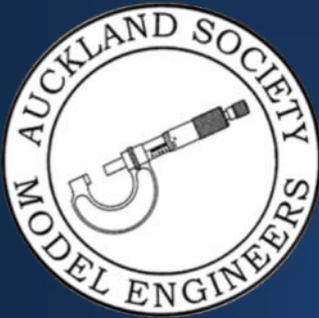


# AUCKLAND SOCIETY OF MODEL ENGINEERS INCORPORATED

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# THE MICROMETER

REGISTERED NEW ZEALAND PUBLICATION

## In This Issue:

- Page 2.....Train Roster
- Page 3.....Club Calendar
- Page 4-6.....President's Report
- Page 6-7.....Around The Clubs
- Page 8-10.....Bits & Pieces
- Page 10-11.....Classifieds
- Page 12.....Battery Testing
- Page 13.....Notes From The Editor's Desk



Large scale model train crosses the water at a yearly event hosted by the Centurion Model Engineers Club in South Africa, April 2012

# Train Roster

Date	Electric	Electric	Steam	Station	Station	Station	Extra Guard
3 <sup>rd</sup> June	<u>T Robinson</u>	M Moore	G Wills	S Weston	D Addis	<b>P Boyes*</b>	Bob Aicken
10 <sup>th</sup> June	M Plant	I Ashley	<u>G Bell</u>	R Brown	<b>J Burnett*</b>	R Crook	
17 <sup>th</sup> June	D Black	D Booth	<u>T Lawrence</u>	B Currie	<b>G Dickey*</b>	P Cunningham	J Cunningham
24 <sup>th</sup> June	B Cotton	P Woodford	<u>B Piggott</u>	A Foster	<b>D Hamp*</b>	G Healey	
1 <sup>st</sup> July	P Eaton	L Farquhar	<u>D Russell</u>	R Copeland	<b>P Jones*</b>	G Kemp	
8 <sup>th</sup> July	M Granger	R Hannah	<u>G Wills</u>	J Lankow	D Leybourne	<b>M Luxton*</b>	
15 <sup>th</sup> July	J Harrison	P Haycock	<u>G Anderson</u>	<b>I Lyons*</b>	H Martin	S Meikle	
22 <sup>th</sup> July	M Hollis	D Housley	<u>G Bell</u>	C Mitchell	D Moffat	<b>G Murray*</b>	
29 <sup>th</sup> July	P Moy	M Plant	<u>T Lawrence</u>	J Olsen	<b>W Parker*</b>	G Quayle	

## **Bold and Underlined name:**

This is the designated **Train Controller**, i.e. the person in overall control of all operations for the day.

If you are the **Train Controller** you should phone around the others rostered for that day to make sure they remember to turn up.

## **Bold with Asterisked\* name :**

This is the designated **Stationmaster**, i.e. the person responsible for activities in the station area for the day. The Stationmaster is also responsible to account for the day's takings.

**Please Note**, there is no expiry period or date on train ride tickets previously sold.

## **Please Note:**

On your rostered day you should arrive by **12.30 pm** to get prepared for the days running. If for some reason you are unable to fill your rostered date, you are respectfully reminded that it is your responsibility to find a replacement member to fill the gap - please don't let the rest of the team for the day be left "short-handed".

Please ensure you arrange the replacement member with one rostered to undertake the **same** role, to ensure we always have members with the appropriate training and experience on the day

