



# WATTS

08-2015

Year 85 + 8m

Monthly Newsletter of the Pretoria Amateur Radio Club  
 Maandelikse Nuusbrief van die Pretoria Amateur Radio Klub

✉ PARC, PO Box 73696, Lynnwood Ridge 0040, RSA  
 🌐 <http://www.parc.org.za> @ [zs6pta@zs6pta.org.za](mailto:zs6pta@zs6pta.org.za)



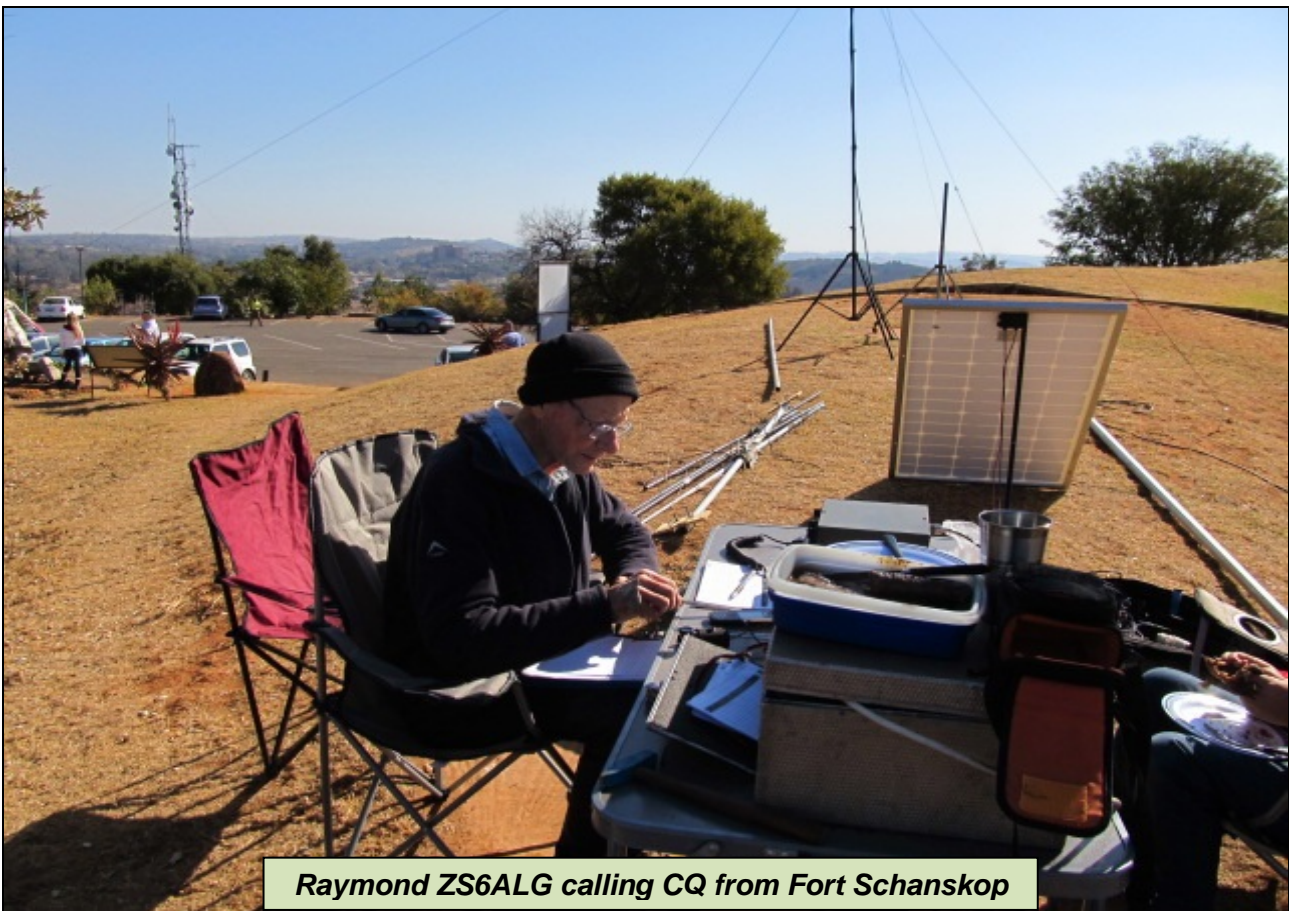
**Bulletins : 145.725 MHz on Sundays / Sondag at 08:45**

Relays: 1.840, 3.700, 7.066, 10.135, 14.235, 51.400, 438.825, 1297 MHz

Activated frequencies are announced prior to bulletins

**Swopshop : 2m and 7.066 MHz live on-air after bulletins**

Bulletin repeats on Mondays / herhalings op Maandae : 2m 19:45



*Raymond ZS6ALG calling CQ from Fort Schanskop*

## In this Issue / In hierdie Uitgawe

PARC Committee Members .....	Page 2
Birthdays, Anniversaries and Joys & Sorrows.....	Page 2
Diary and General Information & News.....	Page 2
PARC Annual General Meeting 31 October.....	Page 3
PARC at Fort Schanskop for SARL winter sprint.....	Page 4
Record party balloon flight.....	Page 5
PARC July Club Meeting.....	Page 6
The Double Current Morse Keyer.....	Pages 7-8
Motomid Rally Middelburg.....	Page 9
Other News Items and Technical.....	Pages 10-11

