



OCTOBER 2007

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WHAT'S ON IN OCTOBER

We are very fortunate to have Drew Diamond VK3XU as our guest speaker at the October NERG meeting. Those of you that read Amateur Radio magazine will know Drew as a prolific home brewer, having published articles on all manner of amateur radio projects. His projects are always well thought out, easy to reproduce, useful, and affordable. What's more, Drew's circuit diagrams and layouts are works of art and always contain useful component identification and construction notes (see example opposite). Drew's projects often use the quick and easy "paddy-board" construction, which he will demonstrate at the meeting. He is also bringing examples of his work that have recently appeared in AR magazine, along with a balanced pi coupler (antenna couplers are always topical!) and demonstrate a method of making air-spaced coupler coils

73, Mark Harrison,
VK3BYY, NERG NEWS Editor

NEXT MEETING: The next meeting is scheduled for Thursday 8th November 2007, 7:45pm, Briar Hill Community Hall, 126 Mountain View Rd, Briar Hill, Melways 21 C3.

DEJA VU - THE SEPTEMBER MEETING

NERGs showed a great deal of interest in last month's guest speaker Rod McCauley who spoke about state of the art domestic and small solar power generation systems. He also talked about a new style of evacuated tube solar hot water system that produces more hot water with fewer problems.

If you have further questions about going solar, contact Rod McCauley, accredited photovoltaics installer, at RJM Sunpower, Greensborough, phone 9435-6376

COFFEE SHOP SESSIONS

Last month's coffee shop session was a more relaxed affair, generally sitting around discussing a few questions posed by one of our standard call candidates. Issues such as the use of baluns for dipoles and the search for a coherent description of impedance (versus resistance) were discussed. All at the meeting gained some new knowledge.

Peter VK3DU bought along a troublesome electronic keyer that he'd built. A minor circuit fault was soon tracked down with the use of the club's oscilloscope. Look for Peter in the CW-DXCC listing fairly shortly now that he'll be able to send Morse at 100 words per minute :-)

The next coffee shop night will be a special WANSARC-NERG inter-club night on 25th October at NERG hall.

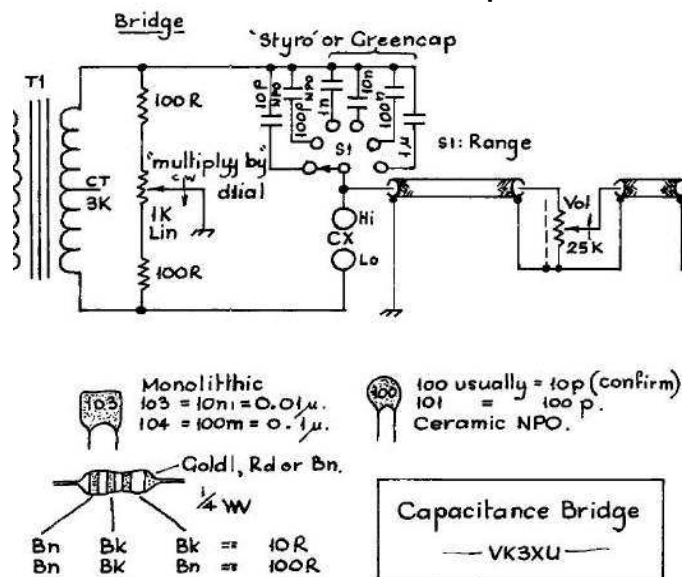
Don't miss it! Details later in this issue.

NERG NEWS

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Affiliated with the Wireless Institute of Australia

OCTOBER 2007
NEXT MEETING

7:45PM Thursday 11th October
DREW DIAMOND, VK3XU
on Paddy board construction techniques, antenna couplers, and other homebrew tips



And don't miss the next Coffee Shop night:
Thursday 25th Oct. ~8pm
WANSARC - NERG
Social Gathering
with a friendly members only
junk & small items swap meet



Time to renovate your shack? You never know what goodies you'll find at the NERG-WANSARC get together!

SOLAR NOTES

Rod McCauley's talk last month produced some interesting facts about solar power and hot water

For instance, **Enough solar energy hits Australia in one summer's day to power the whole world for half a year.**

That's about 1 kilowatt per square metre, with an average of 4.8 hours of usable sunlight per day in Melbourne (for a fixed solar array - more for a tracking system).

