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| **World Meteorological Organization**  **Inter-Commission Coordination Group on WIGOS**  **Eighth Session** Geneva, Switzerland, 24-26 January 2019 | **ICG-WIGOS-8/Doc. 5.7** |
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**5. Progress towards Implementation of WIGos**

**5.7 RA I WIGOS Workshop on AWS Networks**

**(Windhoek, Namibia, 19-21 November 2018)**

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| **Summary and purpose of document**  The document provides a brief sumary of the outcomes from this workshop. |

**Action proposed**

The session will be invited to review the outcomes from the workshop.

**References:**

RA I WIGOS Workshop on AWS Networks (Windhoek, Namibia, 19-21 November 2018)

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**5.7 RA I WIGOS Workshop on AWS Networks (Windhoek, Namibia, 19-21 November 2018)**

**5.7.1 Background**

The WMO RA I WIGOS Workshop on Automatic Weather Station (AWS) networks, Strengthening and modernizing observing systems in Africa, was organized in Windhoek, Namibia, from 19 to 21 November 2018. The working languages were English and French with interpretation.

The Workshop was dedicated to NMHS surface observing system managers and National WIGOS Focal Points of RA I. Representatives from donor organizations such as the World Bank, and of partner organizations operating AWS networks in RA I, e.g. CREWS, HIGHWAY, TAHMO, were also invited. Fifty four participants from fifty RA I Members participated in the Workshop.

The programme and all presentations are available at: <http://www.wmo.int/pages/prog/www/WIGOS-WIS/meetings/RA-I_AWS_Namibia-Nov2018/RA-I_WIGOS-Workshop-Programme.html>

The first day was focused on issues of global relevance. A series of presentations was delivered on the topics such as: Drivers of change, challenges and consequences; WIGOS Framework; Overarching AWS network implementation issues (Keynote Presentation); Specification and procurement of AWS networks; WIGOS technical systems (OSCAR/Surface and WDQMS); WMO technical regulation; The Global Basic Observing Network, a new driver for AWS Network development; Competency Requirements and Training, just to mentioned some of them.

The second day was dedicated to National presentations on automation - status of surface observing network and automation, experiences, lessons learned, issues, challenges, needs; experience with available documentation; expectations from the workshop. Altogether thirty-four participants delivered their presentation.

The third day was focused on regional and global context, such as Specifics of the Region by the WMO Secretariat, Capacity development and AWS networks by the World Bank, and way forward. A set of recommendations from the workshop was developed.

**5.7.2 Outcomes** - **Recommendations**

**I. To WMO**

1. Work with NMHSs where needed to impress upon national governments the importance of their NMHSs and observational data;
2. Help coordinate and provide training in AWS-related issues to RA-I Members;
3. With development community, e.g. World Bank, UNDP, GEF, GCF, national development agencies, to design better and ultimately more successful projects related to AWS networks;
4. Recognizing that data transmission is as important as making the observation itself, engage relevant parts of WIS together with WIGOS to ensure that observations are delivered to users;
5. Develop and issue Region-specific guidance on AWS Networks as captured during this Workshop;
6. Consider issuing strict directives (e.g. using ICAO as example), requiring countries to comply with obligations specified in the WMO Technical Regulations (WMO-No. 49), Volume I, regarding observing standards, station density, etc. to help ensure adequate investments in NMHSs;
7. Promote local initiatives between NMHSs and entities from public and private sectors and academia to stimulate local manufacturing of AWS;
8. NMHS personnel to be cognizant of impact of the Minamata Convention on Mercury and the need to adopt alternative technologies instead of mercury-based instruments;
9. Support NMHSs in ensuring that AWS generate quality data;

**II. To international development community**

1. Work within the context of national observing strategy and national WIGOS Implementation Plan, where such documents exist;
2. In addition to new installation of AWSs (hardware), ensure that adequate attention is paid to capacity development issues such as:
   1. Staffing levels,
   2. Staff competencies;
3. Let project design and success criteria be centred on outcomes such as integration of AWS data in national systems, improvements in volume and quality of observations exchange internationally (as shown in WDQMS monitoring maps);
4. Do not assume that missing observational data will be addressed by buying new observational hardware; be aware of the whole life-cycle when developing observing-system related projects, such as requirements analysis, design, system specification, procurement, installation, operation, calibration, maintenance, repair, etc.;

**III. To countries (RA-I Members)**

1. Request to WMO to organize forum(s) with AWS manufacturers/suppliers to address pertinent issues raised by the NMHSs;
2. Where necessary and found helpful, work with WMO to impress upon your national government the importance of your services to your national constituencies and of your observational data to both national and international users;
3. Develop a national WIGOS Implementation Plan that:
   1. Will help you become a better development project partner,
   2. Will help you receive, process, integrate and ultimately benefit from AWS data;
4. Input and update your station metadata in OSCAR/Surface; this will help your own planning efforts;
5. Use the WDQMS to help troubleshoot observing network issues – and let WMO (RWC or Secretariat) know if monitoring results are incorrect;
6. Consider taking part in a Regional WIGOS Center pilot project;
7. Work with your RA-I neighbours to share experience, provide or receive training, calibration support, etc.;
8. Implement competency framework for meteorological observations, installation and maintenance of instrumentation, instrument calibration and management of observing programmes and networks;
9. Use Generic AWS Tender Specifications documentation and provide feedback to the Secretariat on its appropriateness and areas for further improvement;
10. Strive for implementation and certification of quality management systems, in particular for accreditation of Regional Instrument Centres, as well as of other calibration laboratories when appropriate, according to ISO/IEC 17025;

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