WORLD METEOROLOGICAL ORGANIZATION

REPORT OF THE FOURTH COORDINATION MEETING OF THE WORLD WEATHER INFORMATION SERVICE (WWIS) WEB HOSTS

WARSAW, POLAND, 27-29 NOVEMBER 2013

FINAL REPORT

EXECUTIVE SUMMARY

The "Fourth Coordination Meeting of the World Weather Information Service (WWIS) Website Hosts", was held at the Institute of Meteorology and Water Management (IMGW), in Warsaw, Poland, from 27 to 29 November 2013. The main objective of the meeting was to discuss coordination issues among the ten (10) different language hosts of the website. Among the main outcomes of the meeting was the decision to launch the second edition of the WWIS Website in June 2014 to coincide with Executive Council Session (EC-66) and to also conduct an EC side-event to promote the Website.

The WWIS website hosts agreed on important coordination issues between the Hong Kong Observatory (HKO) and other language hosts on matters regarding: (1) increasing the number of participating Members and the number of cities for which information is provided on WWIS; (2) the functioning of the WWIS Unified Database (UDB); (3) translation functions of language hosts; (4) promotion of the MyWorldWeather in all language versions; and (5) the Mobile version of WWIS, among other issues.

The meeting discussed technical issues as well. Specifically, it discussed the World Meteorological Organization (WMO) cloud business environment and Web projects; the design of the new website, its navigation aspects, structure, content, functionalities and the data policy. The participants shared their experiences and discussed coordination challenges.

_____

1. INTRODUCTION

1.1 The Meeting

At the kind invitation of the Government of Poland, the Institute of Meteorology and Water Management (IMGW) hosted the "Fourth Coordination Meeting of the World Weather Information Service (WWIS) Website Hosts", in Warsaw, Poland, from 27 to 29 November 2013. The meeting participants were comprised of delegates representing: China (Chinese), France (French), Germany (German), Hong Kong, China (English), Italy (Italian), Poland (Polish), Portugal (Portuguese) and Spain (Spanish). The Meeting was chaired by Mr Rudolf Mohr (Germany). Apologies were received from the representatives of Oman and the Russian Federation, who informed that they would not be able to participate on this occasion. The list of participants is attached as Annex I to this report.

1.2 Opening of the Meeting

Professor Mieczyslaw S. Ostojski, the Second Vice-President of WMO and the Permanent Representative of Poland with WMO, delivered the welcoming address to the participants and opened the meeting. Professor Ostojski pointed out the importance of the meeting in improving the WWIS Website. He reiterated the commitment of Poland to the successful implementation of the Polish version of the WWIS. Professor Ostojski further pointed out the importance of WWIS in raising the profile of National Meteorological and Hydrological Services (NMHSs) through the provision of official weather forecasts to users, as well as the potential of the WWIS to provide climate information to the public. He also encouraged the Web hosts to continue supporting the website as an important WMO-wide initiative in support of all Members especially the developing countries.

Mr Armstrong Y.C. Cheng (Hong Kong Observatory (HKO)), coordinator of WWIS and the Severe Weather Information Centre (SWIC) Websites, thanked IMGW for its generosity in hosting the Meeting. Mr Cheng then reported that the cumulative page visits of the WWIS Website had already exceeded the 1.2 billion mark. He also reported that there were 133 Members supplying forecasts of more than 1,700 cities for the WWIS. Mr Cheng thanked all language hosts, without whom the WWIS could not have been so successful. He then pointed out that there were some major advances that had been achieved since the last meeting which included the development of the Android version of MyWorldWeather Application (App), a unified database and a prototype of a new WWIS Website.

Mr Samuel Muchemi, World Meteorological Organization (WMO) lead Secretariat representative, also thanked IMGW for hosting the meeting and for the excellent arrangements they had made. Mr Muchemi expressed the appreciation and high regard that WMO continued to hold for all the language hosts for their contribution to the success of the WWIS Website. He expressed gratitude to the participants for having availed themselves for the meeting, and noted with appreciation that their participation had been funded by their respective Services. Mr Federico Galati, WMO Web Manager, Public Information Products and Website Management Unit (PWMU), Communication and Public Affairs (CPA) Office, Cabinet and External Relations (CER) Department, mentioned that he was pleased to be present again mainly to support the Public Weather Services (PWS) Web needs as the WMO Web expert.

The Meeting adopted the agenda and agreed on its working hours. Appropriate time was allowed for coffee and lunch breaks. This programme is attached as Annex II to this report.

2. REVIEW OF CURRENT STATUS OF WWIS

2.1 Review of current status of WWIS since the Third WWIS meeting (Offenbach, Germany, 2011)

Mr Cheng highlighted the following points:

2.1.1 *The tenth language version of the WWIS*

The Polish WWIS was launched by IMGW on 13 December 2011.

2.1.2 *Increase in statistics*

There was a notable increase in cities with climatological information (13% or +169) in 2012. Increases in city with forecast were 101 and 44 for 2012 and 2013 (up to November), respectively. There were a total of 1,706 city forecasts as at November 2013.

2.1.3 *Launch of the WWIS MyWorldWeather App*

The official launch of the WWIS MyWorldWeather App in seven languages was held on the World Meteorological Day (23 March 2013). Arabic and French later joined the MyWorldWeather in August 2013, resulting in a total of nine languages.

