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WATTS

12 - 2005

Year 75+12m

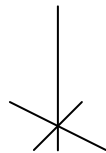
Monthly newsletter of the Pretoria Amateur Radio Club
Maandelikse nuusbrieff van die Pretoria Amateur Radio Klub.



PARC, PO Box 73696 Lynnwood Ridge 0040, RSA



<http://www.qsl.net/zs6pta>



Bulletins : 145,725MHz 08:45 Sundays / Sondag
Relays : 1840, 3700, 7066, 10135, 14,200 MHz
depending on season

Swapshop: After bulletin 2m and 40m (also on-line)

A Blessed Christmas



It is difficult at the time of writing to realize that the Festive Season is soon upon us. The January issue of Watts will probably appear after Christmas. **The Management Team of PARC will now take the opportunity to wish you and your loved ones a Blessed Christmas and Happy New Year.** May there be new inspiration for the future through the Message and real meaning of Christmas for all. We also wish our Jewish members a happy **Chanukah**.

'n Geseënde Kersfees



Dit is moeilik om nou ten tye van hierdie skrywe te besef te dat die Feesgety alreeds baie naby is. Die Januarie uitgawe van WATTS sal waarskynlik eers na Kersfees verskyn. **Die Bestuurspan van PARK wil nou van hierdie geleentheid gebruik maak om u en u geliefdes 'n geseënde Kersfees en Gelukkige Nuwe Jaar toe te wens.** Mag daar nuwe inspirasie vir die toekoms deur die Boodskap en ware betekenis van Kersfees vir u almal wees.

Rebroadcasts of our Sunday-morning PARC Bulletins

Now take place on Monday evenings 19:45 just ahead of our Technical Net on 20:30 on our 145,725 MHz repeater. Both these activities are facilitated thanks to Pine ZS6OB

Heruitsendings van ons Sondagoggend PARK Bulletins

Vind nou plaas op Maandagaande 19:45 net voor ons Tegnieese Net om 20:30 op ons 145,725 MHz herhaler. Altwee die aktiwiteite word danksy Pine ZS6OB moontlik gemaak.

In this issue

- Editorial
- History ZS75PTA
- Minutes of meeting Nov
- Member news
- Diary
- Member contributions
- Page eight

in hierdie uitgawe

- Redaksioneel
- Geskiedenis
- Vergadering notules
- Ledenuus
- Dagboek
- Lede bydraes
- Bladsy agt

Next Meeting 07-12-2005

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

PARC Management team / Bestuurspan Aug 2005- Aug 2006:

Committee members

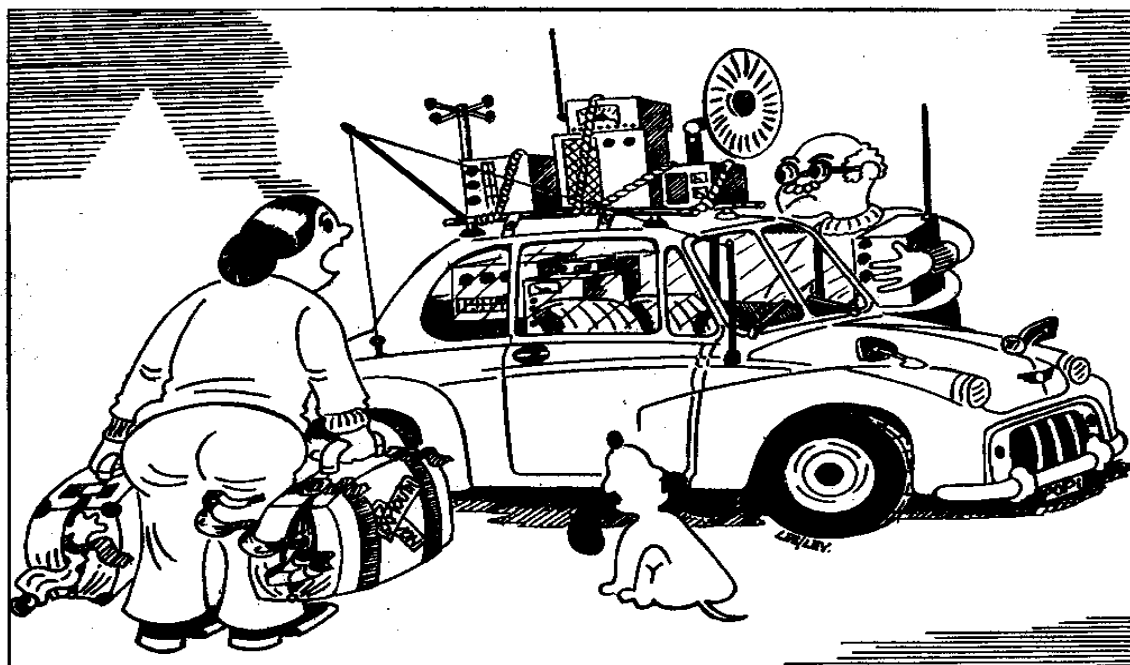
Chairman, SARL liason, Fleamarkets	Alméro Dupisani	ZS6LDP	almero.dupisani@up.ac.za	012-567-3722	082-908-3359
Vice Chairman, Secretary Rallies, Social, Hamnet	Johan de Bruyn	ZS6JHB	johandbr@absa.co.za	012-803-7385	082-492-3689
Treasurer, Clubhouse, Database, DF hunts	Richard Peer	ZS6UK	peerrk@safrica.com	012-333-0612	082-651-6556
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Co-opted / Geko-opteer:

