

# GUIDANCE NOTES FOR APPLICANTS CHARTERED METEOROLOGIST (CMet)

Contents

GUIDANCE NOTES FOR APPLICANTS CHARTERED METEOROLOGIST (CMet) 1	
Contents1	
Professional Accreditation in Meteorology	3
Requirements for Accreditation	3
Chartered Meteorologist	3
Do I qualify for CMet?	3
Application process	4
Step 1: Completing the application	4
Relevant Qualifying Work Experience	4
Professional Review	5
Education and Qualifications	5
Specialisms	6
Evidence of Core Competence	6
Evidence of communication skills	8
References	8
Consent and Declaration	9
Code of Conduct	9
Submit	10
Step 2: Society evaluation	10
Step 3: Interview process	10
Step 4: Decision	10
Maintaining professional currency	10
Appendix 1 – Routes to achieve the award of CMet	12
Opportunities for those not meeting standard requirements	13
Eminent Practitioners	14
Academic Path	14
Unconventional Career Path	14
Appendix 2 – Educational learning outcomes specified in the WMO Basic Instruction for Meteorologists BIP(M)	
Physical meteorology	15

. 15
. 15
. 16
. 17
. 17
. 17
. 17
. 18
. 19
. 19
. 19
.20
-

# **Professional Accreditation in Meteorology**

The Royal Meteorological Society (hereafter, the Society) offers two professional accreditation schemes: Registered Meteorologist (RMet) and Chartered Meteorologist (CMet). These schemes are hierarchical and recognise the different levels of competence and experience.

# **Requirements for Accreditation**

To qualify for professional accreditation in meteorology, you must satisfy the Society of your:

- scientific background
- knowledge of meteorological science and practice
- experience and judgement
- evidence that the CMet competencies are satisfied

probity and willingness to abide by the

- Code of Conduct
- commitment to maintaining professional currency.

The two schemes, RMet and CMet, differ in the requirements for scientific background, knowledge of meteorological science and practice, and experience and judgement. However, both schemes require probity, the ability to communicate clearly in English and a commitment to maintaining professional currency. A rigorous Code of Conduct and evidence of continuing professional development are both monitored and enforced.

# **Chartered Meteorologist**

The Chartered Meteorologist (CMet) is the highest level of professional recognition in meteorology. The CMet scheme is open to any member of the Society who meets the requirements for chartered status. A CMet will be able to demonstrate commitment to the highest standards of professionalism and knowledge of meteorology, as well as competence and continuing professional development. It benchmarks professional meteorologists at this highest level, no matter in which specialism or sector of the discipline they work.

CMets are expected to provide a high-quality output or service based on their experience and expertise. Often that output is provided to those who are not specialists in the subject, so excellent communication skills are explicitly required, in addition to satisfying the other requirements. There is an expectation that CMets will provide professional leadership through, for example, developing the science and/or application of meteorology, helping to shape and contribute to the meteorological profession and community, or contributing to public education and outreach. Applicants who are accepted by the Society for this accreditation may then use the post-nominal CMet in their professional activities.

# **Do I qualify for CMet?**

Before applying for accreditation as a CMet, you must ask yourself the following questions:

- Do I hold the academic requirements for CMet or, if I have gained my knowledge through a more experiential route, can I demonstrate the required knowledge at interview?
  - Do I have the necessary professional experience, such as:
    - developing a good level of specialist knowledge relevant to the needs of my organisation.
    - o a positive contribution to improving processes.
    - o personal responsibility for decision-making.

- complexity and/or diversity of professional knowledge to have developed the competence required of a CMet?
- Can I demonstrate competence by submitting a written record of Continuing Professional Development (CPD) and be prepared to provide further evidence my competence in an interview?
- Can I effectively communicate in English, both written and oral, by completing the application and at the interview?
- Am I committed to maintaining a CPD record for periodic inspection by the Society in order to maintain my accreditation as a CMet?
- Am I committed to providing professional leadership?
- Have I studied the Code of Conduct expected of accredited meteorologists and am I prepared to abide by it?
- Am I a member of the Society or I intend to become a member?

Recognised routes to demonstrate that the education and professional training as well as experience have been met are described at Appendix 1 – Routes to achieve the award of CMet.

# **Application process**

The application process for CMet consists of four steps:

- 1. Completing the application
- 2. Society evaluation
- 3. Interview
- 4. Decision

The aim will be to complete the entire process within four months of the receipt of your application.

