



April 2004

NERG Inc.
PO Box 270
Greensborough
Victoria 3088

WHAT'S ON THIS MONTH -

First of all, this month's meeting will be held on the 15th - which is the **THIRD** Thursday of the month. Otherwise the meeting would fall on the eve of Easter when several regular attendees cannot make it. Don't turn up on the 8th or you'll be an April Fool!

Our meeting on the 15th of April should prove to be another one of great interest, our **guest speaker is Roy Gilmour**, a gentleman of many talents. He has been involved in Metallurgy, the West Gate Bridge disaster, Australian and International Atomic Energy commissions and now a leader in ISO accreditation. If you are wondering if your tower is up to spec, or if the guy wires meet ISO specs, then don't miss this talk!

Also this may be the last chance to see our NERG secretary Mark VK3XXX before he heads off to greener pastures (literally!) in the Western District. While I'm sure he'll keep in touch via 80m, it does mean the club is looking for a volunteer secretary - any takers?

Visitors are always very welcome. Hot drinks and bickies will be supplied for a small gold coin donation.

See you on Thursday 15th April.!

MARCH MEETING SUMMARY

Once again we had a good number of members attending our monthly club meeting, all interested to hear the latest news, what was happening for the John Moyle Field Day and to meet yet another very interesting speaker in Chris Eavis.

Starting at 8pm Mark, VK3XXX organised the John Moyle Field Day station (A weekend that went off fairly well, though numbers were down from last year).

Greg, VK3VT introduced our guest speaker Chris Eavis from the CFA communications and operations headquarters. Chris opened with a brief and interesting account of his past employment activities, gave us a brief snapshot of the workings of the communications within the CFA today and the role he plays then led into a subject that we could have listened to for many hours.

Chris had spent 2 tours of duty working down in Antarctica, Primarily as an electronics expert and on investigative study of radio propagation. It certainly paints a clearer picture of what life can be like in such extreme conditions and the problems caused by the wind and sub zero temperatures. Just one account given was when he tried to solder a broken wire away from their station. In a makeshift tent and using a butane type iron, he could not get enough heat to solder. Chris

NERG NEWS

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

7.45 pm, Thursday
15th April 2004
Briar Hill Primary
Guest Speaker:
Roy Gilmour - Metallurgy, ISO
accreditation and other subjects!

complemented the talk with a number of really good photos, (he told us that he was appointed the base photographer.) of Towers, the stations and their enormous personal bedroom-cum living space of around 2m by 2.5m. There is much more that we want to hear from Chris so we hope he will join us again.

The evening closed with our normal tea and coffee and chatter on all things radio.

Don VK3KDT

NEXT MONTH

Yet to be determined....Bound to be interesting though!

TUESDAY MORNING TEA GROUP

An extremely pleasant long morning tea occurred at the home of Ian VK3BGE and Lynn his XYL. It was a real treat to graze for four hours on the vast spread prepared Lynn. Meeting went for five hours but one can only eat so much. Many topics were discussed with great intelligence by all present including Steve VK3JSE, Alan VK3PJK, Gerhard VK3EWM, Mark VK3XXX, Greg VK3VT, Dave VK3JMB and Jim VK3DBQ.

The next meeting will be at the home of Greg VK3VT at 10:00am Tuesday 22st April. 73, Jim VK3DBQ

(Listen out for Jim VK3DBQ on the NERG net 146.575 MHz for further details or call him on 9467 1253).

ARDF EVENTS FOR 2004

More events run by the Victorian ARDF Group are coming up soon:

April 11th Easter Sunday Carnival Fox-Oring as part of Easter 4 day orienteering street/park carnival. Jells Park (Melways 72 A 6/9), 1:10000 colour map, 2M ARDF 145.300 MHz, Running / Walking categories, Coarse setter: Ian Stirling VK3MZ

April 24 (Saturday): Vic Foxhunt champs (Details yet to be announced)

May 9th (Sunday): ARDF Combined with Metro at Christmas Hills, Greg Williams

June 12th long weekend: Mt Gambier ARDF (Details yet to be announced).

