**WORLD METEOROLOGICAL ORGANIZATION**

**INTER-COMMISSION COORDINATION GROUP**

**ON THE WMO INTEGRATED GLOBAL OBSERVING SYSTEM**

**Seventh Session**

***Geneva, Switzerland, 15-17 January 2018***

**FINAL REPORT**



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**Executive Summary**

The Seventh Session of the Inter-Commission Coordination Group on the WMO Integrated Global Observing System (ICG-WIGOS-7) was held at the WMO Secretariat in Geneva, Switzerland, from 15 to 17 January 2018. The session was co-chaired by Dr Sue Barrell (Australia), Co-Chair of ICG-WIGOS, and Prof Bertrand Calpini, Co-Chair of ICG-WIGOS and President of CIMO.

ICG-WIGOS reviewed the progress towards the implementation of WIGOS, outcomes from WIGOS-relevant workshops and meetings, achievements of the ICG-WIGOS Task Teams. In this regard, ICG-WIGOS expressed its appreciation of the progress achieved and thanked all involved experts and contributors ([see Item 4](#Item_4)).

ICG-WIGOS further discussed the progress made in the five key priority areas of the WIGOS pre-operational phase (2016-2019) ([see Item 5](#Item_5)). It also considered the collaboration and engagement with cross-cutting WMO priorities areas, and achievements in the WIGOS main observing components ([see Item 8](#Item_8)).

ICG-WIGOS formulated its recommendations and guidance on a further development and implementation of the WIGOS pre-operational phase; and agreed on the deliverables to EC-70 ([see Item 9](#Item_9)).

Finally, ICG-WIGOS considered its future working structure and developed its Future Work Programme and Action Plan ([see Item 10](#Item_10) and [Appendix II](#Appendix_II)).

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**General summary**

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

**1.1 Opening of the meeting**

1.1.1 The Seventh Session of the Inter-Commission Coordination Group on the WMO Integrated Global Observing System (ICG-WIGOS-7) was held at the WMO Secretariat in Geneva, Switzerland, from 15 to 17 January 2018. The session was co-chaired by Dr Sue Barrell (Australia) and Prof Bertrand Calpini (Switzerland), President of CIMO. The Co-Chairs welcomed the participants to the meeting, and expressed their wishes for a successful session.

1.1.2 B. Calpini informed ICG-WIGOS that the revised WMO International Cloud Atlas (ICA) was recognized by the Atmospheric Science Librarians International (ASLI) Choice Awards at the 2018 Annual Meeting of the American Meteorological Society (Austin, Texas). This ICA revision included transition from a printed atlas to a web-based format (<https://cloudatlas.wmo.int/home.html>). ASLI had never before awarded a website.

1.1.3 B. Calpini also mentioned a firm support of the MeteoSwiss to the development of OSCAR as one integrated WIGOS tool.

1.1.4 Dr W. Zhang, ASG, welcomed the participants to Geneva. He highlighted the importance of the meeting, and indicated its main outcomes and the critical tasks to be accomplished by Cg-18 for WIGOS to be operational from 2020.

1.1.5 The list of participants is given in [Appendix I](#Appendix_I).

**1.2 Adoption of the agenda**

ICG-WIGOS adopted the [Agenda](#AGENDA) for the meeting, which is reproduced at the beginning of this report.

**1.3 Working arrangements**

1.3.1 ICG-WIGOS agreed on its working hours and adopted a tentative work plan for consideration of the individual Agenda Items.

1. **REPORT FROM THE CO-CHAIRS**
   1. Dr Barrell briefed the meeting on the achievements since ICG-WIGOS-6, such as observing system capability assessment in several countries, and the work accomplished by the various Task Teams.
   2. Dr Barrell further identified the following key objectives for ICG-WIGOS-7: the review of the progress in key activity areas, Vision for WIGOS in 2040, and proposing to the Executive Council a way forward regarding the role of WIGOS in a WMO programmatic structure after 2020 when the Pre-Operational Phase will have ended.
2. **RELEVANT DECISIONS AND GUIDANCE FROM EC-69**
   1. Dr L. P. Riishojgaard, PM/WIGOS, briefed the session on the guidance and recommendations received from EC-69 regarding the implementation of WIGOS.
3. **PROGRESS TOWARD IMPLEMENTATION OF WIGOS**
   1. **Review of key outcomes from regional WIGOS workshops and meetings**

***4.1(1) WIGOS Data Quality Monitoring System Workshop for WIGOS Component and Co-sponsored Observing Systems (26-29 June 2017)***

4.1(1)1 S. Goldstraw, chair, TT-WDQMS briefed ICG-WIGOS on the WIGOS Data Quality Monitoring System, its processes, functions, incident management, and the outcomes from the workshop for WIGOS observing component systems and co-sponsored observing systems.

4.1(1)2 GAW has a well-established Quality Monitoring Framework, with some components being closer to having a true operational status than others. GCOS has an established Quality Monitoring Function with Data Centre and Monitoring Centres being in place. In the case WHOS, the capability of OSCAR/Surface to fully accommodate metadata for hydrological stations and the eventual uptake of the system by the operators of these stations still needs to be developed. JCOMM operates a very mature quality monitoring function, which requires closer examination; its experiences should be reflected in WDQMS. The development of the Global Cryosphere Watch CryoNet system is still in its early stages, with many partners involved. The GCW portal is planned to be the main source of metadata information to be included in OSCAR/Surface.

4.1(1)3 Regarding the overall integration of the various monitoring activities into a common WDQMS covering all WIGOS components, five “mini-workshops” were held in the month of July 2017. It was felt by both the WIGOS-PO and representatives of the various WIGOS component system that for the initial exploration this would be a better approach than having one large workshop with all WIGOS components represented at the same time. This format allowed for detailed discussions focused on specific observing component issues, involving (in turn) GAW, GCOS, WHOS, JCOMM, and GCW representatives together with WIGOS-PO staff and representatives of TT-WDQMS.

4.1(1)4 Regarding the prospects for overall integration of the monitoring capabilities into the WDQMS, ICG-WIGOS agreed not to impose a single unified system on the components at this time. The overall strategy is to leverage existing capabilities and ongoing developments as much as possible and it should be aligned with the existing capabilities. Further discussion is needed, and the various monitoring activities will need to be closely followed by TT-WDQMS, which will provide guidance of possible integration activities.

***4.1(2) RA IV WIGOS Workshop (Spanish language; 22-24 Aug 2017)***

4.1(2)1 The Secretariat provided a brief summary of the outcomes of the event and presented the recommendations developed there. The most important ones were related to: (i) the OSCAR/Surface training for national focal points, (ii) urging Members to provide metadata to OSCAR/Surface; (iii) potential development of a WDQMS Pilot project, (iv) the establishment of three RWCs (based on the languages and on geography of the Region), and (v) the RA IV Task Team on WIGOS to work on a proposal for the RBON; and (vi) the regional WIGOS implementation.