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	Hans Gurtel	ZR6HVG	adele123@absamail.co.za	082-940-0623	082-940-0623
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Webmaster,	Edwin peer	ZR6ESP	zr6esp@peer.co.za	012-333-0612	
RAE	Brian Scott	ZR6BJS	scottbri@gmail.com	084-312-7407	
Hamnet, projects	Roy Newton	ZS6XN	newtonr@telkomsa.net	012-547-0280	
Morse testing	Bill Ingleson	ZS6KO		012-331-2327	
Tea	Molly Peer	ZR6MOL	molly@peer.co.za	012-333-0612	
	Doreen de Bruyn	ZR6DDB		012-803-7385	

Editorial

Happy holidays !



Do you think you could leave a little space for the luggage, George?

Redaksioneel

Hou lekker vakansie !

ZS 75 PTA

1930-2005



Pretoria Branch: late nineteen-fifties

Pictures from collection of Mike ZS6AFG



Minutes of the monthly club meeting of the Pretoria Amateur Radio Club held at the South Campus of the University of Pretoria on 2 Nov. 2005

Welcome: Almero ZS6LDP declared the meeting open and welcomed all who attended.

Attendance: The meeting was attended by 25 members and 1 visitor, Hein Visser, a student at the University of Pretoria. Apologies were received for Joe ZS6TB, Malcolm ZR6OLM, Helen Newton, Hal ZS6WB, Pieter ZR6AHT, Doreen ZR6DDB, Ivan ZS6CCW and Ivan ZS6AUT.

Personal Matters/Lief en leed: Hans, ZS6KR reported that Bertha has suffered a setback.

Minutes of previous meeting: The minutes of the previous meeting as published in Watts were approved. Proposed by Bill ZS6KO seconded by Roy ZS6XN.

Matters arising from previous minutes: None.

Club Activities

Rallies: Johan ZS6JHB – Rally season has come to an end. E-mail received from SAM – thanked PARC for their assistance with the Toyota Dealer 1000 km Off Road event. The event will form part of the world series next year.

Social: Bring and braai – Saturday 26th November 2005 at home of Tjerk ZS6P. Starting time 17:00.

DF Hunt: Richard ZS6UK – Next Foxhunt 26th November 2005. Starting time 14:00 at the Botanical Gardens in Silverton. Johan ZS6JHB will be the fox.

Fleamarket: Almero ZS6LDP - Next Fleamarket – 3rd December 2005 at premises of Pretoria Amateur Radio Club from 9:00. Tables available from Almero at R25.00 per table. Refreshments will be available – van Wyk family – hamburgers, Richard ZS6UK and Molly ZR6MOL – cold drinks.

Financial Report. – Richard ZR6CK – Reported on the club's finances.

Technical: Pine ZS6OB - Workgroup on air every Monday evening from 20h00 on 145,725. Discuss technical issues.