# Step 1: Completing the application

You must complete the application process using ACCSYS. You need to be a member of the Society to access ACCSYS.

Before starting to complete your online application, you are encouraged to upload a broad range of CPD records onto ACCSYS. CPD activities can be undertaken in the workplace or externally, for example outreach, STEM work, training, attending or speaking at an event, mentoring, contributing to an activity of a professional body etc.

Each CPD record allows you to link to one or more of the five core competencies (A to E). You will need to include a range of CPD records to cover all five core competencies before you submit your application.

There are more details online about CPD records The information considered most relevant to accreditation must be included in your application but further information such as a resume or curriculum vitae may be added.

Do not leave any section incomplete or ACCSYS will not allow your submission to be uploaded.

You should first select 'CMet' from the dropdown option for the type of accreditation for which you are applying.

Relevant Qualifying Work Experience

This section gives you an opportunity to list all of your relevant roles, whether in one organisation or with different employers. Please state the date from which your qualifying work experience should count. Normally, a minimum of five years relevant work experience at an appropriate professional level is required but these do not need to be consecutive. If you have had any breaks in your qualifying work experience, please include details in your Professional Review.

Time spent on training courses does not count towards qualifying experience. Time spent as an operational supernumerary (trainee) or under close direct supervision counts as 50% of elapsed time. Successful attendance on a master's degree course in a relevant specialisation may count as one year of work; completion of a PhD in meteorology or related subject may count as two years. Additional years' experience can come from post-doctoral work as detailed in the academic route in Appendix 1 – Routes to achieve the award of CMet.

### **Professional Review**

The Professional Review should provide an accurate appraisal of your career in meteorology, or closely related fields, in no more than 500 words. You should assume that the assessors have little knowledge of the role(s) and organisation(s) that you describe in the Professional Review, so please elaborate where necessary.

Where possible, you should link your experience and responsibilities to the requirements for CMet. This could include information on the scientific and technical nature of your assignments, and the nature of your involvement, such as the degree of your personal responsibility for decision-making. Information about the complexity and diversity of your work and details of any major projects should also be provided in this section.

Please also include details of membership of any appropriate professional or technical associations or societies and be sure to mention your participation on committees relevant to your specialisms. Special awards, patents or other scientific recognition should also be included.

### **Education and Qualifications**

The section on education and qualifications refers to your formal education at an institute of higher education or a training centre and includes degrees, diplomas etc. Copies of certificates and 'Academic Transcripts' (or similar) setting out modules/topics covered during the course can be uploaded in this section. If there is any doubt, you should indicate which courses included meteorological material. In the case of an advanced degree or training where certification has not been provided, a letter of reference may be required from the training establishment or employing body indicating the result and mentioning any areas of specialisation.

You should have acquired the knowledge and expertise as specified in the World Meteorological Organization Basic Instruction Package for Meteorologists (BIP-M) (see Appendix 2 – Educational learning outcomes specified in the WMO Basic Instruction Package for Meteorologists BIP(M) which summarises the associated educational learning outcomes). In addition, you should have knowledge of the current national and international context within which meteorological services are provided. If you are unable to do this, the Interview Panel will need to satisfy itself that you have adequate knowledge of the topics covered by the BIP-M.

The standard methods of qualifying are outlined in Appendix 1 – Routes to achieve the award of CMet and are referred to as the qualified, exemption and experiential routes.

• The **qualified route** is available to Meteorologists who hold a degree-level meteorological qualification from a <u>recognised EU university or a non-EU equivalent</u>.

- The **exemption route** is for experienced Meteorologists or Meteorological Technicians who hold a Pass Certificate for a course accepted as fulfilling the requirements of BIP-M
- The **experiential route** is for experienced Meteorologists or Meteorological Technicians who do not hold a Pass Certificate for a course accepted as fulfilling the requirements of BIP-M.

In addition, Appendix 1 – Routes to achieve the award of CMet outlines three further, nonstandard routes to accreditation:

- The **academic route** is open to candidates who have achieved a doctorate in a meteorological subject without having completed a course recognised as meeting the requirements of BIP-M, but believe they are able to demonstrate that they meet the requirements of accreditation by other means.
- The **eminent route** is open to candidates who have made and/or continue to make a high-profile contribution to the profession.
- The **unconventional route** is open to candidates who are unable to provide evidence of meeting the standard criteria, but who believe they are able to demonstrate that they meet the requirements of accreditation by other means.

