

# **Report on the Third Global Meeting of the IFMS held at the University of Reading, UK, on 12 and 13 September 2013**

## **Introduction and background**

The Royal Meteorological Society (RMetS) and the European Meteorological Society (EMS) hosted the third global meeting of the International Forum of Meteorological Societies at the University of Reading, UK, on 12 and 13 September 2013. The meeting was held in conjunction with the 13<sup>th</sup> Annual Meeting of the European Meteorological Society (EMS) and the 11<sup>th</sup> European Conference on Applications of Meteorology (ECAM) being held at the University of Reading from 9 to 13 September 2013.

The IFMS was created to foster and encourage communication and exchange of knowledge, ideas and resources among the world's meteorological societies (<http://www.ifms.org>).

At the meeting there were 26 participants who represented 17 meteorological societies. In addition, there were participants from various national and international organisations. A list of participants is at Annex A.

The agenda is at Annex B. It included five invited presentations along with a “tour de table” which provided all participants with an opportunity to outline the activities of their meteorological society or organisations. The presentations will be available from the IFMS website: <http://www.ifms.org/ifms/>.

## **Climate science communication and challenges for a professional society**

### ***Marshall Shepherd (American Meteorological Society)***

In the American Meteorological Society (AMS) there is a diversity of views about climate change. The AMS adopts a non-political, non-advocacy stance, but does provide information about climate change through its various activities. The following are some of those activities:

- The AMS website, blogs and social media (e.g. Twitter and Facebook) are being used increasingly to shape public/political views.
- A statement has been issued about “Climate Science is Core to Science Education”.
- Peer-reviewed journals and specialty meetings are used to disseminate sound science.
- The Education Program is aimed at ensuring all students become scientifically literate (e.g. online climate studies, Datastream and Maury Project).
- There is a Policy Program aimed at policy makers which includes a Climate Briefing Series and Geosciences Day on Capitol Hill.
- Opportunities are taken for members of the AMS to act as a science-based non-political “honest brokers” (e.g. when dealing with the media).

Recently the AMS has established a Committee on Climate Change Communication (CICCC) to foster open dialogue irrespective of viewpoint and to evaluate ways to communicate climate science.

It was concluded that in communicating climate science:

- Remain anchored in science.
- Embrace social media.
- Find a middle ground.
- Be an honest broker of information.
- Do not lose sight of the signal because of the “noise”.

During the discussion the following are some of the points that were raised.

- The public gets much of its information about climate change from broadcasters so action is required to ensure they understand the scientific basis of climate change.
- It is important to engage with teachers to ensure they understand climate change as they have a key role in developing public perceptions about these issues in the longer term.
- The climate sceptics tend to be outside the meteorological societies rather within them.
- Some meteorological societies find it difficult to agree a position about climate change and do not have the resources to establish such an agreement.
- It is important to engage with the sceptics and try to include them in the process of developing public understanding of climate change.

## **Education: sharing educational resources**

***Tomas Halenka (Czech Meteorological Society & European Meteorological Society)***

Most meteorological societies have some activities associated with education, though the capacity and resources available for such activities varies enormously. Consequently cooperation in educational activities is worthwhile.

The European Meteorological Society (EMS) has an education project aimed at:

- Promoting the provision of education in and awareness of meteorology.
- Supporting education in meteorology and its applications.

The key activities for achieving the aims include:

- Organising education sessions of EMS/ECAM/ECAC Annual Meetings.
- Establishing an educational portal at the EMS website (or linked there) to existing educational institutions and resources and examples of good practice.
- Looking for funding opportunity within some European structure to support more close cooperation in given subjects.

- Working towards the formulation of “ideal” (minimum, maximum) curricula in meteorology and allied subjects for different grades or at least school levels to provide standards (e.g. examples of best practice).

There is much educational material that can be shared: raw material, courses, simulators and know-how. The sharing can be accomplished through the internet (e.g. web, YouTube, social networks and smartphones), visits and conferences. Sharing is beneficial both to the recipient (e.g. accessing new material) and the provider (e.g. testing material in new situations and getting feedback). However, sharing is hampered by a lack of resources, both human and financial, and language issues.

During the discussion the following are some of the points that were raised.

- Only a few meteorological societies have the resources to provide well-developed education programmes though nearly all have some involvement in education.
- Shared education material needs to be translated into the local language if it is to be fully utilised.
- The sharing of case studies would be of value.
- It is worth developing a strategy for educational engagement based on a clear understanding of the needs of the target audience.
- There are overheads and problems associated with the sharing of educational material – the funding of the development and sharing of educational material is a key issue.

## **Educating and training a scientific workforce**

### ***Jeff Wilson (World Meteorological Organization)***

At the start the RMetS and AMS were thanked for the way they supported WMO Regional Training Centres (RTCs) by providing them with their journals free of charge. This support is greatly appreciated by WMO and the RTCs.

The IFMS and WMO have some things in common in the context of human resource development.

- **IFMS:** Fosters and encourages communication and exchange of knowledge, ideas and resources between meteorological societies.
- **WMO:** Has responsibility for setting standards, coordination, organising data exchange, representation, technology transfer and capacity development.

