

To advance the understanding of weather and climate and its application for the benefit of all

2020 INPACT REPORT

Engage Enthuse Educate Empower The Royal Meteorological Society 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.

rmets.org

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2 Front Cover Photo: 'Morning Shadows, Scotney Castle' by Chris Brown. This photo appears in our Weather - <u>A Force of</u> Nature: Spectacular images from Weather Photographer of the Year book.



President's Foreword

The Society's impact report allows us to look back on the year that has just passed. I think we can all agree that it has been a particularly challenging year.

Despite the extraordinary circumstances, the work of the Society has continued unabated. Working almost exclusively from home, the Society's staff have shone brightly, delivering a full, high-quality program of events and activities, albeit virtually. Their work is an extraordinary achievement and as you read this report, please note the statistics as I think the numbers more than bear that out.

We have greatly appreciated the loyalty and support of all our members this year. Without our members, there is no Royal Meteorological Society. The Society is owned by its membership but exists for the benefit of all, so we hope you will join us in supporting our work over the coming years. In return, we promise to support you, whether that be in your career, advancement of the science and profession or in developing your passion for weather and climate.

Prof Dave Griggs FRMetS



Chief Executive's Welcome

The year was dominated by the impacts of COVID-19. Despite these challenges, and thanks to the determination and flexibility of the staff and volunteers, the Society has managed to deliver the vast majority of activities that were planned for 2020.

The Society celebrated its 170th anniversary in 2020 and had plans to return to Hartwell House for two events, where the inaugural meeting took place on 3rd April 1850. As that became impossible we found other ways to celebrate. We published a <u>virtual special issue</u> of important papers from our scientific journals. Our President wrote an article on the history of the Society, which was published in <u>Weather</u>; and we developed a special logo for the year.

The Society is extremely grateful for the continued support from an active and engaged community of around 300 volunteers. This important contribution allows the Society to successfully achieve many of the activities highlighted in this impact report.

We introduced new staff roles in 2020 with marketing and communications posts, a new professional accreditation resource combined with additional support for membership development and further administration and events support. The benefits from these new roles are already evident, as you will read.

The Society continues to be in a strong financial position. However, the next few years remain challenging. The new <u>Strategic Plan 2021-23</u> recognises the difficulties we may face in the coming years. We are prioritising activities where the Society can have the biggest impact to advance the understanding of weather and climate and its application for the benefit of all.

Prof Liz Bentley

For further details on the work of the Society in 2020, you can read the Annual Report and Accounts <u>here</u>.

OUR YEAR IN...NUMBERS



29 new Fellows, FRMetS. Our Fellows are amongst the most experienced and knowledgeable professionals in the meteorological industry



180 accredited Registered Meteorologists (RMet) and Chartered Meteorologists (CMet). We have further developed our accreditation programme to incorporate new specialisms



542 attendees joined our new Meteorological Masterclass Series in partnership with the University of Reading



39 broadcast meteorologists and journalists received climate change communication training, helping support more accurate reporting on climate science



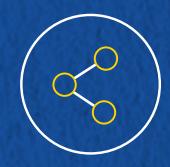
S new Corporate Members – FleetWeather, KISTERS Ltd and Meteo France International. The full list of Corporate Members is on page 15.



Hosted over 20 virtual events including Conferences, National Meetings, Local Centre Meetings and Special Interest Group events, discussing some of the biggest issues in weather and climate



Our first virtual AGM with an audience of over 100 people



4,600+ new social media followers, broadening our audience and widening our reach across all channels



137,000 more pageviews on our website in 2020

OUR YEAR IN...NEWS

We received 173 media interview requests and achieved 1,666* items of media coverage mentioning the Society.