The optimum angle for a solar panel is about 60 degrees in Melbourne (optimised for maximum output in winter, at the expense of some loss in efficiency during the summer).

Most small solar power systems still use fixed photovoltaic panels using amorphous silicon cells. Just a decade ago solar power was only viable where connection to the mains power grid was not possible. In these applications solar panels were connected directly to a low voltage battery bank that stored power for when the sun didn't shine. It was common to use shunt regulators to prevent damage to batteries, however they have since been outlawed in Europe as they have been found to damage solar cells. An inverter was often used to convert the low battery voltage (typically 12 to 48 Volts) up to 240 Vac to run household appliances.

In recent years there has been an increase in grid-connected solar systems. In these systems the battery bank is dispensed with and all solar power is fed straight into the power grid. Several panels are connected in series for an output voltage of 300-400 Vdc. Power for local home use is taken from the power grid as normal, but with the cost of electricity being offset by the solar power sold to the grid. The power grid in effect becomes the storage and backup supply.

Rod also showed the latest developments in Solar Hot Water. Falling costs and government subsidies, together with improved efficiencies in collectors, are likely to make solar hot water systems a lot more appealing to the average home owner. Large roof mounted hot water tanks are giving way to smart ground level hot water services that are heated by light weight and efficient evacuated tube collectors on the roof. This Australian invention is so efficient that it can heat water even on cold, overcast days. A gas booster provides additional heating on the odd occasion when extra hot water is needed or when the weather is particularly bad.

Further information: Rod McCauley, accredited photovoltaics installer, RJM Sunpower, Greensborough, phone 9435-6376

THE GAINFULLY UNEMPLOYED GROUP

The September get together was held Tuesday, 25 September, at the QTH of Gerhard VK3EWM.

Those present were John VK3ZRV, Dave VK3JMB, Ernie VK3FM, Jim VK3KE, George VK3MKK, Ian VK3XIJ and Gerhard VK3EWM. Greg VK3VT sent his apologies, he and XYL Denise being otherwise occupied somewhere in outback Australia. Steve VK3JSE had a medical appointment that precluded his attending, but did pop in for a few minutes to say hello to the assembly.

We also had the pleasure for much of the day in having Gerhard's XYL Barbara join us at the table when food preparation and grand-daughter minding duties allowed, as did Christine, Gerhard and Barbara's daughter. And, not forgetting Christine's baby Natalya, who spent much of her time on the lounge room floor totally immersed in her surroundings.

A lovely selection of fresh bread rolls, meats and cheeses were presented, followed by pumpkin soup and the finale, waffles, sprinkled with castor sugar, to which copious quantities of whipped cream could be added, ensured no one left other than

extremely satisfied. Thanks to Barbara, again, for the table presented.

Discussion was of the usual nonsensical type, to which everyone contributed from time to time - so much so that in all too brief a period, it was time to head for the home QTH.

The next meeting of the group will be at the QTH of Jim VK3KE, on Tuesday, 23 October, at 10.00 am, where all NERGS are very welcome.

Regards - Ernie Walls VK3FM
vk3fm @ wallsy. com. au

Listen out on the NERG chat channel of 146.575 MHz during the day for directions and for the latest rare DX spots.

SOCIAL GET TOGETHER WITH JUNK SWAP & SMALL SALE NIGHT FOR WANSARC & NERG MEMBERS 7:30PM THURSDAY 25TH OCTOBER

NERGs and our friends at WANSARC (Western and Northern Suburbs ARC) are holding a combined "JUNK SWAP AND SMALL SALE NIGHT" for club members at the NERG clubrooms, 126 Mountain View Road Briar Hill on Thursday October 25 (our usual coffee shop night).

This is to be a fun night to promoting interaction between the two clubs - it is not a public hamfest, or even a quasi hamfest, however transactions of new and old radio items are encouraged, although in the main, of small financial value.

Graham from G&C Communications will be in attendance with a few tables full of desirable goodies and may give a short talk on what's new. Credit card facilities will be available!

Start time is nominally 8.00pm with the hall opening around 7.30 for early birds (first to the coffee etc.)

Members of both clubs are encouraged to join in, and bring along a few items for swapping or sale.

Don Haslam VK3KDT, mobile 0409 024 597

A BUSY TIME AHEAD FOR WICEN



The Wireless Institute Civil Emergency Network has several important exercises coming up soon. In addition to providing communications for various community groups these events are good practice leading up to the summer bush fire season and general readiness for unexpected disasters.