2.1.4 *Downloads of the Android version of the MyWorldWeather App*

It was noted that most downloads came from Hong Kong region. This was attributed to the fact that:

(i) Many Smartphone users install the HKO App, which is among the top-10 weather app in Hong Kong, China. As there is a link to MyWorldWeather App, this affords leverage to the MyWorldWeather App which contributes greatly to its popularity; and

(ii) The HKO promoted WWIS and the App during important events, as well as in their press releases of HKO.

It was agreed that all hosts would take similar steps to promote their language versions.

2.1.5 *Visitor statistics of WWIS Websites*

Visitor statistics of WWIS Websites from November 2011 to September 2013 showed varied behavior as follows:

(i) **Chinese:** There was an average of about four (4) million visits per month, but there was a significant rise of visitors to eight (8) million for some reasons to be determined.

(ii) **Spanish:** There were about 800,000 page views per month at the beginning of the period, but reducing gradually toward 600,000. This decline coincides with decline of visitors to the Spanish Meteorological Website due to competition from private providers.

(iii) **French:** At the beginning of the period, there were about 50,000 page views per month. This low number of page views is due to lack of advertising.

(iv) **German:** The page views had risen steadily from 80,000 to about 160,000, but had dropped later in the period to about 80,000 page views per month. This drop in record was due to change of the tool used for collection of statistics. A strict tool that discounted scans by robots in a better way was employed. This pointed to the need to standardize the statistics collection tool for all hosts.

(v) **Italian:** There was a steady average of about 225,000 views per month throughout the period, which was considered satisfactory.

(vi) **Polish:** Despite there having been above 200,000 page views per month from May to September 2012, this figure had dropped to a handful. This was explained by the fact the hyperlink on the IMGW to WWIS was not very visible. It was agreed to put it prominently on the home page.

(vii) Mr Galati mentioned that Web statistics needs to be evaluated cautiously as they may differ from one statistical analysis report tool to another, thus the need for all language hosts to standardize and the fact that visits from search engines or automatic robots should not be taken into consideration. It was discussed between Members the adoption of a standard open-source Web statistical analysis tool which would satisfy each language hosts.

(viii) The decision on the adoption of a common standard Web statistical analysis report tool remains pending as each language host is characterized by its own technical requirements and needs and environment. However, it was advised to use AWStats and/or Webalyzer as the main tool. A preference has been given to Webalyzer by the WWIS participants.

2.1.6   Mobile layout for WWIS

The meeting was informed that HKO was working on a mobile version of the new WWIS website. It was agreed that in the new WWIS website, the desktop or mobile version of the Website would be displayed automatically by detecting user's device.

Some translations still need to be performed for the mobile application. Mr Galati will assist with the Italian language. Mr Cheng and Mr Galati discussed about how to better coordinate and requested Members to increase the frequency of updates and its range as it would help to have regular updates and new version of the mobile WWIS application (MAC and Android). No consensus or particular conclusion was made and consultations between web hosts would continue.

2.1.7   The WWIS Unified DataBase (UDB)

The meeting noted that a unified database was developed in accordance with the decisions of the Third Coordination Meeting. The UDB was used to support the development of the nine language versions of the MyWorldWeather App. The meeting also noted that details of the UDB could be found in paragraph 6 of the System Manual, of which a draft was made available to the participants at the meeting.

2.2   Increasing the number of participating Members and the number of cities for which information is provided on WWIS

It was noted that at present, 133 out of 191 Members of WMO participate in the WWIS initiative, which means that 58 Members who are not currently participating. It was also noted that there were many Members who had provided climate information only but no daily weather forecasts. The 1,700 cities worldwide were also considered too few. There was therefore room for improvement. The meeting decided that the following measures be taken:

(i)   The Secretariat to write to Members to request:

(a)   those who have not done so to join in the WWIS initiative;

(b)   encourage cross-linking with the WWIS on NHMSs websites;

(c)   PWS Focal Points to assist in this regard;

(d)   Members to provide hyperlinks to WWIS Websites – and inform them that WWIS Websites provide links to Met Service websites;

(e)   Members to use WWIS data for all city forecasts on their websites (Portugal and Italy are doing this already);

(f)   Members to use social media to promote WWIS;

(ii)   Countries that have close relations with non-participating countries assist in promoting WWIS to such countries so that they can join. In this regard, Mr Ricardo Deus (Spain) agreed to promote WWIS project in co-operation meetings with other countries;

(iii)   WMO to promote WWIS during Regional Association (RA) Sessions; and

(iv)   The WMO Secretariat, in collaboration with HKO, to do a new pamphlet about the new WWIS Website.

The Meeting appreciated that the Secretariat, through the PWS Programme, had produced the "Guidelines on Participation of National Meteorological and Hydrological Services in the WMO World Weather Information Service" (WMO-No. 1096, PWS-25) in Arabic, English, French, Russian and Spanish as agreed at WWIS-3 (Offenbach, Germany, October 2011).

Mr Galati informed participants that the Guide has been made freely available on the WMO Library site, which can be accessed at the following web-link: http://library.wmo.int/opac/index.php?lvl=etagere_see&id=41

2.3   Experience Sharing and Coordination Challenges: presentations by WWIS Website hosts

The participants presented their experiences in implementing their respective language versions of WWIS. This was a very useful session in which the participants shared their practices and coordination challenges. The full presentations by the participants are available at: https://drive.google.com/a/wmo.int/folderview?id=0ByB7SnsqzgwENzBRREpIR0RQaXc&usp=sharing#list

During the discussions the following points emerged:

2.3.1   China

(i)   There is the challenge of competition with a private service provider, "Sina Weather" which provides information for more cities than WWIS does;

(ii)   To promote WWIS through social media, China Meteorological Administration (CMA) uses Sina Weibo (similar to Twitter); and

(iii)   CMA uses Webalizer as the statistics collection tool for page views.