Hope to resume work at CSIR site very shortly. Roy ZS6XN – Project requirement enquiry – handed out a list – members who are interested must please forward info to him.

Club bulletin: Repeats of Sunday bulletins are on Monday evenings from 19:45.

Ham Dairy:

Nov.

05 – National Maritime Day.

11 – Armistice Day.

02 – 13 SARL HF Field Day – 2nd leg.

13 – Remembrance Day.

26 – 27 CQ WW DX CW Contest.

27 – President's Net.

28 – Closing date for logs – SARL HF Field Day.

30 – Closing date for SARL Council nominations.

General: SARL HF Field day – Johan ZS6JHB – 3 stands booked at Roodeplaas Dam from Friday 11th November. Special rates for day visitors. Everybody welcome.

Parking for senior club members at our clubhouse should be kept open in front of the clubhouse.

Presentation: - Video on lightning protection – Thanks to Pieter ZR6AHT.

Next meeting: 7 December 2005.

Closing: The meeting closed at 21h45. Thanks to Molly ZR6MOL for serving tea, coffee, and a bite to eat.

Dec.

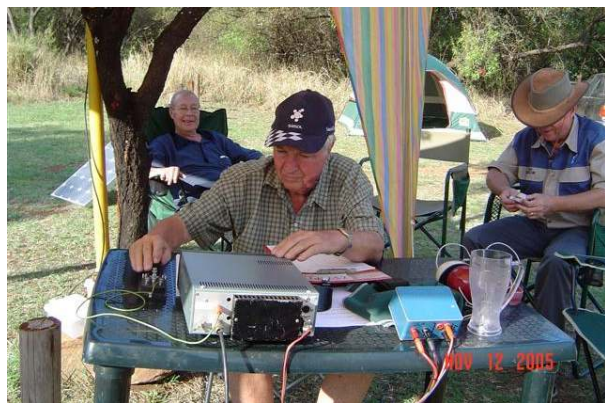
01 World Aids Day

02 Schools close GP, NW, OFS, N.Prov., Mp.

02-04 ARRL 160m contest

HF Field Day 12-13 Nov 2005

Four members and families camped out at Roodeplaas and various visitors also operated two stations.



Our effort was on 4 bands with two stations, on both CW and SSB modes.

Three stands were occupied at a special reduced fee and getting organized took most of Saturday morning. Band conditions were however rather poor but a valiant effort was put in by six operators alternating at their convenience.



Birthdays Verjaarsdae

December



- 01 Beatriz, sw of Manny ZS6AKX
- 02 Antoinette ZS6D, sw of Danny ZS6AW
- 04 Wynand, seun van Wynand ZS6ARF
- 05 Hanlie, dogter van Freddie ZS6JC
- 06 Sylvia, lv van Tjerk ZS6P
- 07 Hansie ZS6AIK
- 07 Tim ZS6TIM
- 08 Hans ZS6KR
- 08 Magda ZS6MVW, lv van Pieter ZS6PVW
- 10 Arland, son of Melvyn ZS5MF
- 14 Madelein, dogter van Tim ZS6TIM
- 15 Don ZS6AQS
- 15 Alméro ZS6LDP
- 17 Dominic, seun van Hans ZR6HVG
- 21 Retha, sw of Roy ZS6XN
- 22 Johan ZR6JO
- 22 Steven, son of Bill ZS6KO

Desember Anniversaries Herdenkings

- 01 Elize en Pieter ZR6AHT (21)
 - 11 Petro en Gert ZS6ZB ()
 - 12 Mary and Bill ZS6KO (54)
 - 17 Leanne and Alan ZR6AHL (11)
 - 19 Ceciel en Flip ZS4GE ()
 - 22 Rita and Vitor ZS6VG (26)
 - 29 Molly ZR6MOL and Richard ZS6UK (29)
-
- 23 Niel, son of roy ZS6MI
 - 25 Annemarie, sw of Bernie ZS6ANU
 - 25 Chrissy ZS6JX, sw of Dave ZS6JW
 - 26 Japie ZS6JLP
 - 28 Allan ZR6AHL, son of Frances ZR6AUT
 - 29 Ricky, son of Vitor ZS6VG
 - 30 Rika, sw of Errol ZR6VDR
 - 31 Henk ZS6CS

Sick Parade | Krukkelys

- Pieter ZR6AHT het 'n dringende besoek by die hospitaal moes afê.
- Pine ZS6OB was 'n rukkie ongesteld maar nou skynbaar weer vol dinge.
- Jack ZS6QA was back in hospital with a hip infection.
- Bettie, lv van Hermann ZS6SN was hospitaal toe met 'bomskok' nadat haar stoompot ontplof het.

