At the mid-year meeting of the Asia Pacific Laboratory Accreditation Cooperation (APLAC) held the week of May 10, 2010 in Seoul, South Korea, the APLAC Mutual Recognition Arrangement (MRA) Council voted to continue A2LA’s APLAC MRA signatory status for the accreditation of testing and calibration laboratories, inspection bodies and reference material producers. The APLAC MRA Council also voted to expand the Scope of A2LA’s APLAC MRA recognition to include accreditation of medical testing laboratories. This means that A2LA’s ISO 15189 Medical Laboratory accreditation program is recognized by all 32 signatories to the APLAC MRA and consequently, by all 65 signatories to the International Laboratory Accreditation Cooperation (ILAC) MRA.

These decisions by the APLAC MRA Council represent the culmination of a significant amount of time and effort on the part of A2LA and we are very pleased to be able to announce such a positive outcome of the MRA evaluation undergone in February and March 2010. A2LA’s next APLAC evaluation will occur at the maximum interval of four years – by March 2014.
A2LA’s membership has voted in two new members of the A2LA Board of Directors. In addition, two new liaisons have been appointed to the Board.

Mr. John Fitzpatrick has been elected as an A2LA Director. He currently holds the position of “Subject Matter Expert, Oil Analysis” with Transocean, the world’s leading supplier of offshore drilling rigs. His expertise includes sampling and analyzing oil for various properties and materials that indicate wear and contamination in an engine, transmission or hydraulic system. His experience crosses several fields such as construction, waste, mining, quarry, trucking and the automotive industries. Previous experience includes managing the equipment maintenance program at Peter Kiewit Construction at the corporate office for a diverse equipment fleet, providing technical and sales support throughout the U.S. and Canada to 26 operating districts and managing daily operation of an in-house used oil analysis lab (AA, ICP, FTIR, particle count etc.). Mr. Fitzpatrick worked for Waste Management as a region manager. His responsibilities included providing inside sales, training and assistance to the region’s 24 area location managers. He evaluated capital improvements and budgets and prepared and approved all program updates for landfills, transfer stations, recycle facilities, power plants and quarries. Mr. Fitzpatrick brought locations into compliance with the company’s policies and procedures and computerized the maintenance operations. Mr. Fitzpatrick was Manager for Caterpillar, Foley Machinery in N.J. for 6 years. He established Mobile Oil Change operations for large rental fleet customer equipment. He designed, built and operated oil testing programs. Mr. Fitzpatrick served in the United States Marine Corps at Camp Pendleton, California. He attended Spring Garden College in Philadelphia, PA and majored in automotive, diesel and fuel injection technology and also attended Metropolitan Technical Community College in Omaha, Nebraska obtaining a degree in business management.

Mr. David J. Evanson has also been elected as an A2LA Director. He is Corporate Vice President of Quality of Silliker Group Corp. in Homewood, IL. He oversees a global network of ISO/IEC 17025 accredited laboratories in 15 countries and is charged with driving best practices – encompassing quality systems, processes, advanced technologies and customer satisfaction – across service groups and geographies. As part of his duties, he is also responsible for preparing budgets and developing strategic plans to meet organizational goals. Previous responsibilities included senior level Operations Management. During Silliker’s consistent growth, Mr. Evanson led the company’s selection for new laboratory sites, developed innovative laboratory designs and oversaw multiple renovations. He has served as instructor for both company and industry association technical courses and workshops. In the mid-1990s, as part of a team of Silliker experts, Mr. Evanson assisted the Food Laboratory Accreditation Working Group (FLAWG) in the development of groundbreaking accreditation criteria for U.S. food testing laboratories. Under his leadership, Silliker, in 1998, became the first network of laboratories nationwide to be accredited to ISO Guide 25 by the American Association for Laboratory Accreditation (A2LA). Mr. Evanson is a member of AOAC International, Institute of Food Technologists, and International Association for Food Protection. Additionally, he is a member of the A2LA Accreditation Council and serves on the Analytical Laboratory Accreditation Criteria Committee Microbiology Subcommittee. Industry wide, Mr. Evanson has written and lectured extensively on a wide range of food science and quality topics. He holds a Bachelor of Science in Biology from the University of Illinois (Chicago), a Masters in Microbiology from the Illinois Institute of Technology, and an MBA from the Keller Graduate School of Management.

In addition to the election of two new Directors, the A2LA Board has appointed two additional liaison members. Liaisons participate in all Board discussions and activities but are not eligible to vote on Board decisions.

Tim Brooke has been appointed a liaison from ASTM International, where he is an Assistant Vice President in the Technical Committee Operations division. He is responsible for providing management and direction for the Proficiency Testing Program, Technical and Professional Training Program, Interlaboratory Study Program, Personnel Certification Services, ISO/IEC activities, and contract management services. Tim joined ASTM over fourteen years ago and has held several positions in the technical committee operations division. He has a Bachelor of Science degree from Denison University and an MBA from Drexel University.

