ilac news

Issue 27, April 2005

www.ilac.org

from the chair

This first article written as ILAC Chair gives me the opportunity to thank again all ILAC members for their confidence in electing me Chair in Cape Town last October.

ILAC, now a legal entity, has become a mature organisation under Mike Peet's chairmanship. Mike did a very great job. He certainly had been helped by several of us and supported by an efficient secretariat, but he himself spent a lot of his time for the benefit of our co-operation.

Today, ILAC is on track. We have a Business Plan and assigned responsibilities for all committees. This will permit to the new Executive Committee to insure continuity in the work. Indeed, a lot of work is still in front of us. The list includes, but is not limited to:

- enhancing our Arrangement,
- developing our communication for a better promotion of accreditation,
- strengthening liaisons and co-operation with our partners,
- producing, when needed, relevant guidance documents.

The new Executive Committee met for the first time on 1 and 2 March in Paris and I can express my confidence in the ability and the professionalism of its members, as well as in their strong commitment to serve ILAC.

Let us go ahead!

Kind regards

Daniel Pierre
ILAC Chair

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Editor: Paul Davies
Designer: Denise Popovic

International Laboratory Accreditation Cooperation

ILAC News is published twice a year by the ILAC Secretariat. Contributions represent the view of the authors and the editorial represents the opinions of the Editor. Such views and opinions do not necessarily reflect ILAC Policy.

ILAC Secretariat: Alan Squirrell, Annette Dever, Florence Fung, Mohan Sabaratnam, Paul Davies

news from the ilac secretariat

ILAC begins 2005 with a new Chair, Daniel Pierre, and an Executive Committee with a combination of old and new faces, and with some of the familiar faces taking on new roles. We also have the revised committee structure, confirmed in Cape Town last October and the ILAC Business Plan (now published as S3: 2004) which outlines ILAC's goals and strategies for the next five years and the roles of the new committees.

ILAC has also begun the year in the same fashion as it finished 2004 — that is with the signing of a Memorandum of Understanding (MoU). ILAC entered into a new MoU with the International Accreditation Forum (IAF) and the United Nations Industrial Development Organisation (UNIDO) on 10 October 2004. This MoU was signed during the ILAC/IAF Joint General Assembly in Cape Town, with the UNIDO Director-General Mr Carlos Magariños, participating via video conference. This marks a new and very significant phase in the development of the relationship between ILAC, IAF and UNIDO, the benefits of which will hopefully be seen in by our developing accreditation bodies in developing economies.

ILAC also entered into an MoU with the International Electrotechnical Commission (IEC), on 9 February 2005. The MoU has the effect of making official, a working relationship which has been developing since December 2002. The laboratory community common to both the IEC Schemes and ILAC membership have endured duplication of effort for too long. This cooperation, now formalised through the MoU, will go a long way to relieving this burden whilst enhancing the assessment process overall.

Details of both MoUs can be downloaded from the ILAC website at www.ilac.org under International Partnerships.

Following the signing of the tripartite Memorandum of Understanding (MoU) between ILAC, the International Accreditation Forum (IAF) and the International Organization for Standardization (ISO) in March 2004, representatives from the three organisations have met twice to discuss priorities for cooperation in areas providing mutual benefit for the members of each organisation. In addition, there continues to be a lot of ILAC/ISO activity at the CASCO Working Group and ISO Technical Committee levels.

The ILAC Arrangement

As at the end of February 2005, there were 47 Signatories (Full Members) to the Arrangement, representing 38 economies.

ILAC continues to focus on enhancing a more widespread understanding of the benefits of the Arrangement amongst the international community, particularly governments and regulators.

The ILAC Arrangement Management Committee, which manages the ILAC Arrangement, is currently working on initial evaluations of four unaffiliated (ie not a member of a recognised geographical region) Accreditation Bodies who are seeking ILAC Arrangement Signatory status and one Regional Cooperation Body seeking evaluation for the purposes of Recognition. This is in addition to the re-evaluation of the recognised region Asia Pacific Laboratory Accreditation Cooperation (APLAC) which is now nearing completion.

Joint ILAC/IAF Activities

The joint activities between ILAC and IAF continue to be managed through a Joint Committee for Closer Cooperation (JCCC). Currently operating under the stewardship of this committee are the following:

- Joint working group for inspection;
- Joint development support committee;

With the publication of the Joint IAF/ILAC A-Series documents the work of the Joint working group on harmonisation of peer evaluation procedures has been completed. As a result, it was decided by both organisations in Cape Town, that this group should be disbanded and replaced by a Joint Task Force. Three representatives each from ILAC and IAF, have been appointed to take the lead on each of the following work items:

- maintenance of the A-Series documents;
- training of Peer Evaluators;
- transition/guidance for ISO/IEC 17011:2004

The ILAC and IAF survey on future meetings has now been finalised and the collated results are being distilled to determine what format the majority of members from both organisations would like to see operating for future meetings. The results of this survey will be made available shortly after a review by the Joint Task Group and the JCCC.

The JCCC met on 8 October 2004 in Cape Town, South Africa and the next scheduled meeting is for 15 June 2005 in Frankfurt, Germany.

ILAC Liaisons

As you can imagine, ILAC's nominated liaison officers have been busy during late 2004 and early 2005 representing ILAC at meetings, and communicating on matters which impact on the activities of ILAC and its members.

The review of liaison activities — both for ISO and other external bodies, continues to be a major focus of the Executive Committee, who seek to ensure that ILAC interests are represented in areas which have an impact on the activities of ILAC and its members. To assist with the management of the ILAC liaisons, the database

originally created by BAM, Germany, for the information of ILAC members, is in the process of being transferred to the ILAC servers where access will be via the ILAC website.

As the areas utilising accreditation continue to increase, so too do the number of liaison activities. The Executive Committee is looking to spread the liaison activities amongst a larger number of the ILAC members, which will provide the dual benefits of distributing the workload and bringing a wider perspective to the table.

ILAC and the World Anti Doping Agency (WADA) have continued the cooperation begun in 2003 with representatives from WADA attending part of the ILAC Technical Accreditation Issues Committee (now Accreditation Committee) meeting in Cape Town. In addition, the WADA representatives met with a smaller ILAC Working Group, consisting of representatives from accreditation bodies involved in the accreditation of sports drug testing laboratories. Firm progress has been made in the collaboration between both organisations in the area of accreditation and assessment of sports drug testing laboratories. WADA will be running its second training course for Technical Assessors in April 2005.

ILAC liaison activity with the BIPM and associated groups continues to be a major activity. The last meeting of the BIPM/ILAC Joint Working Group was held in Paris on 11 November 2004 and progress will be reviewed after a workshop on 7–8 March, for the Chairs of Regional Metrology Organisations and Regional Accreditation Bodies, focussing particularly on the processes involved in the accreditation of National Measurement Institutes. A draft Joint Statement of the processes involved with both the BIPM MRA and the ILAC Arrangement, recognising the importance of linking metrology and accreditation, has been produced and was reviewed in March 2005.

Work also continues with the following Joint Committees:

- Traceability in Laboratory Medicine (JCTLM),
- Developing Countries in Metrology, Accreditation and Standardisation (JCDCMAS),
- Guides on Metrology (JCGM)
- as well as representation on the Consultative Committee for Amount of Substance (CCQM).

With the Organisation for Legal Metrology (OIML), a tripartite meeting (with BIPM and ILAC) was held in Paris on 10 March. A draft document on the relevance of various international agreements on metrology, with respect to trade, legislation and standardisation, will be considered.

The Work of the ILAC Secretariat

The ILAC Secretariat has now implemented some changes to the ILAC website, most notable of which is the re-design of the ILAC home page. We hope that the new features and design of this page will facilitate use of the website by ILAC members and other interested parties. As always, member's suggestions for the website are welcome.

The Secretariat continues to be busy with the registration of the ILAC MRA Mark and the signing of the associated Licensing Agreements. Revised versions of the Licensing Agreements (to include the name of the new ILAC Chair, Daniel Pierre) were sent to all ILAC Full Members in October 2004. As at 28 February 2005, ILAC had issued 23 Licensing Agreements to ILAC Full Members.

Following the request to members to (re)nominate for membership of the ILAC Committees, all names received by the Secretariat have been forwarded to the relevant Committee Chairs in preparation for the first meetings in 2005.

The following staff are involved in the activities of the ILAC Secretariat in varying degrees:
Alan Squirrell — ILAC Secretary; Annette Dever; Florence Fung; Paul Davies; Mohan Sabaratnam and Denise Popovic.

ILAC General Assembly

The 2004 ILAC/IAF Conference was held during the period 4–13 October, in Cape Town, South Africa. The meeting enjoyed a large attendance and many long running projects were finalised. All indications were that delegates were happy with both the work and social aspects of their time in Cape Town. We again give our thanks to the outgoing Chair, Mike Peet, for all of his efforts during his four years as Chair of ILAC. We wish him well for the future.

A large range of photos taken during the meetings and social events in Cape Town are available from the conference website at: http://www.ilaciaf2004.co.za/

The 2005 Annual Meetings for ILAC and IAF will be held in Auckland, New Zealand, from 12 –21 September 2005. The conference website, with full details of the meetings, is now available at http://www.ilaciaf2005.com . Access to this site is also available from the homepage of the ILAC website.

ILAC Membership

ILAC membership as at 28 February 2005 is as follows:

- 47 Full Members (Signatories to the ILAC Arrangement) representing 38 economies;
- 16 Associates representing 15 economies;
- 21 Affiliates representing 19 economies;
- 5 Regional Cooperation Bodies;
- 1 National Coordination Body;
- 18 Stakeholders.

The ILAC membership (total 108 bodies) now covers a total of 68 different economies worldwide and a total of 26,000 laboratories and inspection bodies are accredited by the 63 ILAC Full Members and Associates.

Further information on ILAC can be obtained from the ILAC website at www.ilac.org , or email the Secretariat on ilac@nata.asn.au.

IEC and ILAC Formalise Working Relationship

ILAC Chair Daniel Pierre (left) and IECEE Executive Secretary Pierre de Ruvo (right)

The IEC and the International Laboratory Accreditation Cooperation (ILAC) have signed a Memorandum of Understanding (MoU) to make official a working relationship that had been operating informally since December 2002.

IEC General Secretary Aharon Amit and ILAC Chair Daniel Pierre signed the MoU at IEC Central Office in Geneva on 9 February 2005. Commenting on the event, Amit said: "Formalising our arrangement is important for the IEC because its means that by cementing ties with a highly respected market player we can reduce expenses for the stakeholders in our conformity assessment systeMs" Daniel Pierre commented "The laboratory community common to both the IEC Schemes and ILAC member accreditation have endured duplication of effort for too long. This cooperation, now formalised through the MoU, will go a long way to relieving this burden whilst enhancing the assessment process overall."

In December 2002, the IECEE CB Scheme and ILAC member IANZ carried out their first joint assessment at Wakefield Laboratories in Auckland, New Zealand. Several other test laboratories have been through the same process with the CB Scheme and other ILAC member accreditation bodies since then. Recently, IECEx was involved in joint assessments with the National Association of Testing Authorities, the Australian ILAC member. Doing it this way makes the process more efficient and less costly because instead of two separate assessments covering the same activities, laboratories can have one joint assessment.

The other aspect to the IEC/ILAC MoU has to do with the common understanding of ISO/IEC 17025 *General requirements for the competence of testing and calibration laboratories*, which is dealt with by the joint working group set up between the IEC Conformity Assessment Board (CAB) and ILAC. "This agreement helps to ensure that the standard is applied in the same way by both the IEC and ILAC," says IEC CAB Chairman Don Gray, "which makes life easier for the testing laboratories."

IECEE Executive Secretary, Pierre de Ruvo, said he is "looking forward to developing the relationship and working even more closely in the future with IECEE counterparts in ILAC based on a common view of the value of joint assessments."

According to its website, ILAC "is an international cooperation between the various laboratory accreditation schemes operated throughout the world." Accreditation bodies demonstrating compliance with ISO/IEC Guide 58 and now ISO/IEC 17011, through ILAC's peer evaluation process, are admitted to the ILAC Mutual Recognition Arrangement.

The IEC's three conformity assessments systems are the IECEE for electrical equipment, the IECEx for electrical equipment used in explosive atmospheres and the IECQ-CECC for electronic components.

ISO 15189 Covered by the ILAC MRA

It seems to have been a long time coming but we are pleased to confirm that the accreditation of medical laboratories to the standard ISO 15189 *Medical laboratories — Particular requirements for quality and competence* is now covered by the ILAC MRA.

It was in Washington in 2000 that the ILAC General Assembly endorsed the resolution that paved the way for this to happen. Since then, many people have been involved to ensure that when the standard was published, it was harmonised with accreditation requirements so that in a similar manner to ISO/IEC 17025, it could be included within the MRA.

Many accreditation bodies have already been working for some time to ready themselves for this occasion and in these economies, medical laboratories can now be accredited to ISO 15189. The number of accreditation bodies offering this service will no doubt increase over the coming months and years, facilitating the acceptance of results from medical laboratories within and between countries.

All those involved should be congratulated on the outcome.

ILAC Laboratory Survey on Conversion to ISO/IEC 17025

A Report by Bryce McNair, Survey Co-ordinator, on behalf of the ILAC Laboratory Committee

Introduction

In 2003, the ILAC Laboratory Committee decided that a survey should be undertaken to test the extent to which there were on-going problems faced by laboratories in relation to the conversion from accreditation to ISO/IEC 17025 from previous laboratory accreditation standards.

A brief survey form was distributed to accredited laboratories twice through accreditation bodies in early 2004. The response

exceeded expectations — a return rate of five percent is usually thought acceptable whereas this survey attracted responses from over ten percent of the population. There are some notable gaps — for example, the results do not express the views of laboratories in Sweden, France or New Zealand.

While the sample is self-selected and therefore lacks the representativeness of a random collection, the survey results could be said to indicate the range of views held by the managers of accredited laboratories around the world. The responses were sent direct to the Convenor on the basis that their answers would not be revealed in an identifiable way to their accreditation body or others, thus giving laboratories the opportunity to express honest opinions. This factor lends particular power to the survey results.

There were major problems in handling of the considerable amount of data represented by over 2,000 survey forms (mostly emailed but with over 300 faxes) and the survey could not have been completed without the application of significant blocks of time by the staff of NATA Australia. It is recommended that future global surveys of laboratories be collected online which would obviate the need for manual data capture. While unprompted questions and provision for comments allow analysts to get a richer understanding of the opinions of respondents, they are probably not worth the considerable extra time involved to record and assess them.

The Response

The responses were received from 51 countries. Laboratories were asked to specify the fields of testing for which they were accredited and it is likely that the lack of an international standard for the classification of testing fields led to some confusion amongst laboratory managers and makes it difficult to judge which sectors have been under-represented. Chemical laboratories accounted for nearly half of the sample with significant numbers of responses from calibration and metrology and from mechanical testing.

A surprisingly small number declined to provide identifying information. They have been included where they have answered significant portions of the survey.

The Results

Issues in ISO/IEC 17025 Conversion

Respondents were asked to indicate whether the four nominated topics ("laboratory management", "method validation", "estimation of uncertainty" and "traceability") had been an issues for them during the transition and, if so, whether the issue had been resolved. There was also scope for laboratory managers to nominate other topics that had caused problems, but virtually no other topics were raised.

The results indicated that there is ongoing concern about the issue of estimation of uncertainty required by the new standard amongst over 15 percent of respondents.

Confidence About On-going Compliance

Respondents were asked to indicate the level of their agreement or disagreement with the following statement "The key staff in our laboratory know enough about ISO/IEC 17025 to maintain our accreditation." The results indicated that laboratory managers are generally confident that the transition has been successful.

Further Training and Help Required for Laboratories

Respondents were asked "In relation to your laboratory's accreditation to ISO/IEC 17025, what issues do you need most information/training in now?" and invited to nominate up to three issues unprompted. The two major issues were uncertainty of measurement (865) and method validation (350) but a number of others were mentioned, including

- Inter-laboratory Comparisons (111)
- Traceability (92)
- Laboratory Management (67) – both the need for general training in laboratory management and training in laboratory management systems
- Internal Audits (60)
- Staff Training (53) — often referring to the need for general training opportunities for new technical staff
- Calibration (52)
- Software Validation/LIMS issues (35)
- Corrective/Preventative Actions (33)
- QA/QC and Statistics (24)
- Document Control (22)
- Reference Materials (21)
- Management Review (13)
- Sampling (13)
- Equipment Validation (10) — a small number of laboratory managers specifically requested better information on future changes to the laboratory accreditation standard
- Changes to 17025 (10)
- Environmental Issues (10)

It is important to note that most laboratories did not answer this question indicating that they did not see the need for further training and assistance. There were fewer than 1900 issues nominated out of a potential total of 6477 (2159 respondents by 3). However, the fact that 40 percent sought further assistance in dealing with the standard's requirements relating to uncertainty of measurement points to a clear need for further information and training.

This was the one question where the responses from the largest field – chemical laboratories – diverged from the mean, being more likely than the whole sample to require further training and assistance in both measurement uncertainty (45.8 percent compared to 40.1 percent) and method validation (23.4 percent compared to 16.2 percent).

Laboratory Accreditation Versus Certification

Laboratory managers were asked to express a view on whether the new laboratory accreditation standard had enhanced the

distinction between laboratory accreditation and certification. A majority (67%) thought that it had which suggests that the distinction is important to laboratory managers.

Many of those who disagreed commented that the distinction was not understood or appreciated outside of laboratories and the new laboratory accreditation standard had not done anything to improve the situation. Almost none of the respondents who agreed with the statement made useful comments explaining their view.

Attitudes to Further Changes to ISO/IEC 17025

The main lesson from this question was that over 60 percent of laboratories do not favour changes to the standard at this time, their comments indicating that they are still consolidating the new standard. The 15 percent who disagreed tended to favour the early alignment of the laboratory accreditation standard with ISO 9000:2000. A significant proportion, nearly a quarter, did not understand the issues well enough to comment.

Perspectives on the Conversion Process

Considering the extent of the changes in the laboratory accreditation standard, the difficulty of some of the issues raised and the fact that some of them are not fully resolved, it is remarkable that the laboratory community generally considers that the transition has gone smoothly. A miniscule proportion took the opportunity to berate ILAC or their accreditation body for inadequate preparation or assistance.

The Value of Laboratory Accreditation

The results indicated that most laboratories are happy to be accredited. Those that are not so pleased tended to complain about the cost and inconvenience of the standard and the accreditation process.

Inter-laboratory Comparisons, the Laboratory Perspective

This question indicated that laboratories value inter-laboratory comparisons, despite the complaints about cost and delays in receiving results. The main reason for dissatisfaction was that proficiency testing was not available to the respondent's laboratory. The comments confirm that laboratory managers see such comparisons as an important part of their accreditation and professionalism.

Conclusions

The global laboratory community appears to have coped well with the significant changes wrought by the introduction of ISO/IEC 17025 as the laboratory accreditation standard. While there are some remaining issues, particularly with regard to estimation of uncertainty and method validation, the survey indicates that the bulk of laboratories around the world have accepted the new requirements.

