

# The 164<sup>th</sup> Annual Report of the Royal Meteorological Society for the period 1<sup>st</sup> January – 31<sup>st</sup> December 2017

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# Annex A: THE UK WEATHER OF 2017

## Review of UK Weather for 2017

The UK was warmer than average on the whole during 2017, with temperatures 0.7°C above the 1981-2010 long-term average, ranking as the fifth warmest year in the historical UK series since 1910.

The year began dry and settled. The start of January was cold and frosty, with some snowfall during the second week followed by a prolonged settled spell in the second half of the month. It then turned milder, cloudier and more changeable towards the end of January and into early February. Shortly into February it turned colder again, with some snow in the second week, whilst the second half of the month was generally mild. The 2016-2017 storm season was relatively quiet in terms of wind storms, with none occurring during January and early February. Storm Doris hit the UK on the 23<sup>rd</sup> February bringing snow and rain to the UK and wind gusts peaking at 94mph. The final storm of the winter period was Storm Ewan, which brought strong winds, snow and icy conditions to the UK, and especially Ireland, just a few days before the start of meteorological spring.

Overall, spring in the UK was warm, sunny and quite dry, especially during March and the first half of April. March was much sunnier and warmer than average across the UK – it was more than 2°C warmer in parts of East Anglia, South-East and Central Southern England, equalling the mildest March since records began in these parts. Early April was warmer than average too, although the second half was cooler, with some late overnight frosts and snow flurries across parts of the UK on the 26<sup>th</sup> April. It was also much drier than average for most areas as high pressure dominated for much of the month. However, a weather system brought heavy rainfall to parts of the country just in time for the May Day bank holiday weekend (28<sup>th</sup> April - 1<sup>st</sup> May). May was predominantly warm with a few short cooler spells mid-month, and a notable hot sunny interlude between 24<sup>th</sup>-26<sup>th</sup> May where temperatures reached the mid to high 20's (Celsius). This was followed by widespread thunderstorms on 27<sup>th</sup>-28<sup>th</sup> May. Overall, it was the second warmest May since 1910.

Summer was relatively wet; indeed it was the 9<sup>th</sup> wettest summer since 1910. It was also warmer than average. June began largely unsettled with significant rainfall across most parts of the UK. High pressure began to build after the 10<sup>th</sup> with exceptionally warm air being drawn up from the South and at least one area in the UK exceeding 30°C from 17<sup>th</sup>-21<sup>st</sup> June – the first time this has happened in June since 1995. The last few days of the month brought fresher conditions. Despite the hot, dry weather mid-month, June was among the wettest on record with 50% more rainfall on average for the whole of the UK. July was generally an unsettled month with occasional periods of fine and dry weather. It began cloudy, with rain and cooler-than-average temperatures, but was particularly warm and sunny on the 17<sup>th</sup>-18<sup>th</sup>, ending with a thundery breakdown. The end of June was wet and often cool with heavy and persistent rain at times - rainfall across the UK was above average, with parts of Central Southern and South-East England receiving twice the amount of rainfall for July. August began and ended much as July did, cool with cloud and rain, and only brief intervals of fine weather. There was a fleeting period of warmer weather from the 17<sup>th</sup>-23<sup>rd</sup> but overall it was a cool month, with temperatures 0.4°C below the long-term average and rainfall above normal for the UK overall.

Autumn 2017 was rather unsettled, with temperatures close to average. For the most part, September was duller, cooler and wetter than average, with higher temperatures towards the end of the month. It was also windy at times, notably during the passage of Storm Aileen - the first storm of the 2017-18 season on the 12<sup>th</sup> and 13<sup>th</sup> September. During October, most areas were rather dull, dry and mild, indeed, it was the equal 8<sup>th</sup> warmest October since 1910. However, lower temperatures, and the first frosts arrived at the end of the month. Above average rainfall affected parts of North and Western Scotland, North-Western England and Northern Ireland due to ex-hurricane Ophelia and Storm Brian. November was dry and bright for many, but slightly colder than average, mainly at the end of the month. There was a brief period of mild weather on the 20<sup>th</sup>-22<sup>nd</sup>, preceding a very wet episode in parts of North Wales and North-West England.

December was just above average in terms of temperature, interspersed with a few cold and frosty periods. Storm Caroline brought strong winds on the 7<sup>th</sup>, and a wintry spell brought widespread frosts and some snow for parts of the Midlands from the 8<sup>th</sup> to the 16<sup>th</sup>. It was generally mild in the run up to Christmas, after which there was further snow for some, particularly in the Northern half of the UK. The end of the year was increasingly unsettled, with Storm Dylan bringing further strong winds on the 30<sup>th</sup>-31<sup>st</sup>.

### UK Temperatures

The mean value was 9.6°C, which is 0.7°C above the 1981-2010 average.

### UK Precipitation

The total was 1,133 mm, which is 98% of the 1981-2010 average.

### UK Sunshine

The total was 1,403 hours, which is 102% of the 1981-2010 average.

### Regional Breakdown (data from the Met Office)

Relative to the average (1981-2010)	Mean Max (°C)	Mean Min (°C)	Rainfall (per cent)	Sunshine (per cent)
<i>UK</i>	13.1	6.0	98	102
<i>England</i>	14.2	6.7	99	103
<i>Wales</i>	13.2	6.6	102	96
<i>Scotland</i>	11.3	4.8	96	103
<i>Northern Ireland</i>	12.9	6.0	101	99

## Annex B: MEMBERSHIP

The Membership Development Group's (MDG) primary purpose was to consolidate and indeed increase membership numbers by approximately 20% over the 3 year period ending in 2017. The committee is represented by members from academic, professional, student and amateur backgrounds who oversee a programme of activities / initiatives to drive-up membership. The target came close to being met with a 15% increase by the end of 2017 compared to figures in 2014. It was decided that the MDG meetings should become part of the Society's 'business as usual' rather than a one off project to maintain momentum.

The group has been looking closely at the benefits of being a Society member and the following are just some of the key activities in 2017.

The MDG is chaired by the General Secretary and Dr Cat Muller is the Membership Development Project Manager.

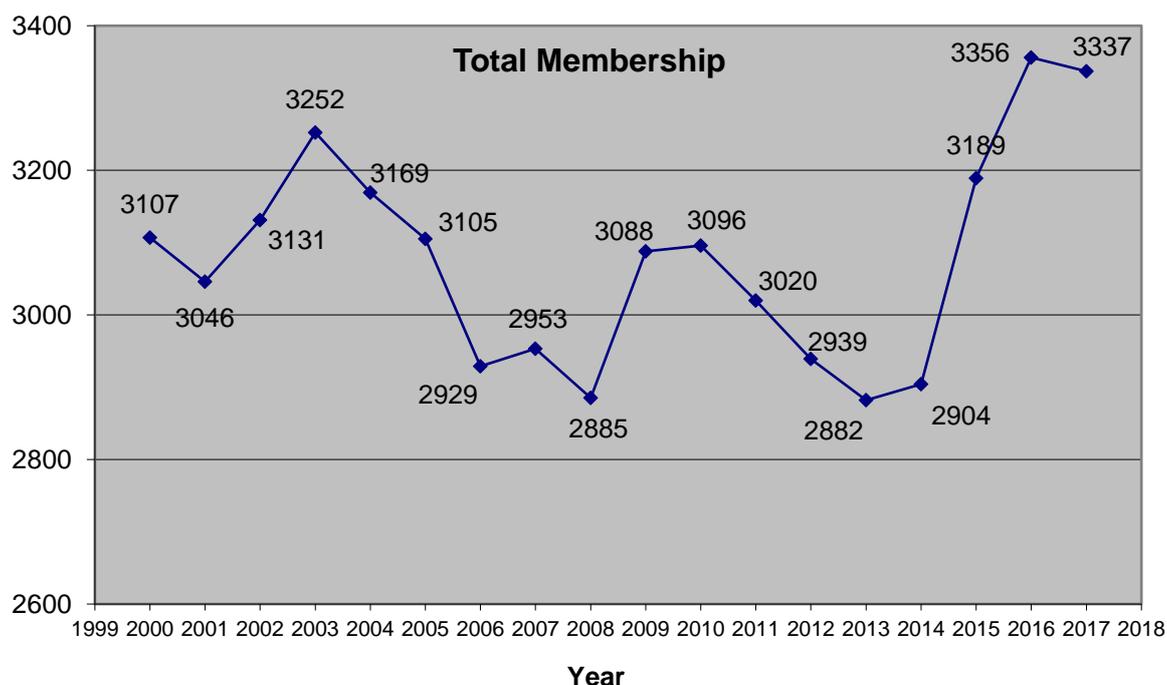
### Key Activities in 2017:

- **Membership Survey:** The Society members' survey is circulated every 3 years and provides an important opportunity to find out what our members value most and what can be improved and adapted in the future. Approximately 12% (400) of the membership base responded. Eight key messages came out of the survey results (membership benefits, communication, education and outreach, partnerships, support to the community, careers, events and publications) and were incorporated into the Society's Strategic Plan for 2018-2021. View the results of the membership survey [here](#).
- **Fellowship Review:** A review of the Society's Fellowship scheme was completed during 2017, details of which can be found under the Professional Accreditation section of this report.
- **Communication:** This remains an important activity for the Society, especially in a world where technology is advancing so quickly and social media dominates communication routes. The Society's Digital Project is utilising a range of multimedia that will assist with this. The Society is aiming to deliver a dynamic website in 2018, which links to current weather and climate issues in the news as well as Society activities and resources. The monthly membership newsletter is received by an average of 2,200 people; in addition the Society has 7,000 Twitter followers (an increase of 30% from last year), 300 on Instagram and 1,500 on Facebook, whilst Facebook Live is used to stream many of our national meetings and some of our local meetings.
- **Mentoring:** Following last year's successful pilot, a second mentoring phase has now been completed from which 7 mentoring pairs were set up. The scheme is now open throughout the year for any member to apply to. Further mentors and mentees will be sought as we try to expand this service.
- **Accreditation and CPD:** The Society defines the scope of its accreditation activity as recognising excellence in people, in organisations, and their Continuing Professional Development (CPD). The number of accredited members continues to increase, with 124 Registered Meteorologists (RMet) – a 30% increase on 2016 - and 67 Chartered Meteorologists (CMet). ACCSYS, the Society's online accreditation application and CPD tool, had a number of upgrades delivered in 2017 that aimed to simplify the process and the linking of CPD records.
- **Weather Photographer of the Year Competition:** In 2017 the Society partnered with the Royal Photographic Society to run a Weather Photographer of the Year competition. The competition proved popular again this year, with participants increasing from 800 in 2016 to over 2,000 in 2017 from more than 60 countries. A total of 48 photographs were short-listed and exhibited at events around the UK. The list of winners and their winning photographs can be found [here](#).
- **Partnerships:** The Society continues to foster important strategic partnerships with organisations across the meteorological community and beyond. Reciprocal agreements with related societies in the UK and overseas are currently being reviewed.
- **Student Ambassadors:** In 2017 the Society had 471 student members and the Student Ambassador programme, launched in 2015, has helped to increase student numbers over recent years. It offers free membership to ambassadors as an incentive and in return the individuals agree to share social media posts, distribute posters and leaflets, include content distributed to local mailing lists and encourage fellow students to join. The Society currently has 18 student ambassadors signed up.

The Society's membership is made up of amateurs (25%), practitioners (30%), academics (30%) and students (15%). The following table shows a breakdown in membership in each category over recent years.