Saturday 6 Oct 2007: Mini Marathon Canoe event in Echuca. Preparation for the Red Cross Canoe Marathon held on the Murray each Christmas.



Saturday & Sunday 10/11 Nov 2007:

Melbourne Car Rally in the Narbethong area.

Using 6 meters. Contact me if anyone would like to attend.

Saturday & Sunday 24/25 Nov 2007: Car Rally in Gippsland area. Voice on 2mtrs, 70cm, and Packet. Any one interested to contact me for details.

December 26-31: Red Cross Murray River Marathon. HF, 2 meters, etc. Anyone interested contact me for details.

For further details contact John Weir VK3ZRV on 9431 0667

The good thing about SSB is that you are only half as offensive as you were on AM!

BALLARAT HAMVENTION

10 am Sunday 4 November. The Ballarat Hamvention will be held at the Great Southern Woolshed located on the Western Highway on the Melbourne Side of Ballarat.

General entry is from 10am with entry tickets being presold to avoid the rush when the doors open. The entry fee is \$6 per person with free entry to persons under 15 years of age.

JOTA 2007

Jamboree On The Air is an annual event where scouts, guides and venturers communicate with one another via radio (and in recent years, also via the Internet).

NERG will participate this year by opening the hall for a few hours and run an amateur station for one of our local scout groups.

Volunteers will be required to assist in operating the station, as well as introducing amateur radio to the scouts.

JOTA takes place over the weekend of 21-22 October.

WIA MODIFIES BAND PLANS FOR D-STAR

The WIA's National Technical Advisory Committee (NTAC) has been considering how to accommodate narrow band digital technologies, such as D-Star, in the band plans.

The NTAC Chairman, John Martin VK3KWA has advised that NTAC's conclusions with revised band plans are now on the WIA website. Key D-Star simplex allocations are:

2m: 145.125MHz (National)

70cm: 438.900MHz (National), 438.8875MHz, 438.9125MHz

23cm: 1298.1MHz, 1298.3MHz ... 1299.9MHz (200 kHz)

2-metres:

NTAC has recommended the 144.700-145.200 MHz segment as the best area for simplex digital, with **145.125 MHz** as the national D-Star simplex digital channel. The space shuttle frequency on 144.950 should be kept clear of all terrestrial operation. D-Star should also stay clear of National APRS and WICEN packet frequencies 145.175 & 145.200 MHz respectively.

D-Star repeaters will be squeezed in between existing FM repeaters on 12.5 kHz offsets from 146.3875 - 146.9875 MHz. Inter-leaving analog and digital repeaters in the 2 metre band will increase spectrum efficiency, making up for the shortage of available channels in some parts of Australia and so allowing uniform arrangements across the country.

70 cm:

NTAC has recommended that simplex digital activity on 70cm be centred on a national channel of **438.900 MHz**, with secondary channels 12.5 KHz either side of the national channel (ie **438.9125 & 438.8875 MHz**)

NTAC has recommended that the first fifteen repeater channels, from 438.025 to 438.375 MHz, be used for D-Star type activity. Digital (D-Star) repeaters will use a 5.4 MHz offset, which will keep input frequencies below the troublesome LIPD band.

23cm:

On the 23cm band there is already a digital simplex segment between 1297 and 1300 MHz. As D-Star on this band mainly uses a 128 KHz emission bandwidth for high speed data, it is suggested that channels are spaced at 200 KHz intervals, beginning at **1298.1 MHz**. Narrow band (25kHz) D-Star could run elsewhere in this segment.

For the 23cm band, NTAC has recommended that repeater channels be assigned in the high end of the 1293 to 1294 MHz repeater segment with 200kHz spacings and 20 MHz offsets.

NTAC will review these arrangements as D-Star and other digital activity develops.

D-STAR - ARE WE LOOSING THE AMATEUR OUT OF AMATEUR RADIO ?

While amateurs are quite rightly embracing the new world of digital voice transmission, the D-STAR voice standard degrades our freedom as amateurs to freely use this new technology.

Why? Because D-Star relies on a piece of proprietary technology to digitally compress and uncompress voice signals. The AMBE CODEC, as it is known, is owned by DVS Inc. How AMBE operates exactly is a very closely guarded secret. It is this piece of closed technology which prevents amateurs from implementing work-a-like CODECs in homebrew equipment or in computer programs.

