

Report of the 31st Meeting of the JCRB

Held on September 18-19, 2013

NIM, Beijing, China

Item	Page
Participants.....	2
3. Report by the Chairman on progress since the 30 th JCRB meeting.....	3
4. Report from the CIPM	4
5. Highlights of the RMO reports to the JCRB:	4
6. KCDB report	5
7. “What is the purpose of the KCDB? What is its impact on NMIs and stakeholders? Who uses it and what are its successes?”	5
8. Status of CMCs submission and review / Issues from Consultative Committees ...	7
9. Procedures to be submitted to the CIPM for approval.....	7
10. “The performance and vitality of DIs”	8
11. Any Other Business.....	9
12. Next Meetings	9
13. Meeting closure.....	10
14. Resolutions, Recommendations & Actions	10

Participants

BIPM-CIPM

Dr Martin Milton..... (Chairman) BIPM
 Dr Robert Kaarls..... CIPM
 Mr. Chingis Kuanbayev (Executive Secretary) BIPM

Delegations

Mr. Mourad Ben Hassine..... AFRIMETS
 Mr. Mohammed Berrada..... AFRIMETS
 Mr. Dennis Moturi AFRIMETS
 Dr Michael Kuehne AFRIMETS
 Dr Peter Fisk..... APMP
 Dr Ilya Budovsky APMP
 Dr Sun Qiao..... APMP
 Mr. Yue Zhang..... APMP
 Dr Jongseon Park APMP
 Dr Pavel Neyezhmakov COOMET
 Dr Sergey Komissarov COOMET
 Dr Vassiliy Mikhailchenko..... COOMET
 Ms. Natalia Sedova COOMET
 Dr Kamal Hossain..... EURAMET
 Dr Maguelonne Chambon EURAMET
 Dr Beat Jeckelmann EURAMET
 Dr Claudia Santo SIM
 Dr Alan Steele SIM
 Dr Claire Saundry SIM
 Dr James Olthoff SIM

1. Welcome by the Chairman and approval of the agenda

The chairman, M. Milton, welcomed the delegates.

Members of the JCRB delegations were then asked to introduce themselves.

The agenda of the 31st JCRB meeting was approved without amendments.

2. Approval of the minutes of the 30th meeting of the JCRB and a review of pending actions.

The minutes of the 30th meeting of the JCRB were approved without amendments.

M. Milton reviewed the actions agreed upon at the 30th meeting noting that the outcomes of Action 30/1 (regarding greying-out and reinstating of greyed-out CMCs) and Action 30/3 (regarding RMO papers on KCDB issues and the Designated institutes performance and vitality) would be reported under agenda items 7, 9 and 10.

M. Milton informed the JCRB that the CIPM had approved the changes to the documents CIPM/2005-06REV, CIPM MRA-D-02, CIPM MRA-G-01, CIPM MRA-D-04 and CIPM MRA-D-05 (updating the references, cross references and resolving minor inconsistencies).

3. Report by the Chairman on progress since the 30th JCRB meeting

M. Milton presented the report on developments at the BIPM since the 30th meeting of the JCRB. Important points in the report included:

- BIPM development of consolidated planning process;
- Streamlining the BIPM publications and website;
- New members of the BIPM and Associates to the CGPM and new signatories to the CIPM MRA.

M. Milton stressed the information on streamlining the BIPM publications and website. The 2012 CIPM Report, the Director's Report and the Rapport *Annuel* were sent as a single set one month earlier than last year. The CIPM Publications page has been re-organized and includes the document "Criteria and Process for Election of CIPM Members" that was agreed at the CIPM meeting. The Membership and Terms of Reference of each of the CIPM sub-committees and ad hoc groups has been published. The information about CIPM Members has been re-organized. The new document on BIPM activities "BIPM Core Data 2012" has been published. The new, reinstated Mission, Role and Objectives have been published. The CIPM report is no longer "verbatim" and it now includes clear and identifiable decisions that are available on line (in French and English) between one or two weeks after each Session. The meeting report on Session I of the CIPM is now made available as soon after the meeting as possible, rather than waiting to be included in Session II. Following Session II an integrated report is generated, incorporating both sessions.

M. Milton also informed the JCRB about 2013 World Metrology Day (WMD), a joint initiative with OIML celebrating 20th of May anniversary of the signing of the Metre Convention. In accordance with the decision at the 30th JCRB meeting, from and including 2014 WMD, RMOs and RLMOs are being asked to develop the poster (in conjunction with BIPM and OIML). Internally the RMOs/RLMOs are free to decide which particular member takes on the task (for example the RMO/RLMO may choose to run a competition etc.). The task for 2014 has been supported by APMP. The likely theme for 2014 proposed by APMP is "Measurements helping solve global energy challenges" and the poster will be produced in conjunction with KRISS (Republic of Korea).

