The 174th Annual Report of the Royal Meteorological Society for the period 1 January – 31 December 2024

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THE SOCIETY'S MISSION

The Royal Meteorological Society is the UK's Professional and Learned Society for weather and climate and its mission is to advance the understanding of weather and climate and its application for the benefit of all. The Society 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.

PUBLIC BENEFIT

The Royal Meteorological Society is dedicated to providing benefit to the wider public, or sections of it, in achieving its aims. The Charity Act 2011 lists 13 main charitable purposes that would be regarded as 'for public benefit'. In the Society's case, the public benefit of our activities falls into four of these categories.

The advancement of health or the saving of lives

Through partnerships such as the General Aviation Safety Council (GASCo), the UK Flight Safety Committee (UKFSC), Royal National Lifeboat Institution (RNLI) and the Royal Institute of Navigation (RIN) as well as many weather service providers, the Society offers support and training for weather and climate-related safety-critical issues. The Society holds weather and climate education seminars and events for operational meteorologists, private pilots, and sailors, with the specific purpose of improving safety and reducing the number of accidents and incidents relating to poor weather conditions, which can sometimes be fatal.

In 2024, the Society attended a series of Aviation Safety Information Exchange meetings with GASCo for private pilots and co-hosted a '*Weather and Sailing'* event with the Royal Institute of Navigation at the Royal Yacht Squadron in Cowes on the Isle of Wight. The Society also hosted 6 Met Masterclass events for operational meteorologists in partnership with the University of Reading. Many of these events were free to attend.

The Society is the academic partner with EUROCONTROL to support the SKYbrary website (SKYbrary) to oversee weather content in order to encourage a meteorological exchange of information with the aim of enhancing flight safety.

While responsibility for implementing and maintaining the Aeronautical Meteorological Personnel (AMP) standards rests with the weather service providers in the aviation sector, the Society continues to provide support and impartial advice where required to enable them to comply with the World Meteorological Organization's (WMO) and the International Civil Aviation Organization's (ICAO) criteria for competence and qualifications. The Society's professional accreditation schemes (Registered and Chartered Meteorologist) also support record holding of Continuing Professional Development (CPD) activities required as evidence for maintaining the AMP.

The advancement of education

The Society's mission has a wide remit that looks to support people's understanding, interest and enthusiasm in weather and climate, whether they are research scientists, amateur meteorologists, practitioners, communicators or members of the general public. It goes further, supporting the development of high-quality science, the next generation of scientists, the professional development of individuals, recognising further and higher education courses, informing policy and supporting learning in weather and climate through education and outreach activities.

The Society works with teachers and students at primary, secondary and higher education levels to promote understanding of weather and climate and runs interactive projects to both stimulate the interest of students in meteorology and to improve the quality of teaching materials and resources in schools. The Society's aim is to reach every student in the UK so that they leave school with the basic weather and climate literacy to understand the impact of weather and climate change in their personal life, leisure activities and employment, and to engage with the climate conversation and make informed decisions about their own opportunities and responsibilities.

A key activity in 2024 was a focus on policy engagement, at a time when the curriculum was being reviewed in all Nations of the UK, and with the widespread acknowledgement that the quality and breadth of climate education within the curriculum needs to be significantly improved. The Society:

published an evidence-based position statement;

- led the National Climate Education Action Plan's (NCEAP) synthesis of existing studies exploring the potential place of climate and sustainability education in the English curriculum;
- contributed thought pieces about the role of the potential new Natural History GCSE to deliver climate education and the potential for improving the climate education delivered in design education specifications; worked with the examination boards to improve the quality and quantity of weather and climate education in UK schools;
- analysed past exam questions (GCSE and A level Science and Geography) from the 5 English exam boards and exploring how misconceptions have occurred in the questions and mark schemes, how to avoid these misconceptions propagating into teaching, and how to avoid such issues in future assessments;
- expanded our previous work looking for places in current curricula for teachers to demonstrate to their students the relevance of what they are already learning to their climate literacy, through analysis of selected Cambridge International IGCSE specifications and the Cambridge Early Years – 14 curricula.

The Society remains best positioned to be one of the UK's leading authorities on climate literacy – answering the "what, how and when" questions to deliver climate education. Building on the groundbreaking survey launched in 2022 to annually monitor school leavers level of climate literacy, the Society again asked Ipsos to carry out a 2024 survey of school leavers, funded by the Department for Education (DfE) which allowed the number of questions to be expanded from 5 to 55 and the number of young people questioned to be increased.

At higher education levels, the Society awards financial support to enable students to broaden their studies of meteorological sciences, through its legacy funds. The Society provides careers information, such as our updated careers booklet Careers In Meteorology. The Society's Youth and Early Career Special Interest Group (SIG) focuses on the Society's engagement with and provisions for youth and early careers, as well as championing their voice within RMetS activities.