4.1(2)2 Regarding item (iv) ICG-WIGOS noted that in spite of the recommendation to establish three RWCs, no specific way forward on how to accomplish this had been identified. In fact so far not a single RA-IV Member had volunteered to participate in this activity. ICG-WIGOS therefore advised to scale back the level of ambition and recommended to focus on establishing at least one RWC in pilot mode, covering all WIGOS observing components. Other RWCs could come later, building on lessons learned.

***4.1(3) Joint RA II/RA VI Workshop on WIGOS (12-14 Sept 2017)***

4.1(3)1 The Secretariat briefed ICG-WIGOS on the outcomes of the meeting, the purpose of which was to strengthen and accelerate the implementation of WIGOS in Regions II and VI (Russian speaking countries).

4.1(3)2 The PR of Belarus with WMO expressed the readiness of her country to host, within the WMO Eurasian Office once this has been established, training sessions on WIGOS and on OSCAR/Surface for the Eurasian countries, including also Latvia and Lithuania if they should be interested in joining. The participating Members welcomed and appreciated the invitation.

4.1(3)3 The recommendations of the meeting (see [the Final Report](https://www.wmo.int/pages/prog/dra/eur/documents/RA-II-VIEurasianWIGOSWorkshopReport.pdf)) were presented at the 29th session of the Interstate Council on Hydrometeorology, planned for 24-25 October 2017 in Tashkent, Uzbekistan. Also, they will serve as input to the update of the Region II and Region VI WIGOS Implementation Plans.

4.1(3)4 Several recommendations were related to the OSCAR/Surface, notably (i) a request to make the user interface of OSCAR/Surface available in Russian; (ii) hands-on training in OSCAR/Surface, with involvement of Regional Training Centres; (iii) development of e-learning tools in Russian, and (iv) developing a stand-alone version of OSCAR that can be installed nationally, outside the MeteoSwiss IT environment, to enable to exchange information at a national level. (See Item 5.3(1) on OSCAR/Surface training)

4.1(3)5 Regarding the request for a template of a national WIGOS implementation plan, ICG WIGOS reiterated its opinion that examples of such a plan provided by Members would serve the purpose better than any template. [Guidance on the national WIGOS implementation](http://www.wmo.int/pages/prog/www/wigos/WGM.html) is already available in all WMO languages. The WIGOS-PO was requested to contact some countries and encourage them to make their plans available to other Members.

***4.1(4) RA III Working Group on Infrastructure and Technological Development (WG-ITD-2) (4-6 Oct 2017)***

4.1(4)1 J. Arimatea de Sousa Brito, chair, RA III/WG-ITD briefed the meeting on WIGOS-related outcomes and recommendations from the second session of the Working Group, held in Asunción, Paraguay, 4-6 October 2017, including: a project for development of a regional weather radar mosaic; the WIGOS, WIS and OSCAR/Surface national focal points; the process of selection of candidates for RWC and establishing a virtual RWC to be submitted to RA III session in November 2018.

4.1(4)2 The national process for the assignment of WIGOS station identifiers in Brazil was presented, including examples. This information was greatly appreciated by ICG-WIGOS, and it was decided that it should be published on the WIGOS portal to be available for other WMO Members.

4.1(4)3 An update on the WIGOS-SAS project was provided as well. The project was found as the most effective WIGOS communications and outreach instrument in RA III, and it will be used as a demonstration project for its future expansion to the whole Region.

***4.1(5) Joint GCOS-WIGOS Workshop for Pacific SIDS (9-12 Oct 2017)***

4.1(5)1 Key messages from the workshop were presented to ICG-WIGOS (see the [Report](http://www.wmo.int/pages/prog/www/WIGOS-WIS/reports/FijiWorkshopOct2017.docx) from the workshop). It was highlighted that upper air observations in this region tend to have the highest measured impact of all ground-based measurements on the quality and accuracy of weather and climate analysis and prediction, not only locally, but globally. Both the spatial density and observing frequency of the upper air network over the South Pacific region currently fall short of GCOS and WMO requirements. Given the scarcity of local resources in a region that mostly consists of open ocean, the upper air network over the South Pacific needs sustained international support.

4.1(5)2 The Workshop recommended that an outline for a Pacific region observing network plan in support of the GCOS Implementation Plan and the Implementation Plan for the Evolution of Global Observing Systems (EGOS IP) be developed with an aim to: a) strengthen regional and national meteorological networks to support adaptation actions and avert loss and damage; b) identify capacity building needs to ensure the sustainability of the networks; c) be used to support requests for finance from the operating entities of the financial mechanism under the Convention, the GCOS Cooperation Mechanism and other relevant funding sources.

4.1(5)3 ICG-WIGOS agreed that the international community would have an interest in deploying its observational resources such that these remote regions would be covered based on the same rationale that led to the creation of organizations such as EUMETSAT and EUMETNET do. The meeting expressed itself in favour of seeking to create a mechanism that would allow the international donor community to design, develop, implement and support a regional or sub-regional network rather than providing support individual countries.

***4.1(6) RA-V Working Group on Infrastructure (7-9 Nov 2017)***

4.1(6)1 ICG-WIGOS was briefed by the Secretariat about the meeting. The meeting agreed that the Jakarta declaration projects were relevant and were discussed at the meeting. The need for a transition plan for the WSIs was stressed. JMA trust fund will be used for the OSCAR/Surface training to be held at Thailand for the SE-Asia countries and Bangladesh in February 2018.

* 1. **Review of key achievements of ICG-WIGOS task teams**

***4.2(1) Task Team on WIGOS Data and Partnerships, the second meeting (TT-WDP-2) (20-22 Sept 2017)***

4.2(1)1 M. Manore, Chair, TT-WDP, provided ICG-WIGOS with a brief summary of the outcomes from the meeting and of the achievements of the Team related to data partnerships (TT Phase 1) and data stewardship (TT Phase 2).

4.2(1)2 ICG-WIGOS expressed the need to further explore how to represent various data policy and licensing arrangements in the WIGOS metadata standard (WMDS).

4.2(1)3 A risk was identified that an attempt to enforce overly strict compliance with the WMDS might end up unintentionally limiting the international exchange of observations, especially those provided by non-NMHS partners. ICG-WIGOS requested TT-WDP to consider if the flexibility build into the WMDS is sufficient to accommodate all observation providers and how this should be reflected in guidance. It was agreed that the guidance should continue to advocate for full compliance with the WMDS, and that there should be continued liaison between TT-WDP and TT-WMD to monitor this issue as new partner observations are considered.

4.2(1)4 The concern was raised that the non-issuance of WIGOS Station Identifiers (WSIs) by the respective Permanent Representative is a barrier to incorporating partner observations into WIGOS; the obligations of the PRs regarding the issuance of WSIs should be reflected in guidance.