## Next Events

### Club Social Meeting :

Saturday 1<sup>st</sup> of August from  
 11:00AM at the SAM Clubhouse

### Club Committee Meeting :

Thursday 20<sup>th</sup> of August from  
 19:00 per Skype

**PARC AGM : Saturday 31<sup>st</sup> of October 2015 (11h00) after the Flea market**  
 Proxy and Nomination forms will be send with Watts and can also be downloaded from the  
 PARC website. Please contact Louis de Wet (ZS6SK) for any enquiries.

## PARC Committee Members / Komiteelede : 2014 – 2015

<b>Chairman, Social &amp; Rallies</b>	Johan de Bruyn	ZS6JHB	<a href="mailto:zs6jhb@gmail.com">zs6jhb@gmail.com</a>	012-803-7385	079-333-4107
<b>Vice Chairman</b>	Jan Pienaar	ZS6OB	<a href="mailto:pienaarja@gmail.com">pienaarja@gmail.com</a>		082-447-7823
<b>SARL liason</b>	Fritz Sutherland	ZS6SF	<a href="mailto:fritzs@icon.co.za">fritzs@icon.co.za</a>	012-811-3875	083-304-0028
<b>Treasurer</b>	Andre van Tonder	ZS6BRC	<a href="mailto:andre.vtonder@absamail.co.za">andre.vtonder@absamail.co.za</a>	361-3292	082-467-0287
<b>Web co-ordination</b>	Graham Reid	ZR6GJR	<a href="mailto:greid@wol.co.za">greid@wol.co.za</a>		083-701-0511
<b>Bulletin co-ordinator</b>	Vincent Harrison	ZS6BTY	<a href="mailto:zs6bty@telkomsa.net">zs6bty@telkomsa.net</a>	012-998-8165	083-754-0115
<b>Contests</b>	Pierre Holtzhausen	ZS6PJH	<a href="mailto:zs6pjh@telkomsa.net">zs6pjh@telkomsa.net</a>	012-655-0726	082-575-5799
<b>Repeaters</b>	Craig Symington	ZS6RH	<a href="mailto:zs6rh@hotmail.co.za">zs6rh@hotmail.co.za</a>		081-334-6817
<b>Fleamarket</b>	Almero Dupisani	ZS6LDP	<a href="mailto:almero.dupisani@up.ac.za">almero.dupisani@up.ac.za</a>		083-938-8955
<b>Clubhouse</b>	Pieter Fourie	ZS6CN	<a href="mailto:pieterzs6cn@gmail.com">pieterzs6cn@gmail.com</a>	012-804-7417	083-573-7048
<b>Photographer, Technical</b>	Theo Bresler	ZS6TVB	<a href="http://theo@bresler.co.za">theo@bresler.co.za</a>		082-698-1742
<b>Auditor</b>	Tony Crowder	ZS6CRO	<a href="mailto:tcrowder@telkomsa.net">tcrowder@telkomsa.net</a>	011-672-3311	
<b>Historian, Archives, Awards</b>	Tjerk Lammers	ZS6P	<a href="mailto:zs6p@iafrica.com">zs6p@iafrica.com</a>	012-809-0006	
<b>Secretary, WATTS newsletter</b>	Louis de Wet	ZS6SK	<a href="mailto:louis.zs6sk@gmail.com">louis.zs6sk@gmail.com</a>	012-349-1044	072-140-9893
<b>RAE Coordinator</b>	Etienne Naude	ZS6EFN	<a href="mailto:etienne@afgrid.com">etienne@afgrid.com</a>		082-553-0542

### Birthdays – August / Verjaarsdae – Augustus

03 Paul Sterling ZS6BMF  
 05 Hans Gürtel ZS6HVG  
 07 Whitey Joubert ZS6JJJ  
 07 "JB" de Beer ZR6YV  
 08 Marnix Claeys ZS6MCM  
 08 Johannes de Wet ZS6ALG  
 08 Tobie Jansen van Rensburg ZS6ZX  
 15 Molly Peer ZR6MOL



25 Paul van der Hoven ZS6BAQ  
 28 Jean de Villiers ZS6ARA  
 29 Iain McAllister ZS5IE  
 16 Marie, dogter van Poppie ZS6BCP en Hansie Meyer ZS6AIK  
 26 Sinead, daughter of Heather and Vince ZS6BT

**Please Note : If your Club fees are not paid up to date, birthday details cannot be displayed in Watts**

### Spouse's Birthdays – August / Augustus

09 Helga, sw of Hans-Peter Knoepfler ZS6AJS  
 15 Molly, sw of Richard Peer ZS6UK

### Anniversaries / Herdenkings – August/Augustus

07 Peggy and Edmar Willers ZS6UT  
 15 Engela and Jan Volschenk ZR6JJV

### Lief en Leed / Joys and Sorrows

The mother of Sarina, spouse of Willie Greyling, ZR6WGR, has passed away. Our sincere condolences to you and your family.

