

DISCUSSION PAPER & IDEAS FOR DEVELOPMENT OF INTERNATIONAL FORUM OF METEOROLOGICAL SOCIETIES (IFMS)

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Prepared For:

PLANNING OF IFMS MEETING #4

To be held in New Orleans on January 13-14, 2015

CO-SPONSORED BY

AMERICAN METEOROLOGICAL SOCIETY (AMS)



CANADIAN METEOROLOGICAL & OCEANOGRAPHIC SOCIETY



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1 INTRODUCTION

In August 2014, WMO organized the first World Weather Open Science Conference (WWOSC-2014) in Montreal, Canada.

One of the major features of WWOSC was the three Panels on "Future of the Weather Enterprise" cosponsored by AMS and CMOS.

These three Panels attracted some of the top personalities of Weather Enterprise from the three sectors: Public, Private and University Sectors as well as National Meteorological Societies.

The topics covered by these panels are presented below and the participants and short description of each Panel are shown in Annex A

- Panel 1: Weather Services Infrastructure: Sustaining what we have and building for tomorrow
- Panel 2: Weather Services Present Status, Trends, and Innovations
- Panel 3: Enhancing Weather Community Collaboration to Meet Shared Goals for the Weather Enterprise

2 MAJOR CONCLUSIONS OF THE PANEL DISCUSSIONS:

The major conclusions of the Panel discussions of the three Panels which are relevant to the National Meteorological Societies (NMS) are:

- Given the reduction in Government financial capability to invest in infrastructure and science, the
 modern technologies and desire to do better and better in weather forecasting, it was concluded
 that no single organization could achieve that objective. Hence, it is important for the "Future of
 the Weather Enterprise" that the four sectors (Public, Private, University and Users) work
 together.
- 2. Since all these four sectors subscribe to the *National Meteorological Societies (NMS)* which are neutral bodies, hence these Societies can act as a glue as well as arbiter of any conflicts between the four sectors.
- 3. Weather knows no geographical boundaries and requires greater and greater resources to predict. No single Nation can do it by itself. Hence, cooperation between nations is imperative. NMSs can be a bridge between different nations to make this happen.
- 4. It was also felt that global models require data from all parts of the world. Currently, many countries do not have an adequate infrastructure, capacity and knowledge which creates gaps in global data and service delivery. Hence, it is important that assistance be provided to less developed countries for their infrastructure and capacity building to deliver improved weather and climate services. NMSs can play an important role in connecting those who can help in capacity and infrastructure building with those who need assistance.
- 5. In order to build cooperation between scientists and relevant organization from developed nations and capacity in less developed nations, NMSs can play a very important role.





3 WHY IFMS IS REQUIRED:

- 1. The current situation is that advanced countries have *National Meteorological Societies* (NMS) which are quite matured and some developing countries also have NMSs.
- 2. The conclusions of the WWOSC-2014 make it important that cooperation between various NMSs be strengthened.
- 3. In addition, those NMSs which need help to become stronger should be provided such help.
- 4. Although some of these NMSs are well financed, most of them are not and that also includes NMSs of some advanced countries.
- 5. IFMS (International Forum of Meteorological Societies) was created to foster and encourage communication and exchange of knowledge, ideas and resources among the world's more than fifty meteorological societies listed in Annex D. This is *not to replace* bilateral relations which exist between various NMSs or the functionality of the regional organizations of Europe, Africa, South America and Asia.
- 6. IFMS can help in increasing the Global Cooperation in creating a "Weather Ready Globe" and much more effective Disaster Management.
- 7. IFMS can represent NMSs in the WMO.

4 SUSTAINABILITY OF AN ORGANIZATION

In order for any cooperative organization to survive, it must have the following ingredients:

- 1) A business case which we do have and is stated in previous sections.
- 2) A dedicated "Leader and Champion" who can take the ball and make it happen.
- 3) A Council consisting of volunteers who are prepared to work for the cause.
- 4) In addition to the overarching statements of cooperation, it is important to have Well Defined Activities and how to achieve them - a clear Agenda containing list of activities, responsible organization(s)/person(s) with due dates to meet overarching objectives.
- 5) Infrastructure which includes:
 - a) Office Space and facilities
 - b) Administrative help
- 6) FINANCES to run the organization without which not much can be achieved.
- 7) A Global View and strong will among NMS' to cooperate and help each other.
- 8) An efficient communication mechanism
- 9) An effective Website
- 10) Finances are also needed for less affluent Societies to be able to participate in IFMS Meetings.





