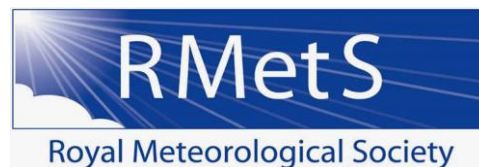


HISTORY GROUP NEWSLETTER



News, views and a miscellany published by the Royal Meteorological Society's
Special Interest Group for the History of Meteorology and Physical Oceanography

Issue No. 2, 2019

December 2019

News

Julian Mayes, Secretary / Newsletter editor

Welcome to the second issue of the Newsletter for 2019.

Membership – We are sorry to report the death of Peter Rackcliff, one of the last surviving members of 518 Squadron who flew out from Tiree across the North Atlantic during the Second World War on met. recce. flights. Their contribution to the timing of D-Day was detailed in an article on the BBC website earlier this year (<https://www.bbc.co.uk/news/uk-scotland-48498383>).

My thanks to all who have contributed to this issue. Further contributions are welcome!

On behalf of the committee, we wish everyone a very Happy Christmas and a successful and enjoyable 2020.



Future meetings of the History Group and related groups

The history of climate science ideas and their applications

Saturday 25 April 2020, Army & Navy Club, London.
RMetS National meeting arranged by the RMetS SIG on Climate Change with reference to the History Group. The programme and registration details can be found at <https://www.rmets.org/event/history-climate-science-ideas-and-their-applications>

History and development of meteorological instruments

Saturday 13 June 2020, at Glazier's Hall, Montague Close, London SE1 9DD, a joint meeting between the Worshipful Company of Scientific Instrument Makers, the Scientific Instrument Society and the Meteorological Observing Systems SIG of the RMetS. Topics will include historical and contemporary instruments to measure temperature, barometric pressure and wind direction and speed, and the uses of such data in science and society.

Details will be published on the RMetS website in due course.

Stephen Burt, Stratfield Mortimer, Berkshire
s.d.burt@reading.ac.uk

Historic Scottish weather observations and how to access them

Proposed for September 2020 in Edinburgh (date to be confirmed early in 2020). Scottish archive material is in the process of being catalogued and transferred from the Edinburgh Met Office to the archives of the National Records of Scotland where it is available for consultation. The material already transferred includes the Climatological Returns for the period from 1857 to 1920 from the observing stations of the Scottish Meteorological Society and the daily registers of the synoptic stations in Scotland. It is also hoped to include a report on the work done to digitise the Ben Nevis Observatory data.

Faces from the Past

Henryk Lazarecki

6 November 1918 - 18 December 1946

With defeat staring the country in the face after German and Soviet forces invaded Poland during September 1939, the Polish government ordered its Army and Air Force to proceed to its ally, France, to reorganise and continue the fight there. By the following spring some 60,000 Poles had made the journey, but during May 1940, before the reorganisation was complete, France itself was invaded by Germany. Of the 60,000 (45,000 Army and 7,000 Polish Air Force (PAF)) about half subsequently managed to make their way to the United Kingdom.

Once there the majority served in Polish units, wearing British uniforms, and collectively made significant contributions to the war effort on land, sea, and in the air. Sadly a Soviet-controlled government formed in Poland at the end of the war, and created such punitive conditions that a great many of the men were unable to return home.

Several PAF personnel filled observing and forecasting posts within the British meteorological organisation, one of whom was Henryk Lazarecki. This, Henryk's story, is largely based on his exceptionally comprehensive service record. Unfortunately, although some of his relations have been traced in Poland, no photographs of him appear to have survived.

I am greatly indebted to Franek Grabowski in Poland, and Stuart Lawson of Blyth - an old Met Office colleague - for their invaluable assistance in assisting my research, both in translation of Polish documents and discovering documents I would never have found. As there is no simple relationship between RAF and PAF ranks, I have opted to use the former as they would have been used during his service in the United Kingdom.

