Foreword by the Chairman

The 1st quarter of each new year sees the production and distribution of CITAC’s Newsletter. Through the wide and numerous distribution channels of the host organization of our secretariat, the IRMM in Geel, it is assured that the activities and achievements of the past year are well disseminated, even though not all of us – particularly those in the more remote parts of the world – have always a chance to take part in the activities and attend the workshops in person that are organized or sponsored by CITAC during the year.

There were two official meetings of the Members of CITAC held in 2001 where our “business” – metrology in chemistry – was discussed and advanced: one, in Gaithersburg at NIST to celebrate with our US friends the NIST Centennial in the week following PITTCON in New Orleans. There NIST staged five successive sessions as NIST Centennial Celebration and it was a great pleasure to experience the strong CITAC input into “Impact of NIST Activities in Chemical Measurement Science: International Perspective”. The other business meeting was held in Athens, Greece, in September and it was accompanied by a well attended symposium by EMPA. On June 16 there will be a tutorial event for newcomers on the subject, followed by the “Workshop on Measurement Traceability and Uncertainty in Analytical Chemistry” on June 17 and 18, 2002 (see page 2).

Earlier in 2002 an important event is the joint workshop with the Chemical Metrology Group of NCSLI (National Conference of Standard Laboratories International) on the occasion of PITTCON 2002 in New Orleans entitled “Traceability and Uncertainty: Key Technical Issues and Laboratory Accreditation”. A more detailed account can be found on page 3. Honoring a long standing invitation by our South American friends plans are underway to hold the 2nd CITAC Meeting in fall 2002 in Brazil.

With all the might of these activities a strong executive of CITAC is of vital importance. As I am stepping down from the post of chair of CITAC it is my pleasure to introduce Dr. Kensaku Okamoto of Japan as Chair Elect and Dr. Ilya Kuselman of Israel as Secretary Elect. Both have been vital over the years to the success of various CITAC activities and no doubt will their contributions in the future also have a tremendously positive impact on the well being and the development of our group and thus on the advancement of our ideas on technical quality issues in the chemical laboratory on a worldwide basis.

Now, let me voice my sincere Thank You for all the support I had during the last three years, the biggest of which without doubt came from Mr. Secretary, Dr Ioannis Papadakis of Geel. The Institute for Reference Materials and Measurements, EC-JRC (Prof. Manfred Grasserbauer, Director) is gratefully acknowledged for hosting the secretariat during these years and providing the technical and logistics support required to run CITAC smoothly.

Prof. Wolfhard Wegscheider
CITAC chairman
Joint EURACHEM/CITAC Workshop on Measurement Traceability and Uncertainty in Analytical Chemistry

Meeting the requirements of ISO/IEC 17025
Cultura and Congress Centre, Luzern / Switzerland June 16-18, 2002

Traceability and uncertainty are important elements of measurement results and for this reason they are given greater emphasis in ISO/IEC 17025 than in Guide 25. The main objective of this workshop is to share experience and to develop guidance on how these requirements can be met in a cost effective manner.

After briefly reviewing the requirements of ISO/IEC 17025, the first session will concentrate on the experience gained using the first and second editions of the EURACHEM/CITAC Guide “Quantifying Uncertainty in Analytical Measurement”, with particular emphasis on the use of validation data in uncertainty estimation as described in the second edition. The plenary session is intended to give a good overview of the principles of the second edition. Working Groups will then consider such topics as practical examples of uncertainty evaluation, design of validation studies to provide uncertainty data and experience in practical implementation under ISO/IEC 17025. An important feature is consideration of topics covered in little detail in the current edition of the EURACHEM/CITAC Guide, such as evaluation of uncertainty near detection limits, and the emerging issue of uncertainty associated with qualitative analysis and testing. Current work being carried out to update and extend the fundamental ISO Guide will also be discussed; an important development here is the increasing interest in Monte Carlo methods.

The second session will cover the EURACHEM/CITAC draft guide on measurement traceability, giving practical guidance on how to establish the traceability of results obtained using existing methods. Selection and use of reference materials for establishing traceability will be discussed as will the international work being carried out under the auspices of BIPM to provide traceability to SI.

