

WORLD METEOROLOGICAL ORGANIZATION

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COMMISSION FOR INSTRUMENTS AND
METHODS OF OBSERVATION

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CIMO MANAGEMENT GROUP

First session

ITEM: 3.1

Los Angeles/CA., USA, 13-15 February 2003

ENGLISH only

Status and plan for update of the CIMO Guide

(Submitted by the Secretariat)

Summary and purpose of document

This document provides an overview of work done on the update of the *CIMO Guide* and a plan to finalize new edition of the *Guide*.

Action proposed

The meeting is invited to review the work done on the update of the *CIMO Guide* and decide on further steps to finalize new edition of the *CIMO Guide*.

Status of update of the *CIMO Guide*

1. CIMO-XII agreed that a continuous review and update of the *Guide* is needed due to the rapid development of technology and observing practices. It invited the Secretary-General to support this by providing the necessary recourses.
2. In order to keep the *Guide* under review and develop updates, the Commission requested its president to consider establishing a task team within the Advisory Working Group (AWG). AWG considered this task as an important one to be done by all members of AWG and requested Mr Dombrowsky to act as focal point for updating the *CIMO Guide*.
3. Mr Dombrowsky reported during the AWG Meeting in January 2002 that in the Circular Letter #3 (March 2001) of the President of CIMO, sent to all members, a request was made for updates and comments. Unfortunately, no proposals for amendment were received in response to this letter. However, extensive comments were collected from experts through the efforts of the chairpersons of the working groups and the assigned Advisory Working Group focal point. The comments were then provided to the WMO Secretariat. Revisions were suggested in 20 of the 32 chapters of the *Guide*. Also two new chapters on "Urban observations" and "Road Meteorological Measurements" were proposed. Some proposals for a revision were accompanied by a revised text and some only requested that a particular text has to be revised. Many of the comments involved technical corrections or clarifications. There were also instances where the instruments described are obsolete, or new technology has become available.
4. Mr Pannett (New Zealand) was contracted in 2002 by Secretariat to review comments and suggestions on updates relevant to Part I of the *Guide* received from AWG. He revised Chapters 1 "General", Ch.2 "Measurement of temperature", Ch.3 " Measurement of pressure", Ch.5 "Measurement of surface wind" and Ch.6 "Measurement of precipitation" of Part I and a new Chapter 12 "Road meteorological measurements" of Part II of the *Guide*. Those draft revisions were sent, as suggested by AWG, to Mr Dombrowsky and chairmen of the Working Groups for further action.
5. The CBS-XII invited other technical Commissions, through its president, to arrange for the harmonization of relevant manuals, guides, and regulations with the sixth edition of the *Guide*. During the AWG meeting, January 2002, Mr Van der Meulen also reported the need for updating the cross references in some other WMO Guides and Manuals, such as *International Meteorological Tables* (WMO-No.188, TP.93), which is out of print and to which *CIMO Guide* refers to, and *Technical Regulations* (WMO-No.49), where there is a need to bring in line its Attachment B (Operational desirable and currently attainable accuracy of measurements or observations) with *CIMO Guide* Annex 1/B (Accuracy requirements and achievable accuracy). No concrete results have been achieved in this regard so far, except of suggestions made by CBS ET on AWS (Geneva, 2-6 September 2002).
6. The status table on *CIMO Guide* updates is in the Annex 1.

Further actions and plan for update of the *CIMO Guide*

7. CIMO-XIII in discussing the *CIMO Guide* suggested some actions and concrete proposals relevant to the update of the *Guide*:
 - Inform PRs of the importance of the *CIMO Guide* for providing definitive guidance and as an indispensable training resource, and to encourage them to make available their experts and to afford them time and due recognition in this important work (responsible: President of CIMO).