The son of Josef and Helena Lazarecki, Henryk was born and spent his childhood in Lapy, in north east Poland. After leaving school in 1933 he spent three years qualifying as a joiner at the State School of Craft and Industry in Bialystok, a large town some 25 km by train to the northeast of Lapy. In 1936 Henryk returned home to work as a carpenter. On his 18th birthday he was called up for compulsory national service and drafted into the meteorological section of the PAF. Following a month of basic military training at Lesna, near Baranowicze in north east Poland, he was posted to Lida, an operational airfield some 90 km to the north. After some on-the-job training he was sent to Warsaw for a meteorological course in early 1939.

On 1 September 1939 Germany invaded Poland from the west, but early brave resistance by Polish troops came to naught when Russian forces invaded the country from the east on the 17th. The same day, faced by overwhelming odds, Polish forces were ordered to disengage and make their way, via Romania, to France and reorganise there.

In the event this avenue of escape was quickly blocked by enemy forces, but Henryk's party took a different route and managed to reach neutral Hungary, via Jablonica, on the 19th.



Lapy during the Second World War (© Museum of Family History)



Henryk's journey from Poland to the United Kingdom, to his resting place at Morpeth. As national boundaries have changed considerably since 1939-40, those shown are modern. (© BJ Booth)

The majority of the 900 or so PAF personnel who entered Hungary this way were interned in camps north of Budapest. Although Hungarian authorities were lax in applying regulations at first, life in the camps was monotonous, especially as the winter of 1939-1940 was one of the coldest and snowiest on record. Matters were not helped when, under pressure from Germany, Hungarian authorities adopted an increasingly harsh regime.¹

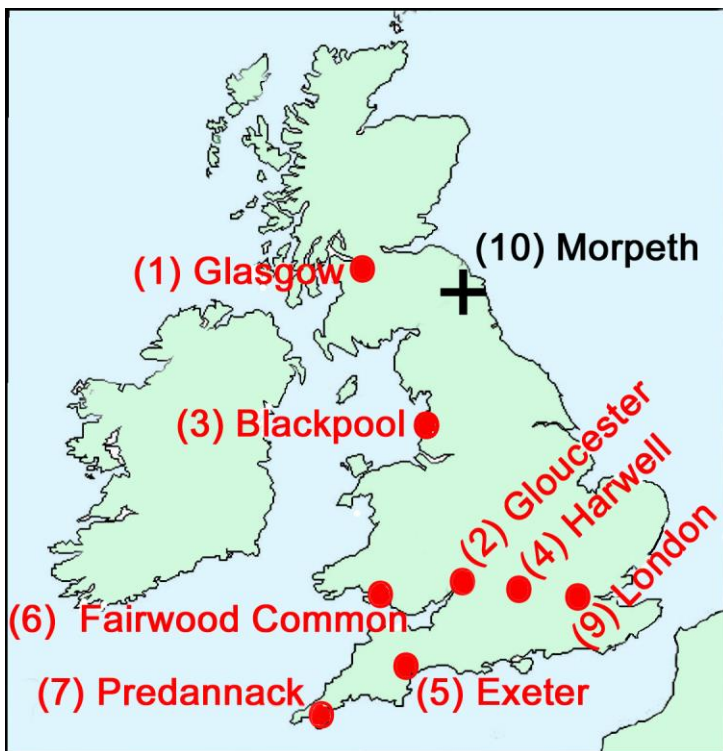
Faced with a very uncertain future many internees escaped during the winter and spring and completed their journey to France via the Yugoslavian port of Split.

Henryk's personal experience during this period is unrecorded, but is believed to have been similar. After sailing from Split he reached Marseilles on 17 April 1940, and Lyon four days later.

When German forces invaded France on 13 May many Poles were still waiting for deployment. With capitulation by France imminent, Polish personnel received orders on 19 June instructing them to make their way to the United Kingdom. It is believed that Henryk was among the many who completed this journey via Marseilles and North Africa (Peszke, 2004).²

On disembarking at a British port Henryk was sent to a Polish camp near Glasgow, arriving there on 16 July. Although the PAF reformed in the UK, with squadrons and airfields manned mostly by its personnel, there were limited numbers of posts for specialist trades, such as meteorologists, and this led to many being posted to RAF airfields.

Henryk fell into this category, but first he had to overcome the trauma of the previous ten months, learn a new language and different way of life, to say nothing of absorbing the procedures and practices of both the Meteorological Office and Royal Air Force (RAF).



