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| WEATHER CLIMATE WATER | **World Meteorological Organization**  **COMMISSION FOR OBSERVATION, INFRASTRUCTURE AND INFORMATION SYSTEMS**  **Third Session** 15 to 19 April 2024, Geneva | **INFCOM-3/Doc. 8.1(2)** |
| Submitted by: Chair of SC-ON  20.II.2024  **DRAFT 1** |

**AGENDA ITEM 8: TECHNICAL DECISIONS**

**AGENDA ITEM 8.1: WMO Integrated Global Observing System – networks**

# Update of the Guide to the WMO Integrated Global Observing System (WMO-No. 1165), including the Technical Guidelines for Regional WIGOS Centres on the WIGOS Data Quality Monitoring System (WMO-No. 1224)

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| **Summary** |
| **Document presented by:** Chair of the Standing Committee on Earth Observing Systems and Monitoring Networks (SC-ON) to address [Resolution 2 (Cg-19)](https://library.wmo.int/idviewer/67177/22) – WMO Strategic Plan (2024–2027), and [Resolution 21 (Cg-19)](https://library.wmo.int/viewer/67177/?offset=1#page=204&viewer=picture&o=bookmark&n=0&q=) – GBON Implementation, accordingly.  **Strategic objective 2024–2027:** 2.1 Optimize the acquisition of Earth system observation data through the WMO Integrated Global Observing System (WIGOS)  **Financial and administrative implications:** Within the parameters of the Strategic and Operational Plans 2024–2027.  **Key implementers:** INFCOM, Members and RAs  **Time frame:** 2023–2027  **Action expected:** Review and adopt the proposed draft resolutions |

# GENERAL CONSIDERATIONS

### Introduction

Guide to WIGOS

1. The [*WMO Strategic Plan 2024–2027*](https://library.wmo.int/records/item/68578-wmo-strategic-plan-2024-2027?offset=4) (WMO-No. 1336) requests optimized acquisition of Earth system observation data through the WMO Integrated Global Observing System (WIGOS), with a particular focus on the increased availability and scope of the observational data, the integrated observations across domains, the coordinated observations to support climate adaptation and mitigation, the new technologies brought into operations and ensured environmentally sustainable design of WMO observing programmes ensured.
2. Through [Resolution 18 (EC-76)](https://library.wmo.int/idviewer/66258/410) – Amendments to the [*Manual on the WMO Integrated Global Observing System*](https://library.wmo.int/records/item/55063-manual-on-the-wmo-integrated-global-observing-system) (WMO-No. 1160), the Executive Council requested Infrastructure Commission to update the [*Guide to the WMO Integrated Global Observing System*](https://library.wmo.int/records/item/55696-guide-to-the-wmo-integrated-global-observing-system#.Y_-gKnbMI2w) (WMO-No. 1165) with the corresponding guidance material to support Members in the implementation of the updated provisions of the [*Manual on the WMO Integrated Global Observing System*](https://library.wmo.int/records/item/55063-manual-on-the-wmo-integrated-global-observing-system) (WMO-No. 1160), in particular, related to the inclusion of environmental sustainability in the observing network design principles.
3. Through [Resolution 19 (EC-76)](https://library.wmo.int/idviewer/66258/555) [*Guide to the WMO Integrated Global Observing System*](https://library.wmo.int/records/item/55696-guide-to-the-wmo-integrated-global-observing-system#.Y_-gKnbMI2w) (WMO-No. 1165), and [Resolution 20 (EC-76)](https://library.wmo.int/idviewer/66258/697) Guide to the Global Basic Observing Network, the Executive Council requested the Infrastructure Commission to further develop and enhance the Guide which now includes both mentioned guides, with additional material as it becomes available.
4. Following the Executive Council requests, and in accordance with [Resolution 1 (INFCOM-2)](https://library.wmo.int/idviewer/66287/15) Work programme of the Commission, the Standing Committee on Earth Observing Systems and Monitoring Networks has led, on behalf of the Infrastructure Commission, the process for updating the [*Guide to the WMO Integrated Global Observing System*](https://library.wmo.int/records/item/55696-guide-to-the-wmo-integrated-global-observing-system#.Y_-gKnbMI2w) (WMO-No. 1165) and compiled all inputs into the document that is available in the [annex](#_Annex_to_draft_3) to the draft Resolution 8.1(2)/1 (INFCOM-3).
5. Overall, the changes proposed to the WIGOS Guide are essentially related to the following topics:
6. Chapter 1, Inclusion of the Space Weather, and reflection that the initial operational phase of WIGOS is completed,
7. Chapters 3 and 4, Merging the two chapters and updating the text on OSCAR/Surface User manual,
8. Chapter 5, New guidance on the Observing Network Design Principle number 13 on Advancing Environmental Sustainability,
9. Chapter 6, New section on the radio frequency (RF) matters and inclusion of the Terms of Reference (ToRs) on National Focal Points for RF matters,
10. Chapter 8, Inclusion of the further guidance on the Regional WIGOS Centre’s role, technical infrastructure, and staff competencies,
11. Chapter 10, New guidance on assignment of WSI for satellites,
12. Chapter 11, Further guidance on the interpretation of the horizontal resolution requirements, calculation of GBON targets for the Exclusive Economic Zones, inclusion of the criteria for compliance monitoring for GBON marine stations, alignment of the GBON design process with [Resolution 21 (Cg-19)](https://library.wmo.int/idviewer/67177/204) and clarification of the role of an ad-hoc committee for claims invoking Article 9(b). Detailed guidelines on registering, assigning, and removing GBON stations in OSCAR/Surface extracted and be included in OSCAR/ Surface user manual,
13. Chapter 12, Adjustment of the Regional Basic Observing Network (RBON) design process to ensure consistency with the GBON design process and reflection of the UN Early Warnings for All initiative, as per [Resolution 4 (Cg-19)](https://library.wmo.int/idviewer/67177/62).