4.2(1)5 It was pointed out that the transition to WIGOS IDs will act as a strong forcing on the migration from traditional alphanumerical codes (TAC) to the Table Driven Code Forms (TDCF), since the former cannot accommodate the format of the WIGOS ID.

4.2(1)6 The JCOMM representative requested that JCOMM data management documents would be considered in the work of TT-IM and TT-WDP, Phase 2.

4.2(1)7 Plans for potentially developing additional future guidance material was discussed as well, such as guidance for contributing partners, donor agencies, etc.; however there was no clear consensus on it (see also [5.2(2)](#Item_5_2_2) for further information).

***4.2(2) WIGOS Editorial Board, the second meeting (WEdB-2) (31 Oct – 3 Nov 2017)***

4.2(2)1 R. Stringer briefed ICG-WIGOS on the achievements of the Team since WEdB-1 in June 2016 with a special focus on the WEdB-2, during which particular attention was given to the draft RBON (Regional Basic Observing Network) provisions for the next edition of the Manual on WIGOS (WMO-No. 1160).

4.2(2)2 In reviewing the material in the Manual on the GOS (WMO-No. 544) to be incorporated to the Manual on WIGOS, a new, more integrated approach was attempted across the many different station types. This had proven to be a complex and time consuming task, which was only partly completed in the meeting.

4.2(2)3 WEdB noted the importance of material from CIMO, both for updating the GOS material and introducing new regulations. It planned further interactions with relevant CIMO experts and the relevant Secretariat support staff (see also [5.2(1)](#Item_5_2_1) for further information).

***4.2(3) Task Team on WIGOS metadata, the sixth meeting (TT-WMD-6) (27-29 Nov 2017)***

4.2(3)1 Dr J. Klausen, co-chair, TT-WMD, briefed ICG-WIGOS on the main outcomes and recommendations from the sixth session, as presented in the [Doc. 4.2(3)](http://www.wmo.int/pages/prog/www/WIGOS-WIS/meetings/ICG-WIGOS-7/Doc-4-2(3)_TT-WMD-6.docx).

4.2(3)2 ICG-WIGOS endorsed all recommendations with the following comments. 1) The Terms of Reference of TT-WMD to be updated. 2) Members should be encouraged to provide resources for the translation of the OSCAR/Surface user interface into other WMO languages.

3) A side event should be organized during EC-70 for PRs on their mandates and roles.

***4.2(4) Task Team on WIGOS Data Quality Monitoring System, the second meeting (TT-WDQMS-2) (12-14 Dec 2017)***

4.2(4)1 S. Goldstraw, chair, TT-WDQMS, briefed ICG-WIGOS on the recommendations from its second session, as presented in the [Doc. 4.2(4)](http://www.wmo.int/pages/prog/www/WIGOS-WIS/meetings/ICG-WIGOS-7/Doc-4-2(4)_TT-WDQMS-2.docx).

4.2(4)2 ICG-WIGOS endorsed all recommendations with the following comments. 1) Training and guidance material are important elements to be included in the development of this system. When the guidance material on WDQMS is mature enough, it should be published to be available to WMO Members. 2) J. Stander nominated Jon Turton to become a member of TT-WDQMS as a JCOMM representative. 3) A demonstration/side event on WDQMS, and particularly on its reporting functions, should be organized during EC-70.

1. **STATUS OF THE KEY ACTIVITY AREAS IMPLEMENTATION OF THE PLAN FOR THE WIGOS PRE-OPERATIONAL PHASE**
   1. **National WIGOS implementation**
      1. ICG-WIGOS was briefed on the progress and achievements in this area, namely: a) Guidance on the national WIGOS implementation and Indicators for monitoring progress in the WIGOS national implementation (both endorsed by EC-69); b) Guidance on WIGOS Data Partnerships developed by TT-WDP (to be finalized and submitted to EC-70 as a new chapter of the updated Guide to WIGOS); c) Classification Procedure for Automatic Weather Stations developed by MeteoSwiss; d) online training material (e-Learning) for OSCAR/Surface developed and made available to Members (<http://etrp.wmo.int/moodle/course/view.php?id=129>); e) Assessment of national observing capabilities made for: Burkina Faso, Liberia, Niger, Papua New Guinea, Senegal, Sierra Leone; f) WIGOS Newsletters - four issues.
      2. ICG-WIGOS was requested to provide feedback on the available Guidance on the national WIGOS implementation and make proposal for its improvement.
   2. **WIGOS Regulatory Material complemented with necessary guidance material to assist Members with the implementation of the WIGOS technical regulations**

***5.2(1) Status***

5.2(1)1 ICG-WIGOS was briefed on the further development of WIGOS regulatory and guidance material during the Pre-operational Phase, namely: 1) drafting a new edition of the Manual on WIGOS, including the full integration of all relevant material from the current Manual on GOS (WMO-No. 544), and the addition of new provisions relevant to RBON, remote sensing, data quality monitoring, etc.; 2) updating the Guide to WIGOS with new chapters on: a) Guidance on the national WIGOS implementation; b) Guidance on WIGOS Data Partnerships; c) Establishing a Regional WIGOS Centre in pilot mode”; and other material fully developed for a new edition of the Guide. Both Manual and Guide will be submitted to Cg-18.

5.2(1)2 The following issues were raised by R. Stringer.

a) National focal points: currently each Member has several different national Focal Points with remits that are related to WIGOS. ICG-WIGOS asked WIGOS-PO to find a solution for harmonization/update of these NFPs.

b) Manual on the GOS (WMO-No. 544), Volume II - Regional Aspects: ICG-WIGOS agreed with the recommendation to EC-70 that the Manual on the GOS, Volume II - Regional Aspects be discontinued and that relevant material be incorporated in the Guide to WIGOS as appropriate.

c) Education and Training: ICG-WIGOS agreed that Technical Regulations and guidance material should be improved in the area of WIGOS-related education, training and competencies. It was recommended to deal with this issue after Cg-18.

5.2(1)3 ICG-WIGOS recognized the tremendous workload for WEdB; collaboration mechanisms with the CIMO Editorial Board and other related entities will need to be established in the future.

***5.2(2) Guidance on WIGOS Data and Partnerships***

5.2(2)1 M. Manore presented the latest development and progress made since ICG-WIGOS-6, reflecting its recommendations. He also invited ICG-WIGOS to consider what kind of guidance should or could be developed in the future.

5.2(2)2 The guidance material presented was very well received. ICG-WIGOS agreed that the guidance would have even a broader value, if it could also address NMHS partners on the issue of how to approach and work with NMHS. In this way, the document could better support the ‘ambassador’ role of NMHSs in cultivating partnerships.

5.2(2)2 Further, several comments were made, such as:

a) the benefits of partnerships should be better articulated from the perspective of Members (vs. NMHSs);

b) the document should better capture the scope of “Earth System observations” and benefits of multiple observations, multiple-users;

c) there should be Annex with the list of relevant WMO data policy references;

d) Ideally the final document would be clearly structured in three parts: Part 1 – Guidance to NMHSs, to be extended with Part 2 - Guidance to Partners, and Part 3 – Guidance to Private/Commercial sector. However, Part 3 will have to await a clear articulation of the WMO positon from the Executive Council as part of the PPP dialog.

