



HAMS Waywite News

January 2008

www.marc.org.za

MIDLANDS AMATEUR RADIO CLUB
P.O.Box 1076, HILTON, 3245



AFFILIATED TO
THE SARL & IN
ASSOCIATION
WITH THE NATAL
CARBINEERS

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Tcehe Chairman's Fax

THE NEW YEAR HAS ARRIVED. MAY IT BRING ALL OUR MEMBERS HEALTH, WEALTH AND EVERYTHING YOU DESIRE.

Well this is going to be the last lap for me as chairman of our club as per our constitution, a chairman rules the roost for no more than three consecutive terms. At this stage I am pleased to announce that there are at least three contenders for the position and I would appeal to our members that they start to attend a few meetings before the next AGM in July. Proxy votes have a way of getting a committee together but it would be far better for members to take part in the proper way of electing the incumbents for the various positions at stake.

Our end of year party was washed out at the proposed venue but fortunately we were able to hold it at the clubhouse grounds under cover and a pleasant couple of hours were spent socialising amongst ourselves. Sorry if you missed the event, you might like to come along for the **next one!** There is going to be a raffle drawn at the next meeting which will supply funds to help the Underberg/Swartberg chaps complete their repeater project in Swartberg supplementing the Underberg repeater. Tickets are **R10** each, first prize a dressed lamb, second prize a bottle of horse pee (whiskey) and third prize a can of the best (motor car oil). Please let me know if you haven't been approached to purchase your ticket/s.

Don't forget to re-new your licence before the 31st January 2008 or you will be re-writing the RAE! If you don't receive your renewal account, use last years as all the relevant numbers will still apply!

PS If you are not too broke after Xmas you might consider buying **ten raffle tickets!!!**

Why don't you join in on the Thursday MARC net at 19:00 on 3,620 MHz

NEXT MEETING ON 19/01/2008

CU THERE

PS! Don't forget to send your apologies if you can't make it!

73 DE ZS5MQ

The club meets on the third Saturday of every month, except December at 13:00 at the Natal Carbineers Conference Center, Geere Street, PMB.

Sunday Morning Bulletins (MARC and SARL) as well as the Club Net from 07:45 on 3620 kHz and the 145.750 MHz repeater.

Sunday Club Net Controller: Mickey Esterhuysen, ZS5QB

National News Bulletin: Robin Seal, ZS5MRS

From the Editor

During the past few months a number of books dealing with the topic "Time" have landed on my desk. Whilst some try to pinpoint "the beginning of time", others deal with the more practical aspects such as the methods of measuring and recording the passage of time. Yet others try to explain the psychological aspects, for example, the apparent way in which time tends to fly when we are enjoying ourselves and slows down seconds before a disaster strikes. During our lifetime we experience all of the above: we hold newly born babies to our breasts, we attend the 90th birthday celebrations of others and we silently weep at the memorial services of our friends for whom the clock has stopped. From all this we learn that we cannot stop the clock, neither are we able to turn it back. My wish to all of you for the New Year is therefore "Carpe diem" which, when literally translated, means "pluck time" or in plain English, use your time well!

To some of our members it may seem that "the club" takes a very long time to complete the planned projects that are reported in this newsletter and the weekly Club bulletins. This may very well be so, but please remember that "the club" consists of only three or four members that turn up regularly when things have to be done. When next a call for help goes out, join the few and discover how rewarding it can be to do something constructive in the company of your fellow radio amateurs - you may even learn a couple of new tricks as these jobs seldom proceed without a hitch or two!

For those of you that wish to dabble in computer programming there is some good news. Microsoft has released their Visual Studio, a set of programmes including Visual Basic, Visual C# and Visual C++. These are the so-called "Express Editions" which is intended for "the student and casual programmer". Further good news is that they come for free! As there is no such thing as a free meal, the download is a healthy 832 Mb! For those that are interested, I have a copy on DVD and can supply copies on request.

