

**The 169th Annual Report of the Royal Meteorological Society
for the period 1st January – 31st December 2019**

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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 promote the understanding and application of meteorology for the benefit of all**. At the heart of this is the responsibility for the stewardship of both the profession and science of meteorology. The Society 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 2016 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 with the General Aviation Safety Council (GASCo), the UK Flight Safety Committee (UKFSC), and the Royal Institute of Navigation (RIN), the Society provides support and advice for weather-related safety-critical issues. The Society holds weather education seminars and events for private pilots and sailors, with the specific purpose of improving safety and reducing the number of accidents relating to flying and sailing in deteriorating weather conditions, which can sometimes be fatal. In 2019, the Society attended four Aviation Safety Information Exchange meetings and all of the GASCo meetings.

The Society is the academic partner with EUROCONTROL to support the SKYbrary website (www.skybrary.aero/index.php/Main_Page) to oversee weather content in order to encourage meteorological exchange of information to enhance 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 advancement of education

The Society's mission has a wide remit that looks to support people's understanding, interest and enthusiasm in meteorology, whether they are research scientists, amateur meteorologists, practitioners 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, accrediting 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 both 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 resources provided by the Society, including the loan of instruments to schools, are made freely available to all schools. In addition, the Society is also freely providing an increasing number of Continuing Professional Development (CPD) opportunities for teachers who have come to teaching meteorology from a non-meteorological background. The educational focus during 2019 was in support of teachers and new resources to support the relatively new KS3, GCSE and A-Level specifications. More extensive materials have been made available on the Society's education website, MetLink (www.metlink.org), including tree ring data to investigate past weather and climate, Tropical Cyclone resources and 3D print sections of the Central England Temperature record. The Society continued to deliver a one-day training course on weather and climate for trainee geography teachers and ran the online course, 'Come Rain or Shine', which is primarily designed to meet the needs of secondary geography teachers. It is free and open to all.

The Society has an Education and Outreach Committee with representatives from organisations including the Institute of Physics, the Royal Geographical Society, the Met Office, the World Energy and Meteorology Council and the Geographical Association to ensure partnership and collaboration.

At higher-education levels, the Society awards financial support to enable students to broaden their studies of meteorological sciences. It also provides careers information and helps with the development of careers in meteorology through its work on National Occupational Standards in meteorology as part of the Regulated Qualifications Framework (RQF), which provides the structure for creating and accrediting qualifications. The Society is recognised in European and UK law as both the Competent Authority and the Regulatory Body for Meteorology in the UK, and offers independent recognition and regulation around training and professional development for meteorology and meteorologists. The Society's accreditation framework offers individuals a range of recognised vocational qualifications, professional registration and chartered status as well as related CPD opportunities.

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 that recognise high professional standards and competences, 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 seven world-leading scientific journals, which are made available free to developing countries through publishing aid programmes and to the World Meteorological Organisation's (WMO) Regional Training Centres. The Society also has a curation programme for a historical and culturally valuable archive of documentation on behalf of the UK. The Society runs a comprehensive meetings programme, which is open to all with an interest in weather and climate. This includes free public national and local 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. The Society offers remote participation at some of its National and Local Centre Meetings to make them more accessible to wider audiences. Grants and bursaries are awarded annually to encourage interaction between scientific groups both in the UK and internationally, and to allow attendance at meetings and conferences.

The Society's Special Interest Groups offer meetings 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 Science, Weather, Art and Music (WAM) and Meteorological Observing Systems.

The Society hosts an annual 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. The 2019 conference was held at the University of Birmingham attracting 60 students and young scientists.

The advancement of environmental protection or improvement

The Society is at the heart of the debate on climate change. 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 Climate Science Communication Group and the Climate Science Special Interest Group; the latter aims to sustain, encourage and progress activity in climate science and its relevance to society. The Society published four climate science briefing papers in 2019,

entitled 'Solar Variability', 'Attribution of Extreme Weather Events', 'Global Carbon Budgets' and 'How Climate Change is Affecting Sea Levels', as well as hosting two meetings on *Meeting a 1.5°C Global Temperature Goal* and *Minimising Climate Risks*.

The Society has several popular outreach activities that promote a public interest in the environment. Our Weather Watcher's 3-year log book is used by many people who wish to record and make notes on the weather. theWeather Club www.theWeatherClub.org.uk is the public outreach arm of the Society, engaging the general public on weather and climate, and provides a key framework for delivering greater public information, engagement and dialogue. The Society continues to work closely with BBC Weather as their academic partner and with the Royal Horticultural Society in communicating 'Gardening in a Changing Climate'. The Society's Weather Photographer of the Year competition runs annually and was sponsored by MeteoGroup in 2019.

The Society's website www.rmets.org has a wide range of information and content that is freely available to all with an interest in the Society, meteorology and climate science. 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

I thoroughly commend to you our Annual Report for 2019. It shows that the Royal Meteorological Society is active on many fronts and continues to develop as a modern organisation. I would highlight our ability to host over 50 meetings throughout the year reaching a wide variety of audiences, our contribution to the teaching of weather and climate, the raising awareness more generally, through the Weather Club, social media and the "Weather Photographer of the Year" competition, and the impressive growth in our publishing activities.