# Club Calendar

ASME Events	
5 <sup>th</sup> June	General Meeting - Clyde Mitchell will talk on "Wireless Power Transfer from Tesla to tomorrow - a demonstration of close coupled power transfer techniques and typical applications in use now".
9 <sup>th</sup> June	General working bee at the club - 9am onwards
9 <sup>th</sup> June	Cribwall working bee at Tony Lawrence's yard - 9am onwards
12 <sup>th</sup> June	Committee Meeting
16 <sup>th</sup> June	Cribwall working bee at Tony Lawrence's yard - 9am onwards
16 <sup>th</sup> June	Club fun run - from 1pm onwards
19 <sup>th</sup> June	Workshop night at the clubrooms
29 <sup>th</sup> - 30 <sup>th</sup> September	Annual exhibition and judging
8 <sup>th</sup> December	Annual dinner and prize giving
General Events	
2 <sup>th</sup> -4 <sup>th</sup> June	Manukau Live Steamers Open Weekend (Queens Birthday Weekend)
7 <sup>th</sup> & 8 <sup>th</sup> July	Eastern Bay of Plenty Model Engineers open weekend at Whakatane
6 <sup>th</sup> & 7 <sup>th</sup> October	HBMES 50th Anniversary Reunion
20 <sup>th</sup> - 22 <sup>nd</sup> October	60 <sup>th</sup> Birthday Bash of the New Plymouth Model Engineers which is to be held on Labour Weekend

# Presidents Report

## June 2012

Work is in hand to deal with the few remaining issues before our next MEANZ audit which will take place on Sunday 3<sup>rd</sup> June. Hopefully we will get a “sign off” and also completion of the “Competent Person” certificate as required under the Amusement Devices Amendment Regulations 2011. Then ASME will be able to make application to the Department of Labour for registration

Two more working bees were held in May at Tony Lawrence’s yard in New Lynn to make “cribwall” parts. These were attended by Ross Smith (2), Clyde Mitchell (2), Mark Luxton, Scott Meikle, Tony Lawrence (2) and myself. There will be another general working bee at the Club on Saturday 9<sup>th</sup> June starting at 9am – please come along ready to clean up around the track. Also, we plan to have two more cribwall working bees at Tony’s yard on 9<sup>th</sup> and 16<sup>th</sup> June; with 4 people required this only takes about 2 ¼ hours to do a batch. More than 50% of the required stock has now been made.

We had a good turnout (16) to the annual “Small Gauge Engine” event held on ANZAC day at Manukau Live Steamers. It was a nice fine day, with a grand start as 5 Harvard's and then 3 other WWII aircraft (Spitfire, P40 Tomahawk and P51 Mustang) in formation, roared overhead as we steamed up. MLS turned on a great lunch as usual and a number of members were seen enjoying themselves driving various locomotives over the long park and scenic hill tracks.

Please remember that the next members “fun run” will be held on the afternoon of 16<sup>th</sup> June at the Club, starting at 1pm.

The May workshop night was a visit to Tony Lawrence’s home workshop out in Woodlands Park, just beyond Titirangi. Tony gave us the grand tour of his well equipped workshop and showed us some of the projects he has ahead of him. Then it was inside for some nice savouries, washed down with a cuppa and a good social chat such that the last didn’t leave until 10.30pm

Included this month is the latest membership list which is issued on the basis that it is only to be used for the purpose of Club business. Apologies, this should have been sent out in March, but slipped my mind. This is attached to your email notification for the Micrometer; or attached to the newsletter in the case of the few who still get paper copies.

Thanks to Arnold Watson who turned out to represent the Club at the funeral memorial service for past member Russell Batt held at his son (Colin’s) place in Cambridge. Russell was an active member at ASME in the 1970’s & 80’s, and his wife Patricia (who survives him) is responsible for much of the plantings around the ASME site. Colin is a member of the new Cambridge-Rotorua Live Steamers Inc. club, so the tradition is

carrying on.

I was down at the Clubrooms on 20<sup>th</sup> May doing some work ahead of the MEANZ audit and was disappointed to see that three of the rostered station crew for that day were “no-shows”. If you are rostered on, please make sure you turn-up or organise a replacement – it makes it very hard on the rest of the crew if they have to try and manage the queues of kids without you. For station staff, the roster is only approximately once every 12 weeks, so can't surely be considered onerous for the benefits gained.

