

JUNE 2010

### WIA100 in August

- If you would like to help with the event, in any way, please contact Heather VK4FKEZ Secretary@lvrec.org

- **Please NOTE:** the Annual General Meeting will be held over by one month, due the event in August and will now be held on the 12th of September

If you would like to submit something for the newsletter

vk4khp@netspace.net.au is the place to send it to.

**Don't Forget the NEXT Meeting is SUNDAY THE 13th of June**

### Inside this issue:

#### Satellites

ATV

3

DF  
Foxhunting

5

CONTESTING

5

VHF TO  
Microwave

4

DIGITAL Modes

4

WIA 100 Event  
happenings

6

The official news outlet of the lockyer Valley radio and electronics club

## Rambling's from the editor

G'Day all

Glad to see some others, outside waving antennas at satellites .

Giving AO51 and HO68 a work out

If your neighbors are looking at you strangely, because your outside on a freezing night, waiving around antennas and talking in a strange language, either invite them over to help you point your antennas and enjoy the brilliant display from the stars and planets, or grab a colander and stick it on your head, and yell out, " their coming, their coming , but they won't fry my brain ! "

*No Colander, try making a nice aluminum foil hat.*

► Well it's almost winter again.

Love winter out here in the Lockyer valley, the temperatures drop to around -5 degrees overnight and crawl up towards 25 degrees, during the sunny days

► Over the next few weeks we will be testing the ATV repeater, the slow scan repeater, and if we get a chance, I would like to try testing narrow band television. Similar to the transmissions in 1934

Although, we don't need all the mechanical equipment they used back then, as we only require a computer and sound card.

Moving pictures that will fit into a voice bandwidth suitable for use on HF sideband ,

The resolution is 30 to 120 lines

But a picture is worth a thousand words.

If you want to help with testing of the television repeater or the slow scan repeater.

Just give Alan VK4SN or myself

Peter VK4KHP a call on the repeater

I hope to give a demonstration on ATV at a future club meeting, with the basic requirements for the valley area, as most TV antennas and mast head amplifiers in the area, are for High band UHF, there will be a need to build an antenna and pre-amp.



RELAXING  
Sunday Afternoon  
at Lake DYER

## Picture perfect at the Dyer

With a smaller than expected turn out to the club meeting at lake Dyer. (mainly due to mothers day commitments).

The people that did attend were treated to the best weather, one could have hoped for. With a brilliant view of the lake, now over 80 percent capacity, and plenty of action on the water, with three speed boats towing skiers

Many thanks to the members from the Ipswich Group for their attendance. And of course our own members.

We managed to fit in 3 fox hunts. Thankfully they, weren't as painful and didn't take as long as the first one, last year that Bob (BYX) and myself endured, Still a great deal of fun, though.

There was talk, of a mobile fox hunt.

That I am hoping, will be after the event in August. Maybe some time in September/October

I will publish some easy to make Direction finding antennas for mobile use, leading up to that event. Plus of course hints and tips.

*If you have any hints, ideas or general news items. Please forward them to me for the next edition*

## Club Details

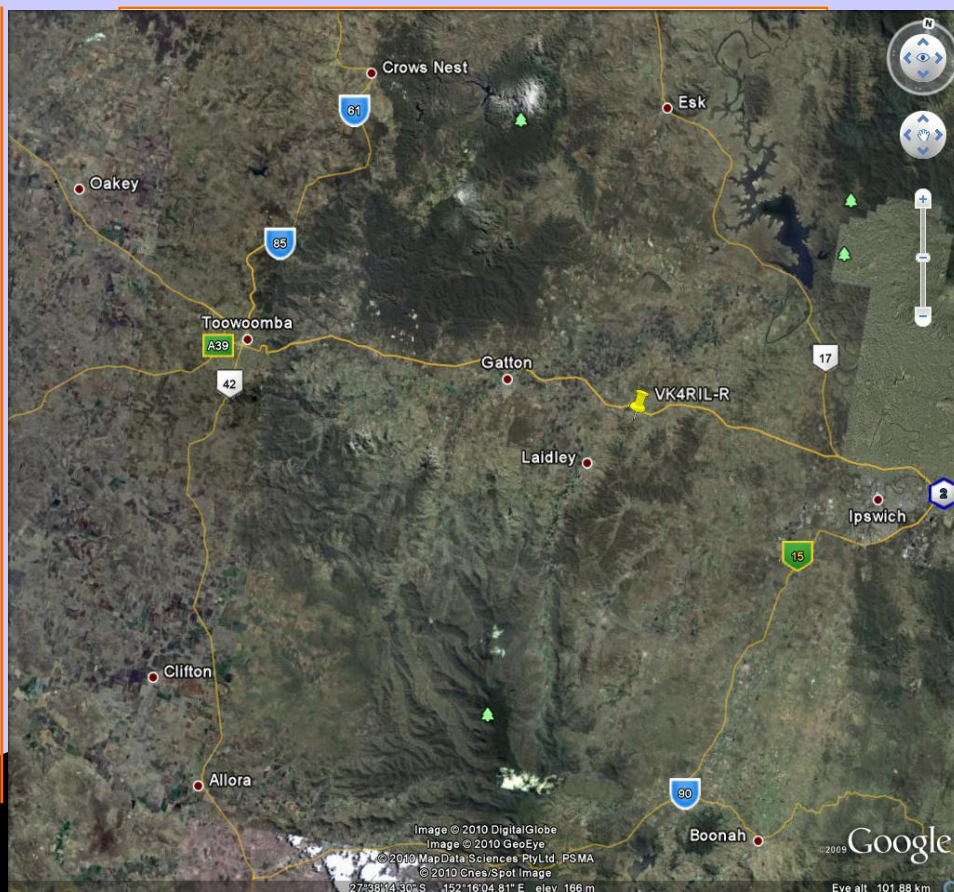
The HF Club net : Friday nights @ 7:30 PM  
On 80 meters 3570 KHz