PARC Diary | Dagboek

Dec

- 02-04 ARRL 160m Contest
- 03+06 Inland and coastal schools close
- 03 PARC Fleamarket 09:00**
- 07 PARC Social evening** →
- 08-31 Don't worry – be happy**

Dec 07: PARC Club Social Evening Des 07: PARK Aandgeselligheid

**HF and VHF construction trophies:
Bring your home-brew hardware!**

**Desert Island Trophy:
Who has the best yarn?**

**Eats and refreshments on the house!
Kom geniet die laaste byeenkoms.**

Snippets | Brokkies

- Doppies ZS6BAQ se nuwe toring is geplant
- Alf, voorheen ZR6ABA is nou ZS6ABA
- Our technical evenings on Mondays 20:30 are currently attended by 12-18 stations. To ensure longevity of this excellent effort and maintain interest, please consider to contribute your skills and experiences on any ham-related subject.
- Our Rally boys and girls ended off a very successful year with the Toyota-Offroad and Limpopo-Tzaneen rally. Quite a few accolades have been swung their way by various organizers. Although our men seem to shun publicity, WATTS and PARC congratulates everyone involved.

Radio protection kits as published in WATTS July 2005 are now available @ R80 from Hans ZS6KR. Postage is R10 extra. Full instructions are provided. Order by phone 012-333-2612 or cell 072-204-3991 or email hans@grv.co.za. Installations can be done at a moderate consideration.

1. WAT IS PAKKET RADIO ?

Pakketradio gebruik die AX-25 protokol vir die hantering van data. Data word opgebreek in "pakkies" van 256 Grepe per pakkie, en dan versend vanaf 'n sender na 'n ontvanger. As gevolg van die "pakkies data" wat gestuur word, is die modus bekend as pakket radio.

2. IS DAAR ENIGE OOREENKOMS TUSSEN PAKKET RADIO EN DIE INTERNET ?

Vir Internet word 'n rekenaar, telefoonlyn en Internet modem gebruik. Vir pakket radio word ook 'n rekenaar gebruik, maar in stede van 'n telefoonlyn en internet Modem, word daar vir pakket radio 'n radio oftewel RF, en 'n RF modem gebruik.

3. HOE WERK PAKKET RADIO ?

Met pakket radio, word die data wat versend moet word, opgebreek in pakkies, en die pakkies word dan omgeskakel na klank, deur middel van die RF modem. Die klanke word dan deur die radio wat aan die modem gekoppel is, aangestuur. Die stasie na wie toe gestuur word, se radio ontvang die klank, die RF modem skakel dit terug na data, en die leesbare data verskyn op jou rekenaar skerm.

Data of inligting word vanaf jou stasie gestuur na 'n bulletinbord, vanwaar dit regoor die wêreld versprei word dmv radios tussen vaste punte.

4. IS PAKKET RADIO VINNIG ?

Nee glad nie. Dit werk maar teen 'n spoed van 300 Baud op die HF bande, en 1200 Baud op BHF en UHF. Ons mag 9600 Baud gebruik op UHF, maar daar is min amateurs wat wel oor toerusting beskik wat teen 9600 Baud kan werk.

5. WAARVOOR WORD PAKKET RADIO DAN GEBRUIK ?

Pakket radio word gebruik met twee soorte opsies ingedagte, naamlik "oop boodskappe" of bulletins wat deur almal gelees kan word, en dan persoonlike boodskappe wat gerig word aan 'n spesifieke mede amateur. Die oop boodskappe of bulletins, kan gebruik word as 'n forum, om allerhande tegniese vrae te stel, en moontlike antwoorde vanaf kenners op die betrokke gebied, van regoor die wêreld te kry.