On the other hand, the survey showed that, as late as May 2004, further training and other assistance was still required on a range of issues, notably estimation of uncertainty, method validation, inter-laboratory comparisons, traceability and the suite of topics included in quality management systems for laboratories. Many respondents pointed to the need for further training opportunities for laboratory managers and technical staff on the specific requirements of ISO/IEC 17025 and more generally.

The performance of accreditation bodies in informing laboratories of the new requirements was generally well rated by laboratory managers.

A majority of laboratories would prefer that they be allowed to consolidate their operations to the new system before further changes are made to the accreditation standard. A small minority expressed support for early alignment of the laboratory accreditation standard with ISO 9000:2000.

Strong majorities of respondents considered that laboratory accreditation is a good investment and that proficiency testing and other inter-laboratory comparisons provide good value.

Overall, the survey reinforces the laboratories' own perspective that the conversion of laboratories around the world to the new accreditation standard has gone smoothly.

The full report is available from the ILAC secretariat on request (email: ilac@nata.asn.au)

ILAC Proficiency Testing Workshop Summary Cape Town, South Africa, 5 October 2004

During the ILAC 2003 General Assembly in Bratislava, the membership requested ILAC to seek inputs through the formation of an ILAC Proficiency Testing (PT) Forum. This forum was to discuss current key issues regarding PT and its relationship to ILAC members and stakeholders. The responsibility for organising the workshop was taken on by Tony Russell, Convenor of the ILAC APC Working Group on PT Policy and Coordination.

The workshop was open to all ILAC members including invited external operators and stakeholders of PT prograMs Mike Peet, Chief Executive of the South Africa National Accreditation System (SANAS) and the host for this 2004 General Assembly, welcomed the approximately 87 attendees. Seven presentations were held which generated a highly active discussion amongst participants and speakers.

These discussions led to a better understanding of the problems and issues facing proficiency testing providers and the ramifications on laboratories when participating in proficiency testing programs Further, this brainstorming session provided avenues for developing a series of consensus proposed resolutions. These proposed resolutions were initially to be presented to the General Assembly for further discussion and approval.

During the workshop some of the key emerging issues raised were:

- A survey by ILAC members was suggested in order to determine if a revision of ISO Guide 43 was necessary. This would include the view of PT Providers, as this sector of the industry was not included in the last revision of the standard;
- To work towards a possible PT Provider MRA;
- The operation of, and access to Proficiency Testing in developing countries;
- Support by developed nations to developing nations may be feasible through a project between UNIDO and ILAC;
- The use of the EPTIS website was raised as an information site;
- Due to the relatively small number of PT providers worldwide, it was suggested that a model could be investigated for ILAC Regional Cooperation Bodies (eg. APLAC, EA etc) to coordinate the accreditation of PT providers at a regional or international level, when appropriate;
- Proficiency testing providers for inspection bodies are different and therefore require a different set of Terms of References. However, it was suggested that this could be linked through the ILAC Laboratory Committee where all stakeholders can be consulted.

Workshop Conclusions

As a result, the following resolutions regarding proficiency testing were accepted by the members at the eighth ILAC General Assembly held in Cape Town, South Africa on 10 and12 October 2004:

ILAC Resolution GA 8.22

The General Assembly notes the success of the Proficiency Testing Workshop held in Cape Town and supports its finding of the need for a sub committee, consultative group or forum. This group should be established within the ILAC structure to coordinate issues relevant to proficiency testing, including contributions from independent providers of Proficiency Testing. The General assembly asks the Executive Committee to consider options for such a group, taking into account the draft terms of reference tabled at the Cape Town Workshop.

ILAC Resolution GA 8.31

The General Assembly, acting on the recommendation of the JDSC, resolved that the JWG on Inspection Bodies would conduct a survey on the role of proficiency testing programs in inspection bodies.

Draft Terms of Reference For ILAC Resolution GA 8.22

The following draft Terms of Reference tabled at the Cape Town Workshop that were accepted for consideration at the General Assembly under ILAC Resolution GA 8.22 were:

(i) To organise or contribute workshops, seminars, and conferences dealing with PT issues for all parties, particularly accreditation bodies, external PT providers and laboratories;

(ii) To advise the ILAC Executive, AMC and General Assembly on PT Policy, coordination and technical issues relevant to the ILAC Arrangement and more generally on the use of PT by accreditation bodies and other users;

(iii) To advise ILAC on the relevance of accredited PT providers to the ILAC Arrangement;

(iv) To review the policies on PT developed within Regional Cooperations for possible adoption by ILAC;

(v) To assist in the coordination of Region to Region participation in PT and potential involvement of unaffiliated bodies in Regional PTs;

(vi) To identify needs for PT access for developing countries and unaffiliated bodies and cost effective mechanisms for including them in PT programs operated by, or on behalf, of ILAC members;

(vii) To encourage all PT providers to use consistent or harmonised international criteria for operation of PT programs and to contribute to the development in ISO, ILAC, the Regional Cooperations of ILAC etc of such criteria;

(viii) To advise ILAC on the appropriate harmonised criteria to be used to accredit PT providers;

(ix) To draft documents, policies etc on PT for possible adoption by ILAC and other relevant bodies;

(x) To organise or contribute to workshops, seminars, and conferences dealing with PT issues.

Using the World Wide Web to Provide a Searchable Directory of Accredited Scopes

Daren C. Valentine, Communications Manager, American Association for Laboratory Accreditation

Summary

Since 2001, A2LA has provided the users of accredited test and calibration laboratories a simple method for searching the A2LA Scopes of Accreditation. This simple method draws upon the power of a back-end database for data storage, Adobe Acrobat for scope production, and ColdFusion MX for scope indexing and database-to-web translations. From staff and end-user standpoints, it is relatively easy to use and provides access to all of A2LA's accredited scopes.

Requirements

Microsoft Windows 2000 Server
Microsoft Internet Information Server
Macromedia ColdFusion MX Standard
Adobe Acrobat Standard v5.0 or above
Word Processing Software
Relational Database

- Microsoft SQL Server 2000;
- Microsoft Access;
- Other database supported by ColdFusion MX

Database Design

ColdFusion MX supports the use of many database formats, including the widely available Microsoft Access, as well as other higher end databases, such as Oracle, DB2 and Microsoft SQL Server. Commands are issued to the back-end database using standard SQL syntax.

The first two tables are related by a single column (or field) entitled "ID". The "Master" table contains standard information, such as name, address, country, phone, fax, email, etc. The "Certificates" table contains specific information related to a single Scope of Accreditation (certificate number, accreditation date, expiration date, lapsed date, etc).

The certificate number relates the third table, Certification Actions, used mainly to track laboratories whose certificates have lapsed, to the "Certificates" table. This table stores historical data, including actions (accredited, re-accredited, withdrawn, etc.), reason for the action, and date.

The field_pk column offers a relation to the Fields of Testing table, while the comm_pk column provides a relation to the Commercial Status table.

The database structure shown below is housed on a Dell PowerEdge 4600 server (XEON dual processor, 2 gb RAM, dual SCSI hard drives), running Microsoft SQL Server 2000 (sp3).

Master Table (SQL Server 2000 data types)

Column Name	Data type
Id	Integer (identity)
Last_name	Varchar
First_name	Varchar
Title	Varchar
Lab_name	Varchar
Address	Varchar
City	Varchar
State	Varchar
Zip	Varchar
Country	Varchar
Phone	Varchar
Fax	Varchar
Email	Varchar
Web_address	Varchar

Certificates Table

Column Name	Data type
Id	Integer (identity)
Certificate_no	Numeric (9,2)
Field_pk	Integer
Comm_pk	Integer
Accreditation_date	smalldatetime
Expiration_date	smalldatetime
Lapsed_date	smalldatetime
PDF_filename	varchar
Supp_Contact	Varchar
Supp_phone	Varchar
Supp_fax	Varchar
Supp_email	Varchar

Certificate Actions Table

Column Name	Data type
Certificate_no	Numeric (9,2)
Action_pk	Integer
Action_Date	Smalldatetime
Action_Reason	Varchar

Fields Table

Column Name	Data type
Field_pk	Integer (identity)
Field_of_Testing	Varchar

Commercial Status Table

Column Name	Data type
Comm_pk	Integer (identity)
Commercial_code	Varchar
Commerical_status	Varchar

Scope Indexing

Coldfusion MX provides two means to index documents on the web server, Verity and Verity K2. Verity is intended for an application of under 2,500 documents, while Verity K2 can index up to 25,000 documents. These engines are used to index a directory of Scopes produced in the Adobe PDF format. A "Scopes" index collection is generated on a daily basis.

A ColdFusion template is used create a collection of documents and index the set of documents:

```
<CFCOLLECTION ACTION = "create"
PATH ="<your coldfusion collection path>"
COLLECTION="Scopes"
LANGUAGE ="<one of several Verity supported
          =languages>">
```

After the collection of documents has been created, the collection may be indexed. It is a simple matter to set up a scheduled event to :

```
<CFINDEX COLLECTION="Scopes"
   KEY="<directory of documents>"
   ACTION="UPDATE"
   TYPE="PATH"
   URLPATH="<base path of your web server documents
            folder>"
   EXTENSIONS=".pdf"
   RECURSE="No"
   LANGUAGE="English">
```

The collection that is created contains a full-text index of all documents contained in the collection. A simple search template is shown below:

```
<HTML>
<HEAD>
<TITLE>Search A2LA Scopes</TITLE>
<cfset Crit = "pipettes">
    <CFSEARCH Name="Scopes"
    collection = "Scope2"
    Type = "Simple"
    Criteria = #Crit#>
<CFOUTPUT><H3>Your query returned
    #Scopes.recordcount# records #crit#</H3></
    CFOUTPUT>
    <TABLE BORDER=0 CELLPADDING=3>
        <TR>
            <TD>Score</TD>
            <TD>Document</TD>
            <TD>Summary</TD>
        </TR>
        <CFOUTPUT Query="Scopes">
            <TR>
                <TD>#score#</TD>
                <TD><a href="#url#"
          target="_blank">#url#<a></TD>
                <TD>#summary#</TD>
            </TR>
        </CFOUTPUT>

</HTML>
```

Web Interface

ColdFusion MX provides the interface between the data and the template requested by the user. The Search Request form (http://www.a2la.org/dirsearch/search9.cfm) provides several search parameters, including text search, laboratory name, state, and zip codes. Several of these fields are dynamically generated from the database.

The snippet from the ColdFusion template used to generate the form (http://www.a2la.org/dirsearch/search9.cfm) may be viewed at http//www.a2la.org/ilac/search9.doc.

Once the parameters are established and the user submits the form, several actions happen in the background:

1. If a search string is provided, the "Scopes" index collection is queried for matching documents.
2. The matching document names are parsed into an array named "matching_scopes".
3. The matching scopes array is linked to the certificates table by the returned PDF_filename.
4. The remaining parameters (city, state, zip etc.) specified by the user, are used to filter the "matching_scopes".
5. The resulting data is displayed.

The code for the resulting data display may be seen at http//www.a2la.org/ilac/results9.doc.

A link is provided to the actual Scope of Accreditation, as well as links to the laboratory's web site and contact's email address, if provided by the laboratory.

For more information, including code examples, please contact Daren Valentine by email at dvalentine@a2la.org, or by phone at 1 (301) 644 3213.

Surveying the Needs of ILAC Members

Over the past two years, the ILAC Marketing and Communications Committee (MCC) has been preparing an "ILAC primer" as an aid for ILAC members and stakeholders in:

- *promoting their accreditation services to laboratories, industry, regulators and government;*
- *developing promotional material for their organisation;*
- *using the web as a tool for promotion;*
- *organising ILAC conferences and seminars;*
- *raising awareness of laboratory accreditation and its benefits; and*
- *seeking international support for attendance at conferences.*

The MCC recommended that this material be reproduced in ILAC News over several issues. The following article looks at how surveys of ILAC members or stakeholders may be organised to gather information on a particular topic. It was prepared by the late Jackie Sample, former Chair of the MCC. It will assist those of you planning surveys, both on behalf of ILAC and for your own organisation, to do so in a planned and effective manner. This paper is also available on the 'Resources' page in the Members' Area of the ILAC website.

Part I — Planning Your Survey Efforts

1.0 Introduction

In 1999, the MCC (then the PAC) developed and distributed a survey designed to gather information on the status of accreditation programs as well as to elicit the views of ILAC members on their public affairs and communications needs. As discussed further in Section 1.2.1, while the response rate to the survey was high for Full Members, it was low for Stakeholder and other members. The majority of members surveyed identified two problems as being most important with regard to increasing participation in their accreditation programs: lack of government recognition and lack of customer demand for accreditation. In addition, members identified two areas for which they desired assistance: promoting and recognising existing accreditation systems and developing new systeMs Of these two areas, members were primarily interested in promoting existing accreditation systeMs

1.1 Purpose

This guidance is designed to assist in soliciting ILAC members' input regarding effective ways to address specific issues and promote the benefits of accreditation. Part I addresses planning your survey efforts. It discusses evaluating the results of previous efforts — both the results of the 1999 survey and the actions taken pursuant to those results. Topics include:

- Determining your survey objectives;
- Defining your audience;
- Selecting your surveying.

Part II addresses how to design your survey instrument and conduct your survey efforts. It discusses:

- Developing your survey questions
- Designing and pilot testing the survey instrument
- Conducting the survey and organising the results
- Quality Assurance/Quality Control (QA/QC) of the data
- Analysing the results

1.2 Defining Your Objectives and Audience

The first step in planning your survey efforts is to determine and define your objectives — What are your goals? What are you trying to accomplish? All other steps in the surveying process relate back to your objectives. Two possible objectives for your surveying efforts could be to evaluate:

- If the perception of issues and participation have changed over time (i.e., repeat the old survey — benchmarking), and/or
- If the value of products That ILAC has developed as a result of previous surveys, (i.e., combine part of the old survey with new questions addressing product value).

You can use your survey to help establish a benchmark. This will help you find out if the members still think problems they identified in previous surveys still need to be addressed or if any new problems have arisen. If this is what you want to do, you can use the same survey instrument that you used in the last survey effort or a slightly modified survey.

As a result of the 1999 survey, the MCC developed several products to assist the Members with generating interest in laboratory accreditation. You may want to determine if materials you developed and disseminated following your survey helped to increase interest and participation in accreditation processes. Some examples of the type of information you can request from your members are:

- Has accreditation of laboratories increased?
- Has there been an increase in the number of fields of accreditation?
- Has the use of accredited laboratories increased?

In these cases, you can survey members for their opinion. However, you might get more information if you reach out to the real audience – the people in government and industry from whom you are trying to solicit interest. To do this, it would probably be most efficient to work through your members. To help them get information from their intended audience, you can develop an instrument that they can use to survey their audience. The approach you take depends on the resources you and your membership are able to commit to the effort. Outreach to the end audience would provide the more in-depth information but would also require greater expenditure of resources.

1.2.1 Defining Your Audience

Keep in mind that the sample sizes for the different types of ILAC membership groups can vary significantly. For instance, while 56% of all Stakeholder Members responded to the 1999 survey, that 56% only amounts to nine responses. You may want to consider

these numbers when determining the audience for your surveying efforts and focus resources on member groups with a history of higher response rates. On the other hand, you might decide that it is important to engage all ILAC members, including those with low previous response rates. If you decide to target members with low response rates, you should try to answer the following questions:

- Why was the rate of response for members without full membership so low?
- What can we do to increase the participation level of this audience?

Answering these questions will help you find an effective way of soliciting responses from member groups with low response rates. If you want to determine how to engage that audience more effectively, include these members in your pilot test of the survey instrument. The section of this document on pilot testing the survey discusses the process in greater detail.

Types of Surveying Methods

Type of Surveying Method	When It Is Appropriate to Use It
Telephone interviews — Interviews conducted verbally over the telephone	• When you want to ask open-ended questions and be able to follow up and clarify answers as you go, and/or • When respondents are not so geographically dispersed that long-distance charges would be prohibitive
In-person interviews — One-on-one interviews	• When you want to ask open-ended questions and be able to follow up and clarify answers as you go, • When you feel that an in-person interview would set the right atmosphere to get the information you need, and/or • When respondents are not so geographically dispersed that travel costs would be prohibitive
Mail-out surveys — Questionnaires that are mailed to potential respondents	• When you have more close-ended questions than open-ended questions, • When potential respondents are so geographically dispersed that travel or long distance costs are prohibitive, and/or • When potential respondents do not have access to or are not comfortable with using computers or the Web on a regular basis
Electronically disseminated surveys — Questionnaires that are disseminated electronically, either by posting on a website or email and then printed and filled in manually	• When you have more close-ended questions than open-ended questions, • When potential respondents are so geographically dispersed that travel or long distance costs are prohibitive, and/or • When you do not have the resources to develop or buy an interactive Internet program
Interactive electronic surveys — Electronic questionnaires that are filled out directly on the Web	• When you have more close-ended questions than open-ended questions, • When potential respondents are so geographically dispersed that travel or long distance costs are prohibitive, • When you want to take advantage of benefits such as hot-linked definitions, real-time entry correction, no data entry • When you have access to/resources for someone with mid-level programming/ database experience
Mail-back forms — Post cards with questions that are either delivered by mail or placed at a location that is convenient to potential respondents	• When you need limited information on a very specific subject

1.2.2 Selecting Your Approach

Once you have determined who your audience will be, you need to decide on the best approach to your surveying efforts. In other words, what type of survey would achieve the best results with your chosen audience? There are many ways for organisations to solicit feedback from their members, including in-person and telephone interviews and electronic and mail-out surveys.

Because ILAC's membership is geographically diverse, probably the best way to disseminate a survey is electronically, either by e-mail or the Internet. E-mail surveys are sent as an attachment to an e-mail message. Internet surveys are interactive surveys that are posted on the web and allow for extra useful features such as the ability to click on a link to get definitions/ clarification of selected terMs There are several off-the-shelf Internet surveying software packages available. Considerations in the use of electronic surveys are further discussed in Part II. The MCC survey in 1999 was conducted electronically (via e-mail and by posting on the ILAC Web site) and achieved a good response rate. However, as the survey was printed out and filled in as a hardcopy, it did not take full advantage of the capabilities and types of interactive Internet surveys that are now available. Also, in the 1999 survey ILAC members expressed a preference for receiving materials electronically. In addition, telephone charges or travel costs might be prohibitive for telephone interviews, in-person interviews, or focus groups conducted internationally. Mail-back forms are a low-cost surveying option, but by design, they are short and do not allow for the inclusion of much detail.

1.2.3 Conclusion

Once you have decided on your survey objectives and approach, you are ready to move onto the next phase of your survey efforts — designing and conducting your survey. Through all the steps of the next phase, try to keep the objectives of your survey efforts in mind. This will help develop a concise and focused survey instrument, which is crucial to achieving your goals.

Part II — Designing and conducting the survey

2.0 Developing Your Questionnaire

2.1 Selecting Types of Questions

When developing your questions, you will want to choose the right kind of question for the level and type of information you need to get. Questions can be either open-ended or closed-ended. Open-ended questions provide you with more detailed qualitative information, especially if you are not sure of all the possible answers your respondents may have, but the answers to open-ended questions can be difficult to quantify and analyze. You may end up with a broad variety of answers that are difficult to sort into distinct categories for analysis. Also, open-ended questions may result in irrelevant answers or answers that are difficult to understand.