5 CURRENT STATUS OF THE IFMS

It is commendable that 19 countries took the initiative to start IFMS in 2009. It has been 6 years and three meetings have taken place. Unfortunately the fourth meeting in Argentina had to be cancelled, hence AMS and CMOS took the decision to co-sponsor the 4th Meeting and avoid the possibility of losing IFMS because it is a very important organization and it deserves to be strongly supported for the betterment of the Future Weather Enterprise.

It appears that many of the ingredients mentioned in the previous section are currently missing. Therefore, we need to discuss these issues in Meeting #4 and determine how to inculcate them into IFMS.

The Steering Committee as listed on the IFMS site: http://www.ifms.org/ifms/ is presented in Annex B. We believe not much noticeable activity has taken place in the past couple of years since Meeting #3 and many members of the Steering Committee are not even active in the IFMS.

The list of member Societies as presented on the above website is presented in Annex C. There was no information on the website for most of the societies and it was very difficult to get the contact information for many societies. Even at this time it has not been possible to contact some of the societies e.g. Portuguese, Mexican, etc.

The first step we took was to update the IFMS Website to put the information about the societies on it. We need to get confirmation about accuracy of information from those societies for which we have already updated the Website and urge rest of the Societies to provide their information so that the IFMS website could be updated. Those societies which have not yet become members of the IFMS are urged to do so as soon as possible and plan to participate in Meeting #4 to determine the future of IFMS.

6 IDEAS FOR IFMS MEETING #4 IN NEW ORLEANS

- 1. This meeting should be used for looking into all aspects listed in section 4. No new ideas have been suggested by other participants by mid October 2015.
- 2. We had urged representatives of all National Meteorological Societies (NMSs) to provide their comments on this document by October 7, 2015 so that we can prepare an Agenda. No additional comments were provided. We now believe that the ideas presented in this document are acceptable to all current members of IFMS.
- 3. The ideas have been divided into three categories and Three Panels have been constituted to discuss these ideas. All sustainability ideas which need to be implemented will be discussed and preliminary decisions made at this meeting.
- 4. In addition to discussions on IFMS sustainability, some presentations have been included which fit in the remaining time frame of the Meeting and are based on the Theme of the Meeting which is the ideas to build IFMS and generate cooperation between NMSs.

A Preliminary Agenda has been prepared and it will be finalized by mid-ecember 2015.





7 Constitution of Panels for Meeting #4

As stated above, three panels have been constituted for discussing various aspects of IFMS:

Panel 1: Objectives of IFMS – what should be the activities of IFMS

Panel 2: Implementation of IFMS: Sustainability of IFMS - infrastructure requirements,

staffing requirements, etc.

Panel 3: Role of IFMS in "Future Weather Enterprise".

7.1 PANEL 1: Objectives of IFMS

As per the information on the IFMS Website, "the fundamental goal of the IFMS is very basic; it is to foster and encourage communication and exchange of knowledge, ideas and resources among the world's more than sixty meteorological societies"

In order to achieve that, it is important that Terms of Reference or Charter for the organization be created in Meeting #4.

A few examples of topics of common concern to IFMS members that were identified at the original planning meeting include:

Weather Related Issues

The role of meteorological societies:

- In global climate change: from education and communication to policy;
- In coping with the impacts of severe natural weather hazards: education, planning, adaptation, and response;
- In promoting sustainable development education, planning and adaptation.

Society Operation Related Issues

- Entraining professionals in affiliated hard and soft sciences;
- Coping with the rapid evolution of society publications, electronic publishing, and increasing costs of print journals;
- Trends in society membership;
- Sector trends: academia, government, industry;
- Retention of student members after graduation;

Other Issues

- Domestic outreach—the role of the meteorological society in informing and educating professionals and the general public;
- Reconciling the needs of professional and scientific members;





- International outreach—missed opportunities?
- In addition, the issue of certification and uniformity of certification of meteorological professionals should be discussed.

What needs to be discussed and concluded at Meeting #4 is what actions societies need to take and what role can IFMS play.

7.2 PANEL 2: Implementation of IFMS

A need for a global view and strong will among NMS' to cooperate and help each other is a pre-requisite for success of this mission.

