



HAMS Waywite News

September 2006

MIDLANDS AMATEUR RADIO CLUB

P.O.Box 1076, HILTON, 3245



AFFILIATED TO
THE SARL & IN
ASSOCIATION
WITH THE NATAL
CARBINEERS

**CLUB COMMITTEE
2006 / 2007**

**Chairman & Clubhouse
Manager**

Bert Cornell, ZS5MQ

☎ (033) 344-3659

Committee Members

**Rod Radford, ZS5RK
Treasurer and Secretary**

☎ (031) 785-1362

**Craig Dagleish, ZS5CID
VHF, Repeaters & Hamnet**

☎ 082 358 7403

**Mike Boast, ZS5BGV
Minutes Secretary**

☎ (033) 347-5554

**Shaun Rudling, ZR5S
VHF, Repeaters & Digital**

☎ (033) 342-1609

**Willem Prinsloo, ZR5ZS
Asst. Clubhouse Manager,
PR and Social Events**

☎ 072 691 7031

**Wessel du Preez, ZS5BLY
Vice-Chairman and
HHN Editor**

☎ (033) 702-1968

dupreezw@futurenet.co.za

National News Bulletin

Robin Seal, ZS5MRS

THE CHAIRMAN'S FAX

What a busy month this past month has been what with the linking of the 750 to the Pinewood hub and onto the Underberg 775. Your Chairman had the pleasure of being in Underberg on 1st September and was able to work OM Peter in Howick via the new system using a low power handheld VHF set, and I can vouch that the quality was 100%. Well done to the team who have made this possible. A big thank you must also go to OM Wessel for the two 5/8 antennas constructed for the 750 repeater.

It has been interesting to note that a quantity of secondhand equipment has recently come onto the market. How does one arrive at a fair price for equipment which was bought new, say more than twenty years ago eg. a FT-200 which retailed at about R400 in 1974. What is a fair price to a buyer/seller today some 32 years on? I would say R300 to R400! What do you chaps think, bearing in mind that normally the item would be sold voetstoots? With no chance of spares being available after this time, someone in PMB is trying to sell a FT-200 for R1 000,00!! Let's discuss this important aspect at one of our future meetings.

Don't forget the boot sale on the 16th September at the Clubhouse, we need sellers as well as buyers! Wors rolls will be sold for club funds.

See you there.

Bert, ZS5MQ

A printout of the membership data base has been put up in the Clubhouse. Please check whether all your details are correct.

The Club meets on the third Saturday of each month, except December, at 11h00 at the Natal Carbineers Conference Centre, Geere Street, PMB. Sunday Morning Bulletins (MARC and SARL) as well as the Club Net from 07h45 on 3620 kHz and the 145.750 MHz repeater

Sunday Club Net Controller: Mickey Esterhuysen, ZS5QB

The M.A.R.C Infrastructure

Voice Repeaters (FM)

VHF	Worlds View	145.750 MHz (Tx)	145.150 MHz (Rx)	Emcom SA256	25W
	Hilton	145.700 MHz (Tx)	145.100 MHz (Rx)	Emcom SA256	25W
	Estcourt	145.675 MHz (Tx)	145.075 MHz (Rx)	SCR200	15W
	Underberg	145.775 MHz (Tx)	145.175 MHz (Rx)	Yaesu FTC1525a	20W
	Greytown	145.775 MHz (Tx)	145.175 MHz (Rx)	Storno	
UHF	Pinewood	439.225 MHz (Tx)	431.625 MHz (Rx)		

Packet Digi-peater

Hilton	144.625 MHz (Tx & Rx)	Kantronics KPC3+ V9.1
		Alinco DJ-135 50W
		Diamond X-700 Omni 9.6dB

The standby BBS is on ZS0HIL-1. The digi is on ZS0HIL-2. The KA-Node is on ZS0HIL-7
The digi will also respond to APRS beacons (WIDE or TRACE). The I-Gate is at ZR5S-3

BBS

ZS5PMB is the call sign of the Midlands packet radio BBS. Connect to it on 144.625 MHz by typing:
C ZS5PMB, then press Enter or go in via the Hilton digi by typing C ZS5PMB V ZS0HIL-2 and press Enter.

APRS

National APRS frequency 144.800 MHz (Tx & Rx). The I-Gate is at ZS5S-1
Fixed stations should beacon at approximately 30min intervals with a path of TRACE 7-7
Mobile stations should beacon at approximately 1min intervals with a path of RELAY, TRACE 7-7

Echo-Link

Our node number is 244279 Call sign ZS5PMB
The echo-link is available on the 145.750 MHz repeater

Wefax

Hilton	144.700 MHz (Rx)	438.050 MHz (Tx)	(Out of order)
--------	------------------	------------------	------------------------

This Weather-Fax signal is transmitted from the University of Kwa-Zulu Natal Durban Campus at 2.5W on VHF. It is received at the Hilton site with an 8-element beam and re-transmitted on UHF using a Diamond X-700 omni.