Closed-ended questions limit the possible responses and allow for easier quantitative analysis. Answers can be entered into a database and easily sorted. There are four types of closed-ended questions: (1) dichotomous (yes or no), (2) categorical, (3) rank order, and (4) scale. Scale questions may use either numbers or terMs Examples of these types of questions are provided in the text box at right. If you would like to get a combination of detailed qualitative information and easily analysed quantitative information, you can use a combination of open-ended and closed-ended questions, or use closed-ended questions and provide a space for written comments.

2.1.1 Phrasing and Formatting Questions

Simple and clear questions are essential to gleaning good information. You want to avoid questions that are long, complex, or overloaded. Your questions should clearly link back to your objectives. Do not include questions to gain information that may be interesting but does not relate directly to the objectives of your survey effort. You also do not want your survey instrument or your questions to be longer than is necessary to accomplish your objectives. Some considerations for simplifying the structure of your questions are given below:

- Keep the average word length to about six letters per sentence or question.
- If you can use a shorter word that means the same thing, do so (e.g., use the verb "end" rather than "terminate").
- Make the average number of syllables per word less than two per sentence or question (e.g., "use" rather than "utilise").
- Keep the ratio of root words to words containing prefixes and suffixes high (e.g., "ability to read" rather than "readability").
- Use sentences with clear subject-verb relationships.
- If a more complex sentence or question is necessary, try to put the main idea at the beginning.

Although your questions should be as specific as possible, you will also want to allow the respondent some flexibility. The respondent may not have an opinion on all of your questions. Rather than forcing a selection that is not the respondent's true opinion, provide an opportunity for them to select a neutral response such as "other" or "no opinion." If you are providing a range of responses, make sure the intensity of the responses you provide is balanced. You should have an equal number of responses on either side of your mean.

2.1.2 Types of Questions to Avoid

Avoid types of questions that will negatively affect the outcome of your survey or cause the outcome to be biased. Leading questions can skew the results of your survey. The respondent may provide the answer he thinks you want rather than his true opinion. Asking a compound or double-barreled question can cause the respondent to only answer part of the question or skip the question entirely. An example of a compound question is:

Is the brochure "Why Use An Accredited Laboratory?" easy to read and helpful in promoting laboratory accreditation?

The above question is really two questions in one. One question asks about the readability of the brochure; the other asks about its usefulness. The respondent may not have the same opinion about both issues.

Ambiguous or vague questions will provide ambiguous or vague answers and will not help you get the information you need to accomplish your goals. Do not to use vague terms or lingo that can be misinterpreted, especially when your respondents are culturally diverse. It may be necessary to qualify some terms within your questions, but try not to over-complicate by adding too many qualifying phrases. Over-qualifying a question can have the reverse effect of making it more vague or confusing. Instead of over-qualifying, provide definitions with your instruction package. If you are using an interactive Internet survey instrument, you can provide direct links to definitions. Also, try not to use strong or suggestive adjectives. Keep your questions neutral and let the respondent indicate the strength of his opinion.

2.2 Designing Your Survey Instrument

The design of your survey instrument, or questionnaire, affects how potential respondents will receive it. If your questionnaire looks as though it will take a long time and be difficult to fill out, it might be rejected out of hand. An appealing design will catch the respondent's eye and set a positive note. Effective design can also make the questionnaire easier to fill out. Avoid overcrowding the pages of the questionnaire or using small fonts to fit more questions on a page. An overcrowded, disorganised, unattractive survey instrument will be intimidating to potential respondents.

2.2.1 Developing Your Survey Instructions

You should set up the logical flow of your questions in your instructions and follow that flow in the survey instrument. Your instructions should:

- Set the framework for the surveying effort and describe the range and type of information needed;
- Explain the objective of the surveying effort in order to motivate the respondent to participate;
- Tell the respondents what the benefits will be for their organisations; and
- Explain how long the survey will take, and provide some specific information about how to answer the questions.

2.2.2 Formatting Your Survey Instrument

Your questionnaire should be organised in a logical sequence, with similar questions together. You should try to begin with questions that have specific or factual answers and proceed to questions that involve the respondent's opinion. For instance, you may want to group your questions by subject area, such as the nature of the respondent's organisation, the activities the organisation is involved in, and topics or types of information that would be useful to the organisation. This will make it easier for them to follow the questions and for you to analyse the results. Use subtitles to help them understand the scope of each group of questions. You can provide a statement with each group of questions that explains them.

If you are going to be conducting or distributing your survey electronically, keep in mind that your material may look different on the screen than on paper. For instance, text presented in columns in printed material can be very attractive. On a computer monitor, it can be difficult to read and a little frustrating to navigate. Also, while graphics and colors can improve the appearance of a document, you do not want to overwhelm the respondents with a screen that is too busy. Keep it simple and use colors that are soothing and properly contrasted. If you are going to distribute your survey instrument electronically, proofread it on the screen as well as on paper.

Part 2 of this paper will appear in the October 2005 issue of ILAC News and will cover planning, distributing and conducting the survey, analysing data and reporting the outcomes.

Membership Changes in ILAC

The following changes in ILAC membership have occurred since the last ILAC News in October 2004. ILAC offers its warmest congratulations to these bodies on this achievement.

Regional Cooperation Body	Central Asian Cooperation on Metrology Accreditation and Quality
Associate	Egyptian Accreditation Council (EGAC), Egypt Morocco Committee Accreditation (MCA), Morocco
Affiliate	National Body of Accreditation (NBA), Georgia National Accreditation Agency of Ukraine (NAAU), Ukraine

Alignment of ISO/IEC 17025:1999 with ISO 9001:2000 — The new edition of ISO/IEC 17025

By Monika Wloka, DAR

Purpose of the amendment to ISO/IEC 17025:1999

The terms of reference of ISO/CASCO Working Group (WG) 25, which was established in 2001, was to align ISO/IEC 17025: 1999, *General requirements for the competence of testing and calibration laboratories*, with ISO 9001:2000, *Quality management systems — Requirements.*

After the first WG meetings it became evident that to achieve a full and comprehensive alignment of ISO/IEC 17025 with ISO 9001 would necessitate the complete reformulation and rewrite of ISO/IEC 17025. Given the fact that ISO/IEC 17025 had only been published in 1999 and that the transition period for accredited laboratories to comply with its new requirements did not expire until 1 January 2003, all stakeholders (laboratories and accreditation bodies) expressed a desire not to undertake a major revision of ISO/IEC 17025:1999 at this time.

As a result it was agreed that the 'alignment' would only include the minimum of changes to ISO/IEC 17025 that were necessary to ensure that17025 and ISO 9001:2000 were compatible. This included decoupling the linkage between the two standards by removing the statement in the Scope that stated laboratories fulfilling the requirements of ISO/IEC 17025 then also automatically fulfilled the requirement of the ISO 9001.

This effectively means laboratories may choose to be accredited to ISO/IEC 17025, or be certified to ISO 9001, or both, but the processes of accreditation and certification would be two separate actions.

Latest developments and expected publication date

In February 2005, voting on the Final Draft Amendment (FDAM) to ISO/IEC 17025:1999 was completed. 96% of both voting ISO member bodies and IEC national committees approved the amendment. Work is now underway to make the final edit of the text in the form of a new edition of ISO/IEC 17025 that will include the amended text within it. It is expected this will be published in June 2005. ILAC have set a transition period of two years from date of publication of the new edition for accredited laboratories to comply with the 2005 edition requirements.

The new edition to be published this year effectively reverses the sequence of standards-revision leapfrogging with ISO 9001. A systematic review of ISO/IEC 17025:2005 will not be necessary for a further five years, by which time an amended ISO 9001 is expected to have been published in 2008 or 2009.

General changes, and changes in the Introduction and Scope

The main changes to ISO/IEC 17025:1999 that have been made in the approved amendment relate to:

- clarifying that meeting the requirements of ISO/IEC 17025 does not automatically mean that all the ISO 9001 requirements are also met; and
- changes to the management requirements in ISO/IEC 17025 to reflect the content of ISO 9001:2000, especially in terms of making greater emphasis to the responsibilities of top management, the need to demonstrate a commitment to continually improve the effectiveness of the management system, and to allow for a greater focus on customer satisfaction.

Through-out the standard the word 'client' has been replaced by the word 'customer'.

Throughout the standard, where reference is being made to the overall management system that governs the operations of a laboratory (that includes the quality, administrative and technical systems), the words "quality management system" have been replaced by "management system".

The Introduction has been changed to state:
"*The growth in use of management systems generally has increased the need to ensure that laboratories which form part of larger organisations or offer other services can operate to a quality management system that is seen as compliant with ISO 9001 as well as with this International Standard. Care has been taken, therefore, to incorporate all those requirements of ISO 9001 that are relevant to the scope of testing and calibration services that are covered by the laboratory's management system.*

Testing and calibration laboratories that comply with this International Standard will therefore also operate in accordance with ISO 9001.

Conformity of the quality management system within which the laboratory operates to the requirements of ISO 9001 does not of itself demonstrate the competence of the laboratory to produce technically valid data and results. Nor does demonstrated conformity to this International Standard imply conformity of the quality management system within which the laboratory operates to all the requirements of ISO 9001."

In the second paragraph above 'in accordance with' does not equate to complete or actual compliance with the requirements of ISO 9001. This is further reinforced by the second sentence of the third paragraph that states: "*Nor does demonstrated conformity to this International Standard imply conformity of the*

quality management system within which the laboratory operates to all the requirements of ISO 9001."

In the scope of the standard, clause 1.4 has been rewritten to state:
"1.4 *This International Standard is for use by laboratories in developing their management system for quality, administrative and technical operations. Laboratory customers, regulatory authorities and accreditation bodies may also use it in confirming or recognizing the competence of laboratories. This International Standard is not intended to be used for the purpose of certification.*"

This new formulation highlights that ISO/IEC 17025 is directed towards the competence of laboratories, and in not intended to be used for the purpose of certification of laboratories.

Scope clause 1.6 has also been changed to state:
"1.6 *If testing and calibration laboratories comply with the requirements of this International Standard they will operate a quality management system for their testing and calibration activities that also meets the principles of ISO 9001. Annex A provides nominal cross-references between this International Standard and ISO 9001. ISO/IEC 17025 covers technical competence requirements that are not covered by ISO 9001.*"

So, while a laboratory cannot claim they meet all the requirements of ISO 9001:2000 by being accredited to ISO/IEC 17025, they do meet the principles of ISO 9001. The use of the word 'principles' is used in a normal dictionary meaning of the term, and does not necessary equate to the specific principles for quality management as articulated in ISO 9000:2000.

Changes to the management requirements

In relation to requirements for laboratory management, there are new requirements that require top management to ensure that appropriate communication processes are established within the laboratory for implementation of the management system, and that communication takes place regarding the effectiveness of the management system.

In relation to requirements for the management system of the laboratory there is clarification that:

- the objectives set within the management system must be reviewed during the management review process; and
- that there must be a demonstrated commitment to continually improve the effectiveness of the management system.

A new clause on improvement has been added as 4.10 Improvement. It states:
"*The laboratory shall continually improve the effectiveness of its management system through the use of the quality policy, quality objectives, audit results, analysis of data, corrective and preventive actions and management review.*"

In clause 4.7 related to Service to the customer, the laboratory must be willing to cooperate with customers to clarify their expectations, and shall seek feedback from its customers to improve its management system, and provision of testing and calibration services.

Changes in the technical requirements

The only significant changes in Clause 5 related to Technical Requirements relate to continual improvement. Clause 5.2.2 is supplemented to include "the effectiveness of the training actions taken shall be evaluated."; and a new requirement has been added to 5.9 Assuring the quality of test and calibration results that states:
"5.9.2 *Quality control data shall be analysed and, where they are found to be outside pre-defined criteria, planned action shall be taken to correct the problem and to prevent incorrect results from being reported.*"

Annex A showing nominal cross reference between the clauses in ISO 9001 and ISO/IEC 17025 has been updated.

Use of the new ISO/IEC 17025:2005

As noted, accredited laboratories have two years after the publication date of ISO/IEC 17025:2005 in which to comply with the requirements of the new edition of the standard.

At present there are contrasting views amongst accreditors and laboratories as to whether reference to 'the principles of ISO 9001' should be included on accreditation statements, or in the scope of accreditations. Some accreditors believe that reference to the principle of ISO 9001 should not be permitted, however some laboratories and accreditations believe this should be permitted, especially when the test and calibration services provided by the laboratory need to feed into a supply chain which is only familiar with ISO 9001.

This issue was discussed at the IAF/ILAC/ISO JWG meeting in November 2004. The result of these discussions where included in a communiqué after the meeting and on this point stated:
"*The JWG reviewed the current debate over whether ISO/IEC 17025 accreditation statements should permit wording that referred to that fact that a laboratory accredited to ISO/IEC 17025 also met the principles of ISO 9001:2000.*

This issue has arisen due to the current amendment to ISO/IEC 17025:1999 to ensure compatibility between that standard and ISO 9001:2000. Currently ISO/IEC 17025 makes a statement in the introduction to the effect that laboratories meeting the requirements of ISO/IEC 17025:1999 also meet the requirements of ISO 9001:1994 and ISO 9002:1994. ISO 9001:1994 and ISO 9002:1994 were withdrawn when ISO 9001:2000 was published.

In the amendment to the wording of ISO/IEC 17025 it has been changed to remove this linkage. Wording in the Final Draft Amendment to ISO/IEC 17025:1999 states laboratories fulfilling the requirements of ISO/IEC 17025 also meet the principles of ISO 9001:2000, but not the actual requirements.

Some laboratory accreditation bodies and their laboratory clients wish to maintain their ability to include a phrase to this effect on their accreditation statements.

The JWG discussions on this issue were not conclusive, and the matter has now been returned to the ILAC community for its further deliberation. JWG members undertook to produce an information statement explaining the use of ISO/IEC 17025 in laboratory accreditation and its relationship with ISO 9001: 2000. This statement will be based on the existing IAF-ILAC-ISO Communiqué on the objectives and roles of accreditation and certification of laboratories that was published in 2002."

The information statement referred to in the Communiqué is currently in preparation between ILAC and ISO/CASCO, and will be completed in time for the publication of ISO/IEC 17025: 2005.

Conclusions for Laboratories

There are no essential changes in the technical requirements. The explicit requirement for a continual improvement of the management system is new. Also there are new requirements for internal communication about the management system and for communications with the customer. It can be concluded that laboratories that already have described and controlled their processes within the laboratory — as already required in the current ISO/IEC 17025, will have only to implement these minor readjustment in terms of management requirements.

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The ILAC Arrangement: Support for International Trade

Roxanne Robinson, A2LA-USA
Ian Roy, IANZ-New Zealand, contributor

Introduction

On 2 November 2000, 36 laboratory accreditation bodies, full members of the International Laboratory Accreditation Cooperation (ILAC), from 28 economies worldwide signed a multi-lateral, mutual recognition arrangement (ILAC Arrangement in Washington, DC to promote the acceptance of technical test and calibration data for exported goods). The aim of the ILAC Arrangement is to develop a global network of accredited testing and calibration laboratories that can be relied on to provide accurate results

Background

The International Laboratory Accreditation Cooperation (ILAC) started as a conference in 1978 with the aim of developing international cooperation for facilitating trade by promotion of the acceptance of accredited test and calibration results. In 1996, ILAC became a formal cooperation with a charter to establish a network of mutual recognition agreements among accreditation bodies that would fulfil this aim. ILAC was incorporated in 2002. The ILAC Arrangement was the culmination of 22 years of intensive work.

Now almost four years later from its effective date of January 2001, 46 laboratory accreditation bodies are signatories to the ILAC Arrangement to promote the acceptance of accredited test and calibration data. This Arrangement provides significant technical underpinning to international trade. There had been no international mutual recognition agreement in laboratory accreditation up until then. This has been a hindrance for some types of international trade. The key to the Arrangement is the developing global network of accredited testing and calibration laboratories that are assessed and recognised as being competent by ILAC Arrangement signatory accreditation bodies. The signatories have, in turn, been peer-reviewed and shown to meet ILAC's criteria for competence. Government is taking advantage of it to further develop or enhance trade agreements. The ultimate aim is increased use and acceptance by industry as well as government of the results from accredited laboratories, including results from laboratories in other countries. In this way, the free-trade goal of "a product tested once and accepted everywhere" can be realised.

The Foundation of the Arrangement

The principal elements for establishing confidence among the participating systems within ILAC are listed below. These elements are designed to ensure conformance with the requirements in order to establish and maintain mutual confidence in the technical competence of ILAC members and their accredited laboratories. The elements are:

1. Exchange of information on the development and operation of ILAC member accreditation schemes;
2. Participation in the work and decision-making of the ILAC General Assembly and ILAC Committees where applicable;
3. Participation in international inter-laboratory comparisons and proficiency testing programs;
4. Participation in the work of ILAC Expert Groups and Task Forces held to discuss problems related to testing and calibration in various technical fields;
5. Evaluations of applicants and re-evaluations of signatories to this Arrangement are conducted in accordance with the relevant ILAC and regional cooperation documents;
6. Observations of applicant bodies' and signatories' assessments

of their laboratories to determine if these laboratories meet the requirements of ISO/IEC 17025, December 1999 (and future versions thereof) or equivalents;[1]

7. Confidence in the metrology institutes of the signatory economies to which traceability is claimed by accredited laboratories and support for the measurement comparison activities of BIPM and/or regional metrology organisations.[2]

How Does the Arrangement Work?

This Arrangement is based on the results of an intensive evaluation of each body carried out in accordance with the relevant rules and procedures contained in several ILAC publications.[3]

Each accreditation body signatory to the Arrangement agrees to abide by its terms and conditions and by the ILAC evaluation procedures and shall:

- Maintain conformance with ISO/IEC Guide 58 (and future versions thereof),[4] related ILAC guidance documents, and a few, but important, supplementary requirements, and
- Ensure that all accredited laboratories comply with ISO/IEC 17025 (and future versions thereof) and related ILAC guidance documents.

The signatories have, in turn, been peer-reviewed and shown to meet ILAC's criteria for competence.

The ILAC Arrangement builds upon existing or developing regional arrangements established around the world. The bodies participating in these regional arrangements are responsible for maintaining the necessary confidence in accreditation bodies from their region that are signatories to the new ILAC Arrangement. Each recognised Regional Cooperation Body must abide by the procedures defined in ILAC requirements documents. Currently, the European cooperation for Accreditation (EA) and the Asia Pacific Laboratory Accreditation Cooperation (APLAC) are the only ILAC-recognised regions with acceptable mutual recognition arrangements (MRAs) and evaluation procedures. The Inter-American Accreditation Cooperation and Southern African Development Cooperation for Accreditation (SADCA) are still under development. Other regions being developed in other parts of the world are in their infancy. Bodies that cannot be affiliated with a recognised region may apply directly to ILAC for evaluation and recognition.

The evaluation of an accreditation body to establish its qualifications to be a signatory involves a team of peers (generally senior staff of experienced accreditation bodies). Evaluations include time spent at the headquarters office of the applicant body to determine compliance with ISO/IEC Guide 58. Additionally, the evaluators witness the performance of the applicant's assessors during actual assessments to determine if the laboratories are in compliance with ISO/IEC 17025 and there is sufficient depth of examination to determine competence.

