CLIMATE CHANGE?

DEFINITELY A HOAX

we are water Foundation
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up front
for weather broadcasters

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Welcome everybody to the year 2017. Weather wise the year started not as quiet as one would like to expect.

Throughout the middle and the southern part of Europe the first month was dominated by a wintry weather-pattern with storms, snow and coldness, and the well-known consequences for the day to day life in our highly industrialized society.

Weather-events reached from regionally extreme rain- and snowfall in Turkey (Arpacik 170,9 mm in 24h), strong “Bora” with wind speeds up to 218 km/h in Croatia, cold and stormy weather in Greece with snow on some isles in the northern Aegean See, or a snow-storm in Thessalonika. Unusual amounts of snow in the Turkish city of Istanbul produced chaos on the streets, cancelled and diverted flights; Heavy Snowfall and Storm in the northeastern part of Bulgaria, with partial closure of streets and highways (like “Trakija”) leading from Sofia to Burgas at the Black Sea. Varna at the Black Sea had to close its harbor, had power outages and damaged powerlines through wind and frost.

In the southern part of Romania a snow-storm stopped car- and railway-traffic.

Cold weather and snow also on the holiday-destination Mallorca, Spain, it could become the coldest January since 1985. The Mediterranean coast of Spain and the Balearic Islands saw large amounts of rain with partial flooding. Valencia, also a well-known holiday destination, received 131 mm of rain in 48 hours, while in Alicante people could walk at the snow-covered beach, the first time since 90 years.

Italy, especially the middle part, the Abruzzo, received enormous amounts of rain and snow in higher elevations. In Pescara 187 mm rain within 72 hours, in the Apennines snow heights were up to 2 meters. As they had already snow in the beginning of January some of the villages in the mountainous regions are virtually covered by snow and separated from the outside world.

Snow and Wind also in Great Britain, power-outages in Scotland and the Northern part of England.

In France and Germany a second severe storm-system in January brought gusts up to 150 km/h, snowfall and traffic chaos.

After these storms Germany experienced dry and cold weather with some river-water-levels approaching record “low levels”.

Winter storms in the US, lifting the drought in parts of California featuring the snowiest winter since 1952, also brought much rain and snow to Nebraska. Additionally the US is recording perhaps the largest Winter Tornado outbreak during this past January.

Just trying to search for events in the first month of the year, the number of events could fill a list for a whole year. My list does not claim to be complete. But everyone is invited to report
about severe weather events in her or his country. This brings us to look back to the year 2016, another interesting year in the climate history.

In January WMO confirmed that 2016 was the hottest year on record with 1.1°C above pre-industrial era, surpassing the already exceptionally high temperatures in 2015.

The globally averaged temperature in 2016 over land and ocean was about 1.1°C higher than the pre-industrial period (WMO-definition). It was approximately 0.83°C Celsius above the long term average (14°C) of the WMO 1961-1990 reference period, and about 0.07°C warmer than the previous record set in 2015. See also separate article “confusing time periods”.

There are not too many different words to describe this result. Who could do better than Mr. Petteri Taalas, Secretary General of WMO, summing up the major essentials of this year:

“We have also broken sea ice minimum records in the Arctic and Antarctic”,

“Greenland’s glacier-melt – one of the contributors to sea level rise - started early and fast. Arctic sea ice was the lowest on record both at the start of the melt season in March and at the height of the normal refreezing period in October and November”,

“The Arctic is warming twice as fast as the global average. The persistent loss of sea ice is driving weather, climate and ocean circulation patterns in other parts of the world. We also have to pay attention to the potential release of methane from melting permafrost” said Mr. Taalas.

A very powerful warming El Niño event fueled high temperatures in the early months of 2016. But even after the end of El Niño, temperatures remained well above average.

All the 16 hottest years on record have been recorded in this century, apart from 1998 when there was a strong El Niño. (see also a preliminary view of the insurance perspective; an exact overview will come out in March 2017)

Compared to the pre-industrial period, which was somewhat cooler than 20th century, the current temperature-rise almost marks the limit of 1.2°C. This is considerably near to the agreed Paris-limit of global warming set to 1.5°C – 2.0°C. Up to this limit the risks of climate change might be still manageable. Take a 2°C warming, compared to pre-industrial period, scientists see the danger rising for more heatwaves, heavy precipitation events, higher sea-levels and vanishing fresh-water-reservoirs so as the potential of significantly lower harvests.

Looking at the temperature trend and the results of Paris, we know that only a few countries, namely China and India, have actively worked on the proposed measures to reduce climate change. They have revised their legal framework because of the direct impacts and threats to people's health. Other countries have to act quickly facing a continuing warming trend, which might be different in other parts of the world, but in the end will have an effect in one way or another on all of us.

As our Western World, namely the US-Government, may change in evaluating and describing climate-data, I want to emphasize the importance of the international cooperation of all the global National Met Services in WMO. This system would not be able to function without this international cooperation, and thus is unprecedented. We don't see any similar aspect of politics to produce such a wide range of knowledge-base as this international organization.

WMO uses data from well recognized and specialized Organizations: the US National Oceanic and Atmospheric Administration, NASA's Goddard Institute for Space Studies and the UK’s Met Office Hadley Centre and the University of East Anglia’s
Climatic Research Unit. WMO also draws on reanalysis data from the European Centre for Medium Range Weather Forecasts and the Copernicus Climate Change Service, which use a weather forecasting system to combine many sources of data to provide a more complete picture of global temperatures, including the Polar-regions.

It is still very difficult to recognize which direction the issue of climate-change in the US will be heading. But the perspective after reading the news from Washington is gloomy. According to Climate Central, ProPublica, the Huffington Post, BuzzFeed and the Associated Press, there is a ban in place that prohibits scientists from the Environmental Protection Agency and the U.S. Department of Agriculture from talking to the press and performing outreach via news pages and social media. I am not in the position to judge the legal relevance of this action.

Climate scientists know more about climate than some politicians may know about politics. So let’s hope that science can continue with scientific work to get an even better knowledge of climate change and educate the citizens of the world of possible consequences which might occur through climate change.

