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WATTS

05 - 2008

Year 78 +5m

Monthly newsletter of the Pretoria Amateur Radio Club
Maandelikse nuusbrieff van die Pretoria Amateur Radio Klub.



PARC, PO Box 73696 Lynnwood Ridge 0040, RSA



web <http://www.zs6pta.org.za> mail:zs6pta@zs6pta.org.za

Bulletins :145,725MHz 08:45 Sundays / Sondae

Relays : 1840, 3700, 7066, 10135, 14235, 51400, 438825, 1297000kHz

Activated frequencies are announced prior to bulletins

Swapshop: Live on-air after bulletin 2m and 40m

Bulletin repeats | herhalings : Mondays 19:45 on 145,725 MHz

Morse keys galore in Ed ZS6UT's collection (not only will you find these at ham fleamarkets but even at an antique fair, as Ed's son-in-law did (the bottom two at the left) duly resurrected by Ed.



In this issue

- Minutes 5 April Notules
- Member's pages Lede-bladsye
- Member activities Lede-bedrywighede
- Current repeater coverage maps
- Technical items What Watts Tegniese items
- 75-80m wire antenna
- Page eight Bladsy agt

In hierdie uitgawe

Next Meeting
14 May 2008

Time: 19:30 for 20:00
PARC Clubhouse
South Campus
University of Pretoria
SE cnr University and
Lynnwood roads

PARC Management team / Bestuurspan Oct. 2007- Sept 2008:

Committee members

Chairman, Fleamarkets	Alméro Dupisani	ZS6LDP	chairman@zs6pta.org.za	012-567-3722	082-908-3359
Secretary, Vice Chairman Rallies, Social, Hamnet	Johan de Bruyn	ZS6JHB	secretary@zs6pta.org.za	012-803-7385	082-492-3689
Treasurer, Database, DF hunts	Richard Peer	ZS6UK	treasurer@zs6pta.org.za	012-333-0612	082-651-6556
Repeaters, Technical	Craig Symington	ZS6RH	technical@zs6pta.org.za	083-259-3233	083-259-3233
SARL liaison	Pierre Holtzhausen	ZS6PJH	zs6pjh@qtsp.co.za	012-655-0726	082-575-5799

Co-opted / Geko-opteer:

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Klubfasiliteite, vlooiemark	Willie Greyling	ZR6WGR	willie@up.ac.za		082-940-2490
Webmaster (non-member)	Wesleigh				
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	Thobile Koni	ZS6TKO	toko40@mweb.co.za		082-493-2483
Tea	Molly Peer	ZR6MOL	molly@peer.co.za	012-333-0612	
	Doreen de Bruyn	ZR6DDB		012-803-7385	082-857-9691

Minutes of the monthly club meeting of the Pretoria Amateur Radio Club held at the South Campus of the University of Pretoria on 12 April 2008

Welcome: Johan ZS6JHB declared the meeting open and welcomed all who attended.

Attendance: The meeting was attended by 13 members and 1 visitor.

Apologies : Apologies were received for Molly ZR6MOL, Edwin ZR6ESP and Hillary ZR6HAL.

Personal Matters/Lief en leed: Nico ZR6VT reported that Erica sw of Pine ZS6OB is not to well at the moment.

Minutes of previous meeting: The minutes of the previous meeting were approved.

Proposed by Chris ZS6BGH and seconded by Richard ZS6UK .

Matters arising from previous minutes: None.

Club Activities:

Rallies: Johan ZS6JHB – Next event will be the Sasol Rally on 2/3 May 2008 in Sabie/Nelspruit. Members who can assist with communication on the event can contact Johan ZS6JHB.

Social: Next social event will be announced on the club's bulletin.

D F Hunt: Richard ZS6UK – Next Foxhunt scheduled for 10th May 2008. Starting 14:00 at the Botanical Gardens in Silverton.

Fleamarket: Almero ZS6LDP - Next Fleamarket will take place in June 2008. Date to be announced .

Financial Report: – Richard ZS6UK reported on the club's finances.

Technical: Craig ZS6RH - Not available .