Following a review of the organisational structure of the Society, the Society's committee structure has been re-organised to better reflect our main activities and outputs. This appears to be settling in effectively and will better enable us to make strategic decisions on our priorities and to allocate resources most effectively.

As President it has been my privilege to meet so many people throughout the year at various meetings. I have particularly enjoyed speaking at several local centres on the topic of "Climate Science meets Policy" and engaging in some lively discussion on climate change. The Society has much to offer in helping wider society to understand the weather and how climate change will increasingly impact on our lives, particularly through extreme events. We have decided to add to our publishing portfolio by introducing a new on-line journal on climate during 2020.

There will be challenges, as well as opportunities, from climate change and other issues that will affect how the Society develops. We are already planning for how the growth in the open science, including open data and open access publishing, will impact the Society and our income. We are working to make more use of technology and social media for our communications and online participation in meetings, looking at improving the diversity of the Society and forging partnerships with organisations that can help us meet our goals.

All this would not be possible without the hard work of our headquarters staff and our many Members and Fellows who volunteer to make the Society a success. I would like to thank them on behalf of Council for their dedication.

We appreciate the continuing support and participation of all Members and Fellows of the Society. There are many opportunities to play a leading role and many have found this to be a very rewarding experience. So, I encourage people to think about what part they could play, to maintain the capability of the Society and help it to meet new opportunities and challenges.

David Warrilow OBE FRMetS

THE YEAR JANUARY TO DECEMBER 2019

A brief review of the highlights

Notable weather events of 2019 in the UK were the exceptionally mild February and the summer heatwave both leading to new UK temperature records. On the whole, 2019 was warmer, wetter and sunnier than average for the UK.

It was another busy year for the Society. In addition to delivering the 'business as usual' activities, the Society launched the new Fellowship scheme, developed and delivered a series of climate change communication seminars, started work on the Professional Accreditation, updated its Open Access strategy, completed an open tender for the new academic book series, reviewed draft curriculum for Wales, engaged with exam boards over quality of A level Geography papers, and launched a book endorsement programme.

Membership totals remained steady in 2019 with only a 0.3% decrease in membership (3,233 members) compared to 2018. The Society has agreed a series of initiatives for 2020 to maintain membership numbers and improve the retention rate. Membership development remains one of the strategic aims of the Society overseen by the Membership Development Board. The Society developed a new Fellowship scheme, which was launched in 2019. The new scheme is more inclusive, recognising vocational qualifications and long involvement in a variety of meteorological activities and related subjects, as well as formal academic qualifications. It seeks to reward anyone who makes substantial contributions to promoting meteorology as a science, profession or interest.

The Society is extremely grateful for the continued support from an active and engaged community of volunteers, with approx. 300 involved on the Society's committees or contributing in other ways. This important contribution from volunteers allows the Society to successfully achieve many of the activities highlighted in this annual report.

The Society's website www.rmets.org has a wide range of information and content that is freely available to all with an interest in the Society, meteorology and climate science. The website continues to grow with an average of 32,800 views/month from 19,000 users. We measure a range of metrics including bounce rate which help us improve the effectiveness of the website.

The Society continues to promote two accreditation schemes, Registered Meteorologist (RMet) and Chartered Meteorologist (CMet), as well as ACCSYS, the Society's online CPD and Application tool. Since its introduction in 2014, the use of ACCSYS has steadily increased with the number of records rising from 642 in 2014 to 11,984 in 2019. Users include those applying for and maintaining both RMet and CMet accreditation; it is also used by the wider membership as a means to support and encourage them to keep a detailed record of CPD activity for their own professional use. The important work of the Course Evaluation and Continuing Professional Development Panel continues to support the review of RMet and CMet CPD Reports. Another significant development is that the knowledge requirements for the Society's Accreditation schemes are now linked to the WMO 1083 specification for Training and Education.

Both members and non-members alike engage actively with the Society's full programme of National and Local Meetings. In total, the Society delivered 56 events during 2019 across the country, which is testimony to the support and enthusiasm of Society volunteers. The Society averaged 97 attendees at its National Wednesday Meetings during 2019. The Society also delivered four conferences. The Atmospheric Science Conference, hosted annually by the Society and the National Centre for Atmospheric Science, took place on 2nd-3rd July at The University of Birmingham and was attended by 180 delegates. The annual Student and Early Career Scientists Conference, also in Birmingham, from 4th-5th July, which had 60 attendees, followed this. The WeatherLive one-day conference 'On Cloud Nine' was held on Saturday 19th October at the Royal Statistical Society. This included presentations on naming clouds, cloud spotting from the Cloud Appreciation Society, using clouds to predict the weather and clouds in art. The conference was enjoyed by 55 delegates. The Society added a new one-day event to its conference programme in 2019 targeted at the climate science community. The first "RMetS Climate Change Forum" was held on 4th June

in London. The meeting was structured around parallel breakout group discussions on key climate science topics and impacts.