Weather Photographer of the Year 2020

7,700 photographs, which were taken by over 2,600 photographers around the world, were entered into the Weather Photographer of the Year competition, in association with AccuWeather. 11,275 public votes were cast and 380 pieces of media coverage appeared across almost 60 countries.

rmets.org/photography

Climate Negotiations Education Resource

Our **FREE award-winning resource**, which simulates the 2015 Paris Agreement, **was promoted three times during the year**. In September, we highlighted new video input from Jolene Cook, Head of Climate Science in the United Nations Framework Convention on Climate Change (UNFCCC) COP26 Unit. In November, we promoted it as part of the <u>Youth Climate Summit 2020</u>. In December, we signposted the resource for the 5th anniversary of the Paris Agreement.



rmets.org/climate-negotiations



Citizen Science Heatwave Mission

Our year-long citizen science project in collaboration with the Open University and **supported by the BBC** tracks people's experiences of heatwaves. Results are expected to provide valuable information to help plan for future extreme heat conditions. We received **over 1,200 entries** and hope to build on that during 2021.

Coverage included a live BBC Breakfast interview, with traffic being driven to the RMetS website (a record 655 users browsed the site at the same time during the report), as well as BBC regional radio interviews and coverage in the Daily Telegraph.

rmets.org/news/heatwave

Journal Articles

531 national and international media outlets referenced our

publications. Highlights from articles that we placed in the media included the annual <u>State of the UK Climate Report</u> in the *International Journal of Climatology*. The World Meteorological Organization recognised the <u>coldest</u> ever temperature recorded in the Northern Hemisphere, in our *Quarterly Journal* (QJ). *Weather* reported on routing apps such as Google Maps offering a cost-effective way of <u>calculating emission hotspots</u> in real-time. Plus, QJ discussed a new tool that will allow weather forecasters to more accurately predict when a tornado is likely to hit the UK.



PROVIDING SUPPORT



COVID Support Hub

2020 was a particularly challenging year for many of our members. We created a comprehensive hub outlining practical advice and FAQs on membership and introduced a new COVID discretionary fund. We also ensured regular communications to ensure our members remained informed and connected throughout the pandemic.

years in membership

"Thank you so much for the information and assistance that I have been given for maintaining my RMetS membership. This is much appreciated, and I believe that this will really help me advancing in my atmospheric science career, so thanks again!" - Feedback from a Member support call in 2020

Website

We've improved our membership guidance, how to join, what option is right for you and who to contact for advice.

New members

In 2020 we published a series of videos: 'Meet our Members'. We introduced two new benefits: FREE full online access to ALL Society journals and a dedicated private Facebook page for student members to connect and share ideas.

We successfully repeated the discounted six-month membership offer, welcoming 23 new members in July, 15 in August and 28 in September. We also ran a popular £10 student offer in September.

Student Ambassadors

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

"Joining as a student member has helped inform me of all the opportunities I can take advantage of to help me pursue my career and the different pathways I can take to get there. Becoming a Student Ambassador has been very rewarding as I have promoted the Society, meteorology as a career and it has also informed me of so many events that go on within the Society. The annual student conferences are really informative and interesting as fellow students and professionals share their research and experience, and they are great for networking. The free access to the eight journal titles has been brilliant, especially when preparing for dissertations and every article is an interesting read and keeps you up to date about the research currently ongoing across the globe."

- Holly Smith, Undergraduate Degree, University of York

CELEBRATING ACHIEVEMENTS



In 2020 we welcomed 10 new accredited CMets and RMets to membership.

Achieving <u>professional accreditation</u> gives recognition for abilities, knowledge and experience within the fields of weather and climate. We take every opportunity to celebrate the success of our members.

"As an instructor for weather training courses, being a Chartered Meteorologist allows potential customers to instantly recognise my professional status, which is essential for my business. Whilst job titles may come and go, CMet remains with me as an authoritative reference to my expertise, ready to use wherever I find myself in the meteorological community." - Alec Bennett, CMet

"It calls up happy memories from very early on when I was first enthralled by the science of meteorology to the present moment when I am in a position to enthuse young minds to venture into meteorology related careers. I consider this recognition a turning point and a fully consummated peer recognition. I expect that my mind will ripen further with contacts from fellow meteorologists worldwide." - A newly qualified Fellow in 2020

Championing our Professional Accreditation schemes with employers

We are the only organisation able to award Chartered or Registered status for Meteorologists. Offering independent recognition and regulation, employers can highlight excellence in their teams.

"RMetS recognised the importance of Operational Marine Forecasting and added Marine Routing as a subcategory. This assures industry individuals have attained and continue to maintain a specified level of relevant professional knowledge and experience." - **Simon Bevan, Fleetweather**

Fellowships

We welcomed 29 new Fellows in 2020. This is our highest level of Membership for those who have made a substantial contribution to meteorology and related sciences.