It is proposed to hold Working Groups on traceability for existing methods, traceability and method development, selection and use of reference materials, traceability in accreditation and the development of international traceability systems.

Full information on the workshop is available by the author or at http://www.measurementuncertainty.org/mu/workshop/index.html.

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EURACHEM/CITAC GUIDE

Quantifying Uncertainty in Analytical Measurements - 2nd Edition

Avalable on the web since mid-2000, the second edition is now also available in printed form. The printed form includes minor editorial corrections, and can be obtained from BAM in Germany or LGC in the UK.

The second edition was produced primarily by a joint EURACHEM/CITAC Measurement Uncertainty Working Group in collaboration with representatives from AOAC International, IAEA, and EA.

The most important features of the second edition deal with the use of method performance data and in particular the use of method validation data, from both collaborative validation studies and from in-house studies. These new sections show that in many cases such data gives all, or nearly all information required to evaluate the uncertainty. Chapters 1 and 2 deal with the scope and the concept of uncertainty. Chapter 3, Analytical Measurement and Uncertainty, is completely new and covers the process of method validation and conduct of experimental studies to determine method performance, and considers their relationship to uncertainty estimation. There is also an informative section on traceability. The chapter on uncertainty estimation was considerably expanded and split into four separate chapters, dealing with the four steps involved in estimating uncertainty: Specification of the measurement, Identifying the uncertainty sources, Quantifying the uncertainty (with extensive reference to validation data) and Calculation of the combined uncertainty. The examples were completely revised and new ones added. All the examples are shown in short form and in detail, and illustrate specific situations, including the use of in-house and collaborative study data. They show the use of cause and effect analysis and spreadsheet calculations as practical aids for uncertainty estimation. The guide also includes material on statistical procedures, including uncertainties associated with calibration and the combination of uncertainties using spreadsheet methods, tables of typical uncertainties and methods of estimating them, guidance on treating uncertainty which varies with analyte concentration, brief guidance on uncertainty near detection limits, and a bibliography.

Another important resource is the EURACHEM/CITAC working group website at www.measurementuncertainty.org which contains an indexed HTML version of the Guide, hosts a discussion forum on the application of the guide and has a section for the publication of additional examples.

Hard copies of the guide are available in the UK from LGC (Queens Road, Teddington, Middlesex, TW11 0LY or through the website http://www.vam.org.uk/), and from the BAM EURACHEM website at http://www.eurachem.bam.de/. The price is much lower than the first edition, from DM75 for European customers through BAM or £20 sterling in the UK from LGC.

Steve Ellison
LGC, UK
It is my great honor to serve as the Chairman of CITAC for the next 3-year term. I am very happy for this opportunity to send a message from the new Chairman to all involved/interested in activities of CITAC.

First of all, I would like to extend my sincere thanks to Professor Dr. Wolfram Wegscheider, the former Chairman, who have made remarkable contributions to enhance CITAC activities during the last 3 years. I also wish to thank Dr. Ioannis Papadakis for his excellent job as the Secretary.

Since the establishment of CITAC at the PittCon in 1993, CITAC has been playing an increasingly important role in achieving traceability in analytical chemistry. CITAC has published the three CITAC/Eurachem Guides through the joint work: "Guide to Quality in Analytical Chemistry – An Aid to Accreditation" (the 2nd edition will be available shortly), "Quality Assurance in Research and Development and Non-routine Analysis" and "Quantifying Uncertainty in Analytical Measurement". A number of accesses to the Guides on the CITAC website indicate that these documents are quite useful for the purpose of analytical quality assurance in chemical measurement laboratories. Most analytical laboratories much more work to demonstrate traceability and uncertainty of their analytical values. Most analytical laboratories still have to tackle the big issue in order to survive in the competitive global market. CITAC is willing to provide an opportunity as a series of CITAC workshops and symposiums to strongly support education and training of the participants for their better-understanding and implementation of traceability, uncertainty estimation and related factors.