- 1. A business case is required which we do have and is stated in previous sections
- 2. A dedicated "Leader a Champion" who can take the ball and make it happen? His/hers involvement is necessary for at least a couple of years to make sure that the agreed to plan is implemented.
 - We should discuss this in the Meeting #4 and select one.
- 3. A Council consisting of volunteers who are prepared to work for the cause.
 - The council should consist of President, Vice President and members from each region: Asia, Africa, Europe, North America and South America, Australia/New Zealand. We should limit the Council to 10 members which should change every two years. It is possible to reelect those members who have played important role and are willing to continue serving IFMS.
- 4. It is proposed that we establish an office in a country where cost of personnel and office space is affordable and English language proficiency is not an issue. In addition, the local Meteorological Society could help IFMS office. New Delhi India could be a good candidate. If others feel that there is another place which meets that criteria, we would like to hear.
- 5. The IFMS needs to have an Office with a minimum of three persons: Executive Director (**ED**), Secretary, Program Coordinator who assists ED and the Council to implement the programs agreed to by the Council. A part time webmaster and an editor of the IFMS Newsletter are also required.
- 6. From the mandate of the IFMS agreed to by the members at the bi-annual meeting, ED should suggest topics and once approved must help implement them.
- 7. The Council can normally communicate through electronic media like Email, Twitter, Facebook, Skype, etc. The same media can be used by members too,
- 8. In addition to the overarching statements of cooperation, it is important to have Well Defined Activities and how to achieve them a clear Agenda containing list





- of activities, responsible organization(s)/person(s) with due dates to meet overarching objectives.
- 9. FINANCES to run the organization without which not much can be achieved. The finances are required for:
 - a) Operate the Central Office
 - b) Organizing Bi-annual Conference
 - c) Finances for those societies which cannot afford to send representative to the IFMS Bi-annual Meeting. Financial
 - d) In addition to WMO, we should approach the World Bank and Aid Agencies of Developed Nations to provide Financial Assistance under their Capacity Building Program.
- 10. An effective Website which must have important information and must be kept up-to-date.

7.3 PANEL 3: involvement of IFMS in "Future Weather Enterprise"

Based on Section 2 of this document, the point of discussion for the future role of *National Meteorological Societies (NMS)* is how they can help in the following areas:

- 1) How can NMSs encourage the Public, Private and University Sectors as well as users to work together? All these four sectors subscribe to NMS which is a neutral body, hence these Societies can act as a glue as well as arbiter of any conflicts between the four sectors.
- 2) How can NMSs act as a bridge between different nations to encourage collaboration between them?
- 3) Global models require data from all parts of the world. Currently, many countries do not have adequate infrastructure, capacity and knowledge. Hence, it is important that assistance be provided to less developed countries for their capacity building. How can NMSs help in connecting those who can help in capacity building with those who need assistance?
- 4) In order to build capacity and cooperation between scientists and relevant organizations from developed nations and less developed nations, NMSs can play a very important role. How this can be achieved?
- 5) How NMSs through IFMS can assist four sectors of each nation to interconnect.
- 6) Achieving membership at WMO Table.

8 Proposed Schedule of Activities leading to IFMS Meeting #4

The following Table provides the schedule of activities required to be completed before the IFMS Meeting #4. If it is decided to have three panels as proposed, then we will need to select three Panelist and a moderator for each of the three panels.







#	Activity	Due Date	Status
1	Document distributed to AMS and CMOS Executive	August 23, 2015	Done
2	Comments Received by	August 31, 2015	Done
3	Document distributed to all NM (National Meteorological) Societies	September 4, 2015	Done
4	Comments received from NM Societies	September 25, 2015	Done
5	Final Version distributed	October 7, 2015	Done
6	Selection of Panelists and Moderators for three Panels	October 21, 2015	Almost Done
7	Selection of any additional Papers to be presented	October28, 2015	Done
8	Preliminary Agenda for the Meeting #4 prepared for AMS review	November 4, 2015	Done
9	Comments on the Preliminary Agenda to be provided by AMS	November 18, 2015	Done
10	Agenda V00 ready for distribution and comments be IFMS members	November 25, 2015	Done
11	Agenda V01 to be distributed	December 8, 2015	Done
12	Final Agenda	January 6, 2016	Done
13	Conduct the meeting	January 13-14, 2016	Done
14	Complete the Report of the Meeting	March 15, 2016	Done

9 Conclusions

In order to create a "Weather Ready Globe" cooperation between various countries of the world is required. This cooperation needs to be not only through National Meteorological **Services** but also through other sectors (Private, University and Users). All these sectors have a common link which is National Meteorological **Societies** of which all of them are normally members.

