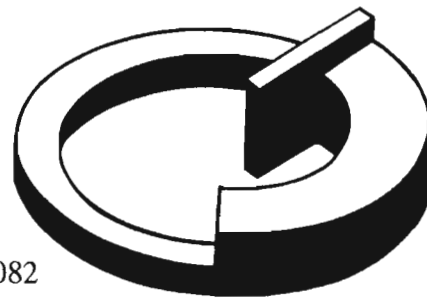


THE AUSTRALIAN METROLOGIST



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FROM THE PRESIDENT

We do not often get a chance to participate in the creation of something new, exciting and significant. For the past twelve months, however, we have all been involved in just that, namely the birth of the Metrology Society of Australia. The fact that the MSA is now an established and successful organisation is quite an achievement considering that just over twelve months ago it was simply an idea.

I believe there are two main reasons why the MSA has been launched so successfully. One has been the hard work and skill of the outgoing Management Committee, namely Barry Inglis (Vice-President), Colin Wagg (Secretary), Stuart McDonald (Treasurer), Bill Cerutti, Jack Deller, Grahame Harvey, Ron McBain, John Mitchell, Glenda Sanders, Horst Sieker and Jane Warne (Ordinary Members). On behalf of the membership I would like to publicly thank each one of them for their outstanding efforts in 1994.

The other reason for the success of the MSA has been the enthusiasm and support from metrologists all over Australia. The MSA was definitely an idea whose time had come. One challenge usually confronting a new organisation is to establish and maintain interest and goodwill. **This has not been a problem with the MSA.** It has been most gratifying for those of us involved from the start to see the encouragement and positive response from Australian metrologists.

All infants are faced with demanding and exciting challenges. The Metrology Society of Australia has been no exception. Reading the minutes of the nine management committee meetings held since 25 October 1993 reveal the following highlights, in no particular order.

In March, the rules of the Society were finalised and submitted to the membership for approval at a special general meeting. The same meeting voted to incorporate the MSA and confirmed the membership of the Management Committee. The MSA was incorporated in Victoria in July 1994.

The membership rose steadily throughout the 12 months, exceeding 250 members by May. We currently have over 270 members from all over Australia and from all fields of metrology. This

represents many hours of work in entering information into our database, assessing the membership applications, following up to gain further information when necessary, banking cheques, sending letters, and so on.

The first edition of *The Australian Metrologist*, edited by John Mitchell, appeared in February. *The Australian Metrologist* will appear four times a year and will contain general interest articles, State news, technical information etc. A different publication, *The Bulletin*, edited by Jack Deller, appeared in September. The aim of *The Bulletin* is to provide a frequent method of communication with currently breaking news and events of a more pressing nature.

The design of a logo for the MSA proceeded relatively slowly, but only because we gave it a lower priority. We have now chosen the final design and hope that it will appear in the next issue of *The Australian Metrologist*.

Articles about the MSA have appeared in several publications, including *NATA NEWS*, the *NSC Bulletin* and several trade magazines.

Technical workshops have been held in Victoria and South Australia and site tours in Queensland. A seminar on Measurement and Quality Systems was run by ICAMS in August. This seminar was formally supported by the MSA and many speakers were members of the MSA.

The first MSA social event was held in May at Hahns Creek Estate on the Mornington Peninsula, organised by our erstwhile Social Sub-Committee Chairman, Ron McBain. Ron spent many thankless hours touring the wineries of Victoria to select the most appropriate venue. To show what a glutton he is for punishment, he has recently been surveying BYO's in Melbourne for our first MSA annual dinner.

The MSA submitted a document to the Committee of Inquiry into Australia's Standards and Conformance Infrastructure in August. This was our first submission to government and marked an important milestone in the development of our Society.

The formation of State groups was initially planned for phase-in during 1995, the reasoning being that it
(Continued on page 3)

THE AUSTRALIAN METROLOGIST

EDITORS PAGE

Good News and Sad News

The third issue of *The Australian Metrologist* comes at the start of the MSA's second year of existence. In this issue, we are pleased to have reports from state coordinators on the great start to State meetings.

The trend of losing years of experience from the bench continues with the departure of Committee members Jack Deller, from the Defence Quality Assurance Organisation, and Ron McBain, from Australian Defence Industries. You will find Jack's tribute to Ron and Ron's tribute to Jack later (both totally objective of course).

Dr Bill Blevin, just retired from the National Measurement Laboratory, is our first Honorary Fellow.