Yvonne, the spouse of Gawie Marais, ZS6GJM was in hospital, but has since been discharged and is recovering.

### Contests and Diary of Events – August 2015 / Kompetisies en Dagboek van Gebeure – Augustus 2015 (UTC Times)

02	10-10 International Summer Contest, SSB : 00h01 – 23h59
<b>02</b>	<b>SARL HF Phone Contest : 13h00 – 16h30</b>
08 – 09	WAE DX Contest : 00h00 – 23h59
05	DARC 10-Meter Digital Contest : 11h00 – 17h00
<b>16</b>	<b>SARL HF Digital Contest : 13h00 – 16h30</b>
11 – 12	IARU HF World Championship : 12h00 – 12h00
14 - 15	Imperial Toyota Tshwane Motor Rally : Zonderwater, Cullinan and Bronkhorstspruit
22	Amateur Radio in Action Symposium : Johannesburg
29 - 30	YO DX HF Contest : 12h00 – 12h00
<b>30</b>	<b>SARL HF CW Contest : 13h00 – 16h30</b>

### PARC SUBS / LEDEGELD FROM / VAN 30-06-2014

Bank	First National Bank	Ordinary Members / Gewone Lede : R150 Spouses / Pensioners : R50	<b>Your call sign must appear as statement text!</b>
Branch Code	25 20 45		
Account No	546 000 426 73		
<b>Please remit your subs in time to our Treasurer, or pay per transfer into the PARC account Betaal asb. u ledegelde betyds aan ons Tesourier, of betaal per oorplasing in die PARC rekening</b>			

**Next PARC Flea market : Saturday 31<sup>st</sup> of October 2015 (from 8h00) before the AGM  
Please contact Almero DuPisani (ZS6LDP) for any enquiries**

## The 85<sup>th</sup> Annual General Meeting of the Pretoria Amateur Radio Club

The Annual General Meeting of the Pretoria Amateur Radio Club will take place on the 31<sup>st</sup> of October 2015, at the Pretoria Motor Club, Keuning Street, Silverton. This Meeting will take place after the flea market which will commence from 8h00. Please find below the proxy and nomination forms. This form will also be available in pdf format on the PARC website. **The AGM will be followed by a bring and braai. PARC will supply the fire and salads.** For any queries, please do contact the Secretary, Louis de Wet at 072-140-9893 or [louis.zs6sk@gmail.com](mailto:louis.zs6sk@gmail.com)



### 85<sup>th</sup> ANNUAL GENERAL MEETING 85<sup>ste</sup> ALGEMENE JAARVERGADERING Pretoria Amateur Radio Club



**Pretoria Old Motor Club  
Keuning Str. Silverton**

**Venue**  
**Saturday 31 October 2015**  
**Time : 11h00**  
**Agenda : To be published**

**Plek**  
**Saterdag 31 Oktober 2015**  
**Tyd : 11h00**  
**Agenda : Sal gepubliseer word**

**NB**

Motions must be forwarded to the Secretary. Latest acceptance date 10 October 2015  
Mosies moet gestuur word na die Sekretaris. Laatste indiening teen 10 Oktober 2015  
Contact details on page 1 of WATTS / Kontakdetails op bladsy 1 van WATTS

#### PROXY Form (cut out) || VOLMAG Vorm (knip uit)

Only paid-up members may submit proxies || Slegs opbetaalde lede mag volmagte indien

I/Ek .....being ZS/R/U..... give/gee .....ZS/R/U.....

Proxy to vote on my behalf at the 2015 PARC AGM

Volmag om namens my te stem tydens die 2015 PARK AJV **Geteken/Signed**.....

#### NOMINATION Form (cut out) || NOMINASIE Vorm (knip uit)

**Committee Nominations** must be in writing and signed by both the Proposer and Nominee and be handed in prior to the meeting at latest. Use the Nomination Form below. The Proposer and Nominee must both be paid-up members.

**Komitee Nominasies** moet skriftelik wees en deur beide die Voorsteller en Voorgestelde geteken word en moet op laaste voor die vergadering ingehandig word. Gebruik die Nominasievorm hieronder. Beide Voorsteller en Voorgestelde moet opbetaalde lede wees.

Proposer: ZS Signature:  
Voorsteller:.....ZR..... Handtekening:.....  
ZU

NOMINEE GENOMINEERDE	CALLSIGN ROEPSEIN	NOMINATION ACCEPTED NOMINASIE AANVAAR
1		
2		
3		
4		

## SARL Winter QRP Sprint : PARC at Fort Schanskop : 18 July 2015

The SARL Winter QRP Sprint took place on Saturday, the 18<sup>th</sup> of July. PARC set up a station on Fort Schanskop, which was well attended by Club Members as well as a fairly large turnout of people interested in what contesting is all about, or just to enjoy a pleasant winter's afternoon.