The role of the broadcasters has not changed in communicating weather and climate science in simple words to an audience of millions around the world, but the work has become more intense by using social networks for the communication of reliable information to the audience. We have learned only recently that social networks are being used to produce “fake facts”, therefore we have to watch more carefully this element possibly being used as an instrument to influence people with fake facts. The weather and climate community has a great potential and the overall knowledge is based on common ground to carry this science into the future for the benefit of the people.

I close my view with encouraging you to read more about the planned EMS-conference in September in Dublin, which will have a very interesting Media-Session, but also asking you to support IABM as your professional platform for exchange of views and facts. Inge Niedek, 27th of January 2017

A few more words: I had just finished my View-Chair when Gerald Fleming’s mail about Haleh Kootval’s imminent departure from WMO arrived. As Chief, Public Weather Services Division, WMO, she has been a well experienced professional. She has been very engaged in her position and her achievement has brought Public Weather Services to an advanced state to face the future of the Weather and Climate World. IABM has a long history in working very positively with her. She has been a strong supporter and proponent of broadcasters in general within the PWS-side of WMO. IABM takes the opportunity to publish the reaction of some voices about her departure. To learn that she has applied for an extension, which in other cases within WMO is and was obviously possible, brought up some concern about the future of PWS and the fear it might not be as important and strong anymore in the future. We can only hope that WMO can find a way to make use of her long-time-experience.

5th of February 2017, Inge Niedek
What is it?
The Annual Meeting (conference) of the European Meteorological Society (EMS) will take place in Dublin, Ireland from the 4th to the 8th of September 2017. The EMS Annual Meeting is the largest meteorological gathering in Europe, and the most representative. The EMS generally attracts over 600 participants (there were 637 in Trieste last September) although the meeting in Berlin, in 2011, holds the record with 716 persons attending. More importantly, this is the one conference where the three strands of European meteorology – public sector, private sector and academic sector – can join together as equals, under the auspices of the EMS which is in itself the umbrella organisation of the various national Meteorological Societies around Europe.

EMS Annual Meetings are notable for their vibrancy as they attract attendance from a significant cohort of young researchers into weather and climate as well as many of the most significant figures in European and World meteorology. Open debate and discussion has been a welcome feature of recent Annual Meetings as scientific, technical, philosophical and even political points are teased out among the participants.

How does it Work?
The EMS Annual Meeting is organised in a very democratic fashion in that the time allotted to the different themes and strands varies according to the number of abstract or poster submissions which are made for that strand. The overall theme of the 2017 Meeting is “Serving Society with better Weather and Climate Information”. The conference is organised around three (sometimes overlapping) Programme Streams, as follows:

1. Understanding Weather and Climate Processes (UP): this stream focuses on basic atmospheric science and measurement techniques;
2. Operational Systems and Applications (OSA): this stream deals with numerical weather prediction, forecasting, space weather, urban meteorology, energy meteorology etc.
3. Engagement with Society (ES): this stream looks at how meteorology brings benefit to society and specifically incorporates communication aspects of meteorology as well as education.

Within each Programme Stream are individual Sessions, with each Session managed by a Convenor, or Co-Convenors. For example, within the ES stream we find “Media and Communications” as session ES2.1, while session ES1.1 is “High Impact Weather: Socio-Economic Benefits and User Perspectives”. The Convenor of each Session is normally a person active in that particular field, who can judge the likely worth of proposals and abstracts submitted under that particular theme.

This leads to a key feature of how the EMS Annual Meeting is organised; while there are some solicited presentations, most of the presentations are proposed by the presenters themselves, and then accepted for inclusion by the relevant Convenor. The “engine” that enables all this is the firm Copernicus Meetings. As they themselves put it on their website, Copernicus Meetings “promote the sciences by organizing conferences and exhibitions worldwide”.

They provide a wide array of services – abstract/programme management, registration management, and local organization. They support the EMS through an experienced team of organisers and provide custom-developed online tools which integrate all involved parties in the conference process.

Essentially, the call goes out that abstract submission has been opened; individuals who wish to present submit an abstract via a link provided on the European Met Society website, an after the closing date the convenors for each Session review the submitted abstracts and recommend them for acceptance or otherwise. The Convenors then forward their recommendations to the “Programme and Science Committee” which can decide how much time to allocate to each Session; this in turn depends on the number of abstracts within each Session that have been recommended.

The Annual Meeting is normally run with four or five parallel Sessions presenting simultaneously, interspersed with a number of Plenary Sessions when all the
attendees can gather together as one. For 2017, there are a number of specific initiatives in the running of the conference; specifically the opening Plenary Session will be cut down to be very short (in past times this consumed most of the first morning of the conference) and under consideration is the concept of having one Plenary Session for each of the three Programme Streams – those three perhaps commencing the days of Tuesday 5th, Wednesday 6th and Thursday 7th of September.

Most presentations to the EMS Annual Meeting are allocated a 15-min time slot, allowing for a 12 minute presentation followed by a few minute for questions. Solicited presentations and other specific contributions may be allocated a 30-min time slot.

Thus the conference is characterised by a large number of short, snappy presentations and one weakness has sometimes been a dearth of time for questions and discussion. However, as those who attended the communication-themed Sessions in Trieste can attest, sessions can be organised to provide for lively Q&A.

The other element in the EMS Annual Meeting is the display of Posters; there are usually two Poster Sessions where researchers and others can document their work using a combination of text and graphics. The Poster Sessions especially offer young researchers an opportunity to showcase their work and to discuss it will colleagues from across Europe.

**Where is it being held in 2017?**
The venue for the EMS Annual Meeting 2017 is Dublin City University (DCU), the newest of Dublin’s three universities. Since admitting its first students in 1980, DCU has now grown to a point where in 2016 it delivered more than 200 programmes to over 16,000 students across five faculties. DCU’s excellence is recognised internationally and it is regularly featured among the world’s top young universities, with a ranking in the 2016 “Top 50 Under 50” league table of the top young universities in the world. The DCU campus in the Glasnevin suburb on the north side of Dublin city is coincidentally close to the headquarters of Met Éireann, the Irish Meteorological Service, just a 15-minute walk away.

