WATTS

09 - 2009

Year 79 +9m

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

PARC, PO Box 73696 Lynnwood Ridge 0040, RSA

web http://www.parc.org.za mail: zs6pta@zs6pta.org.za

Bulletins: 145,725 MHz 08:45Sundays / Sondae
Relays: 1.840, 3.700, 7.066, 10.135, 14.235, 51.400, 438.825, 1297 MHz
Activated frequencies are announced prior to bulletins
Swapshop: 2m and 7.066 MHz Live on-air after bulletins
Bulletin repeats Mondays | herhalings : Maandae 2m 19:45

ZR6FD logo

Drukwerk printing ZS6JPL

Papier / Paper ZS6JPL

Hein ZS6Q is back with a vengeance

(more next month)

In this issue

In hierdie uitgawe

Next Meeting 9 Sept 2009

Time: 19:30 for 20:00
Clubhouse
Building 4,
University of Pretoria
c/o Lynnwood and
University roads

PARC Management team / Bestuurspan Aug. 2009 - Aug. 2010

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Viice-Chairman	Alméro Dupisani	ZS6LDP	almero.dupisani@up.ac.za	012-567-3722	082-908-3359
SARL liason, fleamarket					
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79th AGM - 79e AJV
1 Aug 2009

NB: The following are not the official minutes but your editor's notes.

The 79th AGM took place soon after the fleamarket at the premises of the Pretoria Motor Club.

The venue was well attended by members and visitors of whom sufficient remained to form a quorum for the AGM.

A moment of silence was held in memoriam of 4 members that became SK: ZS6BLY, ZS6AFG, ZS6SDZ, ZS5MF.

After all the usual formalities including standard items Johan ZS6JHB read the Chairman's Report which was accepted and as no motions were received, proceedings went on to the financial report which Richard ZS6UK, due to being out of action with personal injury, could not present with completeness. This was agreed to stand over for final presentation and approval at the next club meeting.

Awards and certificates were then handed to deserving members present and mentioned for those in absentia.
A full list is given on page 4.

Core committee members chosen and accepted were as listed above and Johan ZS6JHB again chosen as club chairman.

The proceedings then ended and a social get-together followed.

Editorial

The AGM has come and gone and your new committee is very much the same as the past two years. We must laud them for standing again in their thankless tasks. They will be taking your club to its 80th year of existence. Maybe you will consider to be part of the management team during that proud occasion? I urge you to be a little more active in club affairs and especially build its image in times ahead.

Redaksioneel

Die AJV het gekom en gegaan en u nuwe komitee is feitlik dieselfde as die laaste twee jaar. Ons moet hulle huldig om weer vir die ondankbare take in te staan. Hulle sal u klub na sy 80e jaarbestaan neem. Misskien sal u ook oorweeg om deel van die bestuursspan te wees by die trotse gebeurtenis? Ek dring aan dat u 'n bietjie meer aktief raak in klubaangeleenthede en spesifiek bou aan sy beeld in tye wat kom.

Birthdays Sept Verjaarsdae

02 Charell ZR6GN
02 Lizette ZS6LZT dogter van Magda ZS6MVW en Pieter ZS6PVW
09 Brendan, son of Merilyn and Deryck ZS6KQ
11 Johan ZS6JPL
15 Pamela, sw of Harry ZS6HRD
21 Johan ZS6JHB
24 Estie ZS6CC
25 Susan, lv van Freddie ZS6JC
26 Graham ZR6GJR
27 Lodewyk, seun van Elmarie ZR6AXF en Johan ZS6JPL
29 Grant ZR6AAT, son of Merilyn and Deryck ZS6KQ

Anniversaries Sept Herdenkings

02 Lily and Harry ZS6AMP (53)
04 Martha Louisa en Attie ZS6REY (40)
07 Gerda and Roger ZS6RJ (7)
09 Adele en Hans ZR6HVG (15)
28 Retha and Roy ZS6XN (24)
30 Elma en chris ZS6LOG (?)