All Enquiries: Vic ARDF, Bruce 9888 7509

GENERATOR SAFETY RECALL

Electrocution Hazard:

Scorpion Performance Power generator models No. ET950L, DY1000L, DY1000LB, and **Powerbase Camping Generator** PB 800 and GE-800 have been recalled. An incorrect 12 Volt DC battery charging socket-outlet fitted to the generator may allow the associated 12 Volt plug to be connected to the 240 Volt AC supply, posing the risk of electrocution. -from <http://www.eso.qld.gov.au/recalls/>

NO MORE SCIENCE SHOW

The annual Great Australian Science Show has come to an end. We're not sure if they ran out of Great Australian science, or if they just ran out people interested in looking at it :- (Unfortunately this means an end to the WIA stand that promoted amateur radio at the show for several years.

TNC MANUALS

Warren VK3XSW recently uploaded manuals for common Packet Radio Terminals (TNC's) to the www.mods.dk web site. Very useful if you need to tune up your TNC ready for working our VK3CNE packet node!

Load of good info on most amateur gear can be found on the mods.dk site including modifications, tips, user manuals, service manuals, and manufacturers tech notes.

PRECISION BEACON TRANSMISSION

Several stations in New Zealand are running "attended long duration test transmissions", better known as Precision Beacons. These transmissions have extremely accurate frequency control and are ideal for calibrating receivers and frequency references, as well as studying HF propagation. For instance, rapid changes in the Ionospheric layers can be observed by measuring the Doppler (frequency) shift of the reflected signal. Even micro-meteorite echo's can be observed! Frequency shifts are often only a few Hz, so a precise signal source is essential for these experiments.

As you probably know, special permits are required for beacons in most countries and beacons are discouraged by the IARU on bands below 10 metres. To avoid these problems, the New Zealand amateurs are running attended test transmissions for now at relatively low power levels.

For instance, Murray ZL1BPU transmits about once per month, typically from Friday evening to Monday morning, on 3840.000kHz using a GPS reference and achieves less than 10e-8 error (less than 0.04 Hz !). He also has an HP Rubidium standard, but finds GPS more convenient.

There are two other ZL stations, ZL1MT on 3600.000 kHz, and ZL3FJ on 3602.000 kHz. They take it in turns to operate, but are looking for more stations to fill in other weekends.

A similar station running in Australia, and he DOES run 24/7. This is Mike VK2BLR, on 3610.000 kHz. His E-layer signal is usable in the late afternoon (in NZ), and the F-layer signal is strong at night - not bad for 3 Watts over 3000 km !

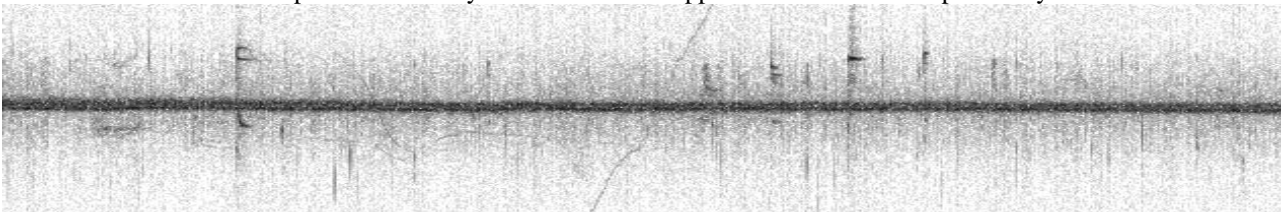
Transmission timetable and example shown below can be found at: <http://www.qsl.net/zl1bpu/micro/Precision/> Contact Murray ZL1BPU at coombedn@ihug.co.nz to be added to the email news list.

Call	Freq kHz	Location	Equipment	Ref & Precision
ZL1BPU	3840.000	Karaka, Sth Auckland [RF72ku]	ZL1BPU Exciter 4W amp	GPS 1PPS, 2e ⁻⁸
ZL1MT	3600.000	Arapuni, Sth Waikato	Racal Exciter, 5W amp	HP Z3801A, 1e ⁻⁸
ZL3JE	3602.000	Pareora, Sth Cant [RE55om]	ZL1BPU Exciter 3W amp	TV 50Hz, 5e ⁻⁷
VK2BLR	3610.000	Parkes, Nth NSW [QF46cu]	ZL1BPU Exciter 3W amp	GPS 100Hz, 2e ⁻⁸



