

## The PiSToL News

### Issue 7

August 2017

#### Goede dag!

Thanks to Rod White of the Measurement Standards Laboratory for writing an interesting feature on the new SI for this issue.

#### In this feature

- PAC meeting
- Accessing IANZ documents
- MSA conference update
- Change in format of the newsletter
- Progress toward the new SI

#### PAC meeting

We had the annual Physical testing Professional Advisory Committee (PPAC) meeting on 26 July. It was attended by all of the current committee members, Gavin and Keith, the programme assessors (Paul, Andy and me) and Phil Barnes (General Manager). Agenda items covered applied physics, electrical, gas cylinder and mechanical testing. The conversation is always interesting and it is a good mechanism for IANZ to be able to move things forward with guidance from industry.

#### 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Recently I have become aware of some clients accessing superseded IANZ documents (for example, Specific Criteria) via Google.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.

#### MSA conference update

A draft programme has been published for the MSA conference in Brisbane (12 – 14 September). You can download it [here](#).

#### Change in format of the newsletter

Some of you who are authorised representatives (or have other roles) associated with both testing and metrology laboratories may have noticed that often information is very similar or duplicated in the PiSToL and Metrology newsletters. I propose that I combine the newsletters (name yet to be decided!) and send out every two months. Additionally, I propose to confine the newsletters to applied physics and electrical testing, metrology and calibration only (Gavin's programmes) as I understand that mechanical and gas cylinder laboratories have other opportunities for sharing information. If there is no objection to this, then I will begin by rolling the PiSToL and Metrology newsletters together (and dropping mechanical and gas cylinder laboratories) as of next month. Please send feedback or ideas to me.

#### 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](#).

**Tot ziens!**