4. Report from the CIPM

R. Kaarls gave a presentation that included the following points:

- New Member States of the BIPM and Associates to the CGPM;
- Changes in membership of the CIPM;
- Outcomes from Session I of the 102nd Meeting of the CIPM in June 2013;
- Issues reported by the CIPM Sub-Committees and WGs;
- Development of a strategy for the BIPM, strategy documents prepared by CCs;
- Preparation of draft Resolutions for the 25th CGPM in November 2014.

5. Highlights of the RMO reports to the JCRB:

5.1. SIM

C. Santo presented the highlights of the SIM report. She stressed the status of SIM comparisons where 9.2% of key comparisons have 3 or more years of delay (20% report in draft A status, 80% no report) and 5% of supplementary comparisons have 3 or more years of delay (33 % report in draft A status, 67 % no report). The report generated considerable interest and the JCRB, as a result of the discussion, proposed the following action:

Action 31/1: BIPM to develop an electronic format for the form "Key and supplementary comparison registration form" in order to improve the accuracy and consistency of the information relating to KC status on the KCDB.

5.2. EURAMET

K. Hossain presented the highlights of the EURAMET report.

5.3. COOMET

P. Neyezhnikov presented the highlights of the COOMET report.

5.4. APMP

P. Fisk presented the highlights of the APMP report.

The JCRB delegates were deeply saddened to hear that Dr. Laurie Besley, Chair of APMP, had passed away. The delegates heard a tribute from Dr Fisk and expressed their sympathy to his family.

5.5. AFRIMETS

M. Ben Hassine presented the highlights of the AFRIMETS report.

[The individual RMO presentations were uploaded to the restricted-access JCRB working documents webpage immediately after the meeting.]

6. KCDB report

On behalf of Dr C. Thomas, C. Kuanbayev presented brief information on the status and highlights of the work at the KCDB Office over the past six months. The information included the following points:

- As at 1st of September 2013, the KCDB included a total of 24 278 CMCs. EURAMET CMCs in EM have been re-formatted and re-arranged in order to create one (or very few) CMC(s) for each “sub-sub category” of the Classification of Services in EM. The KCDB thus “lost” more than 1600 CMCs (6.7% of the total) in EM. The total number of CMCs has been decreased for the first time since eight years by around 1300 (as there were some 300 other CMCs published in other fields).
- 280 CMCs are currently greyed out, 19 CMCs of which have been greyed out since the 30th meeting of the JCRB. 1 CMC in EM from Italy was re-instated in the KCDB on 15 May 2013;
- As at 1st of September 2013, there remained only 1 CMC greyed-out from the KCDB more than five years ago (Mexico, in RI, Neutron measurements);
- Only 18 Associates over the 36 Associates who have already signed the CIPM MRA have CMCs currently published in the KCDB;
- 64.5% of the total 1214 comparisons (key and supplementary) have their reports published in the KCDB; about 2010 graphs of equivalence are currently available.

Dr Milton noted that these changes in the EURAMET CMCs in EM are encouraging: they are easier to handle, review and to publish, and they are easily comparable. He encouraged other RMOs to consider this or other rationalization routes.

7. “What is the purpose of the KCDB? What is its impact on NMIs and stakeholders? Who uses it and what are its successes?”

This session had been decided on at the previous JCRB and each RMO had been asked to, and duly submitted, a paper on this issue. These papers were circulated ahead of the meeting.

M. Milton opened the discussion and asked RMO delegates to present their views.

Overall RMOs presented their positive responses to the questions on the KCDB. According to RMOs, the information in the KCDB, such as results of comparisons and CMCs are important firstly for the NMIs to recognize the results of key and supplementary comparisons and CMCs as it mentioned throughout the text of the CIPM MRA, secondly for the accreditation bodies in order to ascertain if claimed uncertainties of laboratories are in line with the capabilities of the claimed traceability source, and for accredited calibration laboratories in need of traceability to identify a suitable calibration and measurement service provider.

Also there were some comments and suggestions: Sometimes the government uses the KCDB as an indicator of NMI/DIs activities by the number of participations in the comparisons and the number of CMCs published in the KCDB. This can be a driver to artificially divide capabilities to increase the number of declared CMCs.

The concept of “how far the light shines” should be improved as a tool to simplify the peer review and approval of acceptance of CMCs. If each key comparison includes a proper statement on the issue, CMCs may be claimed accordingly with a minimum of review.

