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This is the third short report designed to increase the level of communication between the BIPM and its Member States. It supplements the formal reports required under the Metre Convention and highlights some key issues and achievements from the 99th meeting of the International Committee for Weights and Measures (CIPM). Our aim is to keep you in touch with the BIPM's work and, as always, I am happy to respond with further details should you wish.

Best regards,

Andrew Wallard, Director, BIPM

New Associates of the CGPM



The People's Republic of Bangladesh became an Associate of the CGPM on 29 March 2010.



The Republic of Seychelles became an Associate of the CGPM on 10 September 2010.



The Republic of Zimbabwe became an Associate of the CGPM on 14 September 2010.



The Republic of Mauritius became an Associate of the CGPM on 5 October 2010.

There are now 54 States Parties to the Metre Convention and 31 Associates of the CGPM.

The 99th meeting of the CIPM

The 99th meeting of the CIPM was held at the BIPM from Tuesday 12 October to Friday 15 October 2010. Three of the four days of the meeting were devoted to a full agenda. Wednesday morning was taken up with scientific presentations to the members of the CIPM by the BIPM's scientific Department Directors and the afternoon was dedicated to laboratory visits. The day ended with the traditional reception at the BIPM headquarters which was well attended, not only by members of the CIPM, but also by representatives of the diplomatic corps of Member States and Associates and French scientific and metrological organizations.

Three subjects were at the core of the CIPM meeting's agenda: the text of the convocation of the General Conference on Weights and Measures (CGPM) which will meet in Paris from 17 to 21 October 2011; the BIPM's Programme of Work for the years 2013 to 2016, to be proposed to the CGPM; and a draft Resolution regarding the progress of the revision of the International System of Units (SI). News about these and other important items can be found in this newsletter.



New President of the CIPM



With the conclusion of the 99th meeting of the CIPM, Dr Barry Inglis took over as the new President of the CIPM from Professor Ernst Göbel, who held the position from 2004 to 2010.

New member of the CIPM



The CIPM welcomed Dr Yuning Duan, Deputy Director of the National Institute of Metrology (NIM), China, who took his seat at the 99th meeting of the CIPM.

Bureau of the CIPM

In general the CIPM meets once per year. In order to fulfil its role as a supervisory body of the BIPM, the bureau of the CIPM usually meets three times a year with the BIPM Director. The bureau comprises the President of the CIPM, the Secretary of the CIPM and, at present, two Vice-Presidents. As a result of Professor Ernst Göbel stepping down as President of the CIPM and Dr Barry Inglis taking up the position of President of the CIPM, one Vice-President position became vacant. This vacancy has been filled by Dr Willie May, Director of the NIST's Material Measurement Laboratory in the USA.

The bureau of the CIPM now consists of Dr Barry Inglis (Australian nationality) as President of the CIPM, Dr Robert Kaarls (Dutch nationality) as CIPM Secretary, and Dr Jim McLaren (Canadian nationality) and Dr Willie May (American nationality) as Vice-Presidents.



A week of important meetings in May 2011

The 24th meeting of the General Conference on Weights and Measures (CGPM) will be held in Paris from 17 to 21 October 2011. One of the core topics on the agenda of the meeting of the CGPM will be the discussion and approval of the BIPM's Programme of Work for 2013 to 2016 and the corresponding dotation. During the last meeting of the CGPM a number of delegates expressed the need to have preliminary discussions on these two subjects. The CIPM has therefore decided to invite delegates from Member States to an informal discussion at the BIPM headquarters on 26-27 May 2011, devoted to the Programme of Work and the corresponding dotation. An invitation to this informal meeting will be sent to Member States before the end of 2010.

This meeting will be preceded on 24 May 2011 by a meeting of the CIPM and on 25 May 2011 by a meeting of the Directors of the National Metrology Institutes of Member States and Associates.