### Specialisms

In this section you may specify up to three areas of specialism that best describe your area(s) of expertise.

Your choice is used to guide the Society in its selection of appropriate interviewers and for making an initial assessment of your expertise and the CPD records that you are showcasing. You may be asked specific questions on your declared specialism(s) during the CMet interview. Referees will be asked to state whether they support your declared specialism(s).

# Evidence of Core Competence

The competency<sup>1</sup> requirements specify the professional skills and attributes that you are expected to demonstrate through a combination of knowledge and experience. You will need to demonstrate how you meet each of the following competencies in the course of your professional activities.

The competencies are set out in five key areas:

- A: Application of knowledge and expertise Identify and use relevant scientific understanding, methods and skills to address broadly-defined, complex problems.
- B: Personal responsibility Exercise personal responsibility in planning and implementing tasks.
- C: Interpersonal skills Demonstrate effective interpersonal skills.
- D: Professional practice Apply appropriate theoretical and practical methods.
- E: Professional standards Demonstrate a personal commitment to professional standards.

<sup>&</sup>lt;sup>1</sup> The professional competencies integrate knowledge, understanding, skills and values. They go beyond the ability to perform specific tasks and generally involve a combination of formal education, further training and experience. However, these different elements are not necessarily separate or sequential and they may not always be formally structured.

Typical indicators (examples) associated with each of the competency areas are summarised under each competency below.

# A. APPLICATION OF KNOWLEDGE AND EXPERTISE

Identify and use relevant scientific understanding, methods and skills to address broadly defined, complex problems.

Indicators of this competency include:

• A1. Develop, maintain and extend (a) a thorough theoretical knowledge of the science and technology underpinning meteorological practice at a high professional level and (b) specialist knowledge relevant to your field(s) of work.

• A2. Apply in detail underlying, scientifically based, meteorological concepts, principles and techniques.

• A3. Analyse complex problems by applying knowledge of meteorological information, concepts, ideas and uncertainties, and produce high-quality results and/or detailed solutions.

• A4. Create new products and services of value to the relevant market sector if involved in the provision of products and services to customers.

# B. PERSONAL RESPONSIBILITY

Exercise personal responsibility in planning and implementing tasks.

Indicators of this competency include:

• B1. Work autonomously while recognizing the limits of personal scope of practice and the requirements of others.

• B2. Take responsibility for safe working practices and be prepared to take the initiative in contributing to their evaluation and improvement.

• B3. Take the initiative in the development of quality standards and be proactive in their application.

• B4. Provide leadership in the workplace, taking responsibility for initiating, planning, developing and leading courses of action, including in situations where there are uncertainties and/or critical deadlines.

# C. INTERPERSONAL SKILLS

Demonstrate effective interpersonal skills.

Indicators of this competency include:

• C1. Have a high level of interpersonal and behavioural skills and be able to represent the organisation competently to external partners/clients.

• C2. Promote positive working relationships, building trust and credibility and anticipate potential problems and resolve them effectively.

# D. PROFESSIONAL PRACTICE

Apply appropriate theoretical and practical methods.

Indicators of this competency include:

• D1. Seek ways in which meteorological techniques, procedures and methods can be improved and develop new practices and methods when required.

• D2. Seek ways of organizing tasks and resources to enhance their effectiveness and/or efficiency.

• D3. Challenge established thinking about processes or systems, provide novel solutions and seek ways to innovate.

• D4. Contribute to continuous performance improvement and support others in seeking ways to improve performance.

# E. PROFESSIONAL STANDARDS

Demonstrate a personal commitment to professional standards. Indicators of this competency include:

• E1. Comply with relevant codes of conduct and practice.

• E2. Maintain and enhance personal competence in relevant areas of practice through professional development activity.

• E3. Demonstrate a high standard of honesty and integrity.

• E4. Demonstrate knowledge of the national and international context in which meteorological services are provided.

• E5. Demonstrate good judgement by weighing up relevant factors and coming to logical and sensible conclusions.

In no more than 300 words for each competency area (A - E), you must provide evidence to demonstrate your competence. Bullet points are acceptable but must be explicit, so the Interview Panel and Accreditation Board do not have to make assumptions about your professional expertise and competence.

