

**WORLD METEOROLOGICAL ORGANIZATION**

**COMMISSION FOR INSTRUMENTS AND METHODS OF OBSERVATION**

**AD-HOC WORKING GROUP ON WIGOS PILOT PROJECT**  
*First Session*

**Geneva, Switzerland**

**31 January – 1 February 2008**

**FINAL REPORT**



## **WMO General Regulations 42 and 43**

### **Regulation 42**

Recommendations of working groups shall have no status within the Organization until they have been approved by the responsible constituent body. In the case of joint working groups, the recommendations must be concurred with by the presidents of the constituent bodies concerned before being submitted to the designated constituent body.

### **Regulation 43**

In the case of a recommendation made by a working group between sessions of the responsible constituent body, either in a session of a working group or by correspondence, the president of the body may, as an exceptional measure, approve the recommendation on behalf of the constituent body when the matter is, in his opinion, urgent, and does not appear to imply new obligations for Members. He may then submit this recommendation for adoption by the Executive Council or to the President of the Organization for action in accordance with Regulation 9(5).

## EXECUTIVE SUMMARY

The CIMO Ad-Hoc Working Group on the CIMO WIGOS Pilot Project (CIMO-WIGOS-PP-1) held its first session at the WMO Headquarters in Geneva, Switzerland, from 31 January to 1 February 2008. The Ad-Hoc Working Group reviewed the guidance and outcomes of the first session of Executive Council Working Group on the WMO Integrated Global Observing Systems (WIGOS) and the WMO Information System (WIS), Geneva, Switzerland, 4-7 December 2007.

The meeting considered the expected involvement, role and responsibility of CIMO in WIGOS. To address these issues, it would be necessary to enhance communication and collaboration with other technical commissions and relevant WMO partner organizations that co-sponsor, own and/or operate some of the observing systems.

The meeting agreed on the aim of the CIMO Pilot Project (CIMO-PP) that was to show what would need to be done in the long-term to achieve the expected levels of integration and the benefits that WIGOS would achieve.

It was reiterated that the role of CIMO would not be limited only to the development and maintenance of observation standards and the traceability of measurements to international standards, but also would include matters related to instrument intercomparisons and testing, development of new instruments and systems, interoperability and compatibility of instruments and observing systems, and capacity-building activities.

The meeting agreed that CIMO-PP should be realistic, taking into account the time and availability of experts. It should be elaborated in two phases. The first phase would be to elaborate the role and responsibilities of CIMO within WIGOS (proposed Terms of Reference of CIMO within WIGOS). The second phase would be to develop proposals for implementation of the proposed role and responsibilities of CIMO, as well as involvement of CIMO-PP in other Pilot Projects and selected Demonstration Projects.

The meeting discussed the cross-cutting and underpinning role and responsibilities of CIMO within the WIGOS-WIS framework. It examined the existing Terms of References of the technical commissions in addressing the CIMO's role in the WIGOS framework.

The meeting developed the first proposal of the CIMO-PP on WIGOS "Elaboration of the underpinning/crosscutting role and responsibilities of the Instruments and Methods of Observation Programme and CIMO in the context of WIGOS", determining how CIMO could best contribute to and support the development of WIGOS.

This responsibility underpins all observations within WIGOS, and will be carried out in close consultation with relevant WMO partner organizations that co-sponsor, own and/or operate some of the observing systems.

The Final Report of the first session of the CIMO Ad-Hoc Working Group on the CIMO WIGOS Pilot Project (CIMO-WIGOS-PP-1) is available at:

<http://www.wmo.int/pages/prog/www/reports.html>.

# **AGENDA**

- 1. ORGANIZATION OF THE SESSION**
  - 1.1 Opening of the meeting
  - 1.2 Adoption of the agenda
  - 1.3 Working arrangements
- 2. DEVELOPMENT OF THE CIMO PILOT PROJECT ON THE WMO INTEGRATED OBSERVING SYSTEMS (WIGOS)**
- 3. ANY OTHER BUSINESS**
- 4. CLOSURE OF THE SESSION**

Annex I List of Participants

## **GENERAL SUMMARY**

### **1. ORGANIZATION OF THE SESSION**

#### **1.1 Opening of the meeting**

1.1.1 The first session of the CIMO Ad-Hoc Working Group on the CIMO WIGOS Pilot Project (CIMO-WIGOS-PP-1) was opened by the President of CIMO, Dr John Nash, on Thursday, 31 January 2008 at 09:30. The list of participants is provided in Annex I.

