

# MEAP Newsletter

## Issue 1

October 2017

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Welcome to the first issue of the MEAP newsletter – the newly combined newsletter for IANZ’s accredited Metrology, Electrical testing and Applied Physics testing laboratories. I hope that you will each find something of interest in this issue. People from testing laboratories might notice the acronym MSA a lot in this newsletter – it is the Metrology Society of Australasia and we’re all a bit excited after the biennial conference last month. (We welcome testing personnel to enquire about membership.)

Oh, and Happy [Mid-Autumn Festival!](#)

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### MSA Conference, Brisbane

The Conference was held at the Brisbane Convention Centre from 12-14 September.



[Source.](#)

The programme included plenary speakers Dr Peter Fisk (outgoing chair and chief metrologist at NMIA), Professor John Church (Climate Change Research Centre, University of NSW), Dr Peter Thompson (CEO, NPL UK) and Professor Andre Luiten (Director of Institute for Photonics and Advanced Sensing, University of Adelaide). There were also valuable and interesting

forums on pressure and temperature calibration, LED measurements, “Trust or Test?” (regarding the level of public confidence in consumer products and what to do about it), and an MSA forum posing different questions to get a collective response (diversity in metrology, training and education, promotion of calibration services). The varied and fascinating programme included talks regarding the new SI, lots of metrology at the NMI level, making measurements and uncertainty influences, the new ISO 17034 and 17025 (mine – I hope it was useful and/or entertaining!) and even a fascinating look at the repair of a c. 1740-1770 pendulum clock!

### MSA website forums – use them!

The pressure and temperature calibration forums which I attended featured some important and passionate discussion regarding acceptable practices and the approaches to accreditation taken by IANZ and NATA (which sometimes differed). These were limited in time out of necessity but some of us thought that such a valuable forum should be continued. Well, we do have the [MSA forum space on the website](#). General MSA Matters forum topics (including accreditation) are available to anyone but the technical area forums (temperature, pressure, electrical, dimensional and more) are available to members only.

I see these as being really valuable assets. I have subscribed to a bunch of them and when I see something I may be able to help with (or know someone who can help), I will endeavour to reply.



If you have any questions, discussion topics, or are simply wondering about something, please log in to the website (or visit, if you’re not a member) and make a contribution.

## Accessing IANZ documents

Recently I have become aware of some clients accessing superseded IANZ documents (for example, Specific Criteria) via Google. Apparently, if you search for an IANZ document a hyperlink can come up leading you directly to a pdf via the [www.ianz.govt.nz](http://www.ianz.govt.nz) website. However, this might not be the most current version as it seems that our website is hoarding old versions. I've asked our IT team to look into removing all obsolete versions of documents so that they cannot be accessed via hyperlink, but in the meantime, please ensure you download the most recent document by going via our [Resources>Criteria](#) page.

## Progress toward the new SI (by Dr Rod White)

Some of you will be aware that in 2019, on World Metrology Day, some of the international definitions of the measurement units will change. The new definitions for the kilogram, the kelvin, the ampere, and the mole will assign exact numerical values to Planck's constant, the charge on the electron, the Boltzmann constant, and the Avogadro constant, respectively. The changes will mean that all the SI units are based on fundamental physical constants. The changes will enable physical measurements standards to improve steadily with time, unlimited by technology – which is the problem with the current definitions. To make sure that there are no glitches with the changes in definition, National Measurement Institutes all around the world have been making very precise measurements of the various physical constants. The last day for reporting measurements was June 30, and international committees are now reviewing the results to determine the values that will be assigned to the constants.

MSL staff have been involved in some of the preparations for the changes for the new kelvin and kilogram, including helping with measurements of the Boltzmann constant in an international collaboration with the national laboratories in China and the United States. For those interested, there is a wonderful presentation explaining the changes on the [Protons for Breakfast blog](#) (see the posts on 2nd and 3rd of July). For



more information, [contact Rod White](#) or [Chris Sutton](#).

## IANZ in print

Some of you will have a subscription to the NZ Laboratory news and NZ Bioscience Magazine. The July issue featured a one-page article written by Gavin about metrology and calibration. The September issue features IANZ's Technical Development and Regulatory Affairs Manager, Geoff Hallam, discussing the development of new standards for meth testing. You can access the magazine (including back issues) via the publisher's website [here](#).

## Update on the ISO 17025 draft

I found a [nice article](#) on [www.iso.org](http://www.iso.org), which includes a bullet point list of major changes between the 2005 version and the FDIS, and an embedded YouTube video.

[This page](#) explains the stages an ISO standard goes through when it is in review. ISO 17025 is currently at stage 50.20 (8-week ballot of final draft). We are expecting a new ISO 17025 by around the beginning of December.

## New MSL Technical Guide (Spectrophotometers)

MSL have issued Technical Guide 38, *Reference materials for the calibration of UV/visible light spectrophotometers*. Some of this information was previously in IANZ TG4, but MSL gave it a much-needed update and we turned it into an MSL technical guide instead. You can find it, along with all the other MSL technical guides, [here](#).

## Fun Bits and Internet Stuff

- Dr Annette Koo of MSL on [Taking the Measure of Wearables](#);
- On the [temperature accuracy](#) which vaccines require (NIST-PML);
- Very nice video about the life of [Ada Lovelace](#) (often regarded as the world's first computer programmer; repeat of an earlier link in the METR newsletter).

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