# ET-WISC Terms of Reference and Membership

## Introduction

1. The following Terms of Reference (TOR) and Membership lists are derived from the Report of CBS XV and have been updated based on coordination and approval by CBS Management Group 14. These details, along with workplans are managed in a central database in the secretariat and web pages dynamically created.

## Terms of Reference

1. The TOR listed in Table 1 are available online at <http://www.wmo.int/pages/prog/www/CBS/Lists_WorkGroups/CBS/opag%20iss/et-wisc/tors>

|  |  |
| --- | --- |
| (a) | Review and further develop the technical and operational specifications for the components and interfaces of WIS Centres and criteria for interoperability, certification and Quality Management of WIS Centres; |
| (b) | Operate the procedures for technical endorsement of WIS centres and advise CBS on centres’ level of technical compliance with standards and procedures; |
| (c) | Review and develop the Manual on WIS (WMO-No 1060), the Guide to WIS and associated informal guidance to better meet the needs of Members; |
| (d) | Review, further develop and oversee WIS monitoring activities, including those aspects of monitoring relating to the effectiveness of information exchange on behalf of the WWW and other Programmes, and take action to address issues that are identified by monitoring; |
| (e) | Review, develop and coordinate recommended practices and guidance on management of and access to operational information related to exchange of information through the WIS; |
| (f) | Provide coordination and collaboration mechanisms for supporting the implementation and operation of WIS centres; |
| (g) | Advise the technical commissions and partner organizations on roles, responsibilities and implementation of WIS Centres; |
| (h) | Identify implementation and operational issues requiring the urgent consideration of the OPAG on ISS; |
| (i) | Propose procedures for periodic assessment of the WIS centres, especially GISCs. |

Table Terms of Reference

## Membership

1. The Membership listed in Table 2 are available online at <http://www.wmo.int/pages/prog/www/CBS/Lists_WorkGroups/CBS/opag%20iss/et-wisc/members>. Note that CBS Management Group 14 requested that all experts provide a photo. The secretariat have included the photos of those experts that have responded.