While covering running matters, I advise that the committee decided at its May meeting that the Club should purchase the NZR Dsa type battery electric locomotive of Alan Gasteen that has resided in the engine shed of late. It is therefore available for use by any suitably licensed driver to haul fare-paying passengers and can haul up to two trolleys. While mentioning trolleys, I am pleased to advise that the A & G Price trolleys have now been cleared for public use, but note that they can only be used singularly as they are not equipped for safety covers over the couplings.

We now have brightly coloured, suitably marked, vests which are to be worn by the Stationmaster each running day. These are a MEANZ requirement so that the person in charge of the station operations can be easily identified. Stationmasters should make sure they know who the Train Controller of the day is, so that if any issue comes up relating to a matter requiring his input, the Stationmaster can promptly liaise with the person in overall charge for the day, i.e. the Train Controller. The reason the Stationmaster is the first point of contact for the public is that normally the Train Controller is out driving a train and therefore not so easy for the public to immediately identify or to make contact with.

The Club's funds that are surplus to working requirements have been invested as equal sums in interest bearing Term Deposits at the BNZ and ASB for up to six months. This will ensure these funds are preserved relatively risk-free, yet earning some income, while the Club determines the future of the Track & Trolley Project 2012. The committee is holding a special meeting on 29<sup>th</sup> May to consider the reports of the various sub-committees working on key aspects of this project and will report back to members just as soon as it is able.

Clyde Mitchell is to fill the entertainment slot at our June meeting; Clyde joined the Club last year and will talk on a particularly interesting subject which he has been involved in for many years. He has coined his presentation as “Wireless Power Transfer from Tesla to tomorrow”; so come along and see a demonstration of close coupled power transfer techniques and typical applications in use now.

Hayden Purdy has volunteered to create a Soundbox for use at the Station. This will allow a pre-recorded safety message to be played to passengers as they depart the station; something loosely akin to what you hear at the start of a Walt Disney type ride! Importantly, it will help ASME reliably fulfill another MEANZ requirement – thanks Hay-

den for dedicating your enthusiasm and technical skills on this project.

A date has been set for the ASME 2012 Exhibition and Annual Judging – this will be held over the weekend of September 29<sup>th</sup> & 30<sup>th</sup>. We need a member to undertake the role of organizer/co-ordinator – please let me know if you are willing to undertake this important role for the Club. The Annual Dinner and Prize Giving will be held on Saturday night, 8<sup>th</sup> December.

Well the “Indian” summer has well gone and the wet weather is truly upon us – great to induce more time in the workshop as you can’t do much outside!

*Grant Anderson*

## **Around the Clubs**

### **June 2012**

#### **The Workbench, Durban, May 2012**

Part 1 of a 3 part series on hot water injectors. A lot of work carried on the track and rolling stock.

#### **The Narrow Gauge, Adelaide Miniature Steam Railway, [www.railwaypark.org/](http://www.railwaypark.org/)**

Very detailed article on building the Silverton loco and tender. The cylinders are a combination of castings and fabrications, very ingenious. Interesting to note that no running is carried out if the temperature goes above 37 degrees C. A good read.

#### **Southern Rails and Sails, Invercargill, April/May 2012**

Visit to the model railway exhibition held in Melbourne recently, seems to cover everything and is massive. Another article on LiPo batteries, well worth a read as they are dangerous if not handled properly. A number of photos from the Otago Model Engineers Festival week showing boats and trains in action. A good article to on meth burners and how not to gas yourself.

#### **Engine Booster Los Angeles March and April 2012 - [www.lals.org](http://www.lals.org)**

Great recollections from Terry Spahr about the old days, especially about making ice cream at home using salt water ice. He now has a traction engine and makes ice cream using the old methods. Great article. Warning about poison oak, not a problem here fortunately.