2.3.2   France

Mr Quoc-phi Duong presented the French version of WWIS. Mr Duong pointed out that:

(i)   The development and maintenance of the website was done by Mr Claude Gaillard alone from its start in 2007;

(ii)   While the Météo-France Website records about 1.5 million visits per day, the WWIS records just over 1,000. The reasons for its low performance may be due to the fact that: it had not been updated for the last two years; and that there was no link to WWIS from Météo-France Website. It may be noted that the reason for not having a link was because of the incoherence of the WWIS and Météo-France forecasts since Météo-France displays its model forecasts while WWIS displays official forecasts from NMHSs. Mr Duong also indicated that the Website lacked information compared to the other language versions;

(iii)   Future involvement of Météo-France in WWIS:

    (a)   There was no more human resources at Météo-France to develop an entire website on its own;

    (b)   Météo-France would support a revamped and unduplicated WWIS Website developed by HKO with an unified database;

    (c)   Météo-France would remain involved in the translation role;

    (d)   Météo-France would be willing to provide forecasts for more cities and on longer lead times and to include a link to WWIS from its official Website;

(iv)   Mr Duong suggested potential enhancements for the revamped WWIS which included a more effective dissemination of official forecasts by different means such as:

    (a)   giving access for users to data in XML or JSON formats through web services;

    (b)   making weather widgets available to users. As a condition for using WWIS data, the user would be required to mention his source of information, leading to more visibility for WWIS and NMHSs; and

    (c)   promotion of WWIS on social networks.

2.3.3   Germany

Mr Rudolf Mohr presented the status of the WWIS German version of WWIS. Mr Mohr informed the meeting that the website could be accessed at: http://www.wwis.dwd.de .

(i)   The German version started in March 2009. It's layout corresponds to English version and the hosting and technical support is provided by Web-CC of the Meteorological Service (DWD).

(ii)   The Website does not correspond to Web Content Accessibility Guidelines (WCAG), e. g., table based layout which is an important issue in Germany. During the discussions it was revealed that the new WWIS Website under development was level AA WCAG compliant.

(iii) The administrative policy with respect to Google means that Google Earth cannot be used by all employees in DWD. It is therefore necessary to consider using an open source solution. The meeting discussed the question of which type of GIS map could be adopted for the WWIS web version that was under development. It was noted that Google maps were not totally free for more than 20,000 clicks per month (worked out on an average basis). If the average is attained, Google will approach you to negotiate. It was decided to continue using Google maps, but also have other open source maps as options. This is because Google maps are faster and easier to use than other options. In the new Website, therefore, there will be other options of GIS maps.

(iv) Regarding the hosting of WWIS, Mr Mohr proposed to start a step-by-step approach towards a common WWIS framework with a standardized architecture. This would allow for all the language websites being consolidated as is the case with the WWIS-database.

2.3.4 *Italy*

Lt. Col. Giuseppe Leonforte presented the Italian version of WWIS and informed the meeting that:

(i) Lt. Col. Leonforte was working to see whether advertisements could be removed from the Website;

(ii) They have recently lost about 10% of users despite the fact that users are growing on the Met Service website;

(iii) Icons were the same in normal and extreme weather - could Italy use different icons?

(iv) Challenges: There was a need for new hardware and software. In addition, there was only Lt. Col. Giuseppe Leoneforte, and very few others minding the Website. It was planned that WWIS goes into central operations by 2nd quarter of 2014;

(v) The Italian Met Service Website records about 30 million page views per month while the WWIS records only 200,000 views, hence there is a need for improvement;

(vi) Lt. Col. Leonforte would work to ensure that mobile weather Apps were ready in Italian language in early 2014;

(vii) He proposed that local time information should be added to the website. This proposal was discussed and adopted;

(viii) It was also found necessary to add the "Search content" module;

(ix) Lt. Col. Leonforte pointed out that complete translation of sentences was not happening in Italian and wondered if other hosts had noticed the problem. In addition, 1-4% translations were inaccurate;

(x) He requested the meeting to consider introducing new weather icons (including possibly animated icons). The meeting discussed this item and decided HKO works with WMO to see whether new icons could be had;

(xi) It was pointed out that the Google Earth version of WWIS had finally not proved popular and closure of the version should be considered. The meeting decided to

decommission the Google Earth version with the launch of the new WWIS Website;

(xii) Mr Galati would need to check with WMO graphic designer or identify sources to be submitted to HKO. The purpose is to have user-friendly, communicative and talkative icons without the need to really specify a legend for it;

(xiii) Italy would add eight new cities and issue forecasts for up to three (3) days; and

(xiv) Lt. Col. Leoneforte invited the hosts to consider holding the next meeting in Italy, and make it coincide with the Milan International EXPO, which will take place from 1 May to 31 October 2015.