The IFMS was created as a multi-lateral organization with a very important mission of bringing National Meteorological Societies of various countries together to help each other. This mission is not only important today but will become even more important in the future as we work towards a "Weather Ready Globe". Sustainability of an organization requires various ingredients — organization, finances, sense of purpose and dedication. Some of these ingredients are currently missing and it is important to induct them into this organization for its sustainability.

The purpose of the IFMS Meeting #4 is to explore the ways this organization can be strengthened. All interested societies are requested to study this document and reflect on its contents and come prepared with questions and suggestions to achieve success in this mission.





ANNEX A: WWOSC-2014 PANELS ON FUTURE OF WEATHER ENTERPRISE



For this panel, infrastructure was defined as anything necessary to design, develop and deliver products and services. It includes weather and climate observations. models and numerical weather prediction, and applications to specific customer decision-making needs. It also includes the underlying information technologies (data processing, visualization, communications) as well as the education, training, and

management of people—weather service providers, R&D scientists, and, especially, clients and users.

Panelists were asked to consider the gaps and weaknesses in present infrastructure that limit achieving the full potential of weather services; and what infrastructure improvements are needed to increase the value of weather services to society.

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For this panel, Weather Services were defined as the research and development, production, delivery, and evaluation of weather, water and climate information and knowledge to support customer decision-making. Customers were broadly defined to include agencies, organizations and enterprises from government, nongovernment, public, industry, and academia. The discussion was intended to focus on

today's weather services: the strengths, the weaknesses, and the gaps. Panelists were asked where weather services are meeting the customer need, where are they not, and where is the greatest need for improvement. As well, how collaboration could accelerate exploitation of improved service capabilities by developing and least developed countries worldwide.





WWOSC-2014 PANELS ON FUTURE OF WEATHER ENTERPRISE

(CONT'D)



The final joint panel, Enhancing Weather Community Collaboration was intended to advance dialogue on the collaboration of private, public and academic elements of the weather enterprise. Panel discussion was intended to consider ideas where improved collaboration is needed to improve infrastructure and services. Panelists were asked what areas offer the most collaboration potential for producing

measurable service improvement, and what factors prevent or inhibit collaboration. Furthermore, panelists were asked to suggest next steps that would start the weather community down this path.





ANNEX B: Current IFMS Organization

Steering Committee

The Steering Committee will consist of six-to-eight members with at least one representative from Africa, Asia, Europe, North America, South America, and Oceania. The Steering Committee will conduct its business by occasional electronic or telephonic meetings and make available to all members a summary of those meetings. Steering Committee members will serve no more than two consecutive terms, each term lasting a period equal to the interval between successive global IFMS meetings. Terms will begin and end with successive global meetings. Rotation will be such that approximately half the members will be new members and approximately half will be members in their second term. The IFMS Steering Committee members will select their chairperson. Nominations for Steering Committee members may be made by any member IFMS society; nominations will be submitted to the Steering Committee at least three months prior to the next global IFMS meeting, and a ballot will be submitted to the members for a vote at the global meeting.

Steering Committee decisions will be reached by consensus whenever possible; where consensus cannot be reached, then decisions will be made by a simple majority vote of the full Steering Committee membership; written proxies will be recognized.

Interim Steering Committee Representation

- American Meteorological Society (AMS) Marshall Shepherd, 2013 President
- Australian Meteorological and Oceanographic Society Ian Watterson
- Centro Argentino de Meteorologos (CAM) Juan Manuel Hörler, President
- Chinese Meteorological Society Qin Dahe, President
- Ethiopian Meteorological Society (EMIBAMA) Workneh Degefu, President
- European Meteorological Society (EMS) Dominique Marbouty, 2011 2014 President
- Indian Meteorological Society to be confirmed
- Latino American Federation Meteorological Societies (FLISMET) to be confirmed
- Royal Meteorological Society (RMetS) Chris Holcroft, Chief Executive





