



REPORT ON THE NINETEENTH MEETING OF THE JCRB

Held on 27-28 September, in Ottawa, Canada

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0. Participants

<i>Name/<u>email</u></i>	<i>RMO</i>
William Anderson	SIM
Steve Carpenter	SIM
Ajchara Charoensook	APMP
Luc Érard	EURAMET
Pedro Espina	(Executive Secretary) BIPM
Ichiro Fujima	APMP
Ignacio Hernandez	SIM
Keith Jones	(Representative) APMP
Robert Kaarls	CIPM
Joel Kioko	SADCMET
Sergey Komissarov	COOMET
Sergey Korostin	COOMET
Vladimir N. Krutikov	(Representative) COOMET
Wynand Louw	SADCMET
Stanislav Musil	COOMET
Luis Mussio	(Representative) SIM
Akira Ono	APMP
Claire Saundry	SIM
Wolfgang Schmid	(Alternative Representative) EURAMET
Michael Streak	(Representative) SACDMET
Alan G. Steele	SIM
Andrew Wallard	(Chairman) BIPM
Woo Gab Lee	APMP

1. Welcome by the Chairman and changes to the agenda

The Chairman welcomed the delegates and asked all to introduce themselves. The chairman invited changes to the agenda (see [JCRB-19/01](#)) and after a small change, the agenda was accepted.

2. Approval of the minutes and discussion on matters arising from the report of the 18th meeting held at Muldersdrift, South Africa

The Chairman asked for modifications to the minutes of the 18th meeting ([JCRB-19/02](#)) and they were accepted without change.

3. Report by the Chairman on progress since the 18th meeting

The progress on the Actions from the 18th meeting was presented by the Executive Secretary using the following PowerPoint presentation (see [JCRB-19/03](#)).

On the matter of JCRB Action 18-2 – *RMOs are to develop a process to monitor changes to the CMCs from their NMIs after the results of a comparison* – Luc Énard informed the Joint Committee that EURAMET has a new procedure for reviewing the implications of Key Comparison results on published CMCs as part of their quality system review. Bob Kaarls questioned the efficacy of this procedure as the reviews of laboratory quality systems only happen every five years. Bill Anderson explained that the review of the implications of Key Comparison results on CMCs will not be done as part of the 5-year full quality system review, but rather, as part of the annual quality system report that all laboratories provide to their respective RMOs or the International Panel that reviews the quality systems of the IGO laboratories that participate in the CIPM MRA. Bob Kaarls welcomed the clarification but remained concerned as in the case of SIM, the QSTF does not look into technical matters and thus might not have the technical skill needed to evaluate the full implications of the results of Key Comparisons on published CMCs. Bill Anderson agreed but explained that in those cases, the SIM QSTF would welcome the aid of the SIM TCs.

Bill Anderson went on to say that it is the responsibility of each RMO to devise a policy that effectively deals with these situations. Alan Steele asserted that the SIM process mirrors that of EURAMET, but he stressed that the review of the implications of Key Comparison results on published CMCs is the responsibility of the CC WGs on CMC because these reviews are technical in nature. Luis Mussio declared that in addition, the

implications of the results from RMO Key Comparisons, Supplementary Comparisons, and Bilateral Comparisons should also be equally considered. Alan Steele said that the CCs WG on CMC report to the Presidents of the CCs, but discussions of the results of RMO KC and Bilateral Comparisons are increasingly moving towards the consideration of the CCs WG on CMC as well. Keith Jones asserted that the RMO review and the review by the CC WG on CMC are parallel paths and went on to remind the Joint Committee that the entire CIPM MRA process is based on trust and questioning the honesty of the process might lead to its unravelling.

Sergey Korostin explained that detecting a problem that derives from the results of a comparison is not a trivial matter, as it is not always clear how far the light shines for each comparison result. In his opinion, the Pilot Laboratory is in a unique position to detect problems and in those cases, the Pilot Laboratory should inform the CC WG on CMC and RMO TC with jurisdiction over the KC. Bob Kaarls reflected that if indeed the process is moving towards the CC WG on CMCs then perhaps the JCRB inter-RMO review of CMCs might no longer be needed as it would be best for the two tasks to be executed by the same body. Luis Mussio reminded the Joint Committee that it ought not to develop a policing system, but rather a monitoring system – the Joint Committee should preserve its long-standing posture of “innocent until proven guilty”. Alan Steele supported this position by saying that the Joint Committee counts on the honesty of the NMIs when they make a claim of delivery of service however, this does not replace the inter-RMO review process.