There have been remarkable progress in metrology in chemistry after the signing of "Mutual Recognition Arrangement (MRA)" by the directors of the National Metrology Institutes (NMIs) at BIPM in 1999. I myself have been heavily involved as a staff member of NMIJ (see page 8) in this tough work definitely required for NMIs, such as participation in the BIPM/CCQM key comparisons, declaration of calibration and measurement capability (CMCs) on the BIPM database Appendix C, and so on. NMIs have to do efforts to provide more information on their activities to chemical measurement communities, so as to promote mutual understanding of each role in achieving traceability and to ensure proper estimation of uncertainty of analytical data. CITAC will continue to work as a most appropriate forum to discuss current hot-topics over all aspects of chemical metrology between NMIs and those who working in analytical, environmental, clinical, regulatory laboratories, etc.

CITAC wishes to invite delegates worldwide to its Working Group, particularly from countries in Asia and Africa, to become a truly international forum. CITAC will also increase collaboration with other relevant international organizations in various fields and activities of chemistry. Finally, I would like to continue to count on your cooperation in order to strengthen CITAC activities and to provide a more open/useful forum to all involved in metrology in chemistry.

Kensaku Okamoto
Deputy Director, NMIJ, Japan
In the first year of the 21st century, the 3rd International Congress on Analytical Sciences (ICAS 2001) took place between 6 and 10 August 2001 at Waseda University located in the center of Tokyo, Japan. The Japan Society for Analytical Chemistry (JSAC) organized the ICAS 2001 under the sponsorship of the International Union of Pure and Applied Chemistry (IUPAC) and Science Council of Japan. The scope of this congress was to provide discussion of recent researches in the field of analytical sciences.

Almost 1000 participants attended and approximately 900 papers for oral and poster presentations were contributed for ICAS 2001. There were 26 special symposia arranged on the updated topics. Among those, there was No.18 Symposium titled "Establishing Chemical Metrology in the 21st Century". The Symposium was organized by Yoshinori Takata and Wolfhard Wegscheider (Co-organizer) and sponsored by JSAC Committee on Chemical Metrology. The Symposium was held on the last day of the ICAS 2001.

The No.18 Symposium aimed to promote the essential components of measurements validation (fit for purpose), for those working in analytical laboratories including:
1. establishing traceability,
2. quantifying uncertainty,
3. laboratory accreditation,
4. proficiency testing and
5. reference material production.

In this Symposium, seven invited speakers presented the papers that are allotted a 30min each. The program of the presentation was as follows:

1. Introductory Remarks by Yoshimasa Nihei (Chair of JSAC Committee on Chemical Metrology)
2. THE ROLE OF METHOD VALIDATION IN TRACEABILITY by Wolfhard Wegscheider (University of Leoben, Austria)
3. CURRENT ACTIVITIES IN THE PRODUCTION OF REFERENCE MATERIALS IN JAPAN by Kensaku Okamoto (National Metrology Institute of Japan, NMIJ/AIST)
4. PRACTICAL USE OF MATRIX REFERENCE MATERIALS IN CLINICAL CHEMICAL ANALYSIS by Katsuhiko Kuwa (College of Medical Technology and Nursing, University of Tsukuba)
5. CHEMICAL METROLOGY PROGRAMME FOR THE ANALYSIS OF CHINESE MEDICINES IN THE HKSAR GOVERNMENT LABORATORY by Chuen-shing Mok (Government Laboratory Hong Kong)
6. UNCERTAINTY OF INSTRUMENTAL MEASUREMENT, A STOCHASTIC APPROACH by Rieko Matsuda (National Institute of Health Sciences)
7. CASCADING TRACEABILITY TO THE WORKING LEVEL PROVIDING THE MISSING LINKS by Bernard King (National Analytical Reference Laboratory, Australia)
8. JSAC PROFICIENCY TESTING PROGRAMS BASED ON ISO/IEC GUIDE 43-1 by Masaki Kubota (National Institute of Advanced Industrial Science and Technology)

Twenty to thirty participants attended the Symposium. All the lectures attracted the full attention of the participants and resulted in very fruitful discussions during and after the Symposium.