Lara Autry has been appointed a liaison from the U.S. EPA, where she serves as Senior Advisor for Measurement, Monitoring, and Laboratory Science Issues in the Office of the Science Advisor (OSA). In her 15 years with the EPA, she has served in various positions and roles within the Office of Air and Radiation (OAR) and the Office of Research and Development (ORD), gaining expertise in budgeting and program planning, quality systems, laboratory accreditation, monitoring and testing issues, proficiency testing, regulatory issues, modeling, statistical design and analysis, and innovative strategies and technologies. At present, she is not only an advisor for science issues, but serves as the Executive Director of the Forum on Environmental Measurements (FEM), as the Designated Federal Official (DFO) for the Environmental Laboratory Advisory Board (ELAB), and as Quality Assurance Manager for OSA. She has earned both her Bachelor and Masters degrees in Statistics from North Carolina State University.

A2LA welcomes Mr. Fitzpatrick and Mr. Evanson as Directors and Mr. Brooke and Ms. Autry as Liaisons to our Board of Directors and we look forward to their valuable input and participation.
World Accreditation Day 2010 – “Global Acceptance”

A joint statement from Daniel Pierre and Randy Dougherty, ILAC and IAF Chairs:
We are delighted to announce that World Accreditation Day will take place June 9th 2010. This year’s theme of ‘Global Acceptance’ reflects the core aspiration of the ILAC Mutual Recognition Arrangement (MRA) and the IAF Multilateral Recognition Arrangement (MLA). These Arrangements, which this year celebrate their 10th and 12th anniversaries, respectively, create an international framework to support international trade through the removal of technical barriers.

Technical barriers to trade are recognized as being potential obstacles to the free flow of goods and services. The exchange of products, services, and capital between countries account for an important element of a country’s gross domestic product, and represent a vital source of revenue for developing countries in particular. The Arrangements, established by ILAC and IAF, and signed by national Accreditation Bodies on a voluntary basis provide a mechanism to recognize the equivalence of accredited conformity assessment activities in different economies. By accepting the equivalence of assessment methods, the need for multiple assessments is eliminated and most importantly the results from the accredited organizations in different economies can then be accepted in confidence. In other words, there is no need for products and services to be re-evaluated in each territory that a business chooses to enter.

At the national level, there is greater recognition of accredited activities, in particular from regulators, who are using the arrangements to deliver policy objectives from health and safety to the protection of the environment, as well as providing the conditions that support a competitive economy through their impact on the export performance of businesses.

From a business perspective, the arrangements can significantly reduce compliance costs by removing unnecessary repeat testing or the need to comply with redundant local requirements. This also has a positive impact on time-to-market, which can be reduced through this streamlining of the approvals process.

Looking to the future, ILAC and IAF will continue to meet the expectations of a growing base of stakeholders. This will include responding to the needs of both industry and regulators, who are increasingly turning to accreditation to meet their regulatory responsibilities. As international organisations, the primary role of ILAC and IAF is to ensure consistency and equal reliability among all accredited activities delivered under their jurisdiction, to ensure that the ‘Global Acceptance’ of accredited conformity assessment results is universally achieved.◆

A2LA today going PAPERLESS

By Teresa C. Barnett, A2LA Quality Manager

For the past few years, the vast majority of A2LA Today readers have accessed our newsletter directly from the A2LA website. Even so, several hundred hardcopies were still mailed to recipients who had requested this service.

The June 2010 issue represents the final issue of A2LA Today that will be mailed as a hardcopy. All future issues must be accessed from the A2LA website. If you would like to receive email notifications as each issue is released but have not been receiving them thus far, please contact A2LA to ensure you are included on our email list. Please also be sure that A2LA is an accepted source of messages within your email program so that our “bulk” emails are not captured as spam.◆

2009 Annual Report Available

The 2009 A2LA Annual Report is now available on our website. If you prefer a hardcopy, please call us at 301 644 3248, and we will be happy to provide one. The annual report provides valuable information regarding participation in our accreditation programs, national recognitions, international agreements and the financial health of the Association. We encourage everyone to read it when they have an opportunity.◆
By Teresa C. Barnett, A2LA Quality Manager

In the past, whenever A2LA updated a document that could affect our enrolled or accredited organizations, a “mass email” was sent to all interested parties informing them of the change. Unfortunately, these bulk emails were frequently captured in spam filters and so we could not guarantee that everyone received the notifications.

To help address this problem, A2LA introduced in June 2009 an RSS feed to help our constituents remain up-to-date with these types of changes. A notice was published in the June 2009 issue of A2LA Today with instructions on how to subscribe. Since then there have been inquiries from those individuals who may not be aware of this feature and so we are publishing the instructions again in this issue of our newsletter.