Evidence may be a description of jobs completed, routine work undertaken, positions held, involvement in projects, contributions to the meteorological community, or integration and sharing of expertise with others. You must provide evidence of recent professional work in meteorology or a closely related field. You are encouraged to refer to non-confidential work so far as this is practicable. However, if you wish to submit material of a confidential nature then you should contact the Society to discuss arrangements which will be agreed on a case-by-case basis.

Evidence should include reference to your Relevant Qualifying Work Experience, Professional Review and CPD activities undertaken during that time. You should select between a minimum of 3 and a maximum of 10 CPD records for each core competency from the list of CPD records that you have uploaded.

# Evidence of communication skills

Your ability to communicate clearly in writing will be explicitly shown in the application itself which should be supported by two short examples of your written work, which you should upload to the application. Suitable material may be operational documents produced as part of your routine work or examples of published papers, scientific reports or theses.

If you mainly communicate through verbal presentations, you should include with your application a brief account of some of these. In addition, you will be asked to give a short presentation on one of the items you submit or on a specialism of your choice during the Interview Panel.

As part of the interview process, you will be given the opportunity to demonstrate your verbal communication skills, with emphasis on your application of knowledge and understanding, and professional practice. Further details are set out below in Step 3: Interview process.

# References

You must provide the names and contact details for two referees. A person acting as your referee must be senior in the meteorological profession (or a related profession, including those who have retired) or a person of similar standing in the community. They must have direct knowledge of your work in meteorology and in at least one of your chosen specialisms. If your professional work has mainly been within a firm or organisation, senior colleagues are likely to be suitable. If you have worked as an individual, references from firms or individuals for whom you have

provided meteorological or related services may be appropriate. If possible, at least one of your referees should be a member of the Society.

Referees will be expected to vouch for your character and honesty. A person acting as your referee must have known you personally for at least two years. They must not be related to you (by birth or marriage) or be in a personal or business relationship with you or live at your address.

Please obtain the permission of your referees before you submit their names to the Society as they will be asked to support your application. The declaration that you make during the application process (see Consent and Declaration below) authorises the Accreditation Board to contact the referees for the purpose of supporting and verifying your application. If for some reason this would be problematic, you should specifically request for alternative arrangements to be made and provide a reason for the request, which the Society will assess.

### Consent and Declaration

You are asked whether you are happy for your name to be added to the CMet register, should your application be successful. You are also required to certify that the statements made in the application and attachments are true and complete. Your declaration authorises the Society's Accreditation Board to contact your referees. It also requires you to certify that you will abide by the

Code of Conduct.

### Code of Conduct

As part of the application, you must declare adherence to the professional

Code of Conduct\_associated with the CMet accreditation. Actions contrary to this Code will provide grounds for your accreditation to be withdrawn.

# Chartered Meteorologists must:

- Conduct themselves in such a manner as to reflect distinction on their profession and the Society.
- Support and/or contribute to the activities of the Society.
- Endeavour to keep abreast of relevant scientific and technical developments and strive to improve their meteorological knowledge and competencies.
- Be prepared to pass on their knowledge to colleagues, collaborators and the general public, where confidentiality and commercial constraints allow.
- Whenever possible, publish and present their knowledge, and not knowingly take credit for work done by others, and give recognition to the work of others as appropriate.
- Where appropriate, deliver high-quality of services, respecting contractual agreements and refer requests for services which are beyond their professional capabilities to those properly qualified.
- Refrain from making exaggerated or unwarranted claims and statements, but rather seek to make informed judgements based on sound scientific principles.
- Respect all agreements on confidentiality that have been entered into.
- Comply with national and international law.

- Refrain from engaging in activities generally recognised as being detrimental to, or incompatible with, the welfare of the general public.
- Have due regard to the need to protect the environment, human rights, and to ensure efficient use of natural resources.
- Act in accordance with the Society's commitment to promoting diversity, equality and inclusion.
- Use the name of the Society only when duly authorised.

Read the declaration carefully before you declare that you are willing to be bound by this statement.

### Submit

Once you have completed your application you can submit it to the Society. After you have paid for your application, you will receive an email informing you that your application has been received.

### Step 2: Society evaluation

The Society will check your submission and will seek references from your nominated referees.

### Step 3: Interview process

Subject to sufficient evidence in your application, satisfactory references and membership status, the Society will arrange for you to be interviewed by a panel of two assessors.

The interview will take the form of a stimulating peer to peer discussion. The purpose of the interview is to build upon the information in your application and the referees' reports so that an assessment can be made about whether you satisfy the requirements to be a CMet.

