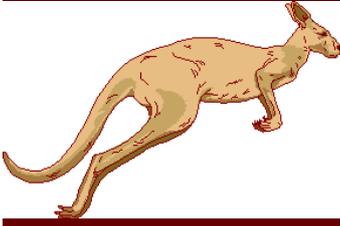


Volume 35 Issue 1

February 2004



IO CLUB

SUBURBS AMATEUR RAD

WESTERN AND NORTHERN

# WANSARC NEWS February 2004

## January family day a winner !



It was mid sum-  
mers day,  
At a park near our  
club,  
Where our "Hams"  
met with family,  
Instead of the pub.

Smiles adorned  
faces,  
The grass was  
quite yellow,  
Now guess can  
you now,  
The names of each  
fellow ??

DELIVER TO:

If not delivered within 7 days, please return to:  
WANSARC PO Box 336 RESERVOIR Victoria 3073

**NEXT MEETING 2000 Hours sharp Friday February 6, 2004.**  
General meeting to plan 2004 WANSARC activities, including  
the John Moyle Field Day participation in March 2004.

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### CLUB FREQUENCIES

146.450Mhz FM and  
28.470MHz USB

## Club net grows

The club net on 146.450MHz each Tuesday night at 1930 local hours continues to grow, with echolink providing the opportunity for interstate and international stations to join our net.

Graeme VK3NE is a regular "echolinker" from Wangaratta, however increasingly we are having some ZL2 stations from the north island of New Zealand joining us.

Many of our club members continually monitor 146.450MHz at all times so if you are looking to rag-chew, conduct some tests or catch up on some local news give a shout on the frequency because you never know who may be listening.

And an active 10 metre group using our old net frequency of 28.470Mhz has been rekindled with Bob VK3EL, Mark VK3PI, Grant VK3HFS and Chris VK3FY regularly heard. John VK4FNQ in Charters Towers has popped in a couple of times to have a chat, so keep an ear on 10 metres for some interstate and DX activity.



Grant VK3HFS twiddling the knobs of VK3AWS portable during the recent WANSARC family day while weekly club net controller Mike VK3CH/VK3BBA looks on. Mike very kindly supplied a brand new IC706 MKII G and automatic ATU for the family day activities—thanks Mike !

## WANSARC—Coming events

2004 is shaping up to be an exciting year for the club. Get those calendars out and start penning in some dates:

**FEBRUARY 6** - General meeting and planning night. Be part of the excitement of organizing the WANSARC John Moyle contest effort putting VK3AWS back in the contest mix.

**MARCH 5**— Annual General meeting and election of 2004=2005 office bearers....go on, put your hand up to help run our club!

**MARCH 21-22**—Field day weekend at a yet to be confirmed location. Join the portable fun!!!

Chris VK3FY has supplied the photograph at right of WANSARC during the John Moyle in the 80's at Mt. Hickey. Anyone know the year??



## WANSARC newsletter dates

Newsletter contributions are always welcome from club members, associates, readers and other clubs or amateurs.

To assist in the timely production and distribution of magazines, please note the following copy deadlines for 2004 newsletters.

**NEWSLETTER ISSUE DATES** via email/post:

February 3, March 2, March 30, May 4, June 1, June 29, August 3, August 31, September 28, November 2 and November 30.

**COPY**, including photographs required by:

January 30, February 24, March 23, April 27, May 25, June 22, July 27, August 24, September 21, October 26, November 23.

Photographs should be in jpg format and articles in either word or free text.

Please feel free to contact the editor/producer Mark VK3PI at VK3PI@optusnet.com.au for further information or to submit articles.