Map showing Henryk's moves, starting with (1) at Glasgow, after arriving in the United Kingdom. Other than at Glasgow, Blackpool and in hospital at Morpeth (10), the number of PAF personnel was small at the other locations. (© BJ Booth)

To this end Henryk was first sent to the Met Office Training School at RAF Gloucester in early August, followed two months later by a posting to the Polish Air Force Depot at Blackpool - probably for more linguistic training.

At the beginning of December he passed an oral test for meteorology in English. Thus he was considered competent to join the Polish Meteorological Section of the Meteorological Office as an observer, although his mark of 50% was an indication of the need to improve his linguistic skill. This Blackpool sojourn was probably the last time he lived with large numbers of his compatriots as a serviceman.

During the following three years Henryk served at a number of RAF airfields, the first being Harwell in the south of Oxfordshire (December 1940), followed by Exeter (March, 1942), Fairwood Common, now Swansea Airport, (April 1943) and Predannack (August 1943). He developed into a competent and neat observer, becoming a Leading Aircraftman (LAC) in May 1942) and was awarded a Good Conduct badge the following year,

Whilst at Blackpool he had been assessed as being suitable for aircrew training, but it was not until 25 October 1943 that he was posted to the Aircrew Recruiting Centre at Lords Cricket Ground in London, to start training as a Meteorological Air Observer with a rank of Sergeant.

Within days his life began unravelling at bewildering speed when he was hospitalised on 2 November with what proved to be Bilateral Pulmonary Tuberculosis (TB). On 25 January 1944 Henryk was transferred to Gallowhill Hall Hospital, a specialist TB centre for Polish military personnel near Morpeth. At the same time he was forced to relinquish his Sergeant rank and reverted to being an LAC. The TB did not respond to treatment and he was discharged from the PAF on medical grounds on 10 March.



Gallowhill Hall circa 2015. The building has hardly changed since the beginning of the 20th Century. (© Strutt and Parker)

The political situation in Poland deteriorated markedly after the war, with a Soviet controlled Communist government viewing Poles who had fought for the western Allies as traitors. Those who did return were treated harshly, many being murdered or placed in penal camps.

Henryk never left Gallowhill Hall. Whether or not he was able to make contact with his family when the postal service between the UK and Poland resumed during the autumn of 1945³ is not known.

During the early hours of 17 December 1946, after three years of debilitating illness, together with a realisation there was little likelihood he would ever again see his family and with little hope for the future, Henryk shot himself in the head. He died the following day in Newcastle Hospital,⁴ and now rests in Morpeth (SS Mary and James) Churchyard alongside 71 Polish comrades.



Henryk's grave in Morpeth Churchyard; the red roses and white headstones represent the Polish flag. (© Stuart Lawson)

Sources

1. <http://www.polandinexile.com/escape.html>
2. Peszke M.A. 2004. *The Polish Underground Army, the Western Allies and the Failure of Strategic Unity*; McFarland Publishing
3. <https://api.parliament.uk/historic-hansard/commons/1945/nov/15/postal-facilities-europe>
4. Coroner's Report, Newcastle-upon-Tyne, dated 27 December 1946 (Tyne & Wear Archives)

Brian Booth, Devizes, Wiltshire

***Flight* magazine, February 15, 1940**

The following extract from the above magazine might raise a smile - or two:

A little light relief to the prevailing monotony which had obtained for four days was afforded on Wednesday, Feb 7, when a number of small red balloons used by the meteorological people were picked up in various parts of the country. Apart from the fact that they contain hydrogen and can, therefore, explode if brought into contact with a naked flame, they are quite harmless. But they caused no little perturbation among the uninitiated, and in one district the police issued a notice

that they may have been let loose by the Germans, and might contain poison gas. It is strange to realise how little some people know about the normal activities of the Air Ministry.

By way of explanation the 'four days' were marked by extensive and persistent low cloud and poor visibility over South East and Eastern England, and the Midlands, resulting in the release of large numbers of pilot balloons by airfield meteorological offices to measure cloud bases.