There are a number of contests coming up in August. The next contest will be the SARL HF Digital Contest on the 16<sup>th</sup> of August from 13h00 to 16h30, while the SARL HF CW Conest will take place on the 30<sup>th</sup> of August from 13h00 to 16h30. For more information on contests, and on how to get involved, please do contact Pierre Holtzhausen ZS6PJH or Jaco Cronje ZR6CMG. PARC needs your contributions so please join us!



The PARC banner on Fort Schanskop



Pierre ZS6PJH showing his pole dancing skills



Jaco ZR6CMG and his son working 40m



Craig ZS6RH hard at work



Vincent ZS6BTY relaxing after a long day



Pierre demonstrating the "ground plane"

## Record VK balloon flight gets into news media : by Johan ZS6JHB

The high altitude flight by a standard foil party balloon launched from a Williamstown park in Melbourne Australia, which lasted eight weeks, travelling more than 110,800 kilometers, has been covered by the news media.

**Andy Nguyen** is a network engineer by day, but in his spare time gets into the 'balloon scene', and his love of Amateur Radio.

'The Age' newspaper in Melbourne and the 'Sydney Morning Herald' reports that he makes the tiny electronics payload for the standard 90cm helium-filled party balloons.

Andy is known as the master of miniaturization, tethering by a fishing line a payload of a 25 mW transmitter, using standard HF frequencies in WSPR and the JT9 modes, a GPS, solar panel for power - all weighing a mere 11 grams.

The Age reports that the record distance flight was achieved by **PS-46** launched from Melbourne Australia on May 23. It went around the southern hemisphere twice and leaving South Africa in storm on July 18, was lost just short of its third circumnavigation of Earth.

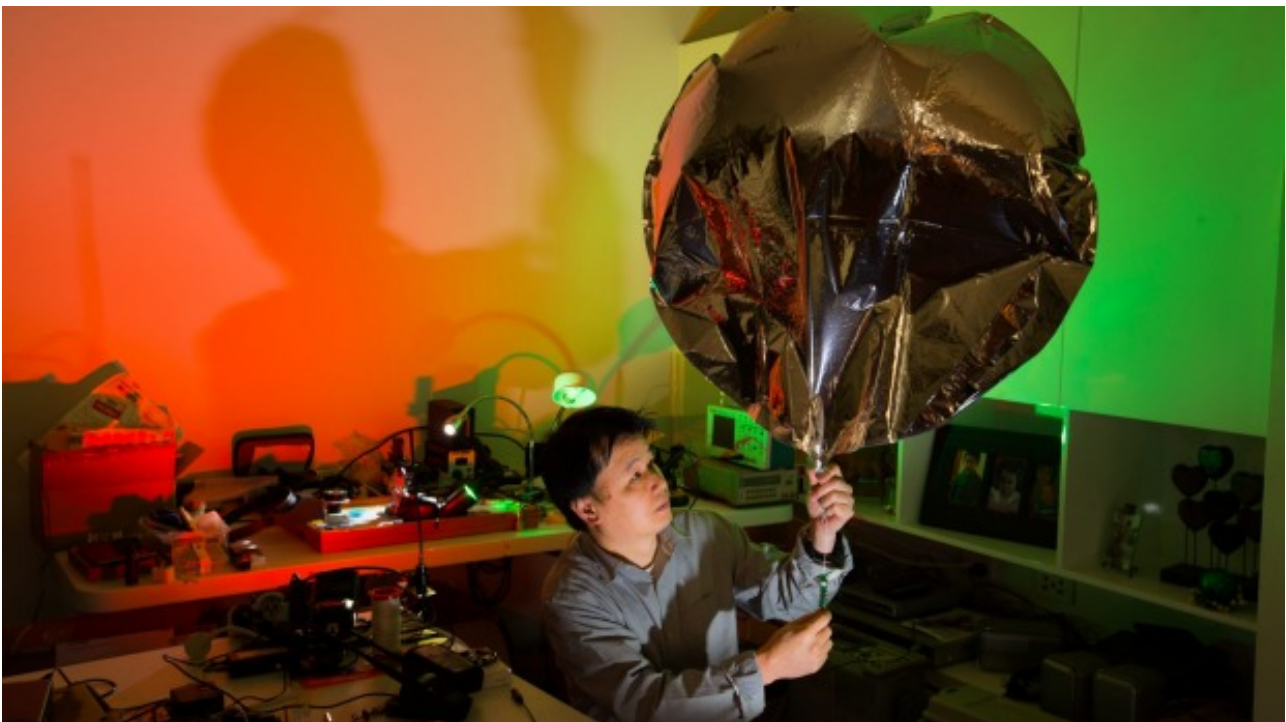
He has been ballooning for two years, and admits being attracted to the hobby of Amateur Radio by the challenge of designing and making small light weight electronic parts, that work under extreme conditions.

