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. 1, 2023

August 2023

NOWS Julian Mayes, Secretary / Newsletter editor

Welcome to the 1st newsletter of 2023 – as several news items were developing over in the last few weeks, I held off issuing the newsletter. These include the Society marking the 150th anniversary of the first issue of the Quarterly Journal. To mark this milestone, the History Group was asked to compile a list of historic papers published there – this now forms part of a timeline celebrating the history of the journal (details on p.4). We have a report on our recent visit to Eskdalemuir Observatory (p. 6). Sadly, while waiting for items to be collated for this issue we learned of the death of Dr. Dennis Wheeler (see below).

Centennial meteorological stations in the UK added to WMO listing

The Met Office has been successful in adding two long-term observing sites to the WMO's Centennial meteorological stations listing; Sheffield and Durham. The following link gives an informative overview of the scheme and lists stations globally that have achieved this recognition by 2023; https://public.wmo.int/en/our-mandate/what-wedo/observations/centennial-observing-stations

RMetS Awards 2022

The awards for 2022 include recognition for Prof. Ed Hawkins, awarded the Hugh Robert Mill Award for his leadership of the Rainfall Rescue Project. He will speak about this work in our Data Rescue meeting in October. Several of the volunteers for this project received the Award for Innovation in observation and instrumentation. The Education Award was given to Prof. David Schultz, a History Group member. Details at https://www.rmets.org/award-winners-2022

Obituary - Dennis Wheeler

We were saddened to learn of the death of Dr. Dennis Wheeler on 26th July. Although he had been unwell for several months, he had been making progress, so the news was a shock to his friends. We knew him in the History Group as a former committee member and a prolific writer and researcher. Members will remember the numerous historical case studies he wrote for *Weather*, notably on the weather and climate history of Iberia and of the U. K. He carried out research into ships' logs and the climatic history of Gibraltar and Spain. Nevertheless, he never lost his interest and enthusiasm for current weather and climate, analysing events in their historical context. He was one of the band of academic climatologists who wrote articles through interest and a wish to spread awareness of past weather events.

Dennis led the North East Centre of the RMetS (with Ken Cook as Treasurer) from 1981 to recent times, an incredible achievement, rightly acknowledged with the Society's Outstanding Service Award, given jointly to Ken, in 2016. Dennis also won the Gordon Manley Weather Prize in 1995 and the Jehuda Neumann award of the RMetS History Group in 2009. During his retirement Dennis transitioned to - and published as - Deborah Smith. A notice has been published on the Society's website

(https://www.rmets.org/news/passing-deborah-smith) and an obituary will be published in *Weather* soon.



RECENT MEETINGS

Meteorology, Weather and War in Southeast Asia: Malaya c.1940-1960

Fiona Williamson, Singapore Management University. 30th May 2023

This talk interrogated the positioning of British colonial meteorology in Malaysia and Singapore from the 1940s to 1960. This period spanned a global conflict and an internecine war, effecting profound socio-political changes from which neither country would emerge the same. The meteorological services were essential to Britain's armed conflicts, providing vital weather information to the army, navy and especially, the air forces, as well as supporting the aviation and shipping industry often in difficult and dangerous circumstances. The talk addressed the interplay of science, colonialism, and national interest in setting scientific agendas.

FUTURE MEETINGS

History Group Autumn meeting 2023 and RMetS National Meeting Data Rescue – discovery and recovery of historic climatic observations

RMetS National meeting organised by Julian Mayes. This will take place on the afternoon of Wednesday 11th October 2023 at The Geological Society, Burlington House, Piccadilly in central London. The meeting will mark the 40th anniversary of the founding of the Group. To register (either in-person or virtually) please visit <u>https://www.rmets.org/event/data-rescue-discovery-and-recovery-historic-climatic-observations</u>