The Benefits

Government and industry are taking advantage of this Arrangement. Governments are using it to further develop or enhance trade agreements. Another important step that is already underway involves government acceptance of the results from accredited laboratories. Regulatory agencies around the world, including in the United States, are beginning to accept the results from testing and calibration laboratories that are accredited by bodies, such as the ILAC Arrangement signatories, without direct government review, including results from laboratories in other countries.

Many specifiers, like government agencies, have come to appreciate the importance of credible accreditation programs that are based on internationally recognised standards. With restricted budgets, many Government agencies can no longer do it all themselves; increasingly, they must rely on third-party laboratories to support their regulatory efforts. When they do so, they need a fair and meaningful basis for identifying qualified providers. Accreditation provides that and the Arrangement provides a means for recognition of acceptable accreditation bodies.

Industry users of test and calibration data similarly can take advantage of the ILAC Arrangement. Users will have greater confidence in the accuracy of the test or calibration report they are purchasing because it is been generated by a competent facility. This is particularly true for an educated client, one who is conscious of the scope of the laboratory's accreditation. Manufacturers also gain efficiency because of accreditation; instead of their own on-site assessments, they can defer to the assessments of competent accreditation authorities that are ILAC Arrangement signatories.

The New Zealand accreditation body, IANZ, have had great success in making the ILAC MRA work in the way it is intended and they offer some examples of effectiveness of the ILAC Arrangement in facilitating trade:

New Zealand mussels to Italy

Preserved mussels exported from New Zealand must be accompanied by an export certificate based on microbiological test for Ecoli. A shipment of mussels worth $50,000 was en route to Canada when the customer went bankrupt. The exporter found another customer in Italy but by the time the mussels reached Italy the export certificate had expired. The New Zealand Ministry of Agriculture was aware that IANZ was a signatory to the ILAC Arrangement, as was the Italian accreditation body, SINAL. Through SINAL, IANZ was able to locate a laboratory near the port that was accredited for the necessary tests, and the mussels were re-tested. The NZ Ministry of Agriculture accepted these test results, because of SINAL's signatory status in the ILAC Arrangement, and issued a replacement export certificate. This saved the exporter (and their insurance company) a great deal of money and provided a gourmet extravaganza for Italian palates.

Bottled drinking water into an Asian country

The conclusion of the Uruguay Round opened many markets to products which had previously been banned. One such product is bottled drinking water. Drinking water is, however, required to be tested for chemical characteristics and microbiological content. The authorities may also require historical tests of the water at source and following processing. A major New Zealand exporter was able to have his fresh, clean water from New Zealand accepted in a new market in Asia because his test reports came from an IANZ accredited laboratory. The Asian regulator accepted the accredited New Zealand test reports based on the laboratory being accredited by a signatory of the ILAC Arrangement.

Electrical products in New Zealand

Electrical products are required to satisfy EMC regulations before being placed on the New Zealand market. The regulator will accept test reports from an IANZ accredited laboratory or from a laboratory accredited by any accreditation body recognised by IANZ, i.e. an ILAC Arrangement signatory. IANZ frequently receive enquiries from manufacturers of electrical products in economies such as the United States, Taiwan, Germany and Hong Kong, asking where they should get their products tested in order to satisfy the New Zealand regulations. They are delighted when IANZ tell them that, since their products have already been tested by a laboratory accredited by A2LA or NVLAP in the United States, or a laboratory accredited by CNLA in Taiwan, or a laboratory accredited by a DAR affiliate in Germany, their products do not need to be retested in New Zealand. Their existing test reports will be accepted by New Zealand regulators because of the ILAC (Mutual Recognition) Arrangement to which the American, Taiwanese and German accreditation bodies and IANZ are signatory.

Sports floors into New Zealand

A contractor contacted IANZ because he was involved in the construction of a new sports centre and wanted to import a sports floor from Denmark. The contractor's customer was insisting that he ensure that the floor passed certain tests. The importer was in a quandary because he could not see how he could have the floor tested without bringing it into New Zealand and he did not want to go to that expense of importing the floor without some assurance that the floor would be suitable. He already had test reports from a laboratory accredited by the Danish accreditation authority, DANAK. As DANAK and IANZ were both signatories to the ILAC Arrangement, IANZ was able to assure him that IANZ and DANAK accredited test reports were equivalent so he could go ahead and import the floor without concern.

Fire extinguishers from Singapore into New Zealand

The New Zealand Insurance Council is responsible for approving fire extinguishers sold in New Zealand. The Insurance Council contacted IANZ over a shipment of fire extinguishers from Singapore. The extinguishers had already been tested in an accredited laboratory in Singapore. IANZ checked with the Singapore's accreditation body, SINGLAS, that the laboratory was accredited for the specific tests and were able to assure the Insurance Council that the extinguishers did not need to be retested in New Zealand because of both the New Zealand and Singaporean accreditation bodies being signatories to the ILAC Arrangement. Indeed, the NZ Insurance Council regulations now document that test reports from laboratories accredited by IANZ MRA partners in the ILAC Arrangement are acceptable in New Zealand.

Electrical products from Europe into New Zealand

A New Zealand manufacturer was importing components from Europe, undertaking further processing and then re-exporting the finished article. The components had been EMC tested in Western Europe. He asked IANZ whether the European test reports would be acceptable in New Zealand. Unfortunately, the test reports lacked detail and the results were not clearly expressed. IANZ checked with the accreditation body in the economy from where the test reports originated and were advised that the particular laboratory was not accredited. Neither was it a notified body for EMC testing under the European regulations. We advised the New Zealand manufacturer that these test results were not acceptable and he would need to have the product retested in an accredited laboratory. He passed this information back to his European supplier. We understand the European laboratory is now in the process of upgrading its systems and has applied for accreditation to make use of the benefits afforded by the ILAC Arrangement.

Crayons from Spain, Britain and Hong Kong arrive without incident in New Zealand

Importers who bring crayons to New Zealand must ensure the crayons have been tested for heavy metals (children like to suck crayons) before the NZ Ministry of Health allows products to be put on shop shelves. Fortunately, most of the crayons being imported to New Zealand are accompanied by test reports from laboratories that are accredited by signatories of the ILAC Arrangement. IANZ endorses test reports from laboratories accredited by IANZ's MRA partners. The Ministry of Health wants to protect the health of (crayon sucking) children and has confidence in test reports issued by laboratories that have been accredited by overseas accreditation authorities participating in MRA's (like the ILAC Arrangement) with IANZ.

Electrical Meters to Finland

A New Zealand company exporting electrical meters to Finland was pleasantly surprised to discover that their products would automatically be accepted in the voluntary sector because of the ILAC Arrangement. The test report for the electrical meters was issued by a laboratory accredited by IANZ, and the Finnish accreditation authority (FINAS) accepted the New Zealand laboratory's test report because both FINAS and IANZ are signatories to the ILAC Arrangement. This saved considerable time and money for the New Zealand exporter who without the ILAC Arrangement in place, would other wise have had to have their product retested in Finland, at considerable expense.

Bottle Teats for Baby Bottles arrive from Britain

Ensuring their children's safety is a concern for all parents, and this extends to items taken for granted as being safe, such as the rubber teat on the end of a baby's bottle. However, teats must be tested for nitrosamine, a substance that occurs in rubber products and there is evidence that nitrosamines may cause brain tumours. The Ministry of Health recognises the importance of ensuring that teats arriving in New Zealand are nitrosamine free, and tests undertaken in accredited laboratories have ensured a safe supply of babies' bottle teats in New Zealand. The Ministry of Health insists nitrosamine tests be undertaken in accredited laboratories, and test reports for imported teats are rightly expected to be from accredited laboratories too. Recently, British teats have arrived in New Zealand, their integrity assured by the test report being from a laboratory accredited by UKAS, the British equivalent to IANZ. UKAS and IANZ are both signatories to the ILAC Arrangement, whereby tests from British accredited laboratories are considered as equivalent to tests undertaken in laboratories accredited by IANZ.

Further Examples from the US

In the United States, A2LA can offer similar success stories, not only to demonstrate that the ILAC MRA works to reduce redundant testing but also to show that sharing resources amongst accreditation bodies can result in assessment cost savings for accredited laboratories.

U.S. Manufactured Pipettors arrive in France

A United States manufacturer of state-of-the-art pipettors tested these pipettors in its own A2LA-accredited laboratory before shipping them to France for distribution by their France-based sales team. Once the pipettors arrived in France, the manufacturer was asked to have the pipettors re-tested before they could be sold in France. A2LA offered to talk with the French accreditation body, COFRAC, and after discussions between all parties involved, the testing performed in the U.S. was accepted by the French officials, without the need for retesting.

Hydraulic testing of Amalgam Separators for dental industry

Manufacturers of amalgam separators would have to have them tested in accordance with ISO 1143 standard prior to marketing by one of two laboratories located in Europe in order to have the amalgams separators included on a list of approved separators that is part of the Voluntary Amalgam Recovery Program. This program is implemented jointly by the Metropolitan Council Environmental Services (MCES) and Minnesota Dental Association (MDA). A2LA, MCES and MDA discussed other testing possibilities to relieve the burden on the manufacturers and improve the efficient of the approval process. As a result, the requirements for the hydraulic testing of flow through amalgam separators were amended. Now, the flow testing must be performed by independent laboratories that have been accredited by a signatory to the ILAC MRA. Ultimately, improvement in the process to test and approve the separators and get them to foreign and domestic markets will result in savings to the dentists and their clients.

United Kingdom-based assessor performs A2LA assessment

A2LA had accredited a US-based calibration laboratory that offered field calibration services in the United Kingdom (UK). It was necessary for A2LA to ensure that the field service technician operating in the UK was competent to perform the calibrations found on the laboratory's scope of accreditation. It would have been very expensive to send a US -based A2LA assessor to the UK, so A2LA contacted the UK accreditation body, UKAS, and asked to use the assessment services of one of their trained and qualified calibration assessors. A2LA provided the UKAS assessor with all of the A2LA policies, procedures and assessor forms and laboratory information that were needed and a good, thorough assessment was performed at minimal cost to the laboratory.

Conclusion

The ILAC Arrangement builds confidence among accreditation bodies and their ability to determine a laboratory's competence to perform testing or calibrations. Confidence facilitates the acceptance of testing and calibration results within and between countries when the results can be demonstrated to come from accredited laboratories. This ultimately helps to reduce some technical barriers to trade. Through the ILAC Arrangement, the foundation for realising the ideal of having products "tested once and accepted everywhere" has been established.

Endnotes

1 *International Organization for Standardization, International Electro-technical Commission, ISO/IEC 17025, "General requirements for the competence of testing and calibration laboratories," December 1999.*

2 *International Laboratory Accreditation Cooperation Mutual Recognition Arrangement, 2 November 2000, p. 4*

3 *International Laboratory Accreditation Cooperation MRA Policy Statement; ILAC P1, ILAC Mutual Recognition Arrangement (Arrangement): Requirements for Evaluation of Accreditation Bodies, 2001; ILAC P2, ILAC Mutual Recognition Arrangement (Arrangement): Procedures for the Evaluation of Regional Cooperation Bodies for the Purpose of Recognition, 2000; ILAC P3, ILAC Mutual Recognition Arrangement (Arrangement): Procedures for the Evaluation of Unaffiliated Bodies for the Purpose of Recognition, 2001.*

4 *International Organization for Standardization/International Electro-technical Commission, ISO/IEC Guide 58, "Calibration and testing laboratory accreditation systems — General requirements for operation and recognition," 1993.*

committee news

Central to the contributions that ILAC makes to the international community is the important work undertaken by its various committees. These committees help create ILAC policy, develop and review ILAC's many publications, manage and monitor the ILAC Arrangement, liaise with the various stakeholders of ILAC (e.g **laboratories), monitor and audit its finances,** and develop and implement communications and promotional strategies.

Laboratory Committee

By Tony Anderson, Chair, Laboratory Committee

The ILAC Laboratory Committee (LC) met at Cofrac in Paris, France on 26 and 28 February 2005. At the meeting there were representatives from ACIL, CAEAL, EURACHEM, NATA Laboratories, NCSLI, NLA-SA, NICe (formerly NORDTEST) and UILI. The ILAC Vice Chair also attended the meeting and on the second day we were joined by the ILAC Chair, ARC Chair, ILAC Secretary and Secretariat.

High on the agenda was the issue of a statement regarding ISO/IEC 9001:2000 on certificates issued by accreditation bodies, calibration certificates and test reports. The Chair reported that, following a meeting of the joint ISO-ILAC-IAF working group in Amsterdam last November, a compromise may have been worked out on the issue. A proposal prepared by the LC Chair, and already circulated to ISO, ILAC and IAF, was discussed by the committee. The compromise consists of a statement, on the certificate of accreditation and laboratory certificates and test reports, which states that accreditation demonstrates technical competence. It is further stated that an accredited laboratory operates an internationally recognised quality management system and references a joint ISO-ILAC-IAF communiqué on management systems requirements of ISO/IEC 17025.

After some minor improvements to the document, it was adopted and presented to the ILAC Executive meeting, which followed the LC meeting. This proposal was accepted and will be sent to IAF and ISO for their review. The AIC will include the decision as part of guidance on the implementation of the new ISO/IEC17025: 2005, when published later this year.

Other items on the Paris meeting agenda included updating of the LC work program. Some new work items have been added including one that will monitor the pending revision of ISO/IEC 9001:2000, beginning in 2005. The LC position is that ISO/IEC17025 should remain a stand-alone standard and not be considered a sector specific requirements document during the revision process of ISO/IEC 9001.

The next LC meeting will be 16 and 17 September 2005 during ILAC 2005 in Auckland, New Zealand.

Attendees at the recent LC meeting held at Cofrac in Paris, February 2005. From left to right: Annette Dever (ILAC Secretariat), Tony Anderson (LC Chair), Matt Callanan (NATA), John Wilson (NLA), Maire Walsh (EURACHEM), Rick Wilson (CAEAL), Paul Molinski (ACIL), Daniel Pierre (ILAC Chair), Peter Unger (A2LA) Alan Squirrell (ILAC Secretary). Absent from the photo are David Stanger, Orna Dreazen and Mads Peter Schreiber

Marketing and Communications Committee

By Graham Talbot, Chair, ILAC Marketing and Communications Committee

The ILAC Marketing and Communications Committee (MCC) held its first meeting in 2005 in Washington on 17 and 18 February 2005. With a number of new members and a new Chairperson, the agenda was divided into two parts: to take stock of progress made in the past by the previous Public Affairs Committee, and to look ahead to plan the implementation of the agreed ILAC Strategic and Business Plan.

In response to feedback that we have received from a number of accreditation bodies, the MCC intend to continue the process of developing materials that can be used by regions, accreditation bodies and accredited organisations, and to make

the most use of the ILAC website, brochures, conferences, direct contact, meetings, information campaigns, workshops, lectures, and discussions with government and regulators to promote accreditation and the value of the Mutual Recognition Arrangement (MRA).

As the membership of the MCC remains relatively small, it will leverage its efforts through working closely with the equivalent committees within the regions and it intends to work hard to strengthen and develop these links in the future.

It is clear that the MCC is building on firm foundations. There is, of course, much to be done and the formulation of the marketing and communication plan will be on-going activity for some time. We plan to flesh out the current work program between now and the conclusion of the next meeting to be held in late June 2005, and will report back on progress in the next edition of ILAC News.

Accreditation Committee

By Merih Malmqvist, Chair, Accreditation Committee

The next meeting of the Accreditation Committee will be in Japan on 28 and 29 April 2005, in direct connection with the APLAC meetings. The committee is reviewing its work plan on an ongoing basis to adapt it to the needs of the membership and the ILAC strategic plan.

Under the leadership of Mr Max Robertson, a guidance document has been developed for ILAC liaison persons, which will be integrated with a questionnaire developed by the Arrangement Committee and included in the ILAC quality system. The document aims at supporting ILAC liaison persons in their job as ILAC representatives in different organisations. Particular focus is given to the fact that they are representing the ILAC membership and not their regular employers.

Cooperation with WADA

The World Anti-Doping Authority (WADA) and ILAC have identified the following issues as needing special attention for the constructive cooperation between the two organisations:

- Scopes of accredited laboratories;
- Measurement uncertainty, its estimation and reporting;
- The use by accreditation bodies of the WADA International Standard for Laboratories (ISL);
- Test reports;
- Harmonisation of assessments;
- Surveillance intervals;
- Proficiency Testing and the role of WADA-designated PT programs in the accreditation process.

In response to this, WADA and ILAC will now concentrate on the following activities:

- Establish the order of priorities for tasks;
- Discuss modes of operation for these tasks to be addressed;
- Determine the best procedure for communication with WADA and for providing feedback to the Accreditation Committee;
- Develop mechanisms for clarification of WADA/ILAC collaboration for laboratories (e.g. through flowcharts of the process, through formal notification of the collaboration, etc).

The next WADA ISL training session will be held on 25 and 26 April 2005 in Montreal, Canada.

All questions on the WADA/ILAC collaboration can be put to Ms Regina Robertson at NATA, Australia.

Cooperation with the IEC

The MoU between ILAC and IEC was signed on 9 February 2005 in Geneva, Switzerland. The MoU listed more than thirty ILAC members who are at this stage prepared to follow the MoU. More information on the MoU can be obtained through the Secretariat of ILAC and through Mr Tony Russell at NATA. Procedural documents underlying the cooperation (e.g. assessment program, calculation of uncertainties, etc) can be obtained through Mr Müller at BmWA.

Contribution to standardisation

The Accreditation Committee contributes to standardisation on an ongoing basis. The new ISO/IEC 17025 has been accepted and is expected to be published by June 2005. After it is published, a transition period of two years is expected based on previous decisions.

TC212 is a very active committee where ILAC has ongoing input. Some recent issues for TC212 are the accreditation of reference laboratories in the medical sector and traceability in the medical sector, where JCTLM has a major role.

The Accreditation Committee urges all ILAC members to follow the work of ISO and contribute actively through the website information provided. You are all also invited to actively participate in the mirror groups set up by ILAC covering the different ISO committees and groups.

Harmonisation of accreditation practices

The following activities are being undertaken by the Accreditation Committee:

Minimum participation in Proficiency Testing

This document has been out for ballot, with some returned votes including comments. The comments will be considered and incorporated before publishing. The requirements of the document will be mandatory for signatories of the ILAC MLMRA.

Selection and use of reference materials

The document has been sent out for comment. Returned comments are being evaluated by Ms Maire Walsh. If they are

substantial, the document will go back to the committee. If not, the document will go out for ballot directly after the final editing.

Scopes of accredited laboratories

A subgroup, led by Mr Barry Ashcroft, is preparing a proposal for the next steps in this area, to be presented at the Committee's mid-term meeting in Japan.

Sampling

A subgroup, which until recently has been led by Mr Max Robertson, is preparing a suggestion for the next steps to be presented at the midterm meeting in Japan. A workshop will take place on sampling practices at the Committee's mid-term meeting.

Opinions and interpretations

A subgroup, led by Mr Graham Talbot, has made a survey on the practices of the members of ILAC and will present the result at the Committee's mid-term meeting in Japan. The next steps will be decided based on the survey results.

Comparison on identifying non-compliances

The second comparison has been circulated under the leadership of Mrs Roxanne Robinson. The results will be presented at the Committee's mid-term meeting in Japan.