From experience the temperature goes down to minus 55 degrees, the air is so thin that UV radiation is a serious consideration.

The Age quotes Andy VK3YT: "I don't think that's been done before with a party balloon. They usually do one circumnavigation. Two was a bonus but then this one just kept going."

He explained that global wind patterns were favorable, its longevity was helped by good weather and good timing, with the journey missing adverse weather.

The balloon transmitted its location every 30 minutes, with the signal picked up in Australia and New Zealand to Argentina, South Africa, the US, Sweden and Peru.



## PARC Club Meeting : 4 July 2015

PARC Club Meetings always turn out to be very interesting and enjoyable events. Recently, since PARC decided to have our Club Meetings on the first Saturday of each month, attendance figures have improved significantly. Our sincere thanks to everybody who have attended, and enjoyed a lovely couple of hours in the sun, around the braai fire having great conversations about radios of course! After the formalities, the fire is usually ready, as well as the most delicious curry onion gravy, prepared to perfection by Pieter ZS6CN. Please come and join us every first Saturday of the month at the SAM Clubhouse. Bring some meat and drinks along and enjoy the Meeting with us!



Mr Chairman "I strongly disagree" – Theo ZS6TVB



Richard ZS6UK and Molly ZR6MOL taking minutes



Jaco ZR6CMG receiving an award from Pierre



Chairman Johan ZS6JHB leading the Club Meeting



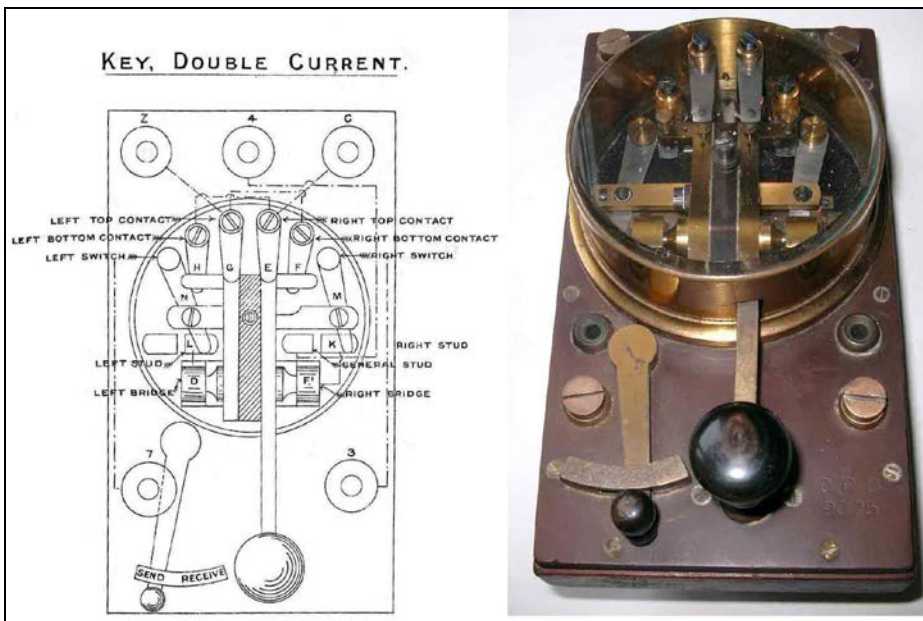
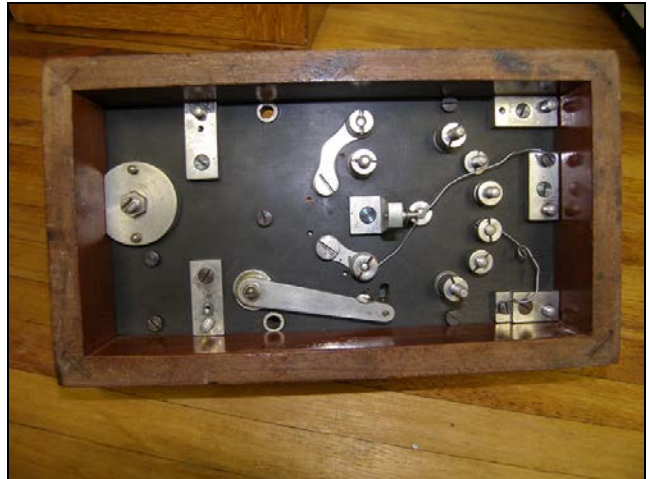
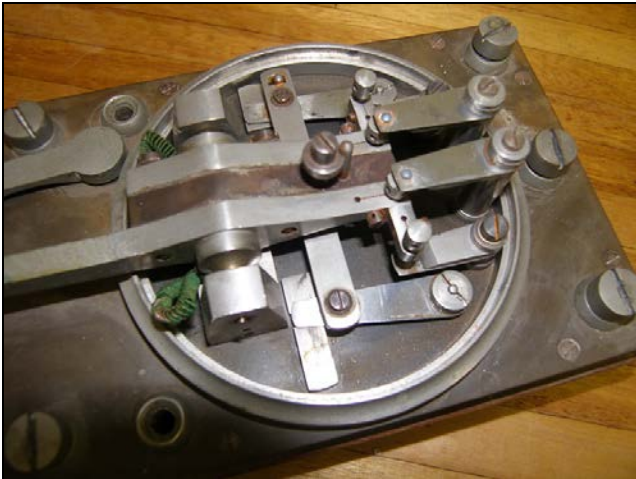
Braaimaster Pieter ZS6CN hard at work