1.1.2 On behalf of the Secretary-General, Mr J. Lengoasa, Assistant Secretary-General, welcomed the participants. Mr Lengoasa wished the participants a productive meeting and an enjoyable stay in Geneva.

1.1.3 He emphasized the central role that CIMO should have in the WMO Integrated Global Observing Systems (WIGOS) and invited the group to build bridges to the WMO co-sponsored systems.

1.1.4 He pointed out that the goal of the meeting was to develop the CIMO Pilot Project on WIGOS "Elaboration of the underpinning/crosscutting role and responsibilities of the Instruments and Methods of Observation Programme and CIMO in the context of WIGOS", determining how CIMO should best contribute to and support the development of WIGOS.

1.1.5 The President recalled that all CIMO related activities had a clear link with the integration planned within WIGOS, and that in the past some problems had hindered earlier attempts of integration. Dr Nash expressed his wish that the WIGOS initiative would be an opportunity to overcome those problems.

#### **1.2 Adoption of the agenda**

1.2.1 The meeting adopted the agenda as reproduced at the beginning of this report.

#### **1.3 Working arrangements**

1.3.1 The working hours and tentative timetable for the meeting were agreed upon.

### **2. DEVELOPMENT OF THE CIMO PILOT PROJECT ON THE WMO INTEGRATED OBSERVING SYSTEMS (CIMO-WIGOS-PP)**

#### **Report of the EC-WG/WIGOS-WIS-1 meeting**

2.1 The CIMO Vice-President, Mr Rainer Dombrowsky, informed the meeting about the first meeting of the Executive Council Working Group on the WMO Integrated Global Observing Systems (WIGOS) and WMO Information System (WIS), (Geneva, Switzerland, December 2007), highlighting the main topics and outcomes of this meeting relevant to the future role and responsibilities of CIMO in WIGOS.

2.2 He explained that WIGOS is not an individual system, but a framework of observing systems, the centre of which is standardization of measurements (instruments and methods of observation). To address the role and responsibilities of CIMO in WIGOS, it would be necessary to enhance communication and collaboration with other technical commissions and partners who co-sponsor, own and/or operate some of the observing systems.

2.3 The meeting considered the information and discussed the expected involvement and role of CIMO in WIGOS.

2.4 The CIMO President explained the aim of the CIMO Pilot Project (CIMO-PP) that is to show what would need to be done in the long-term to achieve the expected levels of integration and the benefits that WIGOS would achieve.

2.5 It was reiterated that the role of CIMO was not limited only to the development and maintenance of observation standards and the traceability of measurements to international standards, but also included matters related to instrument intercomparisons and testing, development of new instruments and systems, interoperability and compatibility of instruments and observing systems, and capacity-building activities.

2.6 As for standardization, there is different understanding of WMO Members regarding the *Guide on Instruments and Methods of Observation, WMO-No. 8 (CIMO Guide)*, where in some cases the *Guide* is considered as a mandatory publication providing standards for observation whereas in other cases it is considered only as guidance. The meeting expressed its opinion that in future it would probably be necessary to develop a classification of standards (e.g. desired level of standardization and minimum acceptable level of standardization) with regular updates.

2.7 The meeting agreed that the CIMO Pilot Project should be realistic, taking into account time and availability of experts. It should be elaborated in two phases. The first phase would be to elaborate the role and responsibilities of CIMO within WIGOS (proposed Terms of Reference of CIMO within WIGOS). The second phase would be to develop proposals for implementation of the proposed role of CIMO, as well as involvement of the CIMO-PP in other Pilot Projects and selected Demonstration Projects.

### **Terms of Reference of WMO Technical Commissions**

2.8 The meeting discussed the cross-cutting and underpinning role and responsibilities of CIMO within the WIGOS-WIS framework. It examined the existing Terms of Reference (TOR) of the technical commissions in addressing the CIMO's role in the WIGOS framework. The representative of CHy informed the meeting that the Terms of reference of CHy were slightly modified in English version, part d) as follows: "Promoting the collaboration and linkages among hydrology, meteorology, and environmental management."