5.2(2)3 ICG-WIGOS agreed that the Guidance should be published as soon as possible to support the WIGOS implementation.

5.2(2)4 On future priorities, additional guidance targeted to a) International Development Partners (donor agencies) and b) external partners were recommend.

* 1. **Further development of the WIGOS Information Resource (WIR), with special emphasis on the operational deployment of the OSCAR databases**

***5.3(1) OSCAR/Surface***

5.3(1)1 The current status of OSCAR/Surface was presented. The implementation of a machine to machine (M2M) interface has been delayed due to its dependency on the encoding of the WIGOS Metadata Standard. The operational deployment of the OSCAR/Surface API is expected for Q3/2018. ICG-WIGOS agreed with the proposal to extend the transition period for the Weather Reporting (WMO-No. 9), Volume A, legacy file by one year, considering that some components required for fully operational OSCAR/Surface have not been available yet.

5.3(1)2 OSCAR/Surface training and the need for involvement of Regional Training Centres was discussed in more detail. ICG-WIGOS was briefed by DRA/ETR that the Executive Council Panel of Experts on Education and Training (EC Panel) during its meeting in April 2018 will review the requirements for training, including WIGOS and WIS.

5.3(1)3 ICG-WIGOS agreed that training on OSCAR/Surface is the top priority for all WMO Regions amongst all the numerous different training needs from the OBS and other departments, and that it would be of paramount importance to use every possible opportunity for this.. The “train–the-trainer” approach was proposed to be used as an efficient and effective way to increase the penetration at regional and national levels. In this regard, availability of OSCAR/Surface in all WMO languages was stressed again as a critical pre-condition for successful training and implementation of this most needed WIGOS tool. It was recommended to bring this issue to EC-70 for consideration.

5.3(1)4 P-RA V offered to host a OSCAR/Surface training event for RA V in Jakarta, Indonesia, in 2018.

5.3(1)5 ICG-WIGOS agreed that the M2M implementation and OSCAR/Surface training are the highest priorities for 2018.

***5.3(2) OSCAR/Space***

5.3(2)1 The Secretariat briefed ICG-WIGOS on the latest development. ICG-WIGOS acknowledged the progress made and agreed with the plans and recommended to seek to strengthen the collaboration with CGMS regarding operations and the future evolution of OSCAR/Space.

***5.3(3) OSCAR/Requirements***

5.3(3)1 The Secretariat presented the latest progress regarding the operations, maintenance and further development of the WMO Database of User Requirements, OSCAR/Requirements), including the activities undertaken in 2017 to make progress toward defining a common set of variables for all three components of OSCAR (OSCAR/Requirements, OSCAR/Space, OSCAR/Surface) and the WIGOS Metadata Standard. ICG-WIGOS agreed with the procedures for updating and maintaining this list.

5.3(3)2 ICG-WIGOS agreed that TT-OSDE should be involved in this development and asked WIGOS-PO to update the Terms of References accordingly.

***5.3(4) WIGOS Station Identifier***

5.3(4)1 The Secretariat presented the proposal for working practices to resolve issues encountered in the management of WIGOS Station Identifiers (WSI), specifically with issuing WSI. WIGOS station identifiers provide the link between an observation and the metadata describing the conditions in which the observation was made.

5.3(4)2 Operators of observing facilities that already contribute to WMO or co-sponsored programmes, but are not owned and operated by an NMHS, have approached the Secretariat seeking WSIs. Without a WSI, it is not possible to record metadata about that observing facility (station/platform) in OSCAR/surface, and so those metadata are not available to WMO programmes. Currently, the Manual on WIGOS contains language that in some cases allows the Secretary General to take responsibility for issuing station IDs. The cases where this applies and the process for doing so need to be clarified and codified in the next edition of the Manual.

5.3(4)3 The operational transition to the new WIGOS station IDs is a complex process that requires careful planning, and detailed guidance has been requested by many Members.

5.3(4)4 Several items were presented to ICG-WIGOS for consideration, namely:

* a skeleton transition plan (the key contents was identified);
* a proposal to establish a Task Team on WSI transition (TT-WSI);
* a procedure for a station operator to apply for a WIGOS Station Identifier; and
* guidelines under which the Secretary General may issue a WIGOS Station Identifier and a procedure to follow in doing so.

5.3(4)5 ICG-WIGOS agreed with a transition plan and establishing of TT-WSI.

5.3(4)6 Regarding the update of corresponding provisions (i.e. 2.4.1.2 and 2.4.1.3 of the Manual on WIGOS (WMO-No. 1160))[[1]](#footnote-1), ICG-WIGOS agreed that the presented proposals for procedures described in [Annex to this paragraph](#Annex_5_3_4_6) to be made visible to EC-70 and then to be adequately reflected in the draft Manual on WIGOS for submission to Cg-18 for approval.

***5.3(5) WIGOS and WIS Metadata***

5.3(5)1 Responding to recurring requests from previous meetings, a presentation on the relationship between WIGOS and WIS metadata was delivered by the Secretariat. It was recommended to take into account this information when reviewing the WIGOS Metadata Standard.

* 1. **Development and implementation of the WIGOS Data Quality Monitoring System (WDQMS)**

5.4.1. The progress achieved in the development and implementation of the WIGOS Data Quality Monitoring System (WDQMS) was presented.

5.4.2 Pilot and demonstration projects had been developed, including a Monitoring pilot project with four Global NWP Centres (DWD, ECMWF, JMA and NCEP) that provides an initial monitoring capability for the GOS land surface and upper-air observations.

5.4.3 The extension of this monitoring to cover other components of the GOS is being developed under the NWP pilot project for the marine, the climate and the aircraft observations. The implementation of the operational activities will depend on the establishment of Regional WIGOS Centres, which are expected in pilot mode from 2018.

5.4.4 The plans for integrating the respective monitoring capabilities for all WIGOS components will depend on the follow-up of the WDQMS Workshop for WIGOS Component and Co-sponsored Observing Systems in 2017. As the level of complexity, scope and operational maturity is different in each of the five areas engaged in the integration activities, their respective progress toward alignment and sharing of best practice will be different as well.

5.4.5 Mechanisms and regional structures for handling incident management actions and support Members in improving the data availability and quality will depend critically on the establishment of RWCs.