Programme

1.30	Tea & Coffee	
2.00	Chair	Introduction to the meeting
2.10	Dr. Catherine Ross, Archivist, Met Office - Nat. Meteorological Archive	Sitting on a goldmine: how the National Meteorological Archive is working to improve access to its key metadata and data resources
2.40	Dr. Stephen Burt, Dept. of Meteorology, Univ. of Reading	Broadening the long Oxford Radcliffe Observatory series using citizen science rescue
3.10	Dr. Michael Taylor, Climatic Research Unit, Univ. of East Anglia –	Extending land temperature records in the GloSAT project
3.40	Tea break	
4.00	Prof. Ed Hawkins, Dept. of Meteorology, Univ. of Reading	The Rainfall Rescue project
4.30	Dr. Praveen Teleti, Dept. of Meteorology, Univ. of Reading	The value of ships' logs and the role of citizen science in their recovery
5.00	Dr. Mark McCarthy, Met Office – Climate Science Manager	A user's perspective: Aims and history of UK climate monitoring and why data rescue is so valuable for modern climate data science
5.30	Meeting close	

Eskdalemuir visit, summer 2024

Visit Organiser: Richard Griffith. Following the successful preliminary visit to Eskdalemuir Observatory in June this year, a follow-up visit has been arranged for July 24th 2024. Numbers are limited, hence the interest in a repeat visit. Richard reports on this year's visit on page 6.

History of climate modeling, autumn 2024

Meeting Organiser: Mat Collins (Exeter University), aided by Chris Folland. We are proposing to run this as a RMetS National meeting at a date to be confirmed soon.

Evening online meetings will be notified by e mail and in the next newsletter.

Meeting report Imagineering wind in the Enlightenment

In March 2023, The Deutsches Historisches Institut Paris (DHIP) hosted the meeting 'Imagineering Wind in the Enlightenment,' to explore the meanings of wind during the long eighteenth century. The meeting was a gathering of social, economic and cultural historians of the European Enlightenment whose research touches on environmental history. The two-day conference explored the treatment, meaning and representations of wind in textual, scientific, technical and visual materials in the European societies during the period.

The hallmark of the meeting was its interdisplinarity. As the wind is a public phenomenon perceived by different groups, lay and learned, it was natural that it received different treatments during the period in which science has not yet laid claims to the sole ownership of wind as a 'natural phenomenon.' Instead, wind could be constructed as a philosophical subject in encyclopaedic accounts of its causes and mathematical calculations of its energy by d'Alembert and Coulomb (in the papers by Frederic Chambat and Philippe Bruyerre) and it could also become a source of technological and transportation revolution that propelled the imperial power of European powers (Frans-Willem Korsten).

For Marie Thébaud-Sorger, the first aerial balloon ascents from 1783 onwards constituted a major scientific development in making possible the exploration of the upper atmosphere, but these ascents also inspired the Enlightenment 'projectors' to search for solutions that would enable the movement against the wind, reflecting the scientific optimism that defined the epoch. At the same time, artists and theologians saw in wind a vehicle of divine power and providence, the ideas articulated in cognate genres of seascape paintings and homiletic literature (Alessandro Nova and Vladimir Jankovic).

Especially thought provoking were the presentations of Inger Leemans and Christine Zabel on the relationship between the Dutch financial crisis of 1719–20 and the rise in popularity of the term *windhandel* (wind trade) that gained momentum as the preferred reference to high-risk trading in shares and derivatives. Leemans situated the the rise of 'wind' as a financial term within the history of finance, science, and industry in which merchants could invest in wind through shareholder companies. The introduction of wind in the realm of finance challenged the traditional iconography of wind through cartoons and commentaries in which the wind had a hybrid identity of a natural and market phenomenon.

Vladimir Jankovic

Quarterly Journal of the Royal Meteorological Society



150th anniversary of the QJ

The History Group has been pleased to be involved with the RMetS commemorations of the 150th anniversary of the QJ. A timeline of over 60 notable and historic papers was compiled by the History Group and added to a timeline that includes milestones in the history of the journal and of the Society. There is also a separate 'virtual collection' of papers chosen by the current Editors-in-Chief, though there is some overlap between the papers in each group. This is the link to the timeline and the other anniversary information:

https://www.rmets.org/news/qj-150th-anniversary.

Society members can access the entire archive of the QJ (and other RMetS journals) at <u>https://rmets.onlinelibrary.wiley.com/loi/1477870x</u> once logged into the RMetS home page.

How the History Group created the timeline of notable papers

In response to the Society's initiative to mark 150 years of the *Quarterly Journal*, the History Group collated a collection of 63 key papers published in the Journal to become part of the effort to publicize the global achievements in research in meteorology and climatology. This work was led by committee member Prof. Chris Folland.