In August, we were very sad to hear of the passing of Les Valentine. Les loved metrology and, not surprisingly, he was one of our first members. Unfortunately, this is the first obituary to appear in our journal.

Thanks to all those who have contributed to issue 3.

CONTRIBUTIONS

If you would like to contribute articles, letters or news, please send either a disk or hard copy to:

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Phone (03) 329 1633

The deadline for the February issue is:

10 February

LETTERS TO THE EDITOR

Letters should be limited to 200 words. Authors will be contacted should editorial changes or verification of material be considered necessary.

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SPONSORSHIP

Would you or your company be interested in sponsoring a future issue of *The Australian Metrologist*? If you are a Member or your company is in the metrology business, a contribution of \$350 goes a long way towards covering the printing costs and permits the sponsor to include a relevant insert (up to A4 in size) in the mail-out.

Write or fax the Editor if you are interested.

POSITIONS WANTED/VACANT

Need a Position?

Write to or fax the editor with your details including years of experience and qualifications. This service is offered free of charge.

Need a Metrologist?

If you have a position vacant, write to or fax the editor with the details. A charge of \$20 for up to 10 lines applies. Remember, the circulation may be small but it's well targeted!

The deadline for positions wanted/vacant is five days before publication.

From the President (From page 1)

would take some time for the membership to grow sufficiently and for individuals to be persuaded to take on the task of administration at a State level. However, we had not allowed for the enthusiasm of our members. Right from the start, the committee were urged, indeed almost driven, by the membership throughout Australia to hasten the development of State groups. The result is that by the end of 1994, State groups and State coordinators will have been established in all States and Territories.

But what of the future? I am sure you are all familiar with the objectives of the Society. However, these objectives are general guidelines. What should we be doing in one year's time? In five year's time?

This has been considered by the Management Committee at recent meetings and we would expect the new committee to prepare plans for the next five years of the MSA. Some ideas already suggested include:

- ▶ A firm schedule of regular (monthly?) meetings in every State, involving technical workshops, tours of facilities, social events, talks, etc.
- ▶ Meetings with TAFE to encourage and assist with the adoption of the metrology courses designed by the NSC and others.
- ▶ Hold a major two day metrology conference in October/November in 1995.
- ▶ Establish technical subcommittees to provide technical information for the MSA and other measurement organisations. Examples of these groups could include Screw Threads, Petroleum Measurement, Pressure Measurement, Chemical Metrology.
- ▶ Accelerate the promotion and marketing of the MSA within the wider community.

I am sure that every member has ideas about where we should be going. Please put pen to paper, or fingers to word processors, and sent your ideas to the Secretary. This is, first and foremost, your organisation.

Finally, although we have reason to be proud of the progress of the MSA in the last twelve months, we cannot afford to be complacent. I therefore conclude by calling on all members to support the 1995 Management Committee by providing your assistance, opinion, encouragement and criticism (if necessary), but above all, your involvement.

John Miles

Address to the 19 October Annual General Meeting

OBITUARY

Les Valentine (1919-1994)

The MSA was saddened to hear of the death of Les Valentine on 1 August 1994. Les was of great encouragement to those setting up the Society and was one of the first to submit a membership application.

Les Valentine joined the Munitions Supply Laboratories, Maribyrnong on 6 March 1939 after studying for a diploma in mechanical and electrical engineering at the Melbourne Technical College. The salary was a grand £134 per annum + £4 C.O.L. Promotion to Engineer Grade 1 came in 1942. Les was initially involved with inspection of gauges of many types necessary for the manufacture of wartime products. Indeed, he was to continue his association with gauges and length standards for most of his career.

During 1960, Les was a visitor to the National Physical Laboratory where he worked in engineering metrology exchanging knowledge with other workers in the field, and during 1961 was similarly engaged at NEL. Much of Les' time in the 1960's was devoted to specialised gauge design for the Ikara missile system.

From 1970 through to 1973, Les served as Head of Laboratory, Defence Technical Centre, Malaysia. This laboratory was newly built and Les had the task of establishing its proper functioning and interaction with the services. Many of the staff were, and continue to be, sent to Australia for training and experience.

In 1984, Les was involved with management of the Physical Metrology Group at MRL. The force and pressure standards maintained by that group were transferred to CSIRO and, in 1979, Les also transferred to the Melbourne Branch of the Division of Applied Physics. There Les was concerned with engineering and physical metrology.

