



RMetS
Royal Meteorological Society

CAREERS IN METEOROLOGY



Engage
Enthuse
Educate
Empower



rmets.org



rmets.org/metmatters



metlink.org

SOCIETY INFORMATION

The Royal Meteorological Society (RMetS) is the UK's Professional and Learned Society for weather and climate. Working to strengthen the science and raise awareness of the importance of weather and climate, support meteorological professionals and inspire enthusiasts.

It plays a key role as the custodian of both the science and the profession of meteorology in the UK and has an important role to play internationally as one of the world's largest meteorological societies. The Society is owned by its membership but exists for the benefit of all. Programmes of work are broad and diverse, with activities and events held for members, the general public, educators, policy and decision makers and the wider meteorological and climate community.

This booklet is part of our work to support early career professionals and the Society is very grateful to everyone who has helped us in developing the content. We highlight some of the many options available from roles in research and risk, to energy or marine forecasting. Advice on the different issues you might think about when developing your career is set out on the back page.

Grants and Bursaries

The Society has a number of grants and bursaries to help finance expeditions, carry out research or attend conferences. For example, the Carers' Fund provides small grants to help you take part in meteorologically related events that you may not otherwise be able to attend because you have caring responsibilities.

Mentoring scheme

The Society recognises the wealth of expertise amongst our membership and that mentoring from someone outside your organisation can be of great value. We offer our members mentoring pairings that will support them with insight, advice and guidance.

Get involved

There are many ways you can be part of the Society, from volunteering as a student ambassador through to sitting on one of our committees. The majority of our events and activities can also be logged as part of your ongoing career development to help enhance your CV. To find out more about the Society and becoming a member, including our Student Membership, and discover the wealth of climate and weather resources, please visit: rmets.org

BECOME A STUDENT AMBASSADOR

RMetS Student Ambassadors provide valuable support in connecting the Society with university students and departments.

They play a vital role in our extensive volunteer network, helping to increase awareness of membership benefits.

Our Student Ambassador programme has grown in number and strength over the past year, with some great ideas being put forward to improve the work of the Society and reinvigorate our student networks.

Our 23 Student Ambassadors tell us that volunteering not only helps promote and increase their understanding about meteorology as a science, but it also helps boost their CVs.

"Being an undergraduate member of RMetS has really helped me integrate in the community and learn a lot from the experiences of other students further on in their careers. Attending events like the student conference helped me decide on my career path and develop my networking skills. Being a Student Ambassador has helped me spread the word about the subject I'm passionate about, as well as giving me something really constructive to talk about in PhD interviews!"

Erin Raif, Student Ambassador, Manchester



Whether you're studying meteorology, climate science, atmospheric science, or hydrology... Join now and find out how RMetS can support your studies and your future career!

OUR ACCREDITATION SCHEMES

If you are thinking about starting the journey towards gaining your professional qualifications in meteorology, then we are here to support you. Our accreditation schemes enable you to demonstrate your accomplishments and commitment to your own professional development and help set standards across the wider meteorological community. This ensures that the public and other users of meteorological services can have confidence in the services and information they are provided.

Accreditation can help you gain recognition for your expertise in addition to your academic qualifications. It also demonstrates a commitment to your profession that can help you advance your career. Employers look at accreditation when they recruit and promote their staff, as well as showing their clients they employ staff whose expertise is recognised by an independent body.

Although most applicants are based in the UK, the Society welcomes applicants from outside the UK who meet the requirements.

The RMet and CMet Schemes

The Registered Meteorologist (RMet) accreditation is ideal for those in the early stages of their career in meteorology or in a role that supports meteorological services. Most applicants have two to five years' experience. Becoming an RMet paves the way to becoming a Chartered Meteorologist (CMet), the highest level of accreditation in meteorology, which is suited to someone with substantial meteorological experience.