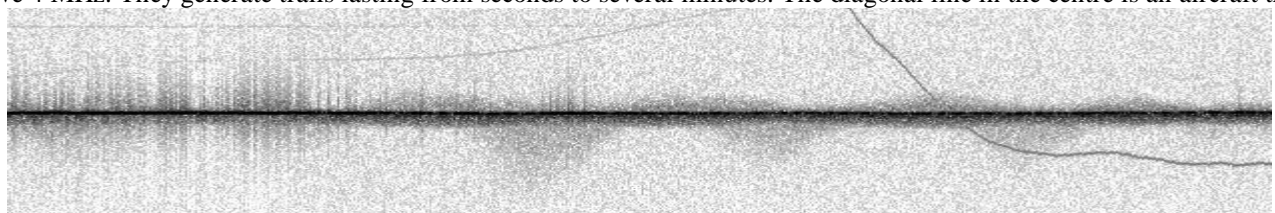
Time/Frequency spectrogram of ZL1MT on 3600kHz at sunrise.

Note how multiple Pedersen Rays have different Doppler shifts as the Ionospheric layers move.



5/13/01 1:53:36 PM Centre 986.00 Hz Width 40 Hz RNZI 17675 kHz meteors 2.56s sample

Meteogram - faint vertical lines either side of the carrier are reflections from high-speed meteorite trails, commonly observed above 4 MHz. They generate trails lasting from seconds to several minutes. The diagonal line in the centre is an aircraft trail.



5/13/01 9:23:02 PM Centre 983.39 Hz Width 80 Hz RAust 17750 kHz 0.4 samp/sec

Radio Australia on 17750kHz - Not a meteorite in sight - but look at that 2 1/2 hour long aircraft trail! (the long narrow line)

NEW REGULATIONS ON SATELLITE DISHES

The Victorian Planning Scheme has been amended to restrict the placement of satellite antennas larger than 1.2m on or around residential buildings.

The relevant regulation is - Particular Provisions Clause 52.04 SATELLITE DISH 24/7/2003

The purpose of the regulation is to provide an opportunity to consider the impact of a satellite dish attached to a building or structure listed in a schedule to the Heritage Overlay and the effect of a satellite dish on the amenity of residential areas.

The clause applies to buildings or structure listed in a schedule to the Heritage Overlay, and to Land in a Residential 1 Zone, Residential 2 Zone, Low Density Residential Zone, Mixed Use Zone or Township Zone.

A permit is required to use land or to construct or install or carry out works for a satellite dish (whether or not it forms part of a network) even if it is ancillary to another use on the land.

This does not apply to a satellite dish with a diameter:

- Less than 1.2 metres.
- Between 1.2 metres and 2.4 metres if the dish is not visible from an adjoining property.

One again it appears the planning regulations have been poorly worded and could easily lead to miss-interpretation. It is not clear from the wording in the Clause if it also applies to other type of parabolic dish antennas such as those used for amateur terrestrial point-to-point and Earth-Moon-Earth communications. Or indeed if a 5 meter Horn antenna is allowed for satellite TV (after all it's not a dish!).

http://www.dse.vic.gov.au/planningschemes/aavpp/52_04.pdf

2004 EVENTS

Updated March 3rd

- Apr 11th** Fox-Oring as part of Easter 4 day Orienteering street/park carnival, Jells Park. (Ian Stirling, VK3MZ)
- April 15th** NERG Meeting
- April 17** Australian Post Code Contest
- Apr 24th** ARDF Vic Foxhunt championships.
- April 25th** Harry Angel Memorial Sprint - CW/SSB
In memory of Harry Angel VK4HA (sk 1998) who became the world's oldest radio amateur aged 106.
- May 9th** ARDF Combined with Metro Orienteering at Christmas Hills (Greg Williams, VK3VT)
- May 13th** NERG Meeting
- May 15th** QRP Day (Revised rules) - CW/SSB
- May 22nd** VK/trans-Tasman Contest - SSB
See Bruce Renn, VK3JWZ, Info: home.iprimus.com.au/vktasman
- June 5th** VK/trans-Tasman Contest - CW
- June 10th** NERG Meeting
- Jun 12th** ARDF/Foxhunt at SERG convention, Mt. Gambier
- July 3-4th** GippsTech 2004, Churchill, Vic.
The technical conference of the WIA Eastern Zone Amateur Radio Club. Informal dinner Friday evening July 2. Conference dinner Saturday July 3.