The Society is recognised as both the competent authority and the regulatory body for meteorology in the UK and offers independent recognition around training and continuing professional development (CPD) for meteorology and meteorologists. The Society's accreditation framework offers individuals two schemes: professional registration and chartered status (RMet and CMet), as well as related CPD opportunities, such as the Met Masterclass series which delivered six webinars in 2024. Additionally, the Society offers a number of CPD opportunities through the events programme, scientific journals and volunteering.

The advancement of the arts, culture, heritage or science

One of the Society's charitable objectives is to promote the advancement and dissemination of knowledge and education in science for public benefit. The Society aims to advance professionalism in meteorology through the Chartered Meteorologist and Registered Meteorologist accreditation schemes which recognise high professional standards and competencies and follow an established code of conduct. The Society sets standards for CPD and professional conduct and performance, so that meteorologists are empowered to conduct high-quality, ethical work consistently throughout their careers. The Society works with professional bodies, government, employers and national academies, and aims to ensure the workforce across the meteorological community reflects the diversity of society.

The Society publishes eight world-leading scientific journals, which are made available free to our members and to developing countries through publishing aid programmes and to the World Meteorological Organisation's (WMO) Regional Training Centres. Half of our portfolio is fully open access providing free information on important science to readers.

The Society has a curation programme for an historical and culturally valuable archive of documentation on behalf of the UK. Most of our important artefacts are held at the National Meteorological Library and Archive in Exeter, with many articles being digitised to make them accessible to all. The Society also owns a set of cloud study drawings (c1803-1811) produced by Luke Howard, famous for naming the clouds, which are held in the archives at the Science Museum and are regularly exhibited. In 2024, the

Society loaned the Luke Howard drawing collection to the Huntington Museum in the USA as part of an exhibition on Storm Clouds.

The Society runs a comprehensive events programme, which is open to all with an interest in weather and climate. This includes free public meetings to encourage a focus on global, national and local issues, and also conferences to bring about the advancement in the understanding of meteorology as a science, through its applications and as an interest to all. In 2024, the Society delivered a diverse and ambitious programme of 53 events throughout the year (19 in-person; 9 hybrid; and 25 virtual). The programme variety aims to increase accessibility for delegates whilst also supporting different audience needs.

The Society hosts an annual Early Career Scientists' and Student Conference that brings together those involved in graduate and post-graduate studies, as well as early career scientists from the UK and internationally, to create a community of young scientists and to give them experience in active participation in scientific conferences. In 2024 the event was held at the UK Met Office in Exeter on 1-3 July and attracted 125 delegates.

The Society offers grants and bursaries to encourage interaction between scientific groups both in the UK and internationally, to enable attendance at meetings and conferences.

The Society's Special Interest Groups deliver events and other activities to facilitate the exchange of information and views within specific areas of meteorology. The groups are primarily a way of communicating at a specialist level and include areas such as the History of Meteorology and Physical Oceanography, Atmospheric Electricity, Climate Dynamics, and Meteorological Observing Systems.

The advancement of environmental protection or improvement

The Society is at the heart of the debate on climate change and aims to lead by example in the transition to net zero. It plays a particularly important role in communicating some of the more complicated scientific and technical issues to the public at large, enabling them to understand and engage with what is one of the most important global issues that we face today. This role is overseen by the Society's Science Engagement Committee, which aims to sustain, encourage, and progress activity in climate science and its relevance to society.

The Society' activities during 2024 included:

- sponsoring 12-month Science Engagement Fellowships to engage with non-academic stakeholders to build multidisciplinary partnerships, develop engagement skills and experiences, enhance their profile with stakeholders and leading academics, and grow their research impact. The Science Engagement Fellows support Special Interest Groups on: Energy; Insurance; and Youth and Early Career. Collectively they delivered a number of events including:
    - '*Navigating Climate Challenges in Insurance*';
    - '*Collaborating for Impact: Bridging the gap between climate science and insurance industry practice*';
    - '*Weather and Climate Hazards: Emerging and Compound Risks*';
    - '*Rethinking Extreme Weather for Energy Systems of the Future*' workshop;
    - '*Seasonal Forecast Outlook for the Energy Sector*';
    - '*RMetS Accreditation – is it for me?*'
    - '*Is a PhD for me?*' and
    - '*Diverse Voices*'
- delivering climate change communication training to the Public Relations and Communications Association (PRCA), National Museum Wales and the British Red Cross, as well as ongoing support to ITV on recent climate science/policy updates.
- running the Standard Chartered Weather Photographer of the Year which received over 4,500 entries from 83 countries around the world.
- responding to 175 media requests.

The Society's website rmets.org has a wide range of information and content that is freely available to all with an interest in the Society and in meteorology. The Society continues to invest significantly in making

its website more accessible and informative, providing a wide range of freely available educational, scientific and professional material.