Projects: Roy ZS6XN displayed the 3 LED & 10 LED battery charger kits .These kits are now available and if you want one please contact Roy. Contact details is in WATTS.

Club bulletin: Repeat of bulletin on Monday evenings from 19:45

General :

ID Cards – New members and members who are in need of a new membership card must please contact Johan ZS6JHB at johandbr@absa.co.za or phone him at 0824923689.

Nico ZR6VT showed off the club's new **webpage**. If you want to have a look please visit www.parc.org.za. Your comments and proposals to improve the web page are most welcome.

Chris ZS6BGH complimented Hans ZS6KR in his absence on the quality of the **WATTS**. Well done Hans!

Next meeting : 14th May 2008 at the Club House. Starting time 20.00.

Presentation : Derek ZS6KQ showed a video/DVD on radio controlled Helicopters. Expensive stuff to play around with!

Closing: The meeting closed at 15.10 .

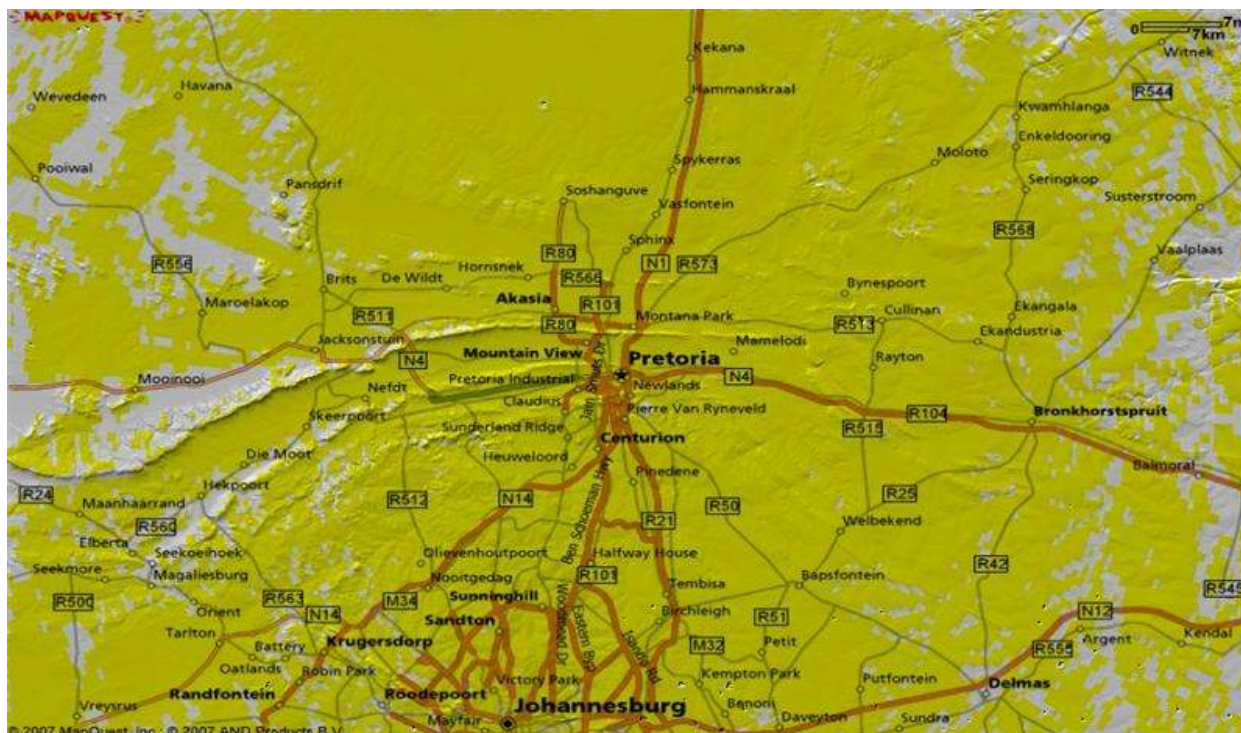
Editorial:

On the next page you will see the theoretical coverage of our current 2m repeater diversity reception system which, without the tireless efforts and ingenuity of Craig ZS6RH and the generous support of Nico ZS6AQ would never have materialized.