Grade of Membership	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Honorary Fellow	20	20	20	20	20	26	29	30	29	27	30
Life Fellow	42	43	41	36	37	34	33	31	99	94	89
Fellow	1,795	1,747	1,704	1,672	1,662	1,633	1,586	1,586	1,513	1,518	1,510
Associate Fellow	852	788	997	1,086	1,009	914	952	974	1,104	1,217	1,223
Associate Fellow (student)	174	214	248	215	267	308	260	261	416	473	471
Corporate Member (including School Member prior to 2011)	70	73	78	67	25	24	22	22	28	27	14
<b>TOTAL</b>	<b>2,953</b>	<b>2,885</b>	<b>3,088</b>	<b>3,096</b>	<b>3,020</b>	<b>2,939</b>	<b>2,882</b>	<b>2,904</b>	<b>3,189</b>	<b>3,356</b>	<b>3,337</b>

In 2010 the Society abolished its 'Schools Membership' category, in order to make the education benefits freely available to all schools, not just members. These were counted under the 'Corporate Member' category, hence the decrease in this category and some impact on overall numbers from 2011. In 2016 the Society launched a new three-tier Corporate Membership structure aiming to forge stronger strategic partnerships with other organisations. The new structure led to a decrease in the number of Corporate Members in 2017 but an increase in income. The following graph shows how total membership of the Society has varied in recent years.



## Annex C: AWARDS AND PRIZES

The Society is delighted to have made the following Awards for the year 2017:

<b>Award</b>	<b>Recipient</b>
The Mason Gold Medal	Dr Graeme L. Stephens
The Buchan Prize	Prof John Methven
The Hugh Robert Mill Award	Dr Vikki Thompson
The L F Richardson Prize	Dr Annelize van Niekerk
The Fitzroy Prize	Dr Alec James Bennett
The Adrian Gill Prize	Prof Ian Renfrew
The Society's Outstanding Service Award	Mr George Meldrum
The Climate Science Communications Award	Dr Emily Shuckburgh
The Gordon Manley Weather Prize	Dr Peter Inness
Quarterly Journal Editor's Award	Mr Jack Hopkins, Mr Keith Grant, Ms Nadine Thompson
International Journal of Climatology Editor's Award (sponsored by Wiley-Blackwell)	Prof Edward Hanna
Atmospheric Science Letters Editor's Award	Mr Dillon Amaya
Meteorological Applications Editor's Award	Prof Chris Collier
Quarterly Journal Prize Reviewer's Certificate	Dr Richard Forbes, Dr Gregory Elsaesser, Dr Matthew Martin, Dr Charles Chemel

The Society also appointed the following new Honorary Fellows, the highest award of membership made by the Society, in recognition of their distinguished careers and long standing contribution to Meteorology:

- Prof Michael McIntyre
- Prof Phil Jones
- Prof Alan Thorpe

## Annex D: COMMITTEE UPDATES

### CLIMATE SCIENCE COMMUNICATIONS GROUP

The Climate Science Communications Group (CSCG) was established by Council in the autumn of 2011 to address an important and continuing need to more effectively communicate the science of climate change. The CSCG is co-chaired by Emily Shuckburgh and Peter Stott. 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 and enabling them to understand and engage with what is one of the most important global issues that we face. Continued strong interest in climate change prompted the formation of the Society's Climate Science Special Interest Group in 2016 which builds on the activities of the CSCG and is dedicated to furthering the understanding of climate change and effective responses amongst Society members, and the public.

This year the CSCG has continued to expand the range of topics covered by the Climate Science Briefing Papers. The published briefing papers are available [here](#). The group is also keen to ensure that the climate science communication activities of the Society are well aligned with related activities from other organisations. To this end, discussions have been held with organisations such as Carbon Brief as part of an on-going effort to make best use of Society resources in this area.

Two members of the committee are leading NERC funded projects in the new 'Engaging Environments' initiative. More information about these are in the Education and Outreach Committee report.

The CSCG has also supported the development of the Society's Climate Negotiations resource for schools, which again is more fully reported in the Education and Outreach Committee report.

### HOUSE COMMITTEE

The House Committee reviews and develops the key functions that underpin the general activities of the Society in order to achieve its strategic aims. The Committee, chaired by the General Secretary, normally meets before Council meetings.

#### Highlights from 2017:

- The Membership Development Group reported a small drop in the growth rate of new members. However, there was a 15% increase overall in the last 3 years and various initiatives were discussed to maintain momentum. The lapsed member telephone campaign completed each year will be reviewed by the group to ensure the Society is getting value for money.
- The Society's Strategic Plan 2018-2020 was developed between April and October in consultation with the Society's Committees, stakeholders and the Strategic Planning Group. The House Committee met on 6<sup>th</sup> October to review the final version including the financial plan and this was recommended and accepted at the October Council meeting.
- The Business Development function was set up by Council to maximise sustainable income streams and strengthen strategic partnerships. A review of the Business Development function was completed in November and December to answer some important questions about this initiative; the House Committee ensured transparency of the review process.
- House continued to monitor and scrutinise the Society's finances noting everything from the variability of forecast of income from Wiley to the cost of repair work on the Society's roof. The House Committee maintained its 'conservative' approach to any increase in fees for journals and members. In particular, the committee reviewed the Fellowship fees as directed by Council following the Fellowship review. Further work on this will be undertaken by a small sub-committee lead by Bob Riddaway.
- Monitoring Governance issues is also an important activity for House, and this year the establishment of a skills audit for Trustees was undertaken and an induction process for new Trustees has been implemented. An overall governance health check was also completed and it appears that the Society is in a good position. However it is crucial that changes in the outside environment, including data protection, charity law and employment law are monitored closely to ensure the Society remains compliant. The Society's risk register is one mechanism that ensures ongoing monitoring.
- The recommendations of the Salary and Remuneration Committee were reviewed, including a 2% pay rise for staff to be implemented in 2018. Health and safety issues continue to be carried out by professional experts with any major recommendations reported to House.
- House noted staff changes during the year and supported the Chief Executive's decision that Chloe Moore (a previous employee of the Society) be asked to take up the Head of Partnerships role at the Society until the Business Development review was complete and Council have considered the recommendations from the review.

## EDUCATION AND OUTREACH COMMITTEE

One of the core aims of the Society is to support the teaching of weather and climate across the UK and also to promote outreach to the public. The Society has two dedicated members of staff to deliver this important work; Dr Sylvia Knight and Dr Cat Muller. They have had another busy year, supported by a large number of volunteers from the Society's membership. The Education and Outreach Committee is co-chaired by Jenny Rourke and Felicity Liggins. The Committee has representatives from the Institute of Physics, the Royal Geographical Society and the Geographical Association to ensure collaboration. The Education and Outreach Committee is aided by the Virtual Committee of teachers and educational professionals who support the work of the main Committee.

### Highlights of Education Activities in 2017:

#### Taking our teacher training online

Delivering training in the teaching of weather and climate to Geography teachers across the UK has always been a core part of the work of the Society. In previous years this training has been delivered in person to trainee teachers at University. However, this model was no longer sustainable and since 2016, a new, innovative approach has been used in the form of an online 'FutureLearn' course called '[Come Rain or Shine](#)', delivered in partnership with the University of Reading. This course ran 3 times during 2017 attracting thousands of participants. Primarily designed to meet the needs of secondary geography teachers, it is free and open to all and will run again three times in 2018. Focussed on UK weather, the course explores the physical processes behind depressions and other weather systems with a mixture of text, videos and, crucially, practical activities. The Society also supported the development and first delivery of the Met Office's FutureLearn course, '[Learn about Weather](#)'. In addition to this work there have continued to be some in-person training sessions in 2017, with over 100 trainee geography teachers benefiting from training in the teaching of weather and climate.

#### Climate Negotiations

Another innovative and exciting activity was the development and launch of a new Climate Negotiations resource. This simulates a world climate change conference for 14-18 year olds, allowing the students to learn about the impacts of climate change and the politics involved. This resource was developed during 2017 with the Society working with climate scientists, teachers and a German theatre company. It is designed to be used by non-expert teachers in standard lessons. This exciting new venture for the Society has produced award winning, high quality materials which are now freely available on [MetLink](#).

#### MetLink

[MetLink](#), the Society's educational website, contains weather and climate resources aimed at primary and secondary school teachers. Weather is perceived to be one of the hardest subject areas to teach, therefore the resources are aimed at helping teachers deliver engaging, accurate and relevant weather lessons. The Society was delighted that their [past climate teaching resources](#), to support secondary geography teaching, was Highly Commended by the Geographical Association in April 2017. MetLink continues to attract well over 10,000 unique page views per month. There are now new sets of resources developed in 2017 to support OCR Geography GCSE, and KS3 Geography.

#### Other education activities

The Society reaches out to over 1,500 teachers with a half-termly email detailing a summary of relevant new resources, events and opportunities. The Society supported 34 schools in 2017 through our free Instrument Loan service, and was also represented at the European Meteorological Society 2017 Conference in Dublin, leading a session on education collaboration across Europe and also presenting the Society's recent work in Education and Outreach.

### Highlights of Outreach Activities in 2017:

#### theWeather Club (tWC)

theWeather Club newsletters continue to be published quarterly and are received by an average of 2,200 people, though there are over 5,000 signed up to the website – more than double the 2014 figures. The Society continued to develop and improve [www.theweatherclub.org.uk](http://www.theweatherclub.org.uk) throughout 2017, including introducing digital content as part of Society's Digital Strategy and content for the A to Z of weather series.

#### Social media and other online activities

The Society's website is currently being redesigned, however to move forward with the digital strategy, a series of short informative and educational videos and podcasts were produced in 2017. The Society's Twitter account now has 7,000 followers (an increase of 30% on last year), 300 on Instagram and 1,500 on Facebook. Twitter accounts, @RMetS\_tWC and @RMetS\_MetLink were set up in 2017. The Society trialled the use of Facebook Live for streaming some of its events in 2017. To celebrate World Meteorological Day on 23<sup>rd</sup> March, which had the theme 'Understanding Clouds', the Society ran a mini #CloudHour photo competition on Twitter with @StormHour, with the competition receiving more than 200 entries from around the world.

## Weather Craft Workshops at RHS gardens

The Society ran weather craft workshops at RHS Hyde Hall and Harlow Carr during February 2017 half term. Several Society volunteers helped to deliver three activities for families attending the RHS gardens, including making a weather chart, building a rainbow windsock and demonstrating how to build a DIY rain gauge. More than 11,000 people attended the events over half term, and the activities received lots of positive feedback.

## Weather Photographer of the Year 2017

More than 2,000 photographs were submitted to the 2017 competition (an increase from 800 in 2016) that were narrowed down to a shortlist of the 48 best images from which the seven winners were chosen. The exhibition tour started in 2017 in London and Liverpool and will continue into 2018.

## NERC-funded climate projects

The Society received funding from NERC as part of two project consortia in 2017 – the project will run into 2018, when the second stage of the funding call will be announced. The two projects are:

- a) *The Climate Communication Project* which aims to coordinate and enhance the significant existing expertise (and knowledge-base) in the UK on public engagement with climate change.
- b) *Climate Stories* which aims to trial 'up-skilling' 15 climate scientists to enable them to communicate their message or 'tell their climate story' using various artistic media.

## The Ladybird Expert Series – Climate Change

A Ladybird Expert book on Climate Change, co-authored by HRH The Prince of Wales, was published in January 2017. The book, co-written with Tony Juniper and Dr Emily Shuckburgh FRMetS, was one of three books in a new series of Ladybird Expert titles. At the request of the authors, the Society was approached to oversee the peer-review process, to certify the accuracy and robustness of the material presented in the book. It was the first time that a Ladybird book has been peer-reviewed.

## MEETINGS AND CONFERENCES

The Society continues to support a diverse and ambitious programme of local, national and international meetings. The continued success of these meetings is thanks to the voluntary contributions of organisers, speakers and members of the Meetings Committee, together with the tremendous efforts made by Society staff.

