



NERG NEWS

Incorporated 1985 in Victoria
Reg No A0006776V - <http://nerg.asn.au>

OCTOBER 2004

NERG Inc.
PO Box 270
Greensborough
Victoria 3088

WHAT'S ON THIS MONTH?

Dr. Lindsay Martin has kindly accepted the invitation to speak at the October meeting on the function of ARPANSA and perhaps talk a little on their role in defining EMR limits for amateurs.

The **Australian Radiation Protection and Nuclear Safety Agency**, as part of the Health and Ageing Portfolio, is a Federal Government agency charged with responsibility for protecting the health and safety of people, and the environment, from the harmful effects of ionizing and non-ionizing radiation. While ARPANSA is sometimes associated with radio-active isotopes and nuclear reactors, they also regulate such things as standards for sun block cream and sunglasses, as well as the safety aspects of electromagnetic radiation (which amateurs should all be aware of by now !!). They also provide a range of monitoring, scientific, and calibration services at the labs located in Yallambie.

As our guest, we do not wish to get Lindsay embroiled in any politically controversial discussion - keep that for the polling booths! :-)

The ARPANSA web site is interesting and worth a visit if you have not been there already: <http://www.arpansa.gov.au>

Don, VK3KDT

As usual, NERG welcomes visitors. Hot drinks and bickies will be available for a gold coin donation.

TUESDAY MORNING TEA GROUP

The NERG morning tea group meet at the home of Greg VK3VT where a feast was served. Greg provided the usual eats then cooked a seafood noodle dish with his own hands, unbelievable!

An extremely good discussion was participated in, ranging over numerous topics, some even amateur radio related. Those present were Ernie VK3CEW, Alan VK3JPK, John VK3ZRV, Gerhard VK3EWM and Jim VK3DBQ. Dave VK3JMB sent an apology because other commitments and Steve VK3JSE was still unwell and Ian VK3BGE was away.

The next meetings will be on Tuesday 26th October at the QTH of Jim VK3DBQ and on 23rd November at Gerhard's.

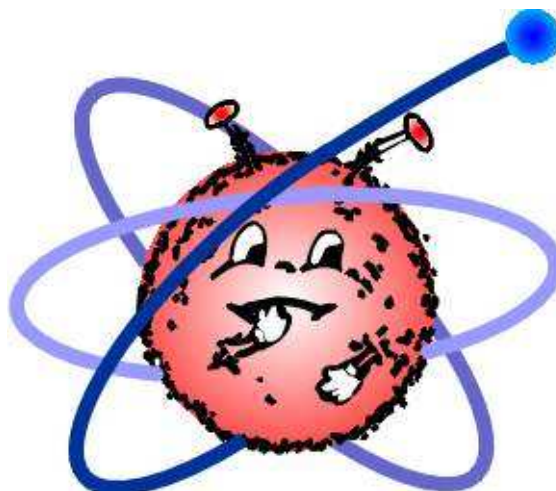
All welcome - give a call on 146.575 MHz or phone on 9432 0565 and let us know you will be coming. 73, Jim, VK3DBQ (p.s. Steve was recently heard back on deck with a 5x9 signal)

MICROWAVE WARNING

This sign was seen at a microwave site:

**DO NOT LOOK INTO WAVEGUIDE
WITH REMAINING GOOD EYE**

7.45 pm, Thursday
14th October 2004
Briar Hill Primary School
Lindsay Martin
on the role of
ARPANSA



Two Hydrogen atoms in a bar:
H Atom #1: "Oh, no! I've lost an electron."
H Atom #2: "Are you sure?"
H Atom #1: "YES! I'm positive!"

SWITCH MODE POWER SUPPLY OFFER

Many of you will be aware that a batch of 40 amp 13.8 Volt Switch Mode Power supplies were snapped up by amateurs last month. For those of you who missed out or didn't hear about the offer via the 70cm grapevine (VK3RSE), Steve VK3TAS has been talking to RPG and is organising another bulk purchase.

For more information on the supplies, have a look at this page:

<<http://www.radioparts.com.au/ProdView.aspx?popup=1&Product=33771602>>

If interested, NERGs can get in touch with David, VK3THY, or contact Steve via E-mail at vk3tas @ hotmail . com . Prices are expected to be under \$170.00 including GST.

NERG PACKET

Did I mention the two nodes on VK3CNE are now operational?

Log into VK3CNE-1 for the normal mail etc.
Connect to the DX Cluster on the VK3CNE-7 node.
Both are on 144.700 MHz.

FRIDAY NIGHT FOX HUNTS

The VK3BLN team is the fox for Friday 15th of October.

AUST. RADIO ORIENTEERING CHAMPS

The Australian Radio Orienteering Championships were this year run over two days on adjoining maps out in the bush past Malmsbury (thanks to CHOC for use of the Glenlyon Roses and Kookaburra Rises maps).