Proceedings of the ICAS 2001, containing invited talks oral and poster contributions is going to be published as a supplement issue of "Analytical Sciences". All fully paying participants will receive a copy of the Proceedings (CD version) free of charge. For more information, please access to the journal at: http://wwwsoc.nacsis.ac.jp/jsac/infosas.html

Yoshinori Takata
Japan Chemical Analysis Center
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Globalization of trade and removal of non-technical barriers to trade demand special measures in chemical testing and analysis of goods. National requirements not being sufficient, one has to look for an acceptable common denominator in testing and analysis standards. As the relevant basis for this acceptance is frequently deemed to be laboratory accreditation an upgrading of requirements for the operation of laboratories was necessary: it also brought about the transition from ISO Guide 25 to ISO 17025 with the status of an ISO standard.

The technical aspects of advanced laboratory operation are to be highlighted in this Workshop. There are numerous implications around the new ISO 17025 Standard that cause serious problems in the minds of the laboratory community, the most serious of these concern the requirements for traceability and uncertainty of results. For a successful operation of accreditation of laboratories it is indispensable that these requirements are seriously addressed in accreditation and this requires frequently a fresh look at the quality of the analytical data produced.

The Workshop will highlight practical interpretations and solutions for these issues on the basis of the technical guidance that was developed through the efforts of Eurachem and CITAC – Cooperation in International Traceability in Analytical Chemistry (www.measure-mentuncertainty.org). It will focus on the needs of laboratories worldwide by bringing together experts in the respective areas with practitioners from the laboratory community. This format will greatly aid the proliferation of good practices in laboratory operation and lead to an enhanced trustworthiness of laboratory data.

- **13:30** Introduction to Workshop
  W. Wegscheider, U Leoben, T. Ouimet, Kodak

- **13:35** Chemical Metrology at NCSLI: Charter and Goal
  R.B. Pettit, Sandia

- **14:00** Guidance on Technical Aspects of ISO 17025 from CITAC
  A. Squirrell, NATA

- **14:25** The Role of In-House Standards for Support of Research and Production
  T. Ouimet, Kodak

- **14:50** Coffee break

- **15:05** Assuring the Quality of Reference Materials and Proficiency Testing Schemes
  R. Parris, NIST

- **15:30** Practical Solutions to Traceability and Uncertainty in Accreditation
  W. Merkel, A2LA

- **15:55** APLAC Approaches to Meeting the ISO/IEC 17025 Requirements for Traceability and Measurement Uncertainty
  B. King, NARI

- **16:20** Identification, Measurement and Decision in Analytical Chemistry
  S.L.R. Ellison, LGC

- **16:45** Method Validation Revisited: Its Role in Traceability of Results
  W. Wegscheider, U Leoben

- **17:05** End

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The 2nd CITAC members meeting of 2001 was held in Athens (Greece). Taking advantage of the presence of several CITAC members in Athens, CITAC contributed to the organisation of a symposium with the subject “Quality of Measurements in Analytical Chemistry”. The symposium was co-organised in collaboration with the Association of Greek Chemists (AGC) and the General Chemical State Laboratory (GCSL) of Greece. The conference facilities of the GCSL in Athens were kindly offered for the symposium, which took place on Monday 3rd September 2001.

The target audience of the symposium was practitioner chemists, laboratory managers, academics, accreditors as well as policy makers. The attendance was very encouraging as more than 130 scientists registered and attended the symposium.

The subjects discussed during the symposium were very important and interesting for the Greek audience. The symposium was separated into two sessions. At the end of the afternoon session a round table discussion was organised in order to interact with the audience.

The first (morning) session included contributions from CITAC members concerning the latest developments relevant to quality of chemistry measurements. The plenary lecture was given by Prof. Wolhard Wegscheider (CITAC Chairman, University of Leoben, Austria) with title “Traceability in Analytical Chemistry”. In the beginning of his lecture, Prof. Wegscheider thanked the local organisers (AGC and GCSL) on behalf of CITAC for their efforts and presented some information about the aims and objectives of CITAC. The main presentation featured the importance of traceability, guidance towards establishment of traceability and included examples were traceability is established for chemical measurements.

The next contribution was presented by Dr Robert Kaars (President CCQM, The Netherlands) with title “International Measurement Structure”. Dr Kaars gave an overview of the numerous developments in the area of Metrology in Chemistry of the past few years as well as reported on the latest activities of the main international bodies. Special attention was paid to Mutual Recognition Arrangement of BIPM and its importance for the international measurement community.