### **The CIMO Pilot Project on WIGOS**

2.9 The meeting developed the first proposal of the CIMO-PP on WIGOS "Elaboration of the underpinning/crosscutting role and responsibilities of the Instruments and Methods of Observation Programme and CIMO in the context of WIGOS", determining how CIMO could best contribute to and support the development of WIGOS. The draft of the CIMO-PP is reproduced in Annexes II & III.

2.10 The meeting requested the WIGOS Planning Office to examine the proposal submitted by Morocco at the CIMO-MG-5 meeting (Geneva, Switzerland, 28-30 January 2008) as a potential WIGOS Demonstration Project. If appropriate, Morocco should be asked to fill in the template and submit it for consideration to the WIGOS Planning Office and the EC WG on WIGOS/WIS

2.11 Due to the proposed involvement of the CIMO-PP in other Pilot Projects and selected Demonstration Projects, the meeting proposed to have a two day meeting of the CIMO Ad-Hoc Working Group on the CIMO WIGOS Pilot Project following TECO-2008 (St. Petersburg, Russian Federation, November 2008).

2.12 The meeting agreed that the CIMO President should present the elaborated roles and responsibilities of CIMO within WIGOS to the Meeting of Presidents of Technical Commissions (Geneva, Switzerland, 20-22 February 2008) and to ask the presidents of other technical commissions for their comments.

2.13 The meeting decided that the CIMO Vice-president will be the Project Manager of the CIMO-PP on WIGOS, and will recommend who should be the CIMO representative in the other Pilot and Demonstration Projects.

2.14 The JCOMM representative, Mr Etienne Charpentier, informed the meeting about third session of the JCOMM Data Management Coordination Group (DMCG-III), Ostend, Belgium, 26-28 March 2008. Mr Charpentier asked for CIMO representative to attend the ad-hoc planning meeting of the JCOMM Pilot Project on WIGOS which would be held following the DMCG on 29 March 2008. The meeting agreed that the CIMO Vice-President would represent CIMO in this meeting.

2.15 It is expected that the CAS/CBS Pilot Project on WIGOS would have its first meeting earlier in the same week in Geneva, Switzerland. It was agreed that the Vice-President should also represent CIMO in that meeting.

2.16 The representative of the Commission of Hydrology (CHy), Mr Gabriel Arduino, informed that a meeting of the CHy Advisory Working Group would take place from 11 to 15 February 2008, and that it would examine the Flow Measurement Instruments and Techniques Assessment Proposal. This is the agenda item 4.3.6 of the AWG session. The WMO Secretariat representative was provided with a hard copy of the document related to this agenda item together with its annex, which describes the proposal. In case of approval of this proposal by the CHy it would be possible to cooperate with the WIGOS CIMO project. The electronic version of the above mentioned documents were provided to the WMO Secretariat representative after the meeting. The meeting considered that these issues and other issues related to other WIGOS pilot project could be discussed during the session of PTC.

### **3. CLOSURE OF THE SESSION**

The session closed on Friday, 1 February 2008 at 15:44 hours

## LIST OF PARTICIPANTS

<p><b>Dr John NASH</b> President of CIMO</p>	<p>Met Office FitzRoy Road EXETER Devon EX1 3PB United Kingdom of Great Britain and Northern Ireland Tel.: +44 1392 88 5649 Fax: +44 1392 88 5681 E-mail: <a href="mailto:jnash@meto.gov.uk">jnash@meto.gov.uk</a></p>
<p><b>Mr Rainer N. DOMBROWSKY</b> Vice-president of CIMO</p>	<p>NOAA Homeland Security Programme Office National Oceanic and Atmospheric Administration (NOAA) 1315 East-West Highway SSMC3, Room 10846 SILVER SPRING, MD 20910-3283 United States of America Tel.: +1 202 282 9937 Fax: +1 202 282 8782 E-mail: <a href="mailto:Rainer.Dombrowsky@noaa.gov">Rainer.Dombrowsky@noaa.gov</a></p>
<p><b>Dr Bertrand CALPINI</b> CIMO Co-chairperson of OPAG-Surface</p>	<p>Météo Swiss, Station aérologique Case postale 316 CH-1530 PAYERNE Switzerland Tel.: +41 26 662 6211 Fax: +41 26 662 6212 E-mail: <a href="mailto:bertrand.calpini@meteoswiss.ch">bertrand.calpini@meteoswiss.ch</a></p>
<p><b>Mr Russell STRINGER</b> CIMO Co-chairperson of OPAG-Upper-air</p>	<p>Bureau of Meteorology 700 Collins Street G.P.O. Box 1289K MELBOURNE, VIC. 3001 Australia Tel.: +61 3 9669 4225 Fax: +61 3 9669 4168 E-mail: <a href="mailto:R.Stringer@bom.gov.au">R.Stringer@bom.gov.au</a></p>
<p><b>Dr Igor ZAHUMENSKÝ</b></p>	<p>Slovak Hydrometeorological Institute Jeséniova 17 P.O. Box 15 833 15 BRATISLAVA Slovakia Tel.: +421 46 541 3624 Fax: +421 46 541 3624 E-mail: <a href="mailto:Igor.Zahumensky@shmu.sk">Igor.Zahumensky@shmu.sk</a></p>