US-Australian laws now make it illegal to reverse-engineer the CODEC, and DVS have said they won't allow PC-based software to emulate an AMBE CODEC. So it's unlikely we'll see software voice decodes to listen to D-STAR or APCO-25 (a popular emergency services radio standard).

The only options available if you want to use an AMBE CODEC is to buy a commercial radio or adaptor fitted with D-STAR, or to purchase a custom chip from DVS Inc. to build into a home brew radio. Commercial licenses to access the technology are available but the price is well out of reach for the average amateur.

Perhaps this is the first time amateurs have had to pay a licence fee in one form or another to use an otherwise free standard?

Although the AMBE CODEC is regarded as a very good CODEC, it is a pity that the Japan Amateur Radio League did not provide an option to use alternative public domain CODECs that could be freely implemented by all amateurs when they wrote the D-Star standard.

P.S. Several home brew projects have been published for D-STAR adapters, all using DVS Inc chips. The AMBE2020 is available from DVS Inc for \$20US in quantities 1-249. See their web site for details at: www.dvsinc.com

A typical digital voice adapter requires an AMBE2020 chip, an audio ADC/DAC for voice signals, a control processor, a Digital Signal Processor, and another ADC/DAC to interface to the radio.

Mark Harrison VK3BYY

D-STAR REPEATERS FOR MELBOURNE

VK3RWN is tipped to soon be the first D-STAR repeater servicing Melbourne from Olinda on Mount Dandenong. It will have ports 2m, 70cm and 23cm, and be linked through the internet to a world wide network of D-Star repeaters. The repeater was donated by ICOM, with another for VK3RMM on Mount Macedon. The Macedon repeater will run in parallel with the existing voice repeaters, but on other frequencies.

WORKED GEORGE AWARD

In a light hearted incentive to get more NERG's on the air, Peter VK3TBN is issuing the "Worked George" certificate to anyone that holds a two way QSO with George VK3MKK.

No QSL numbers or cards are required - just turn up at a NERG meeting and tell Peter when the QSO occurred.

George is often listening on the NERG NET frequency 146.575MHz FM simplex so give him a call!

If you spoke for a few more seconds you would have qualified for a broadcasting licence!

**RECOMMENDED
EMERGENCY
EQUIPMENT LIST**

Are you ready for an emergency?
The following is the list of equipment is recommended by WICEN's South Australian branch for a fully equipped emergency station - home or portable. It's also a good check list for field days:

Communications Equipment

- 2 Metre FM transceiver
- 70cm FM transceiver
- 2 Metre/70cm Mobile
- 2 Metre/70cm handheld
- (Other bands if required)

- Nicad battery Packs
- Nicad battery charger
- Microphones
- HF transceiver
- Headphones or headsets
- A.T.U. & S.W.R Bridge
- Morse key

Cables and fittings

- Coax cables, Joiners, Tees, etc
- BNC-PL259-N adaptors
- Extension cords
- Double adaptors or power board
- Extension speaker
- DC power leads to suite radios
- Cig lighter adaptor for DC leads
- Bulldog clip adaptor for DC leads

Antennas

- Quick rig mast (4-9 metres)
- 2 Metre / 70cm Yagi
- 2 Metre J-Pole / Slim Jim
- 2 Metre / 70cm mobile antenna
- 80/40/20 metre dipoles
- 80/40/30/20 metre vertical
- 80/40/30/20 metre mobile
- Guy wires / ropes
- Nylon cord & weight

Operating position

- Pens, pencils, eraser
- Note pads, Logbook
- 12V Fluoro or LED desk light
- Watch/clock

Tool Kit

- PVC tape
- Assorted screw drivers
- Pliers
- Shifter (Large & Small)
- Set of Open End/Ring Spanners
- Set Socket Spanners
- Wire cutters
- Assorted nuts & bolts
- MultiMeter and leads
- Knife , Hacksaw
- Hammer, Tomahawk
- 12V or Gas soldering iron
- 240-volt soldering iron
- Solder
- Assorted wire lengths
- Spare fuses (radios)
- More PVC tape

Vehicle

- Spare fuses (vehicle)
- Jumper Leads
- Tow-rope
- Fan belts for vehicle
- Jack & Wheel Brace
- Wet-start spray