CLICK GOES THE PHONE

As with all good ideas, there is often a dark side. And so it is with the nifty new mobile phones that incorporate very capable digital cameras. Unfortunately the convenience and portability has allowed unscrupulous photographers to invading the privacy of people by photographing them in public change rooms. Criminals are selling photos taken at swimming pools and the likes over the Internet.

The South Korean government think they have an answer to this problem. They are mandating that all new cellular phones make a shutter sound of at least 65 dB whenever capturing an image, and it must not be possible to turn off the sound.

They say that by mandating a shutter sound there will be no need to ban camera phones from public places such as swimming pools and public bathing facilities. The actual sound is up to the phone manufacturers but it must be a type of sound that makes it obvious a picture has been taken.

DANGER: DHMO CONTAMINATION

Amateurs should all be aware of a dangerous chemical, DHMO, which has been discovered in nearly all parts of our environment. The original source of this oxidising agent is still being debated, however it is found in substantial quantities in the ham shack, particularly inside battery cells of all kinds and in electrolytic capacitors. DHMO has the ability to leak from these components, severely contaminating the immediate environment. Often this causing faults in electronic equipment. Concentrations of DHMO in the atmosphere have been observed during field days to reach levels that can easily destroy amateur radio equipment.

Other dangers associated with DHMO include:

- Death due to accidental inhalation of, even in small quantities.
- * Prolonged exposure to solid DHMO causes severe tissue damage.
- * Excessive ingestion produces a number of unpleasant though not typically life-threatening side-effects.
- * DHMO is a major component of acid rain.
- * Gaseous DHMO can cause severe burns.
- * Contributes to soil erosion.
- * Leads to corrosion and oxidation of many metals.
- * Contamination of electrical systems often causes short-circuits.
- * Exposure decreases effectiveness of automobile brakes.
- * Found in biopsies of pre-cancerous tumours and lesions.
- * Often associated with killer cyclones and a suspected contributor to the El Nino weather effect.

For health and safety information on this dangerous substance, see: <http://www.dhmo.org/>

(p.s. before running off a petition for the banning of DHMO, you may want to look up the proper chemical name for DiHydrogen Mono Oxide (H₂O) and check the date on this issue of the NEWS. Apologies to the DHMO web site where much of this text first appeared). Cheers, MARK

The NERG Inc. Reg No 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	Mark Beacham	VK3XXX	0417-597399
Treasurer	Marg Baxter	VK3VOJ	9467 1253
Committee	Betsy King	VK3HBK	
	Peter Cosway	VK3DU	9379 3626
	John Weir	VK3ZRV	9431 0667
Social Sec.	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 – Intermittent

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:

editor: Mark Harrison VK3BYY

ph: 9435-3043 hm (between 7.30-9.30 p.m. please)

post: 266 Nell Street West, Watsonia, 3087

email: vk3byy@nerg.asn.au



NERG

North–East Radio Group VK3CNE
Incorporated 1985
BOX 270 GREENSBOROUGH VIC 3088

NOTE: Meeting is 1 week later than usual!!!

7:30 PM Thursday 15th April 2004

2004 CALENDAR (NERG ACTIVITIES IN BOLD)

April 11 th	Fox-Or as part of Easter 4 day Orienteering street/park carnival, Jells Park
April 15th	NERG MEETING - Guest speaker Roy Gilmour - Metallurgy, ISO accreditation and other subjects!
April 17	Australian Post Code Contest
Apr 24th	ARDF Vic Foxhunt championships (possibly - no details yet!)
April 25th	Harry Angel Memorial Sprint - CW/SSB contest
May 9th	ARDF combined Metro Orienteering at Christmas Hills (see Greg Williams, VK3VT)
May 13th	NERG MEETING - topic to be announced.
May 22nd	80m VK/trans-Tasman Contest - SSB. See Bruce Renn, VK3JWZ, Info: home.iprimus.com.au/vktasman