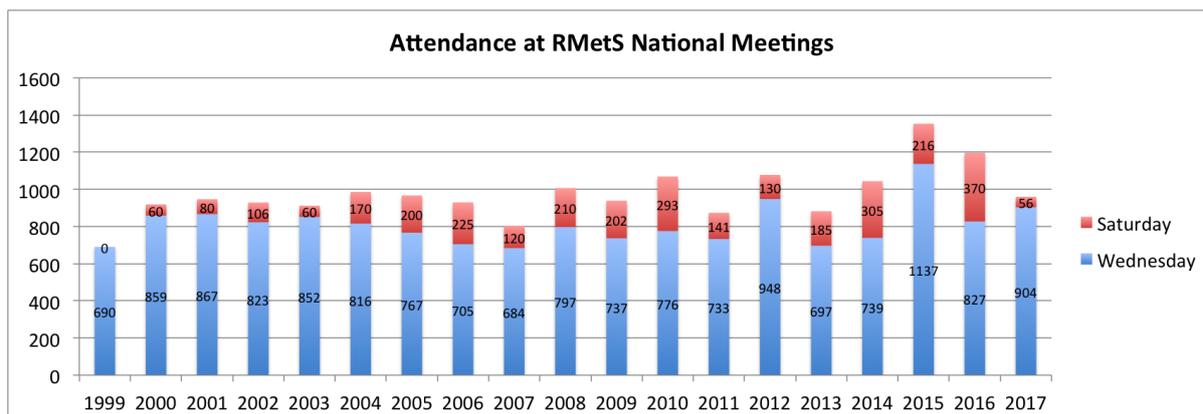
### National Meetings

National Meetings offer a varied and stimulating programme on a breadth of topics covering all aspects of weather and climate science, bringing together people from academic, professional and other backgrounds to discuss topics of current interest. During 2017, experience with the remote access facility has continued to grow to encourage access to meetings from a broad range of members. Some challenges have been faced in delivering satisfactory remote participation to Wednesday National Meetings owing to the Society's commitment to use different venues for meetings. The testing of Facebook Live has been undertaken to establish whether this is a reliable system that can be used consistently across different Wednesday National meeting venues in 2018. Owing to the generally low turnout early in the year, no meeting was held in January 2017. The following National Meetings were held in 2017:

<b>February</b>	<ul style="list-style-type: none"><li>• <a href="#">Avoiding Myth, Mayhem and Myopia: The Challenge of Climate Science Communication</a></li><li>• <a href="#">Understanding the Weather of 2016</a> (Saturday meeting)</li></ul>
<b>March</b>	<ul style="list-style-type: none"><li>• <a href="#">El Niño and La Niña: Climate Change or Business as Usual?</a></li><li>• <a href="#">Influential Voices in Meteorology and Climate: From Activists to Journalists and Leading Scientists</a></li></ul>
<b>April</b>	<ul style="list-style-type: none"><li>• <a href="#">Seasonal Forecasting for the UK and Europe</a></li></ul>
<b>May</b>	<ul style="list-style-type: none"><li>• <a href="#">The Power of the Written Word &amp; Annual General Meeting 2017</a></li></ul>
<b>June</b>	<ul style="list-style-type: none"><li>• <a href="#">Lasers in the Sky: A New Era in Cloud and Aerosol Detection</a></li></ul>
<b>September</b>	<ul style="list-style-type: none"><li>• <a href="#">Message Impossible? Communicating Weather Information in the Digital Age</a></li></ul>
<b>October</b>	<ul style="list-style-type: none"><li>• <a href="#">The Meltdown: Abrupt Climate Change since the Last Ice Age</a></li><li>• <a href="#">Air Pollution: Vehicle Emissions, the T-charge and Evidence-Based Policy</a></li></ul>
<b>November</b>	<ul style="list-style-type: none"><li>• <a href="#">Maritime Meteorology</a></li><li>• <a href="#">A Rainbow of Science and Art</a> (Saturday meeting)</li></ul>
<b>December</b>	<ul style="list-style-type: none"><li>• <a href="#">Earth, Wind and Fire: The Interaction of Ecosystems on Weather and Climate</a></li><li>• <a href="#">Dynamical Coupling throughout the Whole Terrestrial Atmosphere</a></li></ul>

While this is an impressive offering of topics, only two meetings in 2017 were Saturday meetings. This looks set to be improved upon in 2018 as three Saturday meetings are already scheduled.

National Meeting attendance as a function of year is plotted in the following graph. The high overall turnout for Wednesday meetings has been maintained. The relatively low numbers for Saturday meetings this year reflects the smaller number of meetings held; 27 people attended 'A Rainbow of Science and Art'.



The Society continues to actively seek partners to co-sponsor meetings. This year meetings were held in association with the Grantham Institute, Royal Astronomical Society, Tate Modern, Trinity House and The Challenger Society, All Party Parliamentary Climate Change Group, UCL Environmental Change Research Centre, IOP Environmental Physics Group, ECMWF, the Met Office and the University of Reading. The National Meetings were held in Reading, London and Exeter. The Society values feedback from attendees to ensure that the National Meetings continue to be attractive and of high quality; feedback continues to be obtained by emailing questionnaire links to those who have registered for a meeting. The feedback shows overall high levels of satisfaction with the National Meeting topics and the quality of the speakers and venues.

### Conferences and other events

The theme for the Society's main conference in 2017 was *'Weather and Climate Impacts: From research and services to application and policy'*. The conference was held from 13<sup>th</sup> -14<sup>th</sup> July at The University of Exeter and was attended by 152 delegates. This was preceded by the annual Student and Early Career Scientists Conference *'Impact of Science'*, held at the Met Office in Exeter from 11<sup>th</sup>-12<sup>th</sup> July; 75 people attended from 18 different universities and organisations across the UK, including 6 international delegates.

The amateur conference was replaced in 2017 by a one-day meeting entitled *WeatherLive*, held on Saturday 4<sup>th</sup> November at Central Hall Westminster, London. This included presentations by high profile speakers such as Michael Fish to mark the 30<sup>th</sup> anniversary of the 1987 Great Storm and was enjoyed by 51 delegates.

In addition to the Society's main conferences, contributions were made to two further anniversary conferences in 2017. For the 30<sup>th</sup> anniversary of the founding of the Australian Meteorological and Oceanographic Society, a conference was held in Melbourne from 22<sup>nd</sup>-23<sup>rd</sup> August where the President and Brian Golding both gave presentations. The 50<sup>th</sup> anniversary conference of the Canadian Meteorological and Oceanographic Society was held in June 2017 where the President gave a remote address.

The Society also contributed to a successful Climate Change Panel Discussion at the Royal Horticultural Society (RHS) Chatsworth Flower Show in June 2017 following the release of the RHS's 'Gardening in a Climate Changing' report. Following this success, a series of similar events are planned at other locations in 2018.

### Local Centres and Special Interest Groups

Society Local Centres continue to organise meeting programmes across the UK, providing opportunities for sharing common interests and enthusiasm on a wide range of topics. A total of 42 Local Centre meetings were held in 2017 with the Yorkshire, North East, Scottish and South East centres being particularly active. The Local Centres are commended for their vitality in providing members in regions across the UK with regular access to Society events.

The activity levels of the Special Interest Groups (SIG) remained variable in 2017. The Atmospheric Electricity SIG held 3 meetings, and the Meteorological Observing Systems and Data Assimilation groups held 1 meeting each. The Atmospheric Chemistry SIG has a meeting scheduled for March 2018. The status of the inactive SIGs will be reviewed in 2018.

### Meetings Committee Changes

Several changes in committee membership occurred during the year. Brian Golding stepped down as Chair and was succeeded by Amanda Maycock. Peter Clark stepped down and Sally Woodhouse replaced Naomi Smith as the student representative. The Committee has a regular turnover of membership and the Chair is eager to hear from anyone who would like to actively contribute to the organisation of the Society's vibrant meeting programme; for information on how to get involved or to register your interest, contact [meetings@rmetS.org](mailto:meetings@rmetS.org).

## PROFESSIONAL ACCREDITATION

### Continuing Professional Development (CPD)

The workload of the Course Evaluation and Continuing Professional Development Panel has remained high with 50 RMet CPD Reports submitted and approved using the recently tested and approved enhancements to the online ACCSYS tool. The new functionality in ACCSYS was also formally used for the first time to submit and subsequently review this year's 24 CMet CPD Reports. As shown below, ACCSYS now holds a large number of member CPD records and in addition to the reports generated for CMet and RMet submissions, is being used extensively to produce personal CPD reports to support evaluations and job applications.

Chartered Meteorologists	2010	2011	2012	2013	2014	2015	2016	2017
No of CMet applications received this year	1	11	3	6	1	5	5	6
No of CMet accreditations granted	2	9	0	7	1	3	3	4
No of CMets resigned/withdrawn	2	2	4	5	0	3	1	5
No CMet applications outstanding at year end	2	2	3	1	0	1	2	4
No of CMets on Dormancy Register					5	4	3	2
No of accredited CMets at year end	59	68	65	68	64	66	69	67
Chartered Meteorologist CPD	2010	2011	2012	2013	2014	2015	2016	2017
CPD – CMet								
No of CMet CPDs reviewed	16	37	17	34	23	30	35	24
No of CMet CPDs approved	15	37	16	34	23	30	35	23

Registered Meteorologists	2010	2011	2012	2013	2014	2015	2016	2017
No of RMet applications received this year					49	35	11	46
No of RMet accreditations granted					44	28	20	46
No RMet applications outstanding at year end					2	7	4	7
No of RMet on Dormancy Register							3	5
No of accredited RMets at year end					44	72	92	124
Registered Meteorologist CPD	2010	2011	2012	2013	2014	2015	2016	2017
CPD – RMet								
No of RMet CPDs reviewed								50
No of RMet CPDs approved								50

ACCSYS report	2010	2011	2012	2013	2014	2015	2016	2017
CPD Records					642	1,644	4,782	7,820
CPD Reports								321

FRMetS	2010	2011	2012	2013	2014	2015	2016	2017
Applications for FRMetS Public Use received	64	42	39	29	52	15	27	24
Applications for FRMetS approved	64	42	39	29	52	15	27	24
No of FRMetS at year end	482	524	562	583	616	619	646	670

The RMet scheme continues to grow with a net increase of 32 holders in 2017. While a very small number of RMet holders have withdrawn or are on the dormancy list, there were 39 successful RMet applications with a further 7 rolling over for assessment in 2018. The updated competence based assessment of CMet has been well received and while the net number of CMets has reduced slightly, the introduction of the new online application system has generated 6 new applications with 4 awaiting assessment early in 2018. Employers and employees alike are increasingly seeing RMet and CMet as valuable and desirable expressions of competence, integrating the schemes into development programmes and job specifications. Overall, there are currently 124 Registered Meteorologists and 67 Chartered Meteorologists.

### Vocational Qualifications Group

The primary purpose of the Vocational Qualifications Group (VQG) remains to support the Society's work to further the professional development of meteorologists, including hydrometeorologists, through developing and promoting the uptake of high quality, competency-based, vocational qualifications.

Included in the VQG's remit are overseeing the development and management of the Society's vocational qualifications and reviewing the performance of the Assessment Centres. The Society supports five qualifications provided by PAA/VQ-SET, an awarding organisation that is nationally recognised and regulated. These qualifications are recognised throughout the EU. Assessments for the vocational awards are based in the workplace and are undertaken by Assessment Centres located at the Met Office, Royal Navy Training Group and MeteoGroup. In 2017 the number of qualifications awarded is shown in the table.

	Royal Navy		Met Office	MeteoGroup
	Registered	Qualified		
Diploma in Meteorological Observing (Level 3)	17	21	0	0
Award in Meteorological Briefing (Level 5)	1	0	17	0
Diploma in Meteorological Forecasting (Level 5)	13	17	18	2
Diploma in Operational Hydrometeorology (Level 5)	0	0	0	0
Diploma in Operational Hydrometeorology and Flood Forecasting (Level 6)	0	0	3	0

### Fellowship Review

The Professional Accreditation Board completed a review of the Society's Fellowship and presented a series of recommendations to Council to ensure that the status and value of the scheme remains consistent with that of fellowships in similar societies and professional institutions.

The review surveyed a selection of societies and professional institutions to gain information about their requirements and processes associated with the award of fellowships; identified options for changes to the Society's requirements and processes associated with the award of fellowships; and clarified the relationship between the accreditation schemes and fellowships. In June, Council accepted the recommendations in principle and a Fellowship Working Group has been established to develop and present the necessary updates to the Society's By-Laws and Standing Orders. It is anticipated that the first of these changes will be presented to Council in February 2018 and if approved will be put forward to the AGM in May.