* 1. **Concept development and initial establishment of Regional WIGOS Centres**
     1. The Presidents of the Regional Associations or their representatives briefed ICG-WIGOS on the progress achieved in their respective Region.
     2. RA I: there are two candidates for hosting RWC pilot developments, namely Morocco and Tanzania. The invitation letters were sent to the respective PR; there is an expectation to receive their positive responses by March 2018. Further, there is an intention to indicate potential candidates in each sub-region of RA I.
     3. RA II: During RA-II-16, China and Japan both expressed their interest in operating an RWC for Region II. Both countries are planning to host the WIGOS workshops in the first half of 2018. Saudi Arabia has also expressed interest in operating a RWC for Western Asia. Belarus and the Russian federation are both interested in operating a RWC for the Russian-speaking countries in RA II and RA VI.
     4. RA III: The concept of a virtual RWC in RA III, using available facilities and the roadmap with timeline have been developed; this material will be submitted to the RA III session in October for endorsement. The process of nomination of the candidates for an RWC was initiated with an expectation to finalize the selection process by Cg-18. By the end of 2019, the RWC will be ready for auditing by the WIGOS-PO.
     5. RA IV: An expectation is to indicate some potential candidates by EC-70, probably during the forthcoming Hurricane Committee.
     6. RA V: Four Members expressed their willingness to serve as an RWC, namely Australia, Fiji, Indonesia, and Singapore. RA V Management Group will consider these nominations during EC-70.
     7. RA VI: A very comprehensive presentation on the status of the RWC establishment in the Region was delivered. It will be a virtual RWC, concept of which will be presented to the RA VI session in February 2018 for the decision / resolution, as appropriate.

1. **VISION FOR WIGOS IN 2040**
   1. ICG-WIGOS was briefed on the progress achieved in the development of an integrated Vision for WIGOS to be submitted to Cg-18.
   2. It was agreed that the Vision should be shorter, better balanced between the surface- and space-based components. The Vision should reflect all WIGOS observing components, not just weather related. Therefore, the representatives of GAW, WHOS and GCW were requested to review the draft and provide their feedback; they were also invited to participate in the further development.
   3. ICG-WIGOS agreed that all other comments would be sent to WIGOS PM.
2. **WIGOS IN THE WMO PROGRAMMATIC STRUCTURE**
   1. This Agenda Item responds to a request from EC-69 for ICG-WIGOS to develop a proposal for WIGOS in the WMO programmatic structure, taking into account the proposed changes to the WMO governance structure.
   2. Lars Peter Riishojgaard, WIGOS PM, introduced a discussion document outlining the development history of WIGOS and its governance mechanism, the current status of the project, and advantages and disadvantages of different options for its future status. He pointed out that a final solution would have to await the outcome of the governance reform discussions that were still going on within other bodies of WMO.
   3. Elements of the current thinking around the WMO governance reform were presented by ASG Wenjian Zhang. Dr. Zhang also briefly introduced the draft WMO Strategic Plan and highlighted in particular Long-term Goal #2, “Enhance Earth system observations and predictions”. He pointed out that WIGOS will be a key tool for achieving this goal, and since the governance reform is driven by the strategic plan, it thus follows that the cross-cutting nature of WIGOS is among the main overall drivers for the governance reform.
   4. ICG-WIGOS was of the general view that the governance reform provided an excellent opportunity for establishing WIGOS more firmly within the overall architecture of WMO. After subsequent discussion, ICG-WIGOS expressed strong support for the following recommendations:

• WIGOS must continue as a core WMO activity supporting all WMO programs and application areas, and it must continue to involve all regions and technical and scientific discipline areas;

• WIGOS must be given a clear and permanent status with a governance mechanism that is firmly anchored in the WMO constituent body structure;

• Rather than affiliating WIGOS with an existing program or creating a new program, there is a preference for considering WIGOS as “Basic WMO observational infrastructure”; as such it should include and fully integrate the observing components of all existing and emerging WMO programmes in support of all WMO’s activities;

• It was pointed out that the WMO Information System (WIS) and eventually also the Global Data Processing and Forecast System (GDPFS) have similar roles and could be seen together with WIGOS as core elements of such infrastructure;

• Continued effort will have to be devoted to the removal of any barriers to working together across different user communities, program areas, and scientific disciplines, including both WMO and co-sponsored observing systems; without pre-empting any particular outcome of the governance reform discussions, this issue must be directly addressed in the restructuring;

• In order to further increase the level of integration of the various WIGOS components and to maximize efficiency and effectiveness of the work, the Secretary General is encouraged to organize the Secretariat support of WIGOS along lines that mirror the eventual outcome of the governance reform.

1. **COLLABORATION AND ENGAGEMENT WITH CROSS-CUTTING WMO PRIORITIES**
   1. **Global Framework for Climate Services (GFCS)**

8.1.1 Mr. F. Lucio, D/GFCS Office, informed ICG-WIGOS about a GFCS mid-term review in the broader context of the overall WMO governance review. The Management Committee of the IBCS established two Taskforces: to a) address the governance, management and finances of the GFCS, and b) lead a strategy to enhance the implementation of the priorities of the GFCS, including the identification of the requirements for implementing the priorities.

8.1.2 A brief summary of recommendations made by the Management Committee of the IBCS, based on the Mid-Term Review of the GFCS, was provided.

8.1.3 Collaboration between the GFCS Office and WIGOS-PO on national assessment of observing system capability was highlighted.

8.1.4 ICG-WIGOS was asked to designate a focal point to provide input and contribute to the review of the governance, management and finances of the GFCS.

* 1. **Global Climate Observing System (GCOS)**

8.2.1 Dr. C. Richter, D/GCOS Secretariat, provided an update on GCOS. The scope of GCOS was presented as well: GCOS is concerned with the observations, data transmission, data management, including data rescue, and data records and products. Further, GCOS assesses progress and requirements, advises on implementation, and reports to UNFCCC on the status of observing systems for climate.

8.2.2 GCOS progress in, and activities for improving global climate observation were presented, including:

a) The first regional workshop (held jointly with WIGOS) in Fiji for Pacific Small Island Developing States (see details in 4.1(5)), the second regional workshop is planned for Africa (Tropics) in autumn 2018;

b) The First meeting of Working group on GCOS Reference Surface Network (Nov 2017);

c) The review of ocean observing system;

d) ECV Inventory (<http://climatemonitoring.info/ecvinventory>);

e) GCOS foundations for NEW global climate observations in the area of the lightning monitoring;

f) Activities in establishing requirements for the climate use of radar observations, especially as concerns data archiving;

g) Global Climate Indicators to present the information derived from the observations in a form that is relevant to the purposes of the diverse range of decision-makers and users addressing issues such as vulnerability and adaptation assessments, monitoring and evaluation, risk assessment and mitigation, development of early warning systems, adaptation and development planning and climate-proofing strategies within and across sectors.

* 1. **Global Earth Observation System of Systems (GEOSS)**

8.3.1 Ms. P. de Salvo, the GEO Secretariat, made a presentation about the GEO and GEOSS platform. There is on-going collaboration with WMO on data sharing with a clear focus on in-situ observation. There is also some interaction between the OSCAR/Surface and the GEOSS portal.