Assessor qualification. Revision of ILAC Guide 11

Mrs Roxanne Robinson has incorporated the comments received from the membership and will present the results for the committee. The document will be sent out for ballot after the Committee's mid-term meeting in Japan.

Accreditation of producers of reference materials

This issue will now be started as a new item, based on the resolutions of the ILAC General Assembly in Cape Town in October 2004.

Technical guidance documents

The following documents are being drafted by appointed members and groups of the committee and will be presented to the ILAC membership when sufficient development has been undertaken:

- Uncertainty in calibration (Mr John Buckingham, IANZ, New Zeeland)
- Fire testing (Mr terry Wan, HKJC, Hong Kong)
- Horse racing (Mr Patrick McCullen, IAS, USA)

ILAC library

The committee, under the leadership of Mrs JoAnne Dupont, SCC, Canada, is reviewing incoming documents for the ILAC website library on an ongoing basis.

Arrangement Committee

By Orna Drezen, Chair, Arrangement Committee

The first meeting of the new Arrangement Committee (ARC) was held in Paris on 3 and 4 March 2005. Twenty-seven people attended the meeting, including two LC representatives and a guest representing industry.

Terms of Reference and Work Plan

Committee members revised the Terms of Reference submitted to the ILAC Executive for approval. The tasks deriving from the Terms of Reference, as well as ILAC Business Plan were discussed and prioritised, taking into account the activities of the other ILAC committees. The six top priorities of ARC were agreed as follows:

- Update the Arrangement documentation;
- Develop ILAC guidance on ISO/IEC 17011 in consultation with IAF, where applicable;
- Obtain feedback from regulators and other stakeholders;
- Identify high priority needs for cooperation with other competence assessment organisations (eg. BIPM, OIML, Interpol, WHO, OECD);
- Analyse the economic impact of the ILAC Arrangement (international and domestic);
- Produce procedures and guidance on training of evaluators.

ARC Working Groups

As a result of the above tasks, the ARC decided on the following Working Groups:

WG1 — maintenance of ILAC P1, P2, P3, P4 and P7 as well as comparable A series documents — Roxanne Robinson. The work on A series documents will be coordinated with IAF.

WG2 — ILAC P5 (MRA text) and P11 (monitoring ILAC evaluators) – Llew Richards, AMC chairman.

WG3 — ILAC's profile to national and international authorities

WG4 — The work on ILAC P6 (application for sinatory status) was accepted by ILAC secretariat.

WG5 — Evaluator training – Hans Mittmann – in coordination with IAF.

WG6 — Guidance on implementation of ISO/IEC 17011 – Warren Merkel – in coordination with IAF.

WG7 — ILAC liaison activity with ISO/CASCO – Peter Unger.

WG8 — Maintenance of ILAC P8 (logo use) and P12 (harmonisation of ILAC work with regions) – WW Wong.

Terms of Reference for the above mentioned Working Groups will be presented for EC approval, following the ARC's Auckland meeting in September 2005.

Criteria For Evaluating Suitability For Including a Standard or Other Normative Documents Under the ILAC MRA

As a basis for future decisions, the ARC discussed possible criteria to be considered before the inclusion of any document under the ILAC MRA. The proposal was submitted for the ILAC Executive's comments. It was suggested that the ARC present this document for discussion and comments at the ILAC Open Forum in Auckland in September.

In light of the criteria developed by ARC, the group analysed the possible inclusion of ISO 15195 *Clinical laboratory medicine — requirements of reference measurement laboratories* and ISO Guide 34 *General requirements for the competence of reference material producers* and proposed that the ILAC General Assembly decide upon inclusion of both documents under the ILAC MRA. It was also noted by the committee that ISO 15195 must be revised to include ISO/IEC 17025 as a normative reference, refering to sampling and contract review, as well as other issues. The ILAC comments will be given to TC212, as well as to the ISO CAPS. Until it is revised, accreditation will be done according to both ISO/IEC 17025 and ISO 15195.

Use of ILAC MRA-mark

As requested by the ILAC Executive, the ARC discussed the positives and negatives in expanding the use of ILAC MRA-MARK, and was generally in favor of broader use as long as it doesn't create market confusion. It was noted that further discussion with IAF will take place, and experiences with ISO considered. The ARC noted that it will also be put on the agenda of the Joint Committee for Closer Cooperation (JCCC). The ILAC secretariat was asked to review the licensing and/or sublicensing agreement and study the implications of changing this agreement, if needed. Following this review, a resolution may be presented to ILAC General Assembly.

international update

international update

APLAC Update

By Helen Liddy, Janet Clark, and Jane King, APLAC Secretary

Congratulations and thanks to BoA/STAMEQ for their excellent arrangements and organisation for the APLAC 2004 meetings in Hanoi last December. Dr Ho Tat Thang should be proud of his staff of friendly and enthusiastic helpers in the secretariat office.

Inspection MRA

It is pleasing to note that the number of signatories to the APLAC MRA for inspection continues to grow. With signatory recognition for CNAL, KAN and BoA being extended to include inspection, there are now eight inspection signatories.

Revised APLAC MRA Text

There will be a re-signing ceremony by all current APLAC MRA signatories for the new APLAC MRA text during the APLAC MRA Council in Narita, Japan in April. The text has been revised to align more closely with the new text of the ILAC Arrangement.

APLAC Documents

The Secretariat has recently advised APLAC members and lead evaluators by email of the issue of the following new and revised APLAC documents that are available in PDF format from the "Documents" section of the APLAC website. These documents are:

APLAC MR 001, issue 7 *Procedures for Establishing and Maintaining MRAs*
APLAC PR 001, issue 2 *APLAC Publications Numbering Policy*
APLAC SEC 004, issue 5 *Rules of Procedure*
APLAC SEC 037, issue 2 *Document Control and Document Format*
APLAC SEC 043, issue 2, *Requirements for APLAC Funding Requests*
APLAC SEC 051, issue 1 *Overview of APLAC Management System Documentation*

New APLAC MRA Lead Evaluators

Congratulations to the following who were appointed as lead evaluators at the December 2004 APLAC MRA Council meeting.

Helen Liddy	NATA
Trace McInturff	A2LA
Katuo Seta	IAJapan
Jason Tan	SAC

Training Course on ISO/IEC 17011

A training course on ISO/IEC 17011 will be held in Narita, Japan on 22–24 April. APLAC lead evaluators will participate in all three days of the course, with representatives from APLAC Full members that do not have lead evaluators on staff attending on days 2 and 3. APLAC is providing USD 1,000.00 funding for each lead evaluator and one representative from APLAC Full members that do not have lead evaluators on staff. Each ILAC region has been invited to send a representative to the course.

Other APLAC Meetings

The APLAC MRA Council will meet in Narita, Japan on 25 and 26 April. The Board of Management will meet in Narita on 21 and 27 April.

RM Producer Workshop

APLAC is holding a workshop on accreditation of RM producers in Hong Kong, China on 11 and 12 March. The workshop facilitators are Mr Alan Squirrell of NATA, Dr Ed de Leer of NMI, Netherlands and Dr Robert Watters of NIST, USA. Each ILAC region has been invited to send a representative to the workshop.

News from EA

By Bénédicte Ziemann, Secretary Assistant, EA

Outcomes of 13th General Assembly in Zagreb, November 2004

Reference to ISO 9001

The General Assembly reconfirmed that accreditation attestations should not make specific reference to compliance with ISO 9001 principles. However, it was agreed (again) that the attestation could be issued together with a letter stating to what extent accreditation means compliance with ISO 9001 principles.

Sector schemes

Based on the discussions at the EA Advisory Board meeting in November, it was agreed that a comprehensive document, made up of a general policy supplemented by implementation conditions

and background information should be set out. A draft would be considered by the EA General Assembly at its next meeting in June 2005. Relations with the European Federation of Immunology (EFI) should soon be formalised by a MoU. A draft Memorandum was accepted by the EA General Assembly and would be submitted to EFI for endorsement.

Bilateral agreement with Euromet

An MoU with Euromet should be signed in the near future. It is meant to support restructuring of the Laboratory committee, in particular with respect to management of calibration specific documents and organisations of ILCs. The agreement is a separate document from the papers supporting cooperation between EA, Eurachem, Eurolab, Euromet and CEOC.

Greenhouse gas directive

The EA General Assembly paid tribute to the excellent work done by the Certification committee Working Group set up only a few months ago. Guidance for a transparent and harmonised framework for the accreditation of verifiers was drafted and distributed to the members for voting.

Permanent secretariat

The EA General Assembly decided to start operating a permanent secretariat from 1 January 2006 for a four-year pilot phase, with the existing team from Cofrac and RvA. The permanent secretariat will be responsible to the Chairman of EA.

Improving internal operations

EA's General Assembly agreed to implement a resolution-making process in its meetings. It was also agreed to hold only one annual meeting, starting in 2007, possibly combined with technical workshops. Scheduling of the general assemblies and committees meetings will be reconsidered and refined to leave better time for the preparation of international discussions at ILAC and IAF. This will be reviewed when the outcomes from the ILAC/IAF questionnaire on annual meetings become available.

Status of accreditation

Tom Dempsey presented document EN492 from the Commission, which is to be submitted to the SOGS at their meeting in late November. The document contains several proposals for accreditation, including setting up accreditation as a service of general economic interest, supervised by the national authorities. Such a status would confirm that accreditation is a non-competitive activity. The document also suggests a need to review relations between the Commission and EA. It is considered that the role of EA within and for the European conformity assessment system should be reinforced and this should be reflected in the MoU between EA and the European Commission. EA is developing a proposal in response to EN492.

Criteria for membership

EA's General Assembly recognised that the present status of associate members and signatories of a contract of cooperation overlap. The separation is artificial, since in both cases it is expected to end up with a bilateral agreement with EA. The Executive Committee, supported by DG Enterprise, proposed to cancel the associate membership category for the future. It was agreed that, until the Articles of the Association can be revised to reflect this, applications for associate members would no longer be processed. As a result, EA would only deal with applications for full members or partners into contract of cooperation.

News from the EA Advisory Board

The General Assembly was informed that the EA Advisory Board had been renewed at its November meeting and that elections had taken place: Malcolm Hynd representing the UK for the National Authorities college is the new Chairman. Guy Jacques from IQNet representing the CAB college and Guenther Beer from Siemens representing the Industry college were elected Vice Chairmen.
It should be noted that Martin Stadler from DG Enterprise accepted to be the Board's observer at the EA MAC.

The EA network

CYS-AB, from Cyprus, was accepted as a full member.
NAAU, from Ukraine, was accepted as a contract of cooperation signatory.

EA MLA

PCA (Poland) became a signatory of the MLA for all scopes except inspection.
DANAK (Denmark) signed the MLA for inspection.
The bilateral agreement between EA and SANAS (South Africa) was extended to inspection.

ISO/CEI 17011 and impartiality

The MAC Chairman reiterated that any member not fulfilling the impartiality criteria by the end of the transition period (31 December 2005) would be suspended.

Promotion of accreditation

A number of actions have been undertaken by the EA Publications committee. EA's website is being revamped: graphics have been renewed and new services are being developed. The Committee decided to evaluate the relevance and usefulness of the EA brochure. A questionnaire on this will be distributed to EA members in 2005. It was decided to start a long term project to create a press kit for use by EA members. The press kit would contain several fact sheets dealing with key issues of public or general interest such as the distinction between accreditation and QMS certification, MLA process and benefits, role of accreditation in the European CA infrastructure etc. It was also agreed to draft a guide on how to deal with, and communicate with, the media.

The Chairman of the Publications Committee also noted agreement on two principles:

1) that it is the Committee responsibility and tasks to create the communication materials for use by the members nationally and not by EA, centrally and
2) that EA should increase its contribution in international work and the Committee should propose to contribute

continued next page

to the ILAC and IAF equivalent committees and share resources for work items of common interest.

Mr Dempsey also indicated that a detailed Communication Plan was elaborated and approved by the committee, reflecting the EA strategic plan objectives, and should be used as guideline for the work of the committee.

EA database of accredited bodies

The database is operational and offers searching facilities for data from calibration laboratories accredited by Cofrac, DAR-PTB, Danak, Finas and UKAS. A project management group is now being set up, composed of IT persons nominated by the EA members and committees liaison persons nominated by the Laboratory, Certification and Inspection committees. The group will supervise the maintenance and development of the database for new members and new scopes (testing and QMS certification for the near future). The database is available on the EA website.

Renewal of the Executive Committee

The EA General Assembly agreed that the elections for the renewal of the Executive Committee should take place in June 2005 to ensure a smooth transition and better continuity (the mandates will start 1st January 2006). Nominations will be called in due time early 2005.

2005 EA meetings

EA Advisory Board	General Assembly	Executive Committee
26 April in Brussels	8–9 June in Helsinki	26–27 January in Zürich
19 October in Brussels	16–17 November in Roma	13–14 April in Göteborg
		7 June in Helsinki
EA-Eurachem-Eurolab Workshop 20 October, Paris		30–31 August in Frankfurt
		15 November in Rome

Latest from IAAC

By Victor Gandy, Executive Secretary, Inter-American Accreditation Cooperation

IAAC Executive Committee Meeting

IAAC held its 21st Executive Committee in Mexico City, Mexico, on 17–18 February, 2005. The outcomes from that meeting are detailed below.

IAAC Membership

IAAC currently has 37 members from 22 countries in the Americas: 20 full members, 7 associate members, and 10 stakeholder members. ANSI-RAB NAP of the United States informed IAAC that it changed its name to ANAB.

IAAC Customer Satisfaction Survey

The first customer satisfaction survey was distributed to IAAC members in October 2004. IAAC is currently developing a follow-up action plan to address the issues resulting from the survey.

IAAC Documentation

IAAC continues to develop and improve its documents, which are available as PDF files at the IAAC web site: www.iaac-accreditation.org.

Inter-Institutional Relations

Ana María Coro, IAAC Chair, was designated as the IAAC Representative at the ILAC Arrangement Management Committee (AMC). Maribel López of ema was designated by IAAC to address the issue of financial support for the implementation of IAAC proficiency testing programs at the upcoming ILAC Executive Committee. Paulo Roberto dos Santos of INMETRO was designated as the new IAAC Regional Coordinator for EPTIS.

IAAC is planning a joint Executive Committee meeting with the Technical Standards Panamerican Commission, COPANT, as well as a joint seminar, with the purpose of strengthening ties with COPANT.

International Projection

IAAC Evaluation by IAF and ILAC

ILAC recently witnessed the IAAC evaluation of the ECA (Costa Rica) which was performed in January 2005. The scope of the evaluation was testing laboratories. In 2005, ILAC will perform three additional witnessings of IAAC evaluations. By 2006, IAAC should have closed all of its non-conformities, and will then be in full compliance with international guides and standards, and ready to sign the IAF and ILAC MLA, thus achieving recognition of its MLAs.

Proposed MOU Between NACLA and IAAC

The IAAC General Assembly, at its meeting in October 2004, endorsed in principle the signing of an MOU between NACLA and IAAC. Both organisations are currently reviewing the text and will soon agree on a date to sign the final document.

Proposed MOU Between APLAC and IAAC

At its meeting in October 2004, the IAAC General Assembly endorsed the signing of an MOU between APLAC and IAAC. The text of the agreement is currently being reviewed by both organisations and a date to sign the final document will be agreed shortly.

IAAC Multi-lateral Cooperation Projects

2004–2005 OAS Project

IAAC is currently finalising a 2004 project funded by the Organization of American States (OAS), and executed by ema of Mexico. The activities performed included three peer evaluations and three pre-evaluations, three training courses, three consultancies, three internships, a seminar on accreditation and rounds of proficiency tests. This project will conclude in March 2005.

IAAC submitted a project proposal for 2005 that is currently in the review stage by the OAS and Mexican government institutions. This project includes funding for the implementation of two peer evaluations, and four witnessings to peer evaluations, three training courses, three consultancies, three internships, a seminar on accreditation, two rounds of proficiency tests, and office equipment for the Secretariat.

2005–2006 IDB Project

Since 2003, with the support of ema as the organising body, IAAC began the implementation of a project with the Inter-American Development Bank (IDB) titled "Reduction of Technical Barriers to Trade By Strengthening Accreditation Systems". The accreditation bodies benefiting from this project are ema of Mexico, TTBS of Trinidad & Tobago, ECA of Costa Rica, and ONA of Paraguay. The activities performed included internships, peer evaluations, training courses on technical topics, seminars for creating awareness regarding accreditation. The accreditation bodies that provided their time and resources to undertake several of the project´s activities include A2LA, NIST and ANSI-RAB of United States, INMETRO of Brazil, OAA of Argentina and SCC of Canada.

The project will continue throughout 2005 with various activities, including the implementation of consultancies, internships, peer evaluations, participation in PT programs, and training courses for participating countries. This project received an extension and is scheduled to be completed by May 2006.

2005–2006 PTB Project

IAAC is currently developing a project proposal with the Physikalisch-Technische Bundesanstalt, (PTB) of Germany regarding the provision of funding and assistance for the implementation of IAAC proficiency testing programs, training courses, a workshop to analyse PT program results, and technical visits.

IAAC Proficiency Testing

In 2003, IAAC developed a database on the member countries' supplies and demands of proficiency testing. As a result, in October 2004, IAAC began a program of proficiency tests in mass calibration, organised by INMETRO of Brazil. The first loop of this program began in January 2005, and was distributed to laboratories in Argentina by the OAA.

The following IAAC members will be participating: OAA of Argentina, OUA of Uruguay, ONA of Paraguay, SCC of Canada, ema of Mexico, OAE of Ecuador, INDECOPI of Peru, INN of Chile, TTBS of Trinidad & Tobago, ONARC of Cuba, SENCAMER of Venezuela, ONA of Nicaragua, ECA of Costa Rica, IAS of USA, ACLASS of USA, A2LA of USA, and INMETRO of Brazil.

IAAC has programmed two additional proficiency testing programs scheduled to start during the first semester of 2005 — a program for volume organised by ema of Mexico, and a program for water organised by OAA or Argentina.

Upcoming IAAC meetings

The IAAC General Assembly will be held in San José, Costa Rica, on 8-14 May 2005. The dates of the General Assembly were chosen to be held in parallel to the annual meetings of the Technical Standards Panamerican Commission, COPANT, with the purpose of strengthening ties with COPANT. IAAC will hold a joint Executive Committee meeting with COPANT as well as a joint seminar. Details to be forthcoming at the IAAC website: www.iaac-accreditation.org

The IAAC General Assembly 2004 In Trinidad And Tobago

by Giselle Guevara, Promotions Sub Committee Chair, IAAC

The Trinidad and Tobago Bureau of Standards (TTBS) recently hosted the Inter American Accreditation Cooperation 9th Annual General Assembly from the 23 to 29 October 2004 at the Hilton Trinidad and Conference Centre, in Port of Spain, Trinidad.

The Permanent Secretary in the Ministry of Trade and Industry presided over the opening ceremony for the week's activities and praised the TTBS for their initiative and hard work in putting together and hosting the event. Forty two delegates, all experts in the field, attended the General Assembly representing Argentina, Australia, Brazil, Canada, Chile, Costa Rica, Cuba, Ecuador, Germany, Guatemala, Jamaica, Mexico, Paraguay, Peru, South Africa, Tanzania, USA and Venezuela.