## SCIENTIFIC PUBLISHING

The Scientific Publishing Committee, chaired by Dr Anna Ghelli, oversees the Society's journal portfolio and serves as a mechanism to deliver and grow the circulation and use of the Society's journals and books.

In 2017, the new 'journals hub' was launched and now ensures a coherent feel across the Society journals increasing their visibility and supporting the branding. A new journal layout has been approved and this will guarantee efficiency gains in the production process, while hopefully reducing publication times.

The work to support journal editors commenced in 2016 further progressed in 2017, focusing on the clean up of Manuscript Central (a submission platform) to ensure that the contact details of reviewers and their areas of expertise are up to date. The Society and Wiley ran a webinar titled '*Peer Review and Publishing Ethics*', which was broadcast live in November to support scientists, particularly early career researchers, from institutions in India. The webinar received 290 pre-registrations, 92 live viewings and 220 viewings of the recorded session which is available [here](#). This is particularly important for the Society's portfolio of journals, as a considerable number of manuscripts are from authors in those areas.

We had a number of changes in the editorial boards:

- Rev Prof Ian James stepped down as Editor in Chief of Atmospheric Science Letters and his position has been taken over by both Dr Andrea Montani (ARPA, Italy) and Dr Becky Hemingway (MetOffice, UK). The two new Editors will start in 2018. *eoscience Data Journal* to be replaced by Dr Linden Ashcroft (BOM, Australia), who will take over in 2018.
- The Meteorological Applications Editorial Board has changed in order to redistribute the workload which was mainly on the Editor in Chief. Board members are now Associated Editors, making the editorial processes similar to those of the other journals in the Society's portfolio.

### Highlights from the Journals in 2017:

#### Quarterly Journal

The *Quarterly Journal* continues to maintain its position alongside the best meteorological journals in the world with a high impact factor of 3.444 and continued submissions of high quality papers. In 2017, 397 manuscripts were submitted, and 257 papers were published. The journal continues to provide an impressively quick turnaround with an average first decision within approximately two months of submission and rapid publication once the paper has been submitted. The Chief Editors, Prof Doug Parker and Prof Lesley Gray, are supported by 32 Associate Editors, drawn from the UK (14), Europe (10), USA (5), Australia (1), China (1) and India (1). The journal has hosted several Special Collections during the year, for which additional specialist Associate Editors are appointed, and several more Special Collections are currently in preparation. Prof Parker's 5-year term of office will be completed in April 2018 and we are pleased to announce that Prof Alan Blyth, Professor of Atmospheric Science at the University of Leeds, will take over this role.

#### International Journal of Climatology

*International Journal of Climatology* is the largest of the Society's journals. The number of submissions exceeded 1,000 for the first time in 2017. The rejection rate is close to 60%, with about 20% of submitted papers being rejected without review. The publication backlog was reduced considerably in 2017 by publishing a supplement, containing regular papers, that was only available online. The total number of published pages was 5,216 in 15 regular issues plus an additional 1,306 pages in the online supplement. However, the imbalance between the number of submitted and accepted papers and the page budget continues to exist. The average time from submission of a new manuscript to initial decision is about 50 days. The impact factor of this journal is 3.76, and its ranking in the Meteorology & Atmospheric Sciences domain is 15/85. The Editor in Chief for the journal is Dr Radan Huth.

#### Meteorological Applications

The Editor in Chief of *Meteorological Applications* is Dr Peter Burt. Four issues, all part of Volume 24, were published in 2017, totalling 642 pages. The impact factor of the journal increased during the reporting period and continues to remain high, at 1.411, in comparison to its immediate competitors. The Editorial Board are committed to further improving this performance through continuing to attract high quality submissions to the journal, as well as improving the quality of the final publication. This is being assisted through the transition of Editorial Board members to Associate Editors with individual paper-handling responsibilities, to work more closely with authors at all stages of the publication process. Plans to increase the size of the Editorial Board are also in hand.

#### Atmospheric Science Letters

The aim of *Atmospheric Science Letters (ASL)* continues to be the fast, online publication of short papers. The journal published 63 research papers in 2017, comprising 496 pages in 12 issues. A total of 130 research papers were submitted to the journal during 2017; the time from submission to publication is still a little slow, often because of the difficulty of finding reviewers. From January 2016, ASL changed from a subscription-based journal to an author-pays, open-access journal. This does not appear to have had an adverse impact on the submission of papers to the journal, but it has dramatically increased reader access to our papers. In 2017, there were 91,548 downloads of ASL papers. This compares with 44,208 downloads in 2015, the year before we became an open access journal.

The current editor, Rev Prof Ian James, will retire in early 2018, and he would like to record thanks to the Associate Editors and reviewers, as well as the staff at Wiley, who have ensured the continuing success of *ASL*.

## Weather

As the Society's membership journal, *Weather* is an important publication within the Society's portfolio, being an approachable source for amateur and professional meteorologists and climatologists alike. *Weather* covers all aspects of weather and climate-related science and publishes articles from authors in the UK and across the world, which reflect highly on its scope and standing.

In February, *Weather* published a special issue on lightning detection with guest editor Keri Nicoll and in July, a Student Conference special issue covered papers presented in 2016. In November, COP23 of the United Nations Framework Convention on Climate Change was marked by the publication of a special issue on climate change, commissioned and edited by David Warrilow OBE. We hope to include a wider range of climate science papers in future issues of *Weather*.

In May, the journal marked the publication of the new WMO *International Cloud Atlas* with a paper describing the new cloud variety asperitas. We published a total of 396 pages in 2017. The Editor in Chief of *Weather* is Jim Galvin.

## Wiley Interdisciplinary Reviews (WIREs) Climate Change

*WIREs Climate Change* is a review journal published by Wiley and affiliated with the Society and the Royal Geographical Society. Prof Mike Hulme continues as Editor in Chief, supported by a team of 15 Associate Editors. The journal has seen an increase in Impact Factor to 4.571 and was ranked 5<sup>th</sup> of the 105 journals in Environmental Studies and 7<sup>th</sup> out of 85 Meteorology and Atmospheric Sciences. The journal published 52 review articles, spanning climate change research and scholarship in the physical sciences, social sciences and humanities in 2017. *WIREs Climate Change* is known for its online Special Collections, many of which are resources for seminar classes and massive open online courses (MOOCs); they are often made available for free in advance of important academic meetings. *WIREs* curated two special collections in 2017 which were made freely available for the 4<sup>th</sup> International Conference on Earth System Modelling in Hamburg, and the European Society for Environmental History 2017 conference.

## Geoscience Data Journal

*Geoscience Data Journal* is an Open Access journal co-published jointly by Wiley and the Society. *GDJ* provides an important platform for the exposure of new datasets from the full range of solid and fluid geosciences. The journal allows researchers to meet the requirements and expectations of international funders and institutions with regards to open data and open science. Its impact factor is 2.8, placing the journal 30<sup>th</sup> out of 85 journals in the Meteorology and Atmospheric Sciences category and in 45<sup>th</sup> place out of 188 in the Multidisciplinary Geosciences. Wider exposure at international meetings and increased number of submissions is still the top priority for this journal. The 2017 volume has yet to be completed and we published 4 papers in issue 1. The Editor in Chief, Rob Allan, is stepping down from 2018 and is being replaced by Dr Linden Ashcroft from the Australian Bureau of Meteorology in Melbourne. The Journal continues to be supported by a team of 16 Associate Editors, however expanding the reach and number of the Editorial Board is a key element to the new Editor's strategy of developing *GDJ*.

## Submissions and Decisions (All Journals Combined)

Submissions and Decisions/Year	2010	2011	2012	2013	2014	2015	2016	2017
Number of Submissions	1102	1093	1233	1456	1527	1656	1693	1795
Number Reaching Final Decision	625	915	1159	1238	1371	1564	1649	1709
Number Accepted	344	571	648	679	715	824	873	853
Average Journal Rejection Rate (%)	45.0	37.6	44.3	35.2	47.8	47.3	38.0	47.5

## Impact Factors

Journal/Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Quarterly Journal	2.89	2.05	2.52	2.97	2.91	3.33	5.13	3.25	3.67	3.44
International Journal of Climatology	2.61	1.97	2.35	2.48	2.91	2.89	3.40	3.16	3.61	3.76
Meteorological Applications	0.59	0.58	1.47	1.40	1.41	1.32	1.53	1.34	1.27	1.411
Atmospheric Science Letters				1.43	1.93	1.75	1.88	1.52	1.57	1.504
Geoscience Data journal									1.56	2.8
Weather				0.58	1.11	1.54	1.04	0.64	1.26	0.96
WIREs					2.91	3.46	4.40	3.42	3.31	4.57

## STRATEGIC PROGRAMME BOARD

The Strategic Programme Board (SPB) usually meets at least twice a year; 2017 was no exception and the SPB met in May (jointly with the House Committee) and again in September. The Chair of the SPB is Steve Noyes, Vice-President of the Society.

The business of the SPB has again been 'business as usual' this year with scrutiny of strategic projects, and business development plans and projects.

To assist the SPB in its review of the strategic projects a new reporting format was agreed and implemented by the Society's staff. An extract of this table is shown below as it usefully provides a summary of the current live strategic projects. Below this table the strategic projects that were completed in 2017 are also shown.

**Table 1: Strategic Projects Running (from 2017 in to 2018)**

Climate Videos	A project to develop a set of animations and videos to support the Ladybird climate change book and the NCAS IPCC booklets for teachers, which will bring the material to life and make it available through new channels (such as YouTube). In turn, this should increase usage of the original resources, improve their impact and maximise the engagement of young people with the issues addressed.
Remote Participation at the Society's Local Centre & SIG Meetings	Local Centres and SIGs have talks on topics that are of interest to people that can't attend an event because of distance or timing. Remote participation delivers in a cost effective way that enables Local Centres and SIGs to deliver talks/lectures that a remote audience can view or interact with.
Climate Proxy Education Resource	This project is developing cross curricula Climate Proxy Teaching resources using an external developer for an online, interactive teaching resource. The project partner for this is Swansea University's Geography Department who have been collecting the data and UCAR, USA who will develop the interactive resource.
Digital Strategy 2 – Website Redesign	The website redesign is finally moving into the design and build stage and the new website should be launched in June 2018.
Digital Strategy 3 – Audience & Engagement	The Society continues to coordinate its content and messaging across its websites, social media and email channels.  The Jobs Board is up and running and there is an ongoing effort to reach out to people, institutions and companies who may want to advertise on it. Weekly targets of site visits, number of live jobs etc are reviewed. In October 2017 a charge for posting salaried job submissions was introduced. Visits to the Jobs Board increased from 500 to 1,600 per week.
Digital Strategy 4 – Content & Social Media	The Society has produced a number of promotional, informational and interview videos and aims to grow its YouTube audience. These videos have supported Society meetings, competitions and other activities by creating short video 'adverts' to be shared across social platforms. The Society is working with Peter Gibbs to produce a number of short informational videos about 'measuring the weather', and have recently launched a 15 minute video in association with the RHS about how to protect plants from frost. The Society has used Facebook Live to broadcast from several National Meetings over the last 12 months and will continue to use this functionality at future events. Videos from these events continue to be viewed and several have received hundreds of views. The Society released 5 episodes of its podcast, which are available to download from iTunes and other platforms, and is scheduling further episodes over the coming months.
A to Z Book	The aim of the project is to complete the A to Z series, collating the content into a book. The book would be pitched as a light, informative and humorous look at the weather from A to Z, with stunning imagery to illustrate the wonderful and sometimes dramatic side to the weather.