Joys and Sorrows | Lief en Leed

Pierre ZS6PJH is in recovery mode

Diary | Dagboek (UTC times)

Sept	05	Russian RTTY WW Contest 00:00-24:00
	05-06	All asian DX Contest 00:00-24:00
	05-06	IARU region 1 Field Day SSB 13:00-12:59
	06	DARC 10m Digital Contest 11:00-17:00
	11-15	9th IARU high-speed CW World Championships
	12	BACAR launch
	12-13	WAEurope DX Contest SSB 00:00-23:59
	15	SumbandilaSat launch
	16	Moon Contest CW/Digital/SSB 18:00-20:00
	26-27	CQWW RTTY Contest 00:00-24:00

Forgot ? Vergeet

Parc subs | Ledegeld 30-06-2009

Please remit your subs in time to our treasurer or by transfer to:

Betaal asb u lede-geld betyds aan ons tesourier of per oorplasing na:

Bank : FNB
Branch : 25 20 45
Account : 546 000 426 73

Ordinary members | gewone lede R70
Spouses, children, pensioners R50

Your callsign must appear on the statement text!

SARL Subs from 31 Aug:

Bank : Absa R340 (R212 pensioners)
Branch : 632 005
Account : 407 158 8849

Newsless space

Snippets | Brokkies

PARC will take part in the **Soccer World Cup** ham radio effort as **ZS10WCS.** Details to follow later.

NO MORE Q CODE SUFFIXES
ICASA has confirmed that the authority has blocked call sign suffixes that are part of the Q codes and SOS. A few amateurs' and one club call sign are in the Q-code group. When these call signs are no longer used, they will also be added to the blocked list. Radio amateurs who have call signs with Q-code suffixes are urged to apply for a change in call sign.

E-pos vanaf Louie ZS6LVW:
Hello Hans, Hoop dit gaan goed met julle daar In Pretoria .Ek het net gewonder of jy dalk so gaaf sal wees om vir my die(Watts nuusbrieffie) van die club aan my sal e mail ASB ek mis die klub se nuus baie en will graag lees wat julle manne daar doen .Stuur maar gerus al die oues van so 6 maande terug sal gaaf wees .Of moet ek hulle eerder van die web site aflaai ek sal gaan loer daar ook .
My nuwe roepsein hier in UK is M0LVW en ek behoor op HF te wees in die volgende drie week ek het nou my eie logCabin laat opsit in my tuin vir n RADIO SHACK so ek sal binnekort op die lug wees .
Verder gaan dit baie goed hier met die hele familie en almal is baie gelukkig en daar is so baie om hier te doen en te te sien ek was nou vir twee weke op vakansie en geniet die UK baie so bietjie by die huis gebly en die nuwe Shack ingerig vir die radios .
OO ja sal jy vir my Dawid ZS6DSG se e mail of sy addres probeer in die hande kry ASB Hans .
Baie groete daar vir almal. 73.

Pretoria Amateur Radio Club awards and certificates at AGM 1 August 2009

Awards:

ZS6BLY Trophy:	Charles Signer ZS6SIG for the antenna talk with SDR..
Sonny Don Assistance:	Gawie Basson ZS6GJJ.
Ham spirit:	Craig Symington ZS6RH for his repeater efforts.
Roy Alexander:	JB de Beer ZR6YV for rally support.
Hansie Meyer Participation	Richard Peer ZS6UK.
Piet Roos (Watts):	Hans Kappetijn ZS6KR.
Jack Bennett 6 meter:	Craig Symington ZS6RH.

Some of the less shaky cell-phone photos are shown below….

ZS6SIG receiving the ZS6BLY Trophy

ZS6RH receiving the 6m Trophy

Honorary Membership → André van Tonder ZS6BRC

Merit cerificates:

Contests:	Pierre Holtzhausen ZS6PJH
	Pieter Human ZR6AHT
	Craig Symington ZS6RH
	Lynette Human ZR6LHT
	Hans Gurtel ZR6HVG
	Vincent Harrison ZS6BTY
	(Blockhouse activation)
Radiospraak Voortrekker:	Sarel Stapelberg ZS6EK
	Whitey Joubert ZS6JJJ
	Richard Peer ZS6UK

Auditing: Elma Basson, sw of Gawie ZS6GJJ

Long membership (60 years) : Dave Williams ZS6JW

The club also received the WAZS award from the SARL.

Andre ZS6BRC receiving his Honorary Membership

Fleamarket glimpses – inside story. The veranda had few vendors due to very cold weather

Yemen April 2000 DXepedition contacts finally approved in August 2009.

Contacts made by German operators during an expedition in Yemen (a country that does not allow ham radio) have now been approved by ARRL DXCC as valid credits.

