

**WMO OMM**

World Meteorological Organization  
Organisation météorologique mondiale  
Organización Meteorológica Mundial  
Всемирная метеорологическая организация  
المنظمة العالمية للأرصاد الجوية  
世界气象组织

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Ref.: 01109/2024.1.6 WIGOS

Our ref.: 01109/2024/I/MQC/WMO-No. 8

23 February 2024

Annexes: 4 (available in English only)

Subject: Preliminary 2024 edition of the *Guide to Instruments and Methods of Observation* (WMO-No. 8), Volumes I, II, and III, and of the *Guide to Operational Weather Radar Best Practices* (WMO-No. 1257), Volumes IV, V, and VI

Action required: To review the documents from the subject and send your comments to the WMO Secretariat by **22 March 2024**

Dear Sir/Madam,

I wish to refer to the upcoming third session of the Commission for Observation, Infrastructure and Information Systems (INFCOM-3), to be held in Geneva, Switzerland, from 15 to 19 April 2024. On this occasion, the session will be invited to adopt the Preliminary 2024 edition of the *Guide to Instruments and Methods of Observation* (WMO-No. 8), Volumes I, II, and III. The session will also be invited to approve the Preliminary 2024 edition of the *Guide to Operational Weather Radar Best Practices* (WMO-No. 1257) Volumes IV, V, and VI.

Since its first publication in 1950, the [Guide to Instruments and Methods of Observation](#) (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. It is available in the [WMO e-library](#) in all official WMO languages. Being a part of the standards under the WMO Integrated Global Observing System (WIGOS), the *Guide* (WMO-No. 8) is being constantly reviewed and regularly updated, as requested by the World Meteorological Congress.

The *Guide to Operational Weather Radar Best Practices* has been developed by the INFCOM Joint Expert Team on Operational Weather Radars (JET-OWR) with the aim to become an important source of guidance material on various aspects of the operational weather radar. The guide provides complementary and supportive guidance on the weather radar-related matters already available in the *Guide* (WMO-No. 8) and in the [Guide to WMO Integrated Global Observing System](#) (WMO-No. 1165).

Collaborative work of different expert teams and groups, together with the Editorial Board of the INFCOM/Standing Committee on Measurements, Instrumentation and Traceability resulted in the preliminary 2024 editions that are now available for the Members' review.

To: Permanent Representatives of Members of WMO

cc: Hydrological Advisers  
Presidents and vice-presidents of Regional Associations  
President and vice-president(s) of INFCOM  
Members of the INFCOM Management Group; and Chairs of SC-MINT Expert Teams  
Executive Secretary, Association of Hydro-Meteorological Equipment Industry  
Members of the INFCOM/SC-MINT Editorial Board

The preliminary edition of the *Guide to Instruments and Methods of Observation* (WMO-No. 8) includes updates of Chapters 6 and 7 of Volume I, Chapter 1 of Volume II, and Chapter 5 of Volume III. It also includes a new chapter, Chapter 4 for Volume II. The preliminary edition is posted on the WMO website, under the heading "[WMO-No. 8 - Preliminary 2024 Edition](#)", for consideration by Members. An overview of the proposed updates is provided in [Annex I](#) to this letter.

The preliminary edition of the *Guide to Operational Weather Radar Best Practices* includes new Volumes IV, V, and VI. It is also posted on the WMO website, under the heading "[WMO-No. 1257-Preliminary 2024 Edition](#)", for consideration by Members. An overview of the proposed volumes is provided in [Annex II](#) of this letter.

I should be grateful if you could examine the text of the preliminary editions and send your detailed comments or suggestions to the WMO Secretariat, to the attention of Mr Ercan Buyukbas ([ebuyukbas@wmo.int](mailto:ebuyukbas@wmo.int)) at your earliest convenience, but not later than **22 March 2024**, using the templates provided in [Annex III](#) and [Annex IV](#), respectively. Your valuable feedback will be considered for the finalization of the preliminary 2024 edition that will be submitted to the INFCOM-3 for approval. It is anticipated that major changes will be postponed for implementation in the forthcoming inter-sessional period. Should you have concerns with specific chapters, please nominate an appropriate contact person whom these concerns could be discussed with, before the defined deadline. Identification of other parts of these guides that would need updating are also welcome and will be taken into consideration for the future workplan of the commission.

I wish to take this opportunity to convey to you and your service my appreciation for your continued contribution to the activities of WMO.

Yours faithfully,



Prof. Celeste Saulo  
Secretary-General

**TABLE OF DRAFT CHANGES TO THE  
GUIDE TO INSTRUMENTS AND METHODS OF OBSERVATION (WMO-No. 8)**

Ref.: 01109/2024.1.6 I/WIGOS

CHAPTER	TITLE	SIZE OF THE UPDATE*
VOLUME I	MEASUREMENT OF METEOROLOGICAL VARIABLES	
6	Measurement of precipitation	Major
7	Measurement of radiation	Partial
VOLUME II	MEASUREMENT OF CRYOSPHERIC VARIABLES	
1	General	Minor
4	Measurement of permafrost	New chapter
VOLUME III	OBSERVING SYSTEMS	
5	Special profiling techniques for the boundary layer and the troposphere	Minor

(2024 edition vs 2023 edition)

\*Note: **Minor** indicates that only small changes were made to the chapter;  
**Partial** indicates that substantial changes were made to some sections of the chapter;  
**Major** indicates that substantial changes were made to the entire chapter.

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**PRELIMINARY GUIDE TO OPERATIONAL WEATHER RADAR BEST PRACTICES****TABLE OF CONTENTS**

VOLUME	TITLE	COMMENT
IV	Weather radar siting, configuration and scan strategies	Ready for INFCOM-3
V	Weather Radar Calibration, Monitoring and Maintenance	Ready for INFCOM-3
VI	Weather Radar Data Processing	Ready for INFCOM-3

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**Template for Members’ comments on the:**

**Preliminary 2024 edition of the *Guide to Instruments and Methods of Observation* (WMO-No. 8)**

WMO Member: Date:
Contact person: (name and email address)

Volume/ Chapter (e.g. V_IV/Ch_1)	Document <sup>1</sup> / Page number (e.g. tc/P17)	Section/ Paragraph/ Figure/Table (e.g. Table 1)	Type of comment <sup>2</sup> (e.g. te)	Proposed change (please, expand cell height as needed)	Comment <b>(explain/identify required change)</b> (please, expand cell height as needed)	Remarks Please leave empty

1 **Please specify which document you refer to:** **tc** = track-change version, **clean** = clean version without tracked changes

2 **Type of comment:** **te** = technical, **ed** = editorial

Ref: 01109/2024

**Template for Members' comments on the:**

**Preliminary 2024 edition of the *Guide to Operational Weather Radar Best Practices***

Ref.: 01

WMO Member: Date:
Contact person: (name and email address)

Volume / Chapter (e.g. V_IV/Ch_1)	Page number (e.g. P17)	Section/ Paragraph/ Figure/Table (e.g. Table 1)	Type of comment <sup>1</sup> (e.g. te)	Proposed change (please, expand cell height as needed)	Comment (explain/identify required change) (please, expand cell height as needed)	Remarks Please leave empty

<sup>1</sup> **Type of comment:** **te** = technical, **ed** = editorial