To achieve accredited status where you can use the post nominals, you can draw upon any relevant experience to satisfy the competency in five key areas:

- ✓ **Application of knowledge and expertise**
Identifying and using relevant scientific understanding, methods, and skills to address broadly defined, complex problems
- ✓ **Personal responsibility**
Exercising personal responsibility in planning and implementing tasks
- ✓ **Interpersonal skills**
Demonstrating effective interpersonal skills
- ✓ **Professional practice**
Applying appropriate theoretical and practical methods
- ✓ **Professional standards**
Demonstrating a personal commitment to professional standards

The accreditation process

The accreditation process is easier than you might think and there is plenty of support and advice available. The process starts with an online application via the RMetS website. The application is then checked and references are obtained from the nominated referees.

For those applying for RMet, the next step is a workplace assessment. Two members of an assessment panel will look at your workplace activities and will usually consult with your line manager. You are also given an opportunity to elaborate on the evidence presented in your initial application.

After the workplace assessment, the RMetS Professional Accreditation Board considers the application. The entire award process is usually completed within four months of an application.



Continuing Professional Development (CPD)

ACCSYS is the Society's online continuing professional development system. Through ACCSYS, members can create, manage and submit personal Continuing Professional Development records or formal RMetS accreditation reports, activities and applications.

More detailed information on the accreditation schemes is available at rmets.org/professional-accreditation. For further advice, guidance, or discussion on this topic contact accreditation@rmets.org.

CAREER PROFILES



Kirsty McCabe,
FRMetS

Weather Producer and
Presenter, Sky News

“I need to know what’s just happened, what’s happening now and what’s going to happen”

What meteorological services does your organisation provide?

As well as national and international weather forecasts for television, radio and digital platforms, Sky News also covers weather and climate stories.

Can you describe a day in your life at work?

The first thing I need to do is get on top of the weather story. That means I need to know what’s just happened, what’s happening now and what’s going to happen.

I like to look at the synoptic (pressure) charts along with the output from various computer models. At the same time, I keep an eye on current weather observations and check the radar and satellite imagery to see if what’s actually happening matches the forecast.

After that it’s time to sort out the weather graphics, along with my hair and make-up if I’m going to be on screen. As well as live weather broadcasts every half hour on Sky News, there are a host of recorded forecasts that get used on multiple platforms. These cover local, national and international weather, both short

range and longer term, as well as air quality, pollen and even sporting events.

In between weather broadcasts, I write articles for the website, post on social media, and contribute to editorial discussions in the news room.

How did you get into this role and what skills do you consider essential to succeed in it?

After university my first job was as a subeditor for New Scientist. It was actually an advert in the magazine’s job section that inspired me to apply to the Met Office to become one of their broadcast meteorologists based at the BBC Weather Centre. I remember the first interview was on camera, and at the end I had to ad-lib a short weather forecast over a couple of graphics. At that point I realised being a weather presenter is much harder than it looks - for starters, there is no script to read - but that I really enjoyed the challenge. Thankfully, I don’t think the footage of my first audition exists today!

Skills essential to succeed are a strong science background, a passion for the weather, being able to multitask and the ability to talk to time.



Jack Farr

Wintering Antarctic
Atmospheric Scientist,
British Antarctic Survey

“A large part of the job requires teamwork that comes with working in a small group far from home”

What meteorological services does your organisation provide?

The British Antarctic Survey (BAS) provide and maintain meteorological data monitoring across the polar regions, mainly focused on the Antarctic Peninsular and the Brunt Ice-Shelf but also further afield to the Arctic, and also conducts some projects at lower latitudes. As well as providing data, BAS also analyses and studies the data coming in, most famously by discovering the Antarctic Ozone hole. BAS also chairs the Antarctic Task Team for the World Meteorological Organization (WMO).

Can you describe a day in your life at work?

Work varies based on the time of year. The Antarctic summer months are when field work is able to be carried out. For me and the MET team this means flying out to sites around Antarctica to raise Automatic Weather Station (AWS) sites and ensure they continuously return data. Once winter starts the winter team is isolated on station with no contact from the outside world for, in my case, nine months. During these months I was responsible for maintaining the daily SYNOP observations

and balloon launches from station, as well as looking at the data returned from our AWSs and preparing for the next summer’s field work. Being a member of such a small Antarctic station team also requires you to throw yourself into non-weather tasks to keep the station running. Some of these tasks can be cook days, helping maintain the vehicles on station or repairing and reupholstering parts the station.

How did you get into this role and what skills do you consider essential to succeed in it?

