

MEETINGS, NETS and SERVICES**Club Station:** VK4WIS**Club Repeaters:**

Bald Knob: VK4RSC on 146.850 MHz & 438.075 MHz.

Luguna Lookout: VK4RMB on 146.825 MHz & 438.175 MHz

91.5 Hz CTCSS

Dulong: VK4RSN on 53.700 MHz

Gympie: Private repeater on 147.975 MHz

General Meeting: Monthly on the first Tuesday at 7:30 pm in the Club House, old Toll Plaza building, 85 Godfreys Road, Bli Bli.

Visitors are welcome to attend.

Weekday Meeting: Weekly at 10:00 am—2:00 pm on Wednesday.

Sunday Meeting: 3rd Sunday of each month at 10:00—2:00 pm.

Good Morning Net: Daily at 8.15 am at VK4RSC on 146.850 MHz.

Conducted by various club members.

Tech Net: Weekly at 8:30 pm Sunday at VK4RSC on 146.850 MHz.

Check in, raise topics and ask your technical questions.

80 m Net: Weekly at 7:30 pm Thursday on 3660 kHz.**10 m Net:** Weekly at 8:15 pm Wednesday on 28.470 MHz USB.**6 m Net:** Weekly at 7:30 pm Friday at VK4RSN on 53.700 MHz.**2 m Net:** Weekly at 7:30 pm Sunday on 144.300 MHz USB.**2 m Net:** Weekly at 7:30 pm Monday on 147.975 MHz.

Conducted by club station VK4WIS.

QNEWS: Relayed Sunday at 9:00 am at VK4RSC on 146.850 MHz.

After the broadcast a callback is conducted by VK4WIS.

Internet: www.vk4wis.org

This website provides previous issues of Pelican Droppings in full colour in pdf format which can be downloaded.

The current issue can be had by subscribing to the email edition in pdf format. Apply to SCARC.

EchoLink: Available on VK4RSC 146.850 MHz.

The Internet station is VK4WIS-R and the node is #316084.

NEXT ISSUE

As often happens the Dec–Jan issue is a shortened one.

SCARC Inc. Office Bearers AGM March 2007

President	Noel Des Jardins VK4NL
Vice-President	Harvey Wickes VK4AHW
Secretary	Gordon Taylor VK4VP
Treasurer	Keith Noll VK4AKA
Committee	Ray Stuart VK4YRS; Frank Winter VK4BLF; Mike Little VK4YFL; Richard Philp VK4YRP

Copy deadline: 3rd Tuesday of the month preceding GM issue.

Email editor: gcombes6@bigpond.com

Pelican Droppings

Newsletter of the Sunshine Coast Amateur Radio Club Inc.

Issue No.92

December 2007-January2008



Club members erect the new awning for the annual Christmas Party held on the night of the final General Meeting in December. More photos inside.

INSIDE

Curing RFI from an Inverter	Page 4
Christmas Party photographs	Page 9
Parkes radio telescope gets a new lease of life	Page 11

Address: The Secretary, Sunshine Coast Amateur Radio Club Inc.
PO Box 7551, Sippy Downs, Qld. 4556



Presidential Preamble

Could someone please slow the clock - surely it can't be this time of the year already. My apologies for a slap happy edition of this column as my laptop HDD has died. Well here goes. It's not been a good start for many as the 'flu takes hold. My best wishes to all those affected for a speedy recovery.

Our repeater team was up to their old tricks again. At Noosa Hill Wazzer (aka Warwick) VK4NW was keen to get rid of the noise, and achieved this by replacing the antenna. The link antennas erected also. Thanks to the team comprising Warwick VK4NW, Richard VK4YRP, Tony VK4GEP and Dave VK4UN for manoeuvring things into place.

The Wednesday meeting group seem to be enjoying the day. Wayne VK4WS has offered to sort out our repeater power supplies that have been causing problems. Wazzer couldn't cope any longer with me or that nagging repeater problems and headed for the deep south as well.

Joe Brian VK4SU pulled the big plug and we farewelled him at the November meeting, presenting him with an Akubra hat and certificate of appreciation for the tremendous effort in looking after the South Yarra store. He is heading back to old ground in the USA in a new venture. We will miss Joe.