# Expert Team on WIS Centres (ET-WISC)

Last updated: 22/05/2013

| **Name** | **Contact Details** |
| --- | --- |
| **LI, Xiang   (chair)** | China Meteorological Administration 46 Zhongguancun NandajieBEIJING 100081 ChinaTel: +86 10 6840 6275Fax: +86 10 6218 6241Email: lixiang@cma.gov.cn  |
| **HEENE, Markus   (co-chair)** | Deutscher Wetterdienst Frankfurter Strasse 135D-63067 OFFENBACH AM MAIN GermanyTel: +49 69 8062 2648Fax: +49 69 8062 4162Email: markus.heene@dwd.de  |
| **KELLIE, Al   (co-chair)** | National Center for Atmospheric Research 1850 Table Mesa Drive P.O Box 3000BOULDER 80307 CO United States of AmericaTel: +1 - 303 497 1206Fax: +1 - 303 497 1298Email: kellie@ucar.edu  |
| **REZENDE, Jose Mauro   (core-member)  [Co-lead TT-GISC]** | Instituto Nacional de Meteorología (INMET) Eixo Monumental - Via S170680-900 BRASILIA D.F. BrazilTel: +55 61 2102 4650Fax: +55 61 2102 4621Email: jmauro.rezende@inmet.gov.br  |
| **RAOULT, Baudouin   (core-member)  [Lead TT-CAC]** | ECMWF Shinfield ParkREADING, RG2 9AX United Kingdom of Great Britain and Northern IrelandTel: +44 118 949 9404Fax: +44 118 986 9450Email: baudouin.raoult@ecmwf.int  |
| **WOLF, Lothar   (core-member)  [Lead TT-DC]** | EUMETSAT Eumetsat Allee 1D-64295 DARMSTADT GermanyTel: +49-6151-8074050Email: Lothar.Wolf@eumetsat.int; DCPC@eumetsat.int  |
| **ANQUETIL, Jacques   (core-member)  [Lead TT-GISC]** | Météo-France 42, avenue Gaspard CoriolisF-31057 TOULOUSE CEDEX FranceTel: +33 5 6107 8572Fax: +33 5 6107 8109Email: jacques.anquetil@meteo.fr  |
| **LEE, Lap Shun   (core-member)  [Co-lead TT-DC]** | Hong Kong Observatory 134A Nathan RoadKOWLOON Hong Kong, ChinaTel: +852 2926 8416Fax: +852 2311 9448Email: lslee@hko.gov.hk  |
| **KARANJA, Henry N.   (core-member)** | Kenya Meteorological Department P.O. Box 30259NAIROBI KenyaTel: +254 20 3867880Fax: +254 20 3876955Mobile: +254 722 364465Email: hkaranja@meteo.go.ke ; hkaranja2001@yahoo.com  |
| **HUH, Sunghoi   (core-member)** | Korea Meteorological Administration (KMA) 460-18, Shindaebang-dong Dongjak-guSEOUL 156-720 Republic of KoreaTel: +82 2 2181 0416Fax: +82 2 2181 0449Mobile: +82-10-4559-7256Email: shhuh@korea.kr  |
| **MERROUCHI, Rabia   (core-member)** | National Meteorological Service of Morocco, DSI/STTD B.P. 8106 en face de la prefecture Hay HassaniCASABLANCA MoroccoTel: +212 5 22 65 48 32Fax: +212 5 22 91 32 55Mobile: +212 661 473 172Email: rabia.merrouchi@gmail.com, merrouchi.rabia@marocmeteo.ma  |
| **ALDER, Kevin   (core-member)** | Meteorological Service of New Zealand 30 Salamanca Road P.O. Box 722WELLINGTON 6140 New ZealandTel: +64 4 4700 720Fax: +64 4 4735 231Email: kevin.alder@metservice.com  |
| **BELOV, Sergey   (core-member)** | Russian Federal Service for Hydrometeorology and Environmental Monitoring (RIHMI-WDC) WORLD DATA CENTER Korolov St. 6249 035 OBNINSK Russian FederationTel: 7 (48439) 7 41 94Fax: 7 (499) 795 22 25Mobile: 7 910 912 39 69Email: belov@meteo.ru  |
| **MATHISON, Colin   (core-member)** | Met Office FitzRoy RoadEXETER EX1 3PB Devon United Kingdom of Great Britain and Northern IrelandTel: +44 139 288 69 50Fax: +44 139 288 56 81Email: colin.mathison@metoffice.gov.uk  |
| **BUNGE, Robert   (core-member)** | NOAA - National Weather Service 1325 East-West HighwaySILVER SPRING 20910-3292 MD United States of AmericaTel: +1 (301) 713-0882 Ext 114Fax: +1 (301) 608-1409Email: robert.bunge@noaa.gov  |