ANNEX C: CURRENT MEMBERS

- 1. American Geophysical Union
- 2. American Meteorological Society §
- 3. Australian Meteorological and Oceanographic Society §
- 4. Canadian Meteorological and Oceanographic Society
- 5. Centro Argentino de Meteorólogos
- 6. Chinese Meteorological Society §
- 7. Czech Meteorological Society
- 8. East African Meteorological Society
- 9. Ethiopian Meteorological Society
- 10. European Meteorological Society
- 11. Finnish Meteorological Society
- 12. Hong Kong Meteorological Society
- 13. Hungarian Meteorological Society
- 14. Indian Meteorological Society §
- 15. International Association of Broadcast Meteorology
- 16. International Association of Meteorology and Atmospheric Sciences
- 17. International Association of Urban Climate
- 18. International Society of Biometeorology
- 19. Kenya Meteorological Society
- 20. Korean Meteorological Society
- 21. Latino American Federation Meteorological Societies §
- 22. Meteorological Society of Chinese Taipei
- 23. Meteorological Society of Japan
- 24. Meteorological Society of New Zealand
- 25. Mexican Organization of Meteorologists
- 26. National Council of Industrial Meteorologists
- 27. Philippine Meteorological Society
- 28. Portuguese Association of Meteorology and Geophysics
- 29. Royal Meteorological Society
- 30. South African Society for Atmospheric Sciences
- 31. Sudanese Meteorological Society
- 32. Tanzanian Meteorological Society
- 33. World Meteorological Organization





ANNEX D: National Meteorological Societies

RA I (Africa)

- 1. Mauritius Meteorological Society
- 2. Ethiopian Meteorological Society
- 3. South African Society for Atmospheric Sciences
- 4. Kenya Meteorological Society
- 5. Nigerian Meteorological Society
- 6. Sudanese Meteorological Society
- 7. Ugandan Meteorological Society

RA II (Asia)

- 8. Chinese Meteorological Society
- 9. India Meteorological Society
- 10. Iranian Meteorological Society
- 11. Meteorological Society of Japan
- 12. Korean Meteorological Society (Republic of Korea)
- 13. Hong Kong Meteorological Society (Hong Kong, China)

RA III/IV (South America/North America, Central America and the Caribbean)

- 14. American Meteorological Society
- 15. Argentina Meteorological Society
- 16. Brazilian Meteorological Society
- 17. Canadian Meteorological and Oceanographic Society
- 18. Colombia Meteorological Society
- 19. Costa Rica Meteorological Society
- 20. Cuban Meteorological Society
- 21. Ecuador Meteorological Society
- 22. Peru Meteorological Society

RA V (South-West Pacific)

- 23. Australian Meteorological and Oceanographic Society
- 24. Meteorological Society of New Zealand
- 25. Philippine Meteorological Society





RA VI (Europe)

26.	Andorra	Asociació de Meteorología i Ciences de l'Atmosfera d'Andorra
27.	Austria	Österreichische Gesellschaft für Meteorologie
28.	Belgium	Société Royale Belge d'Astronomie, de Météorologie et de Physique du Globe
29.	Bulgaria	Aviometeorological Club of Bulgaria (AMC)
30.	Croatia	Hrvatsko Meteorolosko Drustvo
31.	Cyprus	Cyprus Meteorological Association (CY.MET.A)
32.	Czech Republic	Ceska Meteorologicka Spolecnost
33.	Denmark	Dansk Meteorologisk Selskab
34.	Finland	Geofysikkojen liitto (Finnish Association of Geophysics) Geofysiikan Seura (Geophysical Society of Finland)
35.	France	Société Météorologique de France
36.	FYROM Former Yugoslav Republic of Macedonia	Meteo Mak
37.	Germany	Deutsche Meteorologische Gesellschaft
38.	Greece	Elliniki Meteorologiki Etaireia
39.	Hungary	Magyar Meteorológiai Társaság
40.	Iceland	Félag Íslenskra Veðurfræðinga
41.	Ireland	Irish Meteorological Society
42.	Italy	Societá Italiana di Meteorologia Applicata (Italian Society for Applied Meteorology, Information page in English) Societá Meteorologica Italiana Associazione Italiana die AgroMeteorologia Associazione Geofisica Italiana Unione Meteorologica del Friuli Venezia Giulia
43.	The Netherlands	Nederlandse Vereniging voor Beroeps Meteorologen
44.	Norway	Forskerforbundets meteorologiforening
45.	Poland	Polskie Towarzystwo Geofizyczne- Meteorological Section
46.	Portugal	Associação Portuguesa de Meteorologia e Geofisica
47.	Romania	Societatea Meteorologica Romana
48.	Serbia	Meteorolosko drustvo Srbija
49.	Slovakia	Slovenska Meteorologicka Spolocnost





50.	Slovenia	Slovensko Meteorolosko Drustvo
51.	Spain	Asociación Meteorologica Española Asociación Española de Biometeología
52.	Sweden	Svenska Meteorologiska Sällskapet
53.	Switzerland	Schweizerische Meteorologische Gesellschaft
54.	United Kingdom	Royal Meteorological Society