The chairman tried to summarize the discussion by stating that the process should be based on trust and reasserting that the primary responsibility lies with the NMI. The Pilot Laboratory might suggest the presence of a problem via a report to the CC WG on CMCs and RMO, but the ultimate check will be that imposed by the RMO annual report on the health of the quality systems of its NMIs. Luc Énard lamented the increased number of report required to meet the requirements of the CIPM MRA.

Recommendation 19/ 1 The JCRB recommends the adoption of a new policy on the reporting of the implications of comparison results on published CMCs.

- 1. The Pilot Laboratory will send a letter to the NMI alerting them to any potential problems in their results for the comparison. This letter will be copied to the NMI’s RMO, the CC WG on CMC ([JCRB-11/6\(2\)](#)) with jurisdiction over the comparison, the JCRB and the President of the CC.**

2. Within 90 days, the RMO is to send a letter to the CC WG on CMC, the JCRB and the President of the CC (with copy to the NMI) stating the action plan for correcting any potential problems. A resolution statement, in the next RMO annual report on the status of quality systems, will follow stating the results of the corrective action. In those cases when the action plan fails to resolve the problems within 6-months, the RMO will request from JCRB the temporary removal of the CMCs from the KCDB.
3. The RMO shall request from the JCRB the reinstatement of temporarily removed once the corrective action has been implemented.
4. The President of the CC shall inform the CIPM of the incident as part of his/hers annual report.

Action 19/ 1 The policy stated in Recommendation 19/ 1 is to be included in the flowchart of the key comparison process ([JCRB-11/2\(a\)](#)) available in the open-access documents section of the JCRB website. (*Executive Secretary*)

On the matter of JCRB Action 18-4 – *make the uncertainty of the measurement services of the BIPM more visible and clearer in the BIPM website and other BIPM publications* – the Joint Committee makes the following recommendations.

- Recommendation 19/ 2** The JCRB recommends that the uncertainty statements of the BIPM's calibration and measurement capabilities should appear more prominently in the BIPM website and in the KCDB.
- Recommendation 19/ 3** The JCRB recommends that the BIPM quality system should be presented to the International Panel on March 2008, following the guidelines outlined in the document *Guidelines for the Review of CMCs and the Monitoring and Reporting of the Operation of Quality Systems by International Intergovernmental Organizations Who Are Signatories of the CIPM MRA (CIPM/06-03)*, and that the International Panel report its impressions to the CIPM no later than 60-days prior to the 2008 CIPM meeting.

On the matter of – *the traceability of NMI laboratory instrumentation via a calibration certificate provided by an accredited laboratory* – the Joint Committee developed the following recommendation.

Recommendation 19/ 4 The JCRB recommends that for purposes of publishing CMC in the KCDB the following guidelines on traceability be followed:

1. an NMI taking traceability for the entire calibration of its national standard from

- another laboratory must choose either the BIPM or another NMI signatory to the CIPM MRA having an independent realization of the SI unit or quantity at the appropriate level of uncertainty and having published CMCs in the relevant area;
2. an NMI taking traceability in this way must still make a full assessment of the uncertainties involved in its calibration activity and must openly declare its chosen traceability route when providing its CMCs for regional and inter-regional reviews;
 3. NMIs are free to make use of certificates from laboratories appropriately accredited by a signatory to the ILAC Arrangement for calibration of instrumentation, major reference standards, or measurement systems which form part of its national realizations provided that the uncertainty of such calibrations has only a minor influence on the total combined uncertainty of the CMC.

Action 19/ 2 The policy stated in Recommendation 19/ 4 should be discussed during the 2008 RMO-RAB prior to its recommendation to the CIPM. *(Executive Secretary)*

4. Report on the present status of the [KCDB](#)

In the absence of Claudine Thomas, the Executive Secretary highlighted the KCDB report to the JCRB ([JCRB-19/04](#)) for the Joint Committee.

Luis Mussio explained that on 10 August 2007, LATU ([UY](#)) requested the temporary removal of their CMCs from the KCDB because the NMI decided to end its third party accreditation and move towards self-declaration. LATU's management considered that this unprecedented change represented a mayor disruption in their operations and therefore it was appropriate to temporary remove their CMCs from the KCDB until the Joint Committee had decided the best course of action in these cases. However, the RMOs thought that such voluntary removal of CMCs from the KCDB was extreme as, in principle, a change from third-party accreditation to self-declaration does not constitute a change in the NMI's quality system, but rather, a change in its evaluations. The Joint Committee was in favour of a 1-year grace period in these cases and requested that the RMOs clearly state such changes in the method for review of an NMI's quality system in their annual reports to the JCRB on the status of the quality systems of its NMIs.