Les had a long involvement with SAA serving on several committees. His involvement with NATA as an assessor in both dimensional and physical metrology goes back to 1965 and he was still active in this role with future assessment visits planned at the time of his death. His technical and personal skills were exceptional and it was no surprise to learn from his bosses that he was always assigned to the most difficult tasks.

Les is survived by his wife Desma and their children Quentin, Milton and Jennie.

(We wish to acknowledge the assistance of Ron Cook of the CSIRO Division of Applied Physics and NATA for some of the material relating to Mr Valentine's career.)

LABORATORY COMPUTING

Spreadsheets - Friend or Foe?

We all, at some time, have the need to carry out some form of calculation. It comes with the job. The evolution of calculation has moved from the humble tables or slide rule many years ago to the far more convenient and effective calculator. This move has, unfortunately, left some people without the skills of estimating to see if the answer makes sense.

The last few years have seen the introduction of the most modern calculating aid, the Spreadsheet. This useful piece of software on a modern high speed computer is capable, in the right hands, of making thousands of parallel calculating errors in mere seconds with not the slightest hint of problems. Without the skill of estimating, the user will blissfully accept the multitude of results none the wiser. Herein lies the basis of this article. What You See is Not What You Get (WISINWYG).

Just like a calculator, a spreadsheet uses floating point calculations. On the other hand, displayed values will be whatever the user sets or whatever comes up as the default condition. An attempt to compare independent calculations with spreadsheet results will of course differ. For most users, this problem is "What does the seventh decimal place matter?". But for metrologists with an eye to uncertainty, this will matter a great deal. Fortunately, most spreadsheet have a ROUND function.

For data that requires auditing, applying the ROUND function and setting the display to the same number of places will give results that are what they say they are. This operation will make preparing your standard spreadsheet a little more tedious but will reap results in ease of auditing and producing expected results more reliably. The ROUND function will also need to be applied with some thought. How many places are really valid for a given number? This exercise will return some of the feeling for valid data that calculators and spreadsheets have taken away.

The next problem that spreadsheets have introduced is the possibility of producing a page of numbers with only some labelling and no real indication of how the numbers moved from one column to the next. Some columns contain data, some contain equations, others are simply references to other cells. All of them however display numbers and, when printed, all you get is the numbers. To further complicate things, when loading up a prepared spreadsheet, you may discover some problem that went previously undiscovered. The simple answer is to fix it and print the results. But now you have at least two versions of

your standard spreadsheet and various results. This situation is hardly satisfactory when producing endorsed reports or when quality systems are in place and some form of control or auditability is essential.

The answer lies in the seldom used feature of spreadsheets, the auditor. This operation will look for and display, in your spreadsheet, all the equations used. Alternatively you can use various special copy features to display equations and references. This is really only useful if you remember to turn on the grid references at print time, otherwise, finding locations on your printed spreadsheet is difficult.

A good habit to develop is to include the date on which a standard spreadsheet is prepared and to replace this with the date that modifications are implemented. This acts as the version of your spreadsheet. Where general use by many people is required, it is possible to prepare a macro to control the operation, version and auditing of your spreadsheet.

These general guidelines are not intended as rules but should help form good habits, especially where endorsed reports, audit trails and good housekeeping form part of your daily routine. All metrologists must deal with increasing quantities of data with more resolution than ever before. A spreadsheet is inevitable. Good habits will help this tool produce effective benefits.

Neville Owen

When Neville Owen is not sitting at home writing for The Australian Metrologist, he works for the Gas and Fuel Corporation of Victoria specialising in pressure measurement. Neville has kindly offered to contribute a regular computer article. If you would like to discuss particular issues regarding software/hardware or have problems aired, please write to the editor. ±

FOR THE GREY MATTER - Answers for issue 2

1. It can't be done.
2. Add the milk to your coffee first.
3. 101 years.

TECHNICAL PROBLEM?

If you have a particular technical problem which you have been struggling with, why not write to us? We will attempt to have a person with particular expertise in that area provide the answer for the next issue.

If you are shy about admitting that you don't know everything, we will take these questions anonymously.

THE AUSTRALIAN METROLOGIST

ANNUAL GENERAL MEETING

The first Annual General Meeting of the Metrology Society of Australia was held on Wednesday 19 October at the Melbourne branch of CSIRO Division of Applied Physics in Clayton.

