

October 2018

Tēnā koutou

Welcome to the October edition of elaborate. Did you know up until 150 years ago, each New Zealand region had its own different time zone? Join us to celebrate New Zealand becoming the first country to adopt standard time across the country at our public event on 1 November. We're also celebrating the 40th anniversary of Laurie Christian joining MSL and welcoming new staff member Lenice Evergreen to Length Standards.

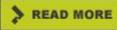
Ngā mihi Fleur Francois Director, MSL



150th Anniversary of NZ Standard Time

We are kicking off a 10-month awareness raising campaign for the SI Redefinition, starting with an event to celebrate 150 years of NZ Standard Time. MSL is partnering with the Ministry for Culture and Heritage and the National Library to deliver a commemorative public event in Wellington on Thursday 1 November.

You'll hear from historian Gerard Morris, and Chief Executive of the National Measurement Institute of Australia, Dr Bruce Warrington, about the adoption of and science behind New Zealand Standard Time, and its impact on the technological innovations we have today. All are welcome to attend - just follow the link to read more and register.





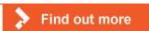
Laurie Christian - 40 years at MSL

Laurie's passion for physics began during his secondary school years at Otago Boys' High School and throughout his studies at Otago University where he gained his PhD in Experimental Physics. From there Laurie took up a position as a measurement scientist with DSIR (now MSL). That early passion for physics and continual learning has remained the cornerstone of Laurie's approach to his work as a metrologist for an incredible 40 years!

On 17 October we celebrate that massive milestone in Laurie achieving 40 years of service with MSL. Quite remarkable when we go back to 1978 when the first IVF baby was born, the average NZ house price was \$24K, Boney M 'Rivers of Babylon' was the top selling single and Arno Penzias and Robert Wilson bag the physics Nobel Prize for discovering the cosmic microwave background radiation, the first direct evidence of the big bang.

Laurie has been active in many areas of electrical metrology, including DC voltage, current and resistance. In 1999 Laurie developed the Reference Step Method for measuring dc voltage ratios for resistive dividers up to 1000 V and has since then applied it to calibrating both dc voltage sources and meters over the same range. Several NMIs are using this method for dc voltage scaling. In 2006 he applied the core principle of this method to create the Current Reference Step Method, which can be used to scale from a low current to a much higher current (hundreds of amperes).

Laurie's contribution to MSL and metrology is priceless. He is well respected amongst his peers and customers and has been a patient mentor to many of our younger staff and student interns over the years.



Staff Profile

Lenice Evergreen



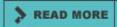
In August we welcomed our newest staff member Lenice Evergreen. Lenice has worked in metrology for more than 20 years and is delighted to join MSL. She has particular fondness for coordinate metrology and is excited about moving to a higher accuracy! Previously level of measured **BIG** things like superyachts and cardboard corrugating machines well as small things like milk bottle tops and electron beam She loves surprising customers with elegant and efficient solutions to their measurement problems and is looking forward to engaging with industry from this new perspective. Away from work Lenice loves travel, books, podcasts and is currently raising 2 lovely Hereford heifers.





MSL Kibble Balance

MSL is home to the only Kibble Balance in the Southern Hemisphere, and it is unique in the world. Rather than using a horizontal beam to 'weigh' the mass, it uses a pair of pressure balances. Our magnet has been specifically designed to remain highly stable over time and is carefully shielded to ensure that the magnetic field is consistent across both modes of operation. We will keep you updated on progress with the development of our Kibble Balance as we head towards the launch of the SI Redefinition on World Metrology Day on 20th May 2019.



What's on!

As we start the countdown to the SI Redefinition at World Metrology Day in 2019 we'd like to keep you informed on what significant events we have planned that you can be a part of.

17-18 October 2018

<u>Lab Innovation Expo</u> - Ellerslie Conference Centre, Auckland Peter Saunders will be talking on Day 2

'Reliable measurement - Assurance for you and your customer'

1 November 2018

<u>150th Anniversary of NZ Standard Time</u> - The National Library, Wellington Register Now!

13-16 November 2018

CGPM Meeting Paris - BIPM Paris

MSL Director Fleur Francois will represent NZ in the final vote to change the SI System, watch our website for news on this historic occasion.

February - May 2019

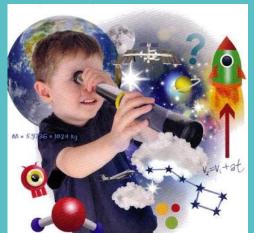
SI Roadshows - Nationwide

We're taking the Kilogram on its farewell Tour! Watch this space as we lock in dates and venues for this exciting road trip.

20th May 2019

World Metrology Day - MSL Wellington

Official launch of the redefined SI and the final salute to the Kilogram prototype. Watch this space as we lock in plans for this event.



Our Future Metrologists

We want to support our young people develop a desire for science and to do this we must start them young. Having access to great resources at school from a young age can spark enthusiasm and interest that will ultimately lead them to taking STEM subjects in college. MSL are partnering with the Metrology Society of Australasia (MSA) to develop a metrology resource aimed at 10-13 year olds. We know our community has some very clever people so if you have a passion for this and have some great ideas how to make this happen please get in touch, even if it's 'just an idea'.

Contact Us



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