

**WORLD METEOROLOGICAL ORGANIZATION**

**REGIONAL ASSOCIATION VI**

**WORKING GROUP ON  
TECHNOLOGY DEVELOPMENT AND IMPLEMENTATION (WG-TDI)**

**Task Team on WIGOS  
(TT-WIGOS)**

**Second Meeting**

*TSMS, Istanbul, 16-17 September 2015*

**MEETING REPORT**

Link to meeting documentation:

<http://www.wmo.int/pages/prog/dra/TT-WIGOS-2-2015.htm>

## **Session 1: Opening** (Chair: Ercan Büyükbas)

*Agenda Item 1.1* The second face to face meeting of the Task Team on WIGOS in Region-VI (RAVI\_TT-WIGOS-2015-2) and the Sub-Task Team on Radar Data Exchange (TT-RDE) was held at the WMO Regional Training Centre of the Turkish State Meteorological Service (TSMS) in Istanbul, Turkey, at the kind invitation of the Permanent Representative of Turkey with WMO. Mr Ergün Güler, Director of Regional Directorate No. 1 (Istanbul) of TSMS, opened the meeting.

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*Agenda Item 1.2* Participants: Five members of the TT, seven advisers as well as three representatives from WMO Secretariat attended the meeting. The list of participants is given in Annex I.

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*Agenda Item 1.3* The TT-WIGOS Chair, Mr Ercan Büyükbas, TSMS, conducted the meeting. The proposed agenda was adopted by the participants. The agenda is given in Annex II.

## **Session 2: Reporting** (Chair: Ercan Büyükbas)

*Agenda Item 2* Mr Büyükbas reported that more experts and also support from the WMO Secretariat is needed to complete the TT-WIGOS as well as the sub-TT-RDE . Obviously work will commence but recruiting is an ongoing issue for both teams. Mr Zahumensky suggested to use the already achieved nominations of the national WIGOS focal points for a selection of the potential additional TT-WIGOS members. After their selection (and agreement from Chair, WG-TDI and president of RA VI) they should be approached informally checking their acceptance of membership and their willingness to contribute to the work of the TT; having their positive feedback, a letter must be sent by SG to the respective PRs regarding their concurrence with the membership.

**Task (Ercan Büyükbas)** Contact WIGOS focal points and ask them to join the TT-WIGOS.

Mr Büyükbas noted that the terms of reference (ToR) of TT-WIGOS should be further elaborated as soon as possible. The current version is too broad and should be reduced to a doable list. The basic reference document for the TTs work is the regional WIGOS Implementation Plan (R-WIP) for RA VI.

Another task he wants to tackle is the definition/coordination of a common radar raw data format. In Europe a quasi-standard is defined by OPERA but this format is different from other formats used outside Europe. It is planned to approach the OPERA expert team for collaboration. TSMS experts as well as eastern european members of RA VI could possibly join the next OPERA meeting to join efforts and profit of the experiences from BALTRAD and NORDRAD. Mr Gusev is interested to be included in these proceedings since the Russian Federation is engaged in a huge national radar project featuring around 30 Doppler radars. Formalities are no issue here since topics are covered by an existing memorandum of understanding between EUMETNET and WMO. Mr Klink offers to act as a contact for EUMETNET in this issue.

Mr Büyükbas stresses that it is his goal to provide the members of RA VI with explicit guidance on how to proceed with the developments of national WIPs. The group agrees that members need guidance and that currently available documents are not sufficient for actual technical implementation of WIGOS principles.

Mr Gusev suggests to take a more gentle approach. He would prefer to develop guidance with successive steps to be followed by members in implementing WIGOS at a national level, instead of requesting national WIPs from the members.

One important step is to assess current capabilities and get a quantitative overview. Although a fully populated OSCAR/Surface database would provide this overview, a survey should be drafted to bridge the time till OSCAR/Surface is available. The survey shall support the following quality criteria:

- answering the questions should not be too demanding
- it should be assured that questions have not already been answered by any other survey
- information and data requested should not be short-lived taking into account the time until a comprehensive number of responses can be expected
- a pilot country group (e.g. members of expert teams) should be approached first to test the survey
- a request should be included that allows publication of the results

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*Agenda Item 3* Mr Zahumensky informed the meeting about WIGOS relevant decisions and guidance from Cg-17 and EC-67. A discussion arose about WIGOS data quality management. It became clear that it is too early to give a detailed description of what the implemented quality management will look like. Another not fully specified point concerns the capabilities that Regional WIGOS Centres (RWC) should provide. Both topics should be approached and results should be documented in the R-WIP.

