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HAMS Waywite News

January 2007

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



AFFILIATED TO
THE SARL & IN
ASSOCIATION
WITH THE NATAL
CARBINEERS

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The Chairman's Fax

The year 2007 has started and most of us are back at our salt mines scratching out a living, let's hope that the new year will bring health, peace and the safe environment which we all need to go on with our normal lives. A happy New Year to you all!

This is a good time to make those new year commitments which govern your lifestyle even if it is only to use a little less of that salt which is shaken over your daily bread.

OM Robin, ZS5MRS, has donated a number of newish QST and other magazines to the clubhouse. We hope that members will look after them and enjoy the many articles therein.

Don't forget the Thursday evening net at 19:30 hrs each week and if you have anything to swop or sell, that's the time to let everyone know.

We will discuss the Walter Reid competition at this months' meeting which will take place on the 20th January at our Try to make the effort to attend as we will also be bringing up the matter of the 700 repeater and various other matters which need attending to.

DON'T FORGET THE MEETING ON 20-01-2007

CU there

73 de ZS5MQ

Attempt the impossible in order to improve your work.

Bette Davis

The Club meets on the third Saturday of each month, except December, at 11h00 at the Natal Carbineers Conference Center, 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

Contributions and comments: Sunday Club Net Controller: Mickey Esterhuysen, ZS5QB
dupreezw@futurenet.co.za National News Bulletin: Robin Seal, ZS5MRS

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	431.625 MHz (Tx)	439.225 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 FSK

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

The chairman and committee of **MARC** wishes all our readers a happy, healthy and productive 2007

From the Editor

Due to some error in the Inca calendar they were landed with a couple of days that fell between the end of one year and the start of the next one. These were known as the “dead days” during which no activity was allowed: no working, no eating, no burials and no births. To a certain extent this matches our couple of days between Christmas and New Year though we only seem to ban work! Having survived this period, we are ready for another fresh start with all our batteries recharged and capable of our rated output. As we are all equipped with different battery capacities, our ability to do will also differ. The essential thing is that we do. I have received a list of “Ten things to do” from OM Robin, ZS5MRS. This list is distributed by WWF, the guys with the Panda logo, and is aimed at the protection of our only world. Thanks, Robin.

At the club level we also have things to do, as a matter of fact, we have quite a lot of things to do. I am sure that all of it and more can be accomplished if we can distribute the load and not place too much on one person.

I have received some more contributions for the club software CD which is slowly taking shape. As usual, it is not a question of what to put on the disk, but rather what to leave out. There is still some time left to submit your handy and helpful software!

Lastly, my apologies for a late HHN – blame it on the dead days – no work!

Ten things to do

1. **Change a light.** Replacing one regular bulb with an eco-friendly fluorescent light bulb will save 70kg of carbon dioxide a year.
 2. **Drive less.** Walk, bike, carpool or take mass transit more often. You'll save 0,5kg of carbon dioxide for every km you don't drive.
 3. **Recycle You** can save 1100kg of carbon dioxide per year by recycling just half of your household waste.
 4. **Check your tyres.** Keeping your tyres inflated properly can improve gas mileage by more than 3%. Every 10 litres of petrol saved keeps 9kg of carbon dioxide out of the atmosphere.
 5. **Use less hot water.** It takes a lot of energy to heat water: use less hot water by installing a low flow shower head (160kg of CO2 saved per year) and washing your clothes in cold or warm water(230kg saved per year).
 6. **Avoid products with lots of packaging.** You can save 550kg of carbon dioxide if you cut down on your garbage by 10%
 7. **Adjust your thermostat.** Adjusting your geyser thermostat down by a few degrees can save up to 800kg of carbon dioxide.
 8. **Plant a tree.** A single tree will absorb one tonne of carbon dioxide over its lifetime
 9. **Turn off electronic devices.** Simply turning off your television, DVD player, stereo, and computer when you are not using them will save you thousands of kilogrammes of carbon dioxide a year.
- From the above it is apparent that the WWF have a different way of counting than what I do. I will therefore add No. 10 myself:
10. **Meetings.** Try to attend one more meeting this year than during 2006.