The cyclone season is heading our way and so a check on communications an International Exercise was conducted. The call sign was VK4WIA/D for local hams. Leading the exercise from the station of June VK4SJ was Geoff VK4KEL and David VK4JMR. From the clubrooms. it was Wayne VK4WS, Bernie VK4KAC and yours truly VK4NL. Everything went well with many other stations world wide making links. A WICEN exercise came next; Harvey VK4AHW and myself VK4NL operated from the club rooms. The WICEN SCARC caravan was covered by Bill VK4BBX and Dennis VK4FDMG. Last but not least the control point at Kawana was operated by Bill VK4XZ and Bernie VK4KAC with VIN VK4FVCW taking notes; he was last heard trying to find another note book. Thanks to everyone for the tremendous effort and I am sure it was a learning curve for all.

Parkes Radio Telescope gets a new lease on life

by Tony Thorrold VK4KKY

Since it was completed in 1961, the radio telescope at Parkes, NSW has been one of the finest and most useful in the world..

The telescope's scientific achievements include helping to identify the first quasar, discovering magnetic fields in space, and finding more pulsars than any other telescope. Parkes has also helped track spacecraft, from the Apollo missions in the '60s to Voyager and Giotto in the '80s.

In 1996 it received a major upgrade for the Galileo mission to Jupiter. It was planned that the Galileo orbiter would transmit photos and huge amounts of data back to earth at 2.3 MHz using a dish antenna 5 metres in diameter, beamed towards earth. When the command was sent to the spacecraft to unfurl its dish, nothing happened. After months of trying to fix the problem, the engineers had no choice but to use a tiny secondary antenna instead. This could only radiate one thousandth of the power of the dish, so a very sensitive receiver had to be built.

To receive the tiny signals, the new receiver had to be ultra low noise, so it was built into a stainless steel vacuum flask and cooled to a system temperature of 5.5 Kelvin (5.5 degrees above absolute zero or -267.66 degrees C). To accommodate all the extra equipment, a new focus cabin had to be built on top of the three supporting legs and this was six tonnes heavier than the original cabin. The extra weight caused the dish to distort and as the telescope pointed to different parts of the sky it flexed as well. No amount of stiffening could prevent this, so a special new control system was built to calculate the optimum focus position and the receiver was automatically moved to that position as the telescope moved.

Despite all the modifications, the 64 metre diameter dish still maintains a surface curvature with an RMS error of less than 0.4 mm over the entire diameter and less than 0.2 mm over the central 44 metre section and it will continue to provide invaluable data to scientists for many years. End

Advertisement

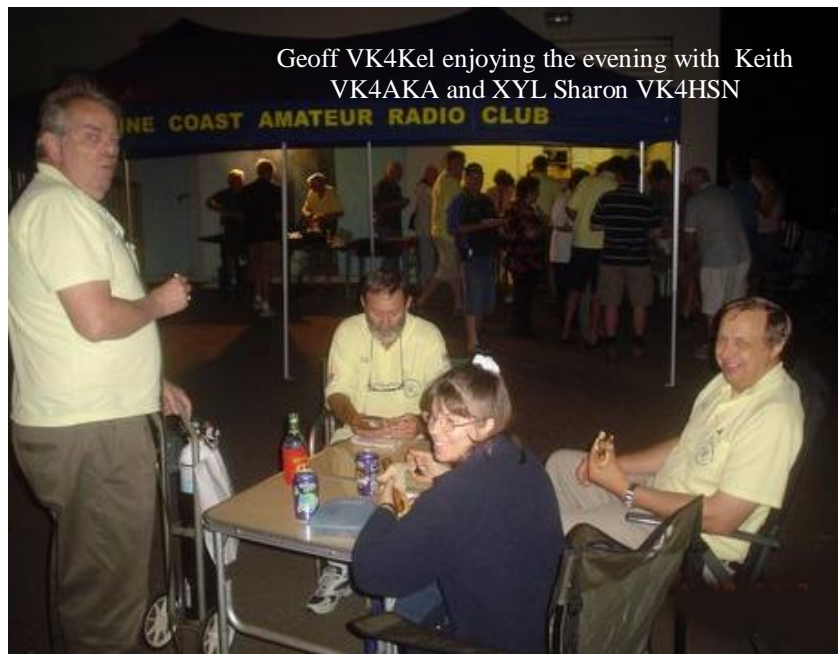
NKR Computer Services

A.B.N: 43315106637

NICK KAIL • MCSE (Microsoft) • CCDA (CISCO)