# Welcome to HF Part 1 —the G5RV

*Many newcomers to the HF bands are coming to grips with the diversity of antenna designs for HF operations. Let's face it—anything will load up on HF with an appropriate Antenna Tuning Unit, but how efficient is the antenna.*

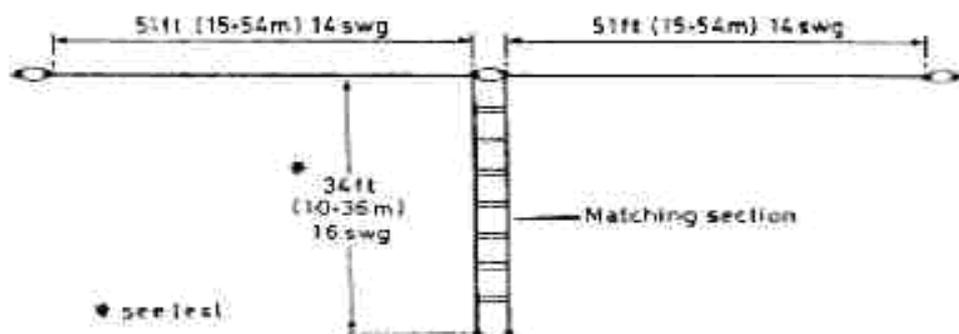
*The G5RV has been around for quite some time, named aptly after its designer, Louis Varney G5RV. Here are some brief notes on the G5RV and its operation.*

THE G5RV ANTENNA, with its special feeder arrangement, is a multiband centre-fed antenna capable of very efficient operation on all hf bands from 3.5 to 28mhz, specifically designed with dimensions which allow it to be installed in gardens which accommodate a reasonably-straight run of about 102ft (31.1m) for the "flat-top". However, because the most useful radiation from a horizontal or inverted-V resonant antenna takes place from the center two-thirds of its total length, up to one-sixth of this total length at each end of the antenna may be dropped vertically, semi-vertically, or bent at some convenient angle to the main body of the antenna without significant loss of effective radiation efficiency. For installation in a very limited space, the dimensions of both the "flat-top" and the matching section can be divided by a factor of two to make the half-size G5RV, which is a very efficient antenna from 7 to 28 mhz. The full-size G5RV will also function on 1.8mhz band if the station end of the feeder (either balanced or coaxial-type) is strapped and fed by a suitable antenna tuner using a good earth connection or a counterpoise wire. Similarly, the half-size version may be used thus on 3.5 and 1.8 mhz bands.

In contradistinction to multiband antennas in general, the full size G5RV antenna was not designed as a half-wave dipole on the lowest frequency of operation, but as a 1 1/2 wave centre-fed long-wire antenna on 14mhz, where the 34ft (10.36m) open-wire matching section functions as a 1:1 impedance transformer, enabling the 75ohm twinlead or 50/80ohm coaxial cable feeder to "see" a close impedance match on that band with a consequently low vswr on the feeder. However, on all the other hf bands the function of this section is to act as a "make-up" section to accommodate that part of the standing-wave (current and voltage components) which, on certain of the operating frequencies, cannot be completely accommodated on the "flat-top" (or inverted-V) radiation portion. The design centre frequency for the full-size version is 14.150khz, and the dimensions of 102ft (31.1m) is derived from the formula for long-wire antennas

In practice, since the whole system will be brought to resonance by the use of an antenna tuner, the antenna is cut to 102ft (31.1m). As it does not make use of traps or ferrite beads, the "dipole" portion becomes progressively longer in electrical length with increasing frequency. This effect confer certain advantages over a trap or ferrite-bead loaded dipole because, with increasing electrical length, the major lobes of the vertical component of the polar diagram tend to be lowered as the operating frequency is increased. Thus, from 14mhz up, most of the energy radiated in the vertical plane is at angles suitable for dx working. Furthermore, the polar diagram changes with increasing frequency from a typical half-wave dipole pattern at 3.5mhz and a 2 1/2 wave in-phase pattern at 7 and 10mhz to that of a "long-wire" antenna at 14, 18, 21, 24 and 28mhz. Figure 1. Although the impedance match for 75 ohm twinlead or 80 ohm coaxial cable at the base of the matching-section is very good at 14mhz, and even the use of 50 ohm coax cable results in only about 1.8:1 vswr on this band, the use of a suitable antenna tuner is necessary on all the other hf bands because, on those bands, the antenna plus the matching-section will present a reactive load to the feeder.

If, due to limited space available, or to the shape of the garden, it is not possible to accommodate the 102ft (31.1m) top in a straight line, up to about 10ft (3m) of the antenna wire at each end may be allowed to hang vertically or at some convenient angle, or be bent in a horizontal plane, with little practical effect upon performance.