Dr Steve Ellison (Laboratory of the Government Chemist, United Kingdom) followed with the presentation “Measurement Uncertainty for Chemical Measurements”. Dr Ellison included in the presentation the importance of appropriate uncertainty calculation, general rules for calculating measurements uncertainty as well as making special reference to the 2nd edition of the EURACHEM/CITAC Guide “Quantifying Uncertainty in Chemical Measurement”.

The floor was then given to Dr Ilya Kuselman (National Physical Laboratory, Israel) who presented the lecture “The Role of Reference Materials”. Dr Kuselman talked about the functionality and importance of RMs, the different categories of RMs as well as the important steps in the preparation of RMs.

The next contribution was given by Dr Ioannis Papadakis (CITAC Secretary, Institute for Reference Materials and Measurements, Joint Research Centre, European Commission) with title “The Role of Inter-laboratory Comparisons”. Dr Papadakis highlighted the importance of Interlaboratory Comparisons (ILCs) in order to achieve high quality measurements. Subjects such as ‘how ILCs are organised’, ‘relation of traceability with ILCs’ as well as ‘optimum use of ILCs by laboratories, their customers and accreditation’ were discussed.

Dr Alan Squirrell (ILAC Secretary, NATA, Australia) then presented the contribution with title “Current Developments in Accreditation of Chemistry Laboratories”. Dr Squirrell gave general information about the function, objectives and aims of accreditation and an exhaustive presentation of the latest international developments while special attention was given to the implementation of the ISO 17025.

The morning session finished with a second lecture from the accreditation field presented by Dr Warren Merkel (American Association for Laboratory Accreditation, USA). The lecture was titled “Chemical Laboratory Accreditation in the USA” and aimed to give to the audience information on how a national accreditation system functions. Dr Merkel generally presented the structure of accreditation in the USA and gave more detailed information about accreditation of chemical laboratories.

The second (afternoon) session included presentations from Greek scientists concerning the relevant activities in Greece. Dr Constantinos Kagarakis (ESYD President) gave the first contribution with title “Accreditation of Chemical Laboratories in Greece”. ESYD is the Greek national accreditation council. Dr Kagarakis presented how ESYD is organised and functions, highlighting the activities relevant to chemical laboratories.

Prof. Anastasios Voulgaropoulos (AGC, University of Thessaloniki) followed with a presentation with title “Metrology in Chemistry Activities in Greece”. Metrology in Chemistry is a relatively new discipline all over the world and Greece is not an exception. Prof. Voulgaropoulos presented the relative activities in Greece including the information concerning the Hellenic Institute for Metrology (EIM) which does not include (yet) any function relevant to chemical metrology.

The oral presentations finished with a practitioner’s report from the GCSL. Dr Evangeli Billa presented a lecture titled “The Experience and Practice of Accreditation in the GCSL”. Dr Billa presented all the problems that GCSL encountered seeking for accreditation, how they were solved and what is changed in the laboratory after accreditation is granted.

After the end of the oral presentations, the speakers were invited for a round table discussion in order to interact with audience and answer questions. A very lively discussion followed that showed the interest of the audience in the topics presented as well as the need for such activities.

The feedback from the symposium was extremely positive from all parties involved (i.e. audience, speakers and organisers). It is of high importance for small scientific communities (such the Greek one) to have the opportunities to interact with international panels. For this reason CITAC is willing to continue its contribution to such activities.
With many laboratories and accreditation bodies busy implementing the new requirements of the quality standard ISO/IEC 17025, it is timely to provide advice on current views on ‘good measurement practice’. This new guide is an update of the CITAC Guide 1 (1995), which itself was an update of the 1993 EURACHEM/WELAC guide and covers recent developments emanating from a variety of international organizations. Input from a number of organizations and individuals working in the laboratory, accreditation and standards communities is gratefully acknowledged. This high level of input reflects the wide-ranging interest in the guide. The guide is now nearing completion and it will be available on the CITAC and EURACHEM websites early in 2002.