The interview provides you with the opportunity to demonstrate to the panel that you:

- have a good level of specialist knowledge (including in your declared specialisms).
- have a broad knowledge of the current national and international context in which meteorological services are provided.
- meet the competency requirements.

CMet interviews are normally conducted using video-conferencing technology. However, if required and by mutual agreement, the CMet interview may be conducted face-to-face.

More information about the interview process is given in Appendix 3 – Interview process. It covers the interview structure, what you should bring to the interview, your presentation and what happens after the interview.

# **Step 4: Decision**

The Chair of the Interview Panel will submit a report to the Society and your application will then be considered by the Society's Professional Accreditation Board. You will be notified of the decision in writing.

Aspects of the administration after the assessment are detailed in Appendix 4 – Aspects of the administration after the assessment and covers outcomes, refusal and appeal processes.

# Maintaining professional currency

A strength of the CMet accreditation scheme is that it is a formally recognised, public statement that the holder maintains the standard and keeps both their knowledge and their practice up to date through a process of Continuing Professional Development (CPD).

Once accredited, you will be required to demonstrate that you:

- maintain the competencies of a CMet.
- continue to further develop your knowledge and skills.
- keep up with the advances in meteorology in general, and in your specialist area(s) in particular.
- steadily improve your experience, capability and contribution.

You are also required to confirm that you continue to abide by the Society's

Code of Conduct.

A full list of those activities recognised by the Society as contributing to CPD can be found at <u>https://www.rmets.org/continuing-professional-development.</u>

As a CMet you must maintain a self-certified record of your CPD using the ACCSYS online system and must submit reports for scrutiny when called upon to do so. Failure to do so or the submission of inadequate CPD reports will result in cancellation of your accreditation and withdrawal of your right to use the post-nominal CMet, unless accompanied by an application for dormancy<sup>2</sup> (see Appendix 4 – Aspects of the administration after the assessment).

<sup>&</sup>lt;sup>2</sup> Once accredited, if you choose to take a career break for more than eighteen months, you have the option to be placed on the Dormancy Register

# Appendix 1 – Routes to achieve the award of CMet

BIP-M requirements will normally be satisfied through the successful completion of a university degree in meteorology or a postgraduate programme of study in meteorology (after acquiring a university degree that includes the foundation topics in mathematics and physics; such topics are typically covered in science, applied science, engineering or computational courses). However, there are also non-degree courses which satisfy the requirements of BIP-M. Courses accepted as fulfilling the requirements of BIP-M are listed here <a href="https://www.rmets.org/courses">https://www.rmets.org/courses</a>.

Based on these general considerations, there are three routes available to achieve award of CMet as summarized in the table below. In addition, there are three routes potentially applicable to those who do not meet the standard requirements.

Route	Route Summary	
Qualified		
	You would need to meet the following criteria:	
	<ul> <li>Have an Honours Degree level qualification in meteorology meeting the requirements of BIP-M or an Honours Degree in any science, engineering or computational subject and a postgraduate degree or diploma in meteorology meeting the requirements of BIP-M</li> </ul>	
	<ul> <li>Minimum of 5 years meteorological experience or a minimum of 2 year's meteorological experience after the award of RMet</li> </ul>	
	Assessment is divided into two parts:	
	<ul> <li>Written application demonstrating consistent and effective performance in the past 18 months including a written CPD report</li> </ul>	
	<ul> <li>A Panel Interview to determine the extent of your meteorological knowledge and how you apply it in your work</li> </ul>	
Exemption	This route is for experienced Meteorologists or Meteorological Technicians who hold a Pass Certificate for a course	
Bas will The	accepted as fulfilling the requirements of BIP-M (Appendix 2 – Educational learning outcomes specified in the WMO	
	Basic Instruction Package for Meteorologists BIP(M) which specifies the educational learning outcomes). Such a course will be either a Postgraduate programme of study in meteorology or non-degree education	
	The exemption route builds upon the knowledge and expertise demonstrated through completion of your qualification.	
	You would need to meet the following criteria:	
	Have an Honours Degree in any science, engineering or computational subject	
	<ul> <li>Pass Certificate for a course accepted by the Society as meeting the requirements of BIP-M</li> </ul>	
	<ul> <li>Minimum of 5 years meteorological experience or a minimum of 2 year's meteorological experience after the award of RMet</li> </ul>	