Some forty members attended. The formal business part of the meeting went smoothly with the various reports being presented and the Management Committee being elected unopposed. This was followed by a brief but interesting talk by Glenda Sandars from NML on metrology in the Asia-Pacific region. This included the roles of the Asia-Pacific Laboratory Accreditation Co-operation (APLAC) and the Asia-Pacific Metrology Program (APMP) of which our Vice-president, Barry Inglis, has been appointed co-ordinator for the next four years.

There was some discussion following Glenda's presentation of opening membership of the MSA to metrologists in the region. There was much support for this idea both because it would broaden the potential range of expertise available to the Society as well as providing a much needed forum for metrologists in the Asia-Pacific region who might have little other opportunity for interaction.

The idea of a two day measurement conference was raised by the president and received good support. The initial proposal is that we could have a mixture of presentations and papers, workshops specific to a range of disciplines and others to tackle topics common to all metrologists (such as uncertainties of measurement). The suggested venue is the National Measurement Laboratory in Sydney.

True to form, Ron McBain and his band of helpers turned on a very nice supper to follow the meeting which provided a terrific opportunity for metrologists from all disciplines to compare notes.

If you have any thoughts on either the matter of opening membership up internationally or the measurement conference, please contact a committee member or channel your ideas through your state co-ordinators.

With respect to the proposed measurement conference, you will find a questionnaire on the back page which we ask you to return to give us an idea of your interest in participating, preferred format, what you would like to see on the program and even an opportunity to volunteer your assistance in any way you think might help.

The Minutes of the Annual General Meeting will be sent out with the next issue of *The Bulletin*. ±

FIRST HONORARY FELLOW ELECTED

Dr Bill Blevin, retiring Chief of the CSIRO Division of Applied Physics, is the MSA's first Honorary Fellow following a unanimous vote at the AGM.

Born in 1929 at Inverell in NSW, Bill went on from school to study physics at the University of Sydney where he graduated with first class honours in 1950. He completed his Dip. Ed. the following year and his Masters in 1952.

Upon leaving university, Bill joined the CSIRO Division of Applied Physics (then the National Standards Laboratory) as a Research Scientist in the optical radiometry group, progressing to the position of Chief Research Scientist in 1976.

The association with the country near his birth-place had been continued with various short term appointments at the University of New England. In 1972, this continued with his achievement of a Doctorate of Science from the same institution. The following year, Dr Blevin was seconded to the US National Bureau of Standards as an expert consultant in radiometry and photometry where he achieved an NBS Special Achievement Award for research on pyroelectric detectors.

Bill filled the role of Acting Chief of the Division of Applied Physics for twelve months in 1979-80 before being appointed Assistant Chief from 1980 to 1988, and Chief from 1988 until his retirement last month.

As if this was not enough to keep him busy, Bill has served as a Member of the National Standards Commission since 1980 including a period from 1981 to 1985 as the Chairman. Bill has also been a Member of the International Committee of Weights and Measures (CIPM) since 1982 and Vice-President since 1992. He has also been the President of the CIPM Consultative Committee for Photometry and Radiometry since 1980.

Bill is already a Fellow of three professional societies, the Australian Academy of Science and the Australian Academy of Technological Sciences. He is a member of numerous other committees relating to metrology and has served his profession with distinction in ways too numerous to mention here. This has also been recognised with his award of Membership of the Order of Australia.

Dr Bill Blevin's investiture will be at the forthcoming NSW members meeting on Monday 5 December at the National Measurement Laboratory. Our president, John Miles will be addressing the meeting and making the presentation. ±

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COMMITTEE UPDATE

Management Committee

The existing Management Committee was re-elected unopposed at the Annual General Meeting. That no other nominations were received could have been interpreted as a lack of interest but we preferred to take this as a vote of confidence for the work undertaken so far. We will all do our best to keep the momentum going. To refresh your memories, the members are as follows.