8.3.2 ICG-WIGOS expressed its satisfaction with the collaboration between WMO and GEO. It stressed the need for synergy.

* 1. **Global Atmosphere Watch**

8.4.1 Mr. S. Fuzzi, the CAS representative delivered the presentation on CAS towards WIGOS implementation; it covered the GAW structure, the application areas, the GAW Implementation Plan, and five priorities for weather and climate research.

8.4.2 ICG-WIGOS agreed that the collaboration of NMHSs with other agencies involved in GAW observations and the near-real-time exchange of data should be improved. ICG-WIGOS confirmed that there are areas where WIGOS can support GAW, such as the integration and the sustainability of the observations.

* 1. **WMO Hydrological Observing System**

8.5.1 The presentation on WHOS, its architecture and implementation was delivered by Mr. S. Pecora, CHy vice–president. Further, some details were provided on the Hydrological Information System (HIS) in the Plate basin. The La Plate HIS was successfully used for: a) definition of a monitoring network of hydrological and meteorological stations maintained by countries belonging to the La Plata basin; b) analysis and optimization of the hydrological monitoring network at the basin scale; c) increased collaboration between countries to improve network design and lower costs; d) free exchange of meteorological and hydrological observations; e) archives of hydrological data allowing improved services and responses to natural disasters.

* 1. **Global Cryosphere Watch**

8.6.1 Mr. B. Goodison, GCW representative, informed ICG-WIGOS on the current status of interactions with WIGOS, including identification of issues that will require further discussion or actions between the appropriate bodies within WIGOS and GCW. It covered the GCW observing system, best practices (to be covered by a stand-alone Guide to GCW observations, or to be part of the Guide to WIGOS), data portal, issues related to WIGOS metadata and OSCAR/Surface (connection with the GCW portal), international exchange of snow data (see [Doc.8.6\_GCW](http://www.wmo.int/pages/prog/www/WIGOS-WIS/meetings/ICG-WIGOS-7/Doc-8-6_GCW.docx) for details).

8.6.2 ICG-WIGOS was further informed about the need to update section 8 of the Manual on WIGOS. The GCW project office and WIGOS-PO will work together accordingly.

* 1. **Volunteer Rain Gauge Networks**

8.7.1 Mr T. Peterson, CCl president, briefed on the volunteer rain gauge networks established in RA IV under CoCoRaHS.

8.7.2 ICG-WIGOS welcomed this approach; however, the need for strong linkages with NMHS was stressed, and concern was expressed regarding the sharing of data not having been subjected to any quality control.

1. **DELIVERABLES TO EC-70**
   1. ICG-WIGOS agreed on the following deliverables to EC-70:

* WIGOS in the WMO Programmatic Structure;
* Vision for WIGOS in 2040;
* Status of RWCs in pilot mode
* Update of the Guide to WIGOS
* WIGOS Station Identifiers issues
* RBON - the Antarctic Observing Network (AntON)
* Manual on GOS (WMO-No. 544), Volume II
* OSCAR/Surface – resources for translation

1. **FUTURE WORK PROGRAMME AND ACTION PLAN OF ICG-WIGOS; REVIEW OF TORs**
   1. ICG-WIGOS considered its future working structure.
   2. ICG-WIGOS agreed that high priority should be given to strengthening the management and oversight of the OSCAR development, respecting the constraints of the resources available for it; in this respect, TOR and memberships of the Task Team on OSCAR Development (TT-OD) should be updated and coordinated with the development of new TOR for TT-WMD; Task Team meetings of TT-OD and TT-WMD should be organized back-to-back, potentially with some overlap due to the close relationship between OSCAR and WMD.
2. **ANY OTHER BUSINESS**
   1. ***Change management***

11.1.1 The need for the update of change management related technical regulations in the Manual on WIGOS was presented by the Secretariat, as the current provisions were not considered to be sufficient. Members should notify national and international stakeholders and observation users in advance, record and document changes, and update relevant metadata accordingly in case of changes in their observing system.

11.1.2 ICG-WIGOS was informed that the CBS is going to initiate a pilot effort on this subject, after getting more feedback from other communities.

1. **CLOSURE OF THE SESSION**
   1. The session closed on Wednesday, 17 January 2018, at 13:15 hours.

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**Appendix I**

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ANNEX to 5.3(4)6

**Annex 5.3.4/1: Procedure for a station operator to apply for a WIGOS Station Identifier**

This document is intended to guide the operator of an observing facility through the process of assigning a WIGOS station identifier for that facility. It also applies to users running data rescue activities that need to allocate a WIGOS station identifier for an observing facility for which they have discovered data (for the purposes of this document they are “operating” the facility).

## Key resources

* OSCAR/surface: repository of WIGOS metadata and register of WIGOS station identifiers. <https://oscar.wmo.int/surface>
* Guidance on WIGOS station identifiers: <https://wis.wmo.int/WIGOS-ID>
* Manual on WIGOS (WMO-No. 1060): <https://wis.wmo.int/WIGOS-Manual>
* Guide to WIGOS (WMO-No. 1165): <https://wis.wmo.int/WIGOS-Guide>
* WIGOS metadata standard (WMO-No. 1157): <https://wis.wmo.int/WIGOS-MD>
* Focal points for OSCAR/surface: <https://www.wmo.int/cpdb/workgroups/view/cbs_FP_OSCAR-surface>
* Escalation procedure for WIGOS station identifiers: https:/wis.wmo.int/???

**1. Verify that a WIGOS station identifier is needed**

1.1 Check that the observing facility has not already been allocated a WIGOS station identifier.

1.1.1 If the observing facility has previously delivered observations under a WMO or co-sponsored programme for which it had been issued a traditional station identifier, then it will automatically have been assigned a WIGOS station identifier derived from the earlier identifier (See “Programme Identifiers at <https://wis.wmo.int/WIGOS-MD>).

1.1.2 Check for observing facilities already recorded in OSCAR/surface that are close to the position of the facility for which a WIGOS station identifier is being sought (<https://oscar.wmo.int/surface>) to see whether the facility already has a WIGOS station identifier.

## 2. Provide evidence that the observing facility meets the requirements to be allocated a WIGOS station identifier

2.1 The authority that issues the WIGOS station identifier will require evidence of the following:

2.1.1 That the operator of the observing facility commits to providing and maintaining WIGOS metadata for that facility;

2.1.2 That the observing facility is being operated to conform with the Technical Regulations relevant to the programme supported by the observations from that facility;

2.1.3 That observations from that facility are intended to be shared in support of a WMO or co-sponsored programme (even if the programme has not confirmed participation of that facility);

The Manual on WIGOS requires the operators of observing facilities that are allocated WIGOS station identifiers to commit to providing and maintaining WIGOS metadata for that facility and to operating the facility so that it conforms to the WMO Technical Regulations. Evidence of that commitment will be needed by the authority for issuing the WIGOS station identifier.

**3. Apply for a WIGOS station identifier**

3.1 Contact the OSCAR/surface focal point for the country within which the observing facility lies (or, for a mobile station, in which the operator of the station is registered) asking that a WIGOS station identifier is allocated to the facility. The focal point will explain the information needed by their national process for allocating a WIGOS station identifier.