- Request the presidents of the technical commissions to consider updates of Manuals and Guides to achieve consistency of Manuals and Guides, under the auspices of other technical commissions, with the *CIMO Guide* (responsible: President of CIMO).
- Publish the 7th edition of the *CIMO Guide* and make arrangements for the production of an electronic version of the *Guide* (responsible: WMO Secretariat).
- Publish in *CIMO Guide* Measuring range and uncertainty requirements for rainfall intensity (RI) measurements (responsible: OPAG-SURFACE).
- Review the table on *Operational Accuracy Requirements and Typical Instrument Performance*. Request the other technical commissions to provide assistance in reviewing the requirements (responsible: OPAG-SURFACE).
- Include within Chapter I/7 of the *CIMO Guide* "Alternate Method" of Dr B. Forgan (1996) for calibrating pyranometers (responsible: OPAG-SURFACE).
- Discourage the use of the old Schott-glass filter pyrheliometer methods in the next edition of the *CIMO Guide* (responsible: OPAG-SURFACE).
- Monitor the efforts of the CAS Scientific Steering Committee on UV Measurements and use the relevant reports, when available, as the basis for updating Chapter 7, "Measurement of radiation", of Part I of the *CIMO Guide* (responsible: OPAG-SURFACE).
- Include in the *CIMO Guide*, as far as possible, relevant recommendations confirmed by the Executive Council (responsible: WMO Secretariat).

8. It should be noted that updating the *CIMO Guide* is an ongoing activity, however for the sake of meeting a fixed publication date of the 7th edition there is a need to freeze amendments at some point. Therefore, it is proposed that the 7th edition of the *Guide* will contain only those amendments for which a "text" is supplied by the end of March 2003. WMO Secretariat will send a reminder to those reviewers who suggested an update but have not yet supplied a proposed text.

9. All available proposals for revisions will be reviewed and edited by Mr Pannett upon the schedule presented in Annex 1. All queries, that will inevitably come up during the editing work, will be channeled to the relevant OPAG's co-chairpersons who themselves or through recognized expert would provide authorized answers to Mr Pannett.

10. "Final Edit" will be subjected to a final approval according to Annex 1, fairly in advance before it is provided to the Expert Team on the Development Guidance and Training Materials (ET/DGTM) to allow for redrawing the necessary figures. (Original figures are only available as bit map files and cannot be edited. They may or may not be suitable for insertion 'as is' in the MS Word text. If an amendment is required, they need to be redrawn from scratch.)

11. ET/DGTM will discuss (ET meeting in 4 quarter 2004) the approved final editor's version and decide on the procedure the 7th edition of the *Guide* will be published. It is expected that a new edition be first published on the CIMO/IMOP Web-site. A period of about 6 months may be allowed for comments from a wide-range of users. Their comments should be analyzed and incorporated in the 7th edition by the decision of the ET/DGTM in a timely manner so that the 7th edition of the *Guide* is published in both an electronic and a hard copy version during 1st quarter 2006.