We sought representative papers, selected by eminent researchers in their respective fields, whose task it was to select entries on the basis of two broad criteria: (a) the demonstrable influence of papers on the development of atmospheric sciences in the UK and globally and (b) the publications recognized for their contribution in transformative research and introduction of new scientific paradigms. We decided that the most representative and equitable way to generate such a collection would be to seek key publications from the following topics and experts:

* general topics including meteorological processes (Chris Folland);

* short range weather forecasting - including data assimilation methods (Mike Cullen, Andrew Lorenc)

* short term climate forecasting -monthly to decadal (Adam Scaife)

* observed climate change and variability including related surface data (Phil Jones) and data sets (Nicola Rayner)

* climate variability and change - modelling (Mat Collins)

* meteorological observations and instrumentation – at the surface (Ian Strangeways) and remotely (John Eyre).

The History Group would like to thank each of the above contributors for volunteering their time in creating the timeline.

The first issue – 1873

The first page of the QJ is shown alongside. Note that James Glaisher is named both as editor and also as author of the first paper. The date shown is the date of the meting at which the paper was read; the exact publication date is not shown. This paper was 33 pages long and consisted largely of tables showing the frequency of winds of different direction at Greenwich for 1861-70.

The second article is by Prof. A. S. Herschel on bright meteors. Articles on 'electric cumulus' and the aurora borealis of 1871 complete the first issue. The article describing electric cumulus (W. C. Nash) refers to "nodular projections which indicate an internal fermenting or protruding force" and that the shape of such clouds resembled "a mass of bubbles".

QUARTERLY JOURNAL

OF

THE METEOROLOGICAL SOCIETY.

EDITED BY

JAMES GLAISHER, F.R.S.

1871, NOVEMBER 15.

JOHN W. TRIPE, M.D., PRESIDENT, in the Chair.

The name of one Candidate for admission into the Society was read.

I. On the Direction of the Wind at the Royal Observatory, Greenwich, in the Ten Years ending December 1870. By JAMES GLAISHER, F.R.S.

TEN years since, I presented to the Society a paper on the Direction of the Wind in the Twenty Years ending December 1860. I have now the honour of presenting another paper on the observations made at Greenwich in the Ten Years ending December 1870. The directions of the wind used are those recorded by Osler's self-registering anemometer, and therefore show the direction of the current of air at a point about 70 feet above the ground, and 200 feet above the level of the sea.

100 years ago - 1923

The 49th volume in 1923 shares on thing with the first – that many of the names were and are well known meteorologists. Of course, until the publication of *Weather* in 1946, the QJ was the main publication of the Society. Contributors include Sir Napier Shaw (January) and W. H. Dines and G. M. B. Dobson (July). W. H. Dines wrote about the results of his balloon and kite ascents and compared the findings with the Norwegian theory of cyclone structure. The latest report on the latter (Bjerknes and Solberg, 1922) was reviewed by J. S. Dines in the April issue. This concerned in particular the development of 'families' of depressions. Dines concluded that 'while parts of it may not be entirely convincing, all at least provoke much thought'. https://doi.org/10.1002/qj.49704920609

The April 1923 issue also included the report of Council for 1922. The provisions of the lease for the transfer of the Camden Square observatory in north London from the British Rainfall Organisation to the RMetS were discussed. This primarily concerned a clause that the Society tries to maintain observations there in perpetuity (sadly the observatory closed later in the 20th century). The report for 1922 also itemised items of Society expenditure, including the bill of £23 / 17 shillings for 'coal and coke' and a telephone charge of £10 / 4 shillings. A reduction in the membership of 44 for the year was 'attributed to the general financial stringency' of the time.

Turning to climatological matters, the October issue included a notable article by M. De Carle Salter and John Glasspoole on UK rainfall fluctuations 'considered cartographically'. This demonstrated the progress of the British Rainfall Organisation in building up a complete picture of rainfall variations. Finally, in January a review was published of a book that may still be known to members – Kendrew's *Climates of the Continents*.