Resolution 19/ 1 NMIs wishing to change the method of evaluation of their quality systems (see CIPM MRA, section 7.3, pp. 35 {English version}) will have a 1-year grace period to make the change. The RMOs are to inform the Joint Committee of such changes in their annual report on the status of the quality systems of their NMIs. Changes requiring more than 1-year to implement will necessitate the temporary removal of the NMI's CMCs from the KCDB.

5. Reports by RMO representatives to the JCRB

(5.1) BIPM

The Chairman presented the BIPM report to the JCRB ([JCRB-19/05.1p](#)).

(5.2) APMP

Keith Jones presented the APMP report to the JCRB ([JCRB-19/05.2](#)). As part of his report, APMP announced that their 2008 General Assembly would be held in Indonesia on 3-6 November 2008 in Indonesia.

(5.3) COOMET

Sergey Korostin presented the COOMET report to the JCRB ([JCRB-19/05.3](#)).

(5.4) EURAMET

Wolfgang Schmid presented the EURAMET report to the JCRB ([JCRB-19/05.4](#)). Luc Énard announced that EURAMET has already developed a template for its annual report of NMI quality systems. They have a web-based logbook where they record all quality system evaluations. The Chairman requested that the RMO annual reports on quality systems be appended to the RMO reports to the JCRB.

Action 19/ 3 RMO annual reports on quality systems are to be appended to their JCRB reports. (RMOs)

(5.5) SADC MET

Michael Streak presented the SADC MET report to the JCRB ([JCRB-19/05.5](#)). This report was followed by a report on AFRIMETS by Wynand Louw ([JCRB-19/05.5p2](#)). The Chairman to advantage of the opportunity afforded by Wynand Louw's

presentation to remind the RMOs to keep the KCDB Office current on the status of KCs.

Michael Streak announced that SADC MET is to hold its 2008 General assembly on 5-9 May in Cape Town (SA).

Action 19/ 4 Keep the status of KC current in the KCDB by sending the latest information to the KCDB Office. It is suggested that the RMOs do this at least prior to each JCRB meeting. (RMOs)

(5.6) SIM

Prof. Mussio presented the SIM report to the JCRB ([JCRB-19/05.6](#)). As a consequence of the discussion, the Joint Committee decided that the document *Suggested Content of RMO Report to the JCRB* ([JCRB-18/03.7](#)) should be amended.

Action 19/ 5 Amend the document *Suggested Content of RMO Report to the JCRB* ([JCRB-18/03.7](#)). (Executive Secretary and Luis Mussio)

6. Report on current CMC and KC reviews in the JCRB website

According to the Executive Secretary the only CMC set currently undergoing inter-RMO review and in need of attention was [APMP.L.4.2006](#), which was last updated on 2006-09-08. The action for this review rest with APMP.

Action 19/ 6 Post a revised file for [APMP.L.4.2006](#) in the [JCRB CMC Site](#). (APMP)

7. Report on the BMC/CMC issue

The Chairman spoke on the history of the development of the [new definition](#). He said that notes 5a, 5b and the issue of certified reference materials (CRMs) were finalized during a meeting of the BMC/CMC joint group held during the 2007 NCSLI conference in Minneapolis, Minnesota (US). The Chairman said that Alan Squirrel was circulating the final draft of the definition among the ILAC community, looking for final approval during the ILAC GA to be held in October 2007 in Sydney (AU). For its part, the Chairman intends to take the final draft of the new definition to the CIPM during their next meeting to be held in November 2007, in Paris (FR). Once approved by both, the

accreditation and metrology communities, the Chairman and Alan Squirrel will write a cover letter for the definition and circulate it to all stakeholders worldwide.

The Chairman praised the accreditation community for their willingness to abandon the term BMC in benefit of the term CMC.