1,445	74	106	14,297	718
Fellows	CMet	RMet	CPD Records	CPD Reports

OUR PUBLICATIONS



We deliver a high-quality portfolio of journals and book programme to support the advancement and promotion of the science behind weather and climate. Income from scientific publishing makes a significant contribution to our total income; allowing us to deliver other important programmes of work and charitable activities.

We publish <u>eight world-leading scientific journals</u> with publishers Wiley. In 2020 we began working on the eight title *Climate Resilience and Sustainability*, which will launch in 2021. As well as being free to members, they are made available free to developing countries through publishing aid programmes and to the World Meteorological Organization's (WMO) Regional Training Centres.

Four of our journals are fully open access. 30% of all content published across the portfolio was open access in 2020, meaning it was freely available to all.

2,000	1,200	2.59 million	Тор 3	5,500
articles received across all journals in 2020 (5% increase)	published articles in 2020	articles downloaded (15% increase)	downloading countries were the USA, UK and China	citations during the two years following publication

In 2020, we started a <u>new academic book series</u> with publishers Elsevier: *Developments in Weather and Climate Science.*

"Ever since I first joined the Society, I've always looked forward to reading *Weather* each month to see the latest expert analysis of recent weather and climate extremes... alongside a wide range of science, important to broaden my knowledge as an early-career scientist." - Simon Lee, Co-Editor-in-Chief - *Weather*

"As an Early Career Researcher myself, I remember my first time submitting and publishing a paper felt bewildering and time-consuming. I'm using my experience to make ASL a friendly and accessible journal for all authors to publish in." - **Rebecca Hemingway, Co-Editor-in-Chief** – *Atmospheric Science Letters*

BRINGING PEOPLE TOGETHER

255 @Royalmetsoc 20 1.686 Virtual online events including our two-day Total number of attendees Student and Early Career Total number of attendees Visit our YouTube channel for face-to-face events for virtual events Scientists Conference. for recordings of events prior to Covid restrictions WeatherLive and our Annual General Meeting

The Society supports a diverse and ambitious programme of <u>events</u> each year to bring people together from academic, professional and other backgrounds to discuss topics of current interest.

Going virtual

We usually deliver six to eight in-person National Meetings a year. Due to the pandemic, we diversified these events allowing us to explore hosting our meetings in different formats, durations and times of the day.

The impact of our move online was that we were more accessible and could reach bigger and more diverse audiences. Virtual events provided a larger forum for our speakers and broadened the topics we could cover, as well as opening up both local and global perspectives through access to international speakers from countries including the USA, Australia, India and Ghana.

CPD events

We supported our community, including our Accredited Members, through a series of <u>Continuing Professional</u> <u>Development (CPD) events</u>. We helped our journal authors with <u>events showcasing their published articles</u> and advised early career researchers on how to get published.

Local Centres

We supported Local Centres to move their programmes online, resulting in more visibility for the centres and speakers.

"There are few positives during this pandemic, however, Local Centres can now capture a much larger audience and attract international speakers through easy digital communication." - Gary Johnston, Scottish Local Centre

Future plans

We plan to move back to a mix of online and in-person meetings. We feel confident we can offer an even more exciting and diverse programme of events, whilst at the same reducing our impact on the environment.

"I was so impressed that we were still able to offer a conference experience to so many people from across the world, and with more oral presentations than we would have offered in person. The fact that the team at RMetS adapted so quickly to move everything online meant the conference ran smoothly and I think was very well received." - Shaun Dempsey, Bath University

SUPPORTING Schools

We awarded six schools with our <u>'MetMark'</u> – a quality mark for weather and climate teaching.

Our ambition is that every student will leave school with the basic weather literacy to understand the impact of weather on their personal life, leisure activities and employment. Also, the basic climate literacy to engage with the messages put forward by the media or politicians to help them make informed decisions about their opportunities and responsibilities.

At the start of 2020, we sent a letter to the Government and the administrations of the devolved regions calling for climate science and climate change to be given greater emphasis in school curricula. This reflects the prominent role that a changing climate will play in the lives of young people now in school.