In some cases, not all NMIs' calibration and measurement services are listed in the KCDB because not all measurement capabilities of an NMI need to have international recognition. It was stated that in these cases the CIPM MRA should not become a barrier for the recognition of an NMI's capabilities at the national level.

As the next step in the evolution of the KCDB, RMOs support a scoping study into a web-based CMC review for the input and sharing of CMC declarations.

In their paper APMP had requested that statistics on the hits to the KCDB website from countries/economies in the APMP region are made available. Brief statistics regarding the number of visits (by % per countries/economy) to the database had been prepared by KCDB Coordinator and were shown during the discussion. The numbers cover the period 1st January 2013 to 23rd August 2013 and cover a total of about 80 000 visits. APMP would have liked to have known the balance between visits from NMIs/DIs and visits from non NMIs/DIs, but it is not currently possible to provide this data. The discussion then focused around the need for more KCDB user data.

At the end of discussion, M. Milton advised that he expected a draft resolution to be put to the CGPM in 2014 for discussion, the idea being to initiate a wider review of the CIPM MRA.

After the discussion, the JCRB agreed to the following action in order to obtain information about origins of enquiries:

Action 31/4: BIPM to investigate the feasibility of introducing a “pop-up questionnaire” into the KCDB to obtain information about the origins of enquirers (e.g. is the visitor to the KCDB from an NMI, industry, a calibration laboratory etc.).

8. Status of CMC submission and review / Issues from Consultative Committees

C. Kuanbayev made a presentation on status of CMC submissions and the JCRB website. He informed that the JCRB website has incorporated the changes in deadlines of the review process according to the Resolution 30/1.

Please be aware, and disseminate within the RMO, that according to the Resolution 30/1 of the 30th JCRB meeting:

- *The time to indicate "intention to review" has been reduced from 6 to 3 weeks (with a reminder after 2 weeks);*
- *The deadline chosen by RMO for submission its review report has been made as a "hard deadline" (with a reminder 3 weeks before);*
- *The deadline for approval of CMCs has been reduced from 6 to 3 weeks (with a reminder after 2 weeks).*

The status of CMC sets that have been stalled, either "in progress" since 2006, 2010, 2011 or as not approved CMC sets, which are waiting for approval have been presented. C. Kuanbayev asked all RMOs to address stalled CMC sets as soon as possible.

To improve the efficiency of the inter-RMO review of CMCs the steps which have prescribed deadlines have now had those deadlines shortened. However there are no specified deadlines for the submission of the RMO review report (because CMC set size and complexity, and thus the workload, can vary widely). In these circumstances each RMO TC/WG Chair chooses its own deadline. However C. Kuanbayev noted that in some cases RMO TC/WG chairs have chosen deadlines for submission that are longer than two or even three months. After a discussion on the status of CMCs, the JCRB adopted the following action:

Action 31/5: RMOs will review the status of stalled CMCs on the JCRB website and will advise the JCRB Executive secretary whether stalled CMC sets can be abandoned, or whether the RMO will progress the set. (RMO secretaries can track the status of CMCs on the "RMO actions pending" page (<http://www.bipm.org/JCRBCMCs/CMCsStatus.jsp>) of the JCRB website in order to avoid CMCs stalling in the inter-regional review process).

9. Procedures to be submitted to the CIPM for approval

C. Kuanbayev made a brief presentation on proposed changes to the CIPM MRA-D-04, which consists of improving clarity of the requirements and adding of a new Section "12. Greying-out of published CMCs". The new section has been developed according to the Action 30/1.

Recommendation 31/1: The JCRB recommends to the CIPM to approve changes to the guidance document CIPM MRA-D-04 by adding a new Section "12. Greying-out of published CMCs".

10. “The performance and vitality of DIs”

This session had been decided on at the previous JCRB and each RMO had been asked to, and duly submitted, a paper on this issue. These papers were circulated ahead of the meeting.