*G5RV dimensions—if unable to fit this into your backyard the ends may be skewed somewhat to fit as per the text.*

## DATA SMOG—Newest culprit in brain drain by Bridget Murray

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We awake to news radio updates and talk-show chatter. At work, we sort through voice messages and World Wide Web pages. Throughout the day, ringing phones, dinging e-mails and squealing fax machines announce the arrival of yet more information.

Welcome to the jumble—the dizzying information glut of the 21st century. Information has never been as easy to access—or as distracting. But what is this surge of stimuli doing to our well-being?

According to some psychologists and researchers, the “data smog” that bombards us every day may be making us ill by interfering with our sleep, sabotaging our concentration and undermining our immune systems. David Lewis, PhD, a British psychologist, calls the malady “**information fatigue syndrome**.” The fast flow of facts motivates people to a point, but once it pushes past a critical threshold, their brains rebel. “It causes paralysis of analysis,” Lewis says. At worst the overload can lead to indigestion, heart problems and hypertension, Lewis’ case studies of business executives suggest. In its mildest form, it sparks irritability and jeopardizes work productivity.

“Our brains aren’t wired to ‘multitask’ the way our computers are,” says psychologist Larry Rosen, PhD, a human-computer dynamics expert and psychology professor at California State University–Dominguez Hills. “We’re taxing the limits of our human abilities.”

The Internet instantly links people with knowledge, distant places and family members. The problems stem from people’s overuse or misuse of technologies and from technology’s ineffective presentation of information, researchers are finding.

The World Wide Web teems with information, but people complain that they either cannot find what they want or else get hundreds of “hits.” In the search for solutions, some researchers are exploring the effects of information overload on technology users and are developing ways to quell its impact.

Meanwhile, psychologists in human-computer interaction areas are seeking better organization and indexing of web sites so that users know right away what information they offer. For example, psychologist Sara Kiesler, PhD, professor of social and decision sciences at Carnegie Mellon University, is working with APA to streamline its web site. She wants the site to announce all its offerings and contact addresses for people at first click.

People seek information from the web, e-mail, radio and TV because they believe it gives them a competitive edge, says Lewis.

Armed with the latest and best facts, stock market investors sell ahead, doctors save lives, students ace tests and lawyers win cases. Businesses absorb more information daily than ever before in their drive to get ahead, according to a survey published last year by the news service Reuters.

The survey, “**Glued to the Screen: An Investigation into Information Addiction Worldwide**,” polled 1,000 business managers around the globe about their perceptions of technology-generated information. More than 60 percent said the information surfeit has made them stressed and tense. Lewis has found similar problems in focus groups he’s conducted with other managers, financial analysts and information workers. When inundated with data, they make more mistakes, misunderstand others and snap at co-workers and customers. The result can be flawed conclusions and foolish decisions, causing potentially great financial loss to companies.

Most Reuters respondents felt compelled to gather more information than ever before to keep up with customers and competitors, and they’ve found their leisure time steadily ebbing. Information technologies spur people to work from “5 to 9” in addition to “9 to 5,” says Lewis, who wrote the introduction to a similar 1996 Reuters report.

In a round of new journals and books, mental health experts are beginning to look further into the Internet’s effects on society. There are few studies of the area so far, but psychologists are calling for more.

Reuters’ survey respondents said the Internet has fueled the worldwide obsession with information. The media have gleefully pitched the Internet as the ultimate information tool, and it does unlock potential for global community, says psychologist Sherry Turkle, PhD, author of “Life on the Screen: Identity in the Age of the Internet” (Simon & Schuster, 1995).

But people are realizing that more information does not equal better information, says Turkle, a professor at the Massachusetts Institute of Technology (MIT). Internet users spend hours on web searches that aren’t always fruitful, says Kimberly Young, PsyD, author of the book “Caught in the Net” (John Wiley & Sons, 1998). Their in-boxes pile up with work as the medium seduces them with its vibrant colors, pulsing graphics and push-button interactivity. As Lewis puts it: “One hundred percent serendipity equals utter chaos.” People forget that journals, encyclopedias and databases sometimes pinpoint a fact or figure faster, Lewis says. “If you’re thirsty, it’s sensible to stand under a faucet, not the Niagara Falls,” he says.