<ul style="list-style-type: none"> • Virus Removal • Network Design • Configuration & Installation • PC & Server Upgrades 	<ul style="list-style-type: none"> • PC & Server Repairs • System Maintenance • Competitive Rates • Work Guaranteed
---	---

Phone: (07) 54 911637 Address: 9 Beaver Street
 Mobile: 0439 603200 Caloundra, 4881
 Fax: (07) 54 911637 Q.L.D.
 E-mail: nkrres@yahoo.com.au



Geoff VK4Kel enjoying the evening with Keith VK4AKA and XYL Sharon VK4HSN



A young , budding amateur, perhaps, viewing pictures on a laptop in the club's construction room

Where is the time going? It was Redsun Rally again and Geoff VK4KEL and Jenny Sanders had the observation rally sorted early in the week. First in the Observation Rally was Redcliffe's Rat Attack Team of Rachel, Ann and Trevor (VK4YZ's family members). Equal second were Charlie VK4YZ and Chris , Celia and Roger VK4LIZ and VK4IMP. Celia and Roger were also first in the Fox Hunt.

Club members from the Gympie area cleaned up at Mt Wolvi repeater station and brought the gear back to be serviced in readiness for the prospective transfer to the Zinc 91 steel tower next door. Bob VK4MR, Quentin VK4BQG and Toni VK4GEP carried out the project expertly. The property owner was more than pleased.

Our November meeting enjoyed several speakers from Telstra, who enlightened us with the activities of Telstra communications. Question time got a bit out of hand; perhaps we should limit the number of questions in future and exercise better control in the interest of decorum and the member's enjoyment.

I almost forgot - the Home Brew Award featured Wayne VK4WS and Ches VK4KLI. Judges Mike VK4YFL, Dave VK4HFW and Bill VK4BBX were able to arrive at a decision after a 15 min discussion. Congratulations to Wayne VK4WS for his winning entry of a 5.6GHZ receiver and horn antenna. Ches was a close second with his entry of a crystal Set and 80 m magnetic loop antenna.

The December meeting & Christmas party was a tremendous success again with about 40 in number plus family rocking up. The oldies started leaving around 2200h while others waited for the last drop to leave the keg around midnight. We managed to find a driver for them. My thanks to all the caterers for sorting out the provisions and to all who brought a plate of goodies to make the night a special one. To Mikey VK4YFL and the team on the BBQ. The raffle winners at the Christmas meeting were: 1st prize Ray & Carol Stuart; 2nd prize Bernard Terry. Congratulations.

Al VK4LT has been gallivanting up north, spending time with family but returning with the 'flu. Frank VK4BLF has had surgery and has recovered well. Errol VK4ZHL had emergency surgery from which he has recovered well. Carol VK4FUNN & Ray VK4YRS received sad news and were unable to attend the Christmas meeting. to the winners.

Merry Christmas to all and a Happy New Year. Noel VK4NL

Curing RFI from an Inverter

by Tony Thorrold VK4KKY

I recently installed a Dick Smith 300 watt true sine wave inverter in our campervan and was disappointed to find that it generated severe RFI on my Icom HF transceiver. This article explains how I cured the problem; the same steps could be taken with any troublesome interference-generating equipment in your shack, car or boat. Fortunately all the extra components fitted inside the existing case, so the modification is safe and invisible at a glance.