The guide concentrates on the technical aspects of quality assurance (QA). It can be used as a stand-alone document, or in association with a quality standard, such as ISO/IEC 17025. The emphasis is on areas where interpretation of good practice and accreditation requirements can be difficult. The topics covered include planning the analytical task and specifying the measurement requirement, sampling, staff, laboratory facilities, methods and method validation, calibration, reference materials, traceability, measurement uncertainty, quality control, proficiency testing, use of computers and laboratory audit and review. Updated references to more specialist texts are also provided, together with new tables comparing the relevant clauses of ISO/IEC 17025 (1999), its predecessor ISO 25, ISO 9001 (2000), and OECD GLP Protocol (1998).

By providing information and advice about the types of issues that need to be addressed, the guide will help both laboratories and assessors decide what is a reasonable interpretation of good practice and the requirements of the quality standards.

A task-group comprising Bernard King and Alan Squirrell from CITAC and Maire Walsh and David Holcombe from Eurachem led the development of the guide. During the drafting process a number of drafts were circulated for comments and input from colleagues in the following organizations is gratefully acknowledged: CITAC, EURACHEM, AOACI, CCQM, IUPAC, ISO REMCO, ILAC, EA, and APLAC. The revision is nearing completion and the ‘final draft’ will be circulated for comment in early January, prior to publishing the guide on the CITAC and EURACHEM websites. The guide will be available free of charge, in order to make it available to as wide an audience as possible. So please keep an eye on the websites – there are lots of other nice things there as well!

Finally, on behalf of the task group, thank you to all those who have contributed to this project.

Alan Squirrell
NATA, Australia

Bernard King
NARL, Australia
Most national research institutes in Japan were reorganized in April 2001 following the central government reform. A new organization scheme, the Independent Administrative Agency (IAA), was introduced to enhance flexibility, effectiveness, and transparency through the Japanese central government reform based on laws to implement the governmental policies. The Ministry of International Trade and Industry (MITI) was renamed the Ministry of Economy, Trade and Industry (METI). All research laboratories of METI were reconstructed to form a single research institute named the National Institute of Advanced Industrial Science and Technology (AIST). The new AIST is an IAA dedicated to R&D of industrial science and technology, geological survey, and metrology that depends mostly on the government for finances.

Research activities on standards and reference materials of National Research Laboratory of Metrology (NRLM), Electrotechnical Laboratory (ETL) and National Institute of Materials and Chemical Research (NIMC) merged into a new AIST unit named the National Metrology Institute of Japan (NMIJ). NMIJ now covers the whole areas of physical and chemical metrologies. NMIJ consists of four organizations. The Metrology Institute of Japan (MIJ) is the core of NMIJ activities and is responsible for research and calibration, including legal metrology. The Metrology Management Division, Metrology Training Center, and International Metrology Cooperation Office share the administrative activities for NMIJ. The director of MIJ, Dr. Akira Ono, represents NMIJ.

NMIJ accounts for around 10% of the personnel and budget of the new AIST. There are about 270 permanent personnel (including 250 scientists) and about 100 temporary personnel. The annual budget of NMIJ is about 13 million US $ for basic research and calibration, and 9 million US $ for research contracts with METI and other ministries. The annual income of NMIJ consists of 0.7 million US $ from calibration and testing and 0.4 million US $ from training service.

NMIJ covers six areas in the mid-term plan from 2001 to 2005: developing national measurement standards, implementing legal metrology, research for next generation standards, collaboration for international measurement systems, training of domestic and overseas metrologists, and developing measurement technologies commonly applicable to broad areas. The number of national measurement standards disseminated is planned to increase from 140 in 2001 to 300 in 2005. Priorities in national measurement standards to be disseminated are identified electrical standards, basic standards for MRA, advanced standards for high-tech industries, and reference materials for the environment, health and safety, and advanced technology.