Sergey Korostin was of the opinion that testing CMCs are also calibration services and yet they are not considered in the new CMC definition. He asked if it would be possible to consider measurement services in a future version of the definition. The Chairman was of the opinion that the CIPM MRA system should be able to accommodate measurement services as well. Bob Kaarls asked Sergey Korostin for a clarification on the difference between a calibration and a measurement service. Sergey Korostin tried to explain using an ionizing radiation service example. Alan Steele explained that the new CMC definition does not differentiate between measurement and calibration services and therefore should be OK. Bob Kaarls explained that the term CMC was developed to talk about the delivery of measurement traceability which can only be done via a calibration or a measurement; testing does not provide traceability but rather determines the capability of an instrument to perform a prescribed function. Sergey Korostin said that he liked the new definition of the term CMC, but said that in the future, thinking about its implementation would be critical.

Recommendation 19/ 5 The JCRB recommends the adoption of the [new CMC definition with its accompanying notes](#).

Resolution 19/ 2 The JCRB praises the accreditation community for their willingness to adopt the term CMC.

8. Guide to the implementation of the CIPM MRA

The Executive Secretary explained that developing the Guide to the implementation of the CIPM MRA ([JCRB-19/08](#)) has been difficult since the CIPM recommended on their 95th meeting (October 2006) that the text of the CIPM MRA and of later guidelines be quoted. The Executive Secretary said that that made the document extremely difficult to read as it was a patchwork of disconnected text written by a gamut of authors instead of a concise summary of the CIPM MRA process as envisioned. After some discussion, the Joint Committee agreed that a collage of quotes of previous text might confuse most

readers and reinstated their wish for a short concise summary of the CIPM MRA process.

The Executive Secretary said that it was important to remove any references to numbers that change in time (e.g., the number of Member States and Associates, and the number of CMCs and KCs). Wolfgang Schmid said that it would be useful to explain the purpose of the document in its forward. The Executive Secretary explained that another problem exists is the way in which, the number of JCRB and CIPM documents change as a function the meeting in which they were last modified. This creates problems as other documents that refer to them, also need to be modified whenever the original document is changed. Alan Steele said that it would be very useful to have a master list of the CIPM MRA documents and suggested that a numbering system similar to that use in the quality manuals be used. Alan Steele suggested that the Guide only quoted the essential portions of the CIPM MRA and other related documents to improve the readability of the final product.

Action 19/ 7 Make a number of changes to the *Guide to the implementation of the CIPM MRA* ([JCRB-19/08](#)): *(Executive Secretary)*

1. remove any references to numbers that change in time;
2. explain the purpose of the document in its forward;

Action 19/ 8 Create a master list of the CIPM MRA related documents using a numbering system similar to that use in the quality manuals. *(Executive Secretary)*

Recommendation 19/ 6 The JCRB recommends that the *Guide to the implementation of the CIPM MRA* ([JCRB-19/08](#)) shall only quote the essential portions of the CIPM MRA and other policy and guideline documents to improve its readability.

9. Proposed changes to the rules of procedures of the JCRB

The Executive Secretary introduced the new rules of procedure for the Joint Committee as contained in document [JCRB-19/09](#). Keith Jones asked that the mandate of the JCRB includes items other than the CIPM MRA like coordination of technical cooperation aimed at the development of metrology in countries in economies on transition and development. Bob Kaarls said that it is important to keep the direct communication on this topic that now takes place between the Directors of NMIs and the BIPM.

The delegates proceeded to make changes to JCRB-19/09 that resulted in a new version. The Executive Secretary was instructed to distribute the new version and consolidate comments and changes for two weeks. The chairman was instructed to alert the CIPM to the existence of the new rules of procedure of the Joint Committee.

Action 19/ 9 Distribute the new rules of procedure and collect and consolidate changes for two weeks. *(Executive Secretary)*

Action 19/ 10 Inform the CIPM of the new rules of procedure of the JCRB ([JCRB-19/09.final](#)).
(Chairman)

10. NMI reports on progress since CIPM MRA workshop in South Africa

(10.1) Costa Rica

The Executive Secretary summarized the current situation in LACOMET as contained in [JCRB-19/10.LACOMET](#). The Joint Committee asked that SIM brings to the attention of the other RMOs of the needs of LACOMET for comparisons and that the other RMOs help meet those needs if possible.

Action 19/ 11 SIM is to inform all other RMOs of the comparisons needs of LACOMET. *(SIM)*

Action 19/ 12 RMOs are to help LACOMET meet its current needs for comparisons by inviting them to participate in RMO KCs and/or bilateral comparisons as appropriate.
(RMOs)

(10.2) Croatia

The Executive Secretary summarized the current situation in DZM and LPM as contained in [JCRB-19/10.HR](#).

