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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(3)** |
| Submitted by: Chair of SC-MINT  01.III.2024  **DRAFT 1** |

**AGENDA ITEM 8: TECHNICAL DECISIONS**

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

# UPDATE OF THE GUIDE TO OPERATIONAL WEATHER RADAR BEST PRACTICES (WMO-NO. 1257)

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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:** 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

The new Guide to Operational Weather Radar Best Practices (WMO-No. 1257) has been developed by the INFCOM Joint Expert Team on Operational Weather Radars (JET-OWR) with the aim of providing an important source of guidance material on various aspects of operational weather radars. Additionally, the Guide aims to provide complementary and supportive guidance on the weather radar-related matters already available in the[*Guide to Instruments and Methods of Observation*](https://library.wmo.int/idurl/4/68661) (WMO-No. 8), Volume III and in the [*Guide to the WMO Integrated Global Observing System*](https://library.wmo.int/records/item/55696-guide-to-the-wmo-integrated-global-observing-system?offset=3) (WMO-No.1165).

The new Guide to Operational Weather Radar Best Practices will comprise eight volumes:

I Weather Radar Network Program Design  
II Weather Radar Technology  
III Weather Radar Procurement  
IV Weather Radar Siting, Configuration and Scan Strategies  
V Weather Radar Calibration, Monitoring and Maintenance  
VI Weather Radar Data Processing   
VII Weather Radar Data Representation and International Exchange  
VIII Operational Weather Radar Glossary of Terminology

The seventy-sixth session of the Executive Council (EC-76) already approved the publication of Volumes I, II, III and VII, and the publication of these volumes is in progress. The preliminary versions of Volumes IV, V and VI have been drafted by JET-OWR and are now ready for publication, subject to approval by INFCOM. Volume VIII will require additional work before being considered for approval/publication.

### Review by Members

1. All proposals for the new volumes of the Guide were posted on the [WMO website for Member review](https://community.wmo.int/en/activity-areas/imop/radar-best-practices-guide-2024). Members were invited, through a circular letter, to review the preliminary edition.
2. The feedback from the Members for the new volumes 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.

### Future actions for update of the Guide

The Standing Committee on Measurements, Instrumentation and Traceability (SC-MINT) will continue to promote this Guide as an important source of guidance material related to various aspects of operational weather radars. SC-MINT will also continue to monitor innovations and the application of emerging radar technologies, techniques and solutions and, where proven to be beneficial to Members, incorporate these techniques and solutions into future updates of the Guide. Consistency between the material published in this Guide and in the [*Guide to Instruments and Methods of Observation*](https://library.wmo.int/viewer/68661/?offset=#page=215&viewer=picture&o=bookmark&n=0&q=) (WMO-No. 8), Volume III, Chapter 7 “Radar Measurements” will be ensured.

### Expected action

Based on the above, INFCOM is invited to adopt a resolution for the updating of the Guide to Operational Weather Radar Best Practices (WMO-No. 1257) along the following lines.

# DRAFT RESOLUTION

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

## Update of the Guide to Operational Weather Radar Best Practices

## (WMO-No. 1257)

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 31 (EC-76)](https://library.wmo.int/viewer/66258/?offset=#page=1136&viewer=picture&o=bookmark&n=0&q=) – Publication and translation of the *Guide to Operational Weather Radar Best Practices*,

**Having considered** the new volumes prepared for the Guide to Operational Weather Radar Best Practices (WMO-No. 1257) since the second session of the Infrastructure Commission including:

1. Volume IV Weather Radar Siting, Configuration and Scan Strategies,
2. Volume V Weather Radar Calibration, Monitoring and Maintenance,
3. Volume VI Weather Radar Data Processing,

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

**Adopts** the text of the provisional 2024 edition of the Guide to Operational Weather Radar Best Practices (WMO-No. 1257) available [here;](https://community.wmo.int/en/activity-areas/imop/new-provisional-2024-edition-guide-operational-weather-radar-best-practices)

**Recommends** the Executive Council, reaffirming the importance for the Secretary‑General to make arrangements for the publication of the *Guide* by the end of 2024 and to consider identifying the resources to translate the new edition of the *Guide* into all WMO languages from within the regular budget and/or voluntary contributions, to:

(1) Authorize the Secretary-General to make any subsequent purely editorial amendments;

(2) Invite Members:

(a) To provide feedback to the Secretary-General on how to improve subsequent versions of the *Guide*;

(b) To provide voluntary contributions to support the timely publication of the *Guide* in English and in other official WMO languages;

**Requests** the Standing Committee on Measurements, Instrumentation and Traceability (SC‑MINT) and the Standing Committee on Earth Observing Systems and Monitoring Networks (SC-ON) to further update and amend the *Guide*, as appropriate, thus providing Members with the up-to-date guidelines on operational weather radars and maintaining consistency with the content of the [*Guide to Instruments and Methods of Observation*](https://library.wmo.int/records?search=&fulltext=1&refine%5bWMO_number%5d%5b%5d=8&search_id=8&id_type=WMO_number&any_lang=1&sort=_score&perpage=10&page=1&&page=1) (WMO-No. 8) and other relevant WMO publications.

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