MetLink

We worked hard during 2020 redeveloping our schools' website, Metlink.org, which will go live in 2021.

Climate change negotiations

We refreshed our <u>award-winning teaching resource</u> ahead of COP26. We also participated in podcasts in conjunction with our key education partners.

Teacher training

We delivered vital teacher training to five universities and provided guidance for two children's books, one textbook and a set of short films for BBC Bitesize Scotland.

We also developed a weather and climate textbook for 11-14 years olds, consisting of a printed teachers' guide and an <u>online collection of teaching resources</u> and background information. *Weather and Climate: A Teachers' Guide* will be available to schools in 2021.

Come Rain or Shine

In response to the first lockdown, we made our online weather and climate course, Come Rain or Shine, permanently available from the end of March. 6,251 people joined in, bringing us almost to a total of 40,000 people who have taken the course since it began. It remains one of the top-rated 'nature and environment' courses on the FutureLearn platform.

As a Geography teacher this course was great at explaining many of the aspects of the weather I have to teach, it reinforced in a very clear way what I already knew and added a lot of new information. Thank you. – Paul Pickard

PUBLIC ENGAGEMENT

Heatwaves Mission

In 2020, we launched our year-long citizen science project in collaboration with the Open University and supported by the BBC. The Heatwaves Mission tracks how people experience a heatwave. We hope this valuable information will help inform how people can plan for our changing climate. To date, we have received more than 1,200 entries.

theWeatherClub

Our free to view website with general explainer articles relating to the weather and climate in all its forms. In 2020 we published more than 50 articles. These included posts from guest authors, summaries of scientific reports and introductions to citizen science projects. The newsletter was also improved and distributed monthly.

Research Summaries

In July, we launched our Research Summaries, featuring selected journal articles from our portfolio. The summaries use plain language, making the often-complex research more accessible to a broader audience. We published 12 by the end of the year, including the impacts of global warming in Antarctica, forecasting UK flood events, and the vulnerability of hop-yields in Europe.

Climate Briefing Papers

Building on our previously published papers, we focused our attention on publishing the last few topics in our *Weather* journal. We also started planning the next series of papers and podcasts in the run-up to COP26.

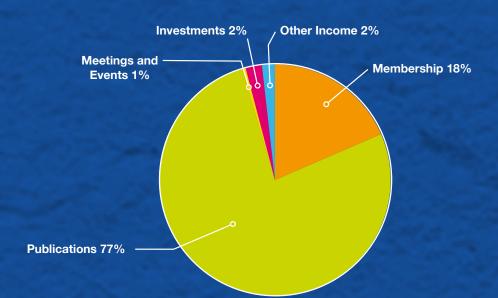
Early Careers Campaign

We created our first <u>'Careers in Meteorology' booklet</u> in 2020, featuring eight different career profiles. Careers ranged from flood forecasting, aviation, and energy trading, to research and meteorological modelling. As well as an introduction to careers in meteorology, there was advice for early career professionals considering roles in either academia or industry.

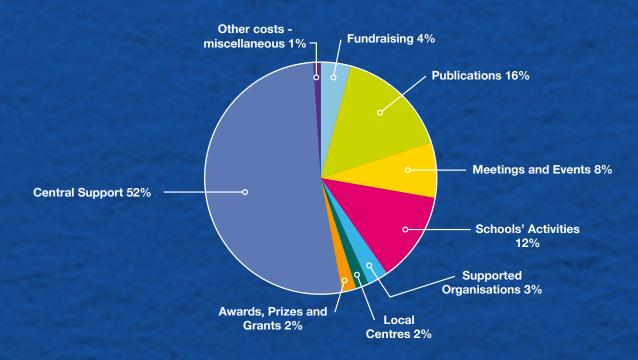
"Very practical steps for any student nearing graduation or professional looking to take the next step." - Survey feedback from the 2020 Careers in Meteorology booklet

"The individual's career paths being described to the reader is wonderful to read. Showcasing the breadth of meteorology is very valuable." - Survey feedback from the 2020 Careers in Meteorology booklet

OUR INCOME



OUR SPEND ON ACTIVITIES



The net surplus for the year was £76,000, transferred to our reserves. This gives the Society continued financial stability for the future. It also allows us to support and invest in projects to further the science of meteorology, support the profession and deliver on some key charitable activities, such as through our important education work.