PRESIDENT'S FOREWORD

Having taken up the reins as president last October, I am delighted to contribute a foreword to this annual report for 2024. I have been a student member since 1972 and was elected a fellow two years later, so the RMetS has been part of my life for a very long time.

The past year has been a dramatic one for everyone involved in weather and climate. It was the first year to pass 1.5°C above the pre-industrial global mean temperature. Although hopefully not yet a permanent exceedance, it is a marker in the shift towards a more dangerous climate, which was reflected in the large number of weather-related disasters, including two deadly hurricanes in the USA, increasingly destructive wildfires, and devastating floods in several parts of the world, including the terrible flash flood in Valencia, Spain.

It was also a year of innovation in the weather business. The first satellite of the Meteosat 3rd Generation became operational and is delivering some spectacular imagery. In forecasting, the year saw rapidly improving performance of Machine Learning emulators, particularly for medium range forecasts. Following the implementation of the Emergency Alert System in the UK, the first weather-related alerts were broadcast, bringing in a new chapter in warning communication.

It has been a vibrant year for the Society. RMetS journals published over 700 contributions to our knowledge of weather, climate and their impacts. The Society ran 57 events during the year which attracted a huge number of enthusiasts, academics and professionals. I particularly enjoyed the new style RMetS Weather and Climate conference in July – both to hear the science presentations and to meet with new and old colleagues. I'm already looking forward to this year's conference in Manchester. And, of course, the Weather Photographer of the Year competition was hugely successful in promoting the Society's influence across the world and to a greater cross-section of society.

Behind the scenes some really important work has been going on in the Society. It was great to hear of the excellent progress towards Net Zero. This is important in an organisation that represents the science of climate change but also provides a valuable model for other organisations that want to become net zero but are finding it difficult to make progress. The educational work of the Society is crucial for the future, both to raise the level of climate literacy and to attract scientists to the profession. The importance of this educational work was underlined by the recently published results from last year's survey. MetLink provides important resources for the education in schools, while MetMatters reaches a wide general readership, and professional support is offered through the ACCSYS tool and accreditation.

To finish, I would like to acknowledge with gratitude the work of the headquarters team who keep all of this going, and the dedication of the many volunteers who give their time, effort and expertise to furthering the work of the Society.

Professor Brian Golding April 2025

THE YEAR JANUARY TO DECEMBER 2024

A brief review of the highlights.

It was a warmer, wetter, duller year in 2024 in the UK. Spring was the warmest on record with a record-high average temperature for May, and February was the second warmest on record. In contrast it was a cooler than average summer. There was some regional variation for rainfall with a slightly drier year than average for Northern Ireland and parts of Scotland, and the wettest areas in central and southern England. Oxfordshire, Wiltshire, Gloucestershire, Bedfordshire and Buckinghamshire saw their second-wettest year on record, driven by large rainfall totals in February and September. Two red warnings for wind were issued by the Met Office in 2024, during storm Isha in January, which affected north-east Scotland, and storm Darragh in December, which affected west Wales.

It was another busy year for the Society across all of our activities.

In 2024, the Society saw an increase in **membership** of 3% (to 3,338). Membership development remains one of the strategic aims of the Society by focusing on retention and new member acquisition through a series of activities. Member retention rates for 2024 were 91%, achieved during another difficult year, which is all credit to the hard work of the membership team. This demonstrates that members value their membership.

The Society is extremely grateful for the continued support from an active and engaged community of **volunteers**, with around 600 volunteers involved on the Society's committees or contributing in other ways. This important input from volunteers allows the Society to successfully achieve many of the activities highlighted in this annual report.

In 2024, ACCSYS, the online Accreditation and CPD management system, was redesigned and redeveloped. Several enhancements and updates were made, including the full integration of the system into the main rmets.org site and improvements to existing functionality. ACCSYS is accessible to all members, even those not applying for accreditation. During 2024 we celebrated the 30th anniversary of the Chartered Meteorologist (CMet), and 10th anniversary of the Registered Meteorologist (RMet) accreditation schemes.

There has been a continued focus for science engagement activities in 2024 on further enhancing the Society's engagement with the insurance and energy sectors, including publishing the first 'State of the Climate for the UK Energy Sector Report'. We also recruited for two new roles to support our charitable activities under science engagement and education, increasing our capacity to deliver informal and formal education activities.

The inaugural RMetS Annual Weather and Climate Conference took place at the University of Reading in July 2024 and included medal-winning RMetS Award recipients, poster sessions, and networking. Each oral session featured a presentation from an early career or student researcher, with one keynote address delivered by an early career presenter.