(10.3) Egypt

The Executive Secretary summarized the current situation in NIS as contained in [JCRB-19/10.NIS](#). NIS is to have a peer-review assessment, led by EURAMET, during the first week in January 2008. EURAMET requested the participation of a quality assessor from another RMO. APMP honoured this request by offering the participation of Ajchara Charoensook during the NIS peer-review assessment.

Resolution 19/ 3 Ajchara Charoensook, from APMP, is to support the peer-review evaluation of NIS to be conducted by EURAMET on January 2008.

(10.4) Kazakhstan

The Executive Secretary summarized the current situation in KazInMetr as contained in [JCRB-19/10.KazInMetr](#).

(10.5) Kenya

The Executive Secretary summarized the current situation in KEBS as contained in [JCRB-19/10.KEBS](#).

(10.6) Vietnam

The Executive Secretary summarized the current situation in VIM as contained in [JCRB-19/10.VMI](#).

11. Other JCRB business

Luc Érard, new president of the CCTF, explained that during the last CCTF meeting the CC they tried to form a new WG for CMCs but there had been little support for it. Luc Érard requested the support of the RMOs for the formation of such a working group.

On the occasion of their last participation on a JCRB meeting, the Joint Committee thanked Steve Carpenter, Ichiro Fujima and Keith Jones for their services to the JCRB.

Action 19/ 13 RMOs are to nominate members for the new CCTF WG on CMCs. (RMOs)

Resolution 19/ 4 The JCRB thanked Steve Carpenter, Ichiro Fujima and Keith Jones for their services to the Joint Committee.

12. Next Meetings

(12.1) Next meeting: Wellington, New Zealand, May 1-2, 2008

The next meeting of the Joint Committee is to be held in Wellington (NZ) on 1-2 May 2008. Keith Jones made a presentation on the plans for the JCRB meeting in Wellington ([JCRB-19/12.1](#)) which will be preceded by a workshop on metrology in New Zealand.

Resolution 19/ 5 The second meeting of the JCRB will be held in Wellington, New Zealand on May 1-2, 2008.

(12.2) 2nd 2008 meeting: BIPM, Sèvres, France

The Joint Committee decided to hold its second meeting of 2008 at the BIPM in Sèvres, France on September 2008. Final schedule will be decided upon once SIM has finalized the schedule for its General Assembly to avoid conflict.

Resolution 19/ 6 The second meeting of 2008 will be held at the BIPM in Sèvres, France on September 2008.

13. Meeting closure

ACTIONS

<i>Item</i>		<i>Page</i>
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Action 19/ 2	The policy stated in Recommendation 19/ 4 should be discussed during the 2008 RMO-RAB prior to its recommendation to the CIPM. (<i>Executive Secretary</i>).....	6
Action 19/ 3	RMO annual reports on quality systems are to be appended to their JCRB reports. (<i>RMOs</i>)	7
Action 19/ 4	Keep the status of KC current in the KCDB by sending the latest information to the KCDB Office. It is suggested that the RMOs do this at least prior to each JCRB meeting. (<i>RMOs</i>)..	8
Action 19/ 5	Amend the document <i>Suggested Content of RMO Report to the JCRB</i> (JCRB-18/03.7). (<i>Executive Secretary and Luis Mussio</i>)	8
Action 19/ 6	Post a revised file for APMP.L.4.2006 in the JCRB CMC Site. (<i>APMP</i>).....	8
Action 19/ 7	Make a number of changes to the <i>Guide to the implementation of the CIPM MRA</i> (JCRB-19/08): (<i>Executive Secretary</i>).....	10
Action 19/ 8	Create a master list of the CIPM MRA related documents using a numbering system similar to that use in the quality manuals. (<i>Executive Secretary</i>)	10
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Action 19/ 10	Inform the CIPM of the new rules of procedure of the JCRB (JCRB-19/09.final). (<i>Chairman</i>)	11
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RESOLUTIONS

<i>Item</i>		<i>Page</i>
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Resolution 19/ 2	The JCRB praises the accreditation community for their willingness to adopt the term CMC. 9
Resolution 19/ 3	Ajchara Charoensook, from APMP, is to support the peer-review evaluation of NIS to be conducted by EURAMET on January 2008. 12
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Resolution 19/ 5	The second meeting of the JCRB will be held in Wellington, New Zealand on May 1-2, 2008. 13
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RECOMMENDATIONS

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