The Business Development role is one of the Society's strategic priority areas and does not operate in isolation, rather it seeks to support other areas in the Society through identifying areas for improvement and enhancement and moreover maximising sustainable income to deliver the Society's charitable activities. Working closely with current strategic partners and engaging with new partners continues to be a focus for the Society overseen by the Head of Partnerships.

This was another busy year for the Education and Outreach Committee, aided by the virtual committee of teachers and educational specialists, who support the work of the main committee. The Society built a dedicated section on MetLink www.metlink.org, for teachers in Scotland with a set of teaching resources tailored to the Scottish Curriculum. The Society also responded to the new draft curriculum for Wales, assessed the standard of weather and climate questions in past A level geography papers and raised concerns with exam boards, and delivered weather subject knowledge days to hundreds of teachers and trainee teachers in locations across England and N. Ireland. A series of short films were developed in 2019 and can be found on MetLink.

The Society ran the 'Weather Photographer of the Year' competition, which was sponsored by MeteoGroup. The competition received around 6,000 entries, narrowed down to a shortlist of the best images from which seven winners were chosen. The winners were announced at WeatherLive in October and were exhibited at the Royal Statistical Society.

theWeather Club, the public outreach arm of the Society, offers free online registration providing the general public with access to an interactive website www.theWeatherClub.org.uk with weather and climate features and news updates, information about events and meetings and a quarterly e-newsletter full of informative content, all produced in-house. New guest writers and topics were introduced in 2019.

Social media has continued to broaden the Society's outreach. Facebook followers increased by 18% to over 2,850 followers, we have 2,425 on Instagram and our Twitter followers now exceed 10,200 and increase of 10% from 2018. Top posts across our social media, which generated the most engaged, were from the Weather Photographer of the Year Competition. We continue to support StormHour weather photo competition, which seems to be growing on Twitter.

The Society published four climate science briefing papers in 2019. The Society has continued to produce podcasts throughout 2019 which can be found on our website and podcast page. The Society has continued to use Facebook Live for streaming some National and Local Centre meetings in 2019. The Society continues to be a popular resource for the press to interview at times of extreme weather events and in 2019 the Society was involved with over 150 press engagements.

The Society's scientific publishing is its single largest activity and is a vital contributor to the mission and well being of the organisation. This has continued to operate successfully with publishers Wiley. In 2019 the Society worked with Wiley to determine its long-term open access strategy. The Society looked at ways to strengthen its portfolio as a whole and carried out a gap analysis and market research around a new open access journal in climate science, which will be launched in 2020. Working closely with Wiley, the Society has focused heavily on ways to reduce all journal publication times. Enhancing author experience remains a key focus, and the Society has listened to author feedback with regards to user experience in the manuscript submission system, Scholar One. An article transfer option is now available between journals in case a manuscript is a better fit for an alternative Society publication. After consultation with Society members about our *Weather* journal in 2018, some exciting changes were rolled out in 2019 including expanding *Weather* News into a two-page feature and incorporating a new series of "Climate Change Shorts" and Insights.

The Society continues to be in a strong financial position. However, the next few years remain challenging with pressures on income from scientific publishing due to the move to an Open Access model. The Society will enter this period on a firm financial footing and the business plan and budget for 2020 includes Business and Membership Development activities, and continued, planned sustainable growth in the range of charitable activities using some of the surplus reported in 2019 accounts.

FINANCE

The Annual Accounts for the year ending 31 December 2019 are published separately from this Annual Report in line with the requirements of the Charity Commission. The Auditors' report is on page 1 to 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 at 31 December 2019 stand at £2,438,772 (2018: £1,942,361).

The operating surplus of the Society in 2019 was £412,169 (2018: £239,595), this is mainly due to increased publishing income and the receipt of a generous legacy. Investment gains of £84,242 (2018: loss £48,511) were recognised, this increase in the value of investments reflects the recovery in the FTSE All Share Index during 2019.

The Society's scientific publications continue to make up the largest part of our income, providing £903,925 (2018: £835,501). Non-subscription publishing income from institutions has again made an important contribution this rise in revenue, rising by 40% in 2019. Other publishing activities such as the calendar and books contributed £6,024 (2018: £10,481). The associated expenditure on publications was £147,725 (2018: £135,218).

The total Membership Subscription income including Gift Aid and Accreditation Fees continued to decline from £207,774 in 2018 to £194,670 in 2019, due to the fall in corporate membership and a small fall in individual membership, but also accreditation fees.

Staff costs were £573,168 (2018: £464,430), an increase of £108,738 over the previous year which again reflects the high level of staff maternity, and recruitment of the Head of Partnerships. During 2019 staff have continued to deliver the strategy and work on the direction for the future, additional resource has been put in place during the year to support our key activities relating to membership, partnerships, education, publishing and science engagement and it is hoped that the benefits of this investment will continue to be realised in 2020.

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