Your editor has considered it fitting to nominate Craig for the recently announced Garth Milne Technical Innovation Award sponsored by Nokia-Siemens Networks through the South African Amateur Radio Development Trust. I wish him luck and hope he will be judged first in line.

On the same theme I have noticed over several past years that very few club members bother to nominate another for any award. Is it too difficult to write a motivation for someone you feel deserves one of the many Club and SARL awards on offer every year? Must the committees always make the choices at the last moment? Please get more involved on this score – what others do for the hobby benefits all amateurs in- and beyond the club and should get due recognition.

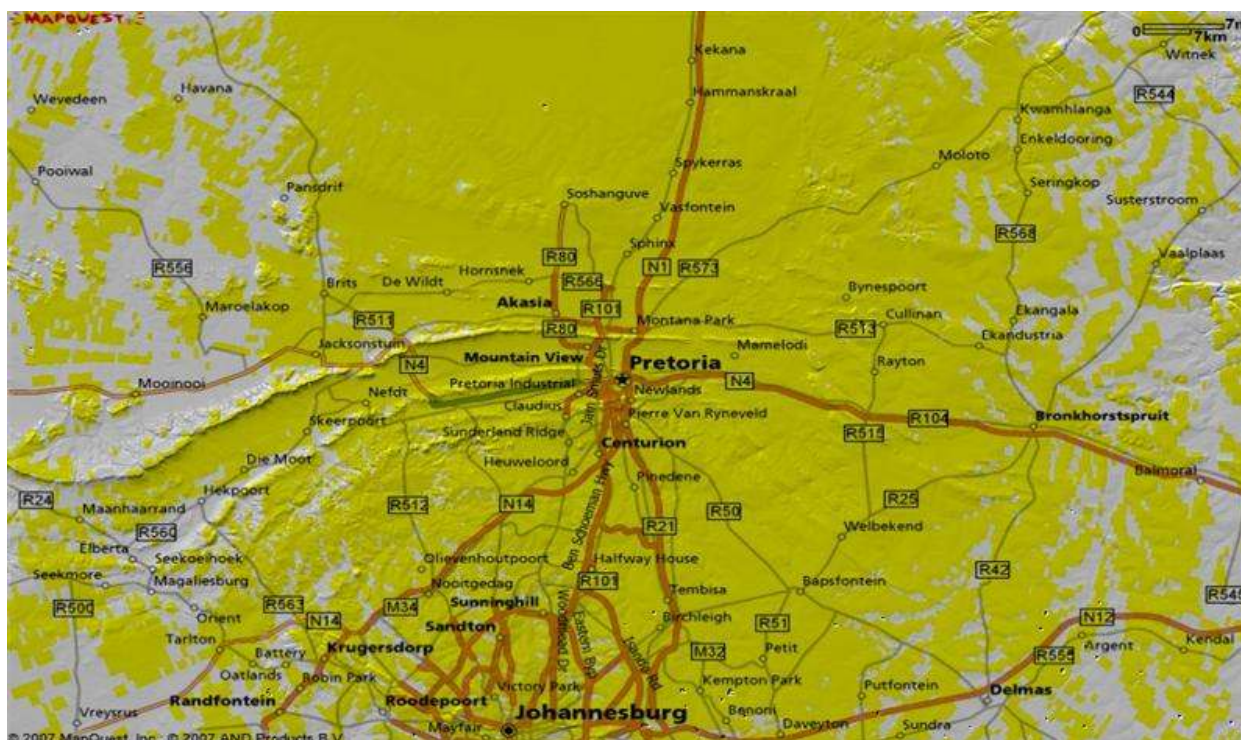
ZS6PTA 2m repeater with diversity reception - theoretical prediction of coverage
Maps are 170x100km



TX
ZS6PTA 2m repeater 65W TX 0dBi gain (actual 6dBi) coverage from Radcliff (Klapperkop) as received on a typical vehicle installation. Losses due to building or foliage are not modelled, but the yellow area represents a theoretical coverage in excess of 1 microvolt.