Summer visit to Eskdalemuir Observatory

Richard Griffith, Caithness

On an overcast and wet afternoon (25th June 2023) members from the Scottish Local Centre of the Royal Meteorological Society along with members of the Climatological Observers Link group *(COL)* gathered at Eskdalemuir Observatory in the Southern Uplands of Scotland. The observatory was built in 1904 and opened in 1908. It was built because of disruption to geomagnetic measurements at Kew Observatory following the advent of electric tramcars at the beginning of the 20th century. The British Geological Survey took over responsibility for magnetic observations from the Meteorological Office in 1968.



Eskdalemuir Observatory showing rain gauges and trials site. The Dines Pressure Tube anemometer can be seen on the roof of the building.

Situated on a rising shoulder of open moorland, the observatory is situated in the upper part of the valley of the White Esk river at an altitude of 242m, and so represents the climate of highland northern Britain. It is surrounded by young conifer forests with hills rising to nearly 700m to the NW. The observatory is 100 km from Edinburgh and 25 km from the towns of Langholm and Lockerbie. As a long standing synoptic meteorological station, Eskdalemuir is involved in measurement of solar radiation, levels of atmospheric pollution, and in chemical sampling. The observatory operates a US standard seismograph and an International Deployment Accelerometer Program long-period sensor. The British Geological Survey has a broadband three-component seismometer set installed at the observatory and records data from four remote sites transmitted to the observatory by radio link.

Over the long history of Eskdalemuir some distinguished persons have worked at the observatory. These include meteorologist and mathematician Lewis Fry Richardson (see photo over-page) who served as Superintendent at the Observatory between 1913 and 1916. Dr Arthur Crichton Mitchell was a Scottish physicist with a special interest in geomagnetics who worked for many years in India as a professor and head of a meteorological observatory before returning to Scotland. He was superintendent of the observatory between 1916 to 1922 and Dr Douglas Haig McIntosh who became a meteorological forecaster for RAF Coastal Command in

Scotland. In 1944 he became Deputy Chief Meteorological Officer for Southeast Asia. After the war he returned to the Edinburgh Meteorological Office in 1950. In 1953 he joined Eskdalemuir Observatory for two years.



On 21st June 1913 a Garden Party was held at the Observatory to introduce the new Superintendent, Lewis Fry Richardson, who was to commence duty on 1st August.



Eskdalemuir Observatory 18th November 1948



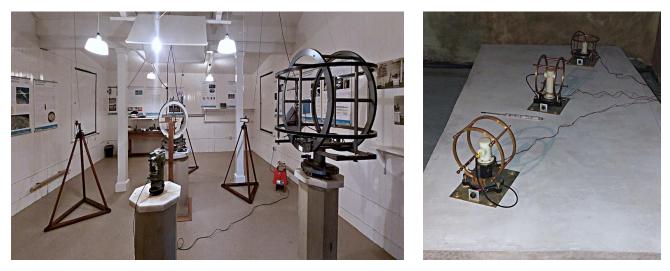
Eskdalemuir automatic weather station – June 2023



Plaque presented to Eskdalemuir Observatory stating *"Eskdalemuir recognized as a long-term observing station by the World Meteorological Organization in May 2017 for more than 100 years of meteorological observations"*



Tour of the automatic weather station by Station Manager Peter Harvey



Monitoring Equipment operated by the British Geological Survey at Eskdalemuir Observatory

The area has a low background of seismic activity, so is ideal for these measurements. There is a second seismic array approximately 3 km north of the main observatory established by the United Kingdom Atomic Energy Authority, this provides the UK part of an international monitoring network of the Comprehensive Test Ban Treaty. This network allows covert nuclear tests to be detected via their seismic signatures. At Eskdalemuir it consists of an array covering 10 square km, consisting of two intersecting lines of 10 pits containing seismometers, a seismological vault, and a recording laboratory.

Shortly after 19:00 GMT on 21 December 1988, the observatory's seismometers recorded the ground impact of Pan Am Flight 103, which crashed into the nearby town of Lockerbie 23 kilometres (14 miles) away after being destroyed by a bomb. The event registered 1.6 on the Richter magnitude scale.

I would like to pass on my sincere thanks to Peter Harvey, Station Manager at Eskdalemuir and his colleague Claire Brown, Site Manager at Eskdalemuir along with Chris Turbitt, Observatories Manager for the British Geological Survey for their time in showing the group around the site and explaining the important work carried out at this longstanding meteorological and geological observatory.