**The Generator, Palmerston North, March and April 2012 - [www.pnmeec.org.nz](http://www.pnmeec.org.nz)**

Cover photo of a Ford Quadricycle replica built by a member in 12" scale. This is a 2 cylinder 4HP model on 4 bicycle wheels, Henry Ford's first experimental automobile. A great effort by a member who is in his eighties. Letters from England by Stan Compton are always a good read. An article on traction engines fitted with steam pumps made by Moores Steam Pumps in the USA. Write up on the Whangarei Convention. For sale a model South African Railway loco Class 19D in 5" gauge. Cover photo of Invicta, the story of finishing the model and of the original.

**Blast Pipe, Hutt Valley and Maidstone, May 2012**

The new concrete track base looks good, photo of the galvanised rail being laid. Seems the new Rotorua/Cambridge track is being built using the same idea. Visit to Havelock North and a photo of John and Diana's steam boat roll out.

**Mailship, April 2012 - [www.marinemodellers.org.nz](http://www.marinemodellers.org.nz)**

The history of the RMS Georgic. A couple of school events and problems with kitsets.

**Model Torque, Napier, April 2012**

New steamboat launched at Napier's Port Ahuriri. Track running all going well. Visit to Havelock North. The story of Jim Brodie who was a founding member who served as an engineer on the Olympic, they were tough times.

**Big Wheel News, The Steam Locomotive Society, Victoria, March/April 2011**

Sad to note the loss of a valued member, John Ousey and the loss of rolling stock to burglars. Great write up on the "Rag Tag Railway". In the Ladies Corner is a recipe for Vegetable Curry.

**SCMES, Canterbury, April 2012 - [www.south-canterbury-model-engineers.org](http://www.south-canterbury-model-engineers.org)**

Interesting article and photo of the new KiwiRail's DL loco. A number of good photos of model boats in action and under construction

**E.B.O.P, Whakatane, April 2012 - [www.riveredgerailway.org.nz](http://www.riveredgerailway.org.nz)**

Open weekend and hotpot run to be held on 7<sup>th</sup> and 8<sup>th</sup> July 2012. Repairs to donated Stuart Turner Beam Engine under way. Good public run with two 7 ¼" steamers.

**Wheels and Floats Tauranga, April/May 2012**

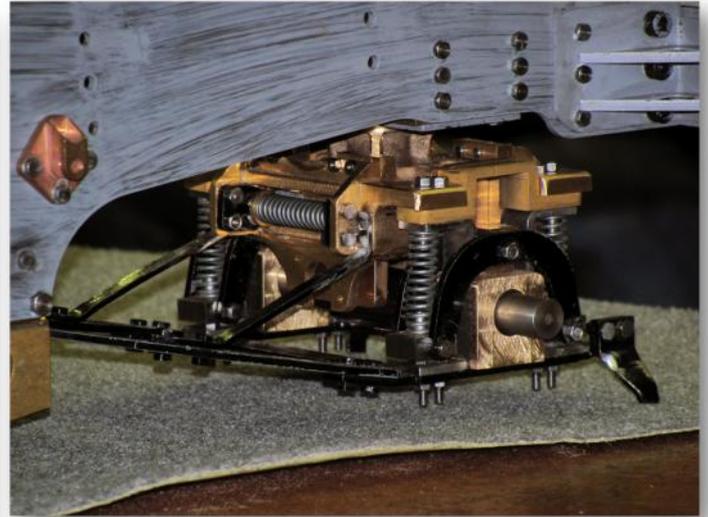
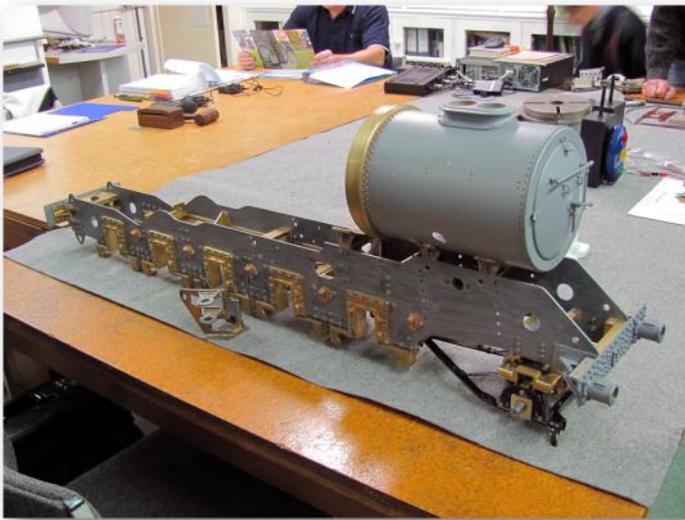
Visit to Whangarei to the Clock Museum. Very ingenious adjustable track to cope with swampy ground. All about hubless wheels and some good funnies.