TIME, GENTLEMEN!

We need not define time since the concept has perplexed philosophers and lexicographers and has served as the basis of learned and inconclusive arguments for centuries. We know intuitively what time is and, as ordinary people, we are more interested in measuring it than in defining it. Very early in human history men must have recognized the passage of time. The major subdivisions were marked by the sequence of day and night and the passage of the seasons. Timekeeping thus merely involved the counting of days or years or, in some instances, the cycles of the moon phases. There were no subdivisions of the day, and no one knows when men first began to count the hours, nor what they used to measure their passage. It is most certain that early methods involved the observation of shadows. As the hours of any day passed it was apparent that the shadows changed slowly in their direction and in their length. Long morning shadows point towards the west and (here in the southern hemisphere) rotate clockwise and shorten as the day progresses until at local noon they are at their shortest and point towards the north. (ZS hams still use this fact to determine the N-S line for the orientation of their antennae). During the afternoon, the shadow again lengthens as it continues its clockwise change of direction towards the east. Man could thus divide passage of time for every day by measuring the length of his own shadow. This only worked for the time of daylight which was divided into twelve equal periods or "hours". The summer hours were thus longer than those of winter. It is an interesting experiment to measure the length of your own shadow against your wristwatch and repeat the same thing again in winter. This method of telling the time is well illustrated by Chaucer, who in the opening lines of the "Parson's Prologue" in his *Canterbury Tales* writes:

It was four o'clock according to my guess,
Since eleven feet, a little more or less,
My shadow at the same time did fall,
Considering that I myself am six feet tall.

In many ways the direction of a shadow is a more satisfactory time-teller than its length. Boy Scouts are taught to tell direction from their watches. They are instructed to hold the watch face upwards and point the hour hand towards the sun. The south point will then lie midpoint between the hour hand and the 12 o'clock mark. Though not very accurate, it is better than none.

We do not know when the first instruments, similar to modern sundials, were put to use to tell the time. A stone fragment in the Berlin museum is thought to be the earliest known sundial, dating back to about 1500 B.C. The Bible mentions something that some authorities take to be a sundial (though the meaning is by no means certain) from the days of Ahaz, king of Judah some 700 years B.C. It is to be found in II Kings 20:11 and reads as follows:

Isaiah prayed to the LORD, and the LORD made the shadow go back ten steps on the stairway set up by King Ahaz.

Almost the same words are to be found in Isaiah 38:8. About a century later the Greek philosopher and astronomer, Anaximander of Miletus, is said to have introduced the sundial into Greece. Herodotus, who lived about 450 B.C. tells us that "*It was from the Babylonians that the Greeks learned about the pole, the gnomon and the twelve parts of the day*". By Roman times sundials were common so that in 200B.C. the comic dramatist, Plautus, condemned in verse "*the wretch who first set a sundial in the market place to chop my day to pieces*"

Sometime and somewhere it was discovered that the shadow cast by a slanting object might be a better timekeeper than the shadow cast by a vertical one. If, in fact, the shadow-casting object was parallel to the earth's axis, the direction of its shadow at any given time of the day was constant regardless of the season of the year. (in MARC land the angle is 30° and we point the sloping side geographically north).

In his book "Technology and Culture" Derek Price warns us that though sundials may have been constructed to serve the practical end of telling the time, "*their design and contention seems to have been*

the aesthetic or religious satisfaction derived from making a device to simulate the heavens. Greek and Roman sundials, for example, seldom have their hour-lines numbered, but almost invariably the equator and tropical lines are modelled on their surfaces and suitably inscribed”.

