Table 1 will be reviewed at least annually by the CCM Board for its relevance to the normal activities of a CCM,

and revisions will be made as appropriate. Any active CCM can send a request to the CCM Board Chair to have a specific activity considered for inclusion on the list or for the PDS point value of an existing activity. Each such request will be vetted by the CCM Board, who may seek external review and recommendation as they feel appropriate, and a decision on each suggested change will be made by majority vote of the CCM Board. When a rule change is made, the CCM will be given the benefit of either the old or new rule as long as the activity was carried out prior to the end of the calendar year in which the change was made.

## **11. Renewal, Inactive status, and reactivation**

Certification is for a period of one year, and can be renewed annually for a fee (see fee schedule.) Renewals are billed by the AMS in conjunction with annual membership and subscription notices. If an individual fails to renew certification within 6 months of the expiration date or fails to achieve an acceptable level of continuing professional development during the five-year period following certification or the completion of the most recent continuing professional development period, the certification will be considered Inactive.

Inactive CCMs can't practice as a CCM or market themselves as CCMs. Those wishing to acknowledge their past active CCM status in resumes may do so, but must list the years from initial certification to when they lapsed into Inactive status.

Reactivation of an Inactive certification can be obtained under the following situations:

- 1) If the certification has become Inactive due to failure to pay the renewal fee, and has been Inactive for less than three years, active status can be obtained by paying the renewal fee for the inactive year(s) and the current renewal.
- 2) If the certification has become Inactive because insufficient continuing professional development activities or insufficient documentation had been completed in the required five-year continuing professional development period, and the certification has been Inactive for less than three years, the certification can be reactivated upon completion of sufficient continuing professional development activities in the five year period preceding the request for reactivation and with the payment of the renewal fee for the inactive year(s) and the current renewal.
- 3) If the individual has been inactive in the atmospheric, hydrospheric, or related sciences for three or more years or the individual's certification has been inactive for some other reason for more than three years complete reapplication for certification may be necessary. Individuals in these circumstances should contact the CCM Board chair for guidance.

## **12. Appeal of Inactive status**

A CCM whose certification has become Inactive through any means other than nonpayment of the renewal fee, including as the result of a review of his or her portfolio of continuing professional development, may seek an appeal of the Inactive status by written request to the Chair of the Commission on Professional Affairs within 60 days of notification of placement on the Inactive CCM list. The request for appeal should include all supporting documentation needed to review the request. In cases of extenuating circumstances beyond the control of the CCM (such as a military reservist being called to active duty) the Chair of the Commission on Professional Affairs may grant an extension of active status for a one-year period. Economic hardship is not grounds for appeal by a CCM that has been moved to Inactive status.

If a CCM's appeal of Inactive status has been denied by the Chair of the Commission on Professional Affairs, the CCM may, within 90 days of notification of the denied appeal, appeal that action in writing to the Executive Committee of the Society (see Organizational Procedures of the AMS).

### **13. Publication of CCM status**

While the individual professional portfolios will be confidential, the AMS Web site will post a list of all CCMs and their current status as “Active”, “Inactive”, or “Retired”. Each status type will be clearly defined.

### **14. Suspension or revocation**

- 1) The American Meteorological Society reserves the right to suspend or revoke the right to hold this certification if a Certified Consulting Meteorologist, in the conduct of his or her profession, clearly fails to conduct himself or herself in a manner that reflects the dignity and honor of the profession, or if a holder of this designation fails repeatedly to adhere to the criteria set out for the award of the CCM certification.
- 2) Any complaint that may be grounds for suspension or revocation under section 1) shall be sent to the Secretary–Treasurer of the Society. The Secretary–Treasurer may summarily dismiss a frivolous complaint with notice and a statement of reasons to the complainant. Otherwise, the Secretary–Treasurer shall send a copy of the complaint to the Chairperson of the Commission on Professional Affairs, the CCM Board, and the holder of the certification.
- 3) The Chairperson of the CCM Board may resolve any complaint by any appropriate informal means, which may include contacting the holder in question in an effort to resolve by mutual agreement the subject of the complaint.
- 4) Any complaint not disposed of by informal means shall be processed as follows:
  - a. With the concurrence of the Chairperson of the Commission on Professional Affairs, a copy of the complaint shall be sent to the holder of the certification in question by the Chairperson of the Commission on Professional Affairs and the Chairperson of the CCM Board, together with a copy of this procedure for suspension or revocation of the CCM and the names and brief descriptions of the members of a Fact-Finding Panel appointed under Subparagraph b.
  - b. The CCM Board Chairperson shall select three members of the CCM Board who will constitute a Fact-Finding Panel to determine the issues raised in the complaint. Each member of the Fact-Finding Panel shall certify to the Chairperson that he or she is aware of no conflict of interest in accepting the appointment to the Fact-Finding Panel. The CCM in question shall have the opportunity within 15 days of the date of notification to object to any member of the Fact-Finding Panel. The CCM in question shall be required to state in writing the reasons for any objection to a member of the panel. The Chairperson may either accept the objection from the CCM or refer the question to the Chairperson of the Commission on Professional Affairs for the final decision.
  - c. The CCM shall cooperate fully with the Fact-Finding Panel and produce any tangible information relevant to the issues raised in the complaint. The CCM may submit to the Fact-Finding Panel any other information he or she deems relevant, and a written answer to the complaint.
  - d. If, after the submission of the tangible evidence to the Fact-Finding Panel, any facts remain in dispute, and upon the written request of the CCM, a hearing shall be held by the Fact-Finding Panel upon adequate notification to the CCM and at a time and place convenient

to the members of the panel and the CCM. The hearing shall be conducted according to fundamental concepts of due process recognized as fair and followed by administrative agencies in the conduct of adjudicatory hearings, which shall include the right of counsel, presentations of witnesses, right to cross-examination, and the right to record the proceeding by either stenographic or tape-recording means. Strict rules of evidence shall not apply, but the panel shall accept information or evidence that is customarily relied upon by reasonable people in the conduct of serious affairs.

- e. The Fact-Finding Panel shall make written findings of fact and shall determine if the CCM has, in the conduct of his or her profession, clearly failed to conduct himself or herself in a manner that reflects the dignity and honor of the profession, or if the CCM has failed repeatedly to adhere to the criteria for the award of the CCM certification as set out previously. If the Fact-Finding Panel determines that the CCM has failed in his or her conduct or adherence to the criteria as aforesaid, the Fact-Finding Panel shall include in its written decision its findings on the degree of the severity of the matter and a recommendation for the imposition of sanctions, which may include:
    - i. a written, informal admonition by the Chairperson of the Commission on Professional Affairs, a copy of which shall be retained in the CCM's personal file; or
    - ii. a suspension of the CCM's right to represent himself or herself as a holder of a CCM certification for a period of time; or
    - iii. a revocation of the CCM's certification.
  - f. The written decision of the Fact-Finding Panel shall be sent with recommendations to the Chairperson of the CCM Board, the Chairperson of the Commission on Professional Affairs, and the CCM. The Chairperson of the CCM Board and the Chairperson of the Commission on Professional Affairs, after a review of the decision, shall jointly determine in their judgment the appropriate sanction and administer the same.
- 5) A CCM against whom action has been taken may, within 30 days of notification of the action, appeal the action in writing to the Executive Committee of the Society (see Organizational Procedures of the AMS).