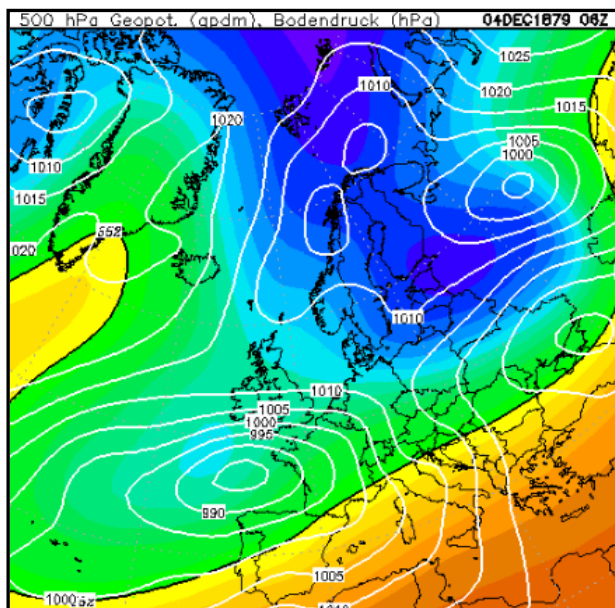
Brian Booth

The weather of 140 years ago this month – December 1879

Julian Mayes

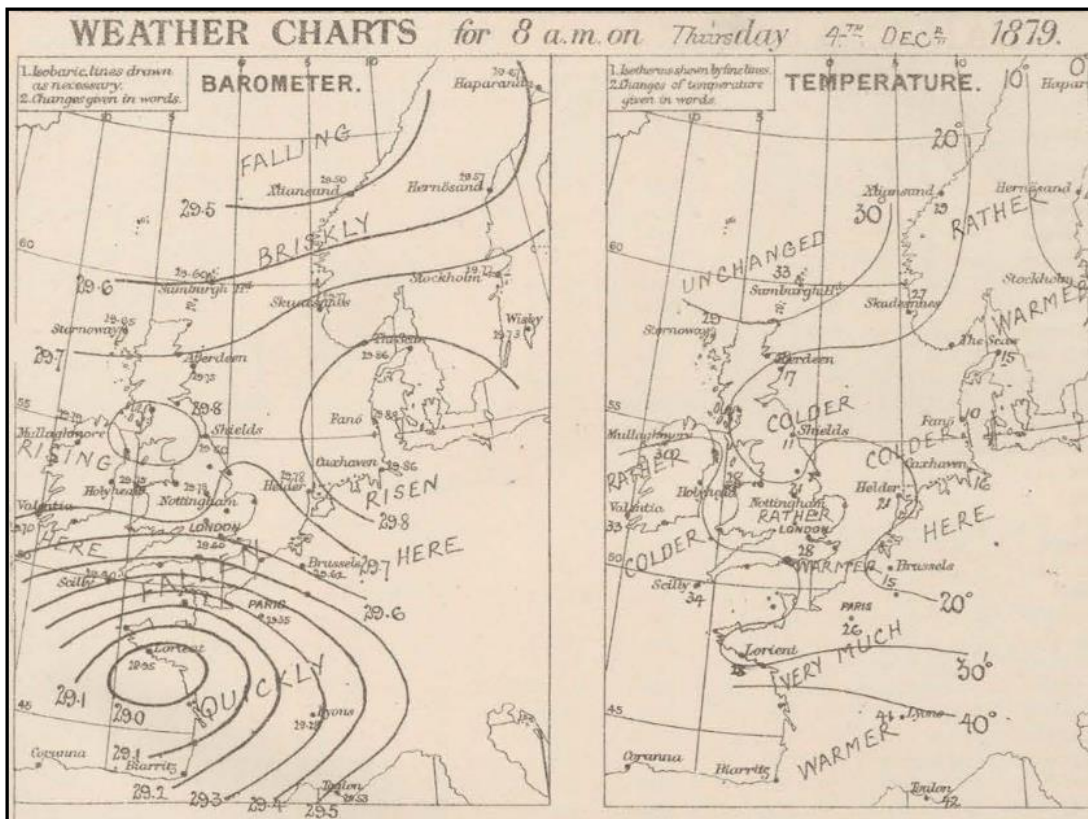
140 years ago the coldest year of the 19th century in the UK was coming to an end. 1879 remains the third-coldest year on the Central England temperature series. The weather in December was particularly severe with exceptionally severe frosts in the first week and a severe storm on the 28th that led to the Tay bridge disaster.