The campus grew around the old “Albert College”, established in 1838 for the advancement of education in agriculture and named after Prince Albert of the UK who visited there in 1853. The campus today, however, is characterised by a strikingly modern assemblage of buildings, most of them erected in the last two decades. Among these is the “Helix Theatre” a fully-functional theatre with seating capacity for almost 450. This theatre, often host to dramatic or musical events, will be the setting for the plenary sessions of the EMS Annual Meeting, with the smaller and more focused convened sessions taking place in the adjacent lecture and classroom blocks. The DCU campus incorporates a significant number of student rooms in purpose built accommodation. On-campus facilities include restaurants, a shop, bank, hairdresser, pharmacy, bookshop and library.

The campus is about 5km north of Dublin city centre, to which it is joined by a number of bus routes. It is about the same distance away from Dublin Airport, further to the
Here’s what you should be doing:

Actions:
- Go onto the Conference Website at http://www.ems2017.eu
- Click on “Call for Abstracts”
- Tick the “Engagement with Society (ES)” box to view the Sessions within this Programme Stream.
- Select which Session you can make a contribution to. Key Sessions of interest would be ES2.1 “Media and Communications” and ES2.2 “Communication of Science”
- Under the “Operational Systems and Applications” Programme Stream you will find Session OSA2.9 “Delivery and Communication of Impact-Based Forecasts and Risk-Based Warnings” – this is another Session you may wish to consider.
- When you have chosen your Session (and you can choose to submit more than one abstract!) then write your abstract (between 300 and 400 words, clear, concise, and written in English) and submit it using the “Abstract Submission” link. There is a fee of 35 Euros payable for handling abstract submissions.
- Block off the week of September 4th – 8th in your diary
- Book your flights to Dublin!

The IABM would particularly like to encourage members to attend EMS 2017 and to contribute to one of the Sessions focused on communication. Keep an eye on the Conference Website and the details of registration dates and availability of on-campus accommodation will be posted in due course.

The AGM of our Association will be held in Dublin during the week of the EMS conference, and, this being Dublin, a good night out is guaranteed to follow!

START PLANNING FOR YOUR CONTRIBUTION TO THE EMS ANNUAL MEETING 2017 NOW!
Operational Systems and Applications (OSA)

Sessions will address efforts to develop and optimise the end-to-end process of state-of-the-art operational weather, climate and atmospheric composition services. This encompasses a wide range of methodologies, analyses and applications, some operational, that take stock of scientific advances combined with evolving capacities:

- HPC, GIS, new observations, internet, telecommunications, big data, etc. This entails developing methods for consolidating the wealth of available data into information that can be easily interpreted.

Engagement with Society (ES)

Sessions will address efforts and challenges in creating stronger links between meteorological and climate activities and the socio-economic environment, providing a platform for users to present their requirements and use of applications.

Understanding Weather and Climate Processes (UP)

Sessions will address recent progress and future challenges in observing and understanding atmospheric processes and the climate system. This includes interactions with related sub-systems: the hydrosphere, cryosphere, biosphere and pedosphere, and changes and feedback mechanisms within an integrated Earth system approach. The relationship between observables, processes and modelled quantities has to be investigated. Finally, the scientific community must respond to the evolving needs of society towards new knowledge.

We would like to invite members of the International Association of Broadcast Meteorology to the Canadian Meteorological and Oceanographic Society’s 51st annual Congress meeting. The theme of the 2017 Congress is “Future Earth: Weather, Oceans, Climate”. The congress will bring together a wide range of scientists and other professionals from across Canada and other countries, with a focus on topics in atmospheric, ocean, climate and earth sciences. We have an ambitious and compelling programme planned this year, with celebratory activities that will mark the 50th Anniversary of CMOS, and Canada’s 150th birthday!

Join us June 4-8, 2017 at the Toronto Downtown Hilton, Toronto, Ontario, Canada.

For more information please visit the following:
- CMOS Main Web Site http://www.cmos.ca
- Congress Website http://congress.cmos.ca/
- Congress Facebook: cmostoronto2017
- Congress Twitter: @cmostoronto2017
We have discovered that Haleh Kootval is leaving the WMO at the end of March. As leader of the Public Weather Services branch she drove the revolution in the delivery of weather to the public. Her replacement is Miriam Andrioli from Argentina.

I have worked with Haleh since the start of weather broadcasts on BBC World in the 90’s and subsequently on many training courses all over the world for Broadcast Meteorologists.

At our first meeting at a conference in Chicago, she got us together with CNN to discuss how attribution for global forecasts could be provided. She told how an Member of Parliament in Bangladesh berating an incorrect forecast leading to flooding, said that their National Met Service was not now needed as the BBC had got it right! It was a timely reminder and typical of the back-room negotiation that she is so good at.

Through most of this time she was a lone voice in WMO for the delivery end of the business. She made enemies in her single-minded and lonely attempt to convince her colleagues that ‘you can have the best forecast in the world, but if nobody knows about it....’ I fear that she is the victim of her determination to raise the profile of PWS.

But I fear a darker side to all this. In Trieste at the EMS Conference I met the new SG (Secretary General), Petteri Taalas. I have always had good relationships with his predecessors, but found him reluctant to engage. Answering questions at a later session, I had a chill feeling that his interest in delivery of the forecast was rather lacking.

As a Producer, I’m trained in watching body language and my reading of his was troubling. The IABM Board had been trying to arrange a meeting with him and sent two letters of request which went unanswered. An attempt to arrange an ad hoc one in Trieste was not provided as we were told he was too busy.

At a subsequent meeting of the Board of the IABM, they resolved to try and participate more in Executive Council to challenge him in the open, and ensure that PWS didn’t get lost and that the WMO was not moving back to the dark days.