Mr Gusev suggests to consider experiences from other RAs on how they approach the review of their respective R-WIPs. There are also similarities with the process concerning GEO that could set an example for this process. Unfortunately, there are no consistent approaches yet besides of a contribution to Cg-17 from Tanzania.

The WG-TDI should be approach to foster inter-RA collaboration on e.g. radar data exchange.

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*Agenda Item 4* Mr Schröder reported that the RA VI Management Group (MG) answered all request of TT-WIGOS by activities and gives good support to the TT. He stressed that it is a crucial task for the TT to establish good cooperation between TT-WIGOS and TT-RIC. Another task is to propose an outline of how data quality monitoring should be approached.

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*Agenda Item 5* Mr Büyükbas reported on the status of WIGOS key activity areas in RA VI. Population of OSCAR/Surface is crucial to gain quantitative information about the region's observing systems. Even though the database content is not complete it should be assessed if it can already be used. Till then, the self-assessment checklist is an important task to pursue further. It is unfortunate that the current version does not contain a request for permission to publish the results on the web which hinders dissemination of the results. He also noted that responses are not yet comprehensive. Only 15 members of RA VI have provided their WIGOS self-assessment checklist as requested by the circular letter of SG, as well as the President of RA VI.

The group agreed on that one reason for the low number of responses could be that Members are not yet fully aware of the benefits of WIGOS. It was also seen as problematic that current WMO documents are often too high level to assist technical implementation. Clear guidance material is needed on how to implement WIGOS technical regulations in the operations.

The development of national WIPs should be encouraged especially with examples provided by developed countries since there are currently no examples that can be used as guidance. Mr Schröder favours a bottom-up approach here, an example country that volunteers could take lead.

The meeting agreed that a migration plan from Pub. 49 Vol. A flat files<sup>1</sup> (the current WMO station metadata exchange mechanism) to OSCAR/Surface is needed. Goal is to establish a dynamic update process to ensure relatively current data in OSCAR/Surface. This requirement necessitates a standardized machine-to-machine interface for OSCAR. It is furthermore crucial for this effort to convey to the members what their return on investment could be, when supporting OSCAR.

Mr Büyükbas finished by demanding increased efforts from all sides to increase awareness, provide advice and assistance to members. Communication and outreach to members but also to third parties in the private sector should be taken into account. It might be necessary to review the WIGOS' communication strategy and possibly extend TT-WIGOS' mandate.

Mr Schröder recommended to align TT-WIGOS activities with the key activity areas in WIGOS.

**Task (Florian Teichert)** Mr Teichert agreed to work with WIGOS-PO on a draft migration plan for the population of OSCAR/Surface and inform Mr Büyükbas of the progress.

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*Agenda Item 6* Mr Cubuk presented a number of issues concerning radar data exchange within RA VI. A data exchange policy that considers data format as well as legal matters is urgently needed. He plans to draft a proposal and submit it to the Management Group (MG) for consideration. He will evaluate the possibility to achieve a data exchange policy that allows free of charge exchange of data between all members in RA VI.

To pick a suitable radar raw data format is a rather easy task for the members that cooperate to cover the black sea area since they all use radars from the same manufacturer. The audience points out that a manufacturer's data format could cause a number of problems, when used for data exchange. Problems include vendor lock-in, dependencies when updating hardware and/or software, worldwide cooperation. It is furthermore not always straightforward to use OPERA's HDF exchange format. A suitable alternative radar raw data exchange format is currently not available since all existing formats are lossy. One way would be to define a new BUFR template to overcome shortcomings of the current formats.

Mr Klink adds that there is no global standard yet even though a workshop in Exeter tried to formulate a standard two years ago.

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*Agenda Item 7* Mr Tüten presented a draft quantitative questionnaire. It still needs some rewording. Once finished it should be sent to the TT-WIGOS members for testing before it is sent to all RA VI members. Mr Zahumensky stressed that any new questionnaire must have a very clear goal. The WIGOS-PO is asked for assistance in finalizing the draft and handling the communication.