Bulletins word gebruik vir die aanstuur van CQ roepe, resepte, aankondiging van stil sleutels, asook humor oftewel grappies, aangesien ons as amateurs virseker nie net die heeldag oor diep tegniese dinge en aspekte wil gesels nie. Bulletins word ook gebruik om inligting soos Kepleriese elemente van die satelliete te versprei, sodat dit vir mense beskikbaar kan wees wat nie Internet toegang het nie. Bulletins kan ook gebruik word om programme en prente met mede amateurs te kan deel.

Binêre lêers soos prente en programme, word opgebreek met 'n programmetjie genaamd "7-Plus". Hierdie "7+" funksie, skakel die binêre leer oor na kleiner dele in ASCII formaat, wat dan dmv pakket radio aangestuur word. Die tweede opsie is om 'n persoonlike boodskap te rig aan slegs een betrokke persoon. Hierdie opsie is nie oop nie, maw dit kan nie soos die bulletins deur almal gelees word nie. Die metode van persoonlike boodskappe stuur, is egter nie baie veilig nie, aangesien mede amateurs wederregtelik, jou roepsein kan gebruik in die nag terwyl jy slaap, en jou sisteem afgeskakel is, om jou persoonlike boodskappe wat aan jou gerig is, te onderskep.

Ons as amateurs hou graag die Amateurnode vir mekaar voor wanneer dit ons pas, maar daar is wel amateurs wat ongelukkig nie by daardie kode hou nie. Om op so 'n skelm manier iemand anders se boodskappe te lees, is soos om jou buurman se pos uit sy posbus te gaan haal, en dit as jou eie toe te eien en dit dan te lees.....

6. WAT HET EK NODIG OM PAKKET RADIO TE KAN WERK ?

Eerstens 'n rekenaar. Dit kan enigiets wees van 'n XT met 'n Monochroom skerm, tot en met vandag se Super Duper rekenaars.

Tweedens 'n radio send/ontvanger. Hier kan jy enige BHF/UHF FM radio gebruik, wat op enige van die frekwensies kan werk wat op jou lokale bulletin bord of BBS beskikbaar is, of SSB as jou BBS 'n HF poort beskikbaar het.

Derdens 'n modem. Hierdie modem kan 'n "Terminal Node Controller" oftewel TNC wees, of 'n goedkoper weergawe daarvan, wat bekend staan as die "Baycom" modem. Deesdae kan jou rekenaar se klankkaart gebruik word, in stede van eersgenoemde modems.

Vierdens heelwat geduld, want dit kos partykeer kopkrap, en 'n bietjie sukkel om aan die gang te kom. Gelukkig is daar die meeste van die tyd, darem iemand beskikbaar om jou van hulp te kan wees, indien jy dalk vra vir hulp op die herhaler.

7. WAT SE PROGRAMMATUUR IS BESKIKBAAR VIR PAKKET RADIO ?

Daar is verskeie programme beskikbaar, waarvan die bekendstes TPK 1.83d en Winpack 6.80 is. Hierdie twee programme kan ten volle outomaties werk. Dit beteken dat indien jou rekenaar en radio aangeskakel is op die BBS frekwensie, sinkroniseer jou sisteem en die BBS met mekaar, en jou program maak 'n volledige lys van alle beskikbare bulletins op die BBS. Hierdie lys is egter net "Headers", waaruit jy kan kies wat jy wil lees.

Indien jy dan in jou poslys gekies het wat jy wil lees, dan laai jou sisteem dit outomaties vir jou af vanaf die BBS, sodat jy dit dan kan lees op jou eie tyd. So ook kan jy vooraf 'n boodskap klaar tik en redigeer, en sal jou sisteem dit outomaties aan die BBS stuur. Persoonlike boodskappe aan jou word ten volle outomaties afgelaai.

Ander beskikbare programme is Baycom, paKet 6.1, Graphic Packet 1.63, Sally 4.0, FBB7.00i, WPP, TSTHOST, NBF 201 en Pakratt. Winpack en TPK 1.83d is egter die maklikste van almal om aan die werk te kry, en dis baie gebruiker vriendelik.