Wessel, ZS5BLY.

CLUB BANKING DETAILS

Bank: First National Bank

Branch: Bank Street

Branch code: 220-825

Account holder: Midlands Amateur Radio Club

Account Number: 625057756507

Type of account: Current

Reference to use is your call sign

News and Views

① The Underberg repeater is still out of action. We are awaiting the delivery of a suitable enclosure to house the equipment.

① The good news is that OM Philip, ZR5PDL has installed the Swartberg repeater and has got it going. It is located at Killrush, (approximately) 30° 07' S, 29° 23' E and sits 1900 m above sea level. This is a distance of about 110 km from PMB so working it will be a real challenge for our city members. Although the setup needs a bit of fine tuning, Mickey, ZS5QB could hear it, but not trigger it yet. Bob, ZS5CU has made contact with Philip on simplex from the repeater site, so give it a go!

① We are sorry to hear about the lightning damage at the APRS site. Hopefully it will soon be back in operation!

① Judging by the number of e-mails received, Shaun, ZR5S and the APRS aficionados are very active indeed. Maybe the chairman should ask him to volunteer for a presentation on this topic at a future meeting!

☺ = see below for some scenes from the end of year get-together!



Serious discussions!



Serious conversation!



Serious enjoyment!

The construction of an Analemmatic Sundial (Part 2)

If you have constructed a cardboard model of the dial and tried it out, you may have found that it does not agree with your Omega or Rolex when you placed the vertical gnomon at point O of the dial. The reason for this discrepancy is that we did not take the declination of the sun into account when using a vertical gnomon. The declination of the sun is that latitude where the sun will be vertically overhead at noon. We will now lay out the center scale of dates on which we will place the gnomon at various points depending on the day of the year. This is done by using the formula:

$$Z = \tan(dec) \times \text{Cos } \varphi$$

where *dec* is the declination of the sun and φ is our design latitude (we used 30°). We obtain the value of the declination from tables and then calculate the value of Z for our location. This has been done and is shown in the table below:

<i>Date</i>	<i>dec</i>	<i>Z</i>	<i>Date</i>	<i>dec</i>	<i>Z</i>
Jan 01	23° 08'	+0.369	Jul 01	-23° 00'	-0.367
Feb 01	17° 18'	+0.269	Aug 01	18° 00'	-0.281
Mar 01	8° 00'	+0.122	Sept 01	-8° 30'	-0.129
Apr 01	-4° 15'	-0.064	Oct 01	2° 54'	+0.044
May 01	-15° 00'	-0.232	Nov 01	14° 00'	+0.216
Jun 01	-22° 00'	-0.350	Dec 01	21° 40'	+0.344
Jun 21	-23° 26' 30"	-0.376	Dec 21	23° 26' 30"	+0.376

Starting at O in last month's figure, measure upwards from O towards C for each distance (Z) which is labeled + (positive), and measure downward towards D for each of the values labeled -(negative). Thus the distance for September will be +0.129. These distances must be multiplied by the scaling factor used to determine the size of the dial. We used a factor of 100 in the design of last month. Note that the months of June and December "run around the ends" of the scale. The extreme ends of the scale mark the positions of the vertical gnomon on the days of the solstices. Holes are drilled in the dial at the marked points and the gnomon is placed in the appropriate hole for each month. Also note that the values of Z calculated above were done for the first day of each month. Some errors will therefore be noticeable towards the end of the months. (*on rainy days and for important meetings, please use your Omega!*)

If you really want to go to town, hour points may be found for the half and quarter hours by taking appropriate intermediate values for t in the formula $H = \sin t$. No longitude corrections are required as our local sun time is the same as CAT which is taken from 30° east. Happy dialling!