The Society experienced a strong **media** interest, with 175 media interview requests fulfilled during 2024 leading to 3,692 pieces of media coverage, an increase of 65% on 2023. The website saw 1.2 million unique visitors in 2024, a 20% increase on 2023 and the highest volume of annual visitors in its history. As one of the more stable social media platforms, LinkedIn was the primary focus in 2024 and followers grew by 34%. The Society's **Marketing and Communications** team delivered an Impact Report during 2024 to highlight the work of the Society and its charitable benefits.

In 2024, the Society worked with an external consultant to provide overarching coordination for the Society's work on **Equality, Diversity, and Inclusion** (EDI) and to support the Society with data reporting. The Society's EDI Working Group provides advice and guidance to the Society as it continues to deliver and improve its work on EDI by establishing clear actions and priorities. The Society has worked to improve its communication about EDI by completing a website accessibility study. In response to requests from members, the Society established a new "**Early Careers of Colour**" network to provide peer support to early career members of the meteorology community from minority ethnic backgrounds, and launched a new events series, "**Diverse Voices**", to celebrate the diversity of people working in and around the field of weather and climate. The Society has implemented a new events checklist and guidelines to ensure that its events are as representative as possible and welcoming to all. The Society also reviewed and updated its recruitment processes to help ensure it attracts a diverse range of people to work for the organisation.

The Society is part of Pledge to Net Zero, CAFA (Climate Action For Associations), and helped develop and signed, the Professional Bodies Charter for Climate Action. The Society is committed to **achieving net-zero direct carbon emissions (Scope 1 & 2) by 2025**, where there is direct control through avoiding, reducing and substituting. It is also **working towards net-zero indirect emissions (Scope 3) by 2030**, subject to a full feasibility assessment. The Society has taken steps to eliminate scope 1 emissions by replacing an end-of-life gas boiler with a new electric system and has cut its scope 2 electricity emissions to net zero by switching to a 100% renewable energy tariff, switching to efficient lighting and installing solar panels on the roof to contribute to its energy demands. The focus during 2024 was on work to identify activities that dominate our Scope 3 emissions and to develop a transition plan to reduce them.

The Society **business development** activities continue to strengthen its relationship with strategic partners from a range of organisations including academic institutions, business and industry, NGOs and government to support the delivery of its charitable objectives. Highlights from 2024 include the ongoing partnership with Standard Chartered and funding secured from the Garfield Weston Foundation to support our climate education activities.

Scientific publishing is one of the Society's core strengths, and it is committed to delivering a high-quality portfolio of journals and books to support the management of scientific knowledge and the promotion of science.

The Society has managed to deliver the majority of planned activities in 2024, thanks to the support and determination of the staff and volunteers, and the Society continues to be in a strong financial position. However, the next few years remain challenging, with pressures on income across the meteorological community and from scientific publishing due to the move to an Open Access model, but the Society will enter this period on a firm financial footing.

FINANCE

The Annual Accounts for the year ending 31 December 2024 are published separately from this Annual Report in line with the requirements of the Charity Commission. The Auditors' report is on page 1-2 of the Accounts and certifies that in their opinion the financial statements give a true and fair view of the Society's affairs and of its income and expenditure for the year then ended.

The Society continues to be in a good financial position and total reserves on 31 December 2024 were £2,689,869 (2023: £2,759,069). The Society's Reserves Policy can be found in Annex G to this report.

The operating deficit of the Society in 2024 was £120,295 (2023: surplus of £63,113) which was consistent with our expectations for the year. Investment gains of £51,095 (2023: gain £65,757) were recognised, resulting in an overall deficit for the year of £69,200 (2023: surplus of £128,870).

The Society's scientific publications made up 61% of our income providing £864,056 in 2024. (2023: £865,614). Non-subscription publishing income from institutions has again made an important contribution and Open Access income is slowly increasing reflecting the gradual move away from traditional subscription journals. Other publishing activities such as the calendar and books contributed £5,931 (2023: £7,104). The associated expenditure on publications was £197,215 (2023: £160,264).

There was an increase in Membership numbers of 3%, from 3,249 to 3,338 with increased numbers of students and associate members more than compensating for the slight reduction in Fellows. Membership income, boosted by Gift Aid recovery and accreditation fees, increased by 4% to £243,674 (2023: £234,608). During 2024 staff have continued to develop plans to engage and recruit a more diverse membership by creating an improved member value proposition, further developed the Student Ambassador Scheme, and have worked to increase engagement with our corporate members.

2024 saw the Events team deliver 53 events, attracting 3,001 delegates (2023: 2,354). 2024 saw the inaugural RMetS Annual Weather and Climate Conference take place in July. This event helped to boost Event income to £81,520 (2023: £35,191)

Other Income increased in 2024 to £174,206 (2023: £151,664) with most of the increase in year attributable to a £20,000 grant from the Garfield Weston Foundation.

The notes in the separate Annual Accounts provide more insight into the detailed figures and the way these have been compiled.