Despite some lame excuses, those who showed on both days were treated to marvellous running weather on some hilly but reasonably clear terrain.

Placings for Saturday 80m HF:
1st Bryan Ackerly 6TX 1:35:38
2nd Ewen Templeton 6TX 2:11:52
3rd Tony Landon 5TX 1:56:12
Setter Bruce Paterson

Placings for Sunday 2m VHF Runners:
1st Bryan Ackerly 6TX 1:27:22
2nd Bruce Paterson 6TX 1:35:21
3rd Mike Hubbert 4TX 2:11:55

Placings for Sunday 2m VHF PWalkers:
1st Tony Langdon 6TX 2:27:28
2nd Greg Williams 3TX 2:22:45

from Bruce VK3TJN

BATTERY CHARGER WARNING

Last month I mentioned a few methods for killing lead-acid batteries. Since then I've been looking at the range of cheap chargers and generator sets available from various hardware and discount automotive shops around town.

While it's recommended to keep lead-acid batteries fully charged, purchasing a cheap and nasty charger for float charging could cause more trouble than you'd expect. A \$20 charger could seriously damage your new SLA battery. Several cheap models contain not much more than a transformer, a full wave rectifier, and a voltage indicator (or meter). Many don't include voltage regulators or any form of timer or cutout. Most put out more than 14.4 Volts at up to 3 Amp, which is fine for charging a flat car battery overnight, but could damage batteries if left permanently connected as a standby/float charger.

Many petrol generator sets these days have a 14.4 Volt output for charging batteries. Again no timers or cutoffs, so be wary of leaving your battery hooked up for the entire duration of a 24-hour field day!

Not only is 14.4 Volts too high for float charging but also there appears to be very little in the way of filter capacitors in either the mains powered chargers or the petrol generators sets. Trickle charging with an unfiltered voltage is known to reduce battery life if the battery is also powering a load such as a radio.

There are some more sophisticated chargers that at least provide a switch for fast and trickle charge modes. These are likely to be much kinder to the battery and avoid overcharging. Even so, it may be necessary to consult the manufacturer to make sure they suit your particular application.

If you are willing to pay more than \$80 then there are several fully Automatic chargers to choose from. These are designed to switch from fast charge to trickle charge when the battery reaches a certain voltage. Be careful to check the trickle charge current though as some are far too low to keep up with the self-discharge rates of large batteries. One of the models reviewed had a trickle charge of only 20 mA whereas a typical 150 Ah battery may need more than 125 mA to keep it topped up during hot weather.

Mark vk3byy

USING NERG EMAIL

All NERG members can apply for an email account on the NERG web server. Your address will be something like vk3??@nerg.asn.au. Greg recently put instructions onto our NERG Web site on how to use the email system. You can have it forward email to another account, download it to your usual email client, or access it via any web browser from anywhere in the world. 3XXX even used it from the top of Mt Macedon during a field day!

For instructions: <http://www.nerg.asn.au/emailhelp.htm>
Give Greg a call if you'd like an account set up - it's free*!

WEB SITES OF THE MONTH

This month John has tracked down a number of web sites with useful information and circuits for lead acid battery charges and power supplies in general. These web sites will provide plenty of ideas for homebrew chargers so you can keep batteries charged for WICEN activities and the summer series of field days.

<http://www.discovercircuits.com/B/batt-chnrg.htm>
<http://www.aaroncake.net/circuits/charger1.htm>
http://www.electronic-circuits-diagrams.com/powersupplies_circuits.shtml
<http://www.mitedu.freemove.co.uk/Circuits/>
http://electronic-components.globalspec.com/directory/Electrical_Electronic_Components/Batteries/Battery_Chargers

Web sites and links supplied by John VK3BIZ.

IEC TURNS 100

The International Electrotechnical Commission (IEC) was first proposed 100 years ago in 1904, and held its first meeting in 1906. Perhaps best known to the public by the IEC 3-pin "kettle" power plug (as found on the back of every desktop computer), the IEC has a much wider influence in all aspects of electricity and electronics as an international standards organisation.

Back in 1903 electricity was still in its infancy - Incandescent lamps were beginning to illuminate streets and homes, offices and laboratories. Telephones were connecting households, telegraphs connecting cities, and transoceanic cables connecting continents. It was then, in Niagara Falls which was the centre of electrical production in North America with its Hydro power stations, that planning began for the first week long International Electrical Congress. The Congress, to take place in 1904, would set the stage for a permanent International Commission on Electricity.

Earlier international electrical congresses beginning in Paris in 1881 had already started the dialogue on nomenclature and standardization, where the centimeter-gramme-second (CGS) system was adopted. Although the terminology of kilowatt had replaced horsepower, no two countries had yet defined units in the same way.