The majority of the week was spent deliberating on issues related to accreditation and the agreements that can assist in decreasing trade barriers among their countries. On the Thursday, local practitioners were all invited to a public seminar entitled "Accreditation in the Region-Past, Present and Future", which was facilitated by some of the visiting experts. Participants at the day's event shared in the experiences from other developing nations as well as those of developed countries. The Honourable Minister Dianne Seukeran in the Ministry of Trade and Industry

delivered the feature address and heartily welcomed all the foreigners to Trinidad and Tobago. The Minister also emphasised the importance of accreditation in improving the Quality of goods and services and helping to dissolve the trade barriers which exist among our trading partners.

This General Assembly was important to the IAAC Members because it marked the change in leadership from Ms Maribel Lopez Martinez of Mexico, who served emphatically for four years to Ms Anna Maria Coro Matic of Chile. Members sadly bid Ms Lopez a fond farewell and pledged their support for Ms Coro who will no doubt continue the great work started before and lead the IAAC into the future with hard work and strong members. As the Americas region prepares itself for the initiation of the Free Trade Area of the Americas (FTAA) in 2005, IAAC will continue to work assiduously with its members and partners such as ILAC to ensure that all of its members maintain their goal to build a strong accreditation infrastructure for the Region.

Notwithstanding the hard work completed during the week, the participants also took time out to enjoy the sites, sounds and flavours of Trinidad and Tobago, even to indulge in a little Calypso dancing by moonlight at both the Welcome and Farewell events. Needless to say, a good time was had by all especially with the dance lessons. The TTBS wishes to thank all who contributed and supported the hosting of the IAAC 9th Annual General Assembly in 2004. The next IAAC General Assembly will be held in San Jose, Costa Rica in May 2005.

Update On SADCA Activities

by Marie Chilcott — SADCA Secretariat

SADCA Chair

The Southern African Development Community in Accreditation (SADCA) Chair, Mrs Beatrice Mutabazi from Tanzania was elected as Chair of the IAF Developing Services Committee and co-Chair of the joint ILAC/IAF Developing Services Committee.

SADCA Project Management Committee (PMC) Meetings

The SADCA PMC held a meeting on 7 October 2004 to discuss pertinent issues arising from the SADCA meetings in Cape Town on 8 and 14 October 2004, at which all the National Accreditation Focal Points (NAFPs) and SADCA Committee members were to be present. A follow-up SADCA PMC meeting was held in Namibia during the week of 21 February 2005.

NAFP Training

The NAFPs attended a 3-day assessor overview workshop in Cape Town. The purpose of the workshop was to give them an insight into what is involved in an assessment, the role of the technical and lead assessor. The NAFPs developed a list of criteria for the selection of experts who would be trained as regional assessors.

SADCA Meetings in Cape Town

Two meetings with the Project Management Committee (PMC), full SADCA Committee and NAFPs in attendance were held in Cape Town in October 2004. The purpose of the meeting on 8 October 2004 was to deal with issues relating to the NAFPs and prepare the Committee for the ILAC / IAF meetings.

On 14 October 2004 seven SADC Permanent Secretaries of the Ministries of Trade and Industry joined the PMC, SADCA Committee members, NAFPs and donors at a meeting. It was the first time that such high-level government officials from SADC Ministries of Trade and Industry attended a SADCA meeting. The purpose of this meeting was to:

- inform government officials of the SADCA project, the progress and challenges;
- discuss the launch of the NAFPs and the government support required;
- discuss the way forward for the NAFPs.

Incorporation Of SADCAS

Discussions on the incorporation of the Southern African Development Community in Accreditation System (SADCAS) are in an advanced stage. Draft bylaws for SADCAS have been prepared and are presently with the SADCA PMC for comment.

SADCA/IAAC Project

The SADCA / IAAC "Statement of Technical Cooperation" was signed in Trinidad and Tobago on 29 October 2004 by the SADCA Chair, Mrs Beatrice Mutabazi, and the Regional Coordinator, Mr Mike Peet.

Participation in Regional and International Meetings

The SADCA Chair continues to attend the Executive meetings of ILAC and IAF and represented SADCA at the ILAC/IAF meeting in Cape Town in October 2004. The SADCA Chair and Regional Coordinator attended the IAAC General Assembly meeting in Port of Spain, Trinidad and Tobago in October 2004.

Update from NACLA

By Joe O'Neil, NACLA

NACLA Elects New Officers

Dr William J. Tilstone is the new NACLA President, as of 1 January 2005. He is Executive Director of the National Forensic Science Technology Center, parent of Forensic Quality Services — International, a laboratory accreditation body headquartered near Tampa, Florida. He is a native of Scotland and spent a number of years as Director of the State Forensic Science Laboratory in Adelaide, Australia. He also served as a state government representative to the National Association of Testing Authorities, Australia's accreditation body .

The other new officers are Dr Richard B. Pettit, Vice President, and Richard Reitz, Secretary. Dr Pettit recently retired from the Department of Energy's Sandia (NM) National Laboratories, after a 30-year career on Sandia's technical staff. He is currently a consultant to DOE. Mr Reitz is Laboratory Manager of Retlif Testing Laboratories, of Ronkonkama, NY, a leading independent laboratory in the fields of electromagnetic capability and environmental simulation testing. The three new officers join Anthony Anderson, President of Guildline Instruments, Inc., of Lake Mary, Florida, who will continue to serve as NACLA Treasurer.

Dr Tilstone said he intended to lead NACLA in intensifying the pursuit of its primary mission: To evaluate U.S. laboratory accreditation bodies and to grant recognition to those bodies found to be in compliance with NACLA procedures and the relevant international standards for competent ABs.

His administration will focus on three strategies related to this mission:

- Continue the improvement of the NACLA recognition process;
- Attract more accreditation bodies to apply for NACLA recognition;
- Market NACLA more effectively to industry and government.

NACLA Forum

NACLA held its Fourth Annual Forum on Laboratory Accreditation, in conjunction with its Annual General Meeting, on 5 and 6 April 2005, in Columbia, MD. Presentations focused on subjects related to the new ISO/IEC Standard 17011:

- the Interaction of Calibration and Testing Labs;
- Approaches to Assessor Qualifications, Training and Selection;
- Steps to Make Accreditation More Credible to, and Respected by, Industry and Government;
- The Growing Importance of Proficiency Testing Programs; and
- the developing Memorandum of Understanding between NACLA and the IAAC.

NACLA Grants Recognition To L-A-B

In December, 2004, NACLA granted recognition to Laboratory Accreditation Bureau (L-A-B), a multi-discipline laboratory accreditation body (AB), headquartered in Fort Wayne, Indiana, L-A-B is the seventh organisation that has been recognised by NACLA. Recognition is an indication that L-A-B has demonstrated to a NACLA evaluation team that it complies with NACLA procedures and the international standard for a competent AB (ISO/IEC Guide 58).

L-A-B was recognised for a specific range of its accreditation services: In the testing area — mechanical and dimensional measurement; in the calibration area — mass, torque, force, hardness and length.

L-A-B, a Michigan corporation, was established in 1999 to provide laboratory accreditation services to independent and captive testing and calibration laboratories. In addition to its headquarters facility, L-A-B has offices in Pittsburgh and Chicago. The company was established by a group of investors consisting of industry leaders from the auditing and laboratory community. It has accredited more than 250 laboratories serving the needs of the automotive industry and other sectors of the economy.

A2LA Gives Up NACLA Recognition.

On 1 January, 2005, A2LA, the first AB recognised by NACLA, voluntarily withdrew as a signatory to the NACLA MRA and, thereby, forfeited its NACLA recognition.

IAF Update

By John Owen, IAF Secretary

Transition to the New ISO Standards Editions

Following the publication in 2000 of revisions of the 1994 editions of ISO 9001, 9002 and 9003 into a single standard, a transition deadline for the migration of accredited certificates to the new ISO 9001:2000 edition was set at 15 December 2003. After that date, certificates issued to the previous versions of the standards would be considered invalid. While in July 2003, six months prior to the transition deadline, the number of transitions to the new standards was estimated at a mere 25–30%, at its 17th annual General Assembly meeting in September 2003 IAF reaffirmed that the transition deadline would stand. To raise awareness, IAF issued various communiqués and encouraged Members to step up their own communication efforts. By the deadline, a remarkable 85–90% of accredited QMS certifiers had successfully transitioned.

An improved version of the ISO 14001 standard was published in November 2004. At its most recent General Assembly in October 2004, IAF and ISO had concurred on a phased 18 month transition period for migration to the ISO 14001:2004 edition. The expiry date for all existing certificates has been set at 15 May 2006.

The first edition of ISO/IEC 17011 as the replacement for ISO/IEC Guide 58, ISO/IEC Guide 61, and ISO/IEC/TR 17010 was published in September 2004. At their General Assemblies in October 2004, IAF and ILAC set the same transition period for migration to the ISO/IEC 17011. The Accreditation Body Members of both IAF and ILAC are required to fulfill the requirements of ISO/IEC 17011 by 1 January 2006.

Enhancements To The IAF MLA

Originally signed by fourteen accreditation body members in 1998, the first IAF Multilateral Recognition Arrangement (MLA) established the conditions for recognition and acceptance of

accredited QMS certificates by its signatories. Since then, IAF has achieved continuous improvement to the MLA by monitoring its effectiveness and regularly evaluating how it contributes to maintaining confidence in each accreditation bodies' work as well as confidence by their customers. Currently there are 34 signatories to the original QMS MLA.

Signatories of the MLA participate in the Peer Evaluations of other signatories and of applicants to the MLA. Among the ongoing enhancements to the evaluation process is the development of vehicles that facilitate the sharing of assessment results among accreditation bodies. Recently published jointly by IAF and ILAC, harmonised evaluation requirements and procedures are required to be implemented no later than January 2006.

Based on other recent MLA enhancements, in October 2004, 27 Members signed the EMS MLA certificates and 21 signed the product MLA certificates. Requests from customers to establish an IAF MLA for certifying persons is also under consideration by a small task group.

The implementation by the IAF of a guidance document on Cross Frontier Accreditation represents yet another recent enhancement to the MLA. The main purpose of the Cross Frontier document is to facilitate cooperation among accreditation bodies in assessing critical locations and to enhance the networking and assessment capabilities of these bodies worldwide. Results of a June 2004 survey of MLA signatories showed that all signatories (with the exception of those that only operate locally) had a plan in place to conform to the requirements and are implementing the policy and related requirements. The ultimate goal of the MLA continues to be to attain worldwide acceptance of a single accreditation certificate of conformity.

The IAF Seal And MLA Mark

In November 2001, IAF decided to start work on a single worldwide logo that could be used by members to signify their membership in the MLA. Agreement on the design was reached in 2003 and a licensing agreement was approved in 2004. Pending international registration of the IAF MLA Mark, licensed IAF Members (signatories of the QMS MLA) are now able to use the Mark on certificates in combination with their own marks and will be able to sub-license use of the Mark to their accredited certification/registration bodies.

Encouraging Emerging Economies

It was in 1998 that IAF formally adopted a policy encouraging the development of accreditation bodies in less developed economies. The group responsible for establishing relevant programs and support is now a joint IAF-ILAC committee, the Joint Development Support Committee (JDSC). Recent work is focused on revising the criteria for funding support and in creating the seminars and training that are to be delivered.

Customer Satisfaction Surveys

As part of ongoing efforts to strengthen customer focus, in 2003 IAF conducted its first survey of its client base to determine their satisfaction with the organisation. Over one thousand certification/registration bodies participated. The findings were presented to Members as part of the 17th IAF General Assembly. To ensure continuous improvement and follow-up a task group was then established to study the outcomes and look at next steps. Among the task group's recommendations were some actions specific to IAF, as well as actions pertaining to the activities of its members.

Expanding International Partnerships

Cooperation with key international standardisation organisations has been an IAF priority since its creation. A commitment to participate with ISO and IEC was affirmed at the very first formative meeting held in Houston, Texas in 1993. By the third meeting in January 1994, IAF members had agreed to extend membership to include interested international and regional organisations as observers. Over the years, various joint working groups have been formed and in March 2004 a Memorandum of Understanding was signed between ISO, ILAC (the International Laboratory Accreditation Cooperation) and IAF to formalise their collaborative relationship, cooperation and mutual assistance on accreditation as part of conformity assessment activities. A Joint Working Group has already been formed to consider policy and operational issues of common interest.

Cooperation and harmonisation with ILAC began to take shape as early as 1995. While formal recognition of mutual goals was slow to materialise, the informal linkage between IAF and ILAC was well established by 2001 when members from both entities came together in Kyoto for the first of what would become a regular practice of holding joint annual meetings. Major progress has been made in several areas; in particular, by the Joint Development Support Committee and in development of the Joint Inspection Body Program. The IAF-ILAC Joint Committee on Closer Cooperation (JCCC) is now considering ways to make these meetings more effective and relevant to all members, and is drafting an agreement outlining cooperation between the two organisations.

The relationship with the ISO committee on conformity assessment (ISO/CASCO) was first identified as a key linkage for IAF, at its meeting in May 1993. IAF became a liaison member of ISO/CASCO in 1998 and in 2004, ISO/CASCO was confirmed as the primary body within ISO for the interface with IAF and ILAC.

Going forward, international partnerships will continue to be instrumental to IAF in achieving its strategic goals of trade facilitation.

Supporting Industry Sectors

Having received a number of reports from industries interested in conducting sector specific work under the IAF umbrella, in 2001, IAF agreed to adopt a policy for dealing with industry specific schemes. Since then it has continued efforts to build collaborative structures with sector schemes (i.e. Telecommunications, Aerospace, Foods, Forestry, etc). Among the first of these schemes to be advanced is the foods sector. The Global Food Safety Initiative (GFSI) program was approved at the September 2003 IAF General Assembly. More recently, IAF has welcomed a number of new Association members including PEFC – Program for the Endorsement of Forest Certification and new Observer Members such as CAC-MASQ — the Central Asian Cooperation on Metrology, Accreditation and Standardization, the Euro-Asian Council for Standardization, Metrology and Certification (EASC) and the World Food Safety Organisation (WFSO).

Membership Matrix

Membership in IAF has both increased and changed over the years. Today, the IAF is comprised of a total of 66 members: 44 accreditation body members, 14 association members, 4 regional groups with special recognition, 1 partner and 3 observers.

BIPM News

By Rainer Kohler, Quality Manager and Liaison with ISO and ILAC, BIPM

Since the MoU between ILAC and the BIPM was signed, a joint working group has met three times. At the last meeting, in March 2005, a workshop was held with some 20 representatives of regional accreditation bodies (RABs) and regional metrology organisations (RMOs).

The ILAC and the BIPM confirmed the vital importance of a close relationship between the two organisations and undertake to promote collaboration between RABs and NABs as well as between NMIs and national accreditation bodies. One of the major purposes of the CIPM MRA was to support the ILAC MRA through traceability to the realisation of the SI units by National Metrology Institutes (NMIs) and the BIPM. NMIs see the ILAC arrangement as a key way to fulfil their responsibility of disseminating traceability in their countries.

One important area of collaboration could be the linking of CIPM key comparisons with proficiency testing exercises run by accreditors. There is a commitment from both groups to strengthen these and other technical links. It is particularly evident that the benefits of the CIPM MRA should be used by accreditors to a greater extent than now. The working group agreed to encourage regional metrology and accreditation organisations to invite each other to relevant working group meetings in order to promote confidence and transparency and to build up extra confidence.

One particular recommendation was that accreditation bodies should use the BIPM key comparison database (KCDB) for checking NMI's CMCs (Calibration and Measurement Capabilities) which can be found on the KCDB website, Appendix C: http://kcdb.bipm.org. These have been thoroughly peer reviewed and are accepted by NMIs who have signed the CIPM MRA. Accreditors were encouraged to use the KCDB to check the consistency of uncertainties claimed by accredited laboratories and those of the NMI to which these laboratories measurements are traceable. There was also a strong support that the accreditation community should use the term CMC rather than BMC since this gave a better interpretation of a laboratory's day to day calibrations.

Progress has been made on the issue of impartiality in the case in which national metrology institutes are within the same organisation as the body which performs the accreditation process in their country. RMOs welcomed ILAC's current position which recognises that some accreditation bodies are 'housed' within an NMI (as part of national government policy) but this is acceptable as long as effective 'firewalls' are created between the NMI and NAB, as per the principles and requirements of ISO/IEC 17011 (and ISO PAS 17001).

The draft joint BIPM-ILAC statement mentioned in the last *ILAC News* is in its final stages and is currently submitted to the stakeholders for final comments.

The next meeting of the joint BIPM-ILAC group will take place in early March 2006 together with a second workshop betweeen RMOs and RABs.

NCSL International

By Tony Anderson, NCSLI

NCSLI is transitioning into the 21st century. Strong focus continues in the field of education and training. The metrology community is facing a shortage of qualified metrology personnel. NCSLI is positioning itself to be able to provide members with opportunities to obtain technical training both directly and indirectly. In its new training facilities in Boulder, Colorado, courses are already being offered for 2005. Last year was the first year that courses were offered and it was very successful, with four different organisations using it to run multiple courses.

This year's NCSLI annual Workshop and Symposium will be held at the Washington Hilton & Towers, Washington, DC on 7–11 August, 2005. The theme of this years Conference is: "Advances in Science and Technology — Their impact on Metrology." There will be five parallel technical sessions and 20 technical tutorial sessions as well as over 160 exhibitors. The number of tutorials has been steadily increasing since 2000, when they were first introduced as part of the conference, providing education opportunities for our members and the metrology community at large.

Continuing the theme of education, NCSLI will be increasing deliverables to members by reviewing and updating the current

recommended practices and Recommended Intrinsic Derived Standards and Procedures. Publication of new documents on these areas is being planned for this year.

NCSLI will further its international activities in 2005 with active liaison with a variety of international organisations. NCSLI now has 'board-level' cooperative liaisons with three National Measurement Laboratories; the National Institute of Standards and Technology (NIST); the National Research Council (NRC) in Canada, the Centro National de Metrologia Mexico (CENAM) and with the Bureau International Poids de Mesures (BIPM). It also has cooperative liaisons with Sistema Interamericano de Metrologia (SIM) and the European Collaboration in Measurement Standards (EUROMET), and through its support of the Laboratory Chair, has a liaison with ILAC.

More news about NCSL International and next year's Annual Conference in Washington, DC, 7 to 11 August 2005 can be found on the organisation's web site, www.ncsli.org.

National Laboratory Association (South Africa)

By John Wilson, Director, NLA

Training

The NLA continues to provide many different technical training courses and is in the process of rolling out training courses into the SADC region, on request from the region. The NLA have also had students from overseas countries attend the courses and have been complimented on the high standard of the courses. The NLA staff complement has increased to be able to cope with this growing activity.

Professional Recognition

The NLA has made good progress in gaining professional recognition for metrologists and hope that shortly this will be formally introduced. This is a significant step for the members as many large companies need a formal process for the correct grading of their laboratory members. It has also raised the overall profile of Metrologists as a formally recognised profession.

Test and Measurement Conference 2005

The 25th Annual NLA Test and Measurement Conference is scheduled for 4–7 September 2005. NLA have already received many papers and requests for exhibition stands. Information can be obtained at the website. (www.nla.org.za).