RSS (most commonly translated as “Really Simple Syndication”) is a family of Web feed formats used to publish frequently updated works in a standardized format. The RSS feeds can be read using software called an “RSS reader”, “feed reader”, or “ aggregator”, which can be web-based, desktop-based, or mobile-device-based. Any changes to publicly-available documents (e.g., policies, requirements, checklists, press releases, web page content, etc.) are communicated via the RSS feed.

We encourage all interested parties to subscribe by clicking on the RSS symbol that appears on the top right of the A2LA home page (www.A2LA.org) or by directly pointing your favorite news reader to: http://www.A2LA.org/rss/a2larss.xml. Accredited and enrolled organizations are reminded that R102 – Conditions for Accreditation requires you to remain up-to-date on changes to relevant documents and this is the simplest and most effective means of accomplishing that.

A2LA will continue to publish the “New & Updated Documents” article in each quarterly issue of A2LA Today, but this should serve as a periodic summary only. Sending bulk emails has been discontinued, replaced by the RSS feed.

If you have any questions about the RSS feature, please contact Daren Valentine, A2LA Communications Manager, at dvalentine@A2LA.org or 301 644 3213.
John W. Locke Award Recipient:

William Dingeldein

By Teresa C. Barnett, A2LA Quality Manager

A2LA Operations Manager, Trace McInturff, presented William Dingeldein with the John W. Locke Award for meritorious service to A2LA and his profession at the Association’s annual Conclave and banquet on April 24, 2010. The John W. Locke Award was given in recognition of Mr. Dingeldein’s commitment of time and services to A2LA towards the advancement of laboratory accreditation and to recognize his extensive expertise, innovative ideas, demonstrated leadership, achievement of a high degree of respect from his peers, and attainment of an impeccable reputation for statesmanship, diplomacy and fairness.

The following is an excerpt from the presentation speech given by Mr. McInturff:

Mr. Dingeldein began his career at a small specialty metals producer, Firth Sterling, a company of only about 1500 employees. Firth produced many modifications of stainless steel, tool and die steels, high temperature alloys, zirconium alloys, a significant variety of tungsten carbides and silver-infiltrated tungsten rocket nozzles. Starting as a quality control engineer, he had varying degrees of responsibility for all of these products.

At the time, there was considerable diversity of testing technologies required to cover test specifications. He gained his hands-on testing experience with metallography, particle measurements, x-ray diffraction and fluorescence, as well as conventional physical testing - hardness, tensile, crossbreak. He also gained experience in classical types of chemistry and OES and X-ray spectrometry.

At the age of 26, he was appointed Laboratory Supervisor - perfect timing to usher in a new period when chemical innovations were enabled by the advent of the newest spectrochemical instrumentation. At Firth, innovations resulted in reduction of their 40 man chemistry lab to 20, while doubling the output of analytical determinations. Of even greater importance to management, furnace melting cycles were improved and shortened, due to the faster reporting of “quick” tests.

After 10 years with Firth, Bill struck out to try something different and obtained a job with the Atomic Energy Commission as the Head of Spectrochemical Development. The job proved interesting and gave him the opportunity to write several papers, but ultimately he felt constrained by government bureaucracy.

So he moved to CarTech R&D – then known as Carpenter Technology, a highly regarded and very sophisticated alloy producer - where he headed up the analytical chemistry laboratory in the Research Department. CarTech was known for their superb wet chemistry and instrumental analysis capability, as well as their reference materials program, which pre-dated ISO Guide 34 but provided the high-end alloy industry with reference materials that simply were not available elsewhere.

Bill was always a spectroscopist at heart and served as Chair of ASTM E2–Spectroscopic analysis of metals, prior to the merger of ASTM E2, E3, and E16 into E1. He participated in and wrote many of E2’s standard test methods, which were state of the art at the time they were written. At the conclusion of the last ASTM Committee meeting that he chaired, A2LA’s current President/CEO, Pete Unger, inquired if Bill would be interested in becoming an A2LA Assessor (back when A2LA was still known as AALA). He was contracted in 1988 and ultimately performed 239 assessments. His passion for details in test methods followed him to A2LA and to A2LA’s Materials Testing Advisory Committee (MTAC) several years later.

I visited with him a couple of months ago and he is still as sharp as a tack. While his body has let him down so that he does not get out as much as he used to, he loves to follow his investments on the computer and watch out his office window and watch the ducks on the pond at his retirement home. As a father, I could always see the great pride he has in his son, the chef, who has worked at prestigious institutions (such as the Hotel Hershey) and now has a very upscale bakery in New Cumberland, PA.

All of us at A2LA extend our sincerest congratulations to William Dingeldein on his receipt of the John W. Locke Award!
Each year, A2LA presents the “Assessor Choice Award” in recognition of an individual’s skills and contributions as an A2LA assessor. The 2010 Assessor Choice Award was given to Ms. Mitzi Miller.

Education and Earlier Career…
Mitzi earned a B.S. degree in Chemistry from the University of Georgia in 1977, working her way through college in research laboratories – experience that qualified her for a job at the Union Carbide (later known as Lockheed Martin) Oak Ridge Uranium Enrichment Plant (“K-25”) where she worked for thirteen years.