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*Agenda Item 8* Mr Büyükbas presented suggestions on the update of the R-WIP. Especially Section 5 on Resources needs further elaboration and more details.

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<sup>1</sup> <http://www.wmo.int/pages/prog/www/ois/volume-a/vola-home.htm>

**Task (Igor Zahumensky, Ercan Büyükbas)** Mr Zahumensky will commence with the update of the R-WIP ensuring the consistency of the regional with the global WIP. He will also make a proposal on how to proceed. Mr Büyükbas will take over then.

Mr Büyükbas asks the members to consider a further increase in their support through trust funds and secondment of experts in favour of WIGOS.

Mr Büyükbas is concerned about risk management in TT-WIGOS. The column on risks in Table 2, R-WIP Section 7 on “WIGOS Implementation Activities”, should be discussed and properly populated. Suitable actions to manage identified risks should be proposed. In some tasks possibly conflicting national legislation pose risks in the establishment of international regulations. The audience agrees that TT-WIGOS is not responsible to manage risks for the whole project but to assist in their identification and management.

**Task (Ercan Büyükbas)** Mr Büyükbas will provide status information in Table 2 to Mr Zahumensky who updates the R-WIP.

Possibility to use of a collaboration platform would be highly appreciated for this task.

### **Session 3: Planning** (Chair: Ercan Büyükbas)

*Agenda Item 9* The agenda of the WIGOS Workshop planned from the 24th until 27th of November in Belgrade was discussed. Several modifications were proposed.

Mr Schröder suggests to provide the draft updated R-WIP and additional material to the participants before the workshop (1-2 weeks in advance). Participants could also prepare concerns/issues and chances/opportunities from a national point of view. This should encourage discussion during the workshop. It is furthermore expected that participants might want to prepare the training session on OSCAR so that they should be provided with the OSCAR curriculum before the meeting.

Additional material should not be send out later than 15th of November to allow some time for the preparation.

More discussion and coordination on the agenda will be carried out after this meeting to reach the final version.

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*Agenda Item 10 and 11* All participants discuss a draft of revised ToRs presented by Mr Zahumensky and an action plan of the TT-WIGOS presented by the Chair.

**Task (Igor Zahumensky, Ercan Büyükbas)** Mr Zahumensky will further elaborate a draft ToR and provide it to chairs of TT-WIGOS and WG-TDI.

### **Session 4: Closing** (Chair: Ercan Büyükbas)

*Agenda Item 13* Mr Büyükbas closed the meeting summarizing the past two days. He is convinced that the discussions will proof to be very fruitful and help shaping the group for the future. He confirmed his wish to actively support the WIGOS Workshop end of November in Belgrade.

Main currently tackled tasks are the reviews of the R-WIP, the ToRs, and the action plan.

Also Mr Schröder expressed his appreciation for the fruitful meeting and the great hospitality of the hosts from TSMS.

Mr Dacic concurred with his colleagues and extended the his appreciation also to non-visible colleagues from Turkey that supported the meeting.

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**SECOND MEETING OF TT-WIGOS**

TSMS, Istanbul, Turkey, 16 - 17 September 2015

**LIST OF PARTICIPANTS****Participating TT-WIGOS Members**

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## AGENDA

1. ORGANIZATION OF THE SESSION
2. REPORT OF THE CHAIRPERSON
3. WIGOS PRE-OPERATIONAL PHASE; DECISIONS AND GUIDANCE FROM CG-17 and EC-67
4. GUIDANCE FROM THE RA VI MANAGEMENT GROUP
5. STATUS OF THE WIGOS KEY ACTIVITY AREAS IN RA VI
6. RADAR DATA EXCHANGE ISSUE IN RA VI
7. SURVEY ON WIGOS IN RA VI
8. REVIEW AND UPDATE OF R-WIP-VI FOR THE PRE-OPERATIONAL PHASE OF WIGOS (2016-2019)
9. PREPARATIONS FOR RA VI WIGOS WORKSHOP
10. REVIEW OF THE TORS OF TT-WIGOS
11. FUTURE WORK PROGRAMME AND ACTION PLAN OF TT-WIGOS