Club meetings: 2nd Sunday of the Month at 2:00 pm  
Venue: Laidley Shire Community Care Assn, Mary St Laidley

Club Repeater 147.700 MHz  
Negative Off-set  
Echo Link Node: 491940

[www.lvrec.org](http://www.lvrec.org)

General Club bits and pieces



The repeater now appears to have settled down, and is running without any problems (*touch wood*)

Echo link, has migrated over to the other computer, and is now more stable, there were a few settings that didn't copy across, but they have been, corrected

The thing that, took a while to find, was the indents, time and weather, were not being transmitted, it turned out that, I hadn't set up the computer to use 24 hour time, I changed the setting to 24 hour and it all started working correctly. I think it was the late night lack of sleep that let the brain relax, and the light bulb above the head to come on and fix the problem.

•How do you feel about a trivia net on the repeater or HF once a week.

This could be a lot of fun, and gives, operators, who don't get on

air much, a fun reason to do so. Come along to the club meeting on the 13th of June and let us know what you think.

We have a few members in various states of repair, I hope you are all on the mend. And feeling better, hope to see you all soon.

Oh yes did I mention the meeting in June on the 13th, at the Laidley Shire Community Care Assn, Mary St Laidley. Hey I am sorry but I can't help trying.

The meeting will, cover all the large and small things that will make the WIA100 event run smoothly, there has been a lot of planning on this one, and I think the club will be proud of the effort that has and will go into it.

If you want to help, you know what to do (shameless plug coming)

Go to the meeting on the 13th of June.

OK, getting tired of me rambling about the club meeting on the 13th of June.

You could have sent me something to fill up this column, and I wouldn't have to mention the club meeting on the 13th of June, so often.

If you have something you would like to see in the newsletter or have an article or news item

Please send me an email to [vk4khp@netspace.net.au](mailto:vk4khp@netspace.net.au)

Again my apologies for mentioning the club meeting on the 13th of June so many times :)

Best of life to all.

Peter.

## Amateur Television

### JUST SOME INFO FOR YOU

first up

the transmission frequency for the repeater is 444.250 MHz

Most televisions will tune down to this frequency. The problem we are faced with in the lockyer valley is that all the antennas for the UHF transmissions from Toowoomba are high band UHF. And don't receive very well at 444.250 MHz

This is a major problem for the average member of the public or an amateur, who just wants to check out what is happening on the repeater, Without too much effort To set up.

But all is not lost, a bowtie antenna is easy to make, as are a simple yagi antennas. And are also very cheap

Now we strike another problem

The repeater is only transmitting around 20 to 25 watts

Compared to the normal television stations, this is very low power.

The latest generations of television receivers have a fairly sensitive tuner, but still have a high noise figure. To overcome this we require a low noise preamp mounted at the antenna.

You can use a mast head preamp. But the ones for Toowoomba, don't cover the frequency of interest.

However, you can either use a masthead amp that will receive 444 MHz or make a preamp with very low noise and high gain. For around \$20.00, this will make your television very sensitive to signals and will enable you to play around with TV dx from broadcast TV STATIONS hundreds of km away when conditions are right.