PARC Treasurer Andre ZS6BRC making a point

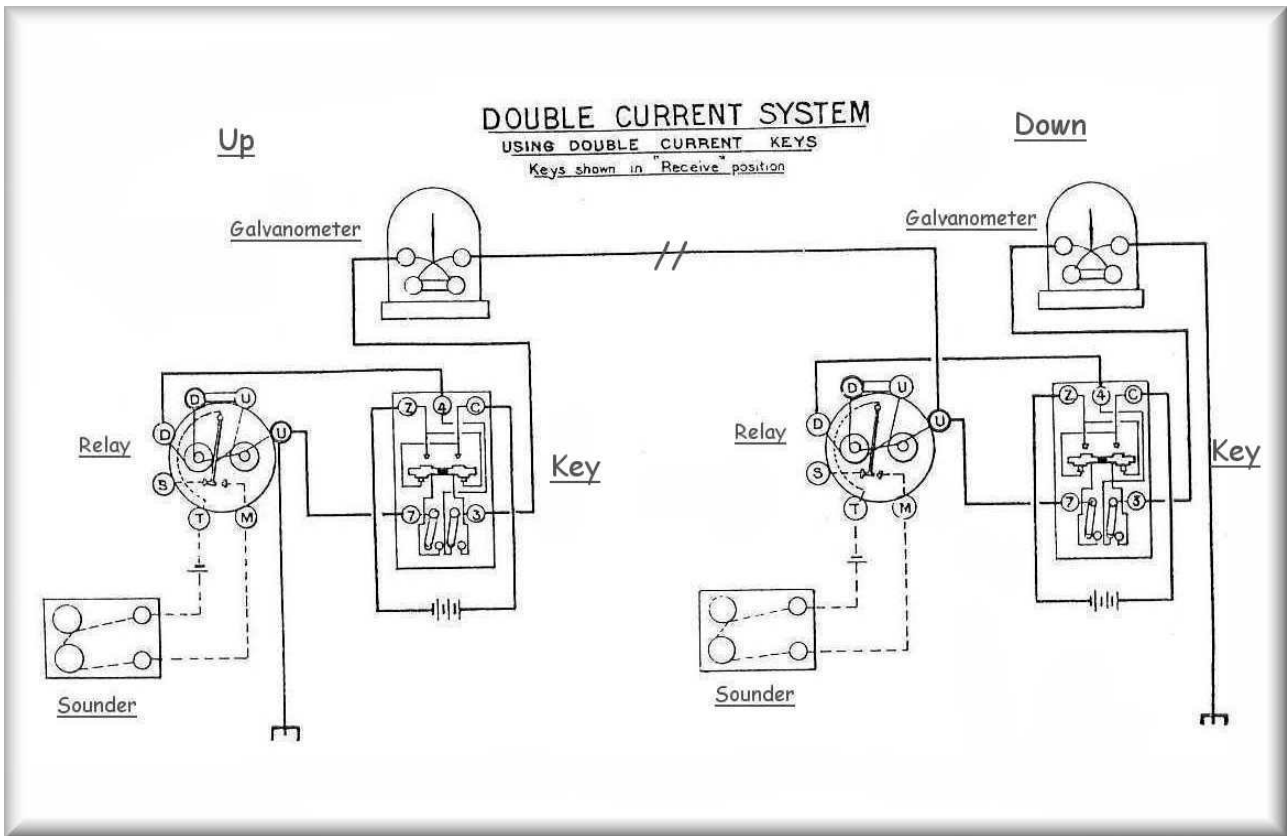
## The Double Current Telegraph Keyer : by Louis de Wet ZS6SK

Some years ago, I inherited a number of items from the shack of my late father, Louis ZR6AA. Amongst these, was this telegraph keyer, which I have treasured ever since. I conducted some research, and discovered that a range of keys similar to this one was manufactured in Great Britain by the GPO (General Post Office) by themselves in a factory not far from the Silvertown Telegraph Works in London. The first keys, which had a Brass finish, were first made around 1880, and used in Great Britain. The nickel finished keys (as mine below) were used in the British Colonies. The keywork is mounted on an ebonite slab, while underframe was usually made form mahogany.