It took 9 years to convince the DXCC Desk that the operation was indeed legitimate and approved by the Yemeni authorities at the time though apparently contradictory to their general policy on ham radio for locals. DXCC will endorse this entity free of charge upon proof by either card- or LOTW submission.

PARC members known to have made confirmed QSO's are Tjerk ZS6P (he now has Honor Roll full-house 338 entities), Hans ZS6KR (CW) and Ed ZS6UT (CW).

Recently published ham population in the UK:

In Belgium there are around 4000 radio-amateurs, 70000 in Germany, 5000 in Norway and 57000 in Canada; to name round figures.
There are some 55000 female operators in Russia and even more in the US. The world total is about 3 million.

Grade	31st May 09
Foundation	11823
Intermediate	5080
Full/Advanced	51109
Club	1332
Reciprocal Full	509

QRV Tech cc offers the following services:

- General equipment repairs and calibration
- Small-scale design and manufacturing
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- 3rd Party scrutiny of projects and documents
- Expert TV repairs and second-hand TV sales
- MFJ 259/69 Analyzer repairs and calibration

and products:

- Morse Reader PCB, PIC and LCD kit
- Legal limit 40m dipole traps
- Radio power supply OV protection kits
- Nissei SWR/Power meters HF and VHF/UHF
- Connectors RF and DC
- Plug-in triple sequential industrial timer

Contact Hans at 012-333-2612 or 072-204-3991

THE NATURE AND PROPERTIES OF WIRELESS WAVES

By SIR AMBROSE FLEMING, F.R.S.

THE radio amateur and enthusiast who desires to understand the nature of the operations by which wireless wonders are performed must begin by obtaining clear ideas on the subject of electric waves and their nature and properties.

Wave Propagation—and What it Means

The first step is to understand the meaning of the term wave propagation.

When we stand on the seashore on a breezy day and watch the sea waves rolling in it appears to us at first sight as if these long rounded ridges or hummocks of water moved over the surface of the sea. If, however, we fix attention on some floating object, a cork or patch of seaweed, we notice that, as the wave hump passes over it, the floating object is merely lifted up, pushed forward, drawn back and let down, and that this cyclical or periodic motion is repeated as each hump passes. Moreover, if there are two such floating objects we can notice that their cyclical motions are performed successively and not simultaneously. Hence, it follows that each particle of water never moves far from its place of rest and that what travels along is not a material thing but a particular kind of displacement or motion.

In this case we are concerned with so-called surface waves on water, in which the displacement is a surface elevation or depression.

Air or Sound Waves

We can, however, have waves in the body of a material, as in the case of air or sound waves. In this instance the periodic change consists in a compression and expansion of the air at any one point, and this change is repeated periodically at any one place and along the line of propagation.

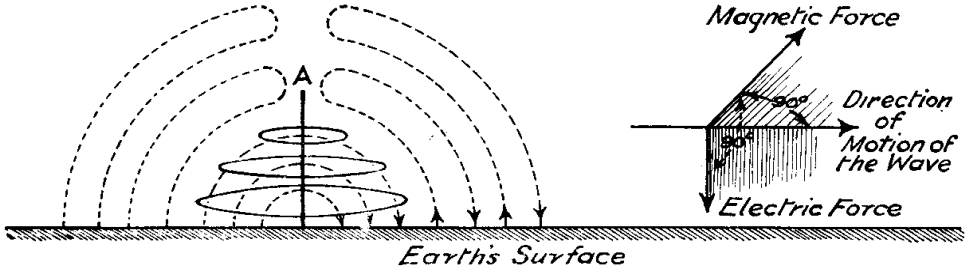


Fig. 1.—ELECTRIC FORCE AND MAGNETIC FORCE.

A is a Marconi aerial wire. The dotted lines represent roughly the form of the lines of electric force, and the firm lines the lines of magnetic force round it. At a distance from the aerial, electric waves are thrown off in which the electric force is nearly perpendicular to the earth and the magnetic force parallel to the earth near the earth's surface.

Periodic Time and Frequency

When a series of states are being thus propagated the time of one complete cycle of changes at any point is called the *periodic time* and the number of such cycles per second is called the *frequency*. The shortest distance between two points in the line of propagation at which the same states exist at the same time is called the *wavelength*.

Polarization

A wave as shown is said to be polarized in the direction of the electric lines of force - ie: in the plane of the antenna conductor. The polarization is thus vertical as the electric lines are perpendicular to the surface of the earth.