Dr John Miles (President)	CSIRO Division of Applied Physics
Dr Barry Inglis (Vice-President)	CSIRO Division of Applied Physics
Mr Colin Wagg (Secretary)	NATA
Mr Stuart McDonald (Treasurer)	City Power
Mr Bill Cerutti	Hewlett Packard
Ms Glenda Sandars	CSIRO Division of Applied Physics
Mr Jack Deller	Retired
Dr Grahame Harvey	National Standards Commission
Mr Ron McBain	Retired
Mr John Mitchell	NATA
Mr Horst Sieker	ACM Laboratory
Dr Jane Warne	Bureau of Meteorology

Membership Qualification Sub-Committee

Dr John Miles (Chairman)
Mr Jack Deller (Secretary)
Mr Bill Cerutti
Mr Horst Sieker

Finance Sub-Committee

Mr Stuart McDonald (Chairman)
Mr John Mitchell

Communications Sub-Committee

Mr John Mitchell (Chairman)
Mr Jack Deller
Mr Ron McBain
Mr Colin Wagg
Dr Jane Warne
Mr Mark Pilkington (seconded member)

Social Sub-Committee

Mr Ron McBain (Chairman)

Education Sub-Committee

Dr Grahame Harvey (Chairman)
Dr Barry Inglis

MEMBERSHIP NEWS

The flood of applications has now dropped off to a steady trickle. We have passed the 250 mark, however, and are hopeful that 300 will be achieved by the middle of next year.

NEW MEMBERS

We are pleased to announce that the following metrologists have been granted membership since the July issue.

New South Wales

Mr Gary Dykes	Physical
Mr Mark Spillane	Electrical
Dr Christopher Walsh	Dimensional/Optical
Mr Roy Singh	Dimensional
Mr Douglas Simpson	Dimensional/Physical

Northern Territory

Mr Douglas Simpson	Dimensional/Physical
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Queensland

Mr John Darling	Multi-disciplinary
Mr Gerald Samuel	Legal
Mr Peter Gardener	Dimensional/Optical
Mr John Leinster	Multi-disciplinary
Mr Shane Brann	Electrical

South Australia

Mr Cameron Platt	Electrical/Temperature
Mr Andrew Baghurst	Electrical/Temperature

Victoria

Mr Alec Yeo	Dimensional/Electrical
Mr Graeme Smith	Dimensional
Mr Lewis Fricker	Electrical
Mr Anthony Adaman	Dimensional
Mr Danny Morrison	Dimensional
Dr Helen Liddy	Chemical
Mr Bernard Lebenbaum	Electrical
Mr Darren Crampton	Dimensional

Western Australia

Ms Tegan Lord	Dimensional
Mr Terry Wayman	Dimensional

Welcome the the Metrology Society of Australia.

THE AUSTRALIAN METROLOGIST

The current status of the membership is given below.

State	Members	Associates	Totals
ACT	1	-	1
NSW	56	9	65
NT	3	-	3
QLD	23	3	26
SA	23	2	25
TAS	2	-	2
VIC	98	25	123
WA	8	1	9
Totals	214	40	254

COURSES AND CONFERENCES

UNCERTAINTY OF MEASUREMENT

Advance notice is given that the Melbourne branch of CSIRO Division of Applied Physics will be running a course on determining uncertainties of measurement. It is anticipated that the course will initially be run in Melbourne in mid-December or early in 1995. Depending on demand for other sessions, it may be repeated elsewhere. The theory will be structured around the ISO guide with examples of its application in the areas of electrical, dimensional and physical metrology.

This course will have the endorsement of both the MSA and NATA. An update will be provided in the next issue of *The Bulletin*.

HOW DO YOU MEASURE UP? - PRECISION MEASUREMENT AND ITS RELATIONSHIP WITH QUALITY SYSTEMS

Can you afford not to measure accurately?

ADI Electronics, Operations and Services, in conjunction with The Australian Graduate School of Engineering Innovation, are holding this one day seminar with the support of the Metrology Society of Australia. The key issues to be presented are traceability of measurement, uncertainty of measurement, measuring to specification, new calibration techniques and the role of calibration in

quality systems.

The Key Note Speaker will be The Honourable Chris Schacht, Federal Minister for Small Business, Customs and Construction.

Presenters will come from CSIRO Division of Applied Physics, the National Standards Commission, NATA and ADI Calibration Services.

Date: Tuesday 22 November 1994

Time: From 8.00 am to 5.30 pm

Venue: Auburn R.S.L. Function Centre
33 Northumberland Road
Auburn NSW

Cost: \$350 per person (\$300 for group bookings) including notes, hot lunch and refreshments

For further information,

Ms Nicole Elliot Ph (02) 911 8685
Fax (02) 911 8699

Dr Alec Cameron Ph (02) 299 5699
Fax (02) 299 5334

COMMITTEE OF REVIEW LOOKING AT TECHNICAL INFRASTRUCTURE

The most comprehensive review of Australia's standards and conformity infrastructure ever undertaken is now well under way by the federal government's Committee of Inquiry. The review is examining the role of organisations such as Standards Australia, NML, NSC and NATA in measurement, standards writing, certification and accreditation activities.