Note: Following the merging of chapters 3 and 4, the renumbering of the chapters will be done during the editing process, following approval by INFCOM.

Technical Guidelines for Regional WIGOS Centres (RWC) on the WIGOS Data Quality Monitoring System (WDQMS)

1. [*Technical guidelines for Regional WIGOS Centres (RWCs) on the WIGOS Data Quality Monitoring System (WDQMS)*](https://library.wmo.int/records/item/56347-technical-guidelines-for-regional-wigos-centres-on-the-wigos-data-quality-monitoring-system)([WMO-No. 1224](https://library.wmo.int/viewer/56347/download?file=1224_en..pdf&type=pdf&navigator=1)) provide guidance for RWCs to run the operational activities related to WDQMS, specifically for the surface stations of the Global Observing System (GOS) located on land.
2. The technical guidelines were developed by the Inter-Commission Coordination Group on WIGOS, in accordance with [Resolution 2 (EC-69)](https://library.wmo.int/idviewer/55618/127). The guidelines were presented to the seventieth session of the Executive Committee (EC-70) as an annex to the [*Guide to the WMO Integrated Global Observing System*](https://library.wmo.int/records/item/55696-guide-to-the-wmo-integrated-global-observing-system#.Y_-gKnbMI2w) (WMO-No. 1165) under the following title “*Technical guidelines for RWCs on the WDQMS for surface-based stations of the GOS”*. It was agreed that the title should be shortened and the document should be published as a separate publication, which was done in 2018.
3. The publication was significantly revised by the Expert Team on WIGOS Tools and RWC Operations over the last intersessional period, and then submitted to the Standing Committee on Earth Observing Systems and Monitoring Networks (SC-ON) for their review. The reviewed version is presented to INFCOM-3 for adoption.

**Expected action**

1. Based on the above, the Commission may wish to adopt the resolutions.

# DRAFT RESOLUTIONS

## Draft Resolution 8.1(2)/1 (INFCOM-3)

## Update of the Guide to the WMO Integrated Global Observing System (WMO-No. 1165)

THE COMMISSION FOR OBSERVATION, INFRASTRUCTURE AND INFORMATION SYSTEMS,

**Recalling**

1. [Resolution 19 (EC-76)](https://library.wmo.int/idviewer/66258/555) – Guide to the WMO Integrated Global Observing System (WMO-No. 1165),
2. [Resolution 20 (EC-76)](https://library.wmo.int/idviewer/66258/697) – Guide to the Global Basic Observing Network,
3. [Resolution 47 (Cg-19)](https://library.wmo.int/idviewer/67177/521) – WMO Mandatory Publications and Distribution Policy for the Nineteenth Financial Period.

**Noting** draft [Recommendation 8.1(1) (INFCOM-3)](https://meetings.wmo.int/INFCOM-3/English/Forms/AllItems.aspx) – Amendments to the [*Manual on the WMO Integrated Global Observing System*](https://library.wmo.int/records/item/55063-manual-on-the-wmo-integrated-global-observing-system) (WMO-No. 1160),

**Noting** also that the draft update of the [*Guide to the WMO Integrated Global Observing System*](https://library.wmo.int/records/item/55696-guide-to-the-wmo-integrated-global-observing-system#.Y_-gKnbMI2w) (WMO-No. 1165) has been reviewed by the Standing Committee on Earth Observing Systems and Monitoring Networks (SC-ON),

**Having examined** the draft update of the [*Guide to the WMO Integrated Global Observing System*](https://library.wmo.int/index.php?lvl=notice_display&id=20026#.YEn1n2hKiUk) (WMO-No. 1165) in the [annex](#_Annex_to_draft) to the present Resolution,

**Adopts** the updated [*Guide to the WMO Integrated Global Observing System*](https://library.wmo.int/index.php?lvl=notice_display&id=20026#.YEn1n2hKiUk) (WMO-No. 1165)provided in the [annex](#_Annex_to_draft) to the present Resolution;

**Requests** its Management Group to arrange for further development and enhancement of the Guide with additional material as it becomes available;

**Invites** Members to:

(1) Use the Guide in their implementation of the relevant Technical Regulations;

(2) Provide feedback to INFCOM on how to improve subsequent versions of the Guide.