PT and ILC Schemes

The NLA has conducted several inter-laboratory comparison programs and several proficiency testing programs These were both well received and strongly encouraged by the laboratory community. The coming cycle will also include a facility to do a simulated "on-site" evaluation at the NLA facility.

Membership

The membership of the NLA has continued to grow steadily. What is pleasing is to see the acceptance of the NLA's roll by "Industry Sector" foruMs

Canadian Association for Environmental Analytical Laboratories

By Rick Wilson, Executive Director, CAEAL

The Canadian Association for Environmental Analytical Laboratories (CAEAL) has continued to provide ILAC liaison to ISO/TC176. Ned Gravel, CAEAL's Quality and Training Manager, attended the Annual Meeting of TC176 in October 2004. The ILAC report to TC176 noted the enhanced cooperation between the two organisations, illustrated by the successful conclusion to the revision of ISO/IEC 17025. It also referenced the laboratory survey undertaken by the ILAC Laboratory Committee as one reason for the ILAC resolution identifying a two-year implementation of ISO/IEC 17025:2005. Highlights of the meeting include:

- Positive group discussion on the differences between ISO 9001 and ISO/IEC 17025. Dissatisfaction over the alignment approach for ISO/IEC 17025 has been pushed far down in priority.
- Significant concerns about enhancing the credibility of ISO 9000.
- Revisions of both ISO 9001 and ISO 9004 are underway (anticipated to be minor).
- Discussions with Joe Bransky from General Motors, who headed a delegation from the International Automotive Task Force (IATF), as to the requirement for accredited laboratories to be registered to ISO 9001. The IATF response suggested that laboratory accreditation is sufficient for demonstration of conformance to their requirements.
- The Conformity Assessment Liaison Group (Nigel Croft facilitator) wishes to work with ILAC on wording for certificates.

With the expiry of the accreditation partnership agreement with the Standards Council of Canada (1994-2004), CAEAL has resumed accrediting laboratories as of January 2005 and has applied for full membership in APLAC. As of early February 2005, 131 accreditations have been granted and another 35 applications were being processed. These 166 laboratories represent an estimated 79% market penetration amongst Canadian environmental laboratories outside the Province of Québec, which operates its own accreditation program. CAEAL's market share in Ontario, Canada's most populous province, is somewhat lower (68%) because of a new provincial policy requiring accreditors to be signatories to a regional or ILAC Mutual Recognition Agreement. Thirty-eight of the laboratories accredited in 2005 were first accredited by CAEAL in 1993/94.

CAEAL continues to operate a large and expanding proficiency testing program that is accredited to a Canadian standard based on ISO/IEC Guide 43 and ILAC G-13. About 350 laboratories participate in the main program that ships about 6000 sets of samples annually. CAEAL has also been contracted by the Province of Alberta to phase in a more restricted proficiency testing program for about 600 water and wastewater facilities.

CAEAL has recently undertaken or participated in some new initiatives aimed at enhancing credibility as an accreditation body and in delivery of accreditation-related services.

CAEAL participated in the development of an IRCA-certified Lead Auditor/Lead Assessor course containing both ISO 9000 and ISO/IEC 17025 disciplines and aimed at laboratories and laboratory assessors. The IRCA certification allows graduates to participate in a number of assessor certifications schemes using their ISO/IEC 17025 assessment experience and without the pre-requisite of ISO 9000 experience. This is one of the first courses in the world to receive this recognition.

At the same time, CAEAL has produced some new documentation and developed more training to help laboratories better appreciate the many and varied requirements within ISO/IEC 17025. Besides an articulation of the principles behind ISO/IEC 17025 (http://www.caeal.ca/ISO-IEC_17025_Principals.pdf), CAEAL has produced the following:

- CAEAL 17025 Handbook (not yet published);
- CAEAL Interpretations of Requirements in ISO/IEC 17025 (http://www.caeal.ca/P07-CAEAL_Interpretations.pdf);
- CAEAL Policy on the use of IT in Accredited Laboratories (not yet published).

CAEAL now offers IRCA-certified courses for internal auditing and lead assessors. These two courses (plus two others) are also available on an interactive CD, although the two certified courses need two full days of classroom time in order to qualify for IRCA recognition. At the same time, CAEAL is posting training material online for its members and the following courses are either available, or close to available:

- Accreditation Seminar;
- Measurement uncertainty for the users of lab services and for Regulators (1 day).

Another seven online courses are still in the planning stages and will include a quality manual template, maintenance of a laboratory quality system, measurement uncertainty for analytical chemistry and microbiology, and internal calibration for mass, volume and temperature.

EUROLAB — Survey on the accreditation of **proficiency test providers**

Background

In Europe, accreditation systems for the accreditation of calibration laboratories have been in existence since the 1970s and for testing laboratories since the end of the 1980s. The accreditation of Proficiency Testing (PT) providers has only recently started in Europe. This process was certainly triggered by the development and publication of the international standard ISO/IEC 17011, which mentions incidentally the competence of PT providers and the appropriateness of their schemes.

Motivation

So far, the accreditation bodies have not harmonised their approaches to the accreditation of PT providers and there has never been an in-depth debate on the need for this new type of accreditation activities. Therefore, in August and September 2004, EUROLAB performed an inquiry among approximately 300 European PT providers, listed in the PT database EPTIS, to collect their views on accreditation. The results of this inquiry are presented in the EUROLAB Technical Report 1/2005, which was just published.

Results

The total number of 110 answers is equivalent to a response rate of approximately 36%. Such a rather high rate indicates the topicality of the subject for many PT providers. Nineteen out of respondees do hold an accreditation already. In addition, 10 others claimed to have applied for accreditation and 22 intended to do so. The PT providers that offer international participation in their schemes were much more interested in accreditation than those acting only nationally. However, considerable differences exist between the countries.

Further questions focused on information on the PT providers, (e.g. in which fields, whether national or international PTs are offered) as well as on the normative basis for such accreditations. The answers reveal the still not-harmonised approaches of the European accreditation bodies. In particular, one can distinguish two major approaches: either the use of normative documents only, which are exclusively focussed on PT (ISO Guide 43, ILAC G13), or of these documents in combination with international conformity assessment standards (ISO/IEC 17025 and 17020).

Concerning the assumed interest of the PT providers' clients, more than half of the answering PT providers felt that their clients were interested in the PT provider's organisation being accredited. About 60% of the PT providers were of the opinion that the need for accreditation was influenced by the accreditation bodies (e.g. by recommending or demanding from accredited laboratories to make use of accredited PT schemes).

EUROLAB Technical Report 1/2005

The newly published EUROLAB Technical Report 1/2005 does not comment on the results of the inquiry. Instead, a separate position paper will be published on the role of PTs and their use within the quality control of laboratories as well as the views and experiences of accreditation in this field.

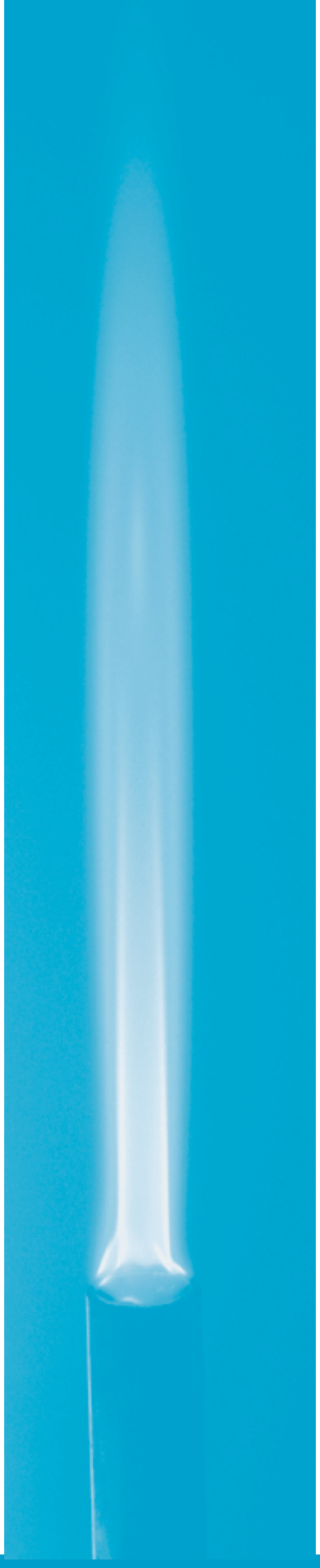
The Technical Report will be available at EUROLAB's website at www. eurolab.org by end of March 2005.

Coming EUROLAB events

7–9 September 2005, FRPM'05, 10th European Meeting on Fire Retardancy and Protection of Materials, (with EUROLAB as co-organiser), BAM, Berlin, Germany

20 October 2005, EUROLAB / EA / EURACHEM PLG workshop, "Regulation and standard requirements for conformity assessment of products, services and processes", Paris, France

3–6 November 2005, International Conference "Laboratory Competence", organised by Crolab (under the auspices of EUROLAB), Cavtat — Dubrovnik, Croatia.



accreditation update

Russian Federation: Accreditation Activities

The Russian Federation has not been part of any international accreditation cooperation before 2004. However, Russian laboratories need international recognition for their results. This will help to decrease the technical barriers in trade between Russia and its international partners.

The Association of analytical centers "Analitica" (AAC "Analitica") joined the ILAC community in 2004 as an Affiliate. AAC "Analitica" is an accreditation body that has been operating in Russian Federation since 1992, and is also one of several accreditation bodies operating under the Analytical Laboratories Accreditation System (SAAL).

These accreditation bodies have now adopted ISO/IEC 17025 as the basis for accrediting testing laboratories. This has helped SAAL to adopt a uniform approach to determining laboratory competence. It has also encouraged laboratories to adopt internationally accepted testing and measurement practices, where possible. ILAC's guidance documents have been a great help in developing the SAAL.

AAC "Analitica" is engaged in accreditation of laboratories working in the areas of the determination of composition, structure and properties of substances and materials. This year, AAC "Analitica" also plans to implement ISO/IEC 17011, the basic points of which have already became the part of its daily work. AAC "Analitica" also takes part in organising the proficiency testing prograMs In most cases, AAC "Analitica" initiates the programs and member organisations coordinate, organise and provide the basis for program.

Besides accreditation activities, AAC "Analitica" takes part in organising training courses for personnel involved in accreditation of laboratories. AAC "Analitica" is one of organisers of the International Exhibition "AnalyticaExpo", which will be held in April 2005 in Moscow. More information on this event is available at www.analyticaexpo.ru.

Any organisation involved with carrying out analytical activities (chemical analysis, testing, analytical equipment producers, the CRMs producers, laboratory service etc.) can become a member of AAC "Analitica". At present there are 128 members. Among the Association, members mostly are:

- industrial enterprises;
- metrological organisations;
- accreditation bodies;
- scientific and educational organisations;
- analytical equipment producers.

At present, AAC "Analitica" has applied for Associate status with ILAC and hopes to continue to improve its cooperation with its foreign counterparts.

NATA

Safety First When Children Play — NATA Accreditation for Playground Inspection

Greater awareness of risks to children using playgrounds, combined with increased responsibility on local councils and other organisations, to ensure such equipment is safe, have lead to the first accreditation in Australia of a company providing inspection of playground equipment.

Kico Australia addresses equipment safety from multiple angles, not only checking existing playground facilities, but also checking on the installation and commissioning of new equipment. Their recent accreditation by NATA provides an independent evaluation and recognition of the inspection services provided by Kico.

Director and founder of Kico Australia, Susie Kearnes explains, "The company has been built upon the recognition that comprehensive inspections, maintenance inspections and pre-service checks for newly installed equipment, could assist in reducing the incidence of these types of injuries among children. Safe play areas for children can be created with quality installations and careful repairs of equipment to ensure hazards are removed, Australian standards are met, and sound maintenance is sustained."

The company's 15 year involvement in the playground industry includes playground design, site location, consultancy, installation, under-surfacing, equipment repairs, maintenance and safety inspections, to Australian Standards. "We have seen the need for regular inspections and maintenance on fixed playground equipment and under-surfacing if the risk of personal injury to

the children and the liability to the owners of the equipment are both to be reduced", Mrs Kearnes said.

Kico is the first playground industry participant to be NATA-accredited for inspection of playground equipment. Kico's clients, which include local councils, government and non-government schools, child care centres and food outlets, will improve design and installation standards in their playgrounds and most importantly, be confident that children's safety will improve.

Mrs Kearnes believes more NATA accreditations are needed to improve the level of inspection services to owners/operators of play equipment. "At Kico, we were more than willing to meet the challenge of the NATA accreditation requirements as an indication of our commitment to excellence and safety within our industry."

Tony Russell, Chief Executive of NATA, welcomes the playground industry's interest in the importance of inspection accreditation and added, "The number of NATA-accredited inspection bodies increased 40 per cent over the past year. A broad range of inspection bodies now seek accreditation under the International Standard ISO/IEC 17020 and we can now add playground equipment services to the growing family of activities covered by competent inspection bodies. The standard for this accreditation sets out criteria necessary to examine products, installations, plant, processes, work procedures or services. NATA accreditation considers not only the technical competence of staff to perform an inspection, but also the professional judgement to report accurate and meaningful results, suitability of inspectors, and work management systems"

NATA offers an independent assessment of an organisation's inspection capabilities to ensure conformity with international standards that define criteria for competent examination of product design and services. NATA began its inspection accreditation services over a decade ago to enhance confidence in the quality of inspection results in the Australian community.

Conference of Accredited Laboratories of the Republic of Belarus

By V.N. Koreshkov, Chairman of National Accreditation Body (Gosstandart)

Accreditation in the Republic of Belarus has developed in line with internationally accepted criteria regarding transparency and openness to all interested parties. This approach was vividly supported by a Conference of accredited laboratories which was organised under auspices of the National Accreditation Body (Gosstandart) in December 2004 in Minsk, Belarus.

The Conference gathered together the wide accreditation community from all regions of Belarus, and offered an open arena for discussions by more than 1000 representatives of accredited laboratories and 300 companies seeking for recognition of their measuring and testing capabilities.

Notable attendance included companies such as "ATLANT" — home refrigerator maker, "BELARUSKALI" – potash producer, "MOTOVELO" — bicycle and motorbike producer, "HORIZON" — TV-set manufacturer and other companies that export their products around the world.

Particular emphasis at the conference was placed on establishing reliable mechanisms and conditions for maintaining confidence in test and calibration results from accredited laboratories across Belarus, as well as their recognition outside the republic.

The plenary session of Conference extended into the following practical sections:

1) Testing of products from engineering industries, device-making industries, electrical devices, communication devices, and machine-tool construction. Electrical safety testing, industrial interferences testing and flammability testing;
2) Testing of foods, agricultural produce and light products;
3) Electro-physical measurements;
4) Ecology and labor safety;
5) Testing of construction materials and woodworking-industry products and chemicals; and
6) Calibration and testing laboratories.

The accreditation system of the Republic of Belarus includes 10 notified accreditation bodies for laboratories, 147 certified laboratory assessment experts, 2389 accredited test laboratories and 122 accredited verification and calibration laboratories.

To maintain the reliability and credibility of the accreditation system, 2200 periodical audits were carried out by accreditation bodies in 2004. The audits naturally revealed discrepancies in the operation of accredited laboratories. Thus, accreditation was canceled or suspended for 300 laboratories accordingly. More than 127 inter-laboratory comparisons, involving 1800 accredited laboratories, were completed and provided good comparability of test and verification results.

In 2004, the national accreditation body concluded bilateral agreements for the mutual recognition of test results obtained by accredited laboratories in Russia, the Slovak Republic, the Czech Republic, Poland, Latvia, and Lithuania and has initiated similar agreements with Bulgaria and Hungary.

A multilateral agreement for the mutual recognition of accreditation by Commonwealth of Independent States (CIS) members is under consideration of Belarusian Ministry of Foreign Affairs and, after official approval, will encourage acceptance of accreditation results and test results among 10 CIS member countries.

The strong will of the national accreditation body in establishing mutually beneficial collaboration with the international

accreditation community in the form of ILAC membership was especially welcomed.

Accreditation of Medical Testing Laboratories in Malaysia

A new accreditation program has been introduced by the Department of Standards Malaysia (DSM) to accredit medical testing facilities against the standard MS ISO 15189:2004 *Medical Laboratories — Particular Requirements for Quality and Competence.*

Originally, the accreditation criteria for the Laboratory Accreditation Scheme of Malaysia (SAMM) was only based on the standard ISO/IEC 17025, which covers the accreditation of both testing and calibration laboratories.

The scopes of accreditation for medical testing are, in general, classified according to six major disciplines which include anatomical pathology (cytopathology); anatomical pathology (histopathology); chemical pathology; haematology; medical microbiology and medical microbiology (virology). Accreditation under SAMM is applicable to all laboratories that provide medical testing services. These include private laboratories as well as those in the public hospitals.

Efforts in developing an accreditation scheme for medical testing laboratories started in late 2002 with the signing of a Memorandum of Understanding between DSM and the College of Pathologists (CPath), Academy of Medicine Malaysia. This was a significant event as it brought together the key players in medical testing accreditation, the national accreditation body and the body of national experts.

Throughout 2003 and 2004, joint DSM — CPath activities were carried out to create awareness and build up the national capacity for medical testing accreditation. As a result of several brainstorming sessions and a public forum in December 2003, DSM decided to use ISO 15189 as the accreditation standard for medical testing accreditation. It was felt that this is a more appropriate standard and is gaining prominence at the international arena, based on an ILAC survey on the implementation of ISO 15189.

The accreditation criteria MS ISO 15189 is supplemented by the following specific technical requirements and other SAMM published accreditation requirements:

(i) SC 2 — Specific criteria for accreditation in the field of medical testing

(ii) Specific technical requirements for accreditation of:

Anatomical pathology (cytopathology)	(STR 2.1)
Anatomical pathology (histopathology)	(STR 2.2)
Chemical pathology	(STR 2.3)
Haematology	(STR 2.4)
Medical microbiology	(STR 2.5)
Medical microbiology (virology)	(STR 2.6)

With the launching of this accreditation program, based on ISO 15189, Malaysia has succeeded in becoming one of the first bodies in the Asia Pacific region, together with New Zealand, Australia, Hong Kong and Thailand, to provide this service. It is envisaged that 150 government medical testing laboratories and 200 private sector laboratories in Malaysia will benefit from accreditation to MS ISO 15189.

Trinidad And Tobago Hosts Seminar on Accreditation

In October 2004, the Trinidad and Tobago Laboratory Accreditation Service (TTLABS) in conjunction with the Inter American Accreditation Cooperation (IAAC) hosted a public seminar in Port of Spain, Trinidad, entitled "Accreditation in the Region – Past, Present and Future".

Participants at the seminar included a variety of members of the public and private sectors, among them being industry, government ministries, academia, consultants and interested persons in the field. International and Regional delegates from the Inter American Accreditation Cooperation (IAAC) were also able to attend since the seminar was held in the same week as the 9th Annual General Assembly. As such, the Organisation of American States (OAS) generously provided airfare for some of the regional participants to attend the seminar.