3.1.1 When the WIGOS station identifier is issued, the operator of the observing facility will be told by the OSCAR/surface focal point how to maintain the WIGOS metadata for that observing facility (this could be a national notification process or entering the information directly into OSCAR/surface).

3.2 If the country does not have a focal point for OSCAR/surface listed at <https://www.wmo.int/cpdb/workgroups/view/cbs_FP_OSCAR-surface>, contact the WMO secretariat ([wigos-help@wmo.int](mailto:wigos-help@wmo.int)) who will pass the application to the relevant Permanent Representative directly.

3.3 If the observing facility does not lie within the boundaries of a WMO Member and the operator of that facility is not subject to the jurisdiction of a WMO Member, then the application should be passed directly to the Secretary-General ([wigos-help@wmo.int](mailto:wigos-help@wmo.int)).

**4. Invoking the escalation procedure**

4.1 The OSCAR/surface focal point should arrange for a WIGOS station identifier to be allocated within a reasonable time. Before escalating, the user should attempt to contact the OSCAR/surface focal point to confirm that the application has been received and is being responded to. If no response is received within two months, the user may wish to start the escalation procedure.

4.2 If the OSCAR/surface focal point does not issue a WIGOS station identifier and the user considers that the reason given is not appropriate, the user may wish to start the escalation procedure.

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**Annex 5.3.4/2: Procedure for the Secretary‑General to issue a WIGOS Station Identifier**

This procedure is intended to be used in circumstances where it is necessary to record metadata about an observing facility but no Member considers themselves to be in a position to issue a WIGOS station identifier for that facility.

**1. Invoking the procedure**

1.1 This procedure is invoked when the operator of an observing facility or a contributor to the data rescue activities of the Commission for Climatology applies to the Secretary-General for a WIGOS station identifier.

**2. Validating the application**

2.1 The secretariat confirms with the organization requesting the WIGOS station identifier that:

2.1.1 The organization has contacted the OSCAR/surface focal point for the country in whose borders the observing facility lies and that no WIGOS station identifier has been issued, and that there was not a valid reason for refusing to issue a WIGOS station identifier;

2.1.2 The organization is committed to creating and maintaining the metadata for the observing facility in OSCAR/surface to an extent that is appropriate for the observing facility (there is a lower expectation of complete metadata for observing facilities that no longer exist);

2.1.3 The observing facility (if it still exists) will be operated to the standards required in the Technical Regulations for the programme(s) to which it contributes;

2.1.4 Observations from the observing facility are intended to be shared with other organizations.

2.2 The secretariat confirms that the observing facility is not already recorded in OSCAR/surface. If it is, the applying organization should be informed of this and the procedure terminated.

2.3 The secretariat confirms with the OSCAR/surface focal point for the country within whose boundaries the observing facility is located that the application for a WIGOS station identifier was received and that the outcome was as described by the applicant.

2.3.1 If the application was not received, or the outcome was not as described by the applicant, the secretariat will facilitate communications between the applicant and the OSCAR/surface focal point.

2.4 If the observing facility is not located within the territory of any Member, the Secretary-General issues a WIGOS station identifier using the “issuer of identifier” allocated to the Secretary-General and the procedure is terminated.

**3. Escalation of the application**

3.1 If no WIGOS station identifier has been issued and no valid reason for not issuing a WIGOS station identifier has been provided by the OSCAR/surface focal point within **two months** from the date the secretariat contacted the OSCAR/surface focal point the application will be escalated.

### **3.1.2 Observing Facility contribution approved by a Constituent Body**

3.1.2 In the case that the observing facility has been approved by at least one Constituent Body as contributing to a WMO or co-sponsored programme, the Director of WMO responsible for WIGOS activities allocates a WIGOS Station Identifier using either the issuer of identifier for the programme (if the station has already been assigned an identifier for that programme) or that allocated to the Secretary-General.

### **3.1.3 Observing Facility contribution not yet approved by a Constituent Body**

3.1.3.1 If the observing facility has not yet been approved by a constituent body as contributing to a WMO or co-sponsored programme, the Director of WMO responsible for WIGOS activities writes formally to the Permanent Representative of the country within whose territory the observing facility is located using the template letter in the Attachment to this procedure. Normally a period of **two months** will be given for the Permanent Representative to respond with either a WIGOS station identifier or a valid reason for not issuing one.

3.1.3.2 If the specified period the Permanent Representative does not issue a WIGOS station identifier, or does not provide a valid reason for not issuing one, the Secretary-General will issue a WIGOS station identifier using the “issuer of identifier” allocated to the Secretary-General.

**4. Identification of observing facilities whose metadata have been recovered through data rescue activities**

4.1 Metadata for observing facilities identified through data rescue activities are likely to be less reliable than for facilities that continue to operate. OSCAR/surface metadata records that are maintained by organizations performing data rescue activities, rather than by the operator of the station, should be identified by associating them with the “Data rescue” programme. Should the responsibility for maintaining the metadata subsequently pass to the organization (or its successor) that originally operated the facility, then the association with the “Data rescue” programme should be removed.

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**Attachment to the procedure for the Secretary‑General to issue a WIGOS Station Identifier – template letter**

Subject: Allocation of WIGOS station identifier

Dear Sir/Madam,

I have been approached by <<centre name>> that <<operates|has identified as part of its data rescue activities>> an observing facility at <<location>> within your country and that wishes to make their observations available to the international community. They tell me that you have not been able to issue a WIGOS station identifier for that facility.

WIGOS station identifiers are needed to allow observations to be linked with the metadata that describe the conditions under which they were made. The metadata, stored in OSCAR/surface, allow users of observations to assess whether the observation is appropriate for their intended application.

According to the Manual on WIGOS (WMO-No. 1160) paragraph 2.4.1.3/Notes, the Secretary-General may issue a WIGOS station identifier to an observing facility if no Member is in a position to do so.

Unless I receive an explanation of why a WIGOS station identifier should not be allocated to the observing facility before <<date>>, I will issue one so that the metadata for the facility can be entered into OSCAR/surface.