Richard Griffith

Pen Portraits of past Royal Met Society Presidents

In *Weather* (September 1992), Malcolm Walker, Chairman of the History Group wrote the following :-

"On display at the headquarters of the Royal Meteorological Society, there are framed photographs of past presidents. Some hang by a staircase. Most are in the committee room. Who were these eminent meteorologists? Were they, indeed, all meteorologists? What do we know of the past presidents? To help answer these questions, coming issues of Weather will carry pen portraits of presidents, beginning this month with a portrait of Sir David Brunt, a giant of meteorology, who was president 50 years ago".



This introduction announced the start of a series of pen portraits of past presidents, initiated by the Society's History Group. Since then, 58 such pen portraits have appeared in *Weather* and the latest is now in press.

Its subject is Prof Henry Charnock, CBE, FRS. President of the Society from 1982-4. Charnock trained as a meteorologist but is best known as an oceanographer who focussed his research on the turbulent interaction between atmosphere and ocean and the transfer of momentum between the two. Perhaps Charnock's most lasting legacy is his influence on the shape of UK and international marine science.

This portrait of Henry Charnock, painted by his wife Mary, now hangs in the National Oceanography Centre in Southampton.

HMS Challenger 150th Anniversary workshop

Between December 1872 and April 1876, HMS Challenger circled the globe on her pioneering voyage. Her scientists, led by Charles Wyville Thomson, made comprehensive observations from top to bottom of the oceans that revealed for the first time their physics, chemistry, geology and biology. The results were published in 80 large format volumes over the following two decades.

A meeting/workshop, <u>'Beyond the Ocean's Depths:</u> <u>Revisiting the Challenger Expedition</u>' is to be held at the National Maritime Museum, Greenwich on November 7th. It will bring together scientists, archivists and historians. One focus will be on the further use of the Challenger results which offer a tantalising glimpse at the state of the global ocean relatively early in the industrial age before atmospheric CO₂ levels had deviated significantly from preindustrial levels.



Collecting a sample of seawater aboard HMS Challenger.

Public weather information displays – protecting our heritage of weather education

In a recent tweet, Prof. Penny Endersby, CEO of the Met Office, photographed a fine barometer in a public display case in a Cornish village. This led to an interesting discussion as others photographed similar instruments. I then suggested that we compile a census of these instruments – just how extensive was the Victorian (and later) desire to spread weather information amongst the public (in an era before broadcast weather forecasts, let alone weather apps)? Andrew Overton celebrated the public information kiosks in Switzerland in an article in *Weather* (November 2008).

In the next newsletter I would like to include an illustrated list of these instruments around the UK – barometers, barographs and thermometers that remain on public display – on harboursides, promenades and high streets around the country. Why? Well, I have childhood

memories of a thermometer in a case on the promenade at Seaton (Devon). According to what I can see on Google *Streetview*, this has now been 'repurposed' and the pillar that housed the instrument now overlooks a pub seating area. Let's start the series with a rather exceptional example of a public weather display, the fine weather kiosk on Hastings promenade.

So, can you help? Do you have any photographs of these instruments that we could include, or just recollections of instruments? Feedback welcome at <u>history@rmets.org</u>. JM







Outreach and feedback

As ever, we welcome further membership enquiries and also offers of submissions to this newsletter.

If you are on Twitter, please follow us at #RMetS_HistGroup. If not, you can still view tweets at <u>https://twitter.com/RMetS_HistGroup</u> Contributions can be made via the e-mail address below (these come to me, Julian Mayes).

For Facebook members, our Facebook site continues, maintained by Richard Griffith. This can be found at <u>https://www.facebook.com/RMetSHistoryGroup/</u>

All enquiries please to <u>history@rmets.orq</u>



Committee members

Chairman	Vladimir Jankovic		
Secretary	Julian Mayes	(Newsletter editor)	
	Chris Folland		
	John Gould		
	Richard Griffith		
	Norman Lynagh		
	Sarah Pankiewicz	(Nat Met Library & Archive)	
	Catherine Ross	(Nat Met Library & Archive)	
	Peter Rowntree		
	Andrew Russ-Turner		

Since the last newsletter was issued, Howard Oliver has retired from the committee. He will continue to oversee Occasional Papers. The current committee would like to record our thanks to Howard for his dedicated service to the Group over decades – including a period as Chairman. Thank you, Howard.