But back to the real world of ATV

It should allow you to receive good quality signals from the repeater.

The terrain is very harsh around the lockyer Valley for many areas due to many hills and mountains.

And as Alan and myself found, we could point the antennas in many different directions and receive signals reflecting off the hills and mountains. So if you can't see the repeater direct, then maybe, you may see a reflection.

The best way to become involved is to set your receive system up for the best signal you can manage, and enjoy

Then to look at your transmit options. We will be using either 1250 MHz or 1283 MHz as the input to the repeater. This will require a good high gain antenna, good low loss coax and at least 10 watts output from the transmitter.

The good thing is the antennas are small, the transmitter and amplifier are well priced as kits and are easy to build

This of course, is analogue television, digital transmitters are too expensive at the moment



Just found a masthead amp that has 1.75 db noise figure and around 30db gain for \$14.95. have ordered a few to try, can't get any cheaper than that, you could proceed this with a mesfet amp with a lower noise figure and expect P5 pictures all the time

## VHF to Microwaves

THIS PART OF THE NEWSLETTER is waiting for someone to submit their experiences in this part of the hobby

Some one who does meteor scatter or tropo scatter maybe EME, or just chasing distance on the microwave bands,

Any takers ?

You don't have to be a member of the club to

submit an article

## Digital modes

There are so many digital modes available to amateurs these days.

I can remember when CW, RTTY and slow scan Was basically all the choice you had,

Then came, computers , which changed that forever

Packet was the mode to use for many years, in fact many satellites launched now, still have ax25 packet telemetry.

Packet merged with GPS Technology to generate APRS.

A great mode for traveling, I can remember driving to Melbourne and getting text messages to my radio via the APRS network in Canberra

There are modes for EME, Meteor scatter, multi frequency modes which use up to 64 different audio tones.

I think these days one of the most popular modes for HF, would be PSK31.

There are many types of slow scan television modes.

I think I am trying to say,

**THERE ARE SO MANY**

I must admit, I would be lucky to have tried half of these modes.

I think what might be the best plan, is to narrow it down to a couple of modes each edition

Maybe multi frequency then the BPSK/QPSK

The programs to use and frequencies to use

Your experiences and hints and recommendations.

For me the Program of choice is digital master 780, part of the ham radio deluxe suite,

I use a Kenwood TS-B2000 which only has an on/off switch and a recessed reset switch. So ham radio deluxe controls my radio fully, has satellite tracking, rotator control, logbook logging directly from the radio, and the digital master 780, which has so many digital modes loaded, I can click a signal on the FFT screen and my radio is tuned to that signal, I can have a keyboard chat via psk31, and have the other station's name come up from the logging program, before I go back to them, and when I finish the chat, it's logged and sent to eQSL

Now, if it could make coffee.

## Contesting with VK4SN Alan

<b>VK4SN 1<sup>st</sup> Place Mixed mode HA Sprint !!!</b>	VK4GH	56	VK4YQ	14	
<b>Results Harry Angel Sprint 2010</b>	VK3PDG	52	VK5LL	14	
<i>from Ian Godsil VK3JS Manager</i>	VK4FLAE	45	VK4JRO	14	
<b><u>CW</u></b>	VK7VH	43	VK4MAX	10	
VK2KJJ	24	VK4KKN	42	VK4HER	5
<b>VK2BHO</b>	<b>20</b>	VK3ZPF	37	VK4ADP	3
<b>VK4JAZ</b>	<b>16</b>	VK3PRA	37	<b>FRIDAY SESSION</b>	
<b>VK8AV</b>	<b>12</b>	VK7JGD	29	<b>VK5LSB</b>	<b>18</b>
<b><u>Phone</u></b>		VK4DGS	29	VK4VP	5
VK4YZ	75	VK2HBG	24	<b><u>Mixed</u></b>	
VK4RC	74	VK4XZ	23	<u>VK4SN</u>	<u>76</u>
VK5LSB	63	VK2IO	21	VK4WM	45
VK2XN	60	VK4ION	20	VK4NP	37
VK2WAY	60	VK4YIO	20	VK4PL	24
VK4ZD	57	VK4YL	17		
VK4FY	56	VK5FANA	17		
		VK4FJAY	16		
		VK4ATH	16		

## FOX Hunting

Welcome to radio Direction finding or foxhunting as it is known

The antenna that Alan (VK4SN)

And myself stumbled across

Is also very useful as a dual band VHF/UHF antenna for satellite use as well as for foxhunting. *On page 7*, is the complete details from Alan, to build one of these brilliant antennas, the front to back ratio, is perfect for finding that hidden transmitter.