During her early career she provided trouble-shooting support in materials chemistry and gained expertise in oils, polymers, rubber and other materials.

“This was one of the most interesting jobs,” she recalls, “because each problem was a new challenge. I worked on two particular challenges that ultimately saved significant funds and I was presented with awards for these efforts.”

In her 17 years of experience in the nuclear industry, Mitzi wrote or managed groups writing decontamination and decommissioning documents for nuclear reactors as well as work plans and remedial investigations of radiological contaminated groundwater. She also developed sampling plans for reactor removal, wrote and managed multiple work plans and sampling plans, wrote or managed the writing of more than 30 RCRA and 30 CERCLA documents, and facilitated more than 40 regulator/responsible party negotiations and data quality objective workshops.

The biggest challenge Mitzi faced, however, was the shut-down of the Department of Energy’s (DOE) Uranium Enrichment Plant.

“This meant that 135 chemists and technicians would lose their jobs, but my management agreed to support obtaining environmental work from the Environmental Protection Agency (EPA).”

Mitzi ended up being the initial project manager who obtained EPA approval to perform non-routine environmental analyses and to support other DOE facilities needing environmental testing related to government security.

She went on to obtain an agreement between government agencies and the DOE to support a quality assurance program for remediation activities of the Navy, Air Force and National Guard. The programs required quality assurance for the engineering company’s plans for remediation, laboratory audits, proficiency testing for laboratories and review and validation of a portion of the project data. During this time, Mitzi managed a group of fourteen chemists, geologists and support staff – a group that audited, issued proficiency testing samples and reviewed data for 80 labs and around 200 projects per year in support of environmental remediation activities.

“It was around this time that I met Pete Unger and John Locke from A2LA,” Mitzi said, “and I thought the ISO accreditation approach was a wonderful idea that could save the government money.”

The idea was not fully realized until 2009, though, when the Department of Defense (DoD) established the Environmental Laboratory Approval Program (ELAP) and asked A2LA to be one of the approved accreditation bodies for the laboratories involved.

Introduction to A2LA…
Although Mitzi had met Pete Unger previously, she did not begin working with A2LA until after she left the DOE contracting
position. In 1993, she and Dr. Larry Jackson established Environmental Quality Management, Inc. (EQM), where she took the lead in supporting many new environmental related activities, including using third-party auditors for the newly formed NELAC program.

As owner, President and Principal Consultant at EQM, Mitzi managed remedial investigation reports for groundwater operable units at the DOE Hanford Site as well as sampling and analysis planning for remediation of the first reactor cooconing at Hanford. She also facilitated more than 40 data quality objective tasks at remediation sites and routinely managed and acted as senior validator for private clients, litigation support and DOE clients.

In 1993, Mitzi began supporting A2LA as an assessor and, since then, has performed over 100 environmental assessments, averaging nearly ten per year. She also branched out from environmental labs to begin conducting assessments of materials chemistry, food, and biology labs as well as proficiency testing providers and reference material producers. She has also been an extremely active and valuable member of the A2LA Life Sciences Advisory Committee, which she chaired for a 4-year period.

In November 2009, Mitzi sold EQM to Dade Moeller, Inc. and she is now Vice President of Environmental Programs.

“All of my employees and subcontractors have been accepted into the new company,” she proudly states. “I would not sell until all of their positions and agreements were met. And all of the previous EQM clients have continued to work with Dade Moeller.”

When A2LA was approved by the DoD to accredit laboratories under the Environmental Laboratory Approval Program, Mitzi was instrumental in providing training and guidance in developing the A2LA program.

“Mitzi has been an invaluable mentor to me and our assessors after A2LA was recognized to accredit to the DoD ELAP requirements,” states Chris Gunning, A2LA Accreditation Officer.

Throughout her time with A2LA, Mitzi has also gained the respect and appreciation of her fellow A2LA assessors.

“I really like working with Mitzi,” says Dan Tholen, A2LA assessor. “I know it will be a thorough, competent assessment and I will learn something – about assessing, about application of the Standard or about laboratories in general. We work well together because there’s never any question about who’s in charge,” he laughs, “even when I’m the team leader.”

Dawn Mettler, another assessor for A2LA, says, “From my very first team assignment with Mitzi in 2004, it was a seamless transition to work with her. She is always up for a new challenge and, with her energy, it makes me tired watching her!”

Getting Personal…

Mitzi has been married to her husband, Mark, for 26 years. “He was also a research chemist at the K-25 facility,” she recalls. “We met arguing about results from a sample he sent to my lab. After we reached agreement on his samples, we became friends and later married.”

They live on the river/lake (“Tennessee does not know a lake from a river,” she jokes) between Oak Ridge and Knoxville, where she enjoys water and snow skiing and hiking.