	Assessment is divided into two parts:
	<ul> <li>Written application, detailing the learning gained, the development in your meteorological practice and clear evidence of the positive measurable contribution you have made to your organisation in the past 18 months, including a written CPD report</li> </ul>
	• A Panel interview to determine the extent of your meteorological knowledge and how you apply it to your work
Experiential	This route is for experienced Meteorologists or Meteorological Technicians who do not hold a Pass Certificate for a course accepted as fulfilling the requirements of BIP-M. You would need to meet the following criteria:
	<ul> <li>Have an Honours Degree in any science, engineering or computational subject or can demonstrate an equivalent level of foundation science knowledge</li> <li>Be an accredited RMet</li> </ul>
	<ul> <li>Have a minimum of 3 year's meteorological experience after the award of RMet</li> </ul>
	<ul> <li>Be able to demonstrate the knowledge and expertise specified in the WMO BIP-M and knowledge of the current national and international context within which meteorological services are provided</li> </ul>
	<ul> <li>Be able to demonstrate effective meteorological practice within the last 18 months</li> </ul>
	Assessment is divided into three parts:
	<ul> <li>Completion of a full draft of the written submission form to demonstrate consistent and effective performance in the past 18 months including a written CPD report. Followed by a telephone review of the application with an assessor leading to full submission of the application</li> </ul>
	<ul> <li>An on-site interview assessing your knowledge against the WMO BIP-M syllabus. This will involve gathering work-based evidence and personal research</li> </ul>
	A Panel interview to determine the extent of your meteorological knowledge and how you apply it to your work

### **Opportunities for those not meeting standard requirements**

A feature of the CMet scheme is that "knowledge of meteorological science and practice" (but not "scientific background") can be demonstrated by "extensive practical experience." There are clear benefits from this in terms of the accessibility of CMet and of a progressive vocational pathway through RMet to CMet. However, it is important that the greater professional knowledge demanded for CMet is properly demonstrated by all those granted the accreditation.

Those not meeting the standard requirements of the CMet scheme through the qualified, exemption and experiential routes, but who might be eligible to be accredited as a Chartered Meteorologist, are seen to fall into one of three broad categories:

- Those who are considered eminent, having made and/or continuing to make a high-profile contribution to the profession.
- Those whose career includes extended academic studies in a meteorological subject leading at least to the award of a doctorate, coupled with post-doctoral meteorological experience.
- Those whose career has predated the establishment of current qualifications or includes sideways entry into the profession after following an early career in one or more other areas.

#### **Eminent Practitioners**

Candidates who have made and/or continue to make a high-profile contribution to the profession might be considered for the "Eminent Practitioners" route to CMet, but these will be the exception rather than the norm. By their nature, "Eminent Practitioners" are unlikely to have followed a traditional or conventional career path, and those identified as potential candidates under this scheme will be considered on a case-by-case basis. Those falling into this category may also be considered by the Society for recognition in other ways such as life or honorary schemes.

#### **Academic Path**

This path is open to candidates who have achieved a doctorate in a meteorological subject without having completed a course recognised as meeting the requirements of BIP- M, but believe they are able to demonstrate that they meet the requirements of accreditation by other means. The Academic Path relies on significant knowledge and expertise gained through research and/or teaching activities following completion of your qualifications. Candidates would normally need to have an Honours Degree in any science, engineering or numerate subject, a PhD in a meteorological subject and a minimum of 3 years post-doctoral meteorological experience. The assessment process will be similar to that of the exemption route.

#### **Unconventional Career Path**

CMet candidates most likely to fall into this category are those unable to provide evidence of meeting the standard criteria, but who believe they are able to demonstrate that they meet the requirements of accreditation by other means. Assistance will be provided to enable candidates to demonstrate fulfilment of the criteria, particularly as the evolution of the national education system and professional recognition has provided a cadre of potential candidates who, through no fault of their own, are unable to satisfy the standard criteria. The assessment process will be similar to that of the experiential route.

# Appendix 2 – Educational learning outcomes specified in the WMO Basic Instruction Package for Meteorologists BIP(M)

A full description of the BIP-M is given in section 2 of WMO-No. 1083, 2023 edition: Guide to the Implementation of Education and Training Standards in Meteorology and Hydrology Volume I – Meteorology.<sup>3</sup>. The educational learning outcomes are replicated below.