I tackled the problem in three stages:

1. Making sure the case is properly earthed (see Fig.1)

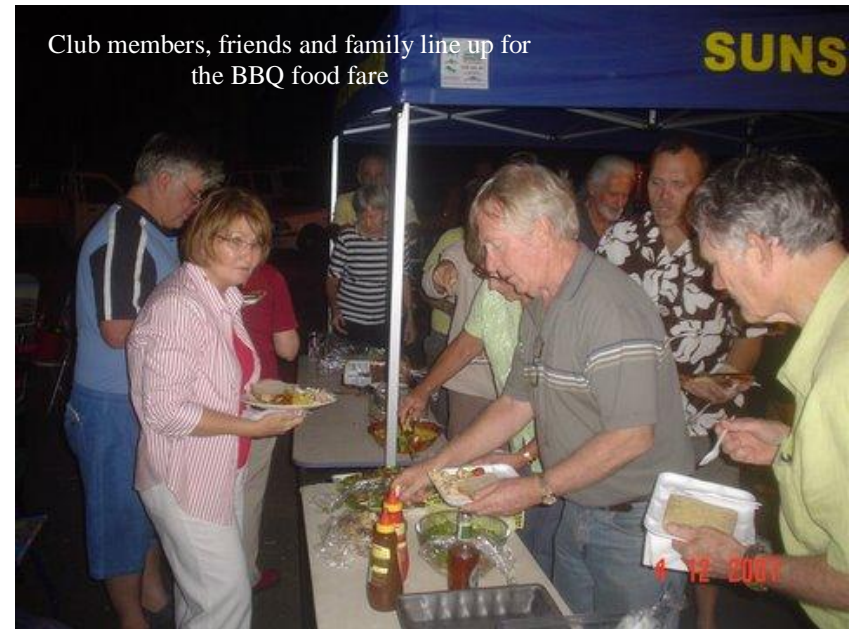
The case consists of four separate aluminium sheets/castings, each neatly painted. One of the fixing screws of each panel had a star washer under its head and this was the only way the panels were electrically joined. I scraped the paint off to about the size of a five cent coin under two screws on each panel so that there is now a good metal-to-metal contact between each panel. I ran a dedicated earth wire from the vehicle chassis to the 'earth' wing-nut on the inverter.