Indien jy jou klankkaart wil gebruik vir pakketradio, moet jy 'n "interface" bou wat jou klankkaart, en radio aanmekaar koppel, en dmv die serie- of parallelpoort jou radio aan en af skakel om data te stuur. Dan moet jy Winpack gebruik, en AGW Packet Engine as drywer of platform in Windows, om Winpack te laat werk.

8. WAT DOEN JY AS JOU SISTEEM REG OPGESTEL IS, EN JY WIL DIE BBS BEGIN GEBRUIK ?

Jy konekteer aan die BBS, registreer jouself, maw die BBS vra vir jou vrae, jy antwoord dit en siedaar. Jy is op pakketradio. Al wat dan nog kort, is dat die Sisteem operateur, of Sysop, die BBS vir jou oopmaak, sodat jy die outomatiese fasiliteite kan gebruik. Jy kan 'n boodskap aan die Sysop rig om te sê jy is 'n nuwe gebruiker, of as die Sysop wakker genoeg is, sal hy gou-gou sien dat hy 'n nuwe gebruiker bygekry het.

9. WAT KAN JY ALLES OP DIE BBS DOEN ?

As jy aan die BBS gekonnekteer het, kan jy jou "Gridlocator" (ruitverwysing) bereken, afstande en rigtings tussen stasies bepaal indien jy hulle ruitverwysings ook het. Jy kan satelliete se wentelbane bereken, en inligting aangaande hulle lees. Jy kan inligting van mede amateurs lees, byvoorbeeld hulle adresse en foonnommers, indien hulle dit beskikbaar gestel het. Jy kan dmv die "gateway" of deurpoort, aan aangrensende BBS'e konekteer, en daar rondspeel. Jy kan binêre lêers of programme aflaai wat ander daar opgelaai het om met jou te deel.

10. EK HOOP OM JULLE BINNEKORT OP PAKKETRADIO TE SIEN.....

Activities and contributions

From Haywire News Sept 2005

The Story of the ENIGMA: History, Technology and Deciphering

A special CD produced and researched

BY

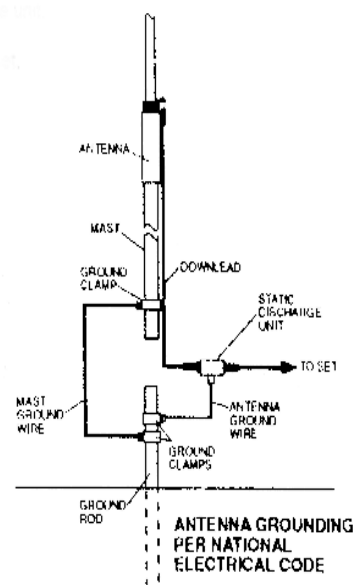
Professor Tom Perera Ph.D.

The German Enigma Cipher Machine was the primary device used by the German Military during World War 2 to produce what they believed were secure coded messages. This CD traces the development of codes, cipher machines, and the Enigma, its civilian and military models, its operation, strategies used to decipher its messages, and its mechanical and electrical construction and wiring. The CD also includes two excellent Enigma simulator programs, construction projects, a bibliography, two huge Enigma archival databases, copies of Enigma manuals and German military radio manuals, a German telegraph key museum, Photographs and Manuals of the newly discovered Russian Enigma codenamed "FIALKA" and the American M-209, a 30-minute Training Film for the M-209, and an Enigma museum.

For anyone interested in the Enigma and its history, this CD, which may be obtained quite cheaply from the RSGB, is a MUST. Anyone who would like further information, please do not hesitate to contact OM Robin (Z5MRS).

Ed: Robin may be contacted by email at robin@planetkzn.co.za or 033-343-1942

From Cushcraft:



HF Propagation Prediction December 2005

Vincent ZS6BTY

Accurate predictions for fixed links (e.g. Pretoria – New York) are possible and they may be useful for skeds, but I don't think they are useful for general amateur use. You would need a multitude to cover the earth.

Amateurs more often than not turn on their rig and only then wonder which way to point the beam and what frequency to use.

What might be more useful to us is an idea of the **maximum useable frequency (MUF) of the first hop**. After all, if the first hop is not workable, what are your chances of the path being open at all? Under those conditions, an indication of the MUF in the cardinal directions might be good.