Hints and Kinks

1. After drilling the tapping hole, use a countersink to obtain a slight hollow on the tap entry side. This prevents the material from forming a ridge around the tapping point which may cause problems when trying to insert a screw.
2. When cutting or turning steel, most of us remember to use soluble oil as a coolant and lubricant. For aluminium use methylated spirits and for perspex, use paraffin - it also makes for a good, smooth finish.
3. If you make use of a second hand when assembling printed circuit boards, place piece of teflon or other heat resistant material between the board and the foam pad. This prevents the foam from being welded to the components.



Standard Resonators
Power Rating 400 Watts

Part Number	Description	Approximate Bandwidth
		2:1 SWR or better
RM-10	10 Meter	150-250 kHz
RM-12	12 Meter	90-120 kHz
RM-15	15 Meter	100-150 kHz
RM-17	17 Meter	120-150 kHz
RM-20	20 Meter	80-100 kHz
RM-30	30 Meter	50-60 kHz
RM-40	40 Meter	40-50 kHz
RM-75	75 Meter	25-30 kHz
RM-80	80 Meter	25-30 kHz



Stop tuning, start talking.

The SG-230 Smarttuner was the first product in the HF market to offer fast, flexible tuning without any user interface. This unit works with ANY radio and ANY antenna without any special interface, making it the most versatile tuning product available. The SG-230 can be used in base station, mobile, marine and aviation and has been the "Gold Standard" of automatic antenna tuning for nearly twenty years. The SG-230 is built in a rugged ABS plastic enclosure which is sealed to protect it, and allows ultimate versatility in installation.

X200
144/430MHz(2m /70cmz)
Gain:6.0dB (144MHz),8.0dB(430MHz)
Max. power rating:200W
Impedance:50ohm s
VSWR:Less than 1.5:1
Length:2.5m
Radial length:approx.52cm
Weight:1.2kg
Rated wind velocity: 50m/sec.
Mast diameter accepted:30mm to 62mm
Type:2 x 5/8wave(144MHz),4 x 5/8wave(430MHz),FRP outershell



Ameritron's SDA-100 is without a doubt the best built, best looking, best performing HF Mobile Screwdriver Antenna in the world! When properly installed on your vehicle this antenna will provide continuous coverage from 10 Meters through 80 Meters with a 6 foot whip. Remove the whip to get 6 Meters through 40 Meters coverage.

Radio Accessories & Data Modems

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SPAM: A new method of torture?

(We often like to think that the new technology of our age has its downside when misused by some individuals and organisations. Not so - just read on!)

On a May evening in 1864, several British politicians were disturbed by a knock at the door and the delivery of a telegram - a most unusual occurrence at such a late hour. Had war broken out? Had the queen been taken ill? They ripped open the envelopes and were surprised to find a message relating not to a national calamity, but to dentistry. Messrs Gabriel, of 27 Harley Street, advised that their dental practice would be open from 10 am to 5 pm until October. Infuriated soe of the recipients of this unsolicited message wrote to the *Times*. " I have never had any dealings with Messrs Gabriel," thundered one of them,

"and beg to know by what right do they disturb me by a telegram which is simply the medium of advertisement?" The *Times* helpfully reprinted the offending telegram, providing its senders with further free publicity.

This was, notes Mathew Sweet, a historian, the first example of what is known today as "spam". It shows that new communications technologies have been prompting questions about etiquette ever since the advent of the telegraph in the 19th century. The pattern is always the same: a new technology emerges on the scene, and nobody can be quite sure how it will be employed, or the appropriate etiquette for its use. So users have to make up the rules as they go along.

When the telephone appeared in the 1870's, people worried about receiving calls from people to whom they had not been properly introduced. And what should one say when picking up the receiver? Alexander Graham Bell, the inventor of the telephone, suggested "Ahoy, Ahoy". But as in many other respects, his ideas lost out to those of Thomas Edison, who preferred "Hello", an expression that was rarely used before the telephone but is now ubiquitous. Further social minefields awaited. In 1903 the trade journal *Telephony* reported an elderly woman's complaint about her niece, who received a phone call from a male friend while dressing. "The two of them stood talking to one another just as if they were entirely dressed and had stopped for a little chat on the street! I tell you this generation is too much for me," she grumbled.