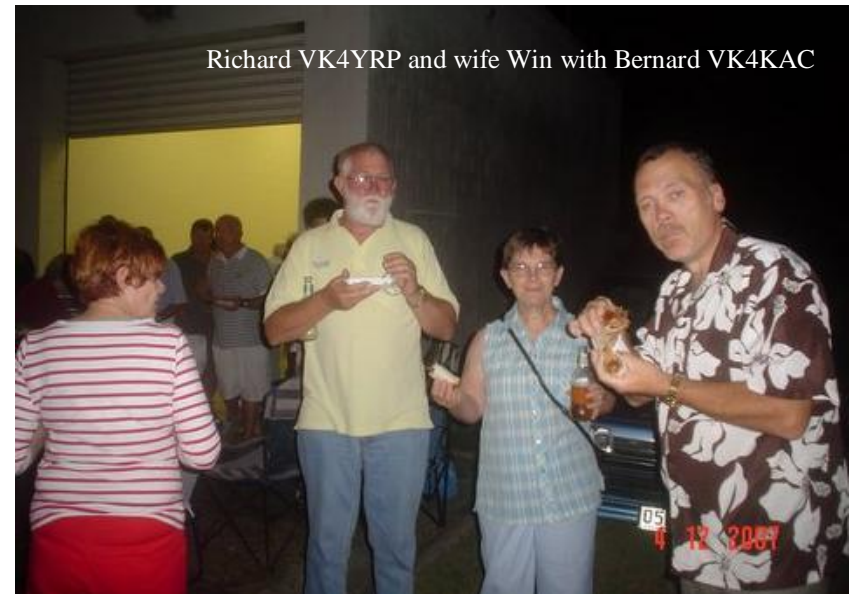
Fig. 1 The inverter

Photographs from the Christmas Party, December 2007

Club members, friends and family line up for the BBQ food fare



Richard VK4YRP and wife Win with Bernard VK4KAC



....more photos over the page

Advertisement

D&A Crane Hire Noosa



ASHLEY
0428 741 464
a/r 5474 1464

DAVID
0419 735 748
a/r 5474 3305

FAX: 07 5474 3908
PO BOX 985, TEWANTIN 4585

ADVERTISEMENT

Fax 54917865 Ph 54926260

Alcorn's Communications & TV Antenna Service

INTERCOMS ALARMS

TWO-WAY RADIO — ANTENNA INSTALLATION

12 IVY STREET CALOUNDRA QLD 4551

Email: alcornscomm@smartchat.net.au

Advertisement

NORTHCOAST Glass & Aluminium

*24 hour glass repair
7 days a week*

Lawrence Swift
Pamela Swift
Proprietors

17 Mitchell St, NAMBOUR, QLD, 4560

Ph: (07) 5476 2799 Fax: (07) 5476 2987

Advertisement

LEADING EDGE ELECTRONICS

Specialist PC, LAN, TV, Leading Edge Electronics & Computers Caloundra

<p>Emma Bowhay Managing Director Mobile: 0408 118 300</p> <p>Derek Hicks Managing Director Mobile: 0405 972 181</p> <p></p>	<p>Shop 1, 14 Bowman Road The Bowman Centre Caloundra Qld 4551</p> <p>Ph: (07) 5491 8533 Fax: (07) 5491 8811</p> <p>Email: leecaloundra@cornscomm.com.au</p> <p>www.leadingedgeelectronics.com.au</p>
--	---

2. Fitting a filter to the 12-volt input (see Figs 2 & 3)

Using a length of heavy gauge enamelled copper wire, I wound as many turns as possible (35) through a ferrite toroid to make a choke. Remember, this wire has to carry a heavy current, about 30 amps for a 300 watt inverter, so don't skimp on the wire size. The choke was fitted in series with the incoming 12-volt supply. Three capacitors were then fitted in parallel between +12 volts and earth - I just took a stab at the values of 1000 μ F, 1 μ F and 10 nF and you may be able to choose your values more scientifically! (Use electros rated at least for 25 VW -Editor). Continued>

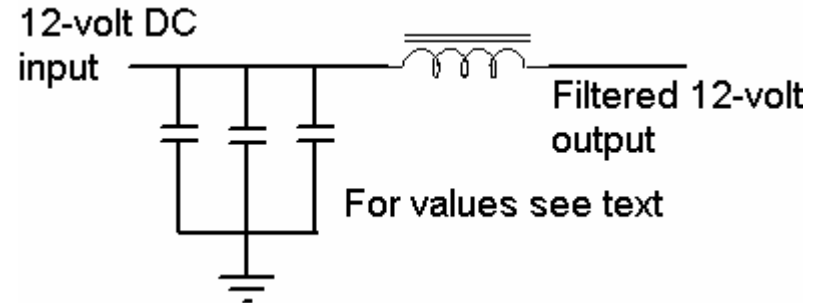


Fig.2 12 V input filter circuit diagram

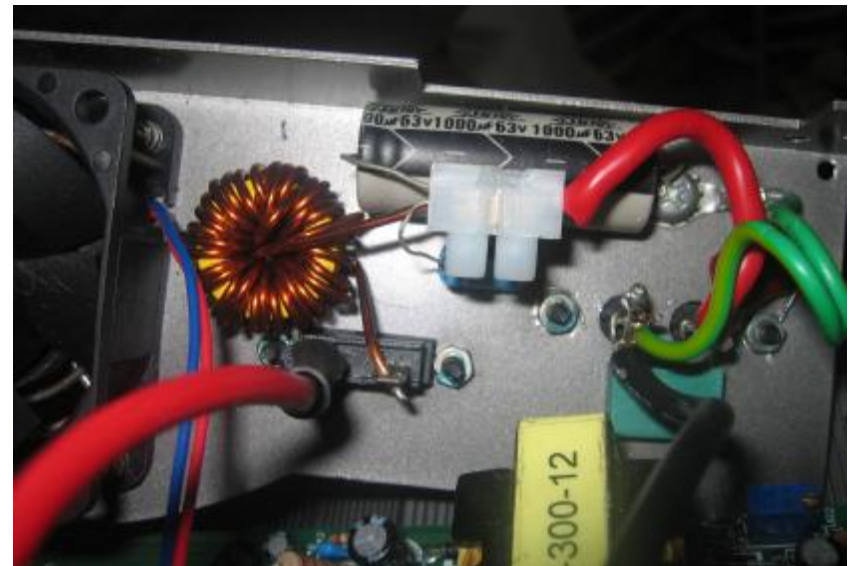


Fig.3 Fitting the 12 V input filter

3. Fitting a filter to the 240-volt output (see Figs 4 & 5)

Here I took the easy way out and used a ready-made pi-filter from an old computer power supply. This is handily mounted on a little pc board with input, output and earth leads and easily connects in just before the 240-volt sockets. I had to physically move the 'Power' LED a couple of centimetres so that the board would fit in, but this just entailed drilling one new hole.