“Now and in the last few years, I spend many hours helping my aging extended family with their various needs,” Mitzi said. She is an only child and grandchild with four family members between the ages of 80 and 86.

Mitzi also shares her life with two cats, one of whom (Oz) lived in her house in Washington State when the EQM office was in Richland, WA.

“What has moved to Tennessee now,” she said, “and regularly vies for first place with my other adopted cat.”

“Over the years we have spent many weeks on the road together,” Dawn Mettler recalls, “working on various projects, both with A2LA and with our own business endeavors. She has been a gracious host, with Oz as her ambassador, when I have stayed with her – providing great food (compliments of her husband, the chef), great discussions and great wines from her cellar. The best part of working with Mitzi is that she keeps me on my toes with pop quizzes (‘Do you know where I put my…?’) and so she has helped hone my observation and memory skills more than I thought possible!”

A2LA is truly fortunate to count Mitzi among its assessors, volunteers and technical experts. We look forward to continuing our relationship with her and extend our sincerest appreciation and congratulations for an award well-deserved.

“I sincerely hope to get many more assignments with Mitzi!”

~ Dan Tholen, A2LA Assessor

“The epitome of integrity and professionalism.”

~ Peter Unger, A2LA President/CEO

“She is a true friend and I look forward to our next adventure!”

~ Dawn Mettler, A2LA Assessor

“Continued from page 6”
A2LA Forensic Accreditation Program Update

By Karin Athanas, A2LA Accreditation Officer

A2LA is proud to announce that it will be accepting applications for its newest accreditation program – Forensic Examination – beginning in June 2010. It is hoped that the addition of the forensic examination program to A2LA’s accreditation offerings will help to bridge the gap between what is normally considered forensic examination (DNA, fingerprints, crime scene examination) and the often overlooked work of the commercial industry for civil litigation (forensic engineering, failure analysis, accident analysis).

The program will consist of two separate accreditation options. The first option is for assessment and accreditation of forensic testing laboratories. Laboratories seeking accreditation under this option will be assessed for compliance to the international standard ISO/IEC 17025 and A2LA policies and requirements including assessment to A2LA supplemental document R221 - Specific Requirements - Forensic Examination Accreditation Program – Testing.

The second accreditation option is for the assessment and accreditation of forensic inspection bodies (e.g. crime scene units, forensic engineering – structural failure inspection). Organizations seeking accreditation under this option will be assessed for compliance to the international standard ISO/IEC 17020 and A2LA policies and requirements, including assessment to A2LA supplemental document R309 - Specific Requirements - Forensic Examination Accreditation Program – Inspection.

For further information on the program or to request an estimate, please contact:

Karin Athanas
Forensic Accreditation Program Contact
301 644 3236
kathanas@A2LA.org
www.A2LA.org

Accreditation to ISO/IEC 17043:2010 for Proficiency Testing Providers

By Aruna Kaveeshwar, A2LA Accreditation Officer.

The ISO/IEC 17043:2010 standard became publicly available in February 2010 for use in the accreditation of proficiency testing providers (PTPs). A2LA has issued a memorandum which describes A2LA’s plan for transitioning to this standard within our PTP accreditation program. The memo may be viewed at: http://A2LA.org/checklists/C316_Transition_Memo.pdf.

With the publication of this new standard, clarity has been added to requirements that were previously in place within ISO/IEC Guide 43 and additional requirements were added beyond those contained in the previous guide.

Significant changes reflected in ISO/IEC 17043 include:

- Planning, evaluation and authorization of reports cannot be subcontracted;
- Metrological traceability and uncertainty of assigned values are to be included in the plan for the PT scheme;
- When a test or calibration item is not stable, the instability has to be included in the uncertainty of the assigned value, and/or taken into account in the evaluation of performance;
- The statistical design must include assumptions on the statistical distribution of the measurand and the provider must demonstrate they are reasonable;
- Traceability is required for calibration PT and must be considered for testing PT. When consensus is used, the provider must state the reason;
- There must be an understanding of all measurement methods that might be used, including which are considered equivalent. There must also be a policy and procedure for comparing results from different methods;
- Control and monitoring of transportation conditions is required;
- There are now stronger requirements for including technical commentary in reports.

If you have any questions about the new ISO/IEC 17043 standard or A2LA’s transition in accrediting to this standard, please contact Aruna Kaveeshwar, A2LA Accreditation Officer, at 301 644 3226 or akeveeshwar@A2LA.org.
Accreditation to TNI EL-V3-2009 for Proficiency Testing Providers

By Aruna Kaveeshwar, A2LA Accreditation Officer.

The NELAC Institute (TNI) EL-V3-2009 standard was adopted by the NELAP Board on September 8, 2009. The scheduled implementation date is July 1, 2011; however, A2LA has been approved by the TNI Proficiency Testing (PT) Board to assess the new requirements during the 2010 renewal assessments of A2LA-accredited proficiency testing providers.