Written submissions have been provided to the Committee by all of the major players including the Metrology Society of Australia.

Public meetings have been run in Melbourne and Sydney which gave organisations not directly involved the opportunity to comment on issues affecting them.

The next step will be visits to other countries by the Committee members to examine their technical infrastructures. It is anticipated that an options paper will then be produced for comment. The outcome of the inquiry will be announced early next year.

The key issue from the perspective of the MSA is to ensure that an effective national measurement system will be maintained which can provide a quality service to industry and commerce. We will keep the membership informed through *The Bulletin*. ±

THE AUSTRALIAN METROLOGIST

COMMITTEE MEMBERS GIVE UP THEIR DAY JOBS

MSA Committee Members Jack Deller and Ron McBain have "retired". As Jack and Ron have known each other for so long, it seemed like a good idea to have them write a brief note on each other.

Jack Deller on Ron McBain

Ron McBain of ADI ICAMS fame finally made the break from the Footscray facility after 39 years of service, more than 30 of them in the metrology laboratory. Ron took a redundancy package in September and will be a tremendous loss to the laboratory. Fortunately, he will still be involved in the discipline as Ron is intending to "go it alone" with his own NATA registered laboratory.

Although there is a saying relating to losing people after many years of experience ("put your hand in a bucket of water and see how long it takes for the water to be replaced after you take it out"), in the case of Ron McBain, ADI have lost a metrologist who ranks amongst the most experienced in the country and will be very difficult to replace.

Ron started at the then Ammunition Factory Footscray as an apprentice Fitter Machinist in 1955 and, after progressing through all the various engineering facilities in the factory, he found his niche in the metrology laboratory, working under the then "Mr Metrology" in Victoria, Gordon Neill. As with many dimensional metrology laboratory managers throughout the state, Ron adhered to the principles set by Gordon and became a very competent technologist.

Ron became manager of the laboratory in 1984 and guided it to become recognised as one of the best dimensional measuring facilities in Australia and ranking with the best in the world. It was only because of the persistence of Ron that the laboratory survived during the change from a fully government run organisation to ADI.

A major contribution of Ron to dimensional metrology would certainly be his involvement in the development of Co-ordinate Measuring Machine (CMM) usage in Australia. Together with colleagues from the National Measurement laboratory, he worked toward forming the CMM User Group in Australia, an organisation of which he has been Chairman for some time. He is also an assessor for NATA and a member of the Metrology Registration Advisory Committee.

It is fortunate for the metrology community that Ron will still continue to be an influence on the science of dimensional measurement by his ongoing involvement with the CMM group and, more importantly for us,

with the Metrology Society of Australia. We wish him well in his new venture. Good Luck Ron!

Ron McBain on Jack Deller

The Department of Defence recently suffered one of its biggest (tallest) losses in living memory.

Jack (long tack) Deller, Head of Section, Metrology Laboratory DQAO, recently retired from his position with Defence after some 40 years service.

Jack started his working career at the Ammunition Factory Footscray in 1954 and spent 23 years there. Of these, almost 18 were spent in the Metrology Laboratory culminating in his managing of this fine laboratory. (*Didn't we just read this - ed.*)

He then succumbed to the lure of greener pastures and left to take control of the 3AQU Metrology Laboratory at Maribyrnong where he has spent the past 17 years as Head of Section Metrology whilst developing this laboratory into one of excellence, stature and capability.

Jack has spent many years on various committees related to dimensional metrology including NATA's Metrology Registration Advisory Committee various Standards Australia committee's and, most recently, the Metrology Society of Australia. Jack is also a NATA assessor and has spent many years with AOQ.

Jack, like many experts in metrology was a protege of Gordon Henry Neill one of Australia's most prominent metrologists.

Jack's skills in the field of metrology are many although one which may not be missed is that of drop testing (from a great height) on very expensive rotary tables.

On a more serious note, Jack's abilities, capabilities and skills, and his known commitment to metrology will always be seen as a valuable contribution to a vast number of Australian Industries and especially Government Departments. It is hoped that Jack's retirement will be on paper only and that his skills will be used by others desiring such expertise.

As Jack gets used to this big change in life style (current indications are that he is enjoying it) one can only hope that Jack's always attentive wife Doreen, can learn to put up with Jack's undying attention to household chores and other matters related to family upbringing.