It is one of the laws of electromagnetic theory that electric lines touching the surface of an electric conductor must do so perpendicularly, or else they would have to generate infinite currents in that conductor, an obvious impossibility.

If the electric lines of force are horizontal, the wave is said to be horizontally polarized. Both polarizations mentioned may be classified as *linear polarization.*

In free space, horizontal and vertical polarizations have no meaning, the reference of the seemingly horizontal surface of the earth having been lost.

In many cases the polarization of waves is not fixed, but rotates continually, somewhat at random. When this occurs the wave is said to be *elliptically polarized.*

A gradual shift in polarization is known as Faraday rotation. For space communication, circular polarization is commonly used to overcome the Faraday effect. A circularly polarized wave rotates its polarization through 360° as it travels the distance of one wavelength. The direction of rotation is as viewed from the transmitting antenna: RH (clockwise) or LH (anti-clockwise).

HST Championship (not for sissies) – Information received from Wynand ZS6ARF

The Ninth IARU High Speed Telegraphy World Championship will take place September 11-15 in Obzor, Bulgaria.

The Competition
There are three main competitive events at HST meets: Transmitting, receiving and receiving Amateur Radio call signs via RUFZxp; the sending and receiving portions of the competition are referred to as the Radioamateur Practicing Tests (RPT). There is also a pileup competition.

In the RPT, random letters and numbers are sent via Morse code -- five characters at a time -- at a high speed. Separate competitions are held for the reception of only the 26 letters of the Latin alphabet, only the 10 Arabic numerals or a mixed content of letters, numbers and some punctuation symbols. Competitors may choose to record the text by hand on paper or by typing on a computer keyboard. The competition starts with one minute of transmission sent at an initial speed defined for the entry category (usually 50 letters per minute for juniors and 80 letters per minute for the other age categories). After each test, the competitors' copy is judged for errors. Subsequent tests are each conducted at an increased speed until no competitor remains who can copy the text without excessive error.

The transmission tests require competitors to send five character groups in Morse code as fast as possible. Competitors send a printed message of five character groups at a specific speed that is judged for its accuracy by a panel of referees. Like the receiving tests, there are separate competitions for sending five character groups of only letters, only numbers or a mixed content of letters, numbers and some punctuation symbols.

Kutner noted that 100 letters per minute is equivalent to 25 words per minute and 100 numbers per minute is equal to 36 words per minute. The mixed category of 100 letters, numbers and punctuation is equal to 29 words per minute.

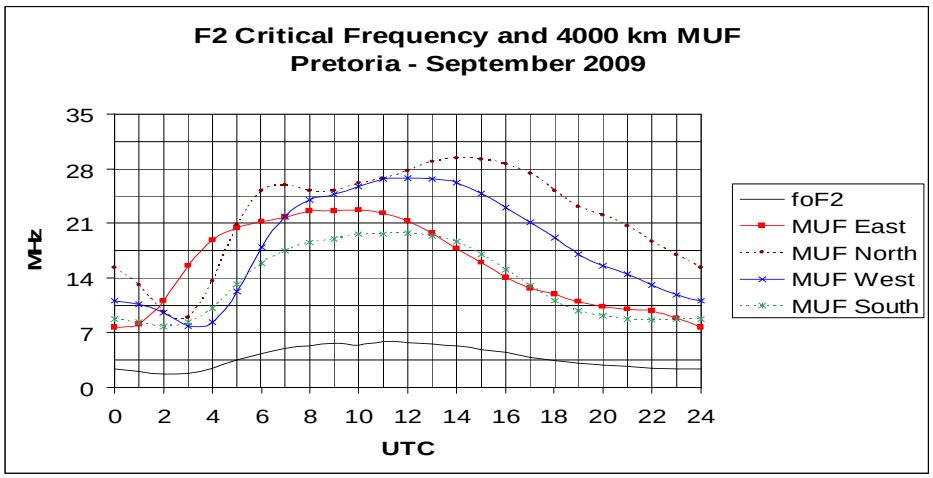
The Amateur Radio Call Sign Receiving Test uses a software program called RufzXP that generates a score for each competitor. Rufz is the abbreviation of the German word Rufzeichen-Hören that means "listening of call signs." In RufzXP, competitors listen to an Amateur Radio call sign sent in Morse code and must enter that call sign with the computer keyboard. If the competitor types in the call sign correctly, their score improves, and the speed at which the program sends subsequent call signs increases.
If the competitor types in the call sign incorrectly, the score is penalized and the speed decreases.
Only one call sign is sent at a time and the event continues for a fixed number of call signs (usually 50).
Competitors can choose the initial speed at which the program sends the Morse code and the winner is the competitor with the highest generated score.