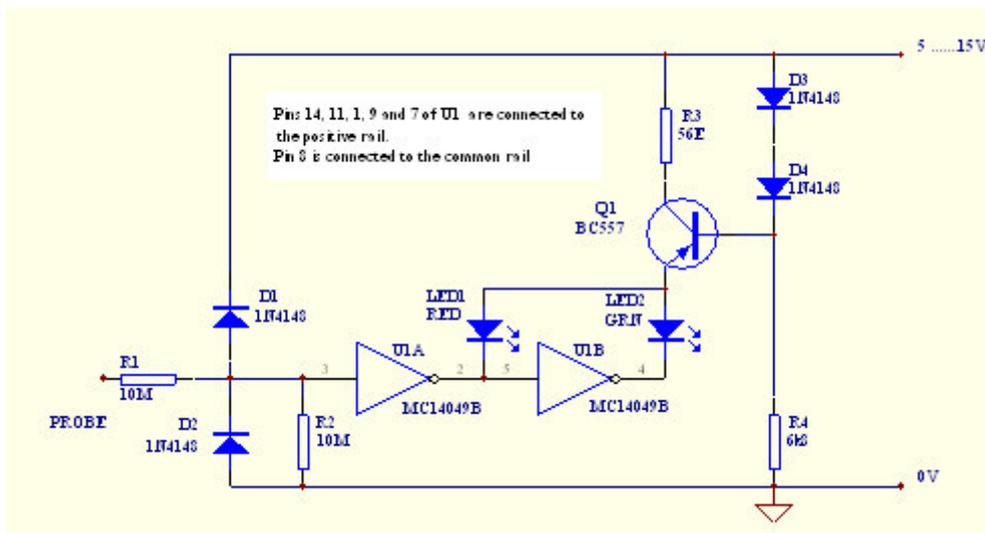
While men have used many other means of telling time – sandglasses, waterclocks, candles and graduated lamps, nevertheless for at least ten or perhaps twenty centuries the sundial was the major timekeeping device used by man.

[Next month we will take look at clocks and atoms. Ed.]

Hi or Lo

This handy one evening project will tell you whether a logic level on a digital IC is high or low. It will of course also tell you whether a high positive voltage is present on other In use the positive side of the circuit is connected to the supply line (usable from +5 to +15V) and the 0 line to the common line. A wandering probe is then connected to the point to be tested. The red LED indicates a high voltage and the green one a low voltage. The high input impedance makes the device usable for TTL and CMOS logic. It draws about 15mA from the supply line.

Connecting a square wave generator to the input will produce a red/green flasher!



Circuit diagram for a logic probe

Repeaters and Beacons

The 6m beacon is operational at the QTH of OM Mickey, ZS5QB and awaiting a volunteer to install it at its proper location. As a result of his neck operation ZS5QB cannot scale towers anymore.

Our Underberg repeater has not been collected for repairs yet. Hopefully this will happen before you read these lines. As no news to the contrary has been received, your editor assumes that all our other units are up and running and that they are being put to good use.

At the next meeting it is hoped to discuss the location of the 700 repeater as well as the upgrade and linking of the next 2m repeater. Four 5/8 GP antennas have been completed and will be tuned to the correct frequency when we know where they are going to.

Bulletin Readers

January 21	Rod	ZS5RK
January 28	Craig	ZS5CID
February 04	Willem	ZR5ZS
February 11	Bert	ZS5MQ
February 18	Mike	ZS5BGV
February 25	Wessel	ZS5BLY

On the Giggle-Hertz Bands

More from “*Disorder in the Court*”

- 1 What is your date of birth?
July fifteenth.
What year?
Every year.
- 2 And where was the location of the accident?
Approximately milepost 499.
And where is milepost 499?
Probably between milepost 498 and 500.

They said it

- We should rid our ranks of all impotent thinking. Mao Tse-Tung.
- You grow up the day you have your first real laugh – at yourself. Edith Barrymore.
- But there are occasions when it happens that justice produces mischief. Sophocles.

Next Meeting

The next club meeting will take place on Saturday, 20th January at 11:00. As indicated by the chairman we are going to discuss the Walter Reid competition and we need as much input as we can get to make the decision acceptable to all. Repeaters are on the list as well, plus anything that you think may need attention. Committee members are to be there at 09:30.

As you may have noticed, the MARC infrastructure is on page 2 of this issue. It was decided to include it every third or fourth edition except when major changes have been made. The reported errors have been corrected but please report any remaining ones so that the page may reflect the true situation.

Strays

Remember the Thursday evening net. Last week the QRN was atrocious but we managed.

I have some TH-5 parts available - those that have not been damaged when the wind brought the tower down!