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KCDB REPORT TO THE 11th JCRB MEETING

The BIPM key comparison database Website is available at <http://www.bipm.org/kcdb>. We report here on the evolution of the KCDB since the 10th JCRB meeting.

1. Appendix C

On 16 September 2003, Appendix C of the KCDB contained a total of 15 830 CMCs distributed as follows:

- 935 CMCs in the field of Ionizing Radiation,
- 12 763 CMCs in the fields of Acoustics, Ultrasound and Vibration, Electricity and Magnetism, Length, Mass and related quantities, and Photometry and Radiometry, and
- 2 132 in the field of Chemistry.

Since the 10th JCRB meeting, Appendix C has been augmented by the publication of:

- the first sets of CMCs in Electricity and Magnetism declared by India and Chinese Taipei via APMP,
- a new set of CMCs in Acoustics, Ultrasound and Vibration declared by Germany via EUROMET,
- new sets of CMCs in Length declared by 6 countries via EUROMET,
- new sets of CMCs in Photometry and Radiometry declared by South Africa via SADCMET, and by 5 countries via SIM, and
- the first sets of CMCs in Ionizing Radiation (Radioactivity) declared by 10 countries via EUROMET.

CMCs in Thermometry and in Time and Frequency are not yet included in the Appendix C database, but we are aware that files are being drawn up and circulating. It is possible, therefore, that all Metrology areas are included before the end of the transition period of the MRA. We are also expecting additional CMCs in Dosimetry.

The Cycle III CMCs in Chemistry (all RMOs), which were examined in April 2002 and re-examined in April 2003, are not yet formally approved, although Cycle IV is already being drawn up. Consequently, the Chemistry entries in Appendix C have not been updated since March 2002.

2. Appendix B

Appendix B content

The number of CIPM and RMO key and supplementary comparisons recorded in the Appendix B database is continuously increasing: on 16 September 2003, Appendix B contained a total of 516 CIPM and RMO key and supplementary comparisons (compared with

479 at the time of the 10th JCRB meeting). The results of some 103 comparisons are now available, 35 more than at the time of the 10th JCRB meeting. Note that the results of BIPM key comparisons are continuously updated with new measurements.

On 16 September 2003, the results of five EUROMET key comparisons were linked to those of the corresponding CC or BIPM key comparisons: one in the field of Mass and Related Quantities (High Pressure), two in the field of Chemistry (Gases), and two in the field of Electricity (Capacitance and DC voltage). We are now preparing the results of an APMP comparison in High Pressure to be linked to those of the EUROMET and CCM key comparisons that have already been published: for the first time we will have 3 linked comparisons.

For a few months, we have observed intense activity concerning the publication of comparison results in the field of Ionizing Radiation (Radioactivity). On 16 September 2003, results were published for 33 of the 59 BIPM key comparisons based on the SIR measurements. In addition, five CCRI (Section II) and two APMP key comparisons in radioactivity are now linked to the corresponding BIPM SIR key comparisons.

Appendix B design

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

The main advantages of the new system for the KCDB Office are its flexibility, which makes it possible to publish new results of comparisons in Appendix B quickly and reliably, as well as the increased stability of the modules used for importing EXCEL files of CMCs into the Appendix C database. We have also had enthusiastic feedback about the presentation of data on the new site.

3. Visits, publicity

Visits to the KCDB

The number of external connections to the KCDB Website is still slowly increasing: we received 3 600 visits in July 2003 (compared with about 3 000 in December 2002). We also observe that the search engines in Appendix C are used more often.

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 demonstrated the KCDB live on the Web on the NIST stand at the conference PITTCOM'2003 in March 2003. We are grateful to NIST for their hospitality.

On 06 August 2003, we launched on the KCDB Website a facility for on-line registration for the KCDB Newsletter (the 1st issue is planned for the end of 2003). It is mandatory for the subscriber to enter his/her e-mail address and to choose one (or several) fields of activity among those proposed (education, industry, trade, metrology, etc.).

This should serve two purposes: 1) knowing who is visiting the KCDB, and 2) publicising the KCDB by sending out regular news items. So far we have some tens of subscribers only; we will thus have to extend this list in order to reach all interested parties.