A memorandum outlining A2LA’s transition from the previous NELAC requirements to the TNI EL-V3-2009 requirements has been published and may be viewed at: http://A2LA.org/checklists/C317_Transition_Memo.pdf.

There are several clauses within the standard (TNI 6.3.5, TNI 7.3.5, TNI 7.1.11, TNI 10.1.2, TNI 10.3.1, TNI 10.3.1d, TNI 10.3.2 and TNI 10.3.2c) that cannot be implemented until July 1, 2011 to allow accreditation bodies and proficiency testing providers time to implement the new requirements. In the meantime, A2LA will be assessing to the equivalent requirements within the NELAC 2003 standard for these sections and this has been clearly indicated in the A2LA checklist (C317 – Specific Checklist: ISO/IEC 17043, TNI EL-V3, ISO/IEC 17025 and ISO Guide 34 Proficiency Testing Provider Accreditation Program) for TNI proficiency testing providers.

If you have any questions about the EL-V3-2009 standard or A2LA’s plan for offering accreditation to this standard for proficiency testing providers, or to request a copy of the C317 checklist, please contact Aruna Kaveeshwar at 301 644 3226 or akaveeshwar@A2LA.org.

Statement of CMC over a Range of Values—Food for Thought

By Dave Deaver, A2LA Assessor

The Guides to Measurement Uncertainty (GUMs) give very prescriptive methods for calculating measurement uncertainty at individual points. Some laboratories undertake the calculation of uncertainty at many points and state them individually in their Scope of Accreditation as their Calibration and Measurement Capability (CMC) values. Other laboratories attempt to simplify the effort to generate CMC values by stating them as a number or with a formula which spans a range of values. When using the latter practice, however, care must be taken to state CMC values which could be supported by an uncertainty analysis at any point in the range.

This process is made more difficult by the way many manufacturers state their specifications as a gain plus a floor: xx % of Reading + yy μV. The GUM-compliant means of calculating the uncertainty at any point within the range would be to convert specifications and any other estimates of error to the one sigma confidence interval with common units, combine them by root sum of squares (RSS), and multiply the result by a coverage factor, usually 2. This is shown as Method 1 in the figure below.

A shortcut some labs use to calculate the uncertainties is to RSS the gain portion of the manufacturer’s specification with all the other uncertainties of the calibration process and then arithmetically add the floor specification of the manufacturer’s specification. This can result in uncertainties a bit higher than those “properly” calculated point by point in Method 1 for the higher portion of the range but considerably lower than those of Method 1 for the lower portion of the range. This practice is shown in the figure as Method 2. It is this practice that is of concern because it can result in significantly understating CMC values for the lower portion of the range of values.

One recommendation that was presented at the 2010 A2LA Measurement Advisory Committee (MAC) for consideration is for laboratories using this practice to consider using a process of calculating uncertainties at the minimum and maximum points in the range of values and linearly interpolating between these points for the range of values. Once calculated the CMC values for the range can be stated simply as a gain plus a floor such as aa% of Reading + bb μV.

For questions or more information on this approach, please contact Mr. Dave Deaver at deaver@kendra.com.
Updates on A2LA Operations & Policies

By Pam Wright, A2LA Calibration Accreditation Manager

As a reminder, an original A2LA newsletter article was published in the June 2009 version of A2LA Today (http://www.A2LA.org/newsletters/June_2009_Newsletter.pdf) regarding the consensus on the minimum contributors for Electrical and Microwave/RF uncertainty budgets that support the Scope of Accreditation. In that article it was noted that the new minimum requirements are to be implemented beginning with laboratories that have a renewal date of May 31, 2010. The proposal was adopted during the April 2009 Measurement Advisory Committee meeting in an effort to ensure consistency among assessors. Please be sure that you have appropriately updated your measurement uncertainty budgets to reflect these new requirements.

Please contact Pamela Wright, Calibration Accreditation Manager with any questions at pwright@A2LA.org.

New & Updated Documents

By Teresa Barnett, A2LA Quality Manager

The following documents have been updated within the controlled A2LA management system. All of these documents are available on the A2LA website (www.A2LA.org) through the “Document Finder” option unless otherwise indicated.