During the first week the temperature dropped to -26.7°C at Kelso (Scottish Borders), the lowest officially recorded temperature in the UK until surpassed in the December of 1995 when the UK annual temperature record was equalled. On the 4th there was an unofficial reading of -30.6°C at Blackadder House (Scottish Borders) but this is so far below the accepted reading at Kelso that it is surely possible that the latter reading was surpassed, and possible the UK all-time record too. Scotland lay in a very slack northerly flow at the start of the month while a depression tracked east from Biscay into central Europe.



Synoptic situation at 06h, 4th December as shown by the NOAA reanalysis at <https://www.wetterzentrale.de>

The next figure shows the depiction of the pressure pattern in the *Daily Weather Report*. The text summary of the day's weather gave little indication that the observed temperatures were exceptional, a far cry from the likely media reaction in the C21st.

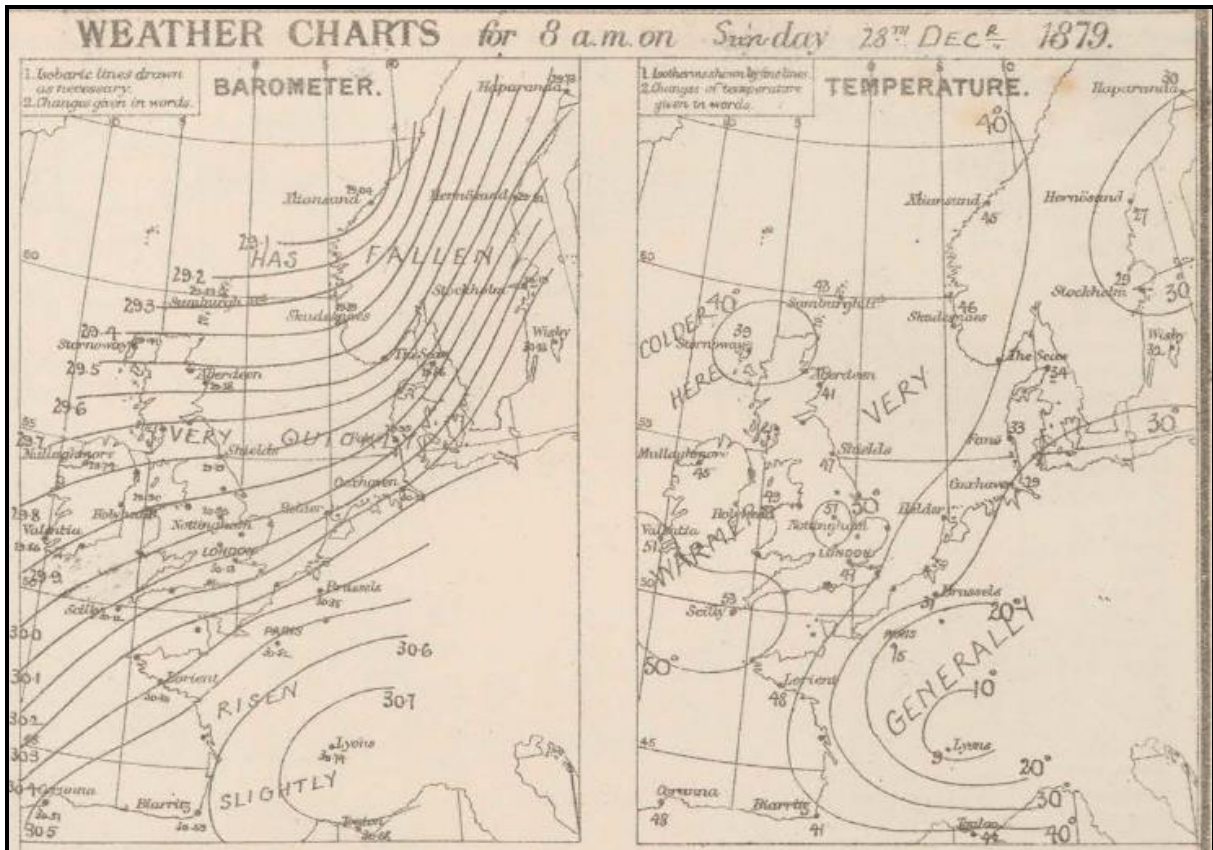


Surface air pressure and temperature (°F) on 4th December 1879 from the Met Office Daily Weather Report. © Crown Copyright 1879. Information provided by the National Meteorological Library and Archive – Met Office UK. <https://digital.nmla.metoffice.gov.uk/>