2.3.5   Portugal

Mr Ricardo Deus presented the Portuguese version of the website. The following points emerged after his presentation:

(i)   The meeting considered whether it would be possible to include information from WWIS into national website without having to develop a separate WWIS Website. This would be a way to deal with the human resources problem. This was discussed, and it was decided to continue with the WWIS Website model as it stands currently; and

(ii)   Mr Deus requested the meeting to consider whether the Application Programming Interface (API) could be developed for WWIS. This would entail having a project that could be offered to Met Services as a tool to entice them to join WWIS. In this regard, it was pointed out that HKO had developed an API which was very huge and this presented a problem. Hosts were not sure whether WWIS could have a product like this that could serve all Members.

2.3.6   Spain

Mr Francisco Javier Méndez Río made a presentation of the Spanish version of WWIS. Mr Río pointed out the following:

(i)   The Spanish version started in June 2005 and now provides daily 5-day forecasts for 52 cities. AEMET has the intention to increase the number of cities and the range of forecasts up to seven (7) days. The Website runs on the software solution provided by HKO.

(ii)   AEMET receives some request from WWIS users as follows:

(a)   Longer-range weather forecasts than currently provided;

(b)   Forecasts for specific cities not currently available;

(c)   Other meteorological information: frequent weather phenomena and description, satellite images, climatological information, etc.; and

(d)   Other ways for accessing the information.

2.3.7   Poland

Mr Rola Pawel presented the status of the Polish version of WWIS Website. Mr Pawel emphasized the following:

(i)   The Polish version of the Website was launched in December 2011. However, the page views are rather low because no press release was sent out to the media and that the hyperlink to the Website is placed within the National Weather Service Website but not at a prominent location;

(ii)   The Website has advertisements on it; and

(iii)   There are a few translations problems that they were currently working to resolve.

Mr Pawel presented the following recommendations:

(a)   That all the language version Websites should be hosted in a central server;

(b)   To consider that in future WWIS website contains a WWIS Logo, video plug-ins (e.g., Youtube), pictures, articles with the possibility of more dynamic content (e.g., news), a science section, widgets and links to other websites, Social Media, contacts section with PWS focal points and their e-mails contacts, phone, Skype, etc. for better outreach. The meeting agreed that these were good suggestions and would be discussed during the course meeting; and

(c)   For the WWIS logo or own design entity it was discussed and agreed amongst the WWIS participants to inquire the possibility to open a draw amongst popular Design Marketing schools in order to have students design such a logo for selection by WWIS. Mr Galati would need to follow-up and identify and ask Design Marketing schools in Geneva in this regard.

2.4   WMO cloud business environment and Web projects (E-communication elements for WWIS) (presented by Mr Galati)

(i)   Mr Galati provided an overview of the current Web technologies and resources available at the WMO workplace, emphasizing what can be used or applied to WWIS. He also provided an analysis of what is in use on the cloud in WMO IT Services side and the corporate applications approach standards in the office;

(ii)   A set of Web tools that can be useful to any WWIS language hosts was presented (see presentation). The IT environment cannot last without regularly providing Monitoring and Evaluation (M&E). Mr Galati presented the M&E approach at WMO (see also the following web-link: www.wmo.int/pages/about/monitoring_evaluation_en.html). Finally, as WMO being an environmentally friendly organization he explained the Green IT standards adoption measures. All this has or can have limitations and "barriers":

(a)   (Legal, E-accessibility, net-neutrality, …);

(b)   Management support;

(c)   Resistance to change (change management);

(d)   Governance (Web governance); and

(e)   Net neutrality.

Solutions to overcome each barrier were discussed.

(iii)   Finally, three WMO Web-based projects were covered: Country Profile Database CPDB, Pub5 WMO Structure and Members' information, and new forthcoming

WMO Web-based CMS Site. The projects are very similar to the WWIS approach, platform, problems or positive issues.

2.5   "Mobile-first" and "From a static to a dynamic" Website approach: Responsive design and Website ergonomics advise

Mr Galati pointed out the following regarding:

(i)   Mobile approach of a Website

(a)   Mobile is everywhere: More than 900 millions devices in a year, and 87% of the world's population has access to a mobile device;

(b)   Think about the target Audience! They will make the success of your App; and

(c)   It is now easier for a greater proportion of people to access the Mobile Web, and that should be an important consideration when you decide to launch a product in this space.

(ii)   Responsive web design approach

(a)   Any new Website needs to be responsive, i.e., created with a catalog of Multi-Device and, as such, be standard and easily browse-able by all devices (GSMs, Tablets, PC/MAC, portable devices). Responsive Web Designing (RWD) is a process of designing a single website to be used and compatible on different portable or handy electronic devices, also known as Adaptive Web Designing (AWD). This is regarded as an integrated approach of designing through which compelling and easy to use websites are built, to give an optimal viewing user experience across a wide variety of devices starting from desktop computers to mobile phones.

(b)   In the responsive Website design approach, some main criteria need to be respected:

• Physical device | Screen size but also | Button size (virtual keyboard or not) and | User interaction:

• Touch;

• Orientation; and

• Voice commands.

(c)   Advantages for the user of a responsive Website: (i) flexible to use; (ii) automatically shuffles content, resizes images, and adjusts font size; (iii) users are able to read information as per their needs and preferences; (iv) helps encountering fast and intelligent sites; (v) saves user's time while browsing the site; and (vi) helps enhance the user experience.

(d)   Responsive website might need out-sourcing and resources. However, responsive design is not just about fitting on a mobile screen. Functionality and context are important to consider.