## CIMO WIGOS-PP-1, ANNEX I

<b>INVITED EXPERTS</b>	
<b>Mr Etienne CHARPENTIER</b> <i>Representing JCOMM</i>	Scientific Officer Marine Observations Systems Programme Observing and Information Systems Division World Meteorological Organization 7 bis, avenue de la Paix P.O. Box 2300 CH-1211 GENEVA 2 Switzerland Tel.: +41 22 730 8223 Fax: +41 22 730 8021 E-mail: <a href="mailto:ECharpentier@wmo.int">ECharpentier@wmo.int</a>
<b>Dr Geir O. BRAATHEN</b> <i>Representing CAS</i>	Scientific Officer Atmospheric Environmental Research Division Atmospheric Research and Environment Branch World Meteorological Organization 7 bis, avenue de la Paix P.O. Box 2300 CH-1211 GENEVA 2 Switzerland Tel.: +41 22 730 8235 Fax: +41 22 730 8049 E-mail: GBraathen@wmo.int
<b>Mr Gabriel ARDUINO</b> <i>Representing CHy</i>	Hydrology and Water Resources Branch World Meteorological Organization 7 bis, avenue de la Paix P.O. Box 2300 CH-1211 GENEVA 2 Switzerland Tel.: +41 22 730 8331 Fax: +41 22 730 8043 E-mail: GARduino@wmo.int
<b>WMO SECRETARIAT</b> 7 bis, avenue de la Paix P.O. Box 2300 CH-1211 GENEVA 2 Switzerland	<b>WWW website</b> <a href="http://www.wmo.int/pages/prog/www/index_en.html">http://www.wmo.int/pages/prog/www/index_en.html</a>
<b>Dr Miroslav ONDRÁŠ</b>	Chief, Observing Systems Division Observing and Information Systems Department Tel.: +41 22 730 8409

CIMO WIGOS-PP-1, ANNEX I

	<p>Fax: +41 22 730 8021  E-mail: <a href="mailto:MOndras@wmo.int">MOndras@wmo.int</a></p>
<p><b>Dr Isabelle I. RÜEDI</b></p>	<p>Senior Scientific Officer  Instruments and Methods of Observation  Programme  Observing and Information Systems Department  Tel.: +41 22 730 8278  Fax: +41 22 730 8021  E-mail: <a href="mailto:IRuedi@wmo.int">IRuedi@wmo.int</a></p>
<p><b>Mr Brian O'DONNELL</b></p>	<p>Consultant  WIGOS Planning Office  Observing and Information Systems Department  Tel.: +41 22 730 8202  Fax: +41 22 730 8474 / 8021  E-mail: <a href="mailto:BODonnell@wmo.int">BODonnell@wmo.int</a></p>

**The CIMO Pilot Project on WIGOS**  
**“Elaboration of the underpinning/crosscutting role and responsibilities of the Instruments and Methods of Observation Programme and CIMO in the context of WIGOS”**