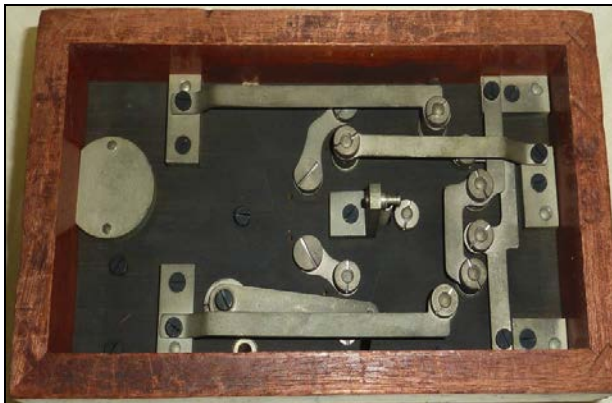
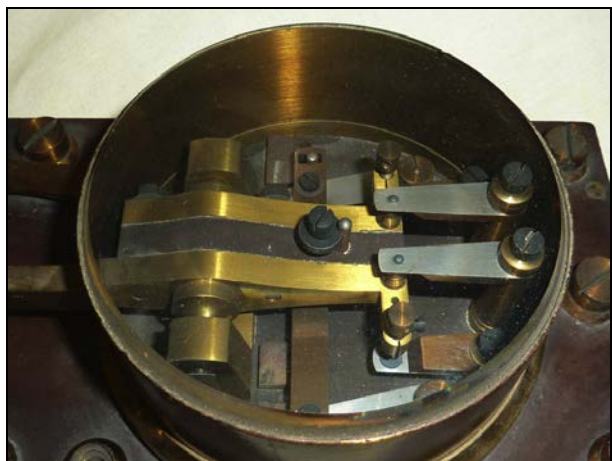


The key required for this is quite specialized.

It consists of two paralleled keys, the polarity of both must be switched between transmit and receive. While it makes for a more complex key, it reduces the number of relays by half



The British landline service used a different approach than the American systems, in order to extend the distance over which a landline signal could be sent. They used a double current system, doubling the voltage difference between the make and break. Some detail can be seen in the diagram above.





## The HMC Motomid Rally : Middelburg : 26 July 2015

The HMC Motomid Rally took place on the 26<sup>th</sup> of July in Middelburg Mpumalanga. From the start, the weather did not have any pleasant promises, as rain had fallen the previous evening, and the country was gripped in a cold front. However still, the teams set up their communications and bravely endured the cold and windy conditions, with ample amounts of dust added just to sweeten the day!

Control was handled by Graham ZR6GJR and sw Joey, while Mobile 1 was manned by Tony Crowther and Car 0 by Menno Havelaar, Field communications were handled by Johan ZS6JHB and Dawid ZS6VS (Stages 1, 4 and 7), Pierre ZS6PJH and Louis ZS6SK (Stages 2 and 5). Pieter ZS6CN and Annatjie Fourie and Pieter ZS6PAM and Irene Myburgh handled Stages 3 and 6. The next rally event will be the Imperial Toyota Tshwane Motor Rally on the 14<sup>th</sup> and 15<sup>th</sup> of August. So if you love the taste of dust, the smell of fuel, the noise of engines screaming at full rpm's, and the rush of adrenalin while trying to contact Control on 145.550, please do contact Johan ZS6JHB for more information.



Graham ZR6GJR responsible for Control



Pierre ZS6PJH setting up his field station at Stage 2/5



The ladies at end of Stages 2/5 hard at work



Car No 233 with Father / Daughter team B. Theunissen



Subaru driven by K. van der Merwe at full speed



Oh we ate dust all right!

## Amateur Radio in Action Symposiums : 2015

The Amateur Radio in Actions will be held in Johannesburg, Pretoria and Cape Town from August to October 2015. Details of each of the venues and dates are listed below:

Venue	Date
National Amateur Radio Centre, Johannesburg	22 August 2015
Innovation Hub, Pretoria	19 September 2015
CPUT Bellville, CT	10 October 2015

The following topics will be discussed at the Symposiums at each of the venues:

**Why IARU is important for Amateur Radio's future : Fritz Sutherland ZS6SF**

**Building and Inverted V for Near Vertical Incidence Sky Wave Propagation : Vincent Harrison ZS6BTY**

Constructing a Frequency Counter – 2015 ARiA project (Kit available) : Frik Wolff ZS6FZ

Space Weather and it's Impact : Mpho Tshisaphungo : SANSA Space Sciences

Amateur Radio is also for the young – my experience at the IARU YOTA 2015 : Koos Fick ZR6KF

Practical mobile radio installation – What to look for and what to do : Riaan Greeff ZS4PR

**Engaging Newly Licenced Radio Amateurs Project : Etienne Naude ZS6EFN**

KletsKous : Why a SA CubeSAT : SA AMSAT Team

More information on the Programme and fees for the ARiA symposiums can be obtained at the following web address: <http://www.amateurradio.org.za/ARiA2015%20Gauteng.pdf> . The SARL website can also be consulted for information on booking forms.