- Spare fuel for vehicle/generator
- Petrol Siphon
- Radiator Coolant
- Folding Shovel

Personal comfort and supplies

- Table & Chair/s
- Flashlight & batteries
- AM broadcast receiver
- FIRST-AID Kit
- Spare Clothes
- Warm/Cool Weather clothes, H-D Boots
- Jacket, Gloves & Hat
- Sunglasses, Sunscreen
- Insect Spray
- Sleeping Bag or Blankets & Tent
- Toiletries
- Cup/Plate/Utensils
- Thermos
- Water
- Chocolate/Dry Biscuits
- Tinned Milk/Tinned Food etc.
- Cooking Appliance (gas stove)
- Small change for Phone
- Licences (Amateur & Driving)

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Ph 03 5996 3298 Fax 03 5995 0184

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www.gccomm.com.au

ANOTHER SIMPLE 2 METRE ANTENNA

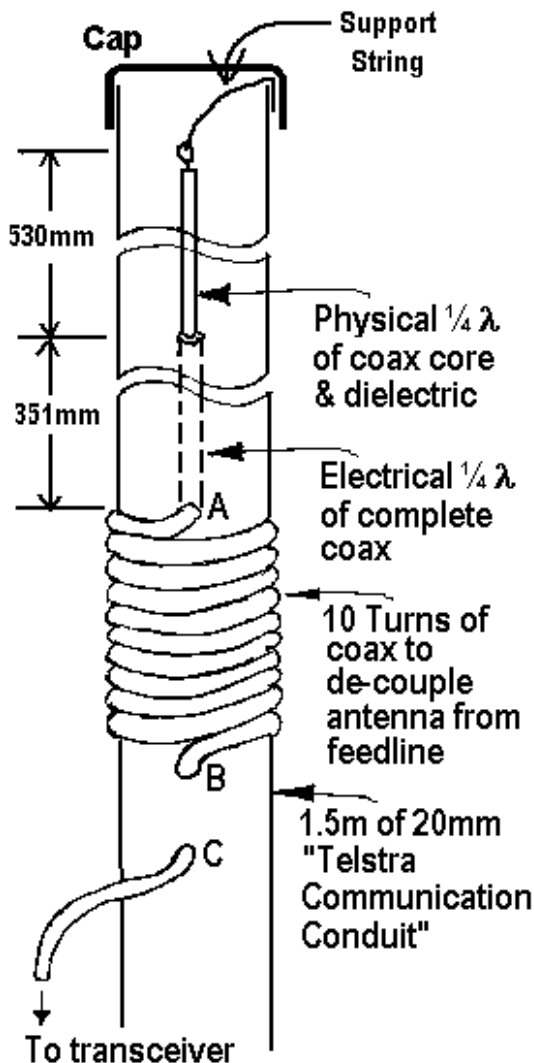
The following antenna is extremely simple to make and performs well both in fixed and portable situations.

This antenna is essentially a half wave dipole and has a gain similar to other half wave antennas such as the J-pole antenna described last month. This one is shorter than a J-pole since it doesn't require the quarter wave matching section at the base, and doesn't use ribbon cable, which is becoming hard to find. Both antennas are "ground independent" so there is no need for messy radials. Perhaps it's only drawback is that it doesn't work too well on 70cm.

At least two sets of dimensions have been published in WICEN newsletters over the years.

The original article (Feb 1990) had the top ¼ wave wire as 510mm, and the lower ¼ wave coax section as 335mm. These lengths are the free space quarter wave length for the top section (i.e. $L_t = 1/4 * (300/147)$), and an electrical quarter wave for the coax (accounting for the velocity factor in the coax, i.e. $L_l = 1/4 * (300/147) * 0.66$).

After much experimentation, Mark Dods, VK3XMU, found in a later WICEN article that these sections should be somewhat longer for lowest SWR across the range 144 - 148 MHz. His optimised dimensions are shown below, along with adapted construction notes:



This antenna is constructed from solid dielectric RG58 coax (Not foam!), and a length of 20mm "Telstra Communication Conduit" (Earlier designs used standard 25mm electrical conduit with 9 turns of coax. Smaller conduit can be used - just add a few extra turns to the coil).

The radiating elements are housed inside the conduit as shown in the diagram, while the de-coupling coil is wound around the outside of the conduit itself.