- R651 – General Requirements: Accreditation of Medical Testing Laboratories Meeting the ISO 15189 Requirements has been updated on 3/30/10. Document Finder category: General Requirements.
- F118 – A2LA Membership Application has been updated on 4/5/10. This application may be found on the “About A2LA: Membership” tab on the A2LA website.
- C210 – Specific Checklist: Construction Material Testing Laboratory Accreditation Program has been updated on 4/5/10. Document Finder category: Specific Checklists.
- C301 – General Checklist: ISO/IEC 17020 Inspection Body Accreditation Program has been updated on 4/5/10. This checklist is available by request only.
- C316 – General Checklist: ISO/IEC 17043 Proficiency Testing Provider Accreditation Program is a new document dated 5/5/10. This checklist is available by request only. A memo describing the transition to ISO/IEC 17043 may be found on the A2LA website, however, under the Document Finder category of General Checklists. See also the separate article in this newsletter describing the transition.
- C317 – Specific Checklist: ISO/IEC 17043, TNI EL V-3, ISO/IEC 17025 and ISO Guide 34 Proficiency Testing Provider Accreditation Program is a new document dated 5/5/10. This checklist is available by request only. A memo describing the transition to the TNI EL V-3 standard may be found on the A2LA website, however, under the Document Finder category of General Checklists. See also the separate article in this newsletter describing the transition.
- C301 – General Checklist: ISO/IEC 17020 Inspection Body Accreditation Program has been updated on 4/5/10. This checklist is available by request only.
- R205 – Specific Requirements: Calibration Laboratory Accreditation Program has been updated on 5/5/10. Document Finder category: Specific Requirements. The associated checklist, C207 – Specific Checklist: Calibration Laboratory Accreditation Program, was also updated on 5/5/10. Document Finder category: Specific Checklists.

If you have any questions about these updates, please contact A2LA at 301 644 3248 or your Accreditation Officer directly.

Consensus on the Minimum Contributors for Electrical and Microwave/RF Uncertainty Budgets

Implemented as of May 31, 2010

By Pam Wright, A2LA Calibration Accreditation Manager

As a reminder, an original A2LA newsletter article was published in the June 2009 version of A2LA Today (http://www.A2LA.org/newsletters/June_2009_Newsletter.pdf) regarding the consensus on the minimum contributors for Electrical and Microwave/RF uncertainty budgets that support the Scope of Accreditation. In that article it was noted that the new minimum requirements are to be implemented beginning with laboratories that have a renewal date of May 31, 2010. The proposal was adopted during the April 2009 Measurement Advisory Committee meeting in an effort to ensure consistency among assessors. Please be sure that you have appropriately updated your measurement uncertainty budgets to reflect these new requirements.

Please contact Pamela Wright, Calibration Accreditation Manager with any questions at pwright@A2LA.org.
Designated National Metrology Institutes and the A2LA Traceability Policy

By Pamela Wright, A2LA Accreditation Manager

In P102 – A2LA Policy on Measurement Traceability one option for meeting the requirement of (T1) is for the calibrations and verifications of measuring and test equipment and reference standards to be conducted by a recognized National Metrology Institute (NMI), based on the Institute being a signatory to the CIPM (Comité International des Poids et Mesures) MRA (Mutual Recognition Arrangement). One option to meet (T2) is for a calibration certificate or report to be endorsed by the National Metrology Institute (NMI).

Occasionally an organization receives a calibration certificate from an entity known as a “designated National Metrology Institute” but is unsure how P102 - A2LA Policy on Measurement Traceability applies for the traceability of an instrument that was calibrated by a “designated” NMI.

In accordance with CIPM-2005/07 as found in the Guide to the implementation of the CIPM MRA CIPM MRA-G-01, VERSION 1 a “designated institute is responsible for certain national standards and associated services that are not covered by the activities of the traditional NMI. As the importance of metrology grows in chemistry, medicine and food the traditional concepts of traceability to the SI are less clear than in physics and engineering and it is rare to find all these competencies in a single, clearly identifiable NMI. This also applies to more traditional areas such as time or ionizing radiation. In general, governments, an appropriate authority, or in some cases the NMI itself when it is authorized to do so, have therefore identified and appointed specialist institutes to deal with metrological responsibilities in many of these new areas… designated institutes include a wide variety of bodies, some of which do not have the same, essentially public, nature of NMIs and may be in the private sector.”

Designated NMIs that are signatories to the CIPM MRA are listed in accordance with the NMI that authorizes them and may be found on the BIPM website at http://kcdb.bipm.org/default.asp.

It is important to remember that the designated NMI may not actually indicate the result as coming from a designated NMI on the calibration certificate provided to the client and so it may be necessary for an organization, A2LA assessor or A2LA staff to consult the BIPM website to determine whether or not the traceability of an instrument is through a designated NMI.

An example of use of a designated NMI would be the traceability of Pyranometers, Phyheliometers and Absolute Cavity Radiometers (solar radiation instruments). For these instruments the SI unit of irradiance is determined from the weighted mean of the measurements of a group of fifteen absolute cavity radiometers which have been fully characterized. This group of absolute cavity radiometers is called the World Standard Group (WSG). The WSG is maintained by the Physikalisch-Meteorologisches Observatorium Davos and the World Radiation Center (PMOD/WRC). The PMOD/WRC is a signatory to the CIPM MRA as a designated National Metrology Institute for the Swiss NMI, METAS. As such any calibration certificate issued from the PMOD/WRC is considered equivalent to one issued by METAS and, therefore, meets the requirements of (T1) and (T2) from P102 – A2LA Policy on Measurement Traceability.