Readers are urged to correlate these predictions with experiences during their travels and give or ask reports

RX
Composite coverage of RX Keevy (two stack facing west), RX Moreleta(3dbd ASP collinear east on mast 300mm) and RX Wonderboom (temp slimjim). Planned for Wonderboom is a 6dB collinear on top of 20m tower with low loss LMR 400(30m) or better. The TX parameter here is a 10W signal from a transmitter on a mobile vehicle.



Birthdays

May Verjaarsdae



May

Anniversaries Herdenkings

- 01 Amanda, dogter van Martie en 'JB' ZR6YV
- 06 Lourens ZS6KRT
- 06 Suzette ZR6SVW dogter van Pieter ZS6PVW en Magda ZS6MVW
- 09 Heilie, daughter of Heila and Melvyn ZS5MF
- 10 Roy ZR6RV, son of Marieta en Roy ZS6MI
- 11 Zdena, sw of Ivo ZS6AXT
- 12 Sue, sw of John ZS6JAO
- 13 Johannes ZU6HDT
- 14 Johannes ZS6BPP
- 14 Pieter ZS6PVW
- 15 Darren, son of Sue and John ZR6JAO
- 17 Vince ZS6BTY

- 04 Ronel en Pieter ZR6PSV

- 18 Karen, daughter of Pat ZR6AVC and Frank ZS6GE
- 20 Deryck ZS6KQ
- 23 Lily, sw of Harry ZS6AMP
- 25 Tjerk ZS6P
- 26 Vitor ZS6VG
- 31 Dave ZS6JW

Joys and Sorrows | Lief en Leed

† **Fred ZS6MRA** passed away after a few months of illness on his birthday 2 April.
Fred ons mis jou en ons dra ons innige meegevoel aan die Aust familie.

† **Sue**, the wife of John Ogden ZS6OGD passed away on 31 March. Our sincere condolences to John and family.

Sander ZS6SSW was onder die mes maar ons het hom alweer op die lug gehoor.

Nuwe Lede | New members

If none, let's go get some...

Diary | Dagboek (UTC times)

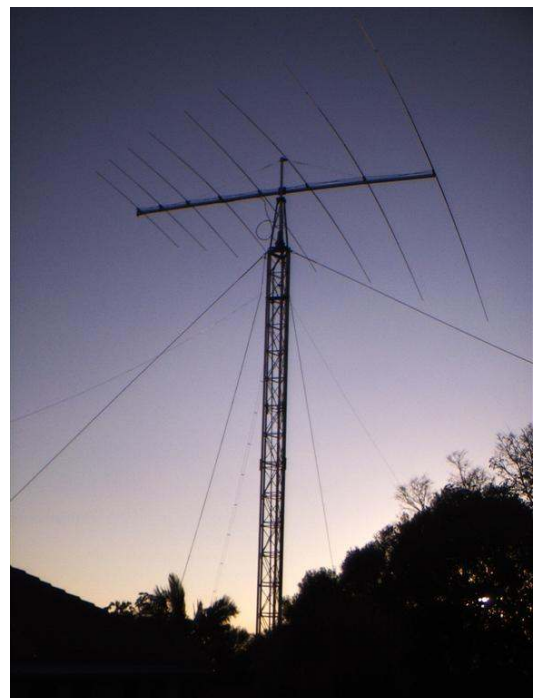
- May** 03-04 10-10 International Spring DX Contest 0001-2359
- 14** **PARC evening Club meeting**
- 17-18 European PSK DX Contest 1200-1200
- 17-18 His Majesty King of Spain CW Contest 1200-1200
- 24-25 WPX CQWW CW Contest 0000-2359
- June** 07-08 IARU Region 1 Field Day CW 1500-1459
- 14** **PARC Saturday Club meeting**

FUTURE MEETING DATES

Even months:		Odd months:	
Saturdays 14:00		Wednesdays 20:00	
Jun	14 2008	May	14 2008
Aug	09 2008	Jul	09 2008
Oct	11 2008	Sept	10 2008
Dec	13 2008	Nov	12 2008