**Table 2: Strategic Projects Completed (in 2017)**

Climate Change Negotiations Schools Toolkit	The development of the climate negotiations resource for schools was finished in September 2017, since then activity has focussed on promoting the resource. Sylvia Knight attended trials of the resource in York and Northern Ireland and will also run a workshop on it at the Geographical Association's annual meeting in Sheffield in April 2018. The resource has been entered for the Geographical Association's Publishers' Award which should generate additional exposure. It has been very well received by teachers.
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Digital Strategy 1 – Strengthen and Unify the Society’s Brands	The updated Society logos and associate branding elements are being rolled out across all media. Members will have seen it in use across the Society’s sites and social media, on printed materials, banners at shows and in the videos being produced. The Society is phasing the rollout so that we can use up existing stock of printed materials, such as leaflets and booklets. Any new material that is needed to support an event or initiative will be consistently branded. The brand development work was completed by the end of 2016 with the roll out of new branded material during 2017.
ACCSYS 2	ACCSYS is the Society’s online CPD and accreditation application tool developed in 2014 alongside the launch of the Registered Meteorologist (RMet). With the relaunch of the Chartered Meteorologist (CMet) in 2016 there were some additional functions that needed to be added to ACCSYS to allow individuals to apply for CMet online. This additional work, plus some minor improvements identified since the launch of ACCSYS, led to the ‘ACCSYS 2’ project.
CRM Database and ongoing development	The Society replaced its membership database in 2015 with a CRM system. Although the system provides effective data management and workflow processes there have been some development activities required to improve the system. In 2016 an upgrade in the renewals templates and automated procedures where completed. Although some development activities were anticipated in 2017, the majority of work has been captured under the support contract reducing the development cost to the Society.

The SPB was very pleased to see the progress being made and the benefits these investments are bringing or have the potential to bring to the community.

The SPB also took another look at the Business Development activity and recommended to Council that this be the subject of a thorough review to assess how successful this has been, what lessons can be learnt and where the Society should be heading in order to align with the new Strategic Plan. This review was commissioned by Council and will report in 2018.

## **Annex E: REPORTS FROM OTHER REPRESENTATIVE BODIES**

### **Science Council**

The Science Council is a membership organisation for professional bodies and learned societies across science, bringing together a range of disciplines and sectors to reflect the multi-disciplinary practice of science in today’s society. The Science Council provides a voice on policy and ethical issues affecting the science community, fostering debate and the exchange of ideas across the network. It supports member organisations to be more effective in meeting the needs of the science community and attracting the next generation into fulfilling science careers. Over the last few years the Science Council has established the professional practice of science, independent of discipline and has introduced the CSci and RSci accreditation schemes. Sir Keith Burnett is the President of the Science Council.

### **General Aviation Safety Committee (GASCo) and UK Flight Safety**

#### **Committee (UKFSC)**

The Society attended five out of the six Safety Information Exchange meetings and, as in 2016, meteorology did not feature explicitly in any of the meetings, but came up indirectly in all.

In the January meeting it was reported that icing had caused a turboprop to suffer from degraded performance leading to loss of control (turboprops in general have less capabilities to de-ice when in flight than jet aircrafts). In the March meeting there was some discussion of go-arounds due to wind shear. It was reported that recently there had been about 30 go-arounds at Gatwick due to wind shear. It was also reported that if certain types of aircraft experience a reactive wind shear event then a go-around is mandatory.

Wake vortices came up at the September meeting – it was commented that there was particular concern about the effect of turbulence from helicopters on General Aviation aircraft. In the November meeting it was reported that a 737 had experienced a serious wake vortex encounter when following a 747-8. The latter is a new type and it may have been placed in the wrong wake vortex category.

A more troubling occurrence reported at the November meeting was disruption associated with the Saharan dust plume which was over the UK on 16th October 2017. Poor air quality caused by gaseous impurities was associated with the plume. These in turn gave rise to 32 “smoke and fume” events over the UK as reported to AAIB, at a range of heights between 2,000 feet and 20,000 feet. In a number of cases, aircraft diverted as they are required to do if it is believed that fumes are associated with an on-board fire. It was explained that the Met Office has a capability to predict poor air quality associated with long-range transport events and it was stated that dialogue was already ongoing between the Met Office and the CAA on this topic.

The Society also attended the AGM of the General Aviation Safety Council in July. Over recent years the free availability of data for GA from the Met Offices web site has improved greatly. Also, it was possible for the Met Office to determine retrospectively which products had been accessed most. It turns out that chart 215 (low level significant weather chart) was accessed rather less than chart 214 (low level winds) and TAFS and METARS. Some GA pilots find the chart 215 difficult to interpret – there is a lot of information and allowance has to be made for the movement of large scale weather systems. It was recommended that the same information be presented in a different format so that the rate of GA accidents due to the weather might be reduced.

## European Meteorological Society (EMS)

### EMS Membership and RMetS Representation

The European Meteorological Society (EMS) is now an Association of 37 Meteorological Societies from 30 European countries. In addition, EMS has 30 Associate Members made up of National Meteorological Services, international institutions, research and education institutions, and commercial companies. The Society has a permanent member on the EMS Council and Ewen McCallum is the Society's representative on the EMS Council.

The following meetings have taken place:

- 36<sup>th</sup> EMS Council in Paris on 16/17<sup>th</sup> March 2017.
- 37<sup>th</sup> EMS Council and 19<sup>th</sup> EMS General Assembly in Dublin on 3<sup>rd</sup> September 2017.

### Annual Meetings

The 17<sup>th</sup> EMS Annual Meeting: European Conference for Applied Meteorology and Climatology was held in Dublin from 4<sup>th</sup> to 8<sup>th</sup> September 2017. The theme was on "*Serving Society with better Weather and Climate Information*". There were 814 participants from 46 countries. As well as the conference presentations, there were workshops and side meetings which have now become a key component of these events. Future EMS Annual Meetings will be as follows.

- **2018 EMS Annual Meeting - European Conference for Applied Meteorology and Climatology.** The meeting will take place in Budapest, Hungary, from 3<sup>rd</sup> to 7<sup>th</sup> September 2018.
- **2019 EMS Annual Meeting - European Conference for Applied Meteorology and Climatology.** The meeting will take place in Copenhagen, Denmark, from 9<sup>th</sup> to 13<sup>th</sup> September 2019.
- **2020 EMS Annual Meeting - European Conference for Applied Meteorology and Climatology.** The meeting will take place in Bratislava, Slovakia, from 7<sup>th</sup> to 11<sup>th</sup> September 2017.

### EMS Silver Medal Award

Julia Slingo was selected to receive the EMS Silver Medal 2017 for her outstanding contributions to meteorology and climate predictions. She led the work that brought new understanding of monsoons and intraseasonal variability associated with the Madden-Julian Oscillation. As a strong advocate of seamless weather and climate prediction she was at the forefront of its development and implementation. Through her inspirational leadership she facilitated joining together strong relationships, frameworks and networks. She championed the importance of communicating the dangers of climate change to decision makers and the public.

### Other activities and developments

**EMS President.** The new President of the EMS, Bob Riddaway, took up office at the Dublin conference in September 2017.

**Conference TV.** InVision Communications, a global TV production company, has partnered with the EMS to produce the official broadcast for the EMS Annual Meeting 2017 in Dublin. InVision has covered some of the plenary sessions like the opening, the awards session and the plenary keynote presentations, and conducted numerous interviews with the new EMS President, the Poster Award Winner 2016, some of the winners of the Young Scientist Travel Awards to attend this meeting, and a number of other participants and presenters. More information can be found here [www.ems2017.eu/conference\\_tv.html](http://www.ems2017.eu/conference_tv.html).

## International Forum of Meteorological Society (IFMS)

### IFMS Membership and RMetS Representation

The International Forum of Meteorological Society (IFMS) is an organisation that aims to foster and encourage communication and exchange of knowledge, ideas and resources among the world's meteorological societies. It is an association of 36 meteorological societies or related organisations. The President of the IFMS is Dr Harinder Ahluwalia (CMOS, Canada).

Prof Liz Bentley is the Society's representative on the IFMS Council as Councillor for the WMO Region VI. The Council meets every month via teleconference.

## **IFMS General Assembly Meetings**

The 4th Global Meeting of IFMS (GM4), sponsored by the Canadian Meteorological and Oceanographic Society and the American Meteorological Society, took place in New Orleans on 13<sup>th</sup> and 14<sup>th</sup> January 2016 concurrently with the AMS Annual Meeting. The meeting was attended by representatives from National Meteorological Societies from all six continents.

The 5th IFMS General Assembly Meeting will be held in Budapest from 5th to 6th September 2018 and will be hosted by the Hungarian Meteorological Society (MMT).

## **Other activities and developments**

The IFMS is now recognised as an official incorporated entity after finalising its constitution, completing the incorporation process in the US, and setting up its own bank account during 2017. It is currently applying to be registered as a non-profit entity. Value proposition documentation has also been developed and meetings with the WMO to discuss potential collaboration are underway. The IFMS website has been updated and a regular newsletter will be produced and distributed early in 2018. The IFMS were represented at the InterMet Asia meeting and American Meteorological Society conference.

## **Annex F: REPORTS FROM LOCAL CENTRES**

The Society's Local Centres offer an extensive programme of events and meetings which are of great interest to Society members and the general public all around the country. The meeting details, speakers and dates are published in the meetings notices in *Weather* and are also available at: [www.rmets.org/events](http://www.rmets.org/events). The Society and its Local Centres offer grateful thanks to all their speakers, who have provided an interesting and varied programme, to the Society's staff for their support, and of course to all the regular and enthusiastic audiences for supporting the Local Centres.

### **East Anglia Centre**

#### **Committee Members:**

Chris Bell (Chair), Dr Steve Dorling (UEA Staff)

#### **Activities:**

The group did not hold any meetings in 2017.

### **East Midlands Centre**

#### **Committee Members:**

Roger Phillips

#### **Activities:**

Weather Front is now distributed via email to the Royal Meteorological Society and can be viewed under "Weather and Climate" then "Weather Front", and finally "Weather Front Archived Data". The publication contains a summary of 13 stations around the East Midlands together with some comments by the observers. There is also a historical summary of observations from Brocklesby Hall. This station was located on the eastern side of the Lincolnshire Wolds. The summary for this station aims to reflect the weather for the month 100 years ago. Supplementing these data is a shortened version of the Monthly Weather Report of the Meteorological Office for that month together with historical comments from current observers. Where possible data from British Rainfall and press comment is included. Seasonal Summaries are also produced. The publication is constantly under editorial review and additional, possibly more scientific, items may be introduced.

