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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. 8.2(1)** |
| Submitted by: Chair of SC-MINT  3.IV.2024  **DRAFT 2** |

**AGENDA ITEM 8: TECHNICAL DECISIONS**

**AGENDA ITEM 8.2: WMO Integrated Global Observing System – measurements**

*[All changes have been made by the Secretariat]*

# UPDATE OF THE GUIDE TO INSTRUMENTS AND METHODS OF OBSERVATION (WMO-NO. 8)

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| **Summary** |
| **Document presented by:** Chair of the Standing Committee on Measurements, Instrumentation and Traceability (SC-MINT),  **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 Operating Plans 2024–2027  **Key implementers:** INFCOM, Members and Secretariat  **Time frame:** 2024–2027  **Action expected:** Review and approve the proposed draft resolution |

# GENERAL CONSIDERATIONS

### Introduction

1. Since its first publication in 1950, the [*Guide to Instruments and Methods of Observation*](https://library.wmo.int/records/item/68695-guide-to-instruments-and-methods-of-observation?offset=4) (WMO-No. 8) has been recognized as the main source of information used by Members to standardize instrument performances and ensure the quality of observations.
2. The Guide constitutes an important source of guidance material for Members related to the WMO Integrated Global Observing System underpinning most services provided by Members.
3. The Guide is being constantly reviewed and regularly updated considering the developments of new methods, techniques, and systems in the field of instrumentation, measurement, and calibration, as requested by the World Meteorological Congress.
4. The Standing Committee on Measurements, Instrumentation and Traceability (SC-MINT) of INFCOM has been following these developments and the relevant expert teams have been preparing the necessary updates of the Guide.

### Review by Members

1. All proposals for the update of the chapters of the Guide were posted on the [WMO website for Member review.](https://community.wmo.int/en/activity-areas/imop/wmo-no.8/preliminary-2024-edition-wmo-no-8) Members were invited, through a circular letter, to review the preliminary edition.
2. The feedback from the Members for the chapters subject to update have been considered.
3. The proposals collected from the Members for further update of the Guide will be considered in the future workplan of the commission.

### Publication of the Guide

The 2023 edition of the Guide has not been published yet but is expected to be published in English prior to INFCOM-3.

### Future actions for update of the Guide

SC‑MINT will continue to promote innovation and the application of emerging technologies, techniques and integrated solutions in measurements, and where proven to be beneficial to Members, incorporate these techniques and solutions into future updates of the Guide.

### Expected action

Based on the above, the Commission for Observation, Infrastructure and Information Systems (INFCOM) is invited to adopt the resolution for update of the Guide to Instruments and Methods of Observation along the following lines.

# DRAFT RESOLUTION

## Draft Resolution 8.2(1)/1 (INFCOM-3)

## Update of the Guide to Instruments and Methods of Observation (WMO-No. 8)

THE COMMISSION FOR OBSERVATION, INFRASTRUCTURE AND INFORMATION SYSTEMS,

**Recalling**:

1. [Resolution 2 (Cg-19)](https://library.wmo.int/idviewer/67177/21) – WMO Strategic Plan 2024–2027,
2. [Resolution 47 (Cg-19)-](https://library.wmo.int/idviewer/67177/520) WMO Mandatory Publications and Distribution Policy for the Nineteenth Financial Period,
3. [Resolution 22 (EC-76)](https://library.wmo.int/viewer/66258/?offset=1#page=895&viewer=picture&o=bookmark&n=0&q=) – Publication and translation of the *Guide to Instruments and Methods of Observation* (WMO-No. 8), 2023 Edition,

**Having considered** the updates that have been made to numerous chapters of the [*Guide to Instruments and Methods of Observation*](https://library.wmo.int/records/item/68695-guide-to-instruments-and-methods-of-observation?offset=4) (WMO-No. 8) since the second session of the Infrastructure Commission including:

1. New chapter on the measurement of permafrost, Chapter 4 in Volume II,
2. Major revision of Volume I, Chapter 6, Measurement of Precipitation,
3. Partial revision of Volume I, Chapter 7, Measurement of Radiation,
4. Minor revision of Volume II, Chapter 1, General Chapter,
5. Minor revision of Volume III, Chapter 5, Special profiling techniques for the boundary layer and the troposphere,

**Having examined** the results of the review by the Members,

**Adopts** the amendments and updates to the [*Guide to Instruments and Methods of Observation*](https://library.wmo.int/records/item/68695-guide-to-instruments-and-methods-of-observation?offset=4) (WMO-No. 8) available [here](https://community.wmo.int/en/activity-areas/imop/wmo-no.8/wmo-no-8-provisional-2024-edition);

**Recommends** the Executive Council to reaffirm the importance of the Secretary-General arranging for the publication of the *Guide* by the end of 2024 and identifying the resources to translate the new edition of the *Guide* into all WMO languages from within the regular budget and/or voluntary contributions;

**Further recommends** the Executive Council:

(1) Authorizes the Secretary-General:

1. To make any subsequent purely editorial amendments;
2. To update the references to former technical commissions in the [*Guide to Instruments and Methods of Observation*](https://library.wmo.int/records/item/68695-guide-to-instruments-and-methods-of-observation?offset=4) (WMO-No. 8) with relevant bodies;

(2) Invite Members:

1. To provide feedback to the Secretary-General on how to improve subsequent versions of the *Guide*;
2. To provide voluntary contributions to support the timely publication of the *Guide* in English and in other official WMO languages.

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