# **Physical meteorology**

- Use knowledge of atmospheric composition and radiative transfer to explain the structure of the atmosphere, global energy balance and the greenhouse effect, and common optical phenomena.
- Use the laws of thermodynamics to explain the stable stratification of the atmosphere and the effects of adiabatic and non-adiabatic processes, including the effects of water; use a thermodynamic diagram to assess the properties and stability of the atmosphere.
- Summarize the micro-physical processes involved in the formation of clouds, precipitation and electrical phenomena and use a thermodynamic diagram to diagnose and predict these phenomena.
- Use knowledge of turbulence and surface fluxes to explain the structure and characteristics of atmospheric boundary layers and the behaviour of contaminants.
- Select instruments to observe surface and upper-air atmospheric phenomena, considering their physical principles of operation, sources and characteristics of error and uncertainty, and quality-control practices in use.
- Use relevant Earth- and space-based remote sensing to observe atmospheric and surface phenomena qualitatively and quantitively; explain how radiation measurements are made, how they are turned into atmospheric data, and what the uses and limitations of these data are.

### **Dynamic meteorology**

- Outline the application of the concepts of force, acceleration and frames of reference to a physics of atmospheric dynamics, as exemplified in the equations of motion.
- Apply conceptual models derived from dynamic meteorology to explain and predict the evolution of the atmosphere in the area of interest.
- Evaluate the extent to which conceptual models resemble reality.
- Use numerical model outputs to represent phenomena of interest based on knowledge of the characteristics of the modelling system, the spatial and temporal scales under consideration and the need to represent uncertainty.

### Weather systems and services

 Apply conceptual models of synoptic, mesoscale and convective-scale phenomena to integrate observed and forecast data into coherent structures; explain the formation, evolution and characteristics of these phenomena using knowledge of physical and dynamical meteorology.

<sup>&</sup>lt;sup>3</sup> https://library.wmo.int/records/item/35676-

- Detect situations where real-world weather systems deviate from the conceptual models using knowledge of the models' limitations and suggest reasons for the deviations.
- Predict occurrences of extreme or hazardous weather conditions associated with synoptic, mesoscale or convective-scale phenomena and monitor observed data to verify the predictions.
- Generate analyses and basic forecasts using observed and forecast real-time or historical data, including the monitoring and observing of the weather.
- Summarize the role of national meteorological services and other providers using knowledge of society's needs, the impacts of severe weather, the products and services used to meet users' needs and the processes used to manage quality.

# **Climate science and services**

- Apply conceptual models of the Earth's global circulation, climate system and the interactions between the land, ocean, atmosphere and cryosphere to explain the mean state of the climate.
- Interpret products and service based on climate information, taking into account their inherent uncertainty.
- Describe the observed variability in the climate system and the causes and impacts of that variability; use this knowledge to interpret products such as climate predictions and monthly to seasonal forecasts.
- Communicate the results of monthly, seasonal and climate predictions based on an understanding of probability, uncertainty and predictability at different scales and the sensitivities of the audience.
- Explain the long-term changes occurring in the climate system using knowledge on how these changes are observed, what the drivers for change are, including feedback within the system, what the potential impacts of climate change are, and what adaptation and mitigation strategies are possible.

# Appendix 3 – Interview process

#### **Interview structure**

The interview will take the form of a stimulating peer to peer discussion. The interview will typically last around one hour and will normally be carried out by a panel of two members, one or both of whom will be familiar with at least one of your declared specialisms.

You will be advised in advance of the arrangements for interview virtual (default)/ in person (on request) as well as the composition of the interview panel. Any challenge to the composition of the panel must be registered with the Accreditation Board through the Chief Executive of the Society within the time period notified.

At the start of the interview the panel chair will describe the aims and structure of the interview. You may be asked to present formal photographic identification.

You will then be given the opportunity to briefly describe the key phases in your career as well as providing any updates to the contents of your application if any significant changes have occurred.

You will then be asked to make a 10-minute technical presentation on one of the documents (or pieces of evidence) you have submitted as part of your application or relating to one of your specialisms. Further information on this presentation is detailed below.

After the presentation there will be a discussion between you and the panel members about your presentation, other areas of specialism declared by you and on additional meteorological topics that may be of relevance. During these discussions, the panel will map evidence gained to the competency requirements, so when preparing for the interview it is prudent to consider which topics you can offer for each area of competency.