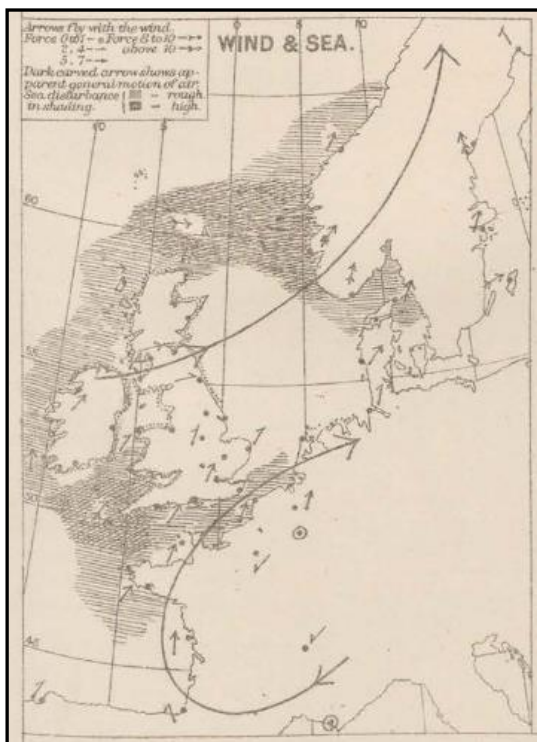
High pressure then became centred over England and Wales and severe frost continued; the maximum temperature in London on 17th was only -2.0°C, possibly due to freezing fog. Later in the third week a south-westerly flow developed as the high tracked across central Europe.

The lingering influence of high pressure over South East England through the third week contributed to it also being a dry month here. Indeed, the period from October 1879 to January 1880 (inclusive) was exceptionally dry in much of England. At Kew, only 75mm of rain fell in this period (Brazell, 1968) while the total at Oxford was only 65.8mm (Burt & Burt, 2019). The rest of the year 1880 was markedly wet.

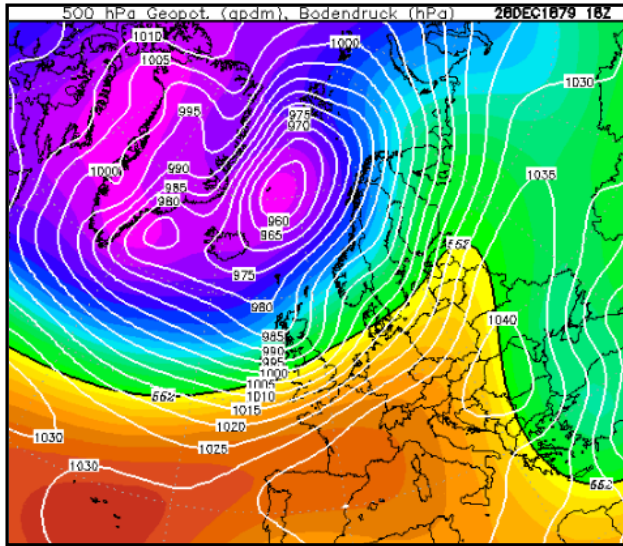
After the 23rd a more progressive south-westerly flow affected Ireland and Scotland. Cyclogenesis then developed over the North Atlantic which led to the storm that resulted in the Tay bridge disaster on the 28th. The newly-opened bridge collapsed while a train was passing over, killing 76 people (<http://taybridgedisaster.co.uk/>, Kington, 2010).



Surface air pressure and temperature (°F) on 28th December 1879 from the Met Office Daily Weather Report. © Crown Copyright 1879. Information provided by the National Meteorological Library and Archive – Met Office UK. <https://digital.nmla.metoffice.gov.uk/>



The distribution of 'rough' and 'high' seas on 28th December 1879; source as previous figure.