**Encourages** Regional Associations to:

(1) Use the Guide in their implementation of the relevant Technical Regulations;

(2) Provide feedback to INFCOM on how to improve subsequent versions of the Guide.

## Annex to draft Resolution 8.1(2)/1 (INFCOM-3)

## Update of the Guide to the WMO Integrated Global Observing System (WMO-No. 1165)

The updated guide with mark-up is available in [INFCOM-3/Doc. 8.1(2), Annex 1.](https://meetings.wmo.int/INFCOM-3/_layouts/15/WopiFrame.aspx?sourcedoc=%7b21ADBB8F-F218-4681-9C05-9A8CA50999CC%7d&file=INFCOM-3-d08-1(2)-WIGOS-GUIDE-AND-RWC-GUIDELINES-UPDATE-ANNEX-1-draft1_en.docx&action=default)

## Draft Resolution 8.1(2)/2 (INFCOM-3)

## Update of the Technical Guidelines for Regional WIGOS Centres (RWC) on the WIGOS Data Quality Monitoring System (WMO-No. 1224)

THE COMMISSION FOR OBSERVATION, INFRASTRUCTURE AND INFORMATION SYSTEMS,

**Recalling:**

1. [Resolution 19 (EC-70)](https://library.wmo.int/idviewer/56243/73) – Guide to the WMO Integrated Global Observing System (WMO-No. 1165), that includes “Technical guidelines for RWCs on the WIGOS Data Quality Monitoring System (WDQMS) for surface-based stations of the Global Observing System (GOS)”,
2. [Resolution 19 (EC-76)](https://library.wmo.int/idviewer/66258/555) – Guide to the WMO Integrated Global Observing System (WMO-No. 1165),
3. [Resolution 20 (EC-76)](https://library.wmo.int/idviewer/66258/697) – Guide to the Global Basic Observing Network,
4. [Resolution 47 (Cg-19)](https://library.wmo.int/idviewer/67177/521) – WMO Mandatory Publications and Distribution Policy for the Nineteenth Financial Period.

**Noting** significant updates of the Technical Guidelines drafted by the Expert Team on WIGOS Tools and RWC Operations and then reviewed by the Standing Committee on Earth Observing Systems and Monitoring Networks (SC-ON),

**Noting** also draft Resolution 8.1(2) (INFCOM-3) Update of the [*Guide to the WMO Integrated Global Observing System*](https://library.wmo.int/records/item/55696-guide-to-the-wmo-integrated-global-observing-system#.Y_-gKnbMI2w) (WMO-No. 1165), to which the Technical guidelines provide complementary guidance,

**Having examined** the draft update on *the* [*Technical Guidelines for Regional WIGOS Centres on the WIGOS Data Quality Monitoring System*](https://library.wmo.int/records/item/56347-technical-guidelines-for-regional-wigos-centres-on-the-wigos-data-quality-monitoring-system)(WMO-No. 1224) in the [annex](#_Annex_to_draft_1) to the present Resolution,

**Adopts** the updated [*Technical Guidelines for Regional WIGOS Centres on the WIGOS Data Quality Monitoring System*](https://library.wmo.int/records/item/56347-technical-guidelines-for-regional-wigos-centres-on-the-wigos-data-quality-monitoring-system)(WMO-No. 1224)provided in the [annex](#_Annex_to_draft_3) to the present Resolution;

**Invites** Members hosting the RWC, as well as all National Focal Points on WDQMS to:

(1) Implement and follow *the Technical Guidelines* in the performing RWC functions;

(2) Provide feedback to INFCOM on how to improve subsequent versions of *the Technical Guidelines*.

**Requests** its Management Group to make necessary arrangements for further development and enhancement of the *Technical Guidelines* with additional material as it becomes available.

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## Annex to draft Resolution 8.1(2)/2 (INFCOM-3)

## Update of the Technical Guidelines for Regional WIGOS Centres (RWC) on the WIGOS Data Quality Monitoring System (WMO-No. 1224)

The updated guideline with mark-up is available in [INFCOM-3/Doc. 8.1(2), Annex 2](https://meetings.wmo.int/INFCOM-3/_layouts/15/WopiFrame.aspx?sourcedoc=%7bB0AB7210-D122-4A66-B425-4D854C15018A%7d&file=INFCOM-3-d08-1(2)-WIGOS-GUIDE-AND-RWC-GUIDELINES-UPDATE-ANNEX-2-draft1_en.docx&action=default).

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