My feeling is that the temptation, offered by the age-related WMO contract, to get rid of Haleh by some important person(s) in the hierarchy was not questioned by the SG as it provided a way of pushing PWS down the agenda. It is curious to note that in the UK age discrimination has been removed by law and the only qualification for removing someone is incompetence. Haleh certainly does not qualify for the latter!

There is a solution that would be easy for them to put in place, without them losing face, and that is to create a new role for Haleh that will encompass and use her unique skills. In particular the President needs reminding who is boss in the WMO and if needs be, call his new SG to account.

John Teather, Founder and former Editor of the BBC Weather Centre
The news that Haleh Kootval will be moving on from her role as Chief of Public Weather Services with WMO truly marks the end of an era.

Difficult as it may be to realise now, up to the early 1990’s there were no structures in WMO to address the issues around the delivery end of the weather business. Nothing about weather broadcasters, nothing about user engagement, nothing about warnings coordination, in short nothing about the engagement of the science of meteorology with society nor the value and contribution which meteorology makes to society. WMO was then a body primarily devoted to the development of atmospheric science, the establishment and maintenance of technical standards, protocols for data communication and suchlike matters – all vitally important, of course, but lacking in any “outward-looking” focus.

It was due to the efforts of John Zillman and others that this weakness was identified, and the Public Weather Services Programme (PWSP) was established in 1994 with Haleh appointed as its first Chief. Starting from scratch, she has built the PWSP into what is generally recognised as one of the most effective Programmes in WMO, working with a tiny team of herself, a scientific officer and a secretary/administrator. It was she who developed the WMO “Guide to Public Weather Practices”, published in 1999 and currently undergoing a thorough review and updating. She established a number of Expert Teams and Expert Groups which, through her facilitation, between them have produced 27 separate Guideline documents on aspects of Public Weather Services practice.

More recently, she has led the development of the WMO Strategy for Service Delivery, driven the development of its Implementation Plan, and was the main driving force behind the preparation and publication of “Valuing Weather and Climate” – a joint WMO/World Bank book which acts as manual for National Met Services (NMHSs) who wish to carry out Social and Economic Benefit Studies to demonstrate the value they bring to society.

Through all of this Haleh has conducted countless training courses for NMHS personnel in presentation, in media, in user engagement and in social and economic valuation. Her ability to travel to any part of the globe, in any timezone, and turn up at 9am on a Monday morning as fresh, organised and focused as any local participants was staggering; her determination that each meeting should not conclude without all the business being completed and the report written was both challenging and enriching. The growth of the Severe Weather Forecast Demonstration Project over the past decade or so added considerably to the range of training events to which she contributed, as she insisted that improvements in the capacity of national forecast offices to generate forecast and warnings services must be matched by a concomitant improvement in the capacity for Service Delivery.

Her own energies and work are only part of the story. Haleh has a natural ability to forge alliances, to develop partnerships, and to leverage support for her Programme wherever it is to be found. As Chief of PWS she sat at the centre of a web of influence and support that extended outwards through bodies like the World Bank, UN OCHA, the IABM, the APCC, USAID etc which facilitated her in advancing the work of WMO in the delivery of Public Weather Services.

As Chair of the Expert Team on Media Issues, and latterly as Chair of the Open Programme Area Group for Public Weather Services, I have been privileged to work with Haleh and her team for almost two decades, and have witnessed at first hand her leadership and commitment to the work of WMO. When striving for the advancement of Public Weather Services, whether in a national or international context, her passion never dimmed, her energy never flagged, her focus never wavered.

The centrality of the PWSP and the concept of Service Delivery to the work of WMO will be her legacy to an organisation where she often had to fight for understanding and recognition. The work of the PWS Programme will continue under new leadership, hopefully for many decades to come, but its strength and indeed its very existence are the legacy of one extraordinary woman. In WMO, an era is truly ending.

Gerald Fleming, Chair of the OPAG on Public Weather Services.
This is a real shock. The thought of the PWS programme (and indeed WMO!) without Haleh, and especially at such short notice, is almost unthinkable.

Since my involvement in the early days (mid 1990’s) of PWS in WMO when it wasn’t yet a programme and Haleh had just been appointed, PWS has grown enormously in terms of the volume, reach, quality and impact of its work. It’s had tremendous support from WMO Members at every Congress since 1991, and has done excellent work through the help of CBS and the many experts who’ve contributed.

But the single most powerful force in driving this programme forward has been Haleh. Her dedication, focus, determination, hard work, and, perhaps above all, her passion has been outstanding.

The programme has exceeded expectations in every area of its work. Haleh has been one of, if not the main influences in WMO giving greater emphasis to service delivery, severe weather impacts, societal impacts and economic valuation. The links with other programs such as research and education and training have been enormously valuable, for example the forecaster competency issue.

I’ve become even more aware of the volume of output from the PWS programme when Haleh asked me late last year to begin a review/update of the 1999 Guide on PWS and the more than 20 other guideline publications that have been added since.

The other amazing aspect is that this work has been accomplished on a comparative shoe string among WMO programmes. It’s been Haleh, one other program officer and a secretary, and a very limited budget. But through gaining the collaboration of others she managed to stretch the budget by things like arranging meetings and training events back to back with other events.

One of the main original arguments for a PWS programme was that WMO should help Members to improve their own PWS because, at the national level, an effective PWS was the visible pay off for tax payer investment in the critical infrastructure to support the NMS. As Peter Kreft says that is still an incredibly important consideration in a time of constant pressure for smaller government.

I would hope that at the very least, if a long term contract extension is not possible, something can be arranged to ensure that her expertise and experience is not lost so abruptly, and there is sufficient time for an orderly transition that does not put at risk the future of such an important programme.

Best regards

Kevin O’Loughin

Like everyone else, I am deeply shocked at the news of Haleh’s non-selection for the role she has performed superbly for more than 20 years. I sincerely hope, however, that this does not mean that she will be lost to WMO and the meteorological service provision and broadcast community.

I agree completely that, in terms of the value to WMO Members from the work of the Secretariat, she is an absolute star. No-one in my time has done as much as Haleh for the quality and effectiveness of service provision, the community benefit from NMS services or the public awareness of the societal value of the work of NMSs. And, as others have reminded us, she has done it all on a shoe-string budget through sheer ability, energy and commitment to Public Weather Services (PWS) and to the continuous improvement of service delivery and application at every level.