Yours faithfully,

**\_\_\_\_\_\_\_\_\_\_\_\_**

**Appendix II**

**FUTURE WORK PROGRAMME AND ACTION PLAN OF ICG-WIGOS AND TASK TEAMS**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Action[[2]](#footnote-2)** | **Action/Activity** | **Deadline** | **Responsible** | **Status[[3]](#footnote-3)** | **Comment** |
| 1. 4.1(1)2 | Collaborate with JCOMM on how its very mature quality monitoring function could be reflected in WDQMS | In due course | TT-WDQMS |  |  |
| 1. 4.1(2)2 | To work closely with RA IV MG and some PRs on establishing at least one RWC in pilot mode, covering all WIGOS observing components | EC-70 | WIGOS PM |  |  |
| 1. 4.1(3)4 | Several recommendations were related to the OSCAR/Surface, notably (i) a request to make the user interface of OSCAR/Surface available in Russian; (ii) hands-on training in OSCAR/Surface, with involvement of Regional Training Centres; (iii) development of e-learning tools in Russian, and (iv) developing a stand-alone version of OSCAR that can be installed nationally, outside the MeteoSwiss IT environment, to enable to exchange information at a national level. |  | TT-OSCAR |  |  |
| 1. 4.1(3)5 | To contact some countries and encourage them to make their plans available to other Members through the WIGOS portal | Ongoing | WIGOS PO | Already contacted: BoM |  |
| 1. 4.1(5)3 | To seek to create a mechanism that would allow the international donor community to design, develop, implement and support a regional or sub-regional network rather than providing support individual countries | Ongoing | Secretariat |  |  |
| 1. 4.2(1)2 | To further explore how to represent various data policy and licensing arrangements in the WIGOS metadata standard (WMDS) | Dec.17 | Chair, TT-WMD |  |  |
| 1. 4.2(1)3 | To consider if the flexibility build into the WMDS is sufficient to accommodate all observation providers and how this should be reflected in guidance | ICG-WIGOS-8 | Chair, TT-WDP |  |  |
| 1. 4.2(3)2 | To encourage Members to provide resources for the translation of the OSCAR/Surface user interface into other WMO languages | EC-70 | WIGOS PM |  |  |
| 1. 4.2(3)2 | To organize a side event during EC-70 for PRs on their mandates and roles | EC-70 | WIGOS-PM with ASG |  |  |
| 1. 4.2(4)2 | To organize a demonstration/side event on WDQMS, and particularly on its reporting functions, during EC-70 | EC-70 | WIGOS PM |  |  |
| 1. 5.2(1)2 | To propose a way how to harmonize WIGOS related NFPs | ICG-WIGOS-8 | Secretariat |  |  |
| 1. 5.2(1)3 | To propose the working mechanism to ensure consistency and completeness of WIGOS related technical regulations | Cg-18 | Secretariat |  |  |
| 1. 5.3(1)2 | To submit WIGOS related requirements for training to the EC Panel of Experts on Education and Training (EC Panel) for the meeting in April 2018 to be reviewed | April 2018 | WIGOS PM |  |  |
| 1. 5.3(1)3 | To submit to EC-70 for consideration the need for OSCAR/Surface in all WMO languages as a critical pre-condition for successful training and implementation of this most needed WIGOS tool | EC-70 | WIGOS PM |  |  |
| 1. 5.3(1)4 | To work with P-RA V on a OSCAR/Surface training event for RA V in Jakarta, Indonesia, in 2018 | In due to course | WIGOS PM |  |  |
| 1. 5.3(3)1 | To update and maintain the list of a common set of variables for all three components of OSCAR (OSCAR/Requirements, OSCAR/Space, OSCAR/Surface) and the WIGOS Metadata Standard following the procedures presented under 5.3(3) | On going | OBS |  |  |
| 1. 5.3(3)2 | To update the Terms of References of TT-OSDE reflecting the procedures presented under 5.3(3) for updating and maintaining the list of a common set of variables for all three components of OSCAR | March 2018 | OBS |  |  |
| 1. 5.3(4)2 | To clarify the provisions in the Manual on WIGOS and a corresponding process when it allows the Secretary General to take responsibility for issuing station IDs | ICG-WIGOS-8 | OBS |  |  |
| 1. 5.3(4)4 | To develop a WSI transition plan |  | WIGOS PO, TT-WSI |  |  |
| To establish a Task Team on WSI transition (TT-WSI) |  | WIGOS PO |  |  |
| To develop a procedure for a station operator to apply for a WIGOS Station Identifier |  | OBS |  |  |
| To develop procedures and guidelines under which the Secretary General may issue a WIGOS Station Identifier |  | OBS |  |  |
| 1. 5.3(4)6 | To submit a draft decision/recommendations to EC-70 on WSI | EC-70 | WIGOS PM |  |  |
| 1. 5.5.2 | To assist P-RA I, MG and respective PRs in establishing RWCs | On going | WIGOS PM |  |  |
| 1. 5.5.3 | To assist CMA and JMA in organizing the RWC related workshops in the first half of 2018  To assist Saudi Arabia in establishing a RWC for Western Asia; Belarus and the Russian federation RWC for the Russian-speaking countries in RA II and RA VI | On going | WIGOS PM |  |  |
| 1. 5.5.4 | To assist RA III in establishing a RWC in the Region | On going | WIGOS PM |  |  |
| 1. 5.5.5 | To assist RA IV in establishing a RWC in the Region | On going | WIGOS PM |  |  |
| 1. 6.3 | To submit comment on the Vision for WIGOS in 2040 to WIGOS PM | March 2018 | ICG-WIGOS |  |  |
| 1. 7.4 | To submit a draft recommendation to EC-70 regarding the WIGOS in the WMO programmatic structure as formulated by ICG-WIGOS-7 | EC-70 | WIGOS PM |  |  |
| 1. 8.1.4 | To designate a focal point to provide input and contribute to the review of the governance, management and finances of the GFCS. | April 2018 | Co-chairs, ICG-WIGOS |  |  |
| 1. 8.6.2 | To collaborate with the GCW Project Office on updating GCW related provisions in Technical Regulations (WMO-No. 49), Vol. I, and the Manual on WIGOS (WMO-No. 1160) | March 2018 | IZ, RN |  |  |
| 1. 10.2 | To assign a high priority to strengthening the management and oversight of the OSCAR development, respecting the constraints of the resources available for it | On going | WIGOS PM; D/OBS |  |  |
| To update TORs and memberships of the Task Team on OSCAR Development (TT-OD) and Task Team on WMD | March 2018 | WIGOS PO |  |  |
| To organize the meetings of TT-OD and TT-WMD back-to-back, potentially with some overlap due to the close relationship between OSCAR and WMD | IV.Q 2018 | WIGOS PO |  |  |

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1. 2.4.1.2 Members shall issue WIGOS station identifiers for observing stations and platforms within their geographic area of responsibility that contribute to a WMO or co-sponsored programme and shall ensure that no WIGOS station identifier is issued to more than one station.

   Note: Members may issue WIGOS station identifiers for observing stations and platforms within their geographic area of responsibility that do not contribute to a WMO or co-sponsored programme, provided that the operator has committed to providing and maintaining WIGOS metadata.

   2.4.1.3 Before issuing a station identifier, Members should ensure that the operator of a station or platform has committed to providing and maintaining WIGOS metadata for that station or platform. [↑](#footnote-ref-1)
2. With the reference to the paragraph of the General Summary, Final report from ICG-WIGOS-7 [↑](#footnote-ref-2)
3. Status column entries will be one of the following descriptors: **Completed; On-Track; Overdue** [↑](#footnote-ref-3)