(iii)   Ergonomics

    (a)   In the realm of the Internet, website ergonomics can be defined by a website ability to effectively respond to the needs of users and provide them with comfort when browsing. This common sense of practice needs to be taken into consideration for the new version of WWIS:

- user expectations: not all visitors are necessarily looking for the same information and do not necessarily have the same demands in terms of graphics;

- user habits: i.e., acquired behaviors;

- user age: in general describes the user's ability to adapt and the user's speed when browsing;

- equipment: one of the major obstacles. Website display can vary from one machine to another, in particular depending on the browser and the display resolution; and

- level of knowledge: all visitors to a website are not necessarily IT experts. The ergonomics of a website must be designed for the least experienced user.

(iv)   New Website design pillars are:

- Soberness: Simplicity, not overloaded;

- Legibility: structured;

- Usability: ease of browsing, freedom when browsing and structure homogeneity;

- Speed: loading time, optimized pages, fast load times;

- Architecture: well planned information architecture;

- User interface: determines the user's ability to accomplish tasks such as read information. This includes: (a) page layout and presentation; and (b) use of fonts, color and graphic elements;

- Good search feature: multiple ways to explore content, e.g., top 10, most rates, most popular, etc.;

- Custom 404 page;

- Good internal linking; and

- Informative header and footer.

(v)   Mr Galati presented techniques and advice on how all the above-mentioned Website approach could be applied to the new WWIS now or on the long run. WWIS participants will try to adopt and adapt to such approach. In this context, the current new version already offers some of such improvements.

3.   NEW WWIS WEBSITE AND APPLICATIONS (Presented by Mr Armstrong Y.C. Cheng)

3.1   The Meeting was informed that:

(i)   A draft of the new WWIS Website had been developed and the URL for the new website was http://test.worldweather.org/; Username: wwis; Password: xxxxxxx (it was masked deliberately);

(ii)   S. Korea had joined the project and completed the Korean version of UDB for use in the MyWorldWeather. Mr Cheng would continue to work closely with S. Korea to develop the desktop version;

(iii)   A draft version of System Manual for the new WWIS Website was developed by HKO for use by language hosts;

(iv)   English and Chinese versions of the new website were made available at the time of the meeting to demonstrate the multi-lingual capability of the new Website architecture. The new Website was re-designed in accordance with the decisions made in the third coordination meeting and it would be W3C level AA compliant;

(v)   The new WWIS Website would be hosted on Apache Webserver with PHP module. All data would be stored in JSON format;

(vi)   It is planned to implement the capacity to detect user's device so that the user will be presented with desktop or mobile version automatically;

(vii)   HKO was requested to clarify about hosting environment and security;

(viii)   It was discussed and agreed for privacy reasons to add an on-line disclaimer to the new Worldweather Platform. All participants asked if we can use the same WMO Website disclaimer and for Mr Galati to check or follow-up with the WMO legal officer on the validity of text. Please note that a disclaimer does not fully discharge a Website of responsibilities; and

(ix)   In order to better remotely coordinate the WWIS Project, exchange ideas, concerns, projects status and follow-up and to discuss on relevant topics, it was agreed by all participating members of WWIS to run a close private mailing list for the group. Mr Galati would need to identify and suggest such tool, taking into account that in China Google group or Google+, as used as standard in WMO, is not easily accessible and widespread; alternatives would need to be considered.

3.2   Design

The following was agreed upon to be effected on the design of the new website:

3.2.1   Design of the Homepage

(i)   Include a world-map webpage with welcome message for the WWIS that links to details and stating that this is official weather info from NMHSs (choice of collapse by users) (to be done before launch);

(ii)   Allow users to have the choice of homepage, viz. the world-map webpage with welcome message, a customized homepage, or MyFavourite page (to be done before launch);

(iii)   Add Twitter/Facebook/RSS (subject to choice of language hosts) contents from WMO on the right of the map (to wait);

(iv)   Try to reduce the space occupied by the orange WWIS banner (to be done before launch);

(v)   Check the horizontal width of the new WWIS Website and it was found to be 960 at the time of the meeting;

(vi)   Add a dedicated function near the top for user to select whether sharing location is allowed, viz. always allow, not now, never. (**Post-meeting notes:** it would not be feasible to do so on a webpage level as location sharing is a privacy setting controlled by browser. Alternatively, the webpage would indicate whether user had authorized the use of location information by the webpage);

(vii)   To design new logo (optional);

(viii)   To design new weather icons with a transparent background – WMO Secretariat to follow up on this (optional); and

(ix)   Mr Galati mentioned that the current new design was not mobile enabled or respecting responsive design approach, thus the need to point the user automatically to the mobile widget (Android or iPhone) if visiting the Site from a mobile device.

3.2.2   *Design (Member page)*

(i)   To allow choice of displaying news from NMHSs (optional);

(ii)   To replace the orange arrow with words (to be done before launch); and

(iii)   To add "Add to MyFavourite" next to the city on the member page (To be done before launch).

3.3   Navigation/Structure

(i)   To include technical information page about the Website at the footer (to be done before launch);

(ii)   To include loading symbol to cater for slow connection speed (to be done before launch);

(iii)   To add privacy statements (similar to the WMO Website) (to be done before launch); and

(iv)   The structure needs to have minimum compatibility with users with Web accessibility problems. HKO will evaluate what can be done.