Haleh did a terrific job, early in her career as Acting President of Regional Association V and, when she first joined the Secretariat, as Regional Officer for the Southwest Pacific. But it was when she was assigned responsibility for the fledgling PWS in the early 1990s that her remarkable commitment and skills really came to the fore and, in my observation, significantly transformed meteorological service provision around the world. As the IABM community, more than most, are aware, she built dialogue and collaboration with the broadcast and
other media and gradually won the confidence and support of everyone in the service delivery chain.

I never ceased to marvel at Haleh’s ability to enlist the enthusiasm and support of key people in communities not normally close to WMO and the foresight and dedication with which she drew on the experts, in specialised branches of meteorology/hydrology, economics and communications to put together excellent WMO training materials and run WMO workshops for helping NMHSs strengthen their service delivery culture, performance and impact. She has always been a loyal and much-admired ambassador for WMO and her professional skills and dedication to WMO have done much for the image of the Organization in the NMS community and in the outside world.

In the 25 years that I was centrally involved in the work of WMO and the following decade or so when I continued in more externally based advisory roles, I encountered no-one who I regarded more highly than Haleh for dedication to WMO or for value to the Organization. To many Permanent Representative in my time, she epitomised what was best and most helpful about the WMO system.

At various stages over the years, I had occasion to delve into most of the duties and responsibilities now assigned to the Chief of the Service Delivery Division and I had long since concluded that Haleh is the world authority on many, if not most, of them. In my view, her knowledge of those roles and responsibilities and her capacity to discharge them for the benefit of WMO and the broader weather/climate/water community remains unrivalled on the international scene. WMO cannot afford to lose her special expertise and ability and I fervently hope that, if not in the same position, at least in some closely related way, the international meteorological service provision and broadcast community will continue to benefit from her unique skills, dedication and ability to get things done.

Thank you to Gerald Fleming, for his timely reminder of how much we all owe to Haleh for what she has done for WMO and meteorological service delivery and for triggering the shock of recognition of the risk of losing her from the WMO scene.

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Miriam Andrioli will be replacing Haleh.

She graduated in Meteorology at the University of Buenos Aires, Argentina, and joined the National Meteorological Service shortly afterwards.

Positions held: Chief Marine Meteorology Division, Deputy Chief International Affairs Department, Chief Public Relations and Comm Media Dept.

As operational aeronautical and Antarctic meteorologist, she has been responsible for the MET support to the Argentine Air Force Logistic Flights to Antarctica and completed an Antarctic Summer Campaign with the Argentine Navy whilst inspecting Antarctic MET stations.

She was MET advisor to the President of Argentina for a four year period. International activities: Instructor at NOAA U.S. NWS’s South American Desk; WMO/IOTC-UNESCO- President JCOMM Capacity Building (CB) Group; JCOMM CB Programme Area Coordinator; Rapporteur on WMO RA III Marine Meteorology Services; Focal Point for Argentina at WMO Women issues in Meteorology, Hydrology and related Scs. Group. ICAO-Member of Argentina on the IAVWOPSG and representative of VAAC Buenos Aires since 2008. MET advisor for the VA Contingency Plan for ICAO South American Region.

She is also a weather journalist, presenter and producer at a leading TV/radio national network in Argentina.

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She is also a weather journalist, presenter and producer at a leading TV/radio national network in Argentina.
However, their book is different. It doesn’t really fit into a single category.

Certainly it is unique as it deals with the background to a remarkable journey that made the BBC Weather Centre a world leader.

It is also different because the book has two authors, which is a reflection of the two very different disciplines that brings the weather forecasts to our screens each night. Certainly when they were working at the BBC the public appetite for information about what we did and how they did it, was insatiable.

Weather has always been a talking point in the UK, but there is also a national obsession over how the forecast is made and the people who appear on our television screens.

Their book reflects a time of great change for two of the country’s leading institutions. Both the Met Office and the BBC grappled with creeping privatisation whilst trying to maintain the highest scientific and broadcast standards. The world was changing and both organisations, with international roles to play, were still able to provide leadership.

The book is now finished with 21 chapters, 243 pages including 26 pages of unique colour photographs and 110,000 words they are hoping that their story will now find an audience.

Weather is a national obsession and weather in the UK is a topic of conversation throughout the world as it illustrates the stoic nature of the British! Nobody who lives on our island is excluded from the effects of our weather, be it a mother hoping for sun on her daughter’s wedding day, to those caught in the recent flooding, to those who daily live their lives with the weather such as farmers and fishermen.

Ever since the first radio broadcasts by the BBC in 1926 weather was a feature. Even when the first public Television service started in 1936 it included a weather forecast. Then in 1954 the BBC introduced the first weather TV forecast with a ‘weatherman’.

Today we take for granted our weather forecasts not realising the technological and presentational changes that have taken place over the years. Good television always looks easy, because all of the elements come together to produce a result that is more than the sum of all its parts.

The journey from 1954 to today involved a whole range of innovations for both the UK Met Service and the BBC, not only technical, but understanding how to communicate our very complicated atmosphere in a way that ‘the man in the street’ could readily understand.

Bill Giles OBE, one of the UK’s best-known weather presenters, and John Teather, the founder and former Editor of the BBC Weather Centre worked together to revolutionise how weather was presented and turn the BBC and the UK Met Office into world leaders in this field.

Their new book is not a history lesson, but a ‘peep behind the curtains’ at the world of broadcast meteorology, sometimes fraught, many times difficult, often funny and always challenging. It reflects the personalities such as Michael Fish, Ian McCaskill, John Kettley and Suzanne Charlton who were household names. It explores two of the nation’s great institutions – the BBC and the Met Office as they both struggled with enormous internal change.

It is a book that doesn’t fit in the normal categories. To make excellent broadcast weather reports takes many different resources and talents and perhaps this book is a reflection of this many faceted approach. Not autobiography, not history, not scientific paper, not tales out of school, not a learned journal – but simply an exciting journey.