There is hope of fixing the problem, however, as people realize that they absorb facts best in doses, not a deluge, psychologists say

To help people handle the information flow, Weil and Rosen offer some tips:

- Sift and trash—Try to focus on the information you really need instead of news blips that distract. Think critically and separate the gems from the dross.
- Set limits—Ration the time you spend watching television, listening to the radio and cruising the Internet. Designate the best times for people to call or fax you.
- Respond on your own time—Disable the e-mail ding and turn off the ringer on the fax machine. You can respond after you’ve finished the task at hand.
- Relax when technology makes you wait—Instead of getting irritated while your e-mail boots or a company’s telephone system puts you on hold, use that time to test or tend to small tasks.
- Use the technologies that work for you—You don’t have to acquire every new technology. If beepers and cell phones cause you stress, stick with voice mail.
- Schedule time away from information—Set aside slots for exercise, sports, dinner with friends and family vacations.



# Laughter is a medicine

A contractor dies in a fishing accident on his 40th birthday and finds himself greeted at the Pearly Gates by a brass band. Saint Peter runs over, shakes his hand and says "Congratulations!"

"Congratulations for what?" asks the contractor.

"We are celebrating the fact that you lived to be 150 years old", said Saint Peter.

"But that's not true," said the contractor, "I only lived to be forty."

"That's impossible," said Saint Peter, "we added up your timesheets!"



A student pilot became lost during a solo cross country flight.

While attempting to locate the aircraft on radar, the Air Traffic Controller asked "What was your last known position."

Student: "When I was number one for take-off".



An Amish boy and his father have never seen the modern wonders of the world and visit a shopping centre. They were amazed by almost everything they saw, but especially by the two shiny silver walls that could move apart and then slide back together again.

The boy asked, "What is this, Father?"

The father (not having seen a lift before) responded "Son, I have never seen anything like this in my life, I don't know what it is."

While the boy and the father were watching in amazement, a fat old lady in a wheel chair rolled up to the moving walls and pressed a button.

The walls opened and the lady rolled between them into a small room. The walls closed and the boy and his father watched small circular number above the walls light up sequentially.

They continued to watch until it reached the last number and then the numbers began to light in the reverse order. They continued to watch until it reached the last number and then the numbers began to light in the reverse order.

Finally the walls opened again and a gorgeous, voluptuous 24 year old blonde woman stepped out.

The father, not taking his eyes off the young woman said quietly to his son, "Go get your Mother."

## PI Bicycle mobile nearly complete

Yes, I know. The heading could have you in fits of laughter. What bicycle in its right mind would let the PI onto it.....good question, as he rode a horse once and it had the sense to throw him off!!

After much discussion about the bicycle project it is a happening thing, and the proof is in the photographic pudding.

In a couple of weeks 2 metres and 10 metres will be operational on the PI mountain bike.

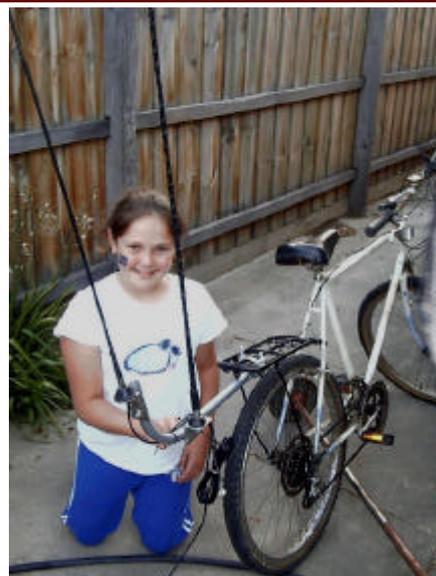
10 metre operation will centre on 28.470MHz using a converted CB radio—a very old

one at that.

Although it would be ideal to come up on the club 2 metre frequency, alas both of the potential boxes for use on 2 metres do not have this frequency.