I was personally extremely fortunate to be able to apply and receive this role as my first real role outside of University. Obviously, a real interest in meteorology is required to be successful in this role, as you will be responsible for daily observations for months at a time, but also a large part of the job requires teamwork that comes with working in a small group far from home, and the willingness to throw yourself in and make the most of the opportunities that crop up when you’re part of a small team both living and working in such a remote environment.



Ray Jefferson,
RMet
Marine Router,
Fleetweather

“The most important “skills” in my experience are confidence and empathy”

What meteorological services does your organisation provide?

Fleetweather provides performance analysis and weather routing and forecasting services for shipping fleets and vessels around the world. Specifically for the meteorological service, we provide optimum routing, which means we recommend a route that balances safety and efficiency. Our services maximize economic profits of vessels owners/charters as well as preserving the safety of the cargo and crew in accordance with SOLAS and wider WMO/IMO rules and regulations. We are available 24/7 to our clients via phone or email.

Can you describe a day in your life at work?

We are trained at Fleetweather to work both independently and as part of a team, which has been highlighted over the past year, working remotely. Ocean basins are divided among the team and detailed synoptic overviews are produced for each area, so that all team members have a clear picture of the weather conditions around the world. Assigned forecasts and related work is then prioritized in line with safety and developing weather patterns, and any related concerns after consulting with Masters or Company HQs via email or phone. The emphasis is on quality

rather than quantity. If there are scenarios I am uncomfortable with then I can always seek advice from a more senior/experienced router. This normally applies to rapidly changing weather situations such as tropical cyclones, extreme icing/ice scenarios and changing model runs. The latter is key in that we provide weather and seakeeping warnings/hazards up to 7 days in advance.

How did you get into this role and what skills do you consider essential to succeed in it?

After graduating from Rutgers University, I was employed by Fleetweather in late 2014. My knowledge of marine meteorology and the shipping industry was limited initially, however a strong, efficient training regimen was developed; a mixture of self-learning, UCAR COMET modules, on the job training and coaching/supervision. I found that a certain level of patience, discipline and perseverance was needed to complete the training, which felt daunting at times. Once the training is completed, the most important “skills” in my experience are confidence and empathy. Confidence in yourself and your training, and empathy to understand what a client’s concerns are and being sure to address them appropriately.



Rebecca Jones,
RMet
VP Weather & Climate, bp

“The skills.... are analytical thinking and problem solving, commercial awareness”

What meteorological services does your organisation provide?

None! I lead a team of in-house meteorologists within bp’s Trading & Shipping organisation.

Can you describe a day in your life at work?

We start very early, analysing model data getting our story straight for the European forecast and are ready to speak with gas and power traders and analysts when they arrive in the morning. We then have a series of morning meetings which discuss the market and supply and demand fundamentals, of which weather is a key driver.

The rest of the day is spent keeping up with weather model runs as they come in and communicating how they might have changed compared with our morning view. And then looking at global forecasts and over different time horizons, collating a seasonal view for example. Increasingly we are working with the rest of bp around climate science as well and looking to inform our net zero ambitions.

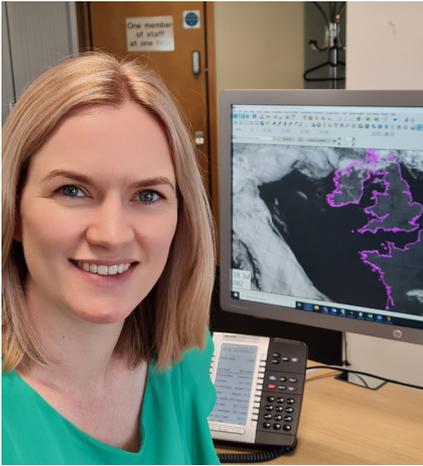
How did you get into this role and what skills do you consider essential to succeed in it?

My first role out of university was for a private weather forecasting company working on a 24/7 shift rota. This job gave me experience in various applications of meteorology which I consider so important. Energy forecasting interested me the most and this is where I have specialised ever since – something I didn’t know existed when I was at university!