But the book also shows how a shared vision of two very different people, from entirely different backgrounds, can work together to realise a dream and take on the world.

Finding a UK publisher has proved challenging. So in an effort to ‘get it out there’ Bill and John have self-published. Available in both electronic and book form on Amazon, or more cheaply by post by going to: www.weatherpeople.com
We have different periods as to relate the globally averaged temperatures in the annual reviews.

In order to classify the results we have to compare them to past recordings.

In connection with the statistics we notice that different time-periods are often used. Just to clarify: The pre-industrial period according to WMO: most commonly used as being 1850-99 and 1880-99. The value of a temperature increase of 1.1 °C is valid (to the nearest 0.1 °C) whichever of these periods is chosen.

The long-term average: by WMO is – the internationally used reference 30-year-period (1961-1990) to maintain consistency in the calculation of climate statistics. The next standard reference period will be 1991 to 2020.

The period 1976 to 2005 is often used as a more recent 30 year period to calculate statistics that are more descriptive of our current climate, especially with climate change in progress. Many of currently used climate maps and statistics are calculated over this period.

Anyway these different periods cause confusion for those who use the statistics for the media.

There are some considerations about the definition about pre-industrial periods:

It might be quite understandable, when we talk of global warming, that we need a comparison period, where temperatures had been measured without the influence of human behaviour.

To understand this process, scientists need to examine the history of climate changes on earth. Fact is, that direct measurement of temperature and other climate data only date back approximately to the late 19th century. A study published in Nature last year found a small, but detectable increase in global temperatures as far back as the 1830s for some parts of the world. But the signs may have been only local and small, because the massive use of coal-burning was just starting.

The study is being discussed controversially, but some scientists agree, that warming obviously goes back further than instrumental records can show and that the current warming should be compared to an earlier baseline than is currently used.

Michael Mann, a Penn State climatologist (well known for the reconstruction of the “Hockey Stick” curve) agrees that in order to judge the global warming, we have to consider all different aspects in order not to underestimate the current warming processes.

In one of the AMS-Online-Journals of BAMS we find more about the definition of the “pre-industrial” period. The United Nations Framework Convention on Climate Change (UNFCCC) process agreed in Paris to limit global surface temperature rise to ‘well below 2°C above pre-industrial levels’.

But what period is ‘pre-industrial’? Someewhat remarkably, this is not defined within the UNFCCC’s many agreements and protocols. Nor is it defined in the IPCC’s Fifth Assessment Report (AR5) in the evaluation of when particular temperature levels might be reached because no robust definition of the period exists.

Mostly used so far is the WMO-definition (see View from the Chair). But maybe this definition will change, because of new evidence.

Inge Niedek, 27.1.2017 with material from WMO, Nature, AMS, Climate Central, Bureau of Meteorology, Australia.
THE STATION SCIENTIST’S RESPONSIBILITY TO REPORT ON CLIMATE

For decades, broadcast meteorologists and weather presenters have been asked to provide on-air support and analysis on everything from earthquakes and meteor showers to rocket launches and aircraft accidents.

A request to discuss these science-related subjects often comes from the TV-news directors, who see their weather anchor as their “station scientist”. But in the United States, you rarely – if ever – see a station scientist receive a request from the manager to discuss climate change on a newscast. Anthropogenic global warming is very likely the greatest scientific challenge facing humanity in this century. Yet, unless a weather presenter takes the initiative to discuss climate change on the air, it rarely happens.

The main reason for this, of course, is well known. Unlike the rest of the world, in the U.S. climate change is a politicized subject. News directors and station managers are afraid that they will upset a part of the audience by having their weather presenter discuss the facts and consequences of global warming. In certain cities and states, the percentage of the audience that may be “offended” by climate change information is significant. Broadcast meteorologists know that their bosses experience varying degrees of nervousness – fear – about the potential impact to viewer ratings from an “unpopular” climate change presentation.

But as we have advanced further into the 21st century, the effects of climate change have become undeniable. Weather presenters – even in America – are seeing many more opportunities to discuss climate on the air. When done right, there is little chance that anyone will be “offended”.

I have found that the best way to do it is to always tie-in climate change to an ongoing event. So, for example, if there’s excessive rainfall in Florida, I will discuss the details of the event and always remind the audience that the propensity for heavier rainfall is increasing as the world warms. Recently I’ve discussed the numerous heat-related records we’ve set in Miami, adding details such as the unbalanced ratio of record-heat to record-cold readings (which was approximately 5-to-1 in the United States in 2016). In tracking hurricanes well into the North Atlantic, I discuss the warmer-than-normal sea surface temperatures linked to global warming that are allowing stronger cyclones in more pole-ward latitudes.

In addition, American weather presenters have had the benefit of Climate Central’s “Climate Matters” program, which for the past 3 years or more has provided data and graphical support to aid in the presentation of climate change related subjects. Their graphics are tailored for each television market, making it extra-easy to use on-air.

In August 2007, former AMS president Bob Ryan and I co-authored an editorial in the Bulletin of the AMS (BAMS) urging broadcast meteorologists to divorce themselves from personal, political and religious biases and present the state of the science of climate change to their audience. Today, almost ten years later, I see positive momentum in this area. But a lot more can and should be done. Sometimes, it takes courage to take that first step. This is a time, like no other, to be courageous.

Award-winning meteorologist John Morales joined NBC 6 as Chief Meteorologist in 2009. John is the longest tenured broadcast meteorologist in South Florida,
NATURAL CATASTROPHE LOSSES AT THEIR HIGHEST FOR FOUR YEARS

A number of devastating earthquakes and powerful storms made 2016 the costliest twelve months for natural catastrophe losses in the last four years.

Losses totalled US$ 175bn, a good two-thirds more than in the previous year, and very nearly as high as the figure for 2012 (US$ 180bn). The share of uninsured losses – the so-called protection or insurance gap – remained substantial at around 70%. Almost 30% of the losses, some US$ 50bn, were insured.