The theoretical dimensions calculated for 146.000 MHz are:

$$\text{Wavelength} = 300 / 146\text{MHz} = 2.054\text{m} = 2054\text{mm}$$

$$\text{Freespace } 1/4 \text{ wavelength} = 2054 / 4 = 513\text{mm}$$

$$\begin{aligned} \text{Coax } 1/4 \text{ wavelength} &= \text{freespace } 1/4 \text{ wave} * \text{velocity factor} \\ &= 0.513 * 0.66 = 339\text{mm} \end{aligned}$$

Mark determined by experimentation that these lengths should be 3% and 4% longer respectively, making the recommended dimensions for 144-148 MHz:

* Core & Dielectric length: 530mm

* Complete Coax length: 351mm

The SWR readings for this antenna are shown below:

MHz :	144.0	145.0	146.0	146.25	146.5	146.75	147.0	147.975
SWR:	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.15

Construction Details:

1. Take a 1.5m length of conduit. Drill three holes (A, B & C on diagram). A is 900mm from the top, B is 955mm from the top, and C is 985mm from the top. The holes should be just big enough to accommodate the RG58 coax.
2. From a length of RG58 coax (minimum length is 2m) remove the sheath & braid leaving the centre conductor and dielectric for a length of 530mm.
3. Mark the point 351mm further along the coax (where the coil will start) with a non-black electrical tape or white marker pen.
4. Attach a piece of string (approx 300mm long) to the end of the exposed dielectric.
5. Insert the string into the bottom hole (C) in the conduit, feeding it towards the top of the conduit.
6. Using a hook made from coat hanger or similar, hook the string out through hole B.
7. Use the string to draw the coax out through hole B until you have about 1m of coax in addition to the antenna section hanging out.
8. Wrap the coax ten times around the conduit and insert the string into hole A.
9. Feed the antenna into hole A until the marker tape is right up to the hole.
10. Starting from hole A tighten the coil around the conduit and feed any excess coax back into hole B.
11. Secure the string hanging out of the top of the conduit by pulling it tight and clamping it under an end cap. (Conduit end caps are hard to obtain, but Clark Rubber sells rubber chair leg stopper that are a good tight fit over the end of the conduit. Seal with waterproof sealant.
12. Wrap good quality BLACK electricians tape over the coil and associated holes in the conduit to weather proof.

Variations:

- A. Don't drill hole C. Instead drill hole B right through the conduit and use the new hole opposite B as hole C, making it much easier to thread the string and coax straight through the conduit and out the other side.
- B. Don't drill hole C at all - just run the coax down the inside and out the bottom of the conduit.
- C. Instead of removing 530mm of jacket and braid from the top section, remove just a centimetre or two of braid. Then solder a length of heavy gauge wire to the coax centre conductor. The overall length from the end of the wire to the point where the jacket has been removed should be 531mm. Single strand 240V building wire works well.
- D. Cover the coil with heat shrink tubing instead of tape - it lasts longer in the weather. NEVER seal the bottom of the conduit.
- E. Tie a long string to the top of the conduit, ready for hauling up into a tree in an emergency.

2008 WIA CALLBOOKS AVAILABLE SHORTLY!

Get your orders in for the latest WIA Callbook!

Deliveries to clubs are expected later this month, and if we can get an initial order of 24 copies together then we'll get free delivery to the club! The price is expected to be around about \$25 - the exact price to be determined shortly.

The callbook is an essential companion to the Australian radio amateur, containing useful information such as:

- Listing of all current VK Callsigns
- WIA band plans
- Beacon, voice repeater, and packet node directory
- Contest dates and awards programs (including DXCC country list)
- QSL bureaux addresses
- Phonetic, Abbreviations, Codes and more!
- Radio and EMR regulations
- Operating procedures
- Club directory
- CD-ROM with computer programs for amateurs

Send your orders to contact nerg.asn.au or see John VK3ZRV

DON'T LOOSE YOUR CALLSIGN !

From Amateur Radio Victoria comes reports of amateurs loosing their callsigns. Licensees have an obligation to keep their amateur station licence current. In the past the ACMA practice was to hold expired callsigns for a time and re-issue the call to the previous holder upon re-application.

