GUIDELINES FOR DRAFTING UPDATES/ NEW EDITIONS OF THE CIMO GUIDE

(Based on the guidelines used for the Sixth Edition)
(as approved by CIMO Management Group, Tenth Session, Brussels, Belgium, 19-20 Oct. 2012)

1. A degree of standardisation for the chapter headings was rather strictly applied to the chapters of Part I. The outline of the headings is in the Annex to this document. Headings in Parts II and III are much more flexible. When a new chapter is drafted for Part II to IV, its structure should be, as far as possible, consistent with the other chapters of that Part.

2. The *CIMO Guide* is intended primarily for national meteorological services, but many other organisations and institutions also make use of it, and its purpose is to give guidance on the most effective practices for meteorological measurements and observations, to achieve a standard quality. Emphasis is given to practical advice on techniques which are well established and in regular use. The theoretical basis of the techniques should be outlined in the text, supported by references to background literature. Manufacturers are also using the *CIMO Guide* as guidance for their own products.

3. The level of technical detail and the content should be appropriate for the intended readers of the *CIMO Guide*. These are taken to include:

- supervisors of observations programs in meteorological and related services, both at the managerial and technical/operations levels,
- people with scientific background in other fields in research institutions, government agencies etc who need to make meteorological measurements,
- teachers, instructors and students in a wide range of studies.

4. The *CIMO Guide* deals only with techniques in routine use. Techniques that are rare may be included so long as they are fully operational. Techniques under development or in use only at specialised centres or not easily documented may be alluded to and referenced but not described at length.

5. The *CIMO Guide* should give practical advice on aspects of meteorological observations and measurements, especially those that are known from experience in meteorological operations but are not commonly published or otherwise readily available.

- Advice should be given on uncertainty, reliability and other aspects of performance, with comprehensive discussion of sources of error.
- It is desirable to give advice in general terms on management considerations, such as unusual demands on resources that a particular observational technique may incur, or particular difficulties in implementation.
- Well-documented comparisons or evaluations of instruments should be described or referenced.
- Recommendations or decisions of the Commission for Instruments and Methods of Observation must be included.

6. It is not practicable to give in the *CIMO Guide* detailed advice on operations and equipment, especially for the complex systems described in Part II and IV. For such systems the *CIMO Guide* provides an outline, and an introduction to the literature, for the well-informed non-specialist. It should give a perspective on the technique in the general context of meteorological observing systems, and advice on the practice and practicability of the technique.

7. The *CIMO Guide* does not explicitly describe national practices and observing networks, and neither does it mention particular manufacturers or suppliers nor their observing networks.

8. Relevant material in WMO Manuals and other Guides should be referenced. Usually it should not be reproduced or re-stated, but there may be some instances where basic material should appear in the *CIMO Guide* as well as in other WMO documents.

9. The following practices have been adopted for references to literature.

- Reviewed and readily available papers and documents are preferred, but are not always sufficient. The Instrument and Observing Methods Reports issued by WMO may be useful references if suitable material does not appear elsewhere. Reports of conferences and in-house papers are often too transient or inaccessible to be very useful and should be used only if necessary and if no other material is available.
- Recent general and review papers are particularly useful, and recent papers which contain other references to lead the reader into the literature.
- References are particularly appropriate in the sections dealing with scientific discussion of methods of measurement and sources of error, and for discussion of performance and results of evaluations. They are also appropriate for advice on advanced techniques.

10. Glossaries are not used: readers may be assumed to be familiar with normal scientific and technological terminology, and specialist terms should be defined in the text where appropriate. However, some key vocabulary should be introduced to promote uniform terminology. The terminology used in the *CIMO Guide* has to conform to the internationally adopted standards. These are in particular the *International Meteorological Vocabulary* (WMO-No. 182) and the *International Vocabulary of Metrology – Basic and General Concepts and Associated Terms,* http://www.bipm.org/en/publications/guides/vim.html)

11. Uncertainties of instruments and systems should be expressed in compliance with the GUM (*Evaluation of measurement data – Guide to the expression of uncertainty in measurement*, http://www.bipm.org/en/publications/guides/gum.html)

12. Reporting practices should not be included in the CIMO Guide, but in the Manual on Codes (WMO-No. 306).

13. The presentation of the material should follow the WMO Style Guide and the WMO Editorial checklist available under: http://www.wmo.int/pages/prog/lsp/lsp_res_en.html

14. Pictures may be included, but require obtaining written agreement of the copyright holders.

ANNEX

SCHEMATIC HEADINGS FOR CHAPTER x of PART I

Contents (1)

x.1 **General** Put introductory text here if it is required, then...

x.1.1 **Definitions** (2)
x.1.2 **Units and/or scales**
x.1.3 **Meteorological requirements** (3, 4)
x.1.4 **Methods of measurement** (4, 5)

x.2 Quantity and/or technique and/or sensor and/or instrument no. 1 (6)

Use paragraph numbers x.2.1, x.2.3.4

x.3 Quantity/technique/sensor/instrument no. 2

Etc. If there are only 2 techniques, go to...

x.4 *Additional headings* (6)

x.5 " "

Etc

x.last **References**

Annex x.A (7)

Annex x.B

Etc

NOTES

Bold means this layout has been used in all chapters of Part I.

Italic means very flexible.

(1) A list of chapters will appear at the front of the volume. A list of headings (down to x.a.b.c) will appear at the front of each chapter.

(2) This means definitions specific to this chapter.

(3) Includes applications for the data, reference to WMO documents, etc., and requirements for desirable and achievable accuracy which are not covered in Chapter 1 of Part I.

(4) As they apply to the whole chapter. Subsets of these may appear in subsequent sections on particular techniques.

(5) General principles, overview of systems, physics and chemistry, as appropriate.

(6) In principle, for each quantity/technique/instrument it should be possible to find, somewhere in the chapter, general or specific information on:

description (including the scientific principle)
procedures
exposure and siting
standards
sources of error
comparisons/calibration in field/laboratory
corrections
maintenance.

These will not all be necessary for all cases, and they can be in sections like x.2 or in more general sections like x.4. This is all very flexible, and at the author's discretion.

(7) Annexes can include almost anything that is inconvenient elsewhere in the text, eg formal statements of requirements or procedures, formulae, constants, detailed tables, etc.