I have worked with bp for 10 years now, always as a meteorologist. I was the first meteorologist in our office in London and have built out weather support in this region as well as for our businesses in Asia. I now lead a small team of meteorologists spread across London and Houston.

The skills that have allowed me to get this far in my career are analytical thinking and problem solving, commercial awareness, as well as strong communication. Within bp we are subject matter experts and are constantly communicating our view to non-experts who need to receive and understand information accurately and efficiently.

CAREER PROFILES



Joanna Chambers,
RMet
Senior Forecaster,
Government of Jersey

“I highly recommend being a weather forecaster”

What meteorological services does your organisation provide?

We provide a range of services for aviation, marine, the public, and the media. During severe weather, we issue warnings and support emergency services in their response to these events. We provide climatological reports to customers and contribute to planning for climate change and future infrastructure.

Can you describe a day in your life at work?

No day is ever the same. There are five different operational shifts, all with different workloads. My day actually starts when I'm getting ready for work, I'm normally looking outside seeing what the clouds are doing, checking our website and looking at the products that have been sent out by the previous shift, just so I can hit the ground running when I start work.

Each shift starts with a handover by the previous shift, our office is open 24/7 so there is always someone working. We are constantly checking and updating the forecasts. I have a number of products to produce throughout the shift, and I need to manage my time effectively

to make sure they all go out on time. Although these are my busiest days this is especially important when the weather is bad, whether that be fog, gale force winds, heavy rain or snow, and I need to ensure that aviation and public warnings are issued, as well as answering numerous phone calls from pilots and members of the public such as farmers, builders and boaters. We also do work for the media including live radio weather broadcasts across the Channel Islands. And the day doesn't end when my shift finishes; I continue to look up at the sky to see how good my forecasts were!

How did you get into this role and what skills do you consider essential to succeed in it?

I was always interested in science and weather, and was lucky enough to get a job as a Meteorological Observer and then studied for my degree with the Open University in order to progress into forecasting. If you have an interest in science are able to multi-task and would like to do a job which provides an essential service, where no shift is ever the same, I highly recommend being a weather forecaster.



Sarah Hartley
Manager,
Event Response Modeling,
Risk Management
Solutions (RMS)

“An ability and interest to work in a team and a fast-paced environment”

What meteorological services does your organisation provide?

We develop and provide catastrophe risk models to allow businesses, mainly in the insurance industry, to determine the impacts of a wide range of catastrophes globally. This includes, but is not limited to, a range of meteorological perils such as: North Atlantic hurricanes, severe convective storms, Asia typhoons, global flood events and European windstorms.

Can you describe a day in your life at work?

I lead a team within the real time Event Response team in Model development at RMS, so day to day the work is quite variable. When catastrophe events occur, we execute processes to provide a range of solutions to help clients determine the impact of a given event in real time. We support a wide range of catastrophe models covering a variety of perils and regions: from North Atlantic hurricanes to global earthquakes, to European floods to US wildfires, and many more. As we are offering these solutions within a real event time frame, the work is fast paced and time pressured as we endeavour to provide quality solutions as quickly as possible to help inform real time business decisions.

Outside of real time events, we are continuously monitoring catastrophes globally as well as developing the processes we utilise to provide solutions to clients in real time. These processes are predominantly code based, so a large part of the day-to-day work involves programming in languages such as R or Python and working with GIS software.

How did you get into this role and what skills do you consider essential to succeed in it?

After completing an Applied Meteorology Master's degree, I was recommended the field by a colleague within the insurance industry. RMS has a wide range of teams that require different skill sets. The main skills required for working within my team are an interest in catastrophe events or natural hazards, problem solving as well as experience with programming languages such as R or Python and GIS software. For the real time response team, an ability and interest to work in a team and a fast-paced environment with a variety of subject matter and day to day tasks is also key.



Dave Sproson

Atmospheric Data Scientist, Facility for Airborne Atmospheric Measurements (via NCAS/ University of Leeds)

“It’s important to be able to be focused and motivated”

What meteorological services does your organisation provide?

We operate an atmospheric research aircraft, a BAe-146 jet which has been heavily modified to carry all sorts of scientific instruments capable of measuring cloud properties, chemical constituents of the atmosphere, and meteorological parameters. Typically we work with scientists from universities and research institutes who use the aircraft to obtain measurements for their research projects.