Due to popular demand, it has been decided to expand the frequency counter kit by including a frequency pre-scaler. Provision for the chip is already on the board. The chip can be ordered as an optional extra item at a cost of R100 when ordered with the main kit.

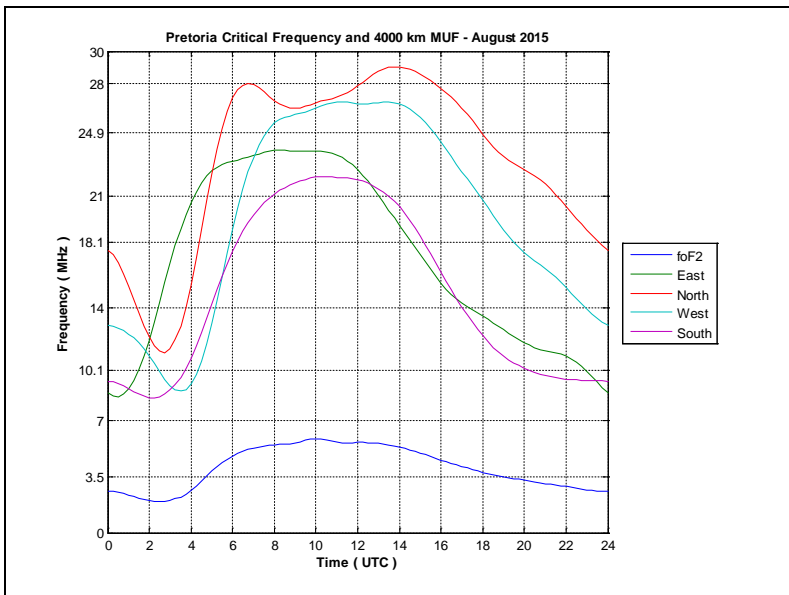
## PARC Shirts and Caps for sale

PARC shirts, hats and caps are again available, and can be ordered directly from Joey Reid.

Joey's contact details are as follows: Cell: 083-252-7912 ; Phone: 012-667-2720 ; Email : [jreid@wol.co.za](mailto:jreid@wol.co.za)

Bank payments can be made to: JD Enterprises ; Capitec Bank ; Acc No : 1273634991 ; Branch No : 470010

Item Description	Unit Price (R)
Two tone bush shirt Navy/Stone : Small / Medium / Large	175-99
Two tone bush shirt Navy/Stone : X – Large / 2X – Large	197-99
Two tone bush shirt Navy/Stone : 3X – Large / 4X – Large	225-99
Two tone bush shirt Navy/Stone : 5X – Large	238-99
Embroidery : Logo on top left pocket	25-00
Name eg: "JOHAN" on left pocket	20-00
Call sign eg: "ZSB6GP" on right top pocket	20-00
Out door hat	45-99
Logo front	25-00
Name eg: Joe	20-00
Call sign at back	20-00
Peek cap	25-00
Logo front	25-00
Name eg: Joe	20-00
Call sign at back	20-00



## Long Term HF Propagation for August 2015

### 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 F-layer frequency for short range communications.

See also the Propagation tab at <http://www.parc.org.za/>

Courtesy Vincent ZS6BTY

C/O NELSPOORT & 801 MALMESBURY STR, WINGATE PARK, PRETORIA [S25.49.36 & E28.16.07]

**ICOM HAMSHACK [PTA]**  
 Pine ZS6OB 082 4477 823  
 AUTHORIZED ICOM DISTRIBUTOR

**FOR ALL YOUR ICOM PRODUCTS & ACCESSORIES**  
 SPECIALLY MANUFACTURED VHF/UHF EX60B ANTENNA SYSTEMS FOR:  
 EME, TROPO, MS, REPEATER & SATELLITE SYSTEMS

### QRV Services offers the following expertise:

- General equipment and Television repairs
- Small-scale design and manufacturing
- Precise frequency and power calibration
- Technical writing
- 3<sup>rd</sup> Party scrutiny of projects and documents
- MFJ 259/69 Analyzer repairs and calibration
- Ham radio and solid state amplifier repairs
- Valuation of ham estates and their disposal.

#### Products:

- Legal limit 30m and 40m dipole traps
  - Linear power supply O.V. protection kits
  - 30A DC switching supplies
  - 30A DC Anderson Power Poles
  - Connectors RF and Audio
  - Plug-in triple sequential industrial timers
- Contact Hans at 012-333-2612 or 072-204-3991

The KVLY-TV television transmitting mast, situated in Blanchard, Traill County, North Dakota, USA, is currently, at a height of 628.8m currently the tallest radio mast in the world (Left and centre). The Warsaw Radio Mast in Poland (right) was the world's tallest structure (636.4m) until it's collapse in 1991. Currently, the highest structure in the world is the Burj Khalifa in Dubai at a height of 829.8 meters.