By holding the antenna close to your body at the front.

And facing away from the transmitter until you find the point where the signal is at a minimum or no signal at all. Is a good way to determine the direction if you are a bit close to the transmitter or are receiving reflections from many directions, also tune 5 or 10 KHz away from the frequency. At times if the signal is very strong.

When your are very close. You could remove the antenna and replace it with a dummy load, again using your body to shield the signal,

Common sense play's a big part, in the procedure, not only for safety reasons, but , if some one has driven to drop off the fox, then they usually don't walk very far from the road side to place the transmitter, unless they are very sneaky.

So use your eyes and all your senses and you should have an enjoyable time.

*On page 7, is the complete details from Alan, to build one of these brilliant antennas*

Please attend the meeting in June, if you would like to help with the event, we have a roster for the event, and every one is welcome to join in the on the days

As well as our event in AUGUST, the Ipswich group are involved in their WIA100 event, they will be the first WIA100 event station in Queensland, to host the event. Which is in July

I have included an invitation to their club. For a BBQ and Boot sale, as it says below. Similar to the Lockyer Valley, Toowoomba, Dalby and Sunshine Coast interclub events, that have proven popular over the last few years

IPSWICH

&

DISTRICT RADIO CLUB

*"INTERCLUB BBQ & BOOT SALE"*

SUNDAY JUNE 6<sup>TH</sup> 2010

ON BEHALF OF THE PRESIDENT,

MIKE CHARTERIS, VK4QS,

AND THE MEMBERS OF

THE IPSWICH & DISTRICT RADIO CLUB

WE INVITE YOU TO COME AND PARTAKE OF SOME INTERCLUB  
RADIO FELLOWSHIP

*IN THE FORM OF A FREE SAUSAGE SIZZLE & BOOT SALE*

(YOU MAY IF YOU WISH BRING YOUR OWN STEAK ETC)

*AT 10-30AM, ON SUNDAY JUNE 6<sup>TH</sup> 2010 AT OUR CLUBHOUSE*

NO 10 DEEBING STREET

DENMARK HILL

IPSWICH

COME AND ENJOY A GREAT DAY ON JUNE 6<sup>TH</sup>

BRING *WHATEVER RADIO GEAR YOU HAVE FOR SALE TO THE  
CARBOOT SALE IN THE CARPARK NEXT DOOR TO THE CLUBHOUSE*

OUR CLUB WEBSITE IS BELOW

[www.ipswichdistrictradioclub.webnode.com](http://www.ipswichdistrictradioclub.webnode.com)