3.4   Contents

(i)   To add current weather using SYNOP observations (WMO colleagues to clarify whether or not METAR could be used) (optional);

(ii)   To add current local time (official abbreviation) for forecast (to be done before launch);

(iii)   To add sunrise and sunset time (optional);

(iv)   To add two icons for a day, probabilistic forecast, etc. in the medium-term (optional);

(v)   To add update time for forecast on homepage (to be done before launch);

(vi)   To add Member name together with city name in the search box (to be done before launch);

(vii)   To include images for "What's New" section (to be done before launch); and

(viii)   To add weather photos from webcam provided by Met Services (optional).

3.5   Functionalities

(i)   To share content rather than links (optional);

(ii)   To automatically change to that member after searching a city name (to be done before launch);

(iii)   To display the search box directly near the top of the Webpage (to be done before launch);

(iv)   To reverse the ordering of the search box by starting with city/country, then Region + Member (to be done before launch); and

(v)   Here the issue of accuracy and regularity of photos was mentioned. Mr Galati mentioned that if real-time data is not used, offering pictures does not add any additional feature interesting to our Web users

3.6   Data Policy

(i)   The Meeting was informed that the Data Collection or Product Centre (DCPC) (http://dcpc.worldweather.org) in respect to the official city forecasts, built around the operations of HKO and in connection with running the WWIS Website, would be launched in the next couple of months. With the WWIS DCPC, it would be possible to provide the city forecast data in XML format to WMO Members who participate in the WWIS Projects. The Meeting considered this as very good news because it would enable members to provide weather service using with the official city forecasts; and

(ii)   It was agreed to share the WWIS information with all participating members first, and to discuss the policy of sharing data with other organizations at a later stage.

4.   WWIS FORUM DISCUSSION PAGE

4.1   Considering that the previous Forum Discussion Page was not very popular, the Meeting decided that Mr Galati send the participants a proposed solution to this item to consider and inform him later. This will be for knowledge sharing.

4.2   Maps for the new website

Google map would be the first choice as it is the most popular and also has better performance. However, Google maps is a paid service for usage exceeding a certain limit. It was agreed to include the three maps viz. Bing, Open Street and Google maps. The host language country will decide which map(s) to use. For the Chinese language, there exists other maps (e.g., Baidu Map) which had faster performance than Google map for users in China.

It was decided to include all maps for the English, French, German, Italian, Polish, Portuguese and Spanish versions. For the Chinese version, it was decided to use Baidu and Google map (post-meeting notes: AMAP and Tianditu maps would be used instead because of technical reasons). Maps to be used on the Arabic and Russian versions would be determined after liaising with the corresponding language hosts.

5.   DEPLOYMENT OF THE NEW WWIS WEBSITES

5.1   Deployment of the new Website

Needs for completing the deployment of the new Website includes translation of:

(i)   UDB; and

(ii)   Website content.

The tool for translation has already been provided. The Web hosts agreed to complete the translation by end of February 2014.

HKO improved the translation tool by the time of the meeting. A Web address would be sent to all language hosts.

5.2   Hardware and Software

The Website software is not resource demanding. A medium-range server is more than adequate for the purpose. There is a need to deploy Apache, MySQL, PHP and Webalizer (which are open-source software).

It was agreed to have a ready-to-deploy kit to be sent directly to each language host, by FTP or through USB keys.

5.3   Installation of WWIS application

Demonstration on the installation of WWIS software was provided. Hosts will receive software with installation guide from HKO for deployment on their web servers.

The architecture of the new WWIS was presented.

(i)   It is possible to operate the WWIS application on a real server or a virtual machine. There is no compatibility problem;

(ii)   The possibility of creating a virtual image was discussed. However, it was not feasible technically because it could cause compatibility issues owing to different hardware used by different language hosts;

(iii)   Translation module allows the hosts to maintain the content in their own language. After finishing that an e-mail needs to be sent to HKO for transferring the content to the production UDB;

(iv)   Although it is technically possible to host and run all language versions in HKO, this was viewed as not appropriate because: (a) of the likely rise in cost for HKO; (b) reduced resilience since, if there is a failure in HKO server, all languages would be affected; (c) and the Website could be slower, which would degrade user experience;

(v)   Website hosts were presented with two options for hardware setup. They agreed to consider and advice HKO on their preferred choice of setup so that HKO could prepare an appropriate guide. The following was indicated in the meeting:

    (a)   **French:** TBD;

    (b)   **China:** Option 1;

    (c)   **Portugal:** Option 1, tentatively;

    (d)   **Italy:** Option 1;

    (e)   **Germany:** Option 2;

    (f)   **Spain:** Option 2; and

    (g)   **Poland:** Option 2.

(vi)   Software requirements:

    (a)   Webserver: Apache (v2.2.22 or higher);

    (b)   Server hosting UDB and WWIS Application: MySQL (v14.12, or higher), PHP (v5.3.15 or higher); and

    (c)   Server for collecting statistics: Webalizer (v2.23-08, or higher).

Software for collecting statistics: The hosts agreed to use Webalizer as much as possible (v2.23-08, or higher). This will ensure consistent results. It was noted that AWSTATS has more functions. Germany uses AWSTATS for all its websites but will check for the possibility of using Webalizer for the WWIS Website.