Beacons

Hilton	50.321 MHz (Tx)	ZS5SIX	PSK31/CW (being rebuilt)
--------	-----------------	--------	---------------------------

Web Site

M.A.R.C.'s very own website: www.marc.org.za or www.pmbcomp.co.za/marc
South African Radio League www.sarl.org.za

Hams Haywire News

Contributions and suggestion can be sent to dupreezw@futurenet.co.za

From the Editor

Wow! I have received more material than can be fitted in a single issue of HHN! Thanks to the contributors for their support. The “good news ” article is being held over for the next issue – after all, these guys that do the thrillers in installments use the same technique!

How do you write dates? In the Club data base we have an entry called “Birth Date” and, with respect to our YL members, did not make provision for the year. So we got entries like 26 / 07 which was read as 26th of July. Coming to 02 / 09 it was interpreted to be 2nd September and belonged to OM William, ZS5WC. So a number of us got together on 3615 and issued our felicitations and good wishes to our fellow club member and at the same time bid him a bonn voyage to ST land. Much to our surprise he informed us that we were seven months in arrears or five months ahead of schedule. His birthday falls on the 9th of February! How do you write the date?

Given the recent spurt of activity on VHF and UHF in the Midlands, I trust that you have taken note of the SARL announcement regarding the competition to design a 70cm receive converter with an IF output on 145 MHz. Come on, you techies and muddlers, let us put MARC on the map. I am sure that a team effort is legal.

Towards the end of September yours truly has to report to the white house for some panel beating on the eyes and will be visually impaired for about three weeks. Fortunately the better half has volunteered to produce the magazine under guidance of the editor! By then I hope to have sorted out my page layouts as well!!

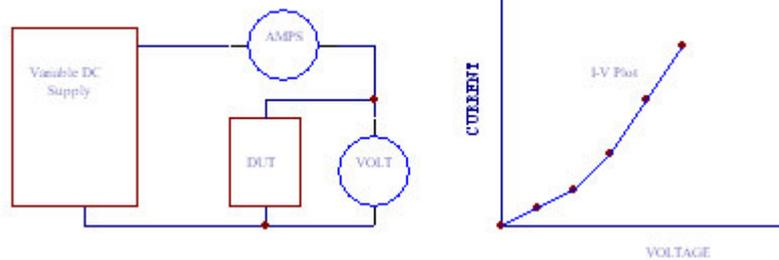
Very few things happen on their own. In most cases somebody has to do it. So it also was with our 70cm repeater at Pinewood. The photograph below shows the team that braved freezing conditions to install the system. Thanks, guys.

Wessel, ZS5BLY



Looking at the Curves

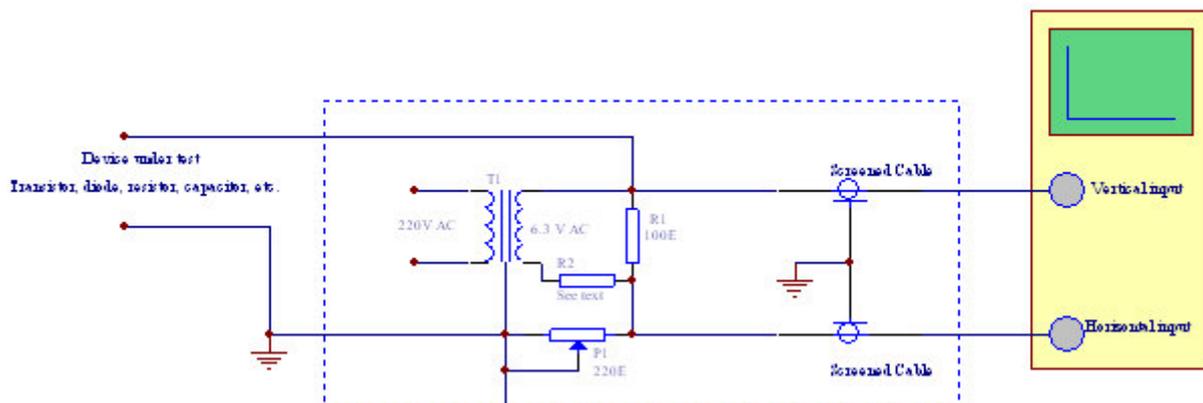
Sorry, Guys, not the curves that you were thinking about, but very interesting nevertheless. The reference is to I-V curve tracing of electronic components. By curve tracing we mean drawing a graph of current versus voltage to display the basic characteristics of an electronic component. The classic physics class method is shown in the circuit below:



Starting from zero, read and record both meters. Increment the supply voltage and read. Repeat many times. Use readings to make a plot as the one on the right. If this sounds a bit like hard work, read on. I had an e-mail from Alex, ZS5AH who writes as follows:

“I have used this adaption for years and find it very useful, all those scope users should also. It is simple and cheap to make and gives a pictorial view of the status of the components tested, ie: will show a circle for caps and angular patterns for the diode actions of transistors, etc. It is safe for the components as a very low voltage is applied to them. Also, the components can be tested in situ (not in live circuits!). I have recently tested all the capacitors in my faulty rig without removing one.”