Synoptic situation at 18h on 28 December 1879 as shown by the NOAA reanalysis at <https://www.wetterzentrale.de> . This suggests that a vigorous secondary depression may have started to form over Scotland, possibly leading to 'bomb' deepening (as suggested by Burt & Burt, 2019).

References

- Brazell, J. H. (1968) *London weather*, H.M.S.O. / Meteorological Office.
- Burt, S & Burt, T. (2019) *Oxford weather and climate since 1767*, Oxford University Press.
- Kington, J. A. (2010) *Climate and weather*, Collins, The New Naturalist Library.

Expectations of weather forecasts and warnings – a view from 50 years ago

In September 1968 the Surrey town of Molesey was inundated after one of the most exceptional 2-day rainfalls on record in South East England. The Molesey Local History Society has recently held three successful conferences on the aftermath of the floods and has collected a comprehensive archive of photographs and newspaper cuttings from the period.

The then M.P. for Twickenham, Mr Roger Gresham Cooke issued a statement after the floods which was quoted in the *Surrey Comet* newspaper as follows....

M.P. hits at Met Men

Twickenham's M.P., Mr Roger Gresham Cooke, has criticised the failure of the Meteorological Office to give any warning of the floods. In a statement issued on Monday [17 September] he claimed that Saturday morning's weather forecast should have given some warning of the severe floods that were likely to follow the heavy rain. 'I am disappointed that neither the long-term nor the short-term forecasts seemed to give any idea of the floods in the west earlier this summer, or the very abnormal conditions now experienced in South East England'.

Book Review

Oxford Weather and Climate since 1767

Stephen Burt & Tim Burt

Oxford University Press, 2019, Hardback, £35 ISBN: 978-0-19-883463-2

Weather observations have been made at the Radcliffe Observatory in Oxford since 1772 and form the longest continuous meteorological record in the British Isles and one of the longest in the world. This book presents the first publication of this newly digitised record as well as a wider consideration of the vagaries of the Oxford weather over the years.

The impressive scope of the book can only be appreciated if the range of contents is first listed in some detail:

Part 1, Oxford's weather and climate, covers the history of Oxford weather data collection, possible effects of increasing urbanisation and Oxford's weather in a regional context. It also describes the history of long-period observations in the UK and Europe.

Part 2, Oxford weather through the year, presents, for each individual month and annually, an illustrated description of interesting meteorological events, extremes and average values and includes annual temperature and precipitation plots from 1811 and sunshine from 1880.

Part 3, Oxford weather through the seasons, follows a broadly similar approach to Part 2.

Part 4, Long-term climate change in Oxford, brings together trends in meteorological factors since 1811.

Part 5, Chronology of noteworthy weather events in and around Oxford,

describes a wide range of weather periods of note for their historical interest.

Part 6, Oxford weather averages and extremes, presents details on warmest, driest, sunniest weather, earliest and latest dates, plus drought and wet spells. Oxford's 'top ten' extremes list when the greatest ten of all the major meteorological events occurred. This part ends with details of notable heatwaves, cold spells, sunny and dull periods.

Appendices: The first two provide the metadata on the Radcliffe observations and observers; Appendices 3 and 4 give the climatological averages and extremes for Oxford for 1981-2010 and since records began; Appendix 5 lists Oxford's monthly rainfall totals for 1767-1814 and Appendix 6 (the *raison d'être* of the whole book and covering over 100 pages!) gives the monthly and annual summaries of Oxford's weather by year from 1813 to 2018.

The 513 page book ends with references and further reading.

It is beautifully presented on high-quality paper which does proper justice to the excellent graphics plus the many colour and monochrome photographs which are spread throughout the book. It will have a wide appeal as it not only includes comprehensive sets of facts and figures but also has many entertaining and interesting descriptive and historical sections, many with relevance far beyond Oxford.

Of particular relevance to our group is the section on the general history of weather observations at Oxford which covers the period from William Merle's weather dairies of around 1340 right up to the present day. In a similar vein, Appendix 1, which gives an historical account of meteorological observations at the Radcliffe Observatory from 1772 to date, contains a wealth of fascinating detail.