# Bits & Pieces

3<sup>rd</sup> April 2012

Hosted by Dave Russell

Reported by John Olsen



Christopher Ratcliffe had the chassis, smokebox and front bogie of his 5" g British Railways 9F class "Evening Star" that has been made from a Winston kit on show. He has found a number of parts in the kit somewhat wanting and has had to re-make quite a bit. The motion work is complicated and the frames are plates with substantial cross braces.



Murray Lane had several tailstock attachments which obviates the need for offsetting the tailstock in the lathe when needing to turn a taper; something which Murray says you should never do because of the difficulty in restoring back with accuracy. One item was a boring head with a centre and there were also simpler versions including an oversized centre.

Ross Purdy had the prototype signals for the main tunnel along. This is about version No 5 and use's some high intensity LEDs and a 2.4GHZ link between the units. The units sense a train entering and leaving the tunnel and energise the appropriate colour LED. The units now work well, even though not in line of sight; Ross found that the radio waves effectively bounce along the tunnel wall, allowing the units to "talk" to each other at either end of the curved tunnel.



Gary Farquhar had brought in an 8inch rotary table made many years ago by Stan Locke so Murray could photograph it for the archives – a very well made unit indeed.

Trevor Taylor had a number of bits from his Ajax locomotive, "Kathleen", that he is rebuilding; spectacle plate, and cab sides, etc. Also some other workshop aids which Trevor has found useful – a holder for silver solder flux, an inlet pipe to make a vacuum cleaner for the smoke-box and some galv stick to replace galvanising lost during the welding process.





Greg Burrows had a plastic horn-plate that was hollow, having been made by rapid prototyping. This will be used as a pattern and while the finish was a little rough, Greg had factored in 3% for shrinkage and said the final castings would clean up fairly quickly with a file – this process saves a lot of time compared with making a wooden pattern.

Our Editor, Hayden has been doing some tests on the life of various proprietary brands of AAA batteries (see further on...). He had charted the results after testing each using an electronics board. The results for most brands were similar (notwithstanding big price differences), although one very cheap brand had a poor life (exhausted in 20mins).

The night's entertainment followed. Michael Cryns gave part 2 of his talk with slide and short video presentation covering the overhaul of the 1894 Auckland City Library clock, with particular emphasise on some of the more technical features. Very interesting to see some of the bell tolling aspects, given they were made well over 100 years ago.

## Classifieds

### Position Available

Part-time engineering job at a small engineering business on the North Shore manufacturing vintage motorcycle parts. The position would suit a retired person with some engineering ability who would enjoy this type of work. All the machinery is manual (no CNC) and the business is run from our home. If you need any more information, please contact Steve Raffills on 09 4834075.