The interference has not been eliminated 100%, but it has been reduced to a barely noticeable hum. End

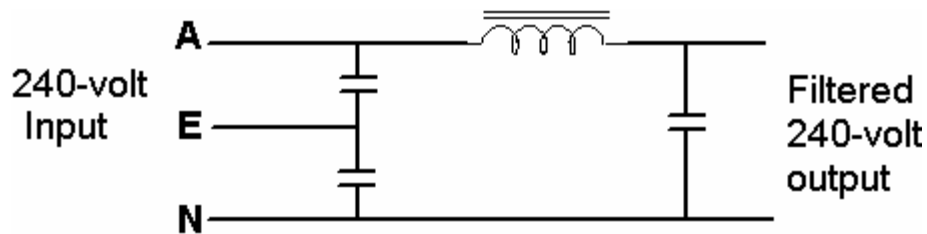
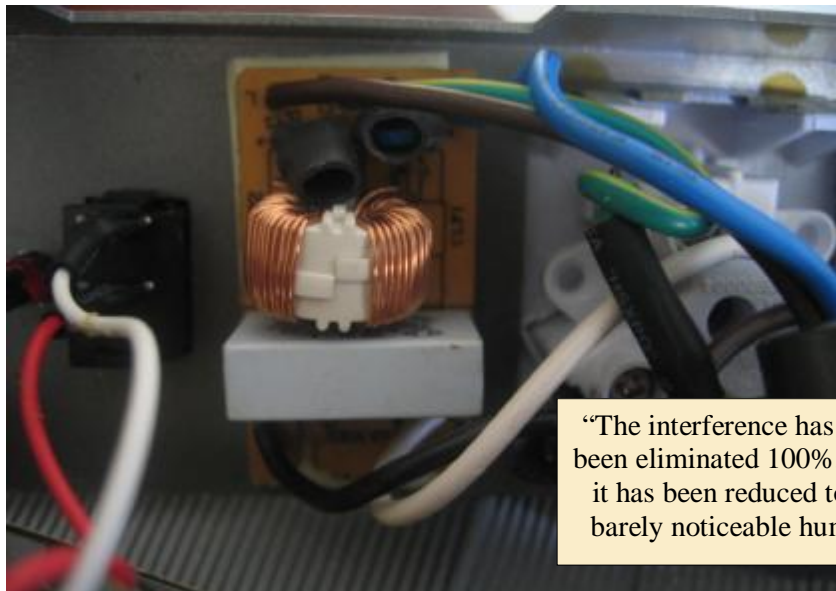


Fig.4 240 VAC output filter circuit diagram



“The interference has not been eliminated 100%, but it has been reduced to a barely noticeable hum.”

Fig.5 Fitting the 240 VAC output filter

ADVERTISEMENT

NISSEN TECHNOLOGIES

tel 07 5455 6476

www.nisstechnologies.com

shop 11 Noosa outlook s.c.
st. andrews drive
tawantin

VK4-ICE Communications

Amateur Radio Products, Antennas, Mobile Mounts
Delivered anywhere in Australia.

WWW.VK4ICE.COM

David Tavener
ABN: 44 680 887 884
vk4ice@vk4ice.com
Phone: 0408 763 336

Clayton's

TOWING SERVICE

E.V.L.D. ABN 88 010 433 177

Mike Clayton

0419 711 008

Tel: 07 5441 3888

ADVERTISEMENT

Suncoast
CARAVAN
Service

Bruce & Jenny BEAUSANG

Caravan Repairs * Spare Parts & Accessories
Roadworthy & Gas Certificates * Insurance Quotes
17 Fishermans Rd, Maroochydore 4558
Ph: (07) 5443 1036 - Fax: (07) 5443 1160
Email: suncoastcaravans@bigpond.com