As a fellow workmate of Jack's, I sincerely hope that Jack has a long and healthy retirement, and at the same time, makes time to pass on to others his many skills. So, from a resignee to a retiree, I dips me lid.

STATE EVENTS

The South Australians and Queenslanders have made a terrific start which has been both good news and a relief to the largely Melbourne based Committee. We were most concerned that this be a national society. The enthusiasm, and the obviously common thinking, of the "smaller" states has been heartening. NSW is also getting under way. Come on Western Australia! NT and Tasmania also need some more members. If you have any suggestions for possible members, contact your nearest representative and we will send off an information package.

SOUTH AUSTRALIA - Members Get Moving

On 28th July most of the South Australian members, and a number of potential members, gathered to discuss how they wished to conduct activities of the Society in this state. The meeting was timed to coincide with a visit to the southern city of committee member and newsletter editor John Mitchell. John gave a run-down of the brief history of the formation of the Society, and the gratifying response to the proposals of the founders. Incidentally it was clear that the enthusiasm shown in Melbourne meetings is being matched in South Australia, so it is not just a quirk of Victorians. John outlined the committee's plan to consolidate finances and membership, and the vital role that the Australian Metrologist will play.

To kick off the general proceedings, the participants were asked what they hoped to get from their membership, and an interesting list emerged:

- ▶ gaining information about expertise of other members for use when special help is required;
- ▶ having colleagues to discuss measurement problems with;
- ▶ meeting other metrologists in a social setting to get to know them better;
- ▶ visits to other laboratories to get to know what others do;
- ▶ learning about other aspects of the art of measurement;
- ▶ finding differences and similarities with the work of others;
- ▶ encouragement of participation in education of metrologists;
- ▶ facilitation of cross-pollination between different fields;

- ▶ gathering information on standard specifications to feed back to Standards Australia.

The meeting agreed that there should be a minimum of formality in structure and activities. Brenton Watkins was persuaded to be "State Convenor", with assistance from Jeffrey Tapping. Richard Duncan offered his company as post-box and contact point. It is planned that these people will spread the work around as much as possible, for example by rotating responsibility for organising events. Initially we are aiming at about four to six meetings per year, far enough apart to keep everyone interested. If interest is maintained and the demand is there, the frequency of meetings will be increased. Half of the meetings are planned to be technical, half social. To get things under-way we are looking to our members to host meetings at their work-place, and give their colleagues a run-down on their application of the measurement art.

The first meeting held was a visit to the Australian Electrical Testing Centre run by member Andrew Baghurst at the University of South Australia. Andrew has facilities to draw megawatts momentarily from the power grid as he tests electrical equipment to destruction. We expected the evening to go off with a bang. We weren't disappointed as a large number of amps were passed through an aluminium bar, creating a bright flash and throwing the bar across the room. And what, you may ask, has this to do with metrology? Well, not much really, but it was a good demonstration of the facilities of the AETC and certainly helped to make the visit memorable.

The work of the centre is a good example of that often unappreciated realm of measurement where the uncertainties are relatively high but the difficulty of measuring is even higher. Measuring kilovolt or kiloampere impulses lasting as little as a few nanoseconds is quite a challenge and determining the probable uncertainty takes plenty of ingenuity. If you test an object to destruction, it is not easy to build up a significant sample size. To make life even more interesting, the time period for tests varies from about 10^{-9} to 10^5 seconds, a range of 10^{14} !

About half of the total of 28 South Australian members turned up for the meeting and we signed up a new member as well. The atmosphere was convivial and everyone seemed to enjoy themselves. We intend to keep things that way. We are planning one more meeting before the end of the year (see below).

If any members are visiting Adelaide and are able to give a talk on a relevant subject, please let us know in advance and we will arrange a special meeting. Make your contact via Richard Duncan (see State Contacts)

THE AUSTRALIAN METROLOGIST

After all, the sharing of information is one of the main reasons for the existence of the Society.

We hope to have some technical meetings preceded with a social session. A good venue will be the Regency College of TAFE, where we can use the services of the hospitality students as they practice for their future careers.

So we are starting off cautiously with characteristic South Australian conservatism, but with great optimism for the future. We will keep you posted on our progress, and invite you to share your experience with us. We look forward to hearing from you.