M. Milton opened the session and asked RMO delegates to present their papers on the role of DIs within the CIPM MRA.

EURAMET explained their situation and gave some observed issues in EURAMET regarding DIs. Maintenance of the CIPM MRA via the CMC recognition procedure is a resource intensive process. This represents a burden on the RMOs and NMIs providing reviewers; expert time is provided at no charge. With the growing number of DIs the administrative burden for EURAMET, and in particular the workload in the TC-Q for reviewing the QMS of a high number of institutes (currently over 100) is considerable. One should consider that the workload for reviewing the QMS of a small DI is similar to that for a large one or an NMI. Diverging interpretations are observed concerning the “scope” of the CIPM MRA, for example the difference between testing and calibration services. In particular, this may be an issue for small DIs within larger organizations, which do not have metrology as their principal “business field” of the organization. With the increasing number of DIs, in particular of small DIs with a very limited scope of designation, the risk of fragmentation of the European metrology landscape and of overlapping activities among DIs in the same country is increasing. DIs have often to provide complementary finances from their own budget to maintain their national standards, which might come from various sources. A sufficient central national budget for national standards is generally not available, putting considerable risk on the sustainability of the established national measurement standards. EURAMET requested comments from the other RMOs with a view to improving the paper and eventually adopting it within EURAMET.

Action 31/2: RMOs to submit comments, if any, on the EURAMET document “Role of DIs within the CIPM-MRA” within one month, in order that EURAMET can improve the document for possible wider use.

At present new DIs receive a letter which explains the expectations and obligations of being a DI. However this can only be sent after the DI has been notified to the BIPM, by which time they have already been designated. The BIPM suggested that it would be better if the same information were made available before designation. C. Kuanbeyev had therefore prepared a revision to the old “Request for Designation Information” form, transforming it into a two part document. The first part contains the information on the expectations and obligations of being a DI, the second part is the “Nomination of Designated Institute” form, which ensures that sufficient information is submitted when a nomination occurs. The form includes important new notes to ensure there is no ambiguity regarding the scope of the designation. The JCRB supported the new approach.

At the end of the discussions, the following recommendation was agreed:

Recommendation 31/2: The JCRB approves the proposed form for the nomination of designated institutes (subject to two editorial improvements) and requests it be approved by the CIPM. (The editorial changes are: to allow space for the name of a legal entity for a DI, when necessary, and moving the listing of metrology areas to the footnote).

11. Any Other Business

EURAMET presented a draft paper for JCRB consideration “Towards a sustainable CIPM MRA”. The paper proposes the three step process to move forward in the development of the CIPM MRA towards a more sustainable system, such as to define the needs, simplify the system and improve the efficiency. All RMOs supported the EURAMET paper and considered that it could form the basis, subject to further discussion, of a pan RMO paper contributing to the development of the CIPM MRA.

R. Kaarls informed the JCRB that there is an inter RMO working group on support to developing NMIs. The WG meeting has met twice, in Mongolia and again at the PTB in March 2012. At the last meeting of the WG it was decided that they will have other meeting in 2 years. He asked RMOs, whether they will continue the activities of the WG, or not. JCRB delegates answered that it is a not a task of the JCRB, the Chairs of RMOs are responsible for this.

At the end of the discussions, the JCRB decided on the following:

Action 31/3: RMOs to each submit the name of an individual to contribute on their behalf to the development of the EURAMET paper “Towards a sustainable CIPM-MRA”. Names to be submitted to the JCRB Executive Secretary within two weeks. This extended paper to be developed by EURAMET and submitted to the 32nd meeting of the JCRB where it will be an agenda item.

12. Next Meetings

M. Milton opened a discussion on the frequency of the JCRB meeting. He asked for the RMOs views, as to whether the JCRB should meet once a year, or twice a year. SIM and COOMET preferred to continue with two meetings a year, EURAMET preferred to move to a single meeting per year, AFRIMETS and APMP did not express strong views and would be happy with either solution.

Finally JCRB decided to discuss this issue again at the 32nd JCRB meeting in March 2014 after the discussion the EURAMET paper “Towards a sustainable CIPM MRA”.

Resolution 31/1: The 32nd meeting of the JCRB will take place on March 26 and 27, 2014 at the BIPM.

13. Meeting closure

M. Milton thanked the delegations for their continuous support to the CIPM MRA process and for their active participation in the meeting.

Having no further issues for discussion, the meeting was closed.

14. Resolutions, Recommendations & Actions

Recommendation 31/1: The JCRB recommends to the CIPM to approve changes to the guidance document CIPM MRA-D-04 by adding a new Section “12. Greying-out of published CMCs”

Recommendation 31/2: The JCRB approves the proposed form for the nomination of designated institutes (subject to two editorial improvements) and requests it be approved by the CIPM. (The editorial changes are: to allow space for the name of a legal entity for a DI, when necessary, and moving the listing of metrology areas to the footnote).

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Action 31/4: BIPM to investigate the feasibility of introducing a “pop-up questionnaire” into the KCDB to obtain information about the origins of enquirers (e.g. is the visitor to the KCDB from an NMI, industry, a calibration laboratory etc).

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