6.   INTRODUCTION TO THE REVAMPING PROJECT OF THE SWIC WEBSITE

The Meeting discussed SWIC and noted the following:

(i)   Currently containing TCs advisories and reports on heavy rain, thunderstorms, gale and fog;

(ii)   SWIC needs revamping. Plain text not good so we need coded text. Unfortunately there is no internationally agreed format. Now we have the Common Alerting Protocol (CAP) which is planned to be incorporated in the next generation of SWIC. This will depend on the RSMCs' schedule of adopting CAP;

(iii)   DWD uses CAP for web server on a test website;

(iv)   Germany is already producing CAP messages for national warnings which is now available on an ftp server for free, on a trial basis;

(v)   CMA and HKO are producing CAP messages for warnings, on a trial basis;

(vi)   Spain is planning to produce CAP messages in the near future; and

(vii)   Meteoalarm would be contacted to find out their status of adopting CAP.

7. PROMOTION OF THE WWIS WEBSITES AND THE MYWORLDWEATHER APP

The Meeting observed that most of the traffic to MyWorldWeather was from Hong Kong, China and that there was a need to promote the other language versions as follows:

(i) Add links, buttons, bookmarks of WWIS to NMHSs main Website;

(ii) Add icons of App on the WMO and NMHSs' websites, especially mobile websites, to attract people to download;

(iii) HKO and WMO Secretariat to work on a short article to introduce the functions of the app for publishing on the websites of NMHSs. Do a letter to Permanent Representatives (PRs);

(iv) Language hosts to promote the App regularly on their own social media; Special announcements can be sent and requested to WMO Social platforms (CPA in WMO). It was also requested to the WMO Secretariat to continue to maintain RSS news so that they can be imported easily into the new WWIS;

(v) Promote, among NMHSs, by WWIS coordinator; and

(vi) WMO and HKO to prepare fliers for use in the promotion of the apps during WMO events.

8. NEEDS/REQUIREMENTS AND PROBLEMS/SOLUTIONS FOR MIGRATION TO NEW VERSION (WEB AND MOBILE)

(i) In case hardware and software may need to be updated, hosts should be informed beforehand;

(ii) The question of adopting a common domain name for all languages was discussed. It was decided to retain the present arrangement for domain names;

(iii) HKO and language hosts will determine the usefulness and/or need to have a mobile domain name, something like "mobileworldweather" … or "m.worldweather"; and

(iv) The Meeting decided that a testing and mirror Site for the different language versions will be installed in HKO. In case one of the language hosts is unavailable, this mirror can be used as a backup.

9. ANY OTHER BUSINESS (AOB)

9.1 To try for a side event during next WMO Executive Council Session for the launch (EC-66, Geneva, June 2014).

9.2 The next meeting will be in 2015, earlier in the year (preferably in October). In the meantime, the hosts will communicate through discussion platform.

10. CLOSURE OF THE MEETING

_____

FINAL LIST OF PARTICIPANTS

NO.:	COUNTRY:	NAME:	ADDRESS:
1.	China	*Mr ZHOU Rui*	China National Meteorological Center China Meteorological Administration No. 46, Zhong Guan Cun, South Street, Haidian District BEIJING, China Tel.: +86 10 5899 5613 Fax: +86 10 6840 6814 E-mail: zhaorui@cma.gov.cn
2.	France	*Mr DUONG Quoc-Phi*	Météo-France Département des affaires internationales – D2I-INT/OMM 73 avenue de Paris F-94165 SAINT-MANDE, France Tel.: +33 1 77 947 057 E-mail: quoc-phi.duong@meteo.fr
3.	Germany	*Mr Rudolf MOHR*	Deutscher Wetterdienst Department of Systems and Operations Division Communication Frankfurter Strasse 135 D-63067 OFFENBACH, Germany Tel.: +49 69 8062 4808 Fax: +49 69 8008 63205 E-mail: Rudolf.Mohr@dwd.de
4.	Hong Kong, China	*Mr Armstrong CHENG*	Hong Kong Observatory 134A Nathan Road KOWLOON Hong Kong, China Tel.: +852 2926 8358 Fax : +852 2311 9448 E-mail: yccheng@hko.gov.hk
5.	Italy	*Lt. Col. Giuseppe LEONFORTE*	Meteorological Service (Servizio Meteorologico) Italian Air Force – National Centre of Meteorology and Climatology (CNMCA) c/o Pratica di Mare M. de Bernardi Military Air Base, Via di Pratica di Mare Km 7 I-00040 Pratica di Mare (Pomezia) ROME, Italy Tel.: +39 06 9129 3879 (3881) Fax: +39 06 9129 3879 E-mail: leonfort@meteoam.it

6.	Poland	**Mr Pawel ROLA**	International Relations, WMO Liaison Office Institute of Meteorology and Water Management 61, Podlesna Street 01-673 WARSAW, Poland Tel.: +48 22 56 94 539 E-mail: Pawel.Rola@imgw.pl
7.	Poland	**Mr Wiesław ŁAZAREWICZ IT specialist**	Institute of Meteorology and Water Management 61, Podlesna Street 01-673 WARSAW, Poland Tel.: +48 22 56 94 235 E-mail: wieslaw.lazarewicz@imgw.pl
	Portugal	**Mr Ricardo DEUS**	Instituto de Meteorologia, I.P. Rua C do Aeroporto de Lisboa 1749-077 LISBOA, Portugal Tel.: +351 21 844 7000 Fax: +351 21 840 2370 E-mail: ricardo.deus@meteo.pt
8.	Spain	**Mr Francisco Javier MÉNDEZ RÍO**	Agencia Estatal de Meteorología de España Área de Explotación y Gestión de Datos Leonardo Prieto Castro 8 28071 MADRID, España Tel.: +34 91 581 9793 Fax: +34 91 544 5307 E-mail: fmendezr@aemet.es
WMO SECRETARIAT			