If you have any questions regarding designated National Metrology Institutes and P102, please contact Pamela Wright at pwright@A2LA.org.
A2LA held its annual Conclave from April 19-27, 2010 in Columbia, Maryland.

This year’s series of meetings began with the annual assessor orientation course from Monday morning through Friday afternoon. Separate courses were offered for potential assessors in the medical laboratory accreditation program and for assessors in all other accreditation programs offered by A2LA. In the general course, there were 19 participants (including 5 new A2LA staff members) and 17 of the attendees passed the exam administered on Friday. In the medical assessor training course, there were 15 participants, 11 of whom passed the exam. A2LA would like to welcome the new assessors and wish them luck as they enter the next phase of training by performing laboratory assessments.

Additional training sessions for assessors within A2LA’s Electromagnetic Compatibility (EMC) laboratory, Reference Material Producer and Proficiency Testing Provider accreditation programs were also offered on Friday, April 23.

Eight technical advisory committees (life sciences, materials testing, electromechanical, measurement, medical, reference material producer, proficiency testing provider & forensic examination) met throughout the weekend to discuss issues particular to their fields as well as issues common among all disciplines. A separate “breakout meeting” was also held exclusively for construction material and geotechnical assessors.

The annual A2LA banquet was held on Saturday evening. A2LA Operations Manager, Trace McInturff, presented assessors with 5, 10, 15, 20 and 25-year service awards. Mitzi Miller received the annual Assessor Choice Award in recognition of her skills as an A2LA assessor. Former A2LA assessor, William Dingeldein, was honored with the John W. Locke Award (see separate articles in this issue of A2LA Today).
On Sunday morning, both the A2LA Criteria Council and Accreditation Council met. Sunday afternoon was devoted to a meeting of the A2LA Assessor Committee, hosted by Committee Chair, Robert Holcomb. Ideas for improvement and clarification from the assessors were discussed and A2LA staff accepted several action items to streamline and improve the current system. Sunday’s meetings concluded with the Annual Meeting of the Members. Chairman of the A2LA Board of Directors, Woody Vogt, offered opening comments. Peter Unger presented the President’s report, and the chairman of the Criteria Council and Accreditation Council presented reports on the weekend’s activities as well as the general activities of their Councils over the previous year.

The Conclave ended with a meeting of the A2LA Board of Directors from Sunday evening, April 25 through Tuesday, April 27.

The 2011 Conclave (under a new name) is scheduled to be held from March 28 through April 5, 2011 at the Columbia Sheraton.

We hope to see you there!! ♦
The Inter-American Accreditation Cooperation held its March meetings in Montevideo, Uruguay. The MLA Group, MLA Committee, Executive Committee and Laboratory Committee met.

**MLA Group**

Signatory representatives included OGA, Guatemala; ema, Mexico; ANSI-ASQ National Accreditation Board Db a as ACLASS and Db a as ANAB, USA; ASCLD-LAB, USA; ONARC, Cuba; OAA, Argentina; ECA, Costa Rica; DTA-IBMETRO, Bolivia; A2LA, USA; SCC, Canada; NVLAP, USA; INDECOPI-SNA, Peru; Cgcre/Inmetro, Brazil, and the IAAC Secretary. Observers included FQS, USA; AIHA LAP, USA; INN, Chile; OUA, Uruguay; OAE, Ecuador; the PAC MLA Chair.

Decisions on IAAC peer evaluations reports

The following decisions on additions to the IAAC MLA were made:

- ECA accepted as an MLA signatory for calibration laboratories and MLA for testing laboratories is maintained.
- ema maintains the MLA for testing and calibration laboratories and is accepted to the MLA for inspection bodies.
- ANSI-ASQ National Accreditation Board Db a as ANAB maintains the MLA for QMS and EMS.
- FQS accepted as an MLA signatory for testing laboratories.
- INN accepted as MLA signatory for testing and calibration labs.

**MLA Committee**

The MLA Committee addressed improvements to its peer evaluation procedures, training of peer evaluators and responses to the IAF/ILAC evaluation of the IAAC policies and processes for its MLA. Several issues remain to be resolved, but expanded recognition by IAF is anticipated by October 2010.

**Laboratory Committee**

The Laboratory Committee recommended approval of proficiency testing programs for minerals and sugar. The cooperation with APLAC was discussed. Samples/artifact costs of shipping has been a major impediment to fuller participation in interlaboratory comparisons so the Committee recommended a membership fee surcharge be implemented.

**IAAC Executive Committee**

The IAAC Executive Committee tackled a very large agenda from resolving complaints to managing financial issues. The Committee reviewed progress against the 2008-2011 IAAC Strategic Plan and results of the internal audit. ONAC, Cuba and JANAAC, Jamaica were recommended to become full members. Revisions to the bylaws, quality manual, terms of reference of committees, procedures related to the peer evaluation and document control were approved. Various inter-institutional issues were discussed. The project plans funded by OAS were addressed.