This is a summary of information extracted from the full audited and unqualified annual accounts of the Society for the year ending 31 December 2020.

This summary may not contain sufficient information for a full understanding of the financial affairs of the Society. Please visit <u>rmets.org/about-us</u> for the full Annual Report and Accounts 2020.

GET INVOLVED

Visit rmets.org or call (0)118 2080 142 for more information.



Become a Member

Anyone who is interested or involved in meteorology or associated sciences can join. Our worldwide membership is open to all, from professionals and academics, students and teachers, enthusiasts and observers, there is something to suit everyone. Plus, if you Gift Aid your membership for every £1 you give us, we can claim an extra 25p from the Government to support our vital work.



Develop your career

Our accreditation schemes enable you to demonstrate your accomplishments and commitment to your own professional development. Through ACCSYS, Members can create, manage and submit personal Continuing Professional Development (CPD) records.



Join an event

We host events throughout the year in person and online, aimed at all levels of interest from enthusiasts to professionals working in and studying weather and climate and associated disciplines.



Corporate memberships and partnerships

When your organisation gets involved with the Society, you become part of a group committed to supporting meteorology as a science, profession and interest, and helping to inspire the next generation of meteorologists. Your organisation can also benefit from a range of opportunities to help raise its profile, engage a relevant audience and support the professional development of your staff.



Volunteer

We have nearly 300 volunteers who provide invaluable support for the important work that we do. Many volunteers sit on committees, help run national and local meetings, support our special interest groups, sit on editorial boards, and get involved in education or outreach activities. No specific experience is needed - if you have a passion for meteorology or climate science and are interested in helping broaden peoples' understanding and enthusiasm for the subject, then please get in contact with us.

2019 AWARDS AND PRIZE WINNERS

The Society's annual Awards and Prizes recognise people and teams who have made exceptional contributions relating to weather, climate and associated disciplines.

Due to social distancing guidance, it was sadly not possible to have a physical presentation ceremony. However, we took the opportunity to showcase each of the 18 worthy winners on our website (<u>rmets.org/awards2019</u>), outlining their achievements alongside a winner's acceptance message. We also congratulated them on our social media channels throughout the week of 22 June 2020.

Mason Gold Medal

Professor Keith Shine, University of Reading

The Buchan Prize

Professor Adam Scaife, Met Office and University of Exeter

The L F Richardson Prize

Dr Joanne Waller, Met Office and Dr Gerard Kilroy, Ludwig-Maximilians University of Munich

The FitzRoy Prize

Dr Helen Dacre, University of Reading

The Adrian Gill Prize

Professor Ken Carslaw, University of Leeds and Institute for Climate and Atmospheric Science

The Climate Science Communications Award

Professor Richard Betts MBE, Met Office and University of Exeter

The Society's Outstanding Service Award

Mrs Marcia Spencer

<u>The Gordon Manley Weather Prize</u> Mr David Bowker, Lockers Park School, St Albans

The Malcolm Walker Award Dr Emma Howard, University of Oxford

Honorary Fellow Professor Tim Palmer, University of Oxford

Journal Prizes

International Journal of Climatology Editor's Award

Dr Stephen Fick and Professor Robert J. Hijmans -University of California in Davis

Quarterly Journal of the Royal Meteorological Society Editors' Award

Professor Peter Knippertz - Karlsruhe Institute of Technology

Geoscience Data Journal Editors' Award

Dr Victoria Slonosky - McGill University, Montreal, Canada

Atmospheric Science Letters Editors' Award

Dr Arthur J. Miller - Scripps Institution of Oceanography (UCSD)

Quarterly Journal of the Royal Meteorological Society Reviewer's Certificate

Dr Michael Scheuerer, Cooperative Institute for Research in Environmental Sciences at the University of Colorado Boulder and Dr Zhihong Tan, Princeton University

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With special thanks to

We exist to support our membership and none of the work we do would be possible without the reciprocal support of our members and partners, as well as our dedicated team of <u>staff</u>. The following deserve a special mention for their support throughout 2020:

Corporate Members





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