“After three years of relatively low nat cat losses, the figures for 2016 are back in the mid-range, where they are expected to be. Losses in a single year are obviously random and cannot be seen as a trend,” said member of the Board of Management Torsten Jeworrek. “The high percentage of uninsured losses, especially in emerging markets and developing countries, remains a concern. Greater insurance density is important, as it helps to alleviate the financial consequences of a catastrophe for more people. With its risk knowledge, the insurance industry would in fact be able to bear a much greater portion of such unpredictable risks.”

Key nat cat figures of 2016:
- Both overall losses and insured losses were above the inflation-adjusted average for the past ten years (US$ 154bn and 45.1bn respectively).
- Taking very small events out of the equation, 750 relevant loss events such as earthquakes, storms, floods, droughts and heatwaves were recorded in the Munich Re NatCatSERVICE database. That is significantly above the ten-year average of 590.
- Some 8,700 lives were sadly lost as a result of these natural catastrophes, far fewer at least than in 2015 (25,400), yet within the ten-year average (60,600). The past year was thus the year with the fewest fatalities (after 2014, with 8,050 fatalities) in 30 years (1986: 8,600).
- The high number of flood events, including river flooding and flash floods, was exceptional and accounted for 34% of overall losses, compared with an average of 21% over the past ten years.

The five costliest natural catastrophes of the year:
Earthquake in Japan most expensive natural catastrophe of 2016
The costliest natural catastrophes of the year occurred in Asia. There were two earthquakes on the southern Japanese island of Kyushu close to the city of Kumamoto in April (overall losses US$ 31bn; proportion of insured losses just under 20%), and devastating floods in China in June and July (overall losses US$ 20bn; only some 2% of which were insured).

North America was hit by more loss occurrences in 2016 than in any other year since 1980, with 160 events recorded. The year’s most serious event here was Hurricane Matthew. Its greatest impact was in the Caribbean island nation of Haiti, which was still struggling to recover from the 2010 earthquake. Matthew killed around 550 people in Haiti, and also caused serious damage on the east coast of the USA. Overall losses totalled US$ 10.2bn, with over a third of this figure insured.

Series of storms in Europe, wildfires in Canada. North America was also impacted by other extreme weather hazards, including wildfires in the Canadian town of Fort McMurray in May, and major floods in the southern US states in summer.

In Canada, the mild winter with less snow than usual, and the spring heatwaves and droughts which followed, were the principal causes of the devastating wildfires that hit the oil-sand-producing region of Alberta, generating overall losses of US$ 4bn. More than two-thirds of this figure was insured. In August, floods in Louisiana and other US states following persistent rain triggered losses totalling US$ 10bn, around a quarter of which was...
There was a series of storms in Europe in late May and early June. Torrential rain triggered numerous flash floods, particularly in Germany, and there was major flooding on the River Seine in and around Paris. Overall losses totalled some US$6bn (approximately €5.4bn), around half of which was insured.

“A look at the weather-related catastrophes of 2016 shows the potential effects of unchecked climate change. Of course, individual events themselves can never be attributed directly to climate change. But there are now many indications that certain events – such as persistent weather systems or storms bringing torrential rain and hail – are more likely to occur in certain regions as a result of climate change,” explained Peter Höppe, Head of Munich Re’s Geo Risks Research Unit.

The American Meteorological Society (AMS) would like to share its free monthly newsletter AMS Soundings with members of the IABM.

Each edition includes news, profiles, awards, special articles, important dates, and other great information about all that’s going on with AMS, its work, and the weather, water, and climate community. AMS is committed to strengthening the incredible work being done across the public, private, and academic sectors. Our community knows that collaboration and information sharing are critical to ensuring that society benefits from the best, most current scientific knowledge and understanding available.

To view the latest issue and to find out how to subscribe, visit the AMS Web site at https://www.ametsoc.org/ams/index.cfm/email-subscriptions/ams-soundings-monthly-newsletter/.

The IABM is a voluntary organisation where everyone involved is unpaid and the funds are drawn solely from membership fees. The current fees, which are in Euros which is the fairest and easiest payment currency, are:

- **Special Membership** - these are members who are based in developing countries and specially approved by the Board. They will receive the industry magazine UP FRONT and also pay a token annual subscription fee which grants them full rights to elect the directors or serve on any committee that sets the direction of the association. Membership is 1 Euro per year.

- **Associate Membership** - these members will receive the industry magazine UP FRONT by email, but are not allowed to elect the directors or serve on any committee that sets the direction of the association. There is no membership fee.

- **Corporate Members** - this form of membership is for companies and organisation that wish to support the IABM and it’s aims. They are entitled to free editorial space in UP FRONT, and can associate themselves with the IABM in their own advertising and promotions. Membership is 500 Euros per year.

The organisation needs to persuade more people to join as fee paying members in order to have sufficient funds to keep it running.

The obvious question is “what’s in it for me”. Perhaps a reversal of the question provides the answer “what can I contribute to keep our industry represented”.

If you would like to join, please visit the web site www.iabm.org and click on ‘Joining’. There you will find a link to an application form. Payment of fees is simply done by using your debit/credit card through a secure payment system. All is explained on the site.
WHAT WOULD WE DO WITHOUT SKYPE?

The committee of the IABM continually struggle with getting ‘face-to-face’ meetings. However, the advent of Skype now means that it possible to meet more frequently. Although with the different time zones around the world, we can’t always get everyone together at the same time. Following the Skype Conference, Chairman Inge Niedek emails a summary to the ‘missing’ members.

But what do we talk about. If you were to listen in, the main conversation is over how to arrange conferences for our members and others. At the end of last year there was a lot of planning for the forthcoming EMS (European Met Society) Annual Meeting in Dublin Ireland in September this year. The association is taking a leading role in planning the media component including running training workshops. More details can be found in this edition.

Money always features, as the sole income for the IABM is from membership subscriptions. We are lucky to have some Corporate Members and a little sponsorship - but it is never enough. Part of our costs are associated with maintaining the association as a Limited Company. Treasurer Gerald Fleming has been charged with investigating an alternative arrangement, but we need to remain a legal entity so that we can sign contracts.