There is also a Pileup Trainer Test that simulates a pileup situation on the air -- numerous stations attempt to establish two-way contact with one particular station at the same time.
This competition uses a software program called MorseRunner. In this test, more than one amateur radio call sign is sent at a time via Morse code that is generated at different audio frequencies and speeds, timed to overlap each other.
Competitors must record as many of the call signs as they can during a fixed period of time.
They may choose to do this either by recording the call signs by hand on paper or by typing them in with a computer keyboard.
The winner is the competitor with the most correctly recorded call signs.

Long Term HF Propagation Prediction for Sept 2009

courtesy ZS6BTY

(see also our website propagation tab)



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.

Ship shack 22 Feb 1902. SS Philadelphia Southampton-New York

Marconi traveled on this journey to verify that trans-Atlantic communication was possible and accomplish the signing of a contract to put up a permanent station on the east coast of Canada.

The wavelength radiated was 366m (820 kHz). The ship antenna was a 4-part on 3 x 14ft bamboo crosses 150ft high. Readable messages were read in daylight up to 700 miles and up to 1551 miles after darkness on a morse-inker tape.
(this was the first instance of the discovery that day-night propagation over long distances were different)
Using a filings coherer a clear "S" signal was heard up to 2099 miles.

The land station was at Signal Hill, Poldhu, SW coast of England and had a 500ft vertical mast. It convinced all critics that similar stations at each side of the ocean would communicate reliably.

Towards the end of 1902 Marconi had a permanent station on the east coast of Canada at Glace Bay and commercial traffic and further tests to stations not previously involved became the order of the day.

Interestingly, the general public lost some faith in cable company shares soon after the trans-Atlantic experiment!

Collecting ARRL Handbooks? Some are scarce!

First Edition, November, 1926	5,000 copies
Second Edition, First Printing, January, 1927	5,000 copies
Second Edition, Second Printing, April, 1927	10,000 copies
Third Edition, First Printing, October, 1927	10,000 copies
Third Edition, Second Printing, April, 1928	10,000 copies
Fourth Edition, December, 1928	10,000 copies
Fifth Edition, May, 1929	10,000 copies
Sixth Edition, First Printing, November, 1929	10,000 copies
Sixth Edition, Second Printing, March, 1930	10,000 copies
Sixth Edition, Third Printing, June, 1930	7,000 copies
Seventh Edition, October, 1930	25,000 copies
Eighth Edition, April, 1931	25,000 copies
Ninth Edition, First Printing, January, 1932	30,000 copies
Ninth Edition, Second Printing, September, 1932	10,000 copies
Tenth Edition, First Printing, January, 1933	30,000 copies
Tenth Edition, Second Printing, July, 1933	8,750 copies
Eleventh Edition, First Printing, January, 1934	30,000 copies
Eleventh Edition, Second Printing, May, 1934	13,000 copies
Twelfth Edition, First Printing, November, 1934	40,000 copies
Twelfth Edition, Second Printing, July, 1935	8,000 copies
Thirteenth Edition, First Printing, October, 1935	40,000 copies
Thirteenth Edition, Second Printing, February, 1936	33,200 copies
Fourteenth Edition, First Printing, October, 1936	40,000 copies
Fourteenth Edition, Second Printing, February, 1937	28,300 copies
Fifteenth Edition, First Printing, October, 1937	40,000 copies
Fifteenth Edition, Second Printing, January, 1938	25,000 copies
Sixteenth Edition, November, 1938	60,000 copies
Seventeenth Edition, First Printing, November, 1939	40,000 copies

Engineers - again

Social skills:

Engineers (incl.hams) have different objectives when it comes to social interaction.

"Normal" people expect to accomplish several unrealistic things from social interaction:

- Stimulating and thought provoking conversation
- Important social contacts
- A feeling of correctness with other humans

In contrast to "normal" people, engineers have rational objectives for social interactions:

- Get it over as soon as possible
- Avoid getting invited to something unpleasant
- Demonstrate mental superiority and mastery of all subjects