WMO SECRETARIAT 7 bis, avenue de la Paix, Case Postale No. 2300 CH-1211 GENEVA 2, Switzerland **PWS Website:** http://www.wmo.int/pages/prog/amp/pwsp/eventsexpertmeetings_en.htm			
9.	WMO Headquarters, Switzerland	**Mr Samuel MUCHEMI Scientific Officer**	Public Weather Services Division Weather and Disaster Risk Reduction Services Department Tel.: +41 22 730 8137 Fax: +41 22 730 8128 E-mail: SMuchemi@wmo.int
10.	WMO Headquarters, Switzerland	**Mr Federico GALATI Web Manager**	Public Information Products and Website Management Unit (PWMU), Communication and Public Affairs (CPA) Office, Cabinet and External Relations (CER) Department Tel.: +41 22 730 8367 Fax: +41 22 730 8037 E-mail: FGalati@wmo.int

FINAL PROGRAMME

Wednesday, 27 November 2013

	DAY 1		
0900-0940	Opening Addresses:	• Prof. Mieczyslaw S. Ostojski (PR of Poland with WMO) • A. Cheng (HKO) • S. Muchemi (WMO)	40 minutes
0940-0950	• Assigning Chair of the meeting • Adoption of the agenda	• S. Muchemi (WMO)	10 minutes
SESSION 1: REVIEW OF THE STATUS OF WWIS			
0950-1030	Review of current status of WWIS since the Third WWIS meeting (Offenbach, Germany, 2011) (Backgound Information, page visits, challenges, highlights of developments, etc.)	• Presentation by A. Cheng (HKO) followed by discussions (All Participants)	40 minutes
1030-1100	**GROUP PHOTO; COFFEE / TEA BREAK**		**30 minutes**
1100-1140	Increasing the number of participating Members and the number of cities for which information is provided on WWIS	• Discussion (All Participants)	40 minutes
1140-1230	Experience Sharing and Coordination Challenges: presentations by WWIS Website hosts	• H-H. A. Al Maqbali (Oman) • R. ZHAO (China)	40 minutes
1230-1400	**LUNCH BREAK**		**90 minutes**
1400-1530	Experience Sharing and Coordination Challenges: presentations by WWIS website hosts (continued)	• Quoc-Phi DUONG (France) • R. Mohr (Germany) • Lt. Col. G. Leonforte (Italy)	90 minutes
1530-1600	**COFFEE / TEA BREAK**		**30 minutes**
1600-1700	Experience Sharing and Coordination Challenges: presentations by WWIS Website hosts (continued)	• R. Deus (Portugal) • F.J. Méndez Río (Spain)	60 minutes
1700	**END OF DAY 1**		

Thursday, 28 November 2013

0900-0930	WMO cloud business environment and Web projects (E-communication elements for WWIS)	• F. Galati (WMO)	30 minutes
0930-1000	New WWIS Website and applications	• A. Cheng	30 minutes
1000-1030	**COFFEE/TEA BREAK**		**30 minutes**
1030-1130	New WWIS Website and applications (continued)	• A. Cheng	60 minutes
1130-1200	"Mobile-first" and "From a static to a dynamic" Website approach: Responsive design and Website ergonomy advise	• F. Galati	30 minutes
1200-1230	Technical issues of WWIS	• A. Cheng	30 minutes
1230-1400	**LUNCH BREAK**		**90 minutes**
	SESSION 2: COORDINATION AND PROCEDURES		
1400-1430	WWIS Forum Discussion page	H-H. A. Al Maqbali	30 minutes
1430-1530	Web hosts language coordination issues, common framework and translation	• Discussion (All Participants)	60 minutes
1530-1600	**COFFEE / TEA BREAK**		**30 minutes**
1600-1700	Web hosts language coordination issues, common framework and translation	• Discussion (All Participants)	60 minutes
	END OF DAY 2		

Friday, 29 November 2013

0900-0930	Deployment of the new WWIS Websites	• A. Cheng	30 minutes
0930-1000	Deployment of the new WWIS Websites (continued)	• Discussion (All Participants)	30 minutes
1000-1030	**COFFEE/TEA BREAK**		**30 minutes**
	SESSION 3 – THE FUTURE OF WWIS		
1030-1130	Future enhancements of the new WWIS website and Introduction to the revamping project of the SWIC Website	• A. Cheng	60 minutes

1130-1200	Promotion of the WWIS websites and the MyWorldWeather App	• Discussion (All Participants)	30 minutes
1200-1230	Needs/requirements and problems/solutions for migration to new version (web and mobile)	• Discussion (All Participants)	30 minutes
1230-1400	**LUNCH BREAK**		**90 minutes**
1400-1430	Visit to the Met Service	•	30 minutes
1430-1500	Consideration of the draft report of the meeting	• S. Muchemi	30 minutes
1500-1530	**COFFEE / TEA BREAK**		**30 minutes**
1530-1630	Any Other Business (AOB)	• Discussion (All Participants)	30 minutes
1630-1700	Closure of the Meeting	• IMGW-PIB • HKO • WMO	30 minutes
END OF MEETING			

_____