There are three Divisions dedicated to chemical reference materials among 15 Divisions of NMIJ. The Inorganic Analytical Chemistry Division, which consists of Inorganic Standards Section and Environmental Standards Section, are responsible for metallic and pH standard solutions, and matrix reference materials for inorganic and organic analysis of environmental concern. The Organic Analytical Chemistry Division, consisting of Organic Standards Section and Polymer Standards Section, is in charge of production of high-purity organic substance CRMs and polymer standards for molecular weight and ingredient determinations. The Material Characterization Division has two sections: Surface and Thin Film Standards Section and Nanopore Standards Section both for developing CRMs of semiconductor and other advanced materials.

Regarding activities related to the global MRA, NMIJ has participated or plans to participate in about 170 international comparisons. In the field of chemical measurements NMIJ has participated in about 40 CCQM/APMP pilot studies and key comparisons, and will be able to serve as a pilot laboratory for some future CCQM/APMP comparisons. The quality system of calibration services in NMIJ is under construction to be conformable with the ISO/IEC 17025. For the production of NMIJ reference materials the quality system according to the ISO Guide 34 will be established shortly. The NMIJ will be reviewed, as a reference material producer, by National Institute of Technology and Evaluation (NITE), a domestic accreditation body, for quality management system and by foreign experts for technical performance, probably in October 2002. NMIJ has already submitted the Calibration and Measurement Capability (CMC) declarations in the field of the Amount of Substances, which are already reviewed, approved and published on the Appendix C of the BIPM website.

NMIJ hosted the 17th APMP General Assembly and related meetings, under the chairmanship of Dr. H. Imai of NMIJ, in Tsukuba on 5-8 November 2001 with 220 participants from 20 economies. NMIJ will celebrate 100 years of foundation of Japanese NMI in 2003. In this year, NMIJ will invite the 10th JCRB, OIML meeting and APLMF General Assembly.

More information about NMIJ can be obtained at http://www.nmij.jp

Kensaku Okamoto,
Deputy Director, NMIJ, Japan
Update of ILAC Activities

ILAC has been busy in 2001. This culminated in the General Assembly and associated Committee Meetings which took place in Kyoto, Japan in November.

CITAC was represented by Dr Bernard King at the Laboratory Committee (LC) Meeting in Kyoto. This Committee, chaired by David Stanger, coordinates the laboratory (stakeholder) activity and inputs into the ILAC decision making process (David is also a member of the ILAC Executive Committee). The Committee has been very active and productive in 2001. This reflects both ILAC’s desire to increase cooperation with all relevant stakeholders (laboratories and their associations, as well as regulators, industry groups, standard writing bodies and government) and a willingness on the part of stakeholders to actively contribute to the international laboratory accreditation process. ILAC must listen to its customers – they have a lot to offer!

The LC work program is extensive and not surprisingly involves a lot of issues associated with the new ISO-IEC 17025:1999 – These include:

a. The nature and timing of the next revision and possible “alignment” with the ISO 9000:2000 series.

b. Measurement uncertainty – interpretations and strategies in various sectors.

c. Opinions and interpretations on test reports.

The LC has also reviewed the draft of the revision (jointly by CITAC/EURACHEM) of CITAC Guide 1 (see other article in this newsletter by B King). This is seen as a useful ISO-IEC 17025 guidance/application document for chemical laboratories.

Other items on the LC work program include:

d. An overview of the implementation the ILAC Mutual Recognition Arrangement (Maire Walsh from EURACHEM is an observer on the Arrangement Management Committee)

e. The implications of proposed cooperation between ILAC & IAF and its impact on stakeholders.

f. The identification of problems encountered by laboratories in the use of Accreditation logos and proposed solutions.

In addition, the LC also has appointed “Liaison Officers” to monitor and review certain work items carried out in other ILAC Committees – these include relations with other conformity assessment schemes and customers, the proposed ILAC Arrangement logo, cross frontier accreditation, metrological issues (eg traceability, measurement uncertainty and calibration) the grading of non-compliances, inspection and ILAC publications, guides and promotional materials.

All in all a lot of work for the LC and CITAC is pleased to play its part. The next meeting is scheduled for early March 2002 in Brussels, Belgium.