It is important to stress that the panel is looking to determine what you know and how you apply your meteorological knowledge in your work. You should be familiar with and prepared to speak about all areas of your application as well as being confident, enthusiastic and able to demonstrate in-depth knowledge of any topics that you describe. These attributes will provide direct evidence of your communication skills as well as highlighting technical and scientific knowledge relevant to the CMet competencies.

### What to have available for your interview

- A copy of your completed application form.
- A copy of your presentation material.

If your interview is being conducted in person, in addition, please bring a printed copy of your completed application from and three paper copies of your presentation material.

### Presentation

The technical presentation should be on material that you have submitted as part of your application. If you have written a peer-reviewed paper in the previous 18

months, or presented a talk at a Society meeting, then these can be used for your presentation. You should deliver the presentation at a level appropriate for an audience of R/CMets who may not be familiar with the subject matter or content.

You should be allowed to present without interruption; however, if you wish to receive questions during the presentation you should agree this with the panel before the presentation starts.

#### After the interview

At the end of the interview, you will not be given any feedback about your performance or the likely outcome.

After your departure, the panel will confer and then prepare a report on whether you have demonstrated evidence of the competencies at the appropriate level as well as commitment to upholding the Code of Conduct and the undertaking of CPD. This report, together with your application and supporting material, will be submitted to the Society's Accreditation Board. You will be notified by letter as soon as a decision has been reached.

# Appendix 4 – Aspects of the administration after the assessment

Comprehensive details about the Professional Accreditation Administration are provided on the Society's website<sup>4</sup>. More information about the CPD submission can be found <u>https://www.rmets.org/sites/default/files/2023-05/rmets\_cpd\_guidance\_-accredited\_meteorologists\_2.pdf</u>. Aspects of particular relevance to CMet are highlighted below.

### **Outcomes of CMet applications**

Following completion of the interview the Panel reports to the Accreditation Board. The Accreditation Board, acting on all the information received will follow one of three courses of action:

- If CMet criteria are deemed to have been fully met, then the Board will approve the award of CMet.
- If the CMet criteria are deemed to have not been fully met but the criteria for RMet are met and you are not already accredited as RMet, the Board will offer to confer RMet status and offer guidance to applicants at this stage on the outcome of the process.
- If you are already accredited RMet and are deemed not to have met CMet criteria, then the Board may offer guidance to applicants at this stage on the outcome of the process.

The Applicant is notified of the outcome by the Society. Following notification of the Board's decision, neither the Board nor its members will enter into any correspondence or communication arising from an unsuccessful application.

If you feel that your application has been unjustly refused or that due process has not been followed, you may appeal by letter to the Chief Executive who will convene the Investigations Committee to hear your case. The constitution and rules of procedure of the Investigations Committee are those promulgated for the CMet scheme. The decision of the Investigations Committee is final, and no further correspondence will be entered into by the Society.

### **Career breaks and dormancy**

The Society recognises the significant value in providing support to those on career breaks from their professional work in meteorology, (for example, for parental leave, a sabbatical or other reasons).

If this is expected to be more than eighteen months, Chartered Meteorologists may apply to be placed upon the Society's Dormancy Register in order to allow them to remain connected with their professional background but with a reduced requirement to maintain CPD.

Accredited meteorologists are permitted to use post-nominals for a period of 2 years from the end of the period covered by the last acceptable CPD Report submitted regardless of when dormancy is applied for (unless ruled otherwise).

<sup>&</sup>lt;sup>4</sup> <u>http://www.rmets.org/our-activities/professional-accreditation/professional-accreditation-administration</u>

During absences exceeding 2 years, post-nominals cannot be used.

During a period of dormancy:

- The fees for Chartered Meteorologist (CMet) are reduced to 50%
- The accredited meteorologist should keep up to date in the field so far as possible and log any CPD activity in ACCSYS. However, CPD Reports will not be requested whilst someone is on the Dormancy Register.
- There remains an expectation that within five years, a CPD report of sufficient standard will be submitted to the Society so that they are reinstated onto the RMet or CMet register.

Those on a career break of more than 5 years will be required to attend a professional interview (CMet) to confirm that they have sufficiently maintained their professional competence before full accreditation will continue.

# **Contact information**

If you have any questions, please contact the Society at accreditation@rmets.org

The Royal Meteorological Society 104 Oxford Road Reading RG1 7LL UK

Telephone: +44 (0)1182080142

This document is available to download from the Society's website <a href="http://www.rmets.org">http://www.rmets.org</a>