WE LOOK FORWARD TO SEEING YOU ALL

PLEASE *RSVP* BY WAY OF EMAIL

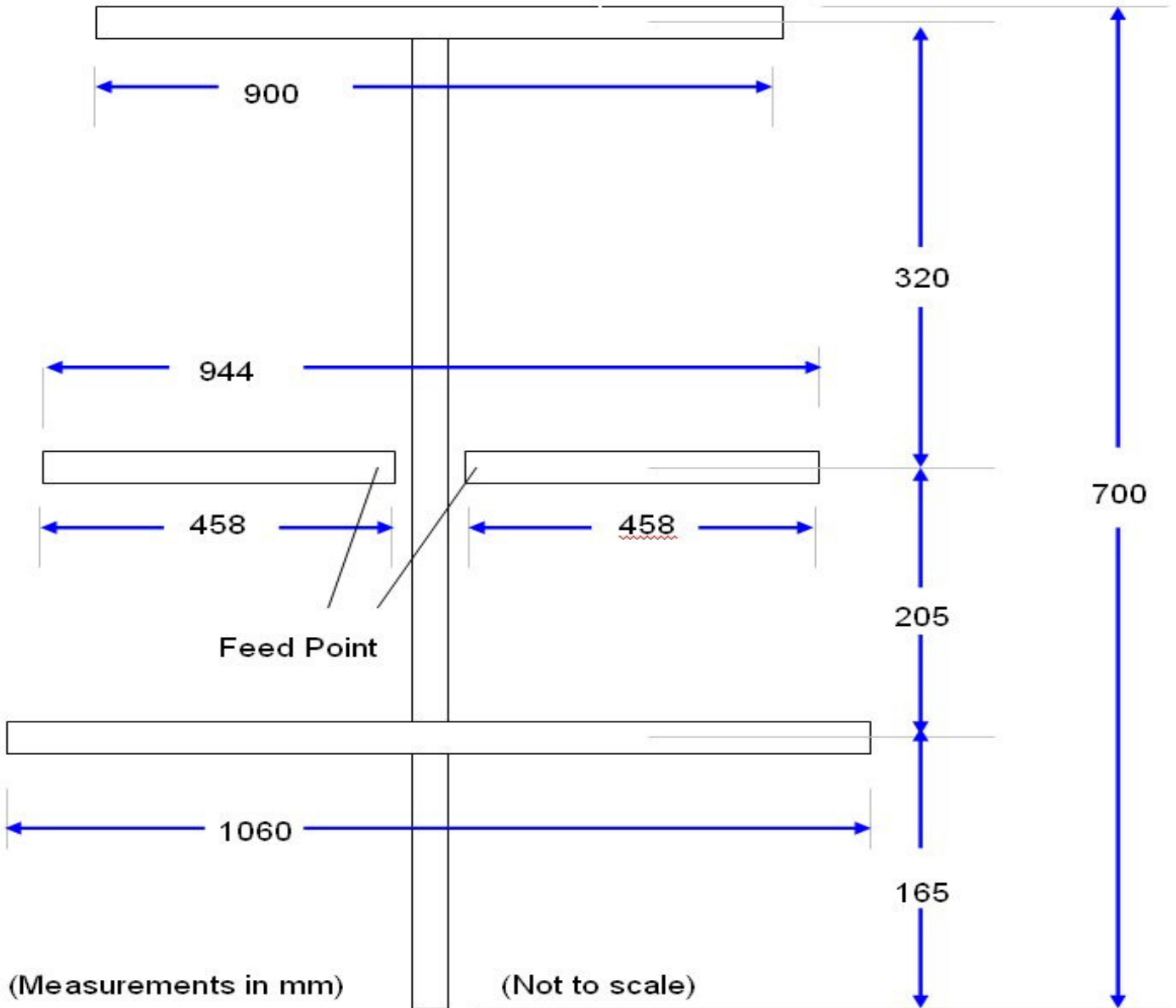
[empire1915@optusnet.com.au](mailto:empire1915@optusnet.com.au)

OR PHONE Mike VK4QS: Ph 3282 9539

WE HAVE AN ANSWERING MACHINE AS WELL

BY

*SUNDAY MAY 30<sup>TH</sup> 2010*



The fox hunt tape measure is made out of 20mm grey electrical conduit, and an old (or new) 1" wide tape measure.

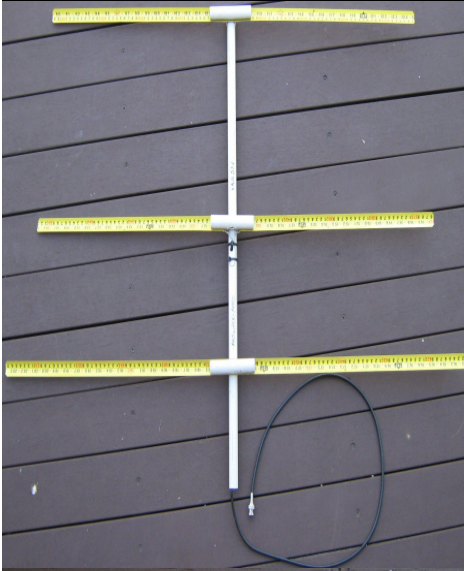
**Parts Required:**

- 1 meter of 20mm grey plastic conduit
- 3 x 20mm plastic saddles
- 1 x Old tape measure
- 11 small screws
- Solder and 11cm of copper wire for loop
- Coax and plug for HT

**This antenna works exceptionally well, including RX/TX on 70cm.**  
**I cannot remember where the original article is when I first made it, but I have measured it up again for this leaflet. Have fun. VK4SN.**

More on page 8

## 2Mtr Fox Hunt, Tape Measure Antenna



**The completed antenna.**

Cut 700mm of conduit and three 100mm pieces. The 100mm pieces are used to strengthen the element mounting and hold the saddle screws .

Once the first element is mounted, lay the antenna face down when mounting the rest as this will keep it all aligned.



Connect the radials to the boom as per picture. Pre drill the holes in the tape measure. Use a block of wood behind the element when drilling helps stop the tape from splitting.



**Driven element mounting.**

A 2<sup>nd</sup> screw is needed on each side to hold the element firm



The loop and coax connections are soldered onto the tape measure elements. Remove the yellow paint back to clean metal before connection.

The loop is 50mm long, made out of 110mm of copper wire. 5mm each side reserved to solder.