

KCDB REPORT TO THE 17th JCRB MEETING

Information registered in the [KCDB](#)

[Appendix B](#) of the database now covers 547 key comparisons and 138 supplementary comparisons. The rate of new registration has been slowing down over the last six months.

Among the 547 key comparisons that are registered:

- 88 correspond to exercises prior to the implementation of the CIPM MRA, and will never have results published in the KCDB (they were “Approved for provisional equivalence”, and
- 219 have their Final Reports approved and posted in the KCDB, providing a total of about 730 graphs of equivalence displayed in the KCDB (on 21 March 2006, this number was 680).

The results of 43 RMO key comparisons (against 35 at the time of last JCRB meeting) - 17 conducted by APMP, 1 by COOMET, 23 by EUROMET, and 2 by SIM - are published in the KCDB. Linkage has also been carried out for seven bilateral key comparisons subsequent to full-scale CC key comparisons; their results are added on the appropriate graphs of equivalence.

A number of key comparison results are regularly updated. These mainly concern the ongoing BIPM key comparisons in [electricity](#) and on [radionuclide activity](#). In addition, new data concerning the computation of Coordinated Universal Time, UTC (key comparison [CCTF-K2001.UTC](#)), are published every month.

Appendix C

On 13 September 2006, 18 436 CMCs were published in [Appendix C](#) of the KCDB:

- 11 632 in general Physics,
- 3 245 in Ionizing Radiation, and
- 3 559 in Chemistry.

This is an additional 400 CMCs compared to the time of last JCRB meeting. These mainly concerns claims from countries that are associates of the CGPM (see details in the [Appendix C news](#)). Though Appendix C contains CMCs belonging to all global fields of metrology, some sub-fields, such as Humidity for instance, are not yet covered at all.

Following the decision of the JCRB at its 14th meeting, held in Minsk in May 2005, 723 CMCs (79 from APMP, zero from COOMET, five from EUROMET, 94 from SADC MET, and 545 from SIM – see details in the [KCDB Report to the 15th JCRB meeting](#)) that were not covered by an approved Quality System were deleted from the KCDB in July 2005. Since then, the following sets of CMCs have been reinstated:

- 94 CMCs from SADC MET (60 in PR, and 34 in EM, all from South Africa) on 10 October 2005,
- 124 from SIM (6 in EM from Mexico, 33 in M and 4 in T from Chile, 33 in RI from Argentina, 43 in EM from Canada in May 2006, and 5 in T from Canada on 18 September 2006)
- none from APMP, and
- none from EUROMET.

Please note that no CMCs from COOMET (of any metrology areas) and no CMCs in Chemistry (of any regions) have ever been deleted.

Recently EUROMET alerted the JCRB that 11 CMCs (3 in Fluid Flow, and 8 in AUV) from Greece were not covered by an approved QS. These were deleted from the Appendix C database on 05 September 2006.

The situation concerning deletion and reinstatement of CMCs is summarized in Annex 1.

Please note that the CMCs that were published in the KCDB, but that are currently deleted, are distinguished by a grey background in the EXCEL files. These EXCEL files are made available in the part "Get Published CMCs" of the access-restricted JCRB CMCs web site.

As already mentioned in previous reports, in addition to publication of newly approved data, we undertake a daily update to respond to small corrections (mainly editorial, including change of laboratory names), minor changes (increase of uncertainty values, reduction of the measurement ranges, etc.), and deletion of some CMCs (services that are no longer offered to clients).

Visits to the KCDB web site

The number of monthly external connections to the KCDB web site was, of order, 11 100 over the first months of 2006, against 8 600 visits in March 2005.

The total number of visits per month to Appendix B has remained stable since April 2005 at about 2 300 visits. As already noticed, Appendix B is basically made "by the NMIs for the NMIs", and it seems that we have now attracted this audience.

The number of visits to Appendix C has continuously increased since the creation of the KCDB. It is, however, very difficult to identify the visitors, a proportion of more than 70 % come from web providers.

Publicity

We try to publicize the KCDB as often as we can through, for example, the distribution of copies of the KCDB leaflet, and the presentation of the KCDB web site at workshops and congresses. In addition, issue 5 of the KCDB Newsletter was launched on 8 June 2006. The KCDB Newsletter provides an ideal place for the communication of matters relevant to the CIPM MRA, the JCRB, and any other news concerning the content of Appendices B and C.

Future plans

Some users have commented that searching information from Appendix C is sometimes difficult: one has first to select a metrology area, and then items presented under the format chosen for the Classification of Services drawn up for this metrology area. These items may be instruments, such as in dimensional metrology, or quantities, such as in electricity. This can be confusing and leads the visitor to simply download one or another global .pdf file from among those proposed, without using the search engine that would have delivered a well-targeted answer.

To overcome this difficulty, and also to increase the visibility of the BIPM web system, a group composed of three BIPM staff, the Webmaster, the IT Manager and the KCDB Coordinator, studied the advantages of implementing a search facility that would be able to interpret a text-based inquiry. Several such search engines, all commercially available, were compared, and the BIPM has now purchased such software. This new search engine is now being implemented on the prototype Appendix C, and it appears that direct access to information is greatly facilitated. For example, it is possible to find all CMCs containing a given word and then refine via options proposed in a dynamic way (geographical location, NMIs, chemical materials, fields of physics, etc.). We hope this new search facility will be launched on the public web before the end of 2006.

Reminder: a new page in the KCDB website

A new page entitled "KCDB Newsletter – KCDB Statistics" is available from the KCDB Home page at http://kcdb.bipm.org/kcdb_statistics.asp

It gives access to the successive issues of the KCDB Newsletter and to some statistics corresponding to FAQ answers, especially it displays real-time information on the number of

key and supplementary comparisons registered in the Appendix B, and on the [number of CMCs published by country and by metrology area in Appendix C](#).

KCDB actions requested by the 16th JCRB meeting

1. Look in Appendix B of the CIPM MRA for key comparisons that have been pending for many years and alert the committee to them. On 13 September 2006, Final reports were not yet available for 41 CC key comparisons and 52 RMO key comparisons (17 % of the total number of key comparisons registered in the KCDB), though the corresponding measurements were scheduled to be finished before the end of 2003. The KCDB Office has no news for most of them.
9. Temporarily remove those QM CMCs not supported by an RMO approved QS from the KCDB by July 28, 2006 or as schedule permits: No information yet provided to the KCDB Office.
16. Reinstate SIM CMCs in Appendix C of the CIPM MRA as per instructed by SIM: Done in May 2006.

Annex 1

Distribution of CMCs deleted from the KCDB due to lack of approved Quality Systems

M	PR	EM	T	RI	L	AUV	Total by country
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APMP								
AU			10					10
CN			21					21
IN			15					15
KR		33						33

Total
APMP: 79

COOMET								
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Total
COOMET: 0

EUROMET								
GR	4+3 = 7						8	15 (instead of 4)
FR		1						1

Total
EUROMET:
16

SADCMET								
ZA		60-60 = 0	34-34 = 0					0 (instead of 94)

Total
SADCMET:
0

SIM								
MX	6	17	66-6 = 60					83 (instead of 89)
CL	33-33 = 0			4-4 = 0				0 (instead of 37)
BR	3							3
AR					104-33 = 71			71 (instead of 104)
UY	4							4
CA		30	245-43 = 202	14-5 = 9	15	4		260 (instead of 308)

Total SIM:
421

black: 723 CMCs deleted in July 2005, following the decision of the 15th JCRB meeting

red: deleted after July 2005

green: reinstated after July 2005

On 13 September 2006, still 521 CMCs were deleted and not reinstated