That is not the case now, as at least one previous two-letter callsign holder has discovered much to his annoyance. Apart from the new ACMA practice with two-letter suffixes, other callsigns that lapse due to failure to renew are immediately available for re-issue to anyone.

www.amateurradio.com.au/members/news/2007/10/1b.html

NERG MEMBERSHIP FEES DUE

NERG membership renewals have been going well however there are a few stragglers that we'll be contacting soon. In the mean time membership renewals can be paid at meetings or by post to: NERG Treasurer, PO box 270, Greensborough, Victoria, 3088.

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

Foundation students from the last 12 months need not worry as they receive 2007-2008 membership as part of the course fees!

WEB OF THE MONTH

AM class-D Transmitters

<http://users.tpg.com.au/ldbutler/MosfetLinear.htm>

<http://www.fluxfm.nl/schema/grenade.htm>

<http://www.vk2zay.net/article.php/123>

<http://home.alphalink.com.au/~parkerp/qrp/gear.htm>

<http://home.alphalink.com.au/~parkerp/qrp/links.htm>

John VK3BIZ supplied this list of interesting web sites for anyone interested in building AM transmitters for the lower amateur HF bands. Quite a bit of interest has been shown in resurrecting AM around Melbourne, partly because of the high audio quality (compared to SSB), and partly because homebrew transmitters can be built easily and cheaply.

If the difficulty of producing printed circuit boards has put you off in the past then don't worry - many of these designs use the 3-D paddy board (or rat's nest) construction method.

** NERG does not necessarily endorse or recommend web sites or software products mentioned in items in Web of the Month.*

SMILEY TURNS 25



This arrangement of three letters :-) had its 25th birthday last month. Users of email and bulletin boards will probably recognise this string as the "smiley". Some systems automatically convert it to a graphics symbol like this: ☺

The two original text smileys, :-) to indicate a joke and :-(to mark things that are not a joke were invented on September 19, 1982 by Scott E. Fahlman, a research professor at Carnegie Mellon University's Department of Computer Science. The reverse, or left-handed, smileys (-: have also gained popularity for being a way to avoid having text smileys converted to graphical representations in certain settings such as instant messaging programs.

Some other "emoticons" are:

- :) (Smiling)
- =) (Smiling)
- :D (Big smile)
- ;] (Winking)
- :] (Neutral Expression)
- :/ (Partial half smile)
- :((Frowning)
- :' (Crying)
- :-) (Smiley with nose)
- :o (Talking)
- *<:o) (party smile)
- :p (Poking his tongue out)

The smiley graphic (above) actually has a longer history attributed to Harvey Ball, who devised the face in 1963 for an insurance firm, long before email was invented.

SPUTNIK'S 25TH ANNIVERSARY



Sputnik 1 was launched on October 4, 1957. The satellite was 58 cm (about 23 in) in diameter and weighed approximately 83.6 kg (about 183 lb). Each of its elliptical orbits around the Earth took about 96 minutes. Monitoring of the satellite was done by Amateur radio operators.

The surprise launch of Sputnik 1, coupled with the spectacular failure of the United States' first two Project

Vanguard launch attempts, shocked the United States, which responded with a number of early satellite launches, including Explorer I, Project SCORE, and Courier 1B. The Sputnik crisis also led to the creation of the Advanced Research Projects Agency, DARPA and NASA, and to major increases in U.S. government spending on scientific research and education.

Ten years ago Sputnik 40, a 1/3-scale model amateur radio satellite, also called Sputnik PS2, Radio Sputnik 17 (RS-17) and Mini-Sputnik, was launched from the Mir space station on 3 November 1997 to commemorate the 40th anniversary of Sputnik 1. The spacecraft body resembled Sputnik 1 and was built by students at the Polytechnic Laboratory of Nalchik in Kabardino-Balkaria. The transmitter was built by students from Jules Reydellet College in Réunion, with technical support from AMSAT-France. Its batteries expired on 29 December 1997 and the VHF transmitter fell silent.

From the Wikipedia entry for SPUTNIK

Your transmitter must have a fault, there is smoke coming from my speaker!

FRIDAY NIGHT TRANSMITTER HUNT

Check the web for details of the next transmitter hunt at www.ardf.org.au

2007 ARDF/FOXHUNT CALENDAR

Events from the ARDF web site – check for updates and further details at www.ardf.org.au and www.melbfox.com.au

FoxHunt = Friday night or weekend daylight mobile hunt.