Snippets | Brokkies

- Our **D-star repeater** will soon be up at Moreleta for experimental use.
- Hans **ZS6KR** received a SARL Anon Trophy at the SARL AGM for a joint-highest CW band-score during the annual HF CW Contest.
- Vince **ZS6BTY** has his log-periodic up and running →
- www.parc.org.za is active and humble beginnings can be seen. This site is still under construction. You can already place swaps but other services will take a little longer to complete. Appointed moderators will have full access to modify or add content in some- or all categories that members submit. Check it out. No guarantee that it all works yet! Initially sign in with the password **xyxy** and then change it to whatever you prefer. **Member's opinions on whether email and telephone particulars should appear on the members list is required. Notify nico@admin.co.za**
- Craig **ZS6RH** and family QSY'd for a 3-week holiday.
- Pierre **ZS6PJH** and family have also QSY'd to Natal for a break.
- When you read this ZS0JPL-R echolink will be working in- and out.
- Who can help bring **QSL's from SARL HQ** to evening meetings?



SARL AGM 2008: Richard ZS6UK represented our club in Bloemfontein. Rassie Erasmus ZS1YT was elected president and also has the treasurer's portfolio. The past president for the last 5 years Graham Hartlett ZS6GJH was given a well deserved honorary life membership. Two of our PARC members Richard ZS6UK and Johan ZS6JHB received the prestigious Jack Twine Merit Award.



Ivan ZS6CCW had an enjoyable outing in the vicinity of Rustenburg working DX in the WPX contest. As you can see, there was no lack of bottled encouragement.



Wire Antenna for 75 and 80 Meters

found on the www

This article is about a wire antenna that covers the entire 3.5 to 4.0 MHz band with an SWR below 2:1. It is a two wire log-cell of the Pyramidal Antenna, a log periodic antenna discussed in the accompanying article [1]. The antenna consists of two coupled dipoles, one resonant at about 3.5 MHz and one resonant at about 4 MHz, resulting in the low SWR.

The model

The antenna was modeled using 4nec2, a free version of nec [2]. The antenna dimensions were determined by 4nec2's genetic evolver with the following conditions: wire #14 copper, frequency sweep 3.5 to 4 step 0.1, segmentation 40 per half wavelength, impedance 50 ohms, SWR 100. The antenna was assumed to be 40 feet above average ground. The schematic diagram of the antenna and its SWR are below and also the 4nec2 program that created the data.

Ross Anderson W1HBQ ross_anderson@comcast.net January 8, 2008

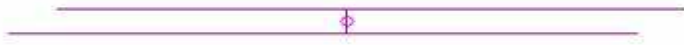
Notes, References, and Links

[1] http://home.comcast.net/~ross_anderson/Pyramid.htm

[2] <http://home.ict.nl/~arivoors/>

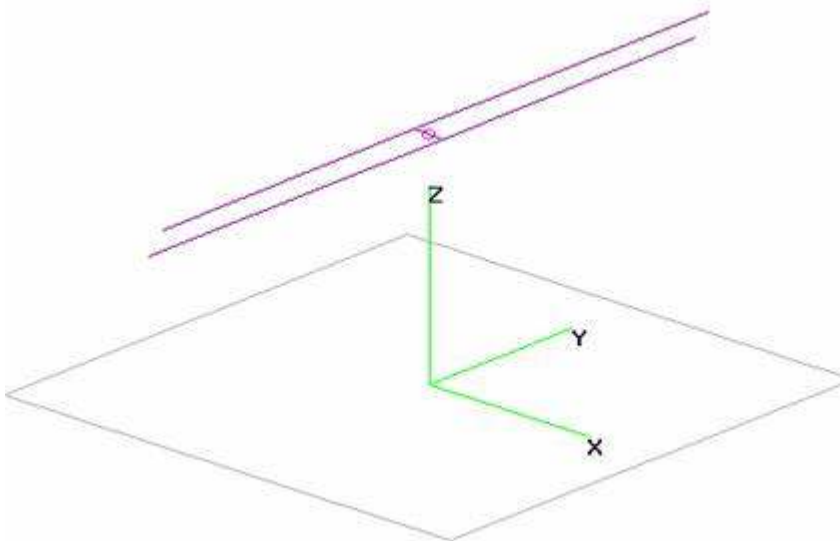
My homepage "Ross's Antennas", with links to my other pages, is http://home.comcast.net/~ross_anderson