Here is Alex's circuit:



Simple diode or transistor checker. Use any small filament transformer (+/- 6 V) for AC source. Secondary must be isolated from ground. Calculate value of R2 in Ohm:

$$(\text{Sec. Volts} \times 100) - 100 = R2$$

Thanks, Alex.

[It just so happens that the July/August 2006 issue of QEX ran an article on I-V curve tracing with a PC using the sound card and a buffer interface. The circuit is very simple (two cheap op amps) and does not require a PC-board while the software is available on the ARRL web site. If anybody is interested, give me a call and it goes in the next issue of HHN. Ed.]

VHF News

Pinewood UHF Hub

The Pinewood UHF repeater is operational and working well. Mobile coverage is good from Hilton to just south of Underberg. There are some patchy spots in the Umkomaas valley areas as well as between Bulwer and Underberg. Mobile communication from Wartburg is also very good with a dead spot in the Umgeni valley. Several stations have been heard including Stanley (ZR5SEM), Peter, (ZS5PJ), Gary (ZR5CLI), Robin (ZS5MRS), Mike (ZR5ML), and Mickey (ZS5QB). Gary is located in Umglanga Rocks and his signal into the hub is excellent. It is wonderful to hear so much activity on UHF!! If you are mobile with a UHF radio, please test where you can as many areas have not been checked for coverage.

Underberg (145.775 MHz)

This unit is operational and is now linked to the Pinewood hub. Coverage is good between Bulwer, Ixopo and up to the Swartberg side of Kokstad. The repeater antenna has an intermittent break in the loading coil which disrupts communications now and again. This will be remedied by the installation of a new Diamond co-linear supplied by ZS5BLY. A frequency change may be necessary to avoid interference from the Greytown .775 repeater.

World's View (145.750 MHz)

Old defective antennas and feedlines had resulted in the repeater being turned off to prevent any damage to the unit. A temporary antenna in the form of a mobile magnetic-mount has since been installed to provide communication until the new ground-plane units have been installed. The unit is now linked to the Pinewood hub which allows users from Underberg to access the EchoLink in PMB.

Greytown (145.775 MHz)

Operational but experiences RX problems. A new repeater is at present being constructed by Craig (ZS5CID) and, when ready, will also be linked to the Pinewood hub. The feed lines and antennas have to be replaced as well.

Estcourt (145.675 MHz)

Operational and no problems reported. OM William (ZS5WC) has donated two GE MVP radios to be used for the UHF link.

Digital Communications

Pinewood APRS digi coverage is very good up to Bulwer and can be heard in many areas around Underberg. A fill-in digipeater will be operational in the Underberg area as soon as a suitable site can be located. Mobiles operating in the Southern Drakensberg area should be seen on the APRS maps one of these days. Wessel and Craig are also constructing a weather station to hook up to the APRS network APRS coverage from Harrismith to Durban will soon be a reality. For more information, please contact Shaun, ZR5S.

World's View 6m beacon (50.321 MHz)

A new unit is under construction by Craig with help from William, Mickey and Wessel. A test unit transmitting only 3 Watt is presently running at the QTH of Craig. The FSK Morse data is transmitted as follows:

V DE ZS5SIX/KG50dk

This code is preceded by a continuous tone 250 Hz below the carrier frequency for 30 seconds. If you have 6m available, do listen out for it. The beacon is still under development and may not always be running.

Craig, ZS5CID

Bulletin Readers

September 10	Willem	ZR5ZS
September 17	Mike	ZS5BGV
September 24	Bert	ZS5MQ
October 01	Rod	ZS5RK
October 08	Craig	ZS5CID
October 15	Wessel	ZS5BLY

On the Giggle Hertz Bands

He who drinks, gets drunk
He who is drunk, falls asleep
He who is asleep, does not sin
He who does not sin, goes to heaven
So let us all drink and go to heaven.

Compliments Hartwig, ZS5WA

They said it

We are not interested in the possibilities of defeat Queen Victoria

I never notice what has been done.
I only see what remains to be done Madam Curie

New things always have to experience difficulties
and setbacks as they grow. Mao Tse Tung

MEETINGS

16th SEPTEMBER

This takes the form of flea market, boot sale, or what have you. Sales are not restricted to ham gear only. Please clean up your shack/workshop and earn Brownie points with the XYL as well as those people need just what you are going to get rid of. Wors rolls and cold drinks will be on sale for club funds.
[Committee members: we are trying to fit in a meeting]

21st OCTOBER

The meeting coincides with JOTA and the meeting will be held at the Girl Guides Hall, World's View. It may be a good time to discuss the topic raised by our chairman in his front page fax.

18th November

This is in smaller print as it is still far away! What about a technical talk? Any volunteers? It gives you enough time to prepare your talk and slides if you come forward now!