

Report of the CCTF WG on MRA

Dr Mauricio Lopez R (CENAM / CINVESTAV), Chairman

Dr Gianna Panfilo (BIPM), Secretary

21st meeting of the CCTF

BIPM, 8-9 June, 2017

1. Terms of Reference of the CCTF WG on MRA

- a. Authorization on a provisional basis for any action needed between meetings of the CCTF as indicated by the MRA, in consultation with the CCTF President;
- b. Perform coordination activities related to MRA between RMOs;
- c. Act as point of contact for BIPM and JCRB on MRA matters;
- d. Report actions to the next CCTF meeting, the CCTF revising the decisions as required;
- e. Identify areas where additional key comparisons and supplementary comparisons are needed, and develop necessary guidelines and procedures;
- f. Provide guidance on the range of CMCs supported by particular key and supplementary comparisons;
- g. Establish and maintain a list of service categories, and where necessary rules for the preparation of CMC entries;
- h. Agree on detailed technical review criteria;
- i. Coordinate the review of existing CMCs in the context of new results of key and supplementary comparisons.

21st meeting of the CCTF

BIPM, 8-9 June, 2017

2. Members of the CCTF WG on MRA

Members:

J. M. Lopez (Chair of the CCTF WG on MRA)

G. Panfilo (Secretary)

Peter Whibberley (EURAMET)

Chris Mattee (AFRIMET)

Michael Wouters (APMP) until the end of 2017

Aimin Zhang (APMP) since January 2018

Raul Solis (SIM)

Jon Bartholomew (GULFMET)

Vitaly Palchicov (COOMET)

Experts:

Marina Gertsvolf (NRC)

Joseph Achkar (LNE-SYRTE)

Erik Dierikx (VSL)

Huang-Tien Lin (TL)

Gianna Panfilo (BIPM)

21st meeting of the CCTF

BIPM, 8-9 June, 2017

3. CCTF WG on MRA meetings

The WG on MRA meets once in a teleconference meeting hosted by the Paris Observatory on February 17th, 2017. During this meeting the Time and Frequency Supplementary Guide for Appendix B and C of CIPM MRA document was discussed and commented. Several suggestions were made to the guidelines 6, 8 and 9.

The WG on MRA meets the 6 June 2017 before the 21st CCTF meeting to discuss i) the final version of the proposed documents, ii) for the presentation of the new KCDB2.0 and iii) for discussing the new declared supplementary comparison GULFMET.TF-S1.

21st meeting of the CCTF

BIPM, 8-9 June, 2017

4. Feedback of the CCTF on the implementation of the CIPM MRA and revision of the KCDB 2.0

The main activity of the CCTF WG on MRA during this period was concerned to the implementation of the recommendations made by the “working group on the implementation and operation of the CIPM MRA”.

To deal with these recommendations several actions have been undertaken. The work has been organized with the support of a Task Group (TG) which members were nominated for having broader expertise.

21st meeting of the CCTF

BIPM, 8-9 June, 2017

4. Feedback of the CCTF on the implementation of the CIPM MRA and revision of the KCDB 2.0

TG members

Dr J. Mauricio Lopez R
Mr Chris Matthee
Dr Gianna Panfilo
Dr Joseph Achkar
Mr Erik Dierikx
Dr Marina Gertsvolf
Mr Huang-Tien Lin
Dr Rimantas Miskinis

21st meeting of the CCTF

BIPM, 8-9 June, 2017

4. Feedback of the CCTF on the implementation of the CIPM MRA and revision of the KCDB 2.0

The following actions are determined by the CCTF for accomplishing the recommendations made by the “working group on the implementation and operation of the CIPM MRA”.

- 1) Time and Frequency Supplementary Guide for Appendix B and C of CIPM MRA
- 2) Guideline on the CCTF criteria for obtaining traceability in time and frequency
- 3) A report on the state of the relationship between the List of Services and the CMCs declared.
- 4) Consolidate the relationship between the CCTF WG-MRA and the RMO

21st meeting of the CCTF

BIPM, 8-9 June, 2017

5. Guidelines and documents proposed to the CCTF for approval

- a. The *“Time and Frequency Supplementary Guide for Appendix B and C of CIPM MRA”* reports detailed instructions for the declaration of the CMCs. In this document it is proposed to include the WG on MRA and the BIPM Time Department in the CMCs revision process.
- b. The Guideline 6 *“Rules for the participation to the computation of UTC at the BIPM”*. In this guideline the difference of request from the National Metrology Institutes (NMIs), other Institutes located in a Member State of the BIPM or Associate to the CGPM and International organizations signatories of the CIPM MRA is enhanced.
- c. The guideline 8 *“Requirements for the time laboratories for the participation in UTC”* is addressed to the institutes requesting to participate to UTC computation.
- d. The Guideline 9 *“CCTF criteria for obtaining traceability in time and frequency”* provides CCTF criteria for obtaining traceability in time and frequency.

21st meeting of the CCTF

BIPM, 8-9 June, 2017

6. Status of the CMCs for T&F

At May 2017, a total of 50 countries were listed in the KCDB as suppliers of calibration services for Time and Frequency divided as follows, according to the service classification of WGMRA Guideline 1: Time scale difference 38 countries, Frequency 50 countries, Time Interval 43 countries.

The total of CMCs in Time and Frequency recorded in the KCDB are 761. The dates of approval of these CMCs range from 2005 to 2016. It is a common practice of the RMOs to have a CMCs review with 5 years of periodicity.

7. Status of key and supplementary comparisons for T&F

1. Following the decision taken at the CCTF 2012, the CCTF-K001.UTC is published on the KCDB starting from March 2015.
2. A new supplementary comparison has been declared in KCDB denominated by GULFMET.TF-S1.

21st meeting of the CCTF

BIPM, 8-9 June, 2017

8. Proposed tasks for the 21 CCTF meeting

According to the duties assigned to the CCTF WG on MRA and to the activities performed in this term, it is proposed to the 21st CCTF to discuss, and approve if it is the case, the following documents:

- a) Guideline 6 – *“Rules for the participation to the computation of UTC at the BIPM”*
- b) Guideline 8 – *“Requirements of time laboratories for the participation in UTC”*
- c) Guideline 9 – *“CCTF criteria for obtaining traceability in time and frequency”*
- d) *“Time and Frequency Supplementary Guide for Appendix B and C of CIPM MRA”*