### For Sale

#### NZR Super Q

NZR Super Q, 4-6-2 wheel arrangement, 3½" gauge. Looks like a K, runs well. \$12,000. Please phone Alan Gasteen on (09) 449 1383

**Jim Yearn estate**

**Lantaine lathe** 5" centre height, 36" between centers mounted on a substantial steel frame bench with drip tray.

3 jaw and 4 jaw chucks, face plate, 4 way tool post, 1/2" Jacobs drill chuck, 13mm keyless drill chuck. 3 HSS tool holders, boring bar and holder, parting tool and holder. 2MT carbide centre, container of various HSS tool bits. \$2320

This item is in Papakura to [view only](#), please contact Tim Robinson Ph 296 2949

(NOTE: These following items are in Howick, to view please contact Murray Lane Ph 534 8396. Pictures of all these items can be supplied by email - contact Murray at [lanemjk@slingshot.co.nz](mailto:lanemjk@slingshot.co.nz) )

**Dore Westbury Milling Machine** on a steel stand with built in cupboard; 3 1/2 X 3 1/2' angle plate; 45mm dia boring head; Myford 2MT collet holder with 6 collets, 1/4, 3/8, 1/2", 6, 10, 12mm; 1/2" Clarkson auto-lock chuck with 1/2" collet; 1/2" ROHM drill chuck; 3 slitting saw arbors, 50 end milling cutters 1/8 - 1/2", small tool makers vice. \$1000.

A 12 X 8 cast iron surface plate. \$160

Overhead flexible drive for engraving polishing etc. \$45.

3" record work shop vice \$50.

0-1" micrometer Moore & Wright \$20.

0-25 +25-50mm micrometer Mitutoyo, very rare \$90.

1 1/2" diameter Moore & Wright dial indicator .001" 0-.3" \$30.

2" diameter Somet dial indicator .01mm 0-10mm \$50.

Nerw Mitutoyo vernier .dial indicator 002mm 0-.8mm \$150.

Verdict vernier dial indicator .0005" .04" \$50.

2MT reamer \$80.

600 stainless ruler. \$18; 18" stainless ruler \$10. Carpenters square. \$15.

Set of 6 very small posidrive screw drivers. \$20.

12 needle files in plastic case. \$18.

Optivisor \$30. Optivisor \$20.

Magnetic dial stand slightly damaged. \$40.

Large surface gauge missing pointer. \$35.

Large analogue multimeter with transistor measuring facilities in metal case. \$50.

Small Sangamo-Weston AC clip on ammeter 6 to 300 amps with case. \$60.

Old small Centec horizontal milling machine in good condition. \$350.