Indeed many members of the meteorological societies make up the workforce of the WMO Members.

Particular area of common interest are enhancing educational opportunities, establishing qualifications, facilitating access to education and training resources, informing the public, developing competency and capability frameworks, and providing initial and ongoing training opportunities.

For WMO, it is essential that its education and training programme is based on WMO's high priority areas for 2012 to 2015 and beyond. Also it is necessary to know the number of people and professional level who are involved in the various activities carried out by National Meteorological and Hydrological Services (NMHSs).

A key component of the WMO Education and Training Programme are the activities of the RTCs. There are 38 RTCs in 26 countries with 27 being NMHS training institutions and 11 university components. However, based on a subjective assessment, 10 RTCs have no reported activity and a further 18 only little activity.

It is clear that the current arrangements for RTCs are not providing the full range of benefits originally envisaged. This has led to several options being considered. One of these is the concept of the WMO Global Campus – this moves the focus from institutions to “courses and learning resources”. This concept will be given more consideration in the coming months with a view to the WMO Executive Council making a decision about the future of the RTCs at its next meeting.

During the discussion the following are some of the points that were raised.

- Good relations with NMHSs are essential if meteorological societies are to influence developments.
- Meteorological societies sometimes use their independence to take up issues that would be beyond the remit of the NMHSs.
- Spreading information about WMO initiatives concerning education and training could be facilitated by meteorological societies.
- Meteorological societies sometimes contribute to WMO activities (e.g. revising the cloud atlas), but finding resources will often be a problem.
- If the WMO Global Campus is implemented, meteorological societies might be able to contribute material.

## **Publications: the impact of open access on Professional and Learned Societies**

### ***Chris Holcroft (Royal Meteorological Society)***

Open Access is a new publishing model which moves from the ‘reader/subscriber pays’ to ‘author pays’ for access to scientific articles/publications. In some countries it is public policy and increasingly journals are turning to Open Access.

There are two models of Open Access.

- ***'Gold' open access*** defines publications in scientific journals that are funded through an article publishing/processing charge (APC) paid by the author or a sponsor.
- ***'Green' open access*** designates publications that are made freely available after an ‘embargo period’ a version of the article for free public access is placed in a suitable repository, or on some other open access website. Typical embargo periods vary between 6 and 24 months.

It is claimed that Open Access will ensure that public funded research will reach the largest possible audience, as well as dealing with the alleged waste of public resources which results from traditional publishing. On the other hand, there are concerns that Open Access will undermine current income streams for publishers (and by default the income of Learned Societies that depend on it) and limit the amount of available public funding for researchers seeking to publish academic work.

It is expected that there will be a “mixed economy” consisting of green and gold Open Access along with subscription-funded journals. For meteorological societies involved in publishing, there is a need to manage the change to the mixed economy and deal with potential decreases in income. This will require resourcing and the availability of the required expertise.

During the discussion the following are some of the points that were raised.

- For some subscription journals (e.g. those published by the AMS) there are already page charges so the principle of the author having to pay has already been established.
- There are concerns that meteorologists in the Least Developed Countries will find it hard to find funding to publish under Open Access, though some journals might have a waiver scheme to deal with this problem.
- The move from libraries funding the purchase of journals to authors paying will create administrative problems for organisations.
- There is a need to ensure that introducing Open Access does not lead to a reduction in the quality of published material.
- Within the meteorological community the take up of Open Access has been quite slow and there is uncertainty about its impact when it is fully established.

## **International recognition of professional qualifications**

### ***Christophe Billard (European Meteorological Society)***

According to ISO 9000-2005, a qualification process is aimed at demonstrating the ability of a person to fulfil specified requirements. Therefore qualification may also be related to competence, which is considered as the “demonstrated ability to apply knowledge and skills”.

The EMS Committee on Accreditation and Professional Practices concluded in 2008 that within Europe there is no unified position with regard to accreditation (i.e. the formal recognition of the competence and capacity of an institution to carry out specific activities). However, the EMS Project Team on Professional Practices (which replaced the Committee) took on the task of delivering outcomes related to professional practices which might be directly useful for the European meteorological community and possibly beyond.

The Project Team investigated the existence of accepted codes of conduct or ethical codes of behaviour of professional meteorologists in European, and other countries, with the idea of finding common characteristics. This led to the development of a code of practice that provided guidelines about how to communicate honestly and reliably, with the general public, including the media, on issues of meteorology and in particular on complex or controversial issues such as climate change.

An example of a more rigorous standard is that established for the provision of aeronautical services. In 2011 the World Meteorological Congress approved the inclusion of competency standards for aeronautical meteorological personnel and the required learning outcomes of the Basic Instruction Packages (BIP) for Meteorologists and Meteorological Technicians into WMO Technical Regulations n° 49, Volume I. It is up to each aviation meteorological service provider, based on their national regulations and organizational procedures, to determine who can ensure that personnel are competent. It is important that the processes employed are fully integrated into an organization's quality management system.

During the discussion the following are some of the points that were raised.