There have been a number of other significant developments within ILAC under the leadership of the current Chair, Mike Peet from South Africa. These include:

i. The strengthening (deepening!) of the ILAC Mutual Recognition Arrangement (there are now 41 signatory laboratory accreditation bodies from 32 economies) and promotion of the use of accredited (competent) laboratories to governments, regulators, WTO etc.

ii. Continuing work to distinguish clearly between accreditation and certification - there is still confusion in the market place.

iii. Enhanced assistance to developing countries (with the support of UNIDO and ISO) – this has involved training courses, workshops and pre-evaluation visits.

iv. Signing an MoU with BIPM – to strengthen the links between accreditation and metrology, particularly in relation to the respective Mutual Recognition Arrangements.

v. Further cooperation between ILAC & IAF – The LC is represented by David Stanger on the Joint Committee for Closer Cooperation which “manages” those work items which are seen to be in the interests of both organisations to take on jointly.


vii. Increased face-to-face involvement with stakeholders in workshops.

All these activities will again provide the focus for work in 2002, and again CITAC will be making an active contribution to some of them (particularly those involving Metrology), through the Laboratory Committee. Progress will be reviewed at the annual General Assembly and Conference in Berlin from 17 – 28 September 2002. Why not come along and join in the debate?

If you require more information about ILAC’s activities please do not hesitate to visit our website on www.ilac.org or email the Secretary on ilac@nata.asn.au.

We look forward to the continuing support and cooperation of our readers in 2002 – there is still much to do!

Best regards

Alan Squirrell
NATA, Australia
(CITAC Member/ILAC Secretary)

David Stanger
UIL, Belgium
(Chair, ILAC Laboratory Committee)
Future CITAC Events

It was a pleasure to realise that the past few years CITAC increased its contribution to international scientific events such as conferences, seminars, workshops and symposia. This is actually one of the main strategies prescribed in the “Terms of Reference” of CITAC in order to achieve its objectives and mission.

Several colleagues requested on a number of occasions information about such events advanced in time in order to be able to organise their participation or attendance.

The best tool for publication of this information is the CITAC website, which was recently re-organised (article page 7) and is frequently updated. However we thought that it would be useful to provide general advanced information for future events through the CITAC Newsletter.

In the following table you can find information about the subject, location, date and contact persons for future CITAC events.

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>LOCATION</th>
<th>DATE</th>
<th>CONTACT</th>
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<tbody>
<tr>
<td>Workshop: Traceability and Uncertainty: Key Technical Issues and Laboratory Accreditation</td>
<td>New Orleans (USA)</td>
<td>17 March 2002</td>
<td>W. Wegscheider (see page 5)</td>
</tr>
<tr>
<td>Workshop: Measurement Traceability and Uncertainty in Analytical Chemistry</td>
<td>Lucerne (Switzerland)</td>
<td>16-18 June 2002</td>
<td>B. Frei (see page 2)</td>
</tr>
<tr>
<td>Conference Session: Metrology in Chemistry (exact title not confirmed)</td>
<td>Sao Paolo (Brazil)</td>
<td>October 2002</td>
<td>V. Poncano</td>
</tr>
<tr>
<td>Conference Session: Metrology in Chemistry (exact title not confirmed)</td>
<td>Jerusalem (Israel)</td>
<td>November 2003</td>
<td>I. Kuselman</td>
</tr>
</tbody>
</table>

Ioannis Papadakis
CITAC Secretary

Reorganisation of the CITAC website

The last decade Internet became an important (if not the most important) tool of communication. CITAC did not ignore this evolution, and since several years has created a website where various information (program and reports from events, publications, contact details) were placed in order to be accessible at any time and free of change to all interested colleagues all over the world.

Until recently the CITAC website was kindly hosted by VTT in Finland. From the beginning of 2002 the CITAC website changed address and layout. It can now be accessed in the electronic address: http://www.citac.ws

This new site is administered by Hermann Schranzhofer at University of Leoben in Austria. We would like to thank Herman for his excellent work setting up the new website and wish him a lot of success for the future.

Before closing we should acknowledge the contribution of Dr Veikko Komppa for starting and keeping alive the CITAC website with minimum budget and a lot of personal input.

Finally we would like to invite all of you, the colleagues interested in CITAC work, to visit the CITAC website and give us some feedback about its functionality.

Thank you in advance and we are looking forward to your input.

Ioannis Papadakis
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