Convocation to the 24th meeting of the General Conference on Weights and Measures

During its 99th meeting, the CIPM discussed and agreed the drafts of thirteen Resolutions to be presented to the CGPM at its 24th meeting. Following the successful joint workshop between the World Meteorological Organization (WMO) and the BIPM on Climate Change Monitoring held in Geneva, Switzerland, in early 2010, the CIPM approved a draft Resolution on the importance of international collaboration to monitor climate change on an SI-traceable basis. Taking up Resolutions adopted by the CGPM at its 23rd meeting in 2007, the CIPM agreed draft Resolutions regarding the revision of the status of Associate States of the CGPM, the acceptance of Economies as Associates of the General Conference, rescheduling agreements between the CIPM and defaulting Member States for the payment of their arrears, and the possible exclusion of defaulting Member States. The CIPM also approved a draft Resolution on a Convention on the privileges and immunities of the BIPM which is necessary to better fulfil the mission of the BIPM. The Convocation will be sent out in December 2010.



Programme of Work for the BIPM for 2013 to 2016

A major topic of the CIPM meeting in the year preceding the meeting of the CGPM is the finalization of the BIPM's draft Programme of Work and its associated budget. There was no exception this year and the CIPM had an in-depth discussion on the draft Programme of Work prepared by the BIPM. The intense debate reflected, in particular, the tight financial situation in several Member States. The Programme of Work as finalized by the CIPM reflects the essential need to ensure the successful continuation of the mission of the BIPM. The programme focuses on the operation of cost-shared international reference facilities for the dissemination of the SI and the validation of Calibration and Measurement Capabilities of National Metrology Institutes of Member States. Highest priority was given to the preparations by the BIPM regarding the revision of the SI, in particular the redefinition of the kilogram. For the BIPM, the focus is the development of a highly stable pool of reference mass standards to ensure traceability after the redefinition of the kilogram and the development of a watt balance to provide a realization of the future definition at any time. Another key area is the provision of International Atomic Time (TAI) and Coordinated Universal Time (UTC). In the field of dosimetry, the CIPM regards it as essential to extend the provision of traceability to high-energy photon dosimetry based on modern medical linear accelerators for the support of cancer treatment and, as such, it recommends the installation of a LINAC at the BIPM. Another proposed area to extend the operation of the BIPM is the field of organic chemistry at higher molar masses, providing SI traceability for measurements related to important therapeutic substances such as insulin. At the end of the meeting, the Programme of Work for 2013 to 2016 was approved unanimously by the CIPM members. The Programme of Work will be sent out with the Convocation in December 2010.

On the possible future revision of the SI



A key activity of this year's CIPM meeting was the review of progress towards the redefinition of the kilogram, which is the only base unit of the SI still tied to an artefact. While remarkable progress has been made over the last few years, the conditions set by the General Conference at its 23rd meeting have not yet been fully met. For this reason the CIPM does not propose a revision of the SI at the present time. However the CIPM drafted a Resolution for the CGPM to take note of the intention to redefine a number of SI base units in terms of invariants of nature, namely the kilogram, the ampere, the kelvin and the mole: the new definitions would be based

on fixed numerical values of the Planck constant, h , the elementary charge, e , the Boltzmann constant, k , and the Avogadro constant, N_A , respectively. The definitions of all seven base units of the SI would also be uniformly expressed using the explicit-constant formulation, and specific *mises en pratique* would be drawn up to explain the realization of the definitions of each of the base units in a practical way.



The CIPM asked the CGPM to encourage National Metrology Institutes, the BIPM and academic institutions to maintain their efforts towards the experimental determination of the fundamental constants h , e , k and N_A .

In order to facilitate the dissemination and realization of the unit of mass when it is

redefined, the CIPM asked the BIPM to develop a highly stable pool of reference mass standards and to continue its work on the development of a watt balance.

Moving to a new BIPM accounting system

In order to increase the effectiveness and efficiency of the financial management of the BIPM, to reinforce accountability and transparency, and to ensure the most effective use of resources, the CIPM decided to switch the BIPM's accounting system from cash accounting to an accrual accounting system using the IPSAS (International Public Sector Accounting Standards), designed for the general purpose financial statements of all public sector entities. The purpose of an accrual accounting system is to assist in monitoring the financial performance of an organization. This type of system is more appropriate for the BIPM's planning and budgetary needs within the quadrennial dotation process. It also responds to the need to have more flexibility and transparency in the financial management as stated in the BIPM's financial regulations which were adopted by the CIPM in October 2009.