| **QU, Weiqing   (associate-member)** | Bureau of Meteorology G.P.O. Box 1289MELBOURNE 3001 VIC AustraliaTel: +61 3 9669 4236Fax: +61 3 9669 4128Email: w.qu@bom.gov.au  |
| **STRAZHNIKOV, Siarhei   (associate-member)** | Republic Hydrometeorological Center Nevavisimosti st., 110220114 MINSK BelarusTel: 00375172672023Fax: n/aEmail: chiefengineer@pogoda.by  |
| **WANG, Fudi   (associate-member)** | China Meteorological Administration 46 Zhongguancun NandajieBEIJING 100081 ChinaTel: 86 10-6840 6564Fax: +86 10 5899 5853Email: wangfd@cma.gov.cn  |
| **ZHU, Ting   (associate-member)** | China Meteorological Administration 46 Zhongguancun NandajieBEIJING 100081 ChinaTel: 86 10 68406710Fax: 86 10 62186241Email: zhuting@cma.gov.cn  |
| **MAVAMBO MAKUTA, Marcel   (associate-member)** | Agence nationale de météorologie et de Télédétection par satellite METTELSAT) B.P. 4715KINSHASA II République démocratique du CongoEmail: mavmarcel@yahoo.fr  |
| **HOFSTADLER, Alfred   (associate-member)** | ECMWF Shinfield ParkREADING, RG2 9AX United Kingdom of Great Britain and Northern IrelandTel: +44 118 949 9400Fax: +44 118 986 9450Email: alfred.hofstadler@ecmwf.int  |
| **GOMAA, Walid   (associate-member)** | The Egyptian Meteorological Authority Koubry El-Quobba P.O. Box 11784CAIRO EgyptTel: +20 2 8710420Fax: +20 2 6849857Email: walid.gomaa@ema.gov.eg  |
| **SACLIER, Benjamin   (associate-member)** | Météo-France 42, avenue Gaspard CoriolisF-31057 TOULOUSE CEDEX FranceTel: +33 5610 781 52Fax: +33 5610 781 09Email: Benjamin.Saclier@meteo.fr  |
| **RICHTER, Bernd   (associate-member)** | Deutscher Wetterdienst Frankfurter Strasse 135D-63067 OFFENBACH AM MAIN GermanyTel: +49 69 8062 2559Fax: +49 69 8062 3559Email: bernd.richter@dwd.de  |
| **OSUSKY, Jan   (associate-member)  [HMEI Representative]** | IBL Software Engineering Galvaniho 17/CBratislava 82104 SlovakiaTel: +421-2-32662155Fax: +421-2-32662110Email: jan.osusky@iblsoft.com  |
| **VOCINO, Antonio   (associate-member)** | Italian Air Force Meteorological Service (CNMCA) National Center of Aeronautical Meteorology and Climatology Aeroporto De Bernard Via di Pratica di Mare - Km 7,I-00040 POMEZIA (Rome) ItalyTel: +39 069129 3804 +39 069129 3414Fax: +39 069129 3887Email: vocino@meteoam.it  |
| **KOSUGE, Kenji   (associate-member)** | Japan Meteorological Agency Otemachi 1-3-4, Chiyoda-kuTOKYO 100-8122 JapanTel: +81-3 3212 8341Fax: +81-3 3211 8404Email: k-kosuge@met.kishou.go.jp  |
| **NISHIKAWA, Shigeharu   (associate-member)** | Japan Meteorological Agency Otemachi 1-3-4, Chiyoda-kuTOKYO 100-8122 JapanTel: +81-3 3212 8341Fax: +81-3 3211 8404Email: s\_nishikawa@met.kishou.go.jp; gce00463@gmail.com  |
| **ELRYALAT, Dafi   (associate-member)** | Meteorological Department P.O. Box 341011, MarkaAMMAN 11134 JordanTel: +962 6 4892408Fax: +962 6 4892409Email: dafialryalat@yahoo.co.uk  |
| **MACHUA, Samuel   (associate-member)** | Kenya Meteorological Department P.O. Box 30259NAIROBI KenyaTel: +254722589382Fax: +254203876955Email: machua@meteo.go.ke ; smmachua@yahoo.com  |
| **DO, Sung Soo   (associate-member)** | Korea Meteorological Administration (KMA) 460-18, Shindaebang-dong Dongjak-guSEOUL 156-720 Republic of KoreaTel: +82-2-2181-0418Fax: +82-2-835-0866Email: ssdo@korea.kr  |