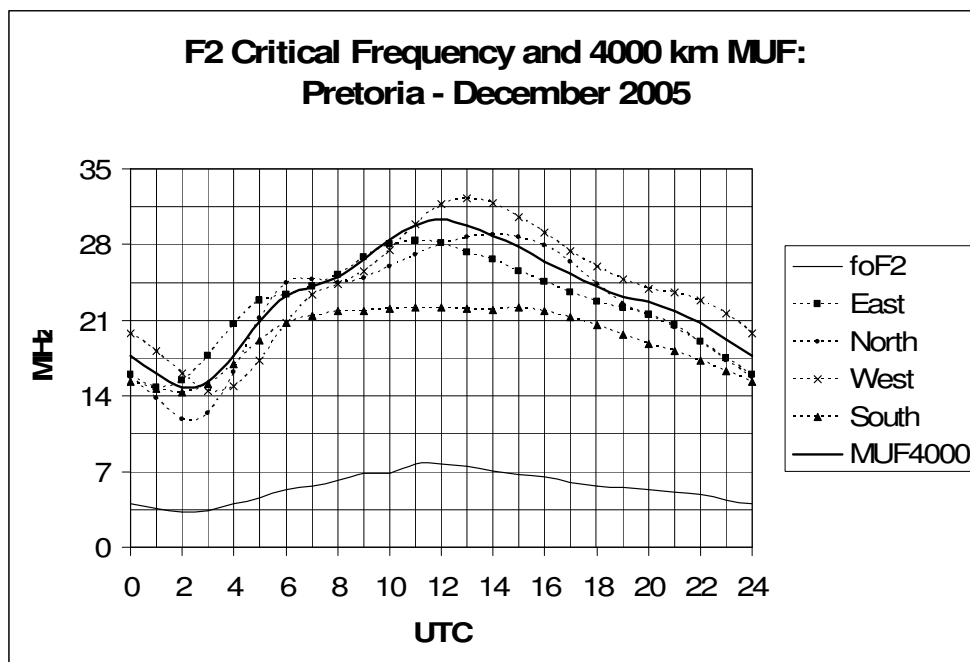
For DX, the F2-layer is the dominant means of propagation. The accompanying graph shows the 4000 km maximum useable frequency (MUF4000) to the East, North, West and South from Pretoria for the first hop using the F2 layer as well as the critical frequency (foF2).

For short distances

the F2 critical frequency (foF2) is useful as it shows the maximum frequency that will still reflect from the F2 layer when you transmit straight up. That's pretty much what happens for local comms on HF. However, the E-layer is important for local comms, so don't feel too bound by the F2 critical frequency.

The predictions are based on the program FTZMUF2 from "A simple method of estimating the ionospheric parameters of foF2 and M(3000) with the aid of a home computer" by Thomas Damboldt and Peter Süßmann, December 1988. The accuracy of the method, compared to the CCIR Atlas of Ionospheric Characteristics (CCIR Report 340) is 0.1MHz on average with a standard deviation of 2.3 MHz.

Comments as to the usefulness of this graph or otherwise would be welcome. If it is useful it can be a regular feature. 73 Vince



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1948. Wire recorders were still state-of-the-art in the multimedia scene. The development of magnetic tape started during WWII but the evolution to reliable materials took many years.

This elegant Wiretone apparatus was advertised in Radio ZS.

Judging from the spool size, the magnetic wire must have been pretty thin for an hour capacity!

1948. PTA Dec. meeting- What was this all about?

We had a visit from Carl, 6SB, W3KIF, and they were escorted by 6HO. Carl was pressed to say a few words about the "Radio ZS," and what a few words they turned out to be. He did not seem to realize that he was talking to the premier branch of the League, and if he did, it did not worry him, hi. In fact, after he had finished we wondered if we were a branch at all. When he got up to address the meeting, and turned around, he was seen to blanch and recoil. No doubt, the vast array of intellect overpowered him. He fixed his gaze about one and a half inches to the right of someone's left ear and spoke and spoke and spoke. What have we done, Carl, to deserve all this?

The shape of things to come?



http://go.to/funpic