International speakers for the day's event included Mr Mike Peet, Immediate Past Chair, ILAC, Mrs Beatrice Mutabazi, Chairperson SADCA, Mr Alan Squirrel, Secretary, ILAC, and Mr Peter Unger, President, A2LA. Locally, expertise was lent by Ms Loyce Constant, Head, Implementation Division, TTBS, Mr Theodore Reddock, Head, Metrology Unit, TTBS and Ms Valerie Wilson, Project Manager, Medical Laboratory Strengthening Project in the Caribbean.

In total, the day's proceedings were well received and the topics discussed dealt with the problems faced by developing countries, such as Trinidad and Tobago, in the global trade arena, along with the role of accreditation in increasing the competitiveness of local businesses and the part that Mutual Recognition Agreements will play in decreasing the trade barriers. Later on, the importance of quality in all laboratories was discussed and the dialogue segued into the incidence and consequences of medical laboratory errors and how these can be decreased by implementing an efficient quality system addressing all aspects of a laboratory's operations.

Trinidad and Tobago, having recently passed its new Metrology

Legislation in 2004, is in the process of strengthening its metrology infrastructure and as such the attendees were enlightened about the importance of traceability to the accreditation system and the ways in which metrology can assist laboratories in ensuring the reliability of their systems

To wrap up the proceedings, a panel discussion was conducted and members of the audience invited to make comments and ask questions of the speakers. Needless to say, the discussions that followed the presentations focused on the way forward, not only for Trinidad and Tobago, but for the rest of the Caribbean. Accreditation may be a topic that is slowly expanding its domain in the Caribbean, but its importance is not lost on the stakeholders. They will either affect the changes or be affected by it.

CNLA/TAF Update

New Name for CNLA

On 1 January 2004, under the supervision of the Ministry of Economic Affairs, the CNLA merged with the CNAB to form a new non-profit incorporation, the "Taiwan Accreditation Foundation" (TAF). Our listed name in both ILAC and APLAC, and also in IAF and PAC, has accordingly been changed to TAF. Nevertheless, CNLA operations remain unchanged. The CNLA pattern will continue to be used as the accreditation symbol during the transition period (until 2006), while the "new look" TAF pattern has been adopted as new accreditation body logo.

International Inspection Body Accreditation Workshop

In addition to a "Testing and Calibration" service, CNLA/TAF has also begun to provide, from December 2004, an "Inspection Body Accreditation" service. To obtain up-to-date information, and to learn about experiences of professional practices, we recently held an "International Inspection Body Accreditation Workshop" at the Caesar Hotel, Taipei, on 13th December 2004. Representatives from many different authorities attended. However, CNLA/TAF were especially honoured to have in attendance one of the world's best-known Inspection Body Accreditation experts, namely, Dr Llew Richards, also the CEO of IANZ, who shared his specialised knowledge in this field. This successful workshop represented an excellent beginning, and CNLA/TAF looks forward to holding similar workshops in future to promote our new accreditation service and build more connections with interested parties.

WTO/TBT Regional Workshop

As a full member of both ILAC and IAF, the Vice CEO of TAF, Mr Nigel Jou, was invited to represent both international organisations by speaking about the ILAC/IAF Scheme in the WTO/TBT Regional Workshop, held on 18 and 19 January 2005 in Taipei. The issue of conformity assessment has drawn increasing attention from the 148 members of WTO, from the point of view of trade. Several questions were addressed regarding the current status of ILAC and IAF, concerning the possibility of merger, the relationship between ILAC and IEC, the use of ILAC-MRA Combined Mark, the overall failure rate of the proficiency testing, and the manpower needed for setting up a new accreditation body.

2005 APLAC Proficiency Testing Training Course, Taipei, Taiwan

The second APLAC Proficiency Testing Training Course, which the CNLA/TAF was honoured to host, was conducted in the Grand Hotel, Taipei, Taiwan from 17 to 21 January 2005. In addition to being able to make ongoing contributions to the conduct of Proficiency Testing projects, CNLA/TAF was also delighted to have the opportunity to actively communicate with delegates from other ABs.

The training course, directed by APLAC and sponsored by APLAC and APEC, provided an excellent opportunity for accreditation body delegates to explore the spirit as well as the practice of proficiency testing. Two professional lecturers, Mr Philip Briggs, the Proficiency Testing Committee Chair of APLAC, and Mr David Hayles, a proficiency testing expert from NATA, delivered the 5-day courses to 30 participants from 12 economies around the Asia Pacific area, including Australia, Canada, Hong Kong, Japan, Korea, Malaysia, Philippines, Papua New Guinea, Taiwan, Thailand, the USA, and Vietnam.

TAF Annual Meeting

The "International Accreditation Development Workshop, and TAF 2005 Annual Meeting" took place at the Howard International House, Taipei, on 23 February 2005. Approximately 700 representatives from TAF's accredited organisations attended the very first Annual Meeting since the merger of CNLA and CNAB.

Mr Daniel Pierre, the ILAC Chair, and Ms Elva Nilsen, the IAF Vice-Chair, accepted our invitation of present the current work of ILAC and IAF to the audience. Useful and informative interactions occurred in which questions regarding the new ISO 17025

Standards, and third-party accreditation, etc., were discussed. In addition, a signing ceremony regarding TAF's change of name with respect to ILAC was performed by Mr Daniel Pierre, the ILAC Chair, and Mr Neng-Jong Lin, the President of TAF.

News From Mauritas

The Mauritius Accreditation Service (MAURITAS) has adopted a two-pronged strategy for launching accreditation in Mauritius. The strategy is based on:

(i) training/awareness of stakeholders in the field of accreditation to build capacity;
(ii) twinning with a foreign accreditation body for building capacity and to tap foreign expertise in the field of accreditation.

A series of awareness seminars, workshops and training courses were carried out in April/May 2004 by NABL, INDIA.

In line with its Action Plan for the period 2004–2007, MAURITAS has signed a twinning agreement in December 2004 with:

(i) the South African National Accreditation System (SANAS) for laboratory accreditation;
(ii) The Norwegian Accreditation (NA) for certification body accreditation.

Under these twinning agreements, MAURITAS will be in a position to build capacity in the field of accreditation and to tap foreign expertise for the accreditation of conformity assessment bodies such as laboratories and certification bodies operating in Mauritius. It is anticipated that 16 laboratories and 2 certification bodies will be accredited during the two-year duration of the twinning agreement. The latter will also enable MAURITAS to have a policy on specific technical issues.

CNAL News

Regulations in China Require **the Accreditation of Bio-safety** Laboratories as Part of CNAL's Accreditation System

In order to reinforce the management of bio-security laboratories engaged in activities related to pathogenic micro-organisms, and to control the infection and spread of the pathogenic micro-organisms in laboratories, the Chinese government issued Regulations on Bio-safety Management in Pathogenic Microorganism Laboratories (the China State Council Decree No. 424) on 11 December 2004, which have now come into effect. These regulations specify that the bio-safety laboratories have to be subject to the accreditation of CNAL (China National Accreditation Board for Laboratories). The bio-security laboratories that have been accredited by CNAL will be granted Bio-safety Laboratory Certificate at equivalent levels.

Since bio-safety has become an issue of such concern for the United Nations, all state governments, and the public, CNAL has established related rules and criteria to implement these regulations. These rules and criteria include procedures for bio-safety laboratory accreditation, accreditation criteria and accreditation application. CNAL has also invited experts to compile Basic Knowledge of Bio-Safety Laboratory Accreditation, which introduces the basic principle and requirements of bio-safety laboratory accreditation. Meanwhile, CNAL has already conducted trial accreditation of bio-safety laboratories.

Jordanian Accreditation Body

The Jordanian Accreditation Unit (AU) Develops its Strategic Plan

Jordan today confronts a lot of challenges resulting from the various international agreements that have been signed in order to develop the Jordanian economy and market. These challenges imposed on all stakeholders; private and public sector, policy makers, research centers, citizens, etc. to combine and unify all efforts to upgrade the quality of the products introduced and services rendered in the Jordanian market or exported in order to compete with foreign products and services. On the other hand, public sector organisations play a very important role in helping and serving the private sector and consequently, the development of the Jordanian economy. Therefore, the Jordanian public sector is required to provide more accountability and trust in the delivery of governmental defined services. AU, as one of the public organisations in Jordan which is responsible for assuring the competence of conformity assessment bodies, is required to deliver services competently.

Hence, AU has developed its strategic plan for the next three years. The strategic plan was prepared based on a survey of the needs of AU customers. The strategic plan focused on widening the scope of its services to include the provision of accreditation of medical labs during 2005, followed by the granting of accreditation for certification bodies during 2006. The plan also focused on the development of the qualifications of the staff, assessors and customers in those fields, including specific training on the accreditation requirements and general training of the importance of gaining of accreditation. The strategic plan also defined the future vision and mission of AU.

The AU Vision

To be a sustainable, independent and internationally recognised accreditation body, competent to provide accreditation services to Conformity Assessment Bodies according to international standards and active on regional and international levels.
(National Recognition — International Acceptance)

The AU Mission

AU grants accreditation as an official recognition of the technical competence of Conformity Assessment Bodies; testing and calibration laboratories, inspection bodies and certification bodies, on national, regional and international levels through:

- Implementing international practices and signing multilateral recognition agreements;
- Managing an effective relationship with conformity assessment bodies to fulfill their needs and reach the highest level of their satisfaction;
- Providing a creative, open and cooperative work environment for JAS assessors and committees' members to ensure their impartiality, confidentiality and objectivity, as well as availing the needed information at the right time to make the right decision;
- Providing the human, financial, technological and material resources needed to provide effective and competent accreditation services.

Promoting Awareness on Accreditation

In order to upgrade the quality infrastructure in Jordan, AU conducted several training courses during the second half of 2004 for the purpose of promoting awareness of accreditation requirements and technical issues such as measurement uncertainities and validation of test methods. Ninety delegates from both the private and public sectors participated in the training courses. They are either customers, potential customers or assessors.

Additionally, AU proceeded with its training program through conducting two training courses for 47 participants on the requirements of accreditation bodies according to ISO/IEC 17011 and the requirements of ISO/IEC 17025, as well as documentation in laboratories.

In 2005, AU plans to conduct seven technical training courses on accreditation and two general training course on quality concepts, tools and control charts.

Development of Arab Strategy for Accreditation and Arab Coordination Body for Accreditation (ACBA)

The Arab Industrial Development and Mining Organization (AIDMO) organised the development of strategic initiatives for accreditation in the Arab region. The Jordanian Accreditation Body was selected to develop an Arab Strategy for Accreditation for four years, 2004–2008. An analysis of the external and internal environment of the accreditation bodies in Arab countries was conducted. Based on the results, short, medium and long strategies and objectives were defined. To achieve objectives, an action plan for the years 2004–2008 was prepared and focused on the importance of the development of a regional coordination body. Based on the action plan, the ministerial council of AIDMO, took the decision to establish an Arab Consultative Committee for Accreditation (ACCA) that includes members from the Arab countries.

The ACCA held its first meeting in December 2004. The committee discussed the statute of the ACCA, the main responsibilities for ACCA will be to:

- Coordinate Accreditation Activities in the Arab countries;
- Elaborate a prospective to create the Arab Coordination Body for Accreditation (ACBA);
- Facilitate the exchange of expertise between Arab countries in the fields of Accreditation;
- Coordinate and conduct training and capacity building programs in order to develop accreditation activities;
- Act as the starting point for the development of international activities at the national and regional level.

UKAS: Smarter Accreditation

In the rapidly changing world we live in today, accreditors need constantly to look to the likely future challenges for business if they are to continue to meet the needs of their customers and the broader public successfully. In countries such as the UK ,where the accreditation system has been in existence for over 30 years, evaluation bodies[1] are now, quite rightly, demanding that services provided by accreditors should offer better value for money and should better reflect the current environment in which they are operating. Smarter Accreditation is a project initiated by the United Kingdom Accreditation Service (UKAS) to find better ways of providing accreditation. It aims to address some of the current concerns expressed by UKAS stakeholders and is laying the foundation for UKAS to meet the likely accreditation challenges of the next decade.

Traditionally, assessment and surveillance of evaluation bodies has been almost entirely based on initial and annual visits by assessment teams to the premises and places of work of customers. Assessments are carried out mainly to check conformity with requirements using evidence that is heavily based on what is written in manuals, procedures and documented records as well as from observation of technical work by the staff of assessed organisations. Increasingly, however, this approach is failing to reflect the changes that have occurred in the market place.

One of the trends of recent years has seen laboratories extending their services to offer inspection, certification and notified body activities (for European Directives) and consequently having to operate to more than one accreditation standard. A practical outcome of the Smarter Accreditation project is the development of a coordinated assessment framework which combines criteria common to different accreditation standards such as ISO/IEC

17025, ISO/IEC 17020, ISO/IEC 17024 and ISO/IEC Guides 62, 65, and 66. The framework is structured so that assessments to multiple standards can be managed and coordinated with minimum duplication of assessment effort. The criteria in these standards have been grouped together under the key headings of Scope, Organisation, Management, Evaluation Processes, Technical Competence, and Impartiality and Integrity. These headings are also used for reporting assessments against single standards, such as the laboratory standard ISO/IEC 17025.

Nowadays, too, the evaluation bodies are using more sophisticated electronic communication systems and expect to be able to do business with others, including accreditors, using these. A new process designed for reporting UKAS assessments electronically is currently being trialled by UKAS staff. In the new format, the outcome of the assessment is reported under the same six key headings mentioned above. The free-flowing style of the new format allows the assessment team to express the strengths and weaknesses of the assessed organisation and to link better their comments with the assessed organisation's business processes. The feedback from customers suggests that they prefer the flexibility of the new system to the current system, which is based on reporting under the headings of the Standard.

As part of its continuing program of improvements to the assessment process, the past 18 months have seen the adoption by UKAS staff of a holistic approach to the process. This means that when assessing whether an evaluation body has fulfilled the required criteria for accreditation, the assessors take into account the organisation's individual business circumstances and the influence these have on how it operates. For instance, the new standard for accreditors, ISO/IEC 17011 *Conformity assessment — General requirements for accreditation bodies accrediting conformity assessment bodies* recognises that conformity with standards such as ISO/IEC 17025 does not automatically imply competence. Competence depends on how well the organisation has applied the Standard to its business. The challenge for the accreditor when making judgements on the extent of competence is how to extract this information from the organisation and how well it communicates to the assessed organisation the results of assessments and the judgements it makes.

UKAS assessment plans for laboratories now include 'Business Planning'. Including this information in the assessment process allows the assessor to understand the laboratories' current and future business as well as, for instance, how well the management system has been used by the top management. When making judgements on the effectiveness of systems and processes and the extent of competence, such awareness can be extremely useful to both the assessor and the assessed organisation.

A further feature of the new reporting process being trialled is the option for the laboratories themselves to close out certain types of nonconformities reported at assessment visits, without having to refer those to UKAS for verification. This option is available only where the laboratory has a good track record and where the assessor has the confidence the laboratory is capable of dealing with that issue within its own system. UKAS however reserves the right to check the closing out of such corrective actions at any time and will do so from time to time to maintain the confidence of the laboratories' ability to run its operations without unnecessary interventions by UKAS.

Smarter Accreditation also involves a risk-based approach to managing assessments, to help prioritise assessment activities and as a possible tool to determine how often certain assessment activities should be carried out for accredited organisations. Organisations that have been accredited for a number of years have mature management systems. With such organisations, rather than going over the same ground that has been assessed satisfactorily many times, a more productive approach for improving their competence is for accreditors to focus on higher risk areas of business and internal and external changes that could have an impact on the competence and integrity of the organisation.

Over the last three years, the Smarter Accreditation project has involved extensive consultation with UKAS stakeholders in the UK in order to understand their needs and to seek their support in developing better ways of providing accreditation. The response has been encouraging, but since accreditation is a global activity, the Smarter Accreditation project now needs to reach beyond its UK stakeholders and exchange information both with other national accreditation bodies who may be already implementing similar approaches to accreditation and with international organisations that have an interest in accreditation. UKAS is conscious that some of its proposals may push the boundaries of some aspects of current accreditation practice but it is confident that, through open discussion with others, accreditation can keep pace with the changing demands of the environment in which it operates.

Endnotes

1 *The term used by UKAS to describe conformity assessment bodies and bodies involved in other evaluation activities such as forensic analysis, inspection for integrity of plant, etc.*

The International Laboratory Accreditation Cooperation (ILAC) is the principal international forum for the exchange of ideas and information on laboratory accreditation. Established in the late 1970s, ILAC membership has grown rapidly and includes representatives from the world's major laboratory accreditation systems in Europe, Asia, North America, Australia, Africa and the Pacific. Countries that are developing their own laboratory accreditation systems are also welcome to participate and contribute.

The following ILAC publications are available free of charge on the ILAC website at www.ilac.org:

Brochures

The ILAC Arrangement
ILAC Information Brochure
Why Use An Accredited Laboratory?
Why Become An Accredited Laboratory?
How Does Using an Accredited Laboratory Benefit Government & Regulators?
The Advantages of Being An Accredited Laboratory

Information Documents (I Series)

ILAC-I1:1994	Legal Liability in Testing
ILAC-I2:1994	Testing, Quality Assurance, Certification and Accreditation
ILAC-I3:1996	The Role of Testing and Laboratory Accreditation in International Trade
ILAC-I4:1996	Guidance Documents for the Preparation of Laboratory Quality Manuals

Guidance Documents (G Series)

ILAC-G2:1994	Traceability of Measurement
ILAC-G3:1994	Guidelines for Training Courses for Assessors
ILAC-G4:1994	Guidelines on Scopes of Accreditation
ILAC-G7:1996	Accreditation Requirements and Operating Criteria for Horseracing Laboratories
ILAC-G8:1996	Guidelines on Assessment and Reporting of Compliance with Specification
ILAC-G9:1996	Guidelines for the Selection and Use of Certified Reference Materials
ILAC-G10:1996	Harmonised Procedures for Surveillance & Reassessment of Accredited Laboratories
ILAC-G11:1998	Guidelines on Assessor Qualification and Competence
ILAC-G12:2000	Guidelines for the Requirements for the Competence of Reference Material Producers
ILAC-G13:2000	Guidelines for the Requirements for the Competence of Providers of Proficiency Testing Schemes
ILAC-G14:2000	Guidelines for the Use of Accreditation Body Logos and for Claims of Accreditation Status
ILAC-G15:2001	Guidance for Accreditation to ISO/IEC 17025
ILAC-G17:2002	Introducing the Concept of Uncertainty of Measurement in Testing in Association with the Application of the Standard ISO/IEC 17025
ILAC-G18:2002	The Scope of Accreditation and Consideration of Methods and Criteria for the Assessment of the Scope in Testing
ILAC-G19:2002	Guidelines for Forensic Science Laboratories
ILAC-G20:2002	Guidelines on Grading of Non-Conformities
ILAC-G21:2002	Cross Frontier Accreditation — Principles for Avoiding Duplication
ILAC-G22:2004	Use of Proficiency Testing as a Tool for Accreditation in Testing
ILAC-G23:2004	ILAC Evaluator Training Courses

Secretariat Documents (S Series)

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ILAC-S2:2003	Rules
ILAC S3:2004	ILAC Strategic and Business Plan

Joint ILAC IAF Documents (A series)

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IAF/ILAC A4:2004	Guidance on the Application of ISO/IEC 17020

Procedural Documents (P Series)

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ILAC-P12:2005	Harmonisation of ILAC Work with the Regions