<b>Project Name</b>	Elaboration of the underpinning/crosscutting role and responsibilities of the Instruments and Methods of Observation Programme and CIMO in the context of WIGOS
<b>Acronym</b>	N/A
<b>Project Type</b>	Pilot
<b>Project Status</b>	The pilot is currently in its initial stage of collaboration and planning.
<b>Project Overview</b>	This pilot is directed at defining the CIMO's role and responsibilities within the WIGOS-WIS framework. Once these proposed role and responsibilities (Terms of Reference (TOR)) are endorsed by the EC-WG-WIGOS/WIS and Sub-group on WIGOS, the proposal will be tested and demonstrated across the remaining WIGOS Pilot and Demonstration Projects to prove the effectiveness of the proposed TOR in addressing the WIGOS needs.
<b>Project Aims</b>	Phase 1 of this project is to elaborate the underpinning / crosscutting role of CIMO in WIGOS (TOR for CIMO in the context of WIGOS). Phase 2 of this project is to develop and implement a plan which demonstrates the process by which CIMO fulfils its newly EC-agreed role and responsibilities within the WIGOS framework.
<b>Partners/Participants</b>	Phase 1: All WMO Technical Commissions and Co-sponsored Programmes and related International Organizations. Phase 2: Selected WIGOS Pilot & Demonstration Projects relevant to the CIMO-PP.
<b>Funding Source(s)</b>	The two phases of this project will, to the maximum extent possible, make use of the expertise to be provided through the working structure of CIMO and its WIGOS partners. Additional support will be required through the WMO budget and/or WIGOS-WIS Trust Fund.
<b>Project Timescale</b>	Phase 1: pilot project proposal for the role of CIMO within WIGOS and draft implementation plan development; fourth quarter 2008. Phase 2: Implementation: 2009-2011.
<b>Expected Key Deliverables</b>	Phase 1: Proposed CIMO TOR within WIGOS and draft proposal for implementation. Phase 2: Project implementation, periodic evaluation and management, a report with recommendations.
<b>Project Links</b>	<a href="http://www.XXXXXXXXXXX">http://www.XXXXXXXXXXX</a>
<b>Project Summary</b>	The CIMO Pilot Project is in the first stages of development
<b>Date of Last Update</b>	01/02/2008
<b>CIMO Contact Person Name</b>	Rainer Dombrowsky
<b>Organization</b>	NOAA Homeland Security Programme Office
<b>Address</b>	National Oceanic and Atmospheric Administration (NOAA) 1315 East-West Highway SSMC3, Room 10846 SILVER SPRING, MD 20910-3283 United States of America
<b>Telephone</b>	+1 202 282 9937
<b>Fax</b>	+1 202 282 8782
<b>E-Mail</b>	Rainer.Dombrowsky@noaa.gov

**Role and Responsibilities of the Commission for Instruments and Methods of Observation (CIMO) within the framework of the WMO Integrated Global Observing Systems (WIGOS)**

Within the framework of the WMO Integrated Global Observing Systems (WIGOS)

The Commission shall be responsible for matters relating to international standardization, compatibility and sustainability of instruments and methods of observation of meteorological, climatological, hydrological, oceanographic, and related geophysical and environmental variables.

This responsibility underpins all observations within WIGOS, and will be carried out in close consultation with relevant WMO partner organizations that co-sponsor, own and/or operate some of the observing systems.

This shall include in particular (priority to be defined at later stage):

- (a) Addressing the requirements across all elements of WIGOS for standardized and compatible observations, including data content, quality and metadata;
  - (b) Providing advice, studies and recommendations concerning effective and sustainable use of instruments and methods of observation, including methods for testing, calibration and quality management consistent with the WMO Quality Management Framework ;
  - (c) Conducting and/or coordinating global and regional field intercomparisons and functional testing of instruments and methods of observation;
  - (d) Promoting the development of measurement traceability to recognized international standards, including reference instruments and effective hierarchy of world, regional, national and lead centres for instrument calibration, development and testing;
  - (e) Promoting compatibility, inter-calibration, integration and inter-operability with respect to both, and between, space-based and surface-based (*in situ* and remote sensing) observations, including conducting testbed observing experiments;
  - (f) Encouraging research and development of new approaches in the field of instruments and methods of observation of meteorological, climatological, hydrological, oceanographic, and related geophysical and environmental variables;
  - (g) Promoting the appropriate and economical production and use of instruments and methods of observation with particular attention to the needs of developing countries;
  - (h) Supporting training and capacity building activities in the area of instruments and methods of observation.
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