It was at the 1904 congress that it became clear that more work was needed to standardise both electrical units and the laws regarding electricity. The congress delegates met and, with one resolution, took the first official action toward a permanent international congress.

Later Elihu Thomson, IEC Congress President and founder of the General Electric Corporation, said, "I have found that the unanimity of action, the absence of any disagreement whatsoever has been remarkable. As soon as a measure was known to be a proper thing, all votes were unanimous and this bodes well for future work of the International Commission." In 1908, Elihu Thomson would become the IEC's second President, following the death of first president Lord Kelvin.

The IEC has gone on to set standards which are today followed around the world and continue to evolve. If there is something produced by the electronic industry then you can bet there is an IEC standard or two (dozen) behind it!

Adapted from the Standards Australia newsletter.

Full story: www.standards.org.au/NEWSROOM/TGS/2004-10

MORE ON BPL

- Broadband Power Line technology is finding more applications in America. The company Corridor Systems has proposed ways of extending mobile phone coverage by placing lots of mini-mobilephone bases on power poles and even hanging them off the wires mid-span. Naturally they are powered from the power line but Corridor plans to link them back to the phone network using BPL signals sent over the same power lines.
- In another Corridor labs proposal, single power line conductors are used to carry high speed data on carriers in the GHz region. The cable is used as a single wire transmission line at microwave frequencies (I always thought a single wire transmission line was called an antenna! Ed.). Apparently the ARRL is not as opposed to this proposal as it is to most other BPL proposals because this application only uses frequencies in the ISM (Industrial, Scientific, Medical) bands of 2.4 and 5 GHz, both outside the amateur bands.
- Japanese researchers have discovered that BPL systems can cause interference right through the VHF spectrum. As expected, power lines often contain non-linearities (such as bad joints acting as rectifiers) that cause high order harmonics of the 2-30MHz BPL signals to be generated. Researchers were able to detect harmonics up to 340MHz at significant levels within 55 meters of the power lines. Since many TV and radio antennas are much closer than this to power lines it's likely that BPL systems could cause significant interference to TV and FM broadcast reception., not to mention two-way radio services in the VHF bands.

BARG HAMVENTION - SUN 7TH NOV.



The annual Ballarat Amateur Radio Group hamvention is on again this Sunday 7th November 2004.

Located at the Ballarat Showgrounds Wool Pavilion (enter off White Ave via Creswick Rd and Howitt St), this event offers a wide range of new and used amateur "stuff".

Starts 10am. \$6 entry (under 15's free). Free tea/coffee. Light lunch available. Sellers: \$15/trestle including 1 entry, 8am.

Enquiries Ian VK3AXH, 03 5341-3012, vk3bml@barg.org.au or see web site for directions: <http://www.barg.org.au/>

JOTA TIME - 16-17 OCT.

The 47th annual Jamboree on the Air will be held on 16-17 October putting members of both the scouting and guides movements on the amateur bands.

Australia's Governor General, Major-General Michael Jeffery in his role as Chief Scout, will broadcast a special message via amateur radio on Saturday 16 October at 1 pm AEST.

There is expected to be an increase this year in the use by JOTA stations of IRLP and ECHOLINK that will certainly provide contacts particularly when HF propagation is not good.

Get more on JOTA & JOTI (Jamboree on the Internet) at the Scouts Radio and Electronics Service Unit (SRESU): <http://www.sresu.asn.au/> (news from www.wiavic.org.au)

CAN ANYONE HELP?

Hi there,

I'm Group Leader of Mooroolbark Scouts, the Scout Group with which Mark VK3LI was associated with before he moved to Portland. Mark and other members of your group assisted us in running the radio setup for the last Scouts' Jamboree on the Air (JOTA) at Narbethong in October last year.

Mark suggested I contact your Group to ask if any of your members be interested in helping us again this year? Our base will be at our Scout Hall in Mooroolbark this year, rather than Narbethong, on the weekend of 15th to 17th of October.

If any of your members are interested in helping, you can get in touch with me on rob_lowe@acslink.net.au

Thanks, Rob Lowe

ARDF EVENTS CALENDAR

- Oct 13th Wednesday night Street-O, Dingley Village Night series, start: Pethybridge Close Dingley Village, Melways: 88 F6
- Oct 31st Sunday Fox-oring combined with MicrO Championships, Mark Diggins VK3JMD
- Nov 14th Sunday - ARDF/Fox-oring combined with MicrO Relays Darebin Parklands, Bryan Ackerly VK3YNG
- Late November End of year social gathering, meal and results presentations, Adam Scammell VK3YDF