Has anyone crystals for 146.450 to suit either an IC22A or a Quartz Multi 16?? Cheap or for nothing would be an ideal price, but as with life everything is negotiable.

Any offers or advice to Mark VK3PI at [VK3PI@optusnet.com.au](mailto:VK3PI@optusnet.com.au).



Kate, 2nd harmonic of Mark VK3PI, adjusts antenna's on the PI bicycle. Note Australian flag on cheek—very patriotic

## Healesville Radio Group White Elephant Sale on again

The Healesville Amateur Radio Group will hold a White Elephant Sale on **Sunday February 29, 2004 between 10am and 2pm.**

The venue is the Healesville Memorial Hall, Maroondah Highway, Healesville.

Traders are able to access this facility at 8.30am, however buyers will need to be patient as they will

not be able to find the bargains until 10am.

Free tea and coffee will be on offer, together with light refreshments.

Ample parking is available and \$4 will get you through the door for offerings of pre-loved ham equipment, components and computer gear.

If you wish to trade at this White Elephant Sale trestle tables are available at \$12 per 6 feet or \$15 per 8 ft.

For booking of trestles and further information contact:

**Gavin VK3TLN 5968 8482**

**Carol 5778 7518**

**Or email to [gpt@celestial.com](mailto:gpt@celestial.com).**

**WANSARC tip—even if you think a band is dead, give a shout anyway! If everyone is a listener then no-one will know if the band is opening! Use the bands or lose the bands!!**

## WANSARC supports Preston Rotary in 2004

WANSARC will again support Preston Rotary in 2004 by assisting in the selling of raffle tickets.

Each ticket will sell for \$2 and each individual ticket sold by club members will see more than half of this money returned to WANSARC.

Tickets will become available for sale in mid-February and must be returned to WANSARC for receipt by Rotary in May 2004. Prizes are yet to be announced, however if past years are any indication the prizes will be exceptional with a brand new car as 1st prize.

WANSARC has never had a

member in the winner's circle for prizes, so let's all get behind the sale of tickets which will benefit Rotary, our Community and our Club.

The aim is to sell 10 tickets per member, with monies returned to WANSARC to be used to support member activities.

# WANSARC VK3AWS

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All correspondence to be addressed to the SECRETARY:

PO Box 336

RESERVOIR 3073



## WANSARC CLUB PROFILE

### History

The Western and Northern Suburbs Amateur Radio Club (WANSARC) was first formed in 1969 and since then has served the needs and interests of amateur radio operators, short wave listeners and those interested in hobby radio and electronics. The club is not gender specific, having both female and male members. Members come from all walks of life with a mix of experience, young and mature, novice and technical. The most important aspect of the club is the willingness of all members to share their knowledge for the benefit of others. Members mainly reside in the west and north of Melbourne, however membership is encouraged from all interested.

### Meetings

From September 2003 Building K, Northern Metropolitan Institute of Technology (NMIT), St. Georges Road, Preston (western side between Bell Street and Cramer Street) Melway 18 E12

Meetings held on the 1st Friday of each month (excluding January) commencing at 8.00pm local time. Talk in on 146.450MHz FM—call club station VK3AWS.

### Benefits

Free technology and related presentations, sponsored construction activities, discounted (and sometimes free) equipment, network of like minded radio and electronics enthusiasts, excellent club facilities and environment.

### Club Nets

146.450MHz FM each Tuesday evening commencing 7.30pm local time. Linked to Echolink for intrastate, interstate and international stations participation.

### More Information

**Website:** [www.wansarc.org.au](http://www.wansarc.org.au)

**Committee:** Tony VK3BZT, Hal VK3EKF, Gordon VK3YOD, Grant VK3HFS, Mark VK3PI

**Email:** [wansarc@wia.org.au](mailto:wansarc@wia.org.au)

**Secretary:** Mark Stephenson VK3PI [vk3pi@optusnet.com.au](mailto:vk3pi@optusnet.com.au)

**Postal:** WANSARC PO Box 336 RESERVOIR 3073

**VK3AWS**

**A proud tradition of supporting hobby radio and electronics enthusiasts since 1969**