The chronology of noteworthy meteorological events includes an eclectic mix from the great spring floods of 1663 to the record breaking heat of 2018. We were pleased to note the description of the path of tornado of 1966 correctly included the street where the Oliver family lived in East Oxford!

There is much to interest even the casual reader in the section on the Oxford weather averages and extremes with even the page headed "Prolonged Dull Weather" containing some intriguing details.

The monthly, seasonal and annual meteorological data are presented

together with many photographs, tables and plots of specific aspects of the weather. For those interested not only in the history of the Observatory but also the detailed observations taken over the years, the data are clearly set out both in tabular and graphical form. Uniformity in presentation throughout enables easy comparisons over time. The complete monthly data-set, now digitised, is tabulated in the final appendix. With only two years per page, clear type and a consistent format, visual inter-comparison of the years is straightforward.

This presentation of the important role of the Radcliffe Observatory in the recording of daily meteorological events in Oxford not only appeals to those who love weather statistics, but also to historians who will find a great deal to interest them as well.

Overall a well-written, useful and diverting book.

Howard and Sylvia Oliver, Swanage, Dorset

First award of the Malcolm Walker Award

In memory of Malcolm Walker (1942-2015), longstanding Chairman of the History Group and in recognition of his outstanding lifelong support for the Society, his wide-ranging knowledge and enthusiasm for meteorology and oceanography, and his encouragement of others, an award called the 'Malcolm Walker Award' will now be bestowed annually, if appropriate. The award aims to recognise and encourage new environmental researchers from a wide range of disciplines.

The award is for emerging researchers who have undertaken research in the UK and/or sponsored by a UK body. No-one shall be eligible for the award a second time. The candidate's research should have brought new insights into an aspect of the environmental sciences, which includes elements of meteorology and/or oceanography. The application should demonstrate that the candidate has an understanding of the historical context of his/her research and is able to communicate their work to a diverse audience.

First awarded to Dr Matthew Menary, UK Met Office

The citation reads as follows (abridged from the RMetS AGM 2019).

Matthew Menary's research has really moved our understanding forward, providing a unifying framework to understand the disparate model results, drawing some surprising (and not entirely comfortable) conclusions about how far the historical observational database can constrain the mechanisms that are operating in the real world, and providing pointers to both the possibilities and the fundamental limits on multi-year predictability of the Atlantic and European climate. It's fair to say that much of this research has raised more questions than it has answered: observational signals are hard to disentangle from noise due to short and spatially incomplete sampling. While the study of modes of variability in models resulted in a large and apparently contradictory menagerie of different mechanisms, depending on which model one looked at do not agree on whether temperature or salinity is dominant, suggesting that the historical observations that we have may not be sufficient to initialise multi-year hindcasts unambiguously.

None of this insight was available to us before Matt's work so his research is rated as both highly original and highly impactful.

For example, in 2017 he was selected as one of a very small number of early career scientists to present his work on Atlantic variability to the Met Office's Science Advisory

Committee, a group of distinguished senior scientists, many of whom are not specialists in this area; his talk was very well received and drew much formal and informal praise from the committee members. At the other end of the experience spectrum, Matt has been a STEM ambassador, undertaking school visits, and has contributed to the Met Office's very successful Science Camps for school age students

Matt's first achievement was to cut through the confusion of multiple single-model studies, recognising that in fact the modes of variability in the subpolar North Atlantic found in these models could be broadly divided into two categories, in which either temperature or salinity variations were the dominant driver (through their impact on density). A detailed study of the latest Met Office climate model was followed by analysis of the CMIP5 multi-model database (the models primarily used for the IPCC 5th Assessment) leading to the key discovery that whether temperature or salinity is dominant depends on the simulated time-mean state of the ocean, and hence on the mean state biases in each model.

This was followed by a study of the implications of model bias for actual multi-year forecasts using the current generation of decadal prediction systems, showing that over a five-year forecast period, model forecasts initialised from observations tend to return to type with their variability reverting to temperature or salinity-dominated according to the underlying model bias.

We welcome all offerings, from letters, to brief articles – just drop me an e mail. Finally, I would like to thank those who have contributed to this issue. My contact details are as follows:
✉ julian.mayes@tiscali.co.uk

Julian Mayes, Newsletter Editor, Molesey, Surrey, December 2019