### **North East Centre**

#### **Committee Members:**

Dennis Wheeler, Ken Cook, Patricia Uttridge

#### **Activities:**

The North East centre hosted 9 meetings with an average attendance of 15. The Annual Gordon Manley Lecture for 2017 attracted 80 attendees. Titles of the meetings included:

- 10<sup>th</sup> February: [Weather in the Gothic Novel](#)  
*Prof Simon James (University of Durham)*
- 10<sup>th</sup> March: [A Lookback at the Weather of 2016 – A Personal Compilation](#)  
*John Goulding (RMS Fellow and observer)*
- 7<sup>th</sup> April: [Modelling the Climate of the Middle Earth](#)  
*Prof Dan Lunt (University of Bristol)*
- 12<sup>th</sup> May: [The Guiana Shield Rainforests - Guardians of South American Climate?](#)  
*Dr Isabella Bovolo (University of Durham)*

- 8<sup>th</sup> June: [Durham Weather and Climate Since 1850](#)  
*Prof Tim Burt (University of Durham)*
- 13<sup>th</sup> October: [Turbulence Ahead! How Climate Change Affect Air Travel](#)  
*Dr Paul Williams (University of Reading)*
- 10<sup>th</sup> November: [Lightning Risk in the UK](#)  
*Derek Elsom (Professor Emeritus, Oxford Brookes University)*
- 8<sup>th</sup> December: [Implications of Variation in Weather on Business Decisions Relating to Gas Distribution](#)  
*Dr Shirley Coleman (University of Newcastle upon Tyne)*

The Gordon Manley Lecture was held on 23<sup>rd</sup> November and was presented by Dr Michael Kendon (UK Met Office). The talk was entitled '[Looking Back 70 Years to the UK's Winter of 1947: Was it Really so Severe?](#)'

## **North West Centre**

### **Committee members:**

Chris Dearden (Chair), Hugo Ricketts, Bogdan Antonescu, Emma Simpson, Eoghan Derbyshire

### **Activities:**

The North West centre hosted 5 meetings with an average attendance of 25-35. Thanks to funding support from Society, this year the North West centre has begun recording a new series of podcast episodes, under the title '[The Barometer Podcast](#)'. Titles of the meetings included:

- 7<sup>th</sup> February: [Thunder On The Mountain: The Blues, Folk Music and Weather](#)  
*Dr Chris Dearden (University of Manchester)*
- 28<sup>th</sup> March: [Properties and Impacts of Biomass Burning Aerosol Over the Amazon Region](#)  
*Prof Hugh Coe (University of Manchester)*
- 6<sup>th</sup> June: [Alfred Wegener and the Beginnings of Tornado Research in Europe](#)  
*Dr Bogdan Antonescu and Dr Hugo Ricketts (University of Manchester)*
- 3<sup>rd</sup> October: [Weird Water Waves - Meteorological Tsunamis](#)  
*David Williams (University of Liverpool)*
- 5<sup>th</sup> December: [The Detection of Lightning from Space](#)  
*Dr Lorenzo Labrador (Met Office)*

## **Scottish Centre**

### **Committee Members:**

Dr V Ingram (Chair), Mr C J Brown, Ms P Draper, Dr R L H Essery, Prof. D Fowler, Mr G Johnston, Dr S Mackie, Mr A G McDonald, Ms A McLure, Mr G G Meldrum, Mr G A Monk, Ms M G Roy, Mr H R Shorter, Dr J A Smith, Mr D Steele, Prof. D Stevenson, Mr M J B Rogerson (Treasurer) and Mr R C Tabony (Secretary)

### **Activities:**

The Scottish centre hosted 9 meetings with an average attendance of 29. Titles of the meetings included:

- 13<sup>th</sup> January: [From Car to Coronary: How Particles in Air Pollution can Damage the Heart and Blood Vessels](#)  
*Dr Mark Miller (University of Edinburgh and BHF Centre for Cardiovascular Science)*
- 17<sup>th</sup> February: [Weather sensitivity analysis and its application in the water industry](#)  
*Katie Chowienczyk (Met Office)*
- 17<sup>th</sup> February: [Case Study on Accuracy and Bias Correction of ECMWF Forecasts in Ireland](#)  
*Jack McDonnell (Maynooth University)*
- 21<sup>st</sup> March: [Forecasting Storm Frank](#)  
*John Mitchell (Met Office) and Louise Parry (SEPA)*
- April: Forecasting at BBC Scotland  
*Kawser Quamer (BBC)*
- 6<sup>th</sup> September: [Climate in Reading and Inverness](#)  
*Dr Roger Brugge (University of Reading)*
- 10<sup>th</sup> October: [Atmospheric Aerosols and their Effect on Regional Climate: A Journey Around the World](#)  
*Prof Ellie Highwood (University of Reading)*
- 8<sup>th</sup> November: [Hydrology in Scotland: Past, Present and Future](#)  
*Richard Brown (SEPA)*
- November: Cloudy with a chance of pain.  
*Prof Will Dixon (University of Manchester)*

- 12<sup>th</sup> December: [Weather and Photography](#)  
*Stephen Burt (University of Reading)*

## **South East Centre**

### **Committee Members:**

Ross Reynolds (Chair), Laura Baker, Ross Herbert, Josh Talib, Robert Thompson

### **Activities:**

The South East centre hosted 7 meetings, including one at Reigate Grammar School. The average attendance was 30 to 40. Titles of the meetings included:

- 11<sup>th</sup> January: [From Local to Global: The Weather of 2016](#)  
*Ross Reynolds (Chair of RMetS SE Local Centre)*
- 9<sup>th</sup> March: [Climate Change: The Burning Issue of our Generation. Breaking the Barriers to a Low Carbon World](#)  
*George Chadwick (George Bentley Associates), Professor Terry Callaghan (Patron Wicked Weather Watch), Sammie Buzzard (University of Reading), Dr Timothy Lane (Liverpool John Moores University)*
- 5<sup>th</sup> April: [Meteorology Within Airport Operations](#)  
*James Shapland (Heathrow Met Office Operations Manager)*
- 7<sup>th</sup> June: [Surface Air Temperature Variations and Lapse Rates from a Novel Meteorological Sensor Network on Olivares Basin, Central Chile](#)  
*Edward Hanna (University of Lincoln)*
- 4<sup>th</sup> October: [Microscale Wind Forecasting in the Mid-Atlantic: Lessons from the Americas Cup in Bermuda](#)  
*Jessica Sweeney (LandRover BAR Portsmouth)*
- 1<sup>st</sup> November: [Department of Meteorology Current PhD Students Annual Prize Winners](#)  
*Jonathan Beverley, Elizabeth Cooper, Tom Eldridge, Christoph Kent*
- 13<sup>th</sup> December: [Space Climate](#)  
*Prof Mathew Owens (University of Reading)*

## **Welsh Centre**

### **Committee Members**

Dr Patrick Timko (Chair), Cdr Nicholas Rodgers (Vice-Chair), Dr Yunqing Xuan (Treasurer), Dr Michaela Bray (Secretary), Thomas Green (Cardiff University)

### **Activities:**

The Welsh centre hosted 1 meeting at which the attendance was 15. The title of the meeting was:

- 26<sup>th</sup> October: [Getting Up Close and Personal with Personal Weather Stations](#)  
*Thomas Green (Cardiff University)*

### **Other activities:**

The centre helped the Gwent Mountaineering Club to find a speaker (Geoff Monk) to discuss mountain weather, and look forward to developing future meetings and activities with the Gwent Mountaineering Club and other groups within Wales.

## **South West Centre**

### **Committee Members:**

Dick Bateman (Chair)

### **Activities:**

In 2017 Bath Royal Literary and Scientific Institution (BRLSI) became the Royal Meteorological Society's South West Local Centre, with the aim of hosting two or three meteorological lectures per year. Titles of the meetings included:

- 22<sup>nd</sup> February: [Atmospheric Art and the Volcanic Skies of Constable and Turner](#)  
*Professor John Thornes (University of Birmingham)*
- 22<sup>nd</sup> June: [Extreme Weather: What is it? Why does it matter? What can we do about it?](#)  
*Professor Brian Golding OBE (Met Office)*

Jane Sparrow and Dick Bateman from BRLSI would like to thank Marcia Spencer of the Royal Meteorological Society for her sterling work in helping launch them as the South West Centre, which is proving to be a very popular addition to BRLSI's wide variety of events.

## **West Midlands**

### **Committee Members:**

Dr Ian D Phillips (Chair)

### **Activities:**

The West Midlands centre hosted 1 meeting at which the attendance was 20. A meeting was scheduled for February but had to be cancelled at late notice, with the speaker saying that his topic (The Effect of Convective Storms on Aeroplanes) was commercially sensitive. The title of the meeting was:

- 23<sup>rd</sup> March: [What is Happening in the North Atlantic Ocean? An Ocean Perspective](#)  
*Dr Neil Wells (Southampton Oceanography Centre)*

## **Yorkshire Centre**

### **Committee Members:**

Dr Dorian Speakman (Chair), John Goulding (Secretary), Dr Victoria Smith (Treasurer), Dr Jim McQuaid (e-media/publicity/ICAS representative), Dr Lindsay Bennett, Dave Cherry, Oliver Halliday, Kamalika Sengupta, Beth Woodhams, Emily Cooke

### **Activities:**

The Yorkshire centre hosted 10 meetings at which the average attendance was 39. The titles of the meetings were:

- 18<sup>th</sup> January: [Measuring Meteorology in West Africa at 200mph \(in an aircraft\)](#)  
*Dr Phil Rosenberg (University of Leeds)*
- 7<sup>th</sup> February: [Risk Decisions in the Insurance Industry](#)  
*Dominic Sindall (Willis Towers Watson)*
- 22<sup>nd</sup> March: [UK Air Pollution and the Challenges Ahead](#)  
*Dr Paul Manktelow (Principal Consultant at Arcadis)*
- 19<sup>th</sup> April: [PhD Research Showcase Evening](#)  
*Leighton Regayre, Louise Beveridge, Oliver Halliday*
- 23<sup>rd</sup> May: [The Indian Monsoon](#)  
*Prof Doug Parker (University of Leeds)*
- 6<sup>th</sup> June: [How Climate Change Affects Air Travel](#)  
*Prof Paul Williams (University of Reading)*
- 27<sup>th</sup> September: [60 Years of Climate and Weather in Upper Teesdale](#)  
*Ken Cook (Met Office Observer, Copley, Co Durham)*
- 16<sup>th</sup> October: [The Great Storm 1987](#)  
*Peter Gibbs (Former Met Office and BBC Forecaster)*
- 1<sup>st</sup> November: [Fine Scale Analysis of Hailstorms in Yorkshire](#)  
*Matt Clark (Met Office)*
- 12<sup>th</sup> December: [Christmas Photo Competition and Weather of 2017](#)  
*John Goulding (Yorkshire Local Centre), Keeley Donovan (BBC Weather Presenter)*

### **Other activities:**

The 2017 Christmas Event included a photographic competition, which included the categories 'Best in Yorkshire' and 'Best Outside Yorkshire'; there were 58 entries (up to 2 entries per entrant).

## **Annex G: REPORTS FROM SPECIAL INTEREST GROUPS**

The Special Interest Groups (SIGs) of the Society are informal groups interested in specific areas of meteorology. The groups are primarily a means of bringing together those with a specialised interest that cannot be explored fully by the general Society meetings.

### **Atmospheric Chemistry**

#### **Committee Members:**

Dr Paul Young and Dr Rami Alfarra (Co-Chairs). Ryan Hossaini and Ruth Purvis (incoming co-chairs)

#### **Activities:**

No meetings were held in 2017.

## **Atmospheric Electricity**

### **Committee Members:**

Giles Harrison (Chair), Martin Fullekrug, Karen Aplin (Treasurer), Alec Bennett, Keri Nicoll

### **Activities:**

The group held 3 meetings with an average attendance of 33. The titles of the meetings were:

- 31<sup>st</sup> March: [Energetic Particle Effects in the Lower Atmosphere](#) (*Met Office*)
- 26<sup>th</sup> May: [Atmospheric Electricity at Durham](#) (*Durham University*)
- 10<sup>th</sup> November: [Wilson Meeting \(2017\)](#) (*University of Bath*)

## **Aviation Meteorology**

### **Committee Members:**

Jacob Kollegger (Chair), Bob Lunnon (Secretary)

### **Activities:**

No meetings were held in 2017.

### **Other activities:**

SKYbrary.aero's Meteo section was revised by the group, and newsletters have been posted on the Aviation Meteorology page of the Society website.

## **Climate Science**

### **Committee Members:**

David Warrilow OBE (Chair), Nigel Arnell, Richard Betts, Tom Burke, Peter Gibbs, Joanna Haigh, David Hone, Jo House, John Mitchell, Liz Parkes, Emily Shuckburgh, Stephen Smith, Richard Walker

### **Activities:**

The Ladybird Book '[Climate Change](#)' was published in January 2017. There was a National Meeting on 15<sup>th</sup> February titled '[Avoiding Myth, Mayhem and Myopia: The Challenge of Climate Science Communication](#)', and a special issue of *Weather* on Climate Change was published in November. The committee had two meetings in 2017, with an average of 10 committee members attending; the membership increased by 3 more people by the 4<sup>th</sup> meeting (CSSIG4).