ARDF links: <http://www.ardf.org.au>

Enquiries: Victorian ARDF Group, Bruce 9888 7509

2004 EVENTS

- Oct 9-10 Oceania DX Contest - CW
- Oct 8-11 World Wide YL Meet hosted by the Korea Ladies' Amateur Radio Club in Seoul, Korea. Info: Chae Do Sook HL2KDW hl2kdw@hotmail.com
- Oct 9/10 Oceania DX CW (VK-ZL)
- Oct 11/09 EU Sprint contest CW
- Oct 19/17 RSGB 21/28 MHz contest CW
- Oct 16/17 WAG (German) contest
- Oct 16-17 Jamboree on the Air (JOTA)
- Oct 19/17 Asia Pacific Sprint
- Oct 30/31 CQ World wide DX contest SSB
- Nov 7 BARG Hamvention - Ballarat
- Nov 13 VHF/UHF Spring Field Day (CW/Phone)
- Nov 27/28 CQ World wide DX contest CW rules
- Nov 27-28 Kona 24hr Mountain Bike Race, Redesdale WICEN event coordinator: Gordon VK3FGC ph:5339 2427, Gordon.cornell@bigpond.com 3 checkpoints & net control. www.fullgaspromotions.com.au/24hour.html
- Dec 26 Ross Hull Memorial VHF Contest (runs until January 10, 2005)

For more international contests see: www.arrl.org/contests

Dates should always be independently confirmed.

Collected from AR magazine, WIA, VKham website, Vic ARDF Group,

ARRL & NERG. For more info see:

<http://www.vkham.com/contest>,

<http://www.wia.org.au>,

<http://www.arrl.org/contests>

The NERG Inc. RegNo A0006776V <http://nerg.asn.au>

The North Eastern Radio Group, Inc. is an amateur radio club devoted to encouraging members and others to enjoy the hobby of amateur radio. It tries not to hang on ceremony and endless reporting but rather participate in the fun aspects of this fascinating hobby.

Membership Fees (due each August):

Full: \$30 Family: \$40 Concession: \$20

Send to: NERG Treasurer, PO box 270, Greensborough, Vic., 3088

Committee

President	Greg Williams	VK3VT	9432 0563
Secretary	John Weir	VK3ZRV	9431 0667
Treasurer	Marg Baxter	VK3VOJ	9467 1253
Committee	Betsy King	VK3HBK	
	David Aston	VK3THY	
	Peter Cosway	VK3DU	9379 3626
	Don Haslam	VK3KDT	0409 024597
Repeaters	Mark Harrison	VK3BYY	9435 3043

Meetings

2nd Thursday of each month at 7.45 PM (excepting Dec. & Jan.)
Briar Hill Primary School, Gladstone Rd, Briar Hill (off Sherbourne)
(Melway map ref 21-B1)

Classes

NERG occasionally runs classes and exams for Amateur license candidates.

Callsigns and Repeaters (25km North East of Melbourne)

Club call - VK3CNE <http://www.qsl.net/vk3cne>

6m rpt VK3RMH FM 52.550 MHz in 53.550 MHz out

70cm rpt VK3RMH FM 433.325 MHz in 438.325 MHz out

IRLP node 6350, EchoLink node 140587

6m beacon VK3RMH CW 10 Watts 50.295 MHz -Off air

10m bec'n VK3RMH CW 20Watts 28.2565 MHz

Occasionally home to the Scout Radio & Electronics Group repeater:

2m VK3RSR FM 146.375 MHz in 146.975 MHz out

NETS

NERG NETS run on 146.575 MHz FM Simplex (8.30 - 9.30 pm Thursdays). Please join the discussions. NERGs often monitor this frequency and the 70cm VK3RMH repeater.

WEB Sites: <http://nerg.asn.au> and <http://www.qsl.net/vk3rmh>

NERG NEWS submissions and comments invited:

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NERG

North-East Radio Group VK3CNE

NERG Incorporated 1985
BOX 270 GREENSBOROUGH VIC 3088

STAMP

NEXT MEETING:

7:30 PM Thursday 14th October 2004 – Inside ARPANSA - Lindsey Martin

2004 CALENDAR (NERG ACTIVITIES IN BOLD)

Oct 14	NERG MEETING – The role of ARPANSA - Briar Hill Primary School 8pm
Oct 15	Melbourne Friday Night Two Metre Fox hunt - 8pm – Venue to be announced
Oct 16-17	Jamboree on the air (JOTA) - volunteers requested to help out the Mooroolbark Scouts
Oct 26	NERG Tuesday All-Day Morning Tea meeting at VK3DBQ's QTH
Nov 7	BARG Hamvention - Ballarat Showgrounds, Wool Pavilion. Sunday, 10 am
Nov 11	NERG MEETING – Mountain Top portable with VK3JNH - Briar Hill Primary School 8 pm
Nov 13	VHF/UHF Spring Field Day (CW/Phone)
Nov 23	NERG Tuesday All-Day Morning Tea meeting at VK3EWM's QTH
Dec 9	NERG End of year BBQ