ANNEX 1

Ch./Part	PROPOSALS FOR UPDATES	DRAFT EDIT		QUERIES SOLVED BY	FINAL EDIT		APPROVAL OF FINAL EDIT		
		Responsible	Date		Responsible	Date	Responsible	Date	
P.I	MEASUREMENT OF METEOROLOGICAL VARIABLES								
1	General	Yes	R. Pannett	Aug 02	J. Van der Meulen	R. Pannett	Mar 03	J. Van der Meulen	May 03
2	Measurement of temperature	Yes	R. Pannett	Aug 02	J. Van der Meulen	R. Pannett	Mar 03	J. Van der Meulen	May 03
3	Measurement of atmospheric pressure	Yes	R. Pannett	Aug 02	J. Van der Meulen	R. Pannett	Mar 03	J. Van der Meulen	May 03
4	Measurement of humidity	No							
5	Measurement of surface wind	Yes	R. Pannett	Aug 02	J. Van der Meulen	R. Pannett	Mar 03	J. Van der Meulen	May 03
6	Measurement of precipitation	Yes	R. Pannett	Aug 02	J. Van der Meulen	R. Pannett	Mar 03	J. Van der Meulen	May 03
7	Measurement of radiation	No							
8	Measurement of sunshine duration	Yes; (no text)	R. Pannett	Apr 03	C. Richter	R. Pannett	Jul 03	C. Richter	Sept 03
9	Measurement of visibility	Yes; (no text)	R. Pannett	Apr 03	C. Richter	R. Pannett	Jul 03	C. Richter	Oct 03
10	Measurement of evaporation	Yes; (no text)	R. Pannett	Apr 03	C. Richter	R. Pannett	Jul 03	C. Richter	Nov 03
11	Measurement of soil moisture	No							
12	Measurement of upper air pressure, temperature, humidity	Yes	R. Pannett	Feb 03	J. Nash	R. Pannett	Apr 03	J. Nash	June 03
13	Measurement of upper wind	Yes; (no text for GPS)	R. Pannett	Mar 03	J. Nash	R. Pannett	May 03	J. Nash	Aug 03
14	Observation of present and past weather; state of the ground	Yes; (no text)	R. Pannett	Apr 03	J. Van der Meulen	R. Pannett	Jul 03	J. Van der Meulen	Sept 03
15	Observation of clouds	Yes; (no text)	R. Pannett	July 03	J. Van der Meulen	R. Pannett	Oct 03	J. Van der Meulen	Jan 04
16	Measurement of ozone	No							
17	Measurement of atmospheric composition	Yes	R. Pannett	Feb 03	C. Richter	R. Pannett	Apr 03	C. Richter	July 03

Ch./Part		PROPOSALS FOR UPDATES	DRAFT EDIT		QUERIES SOLVED BY	FINAL EDIT		APPROVAL OF FINAL EDIT	
P.II	OBSERVING SYSTEMS								
1	Measurements at automatic weather stations	Yes	R. Pannett	Jul 03	J. Van der Meulen	R. Pannett	Oct 03	J. Van der Meulen	Jan 04
2	Measurements and observations at aeronautical meteorological stations	Yes	R. Pannett	Jul 03	J. Van der Meulen	R. Pannett	Oct 03	J. Van der Meulen	Feb 04
3	Aircraft observations	Yes	R. Pannett	Jul 03	R. Dombrowsky	R. Pannett	Oct 03	R. Dombrowsky	Jan 04
4	Marine observations	No							
5	Special profiling techniques for the boundary layer and the troposphere	No							
6	Rocket measurements in the stratosphere and mesosphere	No							
7	Locating the sources of atmospheric	No							
8	Satellite observations	No							
9	Radar measurements	Yes	R. Pannett	Jul 03	R. Dombrowsky	R. Pannett	Oct 03	R. Dombrowsky	Jan 04
10	Balloon techniques	Yes	R. Pannett	Feb 03	R. Dombrowsky	R. Pannett	Apr 03	R. Dombrowsky	June 03
11	Urban observations	New chapter by R.D.Vashistha (needs further review by Prof. T. Oke)	R. Pannett	Jul 03	C. Richter	R. Pannett	Oct 03	C. Richter	Jan 04
12	Road meteorological measurements	New chapter by T. Ladent	R. Pannett	Aug 02	J. Van der Meulen	R. Pannett	Mar 03	J. Van der Meulen	May 03
P.III	QUALITY ASSURANCE AND MANAGEMENT OF OBSERVING SYSTEMS								
1	Sampling meteorological variables	Yes	R. Pannett	Feb 03	R. Canterford	R. Pannett	Apr 03	R. Canterford	June 03
2	Data reduction	No							
3	Quality management	No							
4	Training of instrument specialists	No							
5	Testing, calibration and intercomparison	Yes	R. Pannett	Oct 03	R. Canterford	R. Pannett	Dec 03	R. Canterford	Feb 04