## **Data Assimilation**

### **Committee Members:**

Peter Jan van Leeuwen (Chair), Cristina Charlton-Perez (Secretary), Stefano Ciavatta, Keith Haines, Bruce Ingleby, Matthew Martin, Mike Fisher

### **Activities:**

The group hosted 1 meeting at which the attendance was 30:

- 21<sup>st</sup> March: [Ocean and Coupled Ocean-Atmosphere Data Assimilation](#) (*Met Office*)

Presentations were given on global ocean data assimilation developments, shelf-seas data assimilation in both physical and biogeochemical systems, and progress in coupled ocean-atmosphere data assimilation. The speakers were from ECMWF, the University of Reading, Plymouth Marine Laboratory and the Met Office.

## **History of Meteorology and Physical Oceanography**

2017 was another year of rather less activity than usual for the group, who are still trying to establish the ongoing direction following the death of Malcolm Walker in 2015. One newsletter was published during the year, in June. The structure of the Steering Committee is still evolving, with a number of Corresponding Members being sought. Hannah Barrett and Brian Booth both stood down from the Steering Committee during the year.

### **Members of the Steering Committee at the end of 2017:**

Chair:	Norman Lynagh
Treasurer:	Mick Wood
Secretary:	Julian Mayes
Members:	Catharine Bailey, Margaret Deacon, Chris Folland, John Gould, Richard Griffith, Howard Oliver, Sarah Pankiewicz, Catherine Ross, Peter Rowntree, Andrew Russ-Turner, Dennis Wheeler
Corresponding Members:	Rob Allan, Brian Booth

Additionally, initial discussions have been held with the Curator of Earth Sciences at the Science Museum with a view to assisting with the identification and cataloguing of some 800 historical meteorological instruments which they acquired from the Met Office without any accompanying paperwork.

### **Group Membership:**

At the end of the year, 90 individuals were listed as being members of the group; this is one fewer than a year ago.

### **Meteorological Observing Systems**

#### **Committee Members:**

Steve Colwell (Chair), Mark Dutton (Newsletter Editor), Mike Brettle (Treasurer), Joelle Buxmann (Secretary – stepped down in October), Ian Strangeways, Keri Nicoll, Stephen Burt, Mark Wilkinson, Dave Bullock, Simon Bell

#### **Activities:**

The group held 2 meetings as well as an AGM, with an average attendance of 40. The titles of the meetings were:

- 21<sup>st</sup> June: [Lasers in the sky: A new era in cloud and aerosol detection](#) (University of Reading)
- 19<sup>th</sup> October: [Doing More for Less: Low-Cost Sensors in Meteorology](#) (University of Birmingham)

#### **Other Activities:**

The [SWITCH competition](#) has been initiated by the SIG. There was a summer visit and AGM at Cranfield to see the FAAM aircraft on the 7<sup>th</sup> June, and two newsletters were produced.

### **Physical Processes Group**

Nothing to report.

### **Satellite Meteorology and Oceanography**

Nothing to report.

### **Weather, Art and Music (WAM)**

#### **Committee Members:**

Pierrette Thomet, (Chair), Peter Stott, (Secretary), John Thornes, (Treasurer), Liz Bentley, Paul Hardaker, Janet Barlow, Giles Harrison, Charlie Hooker, Holger Zschenderlein, Karen Aplin, Paul Williams, Ingrid Jensen, Gavin Pretor-Pinney, Ewan Woodley, Ewen McCallum, Barry Gromett

#### **Activities:**

The WAM SIG was delighted to be able to work with the Tate Britain again, to host a Saturday meeting on 18<sup>th</sup> November entitled '[A Rainbow of Science and Art](#)'. Under the leadership of Prof John Thornes the meeting offered an innovative programme of speakers drawn from the worlds of meteorology, poetry, physics and art to explore the physical reality, representation and experience of rainbows in the past and the present. Other activities centred around the participation in a NERC call for submissions under the Engaging Environments initiative.

Entitled '[Climate Stories](#)', the successful proposal was elaborated under the leadership of Peter Stott (SIG secretary and Professor of Detection and Attribution at the University of Exeter) and Pierrette Thomet (SIG Chair). This brought a number of arts practitioners and partners together, including RMetS, the University of Exeter, the Institute of Physics, Double Elephant Print Workshop, the Met Office and UCL.

### **Dynamical Problems**

Nothing to report.

### **Weather Service Providers**

Nothing to report.

### **Association of British Climatologists**

Nothing to report.

### **Weather Forecasting**

Nothing to report.

## **Annex H: COUNCIL AND COMMITTEES**

### **MEMBERSHIP OF COUNCIL (TRUSTEES OF THE SOCIETY)**

#### **Patron: HRH The Prince of Wales, HonFRMetS**

From 1<sup>st</sup> January to 30<sup>th</sup> September 2017 the constitution of the Council was as recorded in the Annual Report for 2016.

On 1<sup>st</sup> October 2017 the following Council held office:

#### **PRESIDENT**

Ellie Highwood, PhD, FRMetS

#### **VICE-PRESIDENTS**

David Warrilow OBE, FRMetS  
Capt Derek Swannick, FRMetS  
Steve Noyes, FRMetS (also Chair, Strategic Programme Board)

#### **VICE-PRESIDENT FOR SCOTLAND**

Vicky Ingram, PhD

#### **GENERAL SECRETARY**

Ewen McCallum, FRMetS, CMet (also Chair, House Committee)

#### **TREASURER**

Alan Radford

#### **COMMITTEE CHAIRS**

Amanda Maycock, PhD (Meetings Committee)  
Jenny Rourke, PhD, FRMetS, CMet (Education and Outreach Committee)  
Peter Stott PhD (Climate Science Communications Group)  
Will Lang PhD, FRMetS, CMet (Professional Accreditation Board)  
Anna Ghelli, PhD, FRMetS (Scientific Publishing Committee)

#### **ORDINARY MEMBERS OF COUNCIL**

Lindsay Bennett, FRMetS  
Roger Brugge, PhD, FRMetS  
Aisling Creevey, FRMetS, RMet  
Helen Roberts, FRMetS, RMet  
Will Owen, FRMetS

## MEMBERSHIP OF COMMITTEES OF COUNCIL

The Committees listed below are the standing Committees of the Society as at 31<sup>st</sup> December 2017. Membership of other sub-committees, working groups and similar *ad hoc* bodies are not detailed.

### Accreditation Board

Will Lang (Chair)  
Alec Bennett, Paul Davies, Andrew Eccleston,  
Alan Hisscott, Pete Inness, Gordon Jones,  
Derek Swannick, Julian Mayes, Ross Reynolds,  
Bob Riddaway, Keith Thomson.

### Awards

Ellie Highwood (President and Chair), Peter Burt (Editor, Meteorological Applications), Jim Galvin (Editor of Weather), Lesley Gray (co-Editor, Quarterly Journal), Jo Haigh, Joel Hirschi, Radan Huth (Editor, International Journal of Climatology), Ian N James (Editor, Atmospheric Science Letters), Martin Miller, Doug Parker (co-Editor, Quarterly Journal), Bob Riddaway (Book Programme Editor), Glenn Shutts, David Warrilow OBE (Vice-President).

### Climate Science Communications Group

Emily Shuckburgh (Co-Chair), Peter Stott (Co-Chair), Michelle Cain, Piers Forster, Pierre Friedlingsten, Alyssa Gilbert, Ed Hawkins, Candice Howarth, Dan Jones, John Mitchell, Tim Palmer, Adam Scaife, Ian Strangeways, David Warrilow OBE.

### Course Evaluation and Continuous Professional Development Panel

Andrew Eccleston (Chair), James Dent, Paul Gundersen, Peter Jonas, Norman Lynagh, Paul Monger, Keith Thomson, Penny Tranter, Rebecca Venton, Michael de Villiers.

### Education and Outreach

Felicity Liggins (Co-Chair), Jenny Rourke (Co-Chair), Lindsay Bennett, Steve Brace (Representative of the Royal Geographical Society), Andrew Charlton-Perez, Simon Foster, Jessica Gardner, Peter Gibbs, Geoff Jenkins, John Lyon, Ellen Phillips, James Rae, Paula Richardson (Representative of the Geographical Association), Karl Shepherdson.

### House

Ewen McCallum (Chair), Anna Ghelli (Chair of Scientific Publishing Committee), Alan Radford (Treasurer), Derek Swannick (Vice-President).

### Meetings

Amanda Maycock (Chair)  
Karen Aplin, Natalie Harvey, Edmund Henley, Matt Hugo, Simon Levey, Mark Rodwell, Andrew Russell, Sally Woodhouse (Student Representative).  
Representatives of Special Interest Groups and Local Centres are also invited to attend.

### Membership Development Group

Ewen McCallum (Chair), Daniel Brener, Sarah Dennis, Richard Griffiths, Baden Hall, Kaja Milczewska.

### Scientific Publishing

Anna Ghelli (Chair)  
Peter Burt (Editor, Meteorological Applications), Ian N James (Editor, Atmospheric Science Letters), Radan Huth (Editor, International Journal of Climatology), Jim Galvin (Editor, Weather), Lesley Gray (co-Editor, Quarterly Journal), Doug Parker (co-Editor, Quarterly Journal).  
Representatives of Wiley are also invited to attend.

### Strategic Programme Board

Steve Noyes (Chair and Vice-President)  
Alan Radford (Treasurer), Ewen McCallum (General Secretary), Lindsay Bennett.

### Vocational Qualification Group

Bob Riddaway (Chair), Peter Grice, Julian Mayes, Leonie McManus, Phil Merritt, Paul Railton, Ann Randall, Derek Swannick.

## OTHER REPRESENTATIVES APPOINTED BY COUNCIL

### **Atmospheric Science Letters**

Editor: I N James

#### *Associate Editors:*

G Allen, A Bott, S Ghosh, S-E Gryning, S Hardiman, C Holloway, J McQuaid, A Miller, A R Mohebalhojeh, M Pritchard, H Seo, A Subramanian, D Woolf, A Dosio, A Montani, B Hemingway, E Black, I Hoteit, J Vanneste, J Crosier, N Theeuwes, N Schaller, O Martinez-Alvarado, R Neely, T Economou, Y Yin, Z Fleming

### **GeoScience Data Journal**

Editor: Linden Ashcroft

#### *Associate Editors:*

M Brunet, S Callaghan, R Crouthamel, M Daniels, H Delgado Granados, P Fox, J Lawrimore, J Lindesay, A Princic, C Reason, K Royse, V Slonosky, J Tedds, S Worley

### **International Journal of Climatology**

Editor: R Huth

#### *Associate Editors:*

S K Gulev, J A Marengo, I McKendry, M Roth, T Zhou

### **Meteorological Applications**

Editor: P Burt

#### *Associate Editors:*

J Bech, S Bell, C Charlton-Perez, B Chen, C Coelho, A Ghelli, A Kulkarni, G Marshall, C Power, L Carvalho

### **Quarterly Journal**

Editors: D Parker and L Gray

#### *Associate Editors:*

M Ambaum, A Arribas, GS Bhat, C Bishop, M Bocquet, D Bouniol, J Broecker, H Coe, C Cotter, C Davis, S Davolio, J-L Dufresne, P Forster, E Gerber, R Hart, A J Illingworth, T Janjic-Pfander, H Johnson, P Knippertz, E Kolstad, A Matthews, T McDougall,

G McFarquhar, A Montani, R Nair, R Scott, S Newman, M Reeder, A Ross, B Sinha, GJ Steeneveld, A Turner, M Vellinga, S Vosper, A Weisheimer, N Zagar, T Zhou

### **WIREs Climate Change**

Editor: M Hulme

#### *Associate Editors:*

K Bäckstrand, T R Carter, L Dilling, A Engels, S Hallegatte, M Heymann, A Karnein, L Lebel, M C Lemos, I Lorenzoni, M Rusticucci, J Settele, J Trancik, L Whitmarsh, E Zorita

### **Weather**

Editor: J Galvin

M Clark (Photo Editor), H Rossington (News Editor), N Emery, D Bowker (Book Review Editor), S Hardy, M de Villiers (Letters Editor), C Muller (Society News), G McCarthy, A Sibley, E Graham, Y Xuan