Can you describe a day in your life at work?

It varies, though always involves a lot of tea. Typically, I’ll be working in the office performing data analysis, or writing software for the aircraft data systems. I also fly with the aircraft, where I look after some of the instruments, keep a log of what happens, and try to make sure everything runs as smoothly as possible. We fly from both our home base in Cranfield and from other locations all over the world, which we’ll generally visit for periods varying from a week to over a month. Since starting at FAAM I’ve worked in places as far afield as Alaska, Uganda, and Cape Verde.

How did you get into this role and what skills do you consider essential to succeed in it?

My background is in meteorology and oceanography, and prior to working at FAAM I spent a few years working as a meteorology/oceanography research scientist at a couple of different universities, and I worked for a private weather forecasting company looking after their weather and ocean models.

I was lucky enough to work with FAAM during my Ph.D., so I had a good idea of what the job involved. Having said that, the background in meteorology is useful rather than required for my role here; having good numeracy and programming skills is much more important. I work in a small team, so it’s important to be able to be focused and motivated while working independently, but flexible enough to pitch in with whatever needs doing.



Joanne Coles, FRMetS

National Flood Forecasting Duty Manager, Environment Agency

“Don’t be afraid to ask questions and look for opportunities to pick up new skills”

What meteorological services does your organisation provide?

The Environment Agency work together with the Met Office to provide forecast information to help the government, emergency responders and the public prepare for and stay safe during a flood. We gather meteorological and hydrological data using radar, satellites and gauges so we can monitor current conditions and forecast flood risk both locally and nationally.

Can you describe a day in your life at work?

As a National Flood Forecasting Duty Manager I work with scientists across England who are monitoring the atmosphere, the rivers and the sea. Data is continually received and processed by our computers and forecasting officers then assess this information to predict if, where and when a flood may happen. During a big flood event, I will collate all this local forecast information to form a national summary for England and report this at daily briefings.

How did you get into this role and what skills do you consider essential to succeed in it?

For as long as I can remember I’ve loved

exploring and learning about the weather and the environment. I studied BSc Geography at University of Hull and MSc Applied Meteorology and Climatology at University of Birmingham. Throughout my university career I looked for work experience to gain understanding of a true working environment. Whilst travelling in Asia and Australia I was lucky enough to secure work experience at a private weather company in Sydney. This helped me to land a meteorologist role in London on my return to the UK. I joined the Environment Agency as a flood forecaster in 2005 and have had a variety of roles in Flood and Coastal Risk Management. I have also continued my learning journey; becoming a Chartered Scientist, Fellow of the Royal Meteorological Society and Member of CIWEM (Chartered Institute of Water and Environmental Management).

I think it’s important to have a diverse range of skills and ideas but the most important thing is to be confident, enthusiastic, have a willingness to learn and obviously love science; particularly hydrology and meteorology. Don’t be afraid to ask questions and look for opportunities to pick up new skills. I wouldn’t have secured my first permanent meteorologist role if I hadn’t had undertaken work experience.

ADVICE FOR EARLY CAREER PROFESSIONALS

For more information head to rmets.org/careers



Do your research into potential employers at least 6 months before graduating



Send speculative applications – there is no set period when jobs are advertised



Try and learn a coding language – it can enhance your employability or help you get a foot in the door



Keep on top of knowledge and stay up-to-date with scientific developments



Look for a mentor - sign up for our mentoring scheme to access the wealth of expertise available from our members

INDUSTRY



Undertake your studies or research abroad (**Rupert Ford Award**) – it can enhance your employability



Volunteer for a professional Society – join one of our editorial boards or committees



Monitor the job market – subscribe to our **Jobs Board**, **Met-jobs**, **Climlist**, **LinkedIn** and **Indeed**



Network - attend conferences and keep in contact with course professors and friends



Gain professional accreditation - become a **Registered** or **Chartered Meteorologist**



Work Life Balance - if caring for a family member, you might be eligible for our **Carers' Fund**



Present your work at conferences



Communicate your research through **Twitter** or **blogs**. Use plain language and accessible graphics



Submit your work for awards

ACADEMIA

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