Jeffrey Tapping

Next Meeting

Date: Thursday 24 November
Time: 5.30 for 6.00 pm
Venue: Telecom laboratories
56-58 Manchester Street
Mile End
Speaker: Jeffrey Tapping
Topic: Guide to the Expression of Uncertainties of Measurement

QUEENSLAND - Good Start in the Sunshine State
Tuesday 30th August saw thirteen of the twenty-three Queensland members gathered at GEC Alsthom Heavy Engineering Division at Rocklea for our first state get-together. The response was considered good in view of the rather short notice that could be given.

Roy Hood from GEC Alsthom, Nigel Lane of the Queensland Department of Transport and Doug Quinn of the South East Queensland Electricity Board had "volunteered" to act as interim co-ordinators to arrange this first meeting. With the meeting notice, a brief questionnaire was distributed to obtain members' opinions about meeting format and any other issues.

The meeting opened with refreshments generously provided by GEC Alsthom. The business session which followed was opened by Roy Hood who reported on the meeting of members in Melbourne which he had attended.

Doug Quinn then presented the summarised results of the questionnaire and led discussion on the format of the meetings. The following was agreed:

- ▶ quarterly meetings on Tuesdays at 6.00 pm;
- ▶ format to include refreshments, a short business meeting as required and a technical presentation and/or a laboratory or factory tour.

Suggested venues for early meetings were the Trade Measurements Branch, Queensland Manufacturing Institute, SEQEB and ADI at the RAAF Base Amberley.

It was also intended that we should try to take advantage of visits to the State by eminent interstate or overseas metrologists by arranging special meetings at which they could speak.

We agreed to have three State co-ordinators who will hold the position for one year and all members will be requested to take a turn. The co-ordinators elected for the first year are;

- Roy Hood, GEC Alsthom
- Erwin Schilling, Queensland University of Technology
- Ian Cowling, Queensland University of Technology

The meeting also discussed the matter of metrology training. The MSA was seen as having a role as a catalyst to encourage the availability of appropriate courses in Queensland.

The evening concluded with a very interesting tour of GEC Alsthom's factory, during which we saw something of the application of both electrical and dimensional metrology in a heavy manufacturing environment.

Doug Quinn

Next Meeting

Date: Tuesday 22 November
Time: 6.00 pm
Venue: Queensland Manufacturing Institute
Speaker: Mr Noel Frost, Director, QMI
Topic: Stereolithography, laser machining, water cutting and CMMs

NEW SOUTH WALES - First Meeting Coming Up
At the first meeting of the NSW members, the president, John Miles, will be addressing the meeting and the investiture of our first Honorary Fellow, Dr Bill Blevin, will take place.

Anyone visiting from interstate would be very welcome. If you want further details, contact Glenda Sandars at NML on (02) 413 7087.

Date: Monday, 5 December
Time: 6.30 pm
Venue: National Measurement Laboratory
Bradfield Road
West Lindfield
Speaker: John Miles

THE AUSTRALIAN METROLOGIST

VICTORIA - Victorians get their hands dirty

As reported in *The Bulletin*, the first technical meeting was held at ICAMS on 30 August and involved a "how-to" session on micrometer and dial gauge calibration. It is intended that these workshop type meetings will continue but will be interspersed with tours and social activities.

The next function is in fact the Annual Dinner, not restricted to Victorians of course, and to provide some time for the cholesterol levels to subside, the next technical meeting, on balance calibration, will be early in the new year. ±

PHOTOGRAPHS WANTED

If you have some photographs from your state meetings or tours, please send them in.

MSA LOGO DESIGN

We have our logo! The design selected is based on an idea submitted by John Newman, formerly of Dobbie Brothers, showing a stylised dial and pointer. The graphic artist, Neil Moorhouse, has modified John's original somewhat to give it a 3-D appearance.

The idea of the dial was considered to be appropriate to a wide range of metrology disciplines as well as being simple and uncluttered. We are now in a position to design the membership certificates and to produce letterhead, promotional material and, eventually, lapel badges etc.

Once again, we would convey our thanks to Alex Smart for his generous support in financing a professional artist. ±

FACES FROM THE ANNUAL GENERAL MEETING

Howard Wright from the Gas & Fuel, Kevin Smith from Setec and Mark Thomas from Transfield Shipbuilding (right) and Alex Smart from S G Prittie Precision Gauges, Ron McBain between jobs and Bill Johnstone (below) relaxing after the meeting.

Below right Treasurer, Stuart McDonald and John Miles awaiting difficult questions on the financial report. There weren't any!