### **Book Programme Editors**

UK Series Editor: Dr Bob Riddaway

US Series Editor: Dr John Knox

### **Representative with the UK Flight Safety Committee**

R Lunnon

### **Representative with the General Aviation Safety Committee**

J Morrison

### **Representative with the European Meteorological Society**

E McCallum

### **Representative with the Science Council**

Chief Executive

### **Representative with the International Forum for Meteorological Societies**

Chief Executive

## WITHOUT WHOM

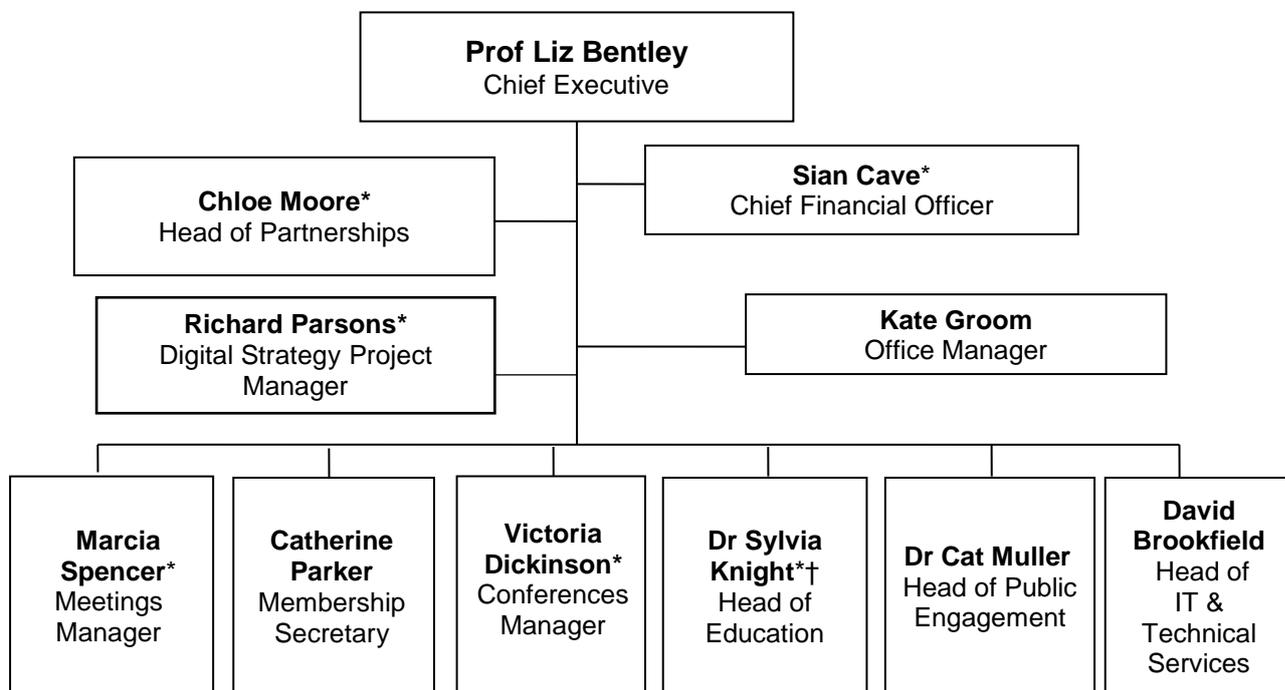
During the year the following Officers and Council Members retired from office with our grateful thanks. Their successors are shown above.

<b>Vice President:</b>	Jennie Campbell
<b>Vice-President:</b>	Julian Mayes
<b>Vice-President for Scotland:</b>	Richard Essery
<b>Chair of the Meetings Committee</b>	Brian Golding
<b>Chair of the Accreditation Board</b>	Derek Swannick
<b>Council Members:</b>	Rebecca Venton

The Society depends heavily on the valuable and unstinting work done each year by those who hold voluntary office. The Society would like to record its grateful thanks to all of those who give up their time and who contribute with great dedication to the work of the Society. The Society could not achieve all that it does without the kind support of all of its volunteers – thank you.

## Annex I: STAFFING AT THE SOCIETY

The Society has a secretariat that supports the day-to-day running of the Society and carries out its executive functions. A detail of the secretariat team and the organisational structure on 31<sup>st</sup> December 2017 is shown below.



\*Part-time posts

†Based in Manchester

The following staff left the Society during 2017.

Rachel Clewer

Andy Heap

## Annex J: BACKGROUND TO THE SOCIETY

The British Meteorological Society was founded in 1850 and was incorporated by Royal Charter in 1866. In 1883 the name was changed to the Royal Meteorological Society. A separate Scottish Society had existed from 1855, but in 1921 was merged with the Royal Meteorological Society. The Society is a United Kingdom Charity with a national and international reach and reputation.

The Royal Charter states that the Society was established “for the advancement of Meteorological Sciences”. That remains the aim of the Society and includes advancement of applications of the science and related sciences, including climatology and climate science, the interaction between the atmosphere and the oceans, and environmental awareness. Copies of the Society’s Charter and By-Laws are available on request.

The Society’s Annual Report and Annual Accounts are submitted to the Annual General Meeting by the Trustees, the Society’s Council, who are elected or re-elected each year at the Annual General Meeting. The Annual Report illustrates activities during the year which reflect Council’s policies in pursuit of the aim of the Society.

The Royal Meteorological Society (Registered Charity No 208222):

Address: 104 Oxford Road  
Reading RG1 7LL  
Telephone: 0118 956 8500  
E-Mail: chiefexec@rmets.org  
WWW: <http://www.rmets.org>

Bankers: Lloyds Bank plc  
PO Box 1000  
BX1 1LT

Solicitors: Blandy & Blandy  
1 Friar Street  
Reading  
RG1 1DA

Auditors: Porter Garland  
Communication House  
Victoria Avenue  
Camberley  
Surrey  
GU15 3HX

Investment  
Advisors: Rathbone Investment Management Ltd  
1 Curzon Street  
London, W1J 5FB

Investment Powers:

By-Laws (July 2011) 82 and 83 read:

82 The monies of The Society which are not subject to any specific trust purpose, and which are not required to meet current expenditure, may be invested in any securities quoted in the official list of any recognised Stock Exchange or placed on deposit with a reputable organisation. Council may only delegate its powers to select and make investments to the extent permitted by the provisions of The Royal Charter and the relevant legislation governing responsibilities of Trustees and Charities<sup>1</sup>.

83 The Society’s premises shall not be sold or disposed of except with the sanction of a General Meeting of The Society.

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<sup>1</sup> Reference should be made to Part IV, Section 11(3) of the Trustees Act 2000.

## **Annex K: POLICY STATEMENT ON THE ROLE OF THE RESERVES**

### **Principal Objectives**

The principal objectives of the Society's reserves are to maintain and make use of capital reserves to ensure the:

- viability of the Society on a year-by-year basis and in the long term as an assurance against significant financial risks;
- medium- to long-term development of the Society's aims and objectives.

### **Background and Introduction**

The Society derives its primary annual income from a combination of members' subscriptions, sales of publications, and income from investments. The Society holds three types of investments: Tangible Assets, a General Reserve and a Legacies Fund. Council first approved the policy on management of these two last items on 5<sup>th</sup> December 2001 and this is kept under regular review.

Historically the only major demand (> £100,000) on the reserves has been the purchase of the Oxford Road Headquarters, pending the sale and resolution of the problems with the previous Headquarters (James Glaisher House, in Bracknell). Other demands have been comparatively small (~£50,000 spread over several years) and relate to upgrade of the IT equipment, aside from the capital loan (of £350,000 conditional on achieving business plan targets) made to establish the Weather Club in 2010.

The medium and long-term investment strategy of the Society has been formulated by Council, is overseen by the Society's House Committee, and is being implemented by the Chief Executive who reports to Council three times a year. This policy statement provides guidelines on how the reserves may be used *inter alia* to fund non-recurring costs resulting from proposals in the Society's strategic development programme and to mitigate the major risks of the Society. Individual items of expenditure are presented for Council approval in the normal way.

### **The Annual Budget**

The annual budget covers the income and expenditure of the Society in all its activities, including the reserves. Council sets the budget for the Society and at each meeting receives a forecast of out-turn against the budget. For the purpose of the management of accounts, the budget and in-year reporting are broken down into two parts: the General Activities, which relate to the day-to-day operational work of the Society and includes items such as the maintenance of Tangible Assets for example; and the Development Activities, which define the Society's income and expenditure related to its strategic development programme.

The General Activities will normally be budgeted to balance. The budget for the Development Activities will be set by taking account of the gains on the reserve available for investment in the Society's charitable objectives. This is informed by the Charity Commission's guidelines on the ratio of annual turnover to capital reserve.

### **The Reserves - Tangible Assets**

Tangible assets, which comprise the premises, furnishings and equipment, are essential for conducting the business of the Society and are an effective way of providing "rent free" accommodation. These will be routinely maintained primarily through the annual budget at a level appropriate to provide accommodation and facilities to support the normal operational activities of the Society. This includes committee meetings, but not necessarily the regular Society meetings and conferences. Major changes to tangible assets would be funded on a case-by-case basis through the General Reserve and could include external contributions (for example, an appeal).

### **The Reserves - The General Reserve**

The role of the General Reserve is basically to provide a degree of financial robustness to the long-term survival and mitigation of the major risks of the Society. In line with the Society's Risk Register and the Strategic Development Programme requirements, the General Reserve will:

- provide some resilience against “single event” failures, for example a significant failure of a large conference (~£100,000);
- allow front-loaded strategic spend-to-save measures (~£200,000);
- allow some “one-off” expenditures of a strategic nature (~£100,000);
- allow a recovery period for significant changes in the income/expenditure balance (~£150,000);
- create a margin for medium-term market fluctuations (~£100,000).

For this model to work at these sorts of levels over a long period, the fund needs to have a topping up mechanism; this has to be through income or growth in the market. This gives a target value of the General Fund and the Legacies Fund together which is approximately equivalent to the annual turnover of the Society.

### **The Reserves - The Legacies Fund**

The policy for this fund is to protect and grow it. Subject to this policy, capital gains and dividends are used to support, in a sustained manner, benefits primarily to individuals through Grants, Awards and Bursaries. More details on these funding schemes are available on the Society’s website at [www.rmets.org/activities/awards/grants/index.php#legacies](http://www.rmets.org/activities/awards/grants/index.php#legacies).

The number and level of grants and bursaries will be determined by the level of available funds and by second priority call on the General Fund.

### **The Investment Policy**

#### ***The Management of Investments***

The Council, advised by the House Committee, is responsible for overseeing the Society’s investments. At present, the day to day management of the investment portfolio is delegated by Council to a professional Fund Manager. The House Committee reviews performance of the Fund Manager twice a year and Council reviews investments at least annually. The choice of Fund Manager is kept under annual review in line with performance and the Society’s investment requirements.

#### ***Choice of Investments***

Investments may be made in cash deposits, property, gilts, bonds and equities in such proportions as to endeavour to maximise the total return to the Society over the longer term, typically a period of the Society’s Strategic Plan, in order to deliver the required investment for the Society’s strategic development programme and to mitigate the Society’s major risks. To this end investments should not be held in companies whose activities are contrary to the aims of the Society or its social, environmental and ethical responsibilities as the Professional Body and Learned Society for Meteorology.

Where investment is made in equity shares, these should be mainly in FTSE-100 companies and no purchase of a single equity should represent more than 5% of the total portfolio value. This guideline excludes shares held indirectly through, for example, Investment Trusts, where there is already an underlying diversity. If anyone holding reaches 20% of the value of the portfolio a partial sale should be considered. The portfolio should be diversified over both market sectors and geographic markets, and no one sector should represent more than 25% of the total portfolio value.

#### ***Cash Flow Requirements***

Council, when considering the budget, will identify the likely demand for withdrawing funds from the investments over the next financial year and this will be communicated to the Fund Manager so that they are able to anticipate the requirement for sales of investments whilst maximising profits and minimising losses. Any surplus cash on deposit may also be transferred at any time to the Fund Manager for investment at the discretion of the Chief Financial Officer.