- The EMS code of practice is available for meteorological societies to either adopt or adapt to meet their specific needs.
- The code of practice developed by the EMS is voluntary and there are no sanctions if it is not followed.
- There are concerns about whether any kind of code of practice could be enforced by meteorological societies.
- Few meteorological societies have the resources or expertise to be involved in the accreditation of institutions or certification of individuals.
- It is recognised that in some countries accreditation of institutions is a governmental responsibility.

## **Concluding remarks and future arrangements**

It was unanimously agreed by the IFMS attendees that there were significant benefits in this group meeting and that it should continue to meet in the future. The next meeting will take place in Mar Del Plata, Argentina in 2015 (probably May). The date will be agreed at the FLISMET congress meeting which takes places in September 2013. Juan Manual Horler, Centro Argentino de Meteorologos, will take over the organising role. The RMetS and EMS will provide information about how the current session of the IFMS has been organised to help with preparation for hosting the next meeting. Workneh Degefu, Ethiopian Meteorological Society, indicated that the African continent would try to host the meeting in 2017.

There was a discussion about how to increase participation at IFMS meeting. Could communication about the event be improved? It was widely felt that the lack of attendance was due to financial reasons and visa issues.

All attendees were actioned to review their Society/Institute information on the IFMS website and email any changes or updates to Sue Brown (sue.brown@remets.org) before the end of September 2013. Kathy Maxwell will collate these changes and forward them to the AMS, which hosts the site. Also she will discuss with the AMS about how IFMS members could independently amend their Society's information in future and provide some simple instructions about how to do this. There was a discussion on the possibility of introducing an additional contents pages on the IFMS website that would contain links to those Society's who have open access journals that they want to promote and share.

The RMetS will update the List of Attendees so that it includes attendee email addresses. The RMetS will also provide a list of all societies/institutes registered with IFMS and include an up-to-date email address where possible.

It was agreed that the next IFMS meeting will focus on collaboration between IFMS members. Examples of recent collaboration between organisations could be highlighted in the Tour de Table part of the meeting or as a separate agenda item.

Bob Riddaway  
15 October 2013

## Annex A. Delegate list for the Third Global Meeting (GM3) of the International Forum of Meteorological Societies (IFMS)

First name	Surname	Affiliation
Christophe	Billard	European Meteorological Society
Esperanza O.	Cayanan	Philippine Meteorological Society
Workneh	Degefu	Ethiopian Meteorological Society
Roger	Deslandes	Australian Bureau of Meteorology Training Centre
Zoltan	Dunkel	MMT Hungarian Meteorological Society
David	Gikungu Irungu	Kenya Meteorological Society
Tomas	Halenka, CSc	Czech Meteorological Society
Paul	Halton	Irish Meteorological Society
Chris	Holcroft	Royal Meteorological Society
Juan Manual	Horler	Centro Argentino de Meteorologos
Martina	Junge	European Meteorological Society
Jadran	Jurković	Croatian Meteorological Society
Dominique	Marbouty	European Meteorological Society
Gerald	Mills	International Association for Urban Climate
Anders	Persson	Swedish Meteorological Society
Bob	Riddaway	Royal Meteorological Society
Ernest	Rudel	OeGM (Austrian Society for Meteorology)
Mark	Schwartz	International Society of Biometeorology
Aileen	Semple	Met Office College
Marshall	Shepherd	American Meteorological Society
Jeffrey	Wilson	World Meteorological Organisation
Lan	Yi	Chinese Meteorological Society
Shigeo	Yoden	Meteorological Society of Japan
Panmao	Zhai	Chinese Meteorological Society
Weimin	Zhang	Chinese Meteorological Society
Márta	Hunkár	Hungarian Meteorological Society

## **Annex B. Agenda for the Third Global Meeting (GM3) of the International Forum of Meteorological Societies (IFMS)**

### **Thursday 12 September 2013**

- 13:30 Registration, Tea & Coffee
- 14:00 Welcome: Chris Holcroft, Chief Executive RMetS, and Dominique Marbouty, President EMS
- 14:20 Tour de table: Presentations on activities of member organisations: all participating organisations; Chair Chris Holcroft
- 15:00 Public communication on climate science: AMS – Marshall Shepherd, President AMS
- 15:45 Tea and Coffee
- 16:15 Education: sharing educational resources: EMS – Tomas Halenka
- 17:00 Educating and training a scientific workforce\*: WMO – Jeff Wilson–
- 17:45 University of Reading Meteorological Department Drinks Reception
- 19:00 Dinner hosted by RMetS in Meadows Suite Restaurant, University of Reading

### **Friday 13 September 2013**

- 09:00 Tea & Coffee
- 09:10 Publications; the impact of open access and green open access on Professional and Learned Societies: RMetS – Chris Holcroft
- 10:00 Tea & Coffee
- 10:30 International recognition of professional qualifications: EMS – Christophe Billard
- 11:15 Second tour de table: presentation of best practice examples, ideas for new initiatives, continuation of lectureship programme; Chair Dominique Marbouty
- 12:00 Venue for fourth Global Meeting 2015
- 12:15 AOB
- 13:00 Close

\* Original title of the presentation was “Regional Training Centres”