| **YUN, Hyuk Jin   (associate-member)** | Korea Meteorological Administration (KMA) 460-18, Shindaebang-dong Dongjak-guSEOUL 156-720 Republic of KoreaTel: +82-2-2181-0414Fax: +82-2-2181-0449Email: hkjin@kma.go.kr  |
| **VAN DIJK, William Wim   (associate-member)** | Meteorological Service of New Zealand 30 Salamanca Road P.O. Box 722WELLINGTON 6140 New ZealandTel: +64 4 470 0752Email: wim.vandijk@metservice.com  |
| **KHAN, Azmat Hayat   (associate-member)** | Pakistan Meteorological Department Headquarters Office Sector: H-8/2 P.O. Box 1214ISLAMABAD PakistanTel: +92-51-9250598Fax: +92-51-9250368Email: dirndmc@gmail.com; pakmet\_islamabad@yahoo.com; director@pmd.gov.pk  |
| **RANA, Arif Mahamood   (associate-member)** | Pakistan Meteorological Department University RoadKARACHI 75270 PakistanTel: +92 51 9250367Fax: +92 51 9250368Email: dgpakmet@gmail.com  |
| **BEZRUK, Leonid   (associate-member)  [Lead TT-OM]** | Aviamettelecom of Roshydromet 2/12 Prokudinsky Lane123243 MOSCOW Russian FederationTel: +(7 499) 795 2260 ; +(7 499) 255 1477Fax: +(7 499) 252 5504Email: bezrouk@mecom.ru  |
| **MYKANOV, Pael   (associate-member)** | ROSHYDROMET 12 Novovagankovsky Street123242 MOSCOW Russian FederationTel: +7 499 795 24 60Email: tzu@mecom.ru  |
| **GUÈYE, Chouaibou   (associate-member)** | Agence National de l'Aviation Civile et de la Meteorologie Data Processing Centre Aeroport Leopold Sedar , SenghorDAKAR-YOFF BP 8257 SenegalTel: +221 33 869 53 71Fax: +221 33 820 13 27Email: shuahibu.gueye@orange.sn  |
| **ALBAYRAK, Omer Hudai   (associate-member)** | Turkish State Meteorological Service (SMS) P.O. Box 401ANKARA TurkeyTel: +90 312 302 2600Fax: +90 312 359 3430Email: omerhudai@dmi.gov.tr  |
| **JEFFERY, Duncan   (associate-member)** | Met Office FitzRoy RoadEXETER EX1 3PB Devon United Kingdom of Great Britain and Northern IrelandTel: +44 1392 88 6052Fax: +44 870 900 5050Email: duncan.jeffery@metoffice.gov.uk  |
| **LITTLE, Chris   (associate-member)** | Met Office FitzRoy RoadEXETER EX1 3PB Devon United Kingdom of Great Britain and Northern IrelandTel: +44 1392 88 6278Fax: +44 1392 88 5681Email: chris.little@metoffice.gov.uk  |
| **PENMAN, James   (associate-member)** | Met Office FitzRoy RoadEXETER EX1 3PB Devon United Kingdom of Great Britain and Northern IrelandTel: +44 139 288 63 83Fax: +44 139 288 56 81Email: james.penman@metoffice.gov.uk  |
| **SOLOVEYCHIK, Alexandre   (associate-member)** | The Centre of Hydrometeorological Service (UZHYDROMET) 72, K. Makhsumov StreetTASHKENT 100052 UzbekistanTel: +998 711 508 630Fax: +998 711 508 631Email: alex@meteo.uz  |
| **MIDDLETON, Don   (associate-expert)** | National Center for Atmospheric Research 1850 Table Mesa Drive P.O Box 3000BOULDER 80307 CO United States of AmericaTel: 1-303-718-2291Email: don@ucar.edu  |

Table Membership

## References

* Report on CBS XV (WMO No 1101) ftp://ftp.wmo.int/Documents/PublicWeb/mainweb/meetings/cbodies/governance/tc\_reports/english/pdf/1101\_en.pdf
* OPAG ISS expert teams and links to TORS and Memberships (Also Workplans if available) <http://www.wmo.int/pages/prog/www/CBS/Lists_WorkGroups/CBS/opag%20iss>

## Recommended Text

ET-WISC noted the terms of Reference as set by CBS. It also reviewed the list of members as described in the Annex [xx].

--------------------