Schematic diagram of antenna

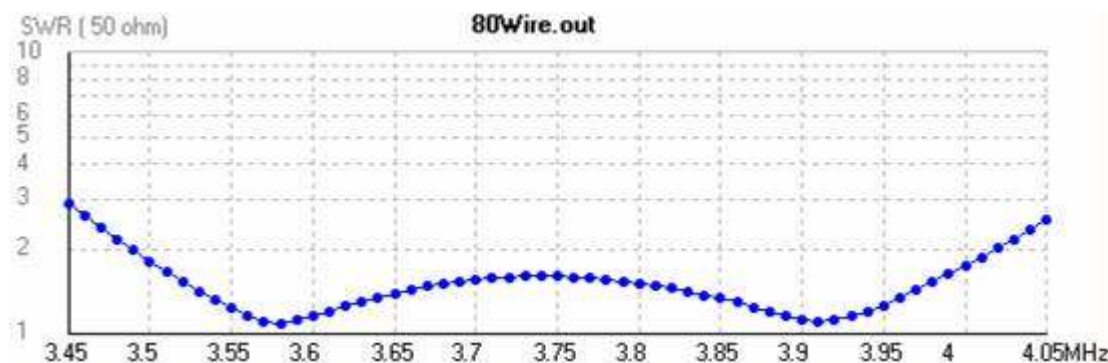



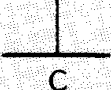
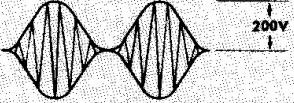
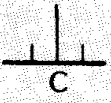

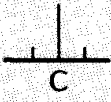

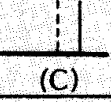
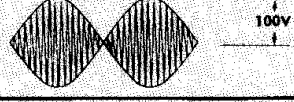
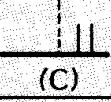


The top wire is 677.5 inches long on the left and 789 inches on the right. The bottom wire is 789 inches on the left and 677.5 inches on the right. The spacing between the wires is 71 inches. The connecting wire is also 71 inches. The antenna is fed in the center of the connecting wire (marked by a circle).

Orientation of antenna over ground



SWR versus frequency



TRANSMISSION TYPE and SCOPE PATTERN	FREQUENCY SPECTRUM (C: Carrier)	PEV _{rms} (arbitrary)	PEP = $\frac{PEV_{rms}^2}{Z_o}$	AVERAGE (Heating) POWER
Table A CW 		$\frac{100}{\sqrt{2}}$ V	100W	100W
Table B AM 100% Mod. 		$\frac{200}{\sqrt{2}}$ V	400W	150W
Table C AM 73% Mod. 		$\frac{173}{\sqrt{2}}$ V	300W	127W
Table D SSB 1 tone 		$\frac{100}{\sqrt{2}}$ V	100W	100W
Table E SSB 2 tone 		$\frac{100}{\sqrt{2}}$ V	100W	50W
Table F SSB Voice 		$\frac{100}{\sqrt{2}}$ V	100W	—

$Z_o = 50$ ohms PEV: Peak Envelope Voltage. Carrier (or suppressed carrier) PEV was arbitrarily chosen at 100 volts in all examples. $PEV_{rms} = PEV / \sqrt{2}$.

