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## KCDB REPORT TO THE 12th JCRB MEETING

The BIPM key comparison database Website is available at <http://www.bipm.org/kcdb>. We describe here the evolution of the KCDB since the 11th JCRB meeting.

### 1. Appendix C

#### Situation at the time of 12th JCRB meeting

On 14 April 2004 the Appendix C of the KCDB contained a total of 17350 CMCs distributed as follows:

- 1059 CMCs in the field of Ionizing Radiation,
- 13613 CMCs in the fields of Acoustics, Ultrasound and Vibration, Electricity and Magnetism, Length, Mass and related quantities, and Photometry and Radiometry, and
- 2678 in the field of Chemistry.

Since the 11th JCRB meeting, it was enriched by the publication of:

- the Cycle III CMCs in Amount of Substance,
- first sets of CMCs in Fluid Flow declared by 18 countries via EUROMET, and 4 countries via APMP,
- first sets of CMCs in Mass and Related Quantities declared by South Africa via SADCMET, Chinese Taipei via APMP, Chile via SIM, and Slovenia via EUROMET,
- first sets of CMCs in Length declared by Chinese Taipei and Malaysia via APMP,
- first sets of CMCs in Acoustics, Ultrasound and Vibration declared by Belarus via COOMET,
- first sets of CMCs in Photometry and Radiometry declared by Russia via COOMET, and
- new or updated sets of CMCs in diverse Metrology Areas and for diverse countries, for instance updated CMCs in Viscosity from EUROMET.

A number of “new” economies, such as Chinese Taipei, Chile, Slovenia, Malaysia and Belarus have now CMCs published via the database

There are not yet any CMCs in Thermometry and in Time and Frequency included in the Appendix C database, but we are aware that files are being drawn up and circulating. To our knowledge, no dates are yet foreseen for the completion of these CMCs. We are expecting additional CMCs in Ionizing Radiation, especially from SIM, in near future (they are currently under review).

### Short-term projects

We intend to shut off the part related to Electricity and Magnetism of the KCDB Appendix C for one or two days at the end of May 2004, in order to delete all existing CMCs in EM that were drawn up according to Classification of Services version 6. Then, CMCs drawn up according to the Classification version 7.2 will be re-imported all at once:

- the APMP, COOMET, SADC MET and SIM files already published since 2000 (Round 1) have been simply rearranged according to version 7.2, and
- the EUROMET files are new CMCs (Round 2) currently under approval.

The APMP Round 1 files will be replaced later on by the APMP Round 2 files that are currently under review.

The total number of CMCs in EM will then be smaller than the present number thanks to a new facility proposed by the KCDB Appendix C system: the presentation of uncertainties in tables, which makes it possible to concatenate a huge number of CMCs in one unique CMC.

### Further improvement

We intend to open a new restricted-access Web page where the CMCs EXCEL files effectively imported in the Appendix C could be posted. Each posted file will cover a whole Metrology Area for one country. These files should be used by RMO Technical Chairs as the basis for further update and addition according to the procedure described in document JCRB-8/10.

A facility attributing absolute URL addresses to the CMCs pages as returned by the KCDB Appendix C Website is also under development. This would make it possible to communicate the Appendix C results search pages by electronic ways.

## **2. Appendix B**

### Appendix B content

The number of CIPM and RMO key and supplementary comparisons recorded in the Appendix B database increases continuously: on 14 April 2004, the Appendix B contained a total of 547 CIPM and RMO key and supplementary comparisons (to be compared to 516 at the time of the 11th JCRB meeting), among which 454 are key comparisons. It is now displaying the results of some 141 comparisons, 38 more than at the time of the 11th JCRB.

BIPM key comparisons have their results continuously updated with new measurements, and 8 EUROMET key comparisons and 7 APMP key comparisons had their results linked to those of the corresponding CC or BIPM key comparisons on 14 April 2004.

### Appendix B design

No further change in the design of the KCDB (databases and Web system) has taken place since the launch onto the Web of our new Website on 04 March 2003.

### **3. Visits, publicity**

#### Visits to the KCDB

Since December 2003 a new Log Analyser software (WebTrends) has been installed for the analysis of the visits to the BIPM Website, and specifically to the KCDB Web pages. It follows that the numbers given in the following paragraph are not directly comparable to those given in the previous KCDB reports because different parameters are implemented for the analysis of the KCDB visits.

Between December 2003 and March 2004, the monthly number of external connections to the KCDB Website was seen to increase significantly from 5200 to 6200: it remained stable from December 2003 to February 2004, then increased by 20% in March 2004. However, about one third of the visitors tend not to search for information in the KCDB.

The major increase was seen for the Appendix C, while the number of visits in the Appendix B remains unchanged (i.e. about 1500 visits) over the same time interval.

In addition, if users download .pdf files to get information on Calibration and Measurement capabilities, they also tend more and more to use the Appendix C search engines to get these information. In comparison to that of December 2003 the proportion of such users has increased regularly by about 5%.

It is still not possible to identify the users profile other than the NMIs as they mostly access to the KCDB Website through Web providers that generate a same and unique domain name for all users. However, among the entities interested in visiting KCDB there are industries such as General Electric Company, Singapore Telecommunication Pte Ltd, Micro Tel Technologies or Microsoft Corp.

#### Publicising the KCDB

We try to publicise the KCDB as often as we can through, for example, the publication of papers in Newsletters, the presentation of posters at Congresses and the wide distribution of the KCDB leaflet. We have demonstrated the KCDB live on the Web on the NIST stand at the conference PITTCON'2004 in March 2004. We are grateful to NIST for their hospitality.

#### KCDB Newsletter

We plan to issue our 1st KCDB Newsletter in May 2004.