Subsequent inventions have posed further tricky questions of etiquette. Is it appropriate to dump your boyfriend by fax? When sending a message to several friends by e-mail, should you put all of their addresses in the "TO" field, and so reveal them to all the recipients? Or should you send the message to yourself and "BCC" everyone else? (Answer: b.) How should you respond if your boss "friends" you on Facebook? Does a thank-you letter count if it is sent electronically?

The technology that has done most to complicate matters, of course, is the mobile phone. Because it can be used almost anywhere, and is used by almost everyone (in the rich world at least), it has the greatest potential for social disruption: bleeping inappropriately in theatres, churches and concert halls, subjecting bystanders to tedious diatribes on trains and buses, and distracting people in restaurants. No public event is now complete without a request that phones be switched off.

A decade after mobiles began to spread, the outlines of appropriate mobile etiquette are now clear, though there are regional variations. In some parts of Scandinavia it is customary to text someone to ask permission to call them; and making voice calls on trains is frowned upon in Japan, despite the fact that mobile phones work perfectly, even underground.

Given the industry's long history of introducing new gizmos without much thought for their social knock-on effects, the extension of mobile-phone coverage to aircraft, now under way, represents a striking and welcome change. It is an unusual situation, for three reasons. Planes are one of the few remaining places where mobile phones do not work; they bring together people from different cultures; and airlines are in a position to enforce whatever in-flight rules they decide upon. They are treading carefully. Over the next few months they will allow passengers to use their phones on a handful of aircraft, limiting access in some cases to data (ie, text messages and e-mail), and asking for comments in order to choose the appropriate etiquette. No doubt there will still be unexpected social consequences, and some people will object to the outcome. Determining the right etiquette in advance will not be easy. But airlines should be applauded for trying.

(From Volume 385 Number 8559 of *The Economist* dated December 15th 2007)

The *Beijing Evening News* reported that the US Congress was threatening to abandon Washington, D.C., unless it got a new, modern Capitol building, complete with a retractable roof. Only trouble was, the paper got its story from the satirical American publication, *The Onion*. Here are other classics that should not be taken seriously.

" 134-Year-Old Man Attributes Longevity to Typographical Error"

" Nation's Schoolchildren Call for Cuts in Mathematics and Science Funding"

Bulletin Readers

13th January	Mike	ZS5BGV
20th January	Robin	ZS5MRS
27th January	Bert	ZS5MQ
3rd February	Wessel	ZS5BLY
10th February	Mickey	ZS5QB
17th February	Mike	ZS5BGV
24th February	Robin	ZS5MRS

On the Giggle-Hertz bands

Bertha Belch, a missionary from Africa, will be speaking tonight at the Calvary Methodist. Come and hear Bertha Belch all the way from Africa.

They said it

When we can't dream any longer, we die. Emma Goldman

The brain is a three-pound mass you can hold in your hand that can conceive of a universe hundred-billion light years across. Marion Diamond

Nature, Mr. Almutt, is what we were put here to rise above. Katharine Hepburn

NEXT MEETING

The next meeting of the Club will take place on Saturday, 19th January 2008 at the usual venue. Come and talk face-to-face with the people you hear on the bulletin every Sunday!

Please note the starting time of 13:00

SWOPSHOP

OM Jack, ZS5XB has the following equipment for disposal as they are moving into a smaller home.
Icom 751 HF transceiver with general coverage Rx
Icom power supply P-515
External speaker IC SP-3
Desk mike SM-5
Headphone Icom IC HP-1
Daiwa SWR/Power meter CN 720 HF
Daiwa SWR/Power meter CN 630 VHF
Yaesu antenna tuner FC-902
Jack may be contacted on 082 859 5306.