Discussions over the next edition of UP FRONT provides endless business as the committee considers it a vital means of communicating with our industry and so are always looking for articles that both stimulate and challenge our readers.

Finally, there is the chance to socialise a little as we joke about one another’s countries and the headline politics. So, Brexit for England, Financial problems in Greece, Environment in Canada, Angela Merkell in Germany and Catalanian Independence in Spain. All good harmless banter!

We are hoping we may see many of you in Dublin in September and we might even be able to have a committee meeting in the ‘flesh’.
At the core of medical and of public health training, we learn that you cannot just look narrowly at the problem in front of you, you are obliged to look for the systemic causes, how did the patient get into this state and what are the challenges going forward? Failing to do so is malpractice.

If an internist were to see a patient who is elderly and very overweight, and who came in complaining of a sore on her foot, one that wasn't healing, and that internist merely prescribed an ointment and failed to address the very real likelihood that this patient has vascular disease and diabetes, and was in grave danger of gangrene and amputation, in that case an objective party would review this failure as medical malpractice.

It is not enough for the doctor to know a lot of science. It is equally important that the person who is put between the scientific world and the human being must show true diligence.

I will assert the same is true for meteorologists, who are clinical practitioners. They are face-to-face, at least electronically, with the father getting his children ready for school, the farmer working out her planting and harvest schedule, the pilot and air traffic controller, or the mayor struggling with the decision about whether to require a full scale evacuation. You not only save lives, you save livelihoods.

Everyone wants to hear what meteorologists have to say. Much of the time they're the only ones worth watching on television. We need them to be technically proficient, but we also need big picture thinkers who forecast, as the navy admirals do, way out beyond the bow.

I started my career as a pediatrician and then an epidemiologist focused on environmental hazards. Two decades ago I took the position as Director of the National Center for Environmental Health at Centers for Disease Control and Prevention in Atlanta, arguably the highest public health and environment position in the United States. I was overseeing service programs like the childhood lead poisoning prevention, epidemic investigation of cancer and birth defect clusters, measurement of chemical levels in the American people.

During my first year at CDC, I assigned four epidemiologists to Chicago because of a serious heat wave. That investigation documented over 700 deaths. We learned much about the danger of social isolation, the effects of mental illness and poverty interfaced with climate disaster, and the importance of air-conditioning and the need for better designed buildings and places of refuge.

While at CDC I learned a great deal about climate change, especially from my colleagues at US EPA, NOAA, NCAR and others. I also learned from the doctors working in our refugee and international health group. I had underestimated the dreadful suffering that comes when 50,000 or 100,000 people are forced to move because of war or disaster. Look at the horrific suffering caused by the movement of a half million people from Syria.

Serious scientists and public health leaders, and Pentagon leaders, are gravely concerned about climate change. We fear that the violent storms, floods, droughts, sea level rise and loss of agriculture associated with climate change will cause migrations hundreds of times larger than the displacement from Syria.

An important aspect of this is that I really want to acknowledge and to thank meteorologists for very important work and outreach informing the public about weather threats. I would assert that both physicians and meteorologists are in a daunting and sacred position between people and the world of science.

In meteorology the systemic disorder is climate heating as a result of climate forcing gases. I worry deeply about the future of my country, about environment and health, about our economy and about our security threats. Some will likely say that it is not meteorologists’ job to report on longer-term and global threats, such as climate. In response here’s a medical story.

We struggled to deal only with individual cases, but we did not have a robust culture of alertness and intervention. After a series of tragic
failures to identify children who were obviously victims of abuse, many of the states enacted laws that required that clinicians who “know or suspect” that a child is a victim of abuse, must report this to appropriate authorities within 24 hours. During my training this was drummed into us, but I naively thought that this was something pretty remote, that was in the newspaper, and that I would rarely see this.

I soon learned often and painfully that I was wrong. I was a skinny young red-haired pediatrician with lots of academic knowledge, but with limited practical experience. One evening while working in the emergency room at a busy city hospital, my next patient was a 10-year-old boy who clearly had been beaten. There were fist marks on his face and bruises on his body, but I was told that he had just taken a fall. I did a full exam looking for neurological symptoms, broken bones, blood in the urine and more, but the words “know or suspect child abuse?” echoed in the back of my mind. I decided to make the legal report and I called the social worker who helped me do the paper work. I subsequently learned that the child was from a prominent family, and the son of a judge. The following day when I reported back to work at the emergency room, a burly man confronted me. He said he was the family’s private pediatrician. His face was red with anger and only six inches from mine. He began to berate me saying “No one calls for a child abuse investigation on one of my families. What you did was wrong. I’m going to have you fired.”

I wasn’t prepared for this, kept quiet for a bit, and then said: “Doctor, I can show you the law, it says: if we know or suspect child abuse, we are obliged to report. I could be liable for felony neglect if I failed to do so.” He did complain to the hospital administration, but after that I never heard another word from him.

I wonder if meteorologists are not in a similar role. Fellow citizens need meteorologists to keep them safe. When we fail to look at the systemic causes of the immediate problems in front of us, we are guilty of malpractice. When we fail to identify threats to our children and grandchildren, we are guilty of child neglect, and in some cases child abuse. Just as with child abuse, when there is a grave threat, we need to speak with courage even when we don’t have absolute proof. That can be decided later.

Will our grandchildren, and all grandchildren, berate us: “you should have known we were in grave danger; why didn’t you act in time to protect us?”

Dr. Richard J Jackson is an author, and professor and researcher of environmental health sciences at the UCLA Fielding School of Public Health. He is the former director of the CDC’s National Center for Environmental Health.

Photos: Top photo - College of DuPage Meteorology Program, Credit: COD Newsroom/flickr; Second photo - Dr. Richard J Jackson, Credit: UCLA; Third photo - Meteorologists in front of a digital wall, Credit: Penn State/flickr; Fourth photo - Syrian refugees in Iraq, Credit: UN
894 million people don’t have access to safe freshwater. Be part of the solution.