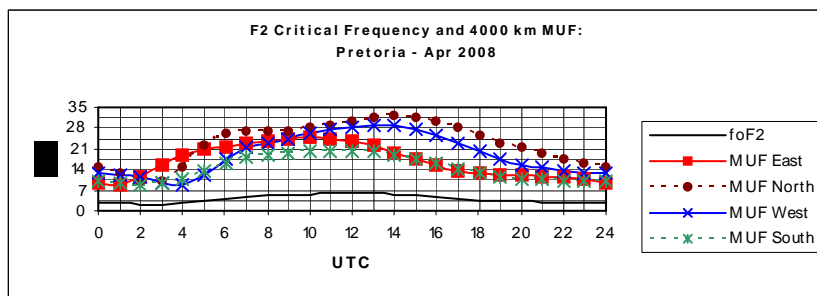
Long Term HF Propagation Prediction for April 2008 (courtesy Vince ZS6BTY)

DX Operating

The graph shows the 4000 km maximum useable frequency (MUF) to the East, North, West and South from Pretoria for the first hop using the F2 layer.

Local Operating

The F2 critical frequency (foF2) is the maximum frequency that will reflect when you transmit straight up. E-layer reflection is not shown.



Antenna expert L.B. Cebik, W4RNL (SK)

L. B. Cebik, ARRL Technical Adviser and antenna authority, passed away last week.

He was 68.

Cebik was known to many hams for the numerous articles he wrote on antennas and antenna modeling and probably the most widely published and often read author of Amateur Radio antenna articles ever to write on the subject.

Cebik maintained a Web site, www.cebik.com, a treasure trove to anyone interested in antennas.



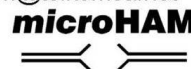
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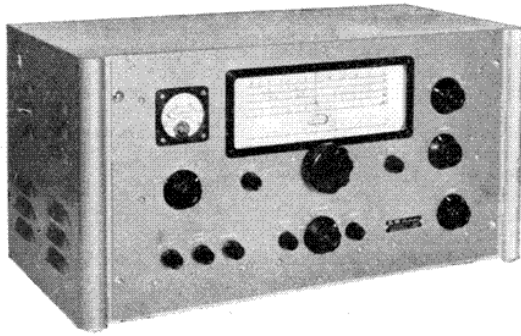
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For all non-engineers:

Ratio of an igloo's circumference to its diameter:

Eskimo Pi

Time between slipping on a peel and smacking on the pavement:

1 bananasecond

Time it takes to sail 220 yards at 1 nautical mile per hour:

1 knot fur long

Half a large large intestine:

1 semicolon

Unit of laryngitis: 1 hoarsepower

52cards:

1 decacards

1000kg of Chinese soup:

won ton

Famous one-liners:

"Women don't want to hear what you think. Women want to hear what they think, in a deeper voice" – *Bill Cosby*

"A guy knows he is in love when he loses interest in his car for a few days" – *Tim Allen*

"A man's love is incomplete until he has married. Then he's finished" – *Zsa Zsa Gabor*

"The trouble with the rat race is that even if you win, you're still a rat" – *Lily Tomlin*

"It's not that I am afraid to die; I just don't want to be there when it happens" – *Woody Allen*

"why do they call it rush hour when nothing moves?" – *Robin Williams*

"You know why fish are so thin? They eat fish" – *Jerry Seinfeld*

"I drink to make other people interesting" – *George Jean Nathan*

"I just recently had my Visa card stolen. Now it's everywhere I want to be" – *Scott Wood*

"The trouble with jogging is that the ice falls out of your glass" – *Martin Hull*

"If mini-marts are open 24/7 365 days a year then why do their doors have locks on them?" – *Gallagher*

"If God meant us to be naked, he would have made our skin fit better" – *Maureen Murphy*

"Men who have pearced ears are better prepared for marriage. They've experienced pain and bought jewellery" – *Rita Rutner*

"I've been on calendar but I've never been on time" – *Marilyn Monroe*



Cyber baby

A little boy goes to his father and asks 'Daddy, how was I born?'

The father answers, 'Well, son, I guess one day you will need to find out anyway!

Your Mom and I first got together in a chat room on Yahoo.

Then I set up a date via e-mail with your Mom and we met at a cyber-cafe.

We sneaked into a secluded room, where your mother agreed to a download from my hard drive. As soon as I was ready to upload, we discovered that neither one of us had used a firewall, and since it was too late to hit the delete button, nine months later a little Pop-Up appeared that said:

'You got Male!'