RadiO = a simplified direction finding competition usually held at an orienteering event.

Bush = Bush orienteering event.

Inter = International event.

Type	Date	Event	Map
Inter	Fri, 14,15 & 16 Sept.	Region 2 ARDF Championships	US Lake Tahoe
Inter	Sat, 6 Oct.	Oceania DX Contest	
Inter	Sat, 27 Oct.	CQ Worldwide Contest	
Bush	Sat, 27-28 Oct.	Rogaining Vic Champs	

2007 AMATEUR RADIO EVENTS

OCTOBER

6-7 Oct Oceania DX Contest SSB

13-14 Oct Oceania DX Contest CW

20+21 Oct - The 50th Jamboree On The Air (JOTA) involves 500,000 Scouts and Guides worldwide contacting each other.

NOVEMBER

17-18 Nov Spring VK-VHF/UHF field day (note new date!)

22 Sept Westlakes Cup

26 Dec - 2008 Ross Hull Memorial Contest

NOTE: please confirm details closer to the posted dates!

UTC dates may be used for International events.

Gathered from AR Vic, WIA, ARRL, various clubs, and the VK Contest Club (www.vkcc.com)

The logo for Di Riccardos features the word "di" in a lowercase, sans-serif font on an orange rectangular background, followed by "riccardos" in a lowercase, italicized, sans-serif font on a black rectangular background.

81 Main Road, Lower Plenty Ph: 9434 5793

- 
- A close-up photograph of a gourmet pasta dish, likely tortellini, served with a rich cream sauce, garnished with a slice of lemon and fresh strawberries. The background is a soft-focus white surface.
- ★ **Gourmet Pasta**
 - ★ **Traditional Italian dishes**
 - ★ **Relaxed and friendly atmosphere**
 - ★ **Comprehensive wine list or BYO wine**
 - ★ **Live music most nights**

**Proud sponsors of NERG suppers -
making our meetings even more enjoyable !**

Check out the entertainment and special events such as wine nights at Di Riccardos web site:

www.margheritas.com.au

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 in 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 024 597
	Ernie Walls	VK3FM	
Repeaters	Mark Harrison	VK3BYY	9435 3043

Meetings

Main Meeting: 2nd Thursday of each month at 7.45 PM (ex Dec & Jan)

Coffee Shop nights: 4th Tuesday each month.

Briar Hill Community Hall, 126 Mountain View Road, Briar Hill
(Near Sherbourne Road intersection) Melway map ref 21-C3

Classes & Exams

NERG occasionally runs classes and exams for Amateur licences

Callsigns and Repeaters (25km North East of Melbourne)

Club call - VK3CNE <http://www.nerg.asn.au/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 H 50.2950 MHz

10m bec'n VK3RMH CW 20 Watts V 28.2565 MHz

Packet Radio VK3CNE 2m 144.700 MHz, 1200 bps

VK3CNE-1 for mail etc; VK3CNE-7 for the DX Cluster.

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. Also used as a general Net frequency.

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

NERG NEWS submissions and comments invited:

editor: Mark Harrison VK3BYY

ph: 9435-3043 hm

post: 266 Nell Street West, Watsonia, 3087

email: news@nerg.asn.au



NERG

North-East Radio Group VK3CNE

NERG Incorporated 1985
BOX 270 GREENSBOROUGH VIC 3088

STAMP

NEXT MEETING:
7:45pm Thursday 11th October 2007
NERG meeting

2007 CALENDAR (NERG ACTIVITIES IN BOLD TYPE)

October 11	NERG meeting - Guest speaker Drew Diamond VK3XU on home brew construction, etc.
Oct. 18	NERG Net - 8:30pm 146.575 MHz FM
Oct. 20-21	Jamboree on the air (JOTA) - Station setup for scouts at the NERG hall.
Oct. 23	NERG Tuesday morning tea group
Oct. 25	NERG Special Inter-Club Swap Night for NERG & WANSARC members 7:30pm at NERG hall
November 1	NERG Net - 8:30pm 146.575 MHz FM
Nov. 4	Ballarat Hamvention, Sunday.
Nov. 8	NERG Meeting
Nov. 15	NERG Net - 8:30pm 146.575 MHz FM
Nov. 22	NERG Coffee Shop night
Nov. 29	NERG Net - 8:30pm 146.575 MHz FM
December 13	NERG Christmas party