**Jim Jordan estate**

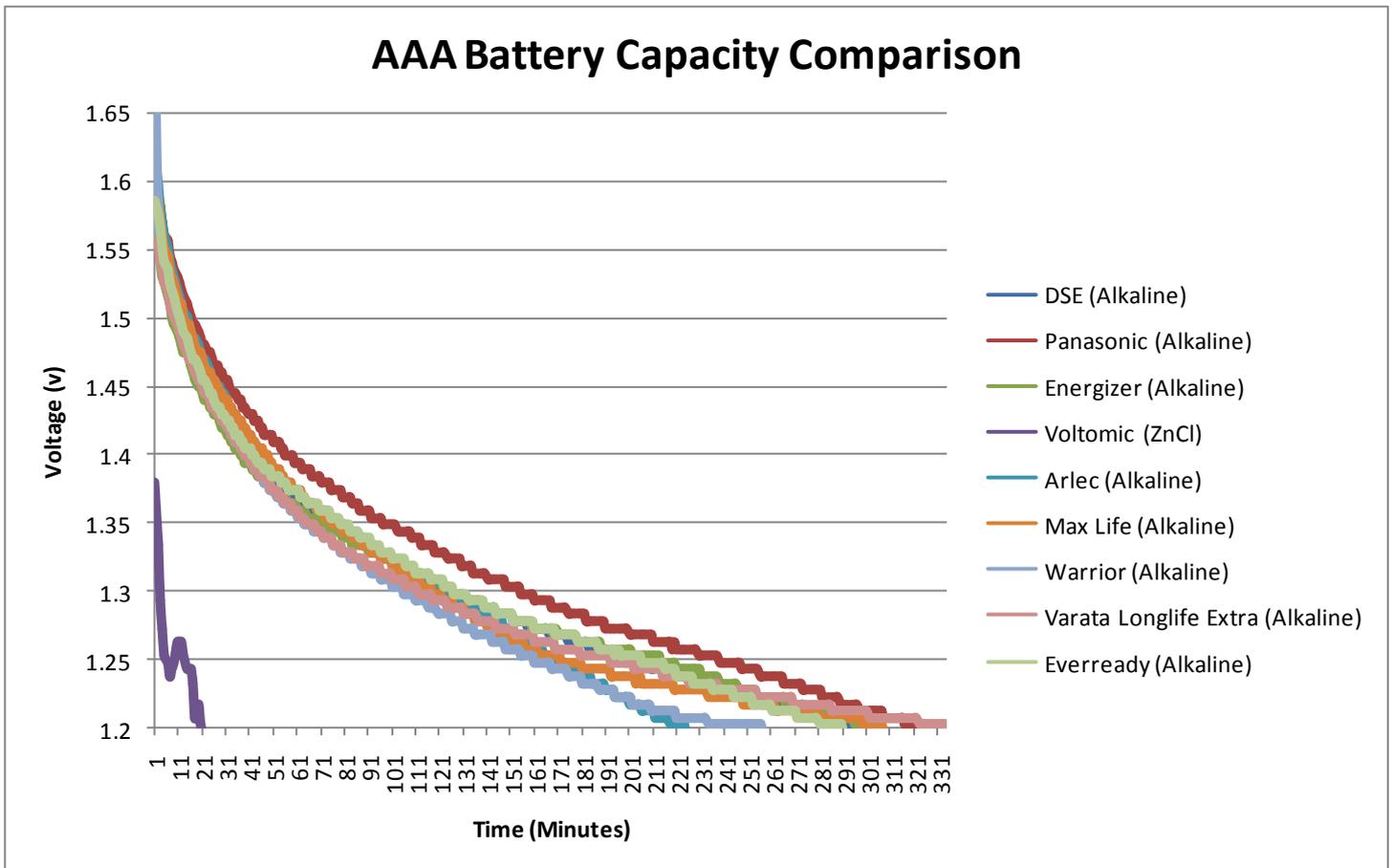
4" drill/milling vice \$20

# Battery Testing

For a neat little experiment, I thought it might be interesting to measure the battery capacity of a bunch of different batteries (in this case, AAA's) and graph the results.

The results were quite interesting, as every company claims that their product is the best, with things like "Extra Super Heavy Duty Long Life Batteries!" printed on every pack. In my test I was mainly comparing alkaline batteries, as these seem to offer the best value for the least cash. If a package has "Heavy Duty" printed on it, chances are it's not an alkaline but something else like Zinc Chloride or Zinc Carbon, and therefore offers little in the way of capacity (see below).

Panasonic batteries were the best, although they were also the most expensive by a long shot. The DSE batteries appeared to be the best buy, they had the best balance between capacity and price - especially if they happen to be on special! Overall most of the alkaline batteries were pretty similar - one wonders if they are all made in the same factory!



# Notes From the Editor's Desk

## Fire Extinguishers

New fire extinguishers have now been installed at the Club. They are installed near the alarm bases upstairs and in the basement of the Clubrooms, as well as in the engine shed. Please note the location and read the signage when you are next at the club, so that in the event that they need to be used, members know what to do. We also ask that if any are used at anytime, that the member using it has a duty to advise a committee member promptly so that the extinguisher can be serviced.

## Train Drivers

A reminder that all drivers on the ASME track need to remain vigilant while driving on the track - remember, "SAFETY IS NO ACCIDENT"!

## Be Identified with Club Apparel

ASME dress shirts available by order. Club embroidered 60mm dia. sew on badges. Ideal for your driving overalls at \$10.00

Contact Hugh Martin; **Phone (09) 536 4544**

*Hayden Purdy*

Editor