



# WATTS 2018-07

Year 88 + 06m

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.parc.org.za>      [zs6pta@zs6pta.org.za](mailto:zs6pta@zs6pta.org.za)



**Bulletins : 145.725 MHz : Sundays from 08h45 / Sondag vanaf 08h45**  
Relays: 1.840, 3.700, 7.066, 10.135, 14.235, 51.400, 438.825, 1297 MHz  
and Echolink. Activated frequencies are announced prior to bulletins  
**Swoopshop : 2m and 7.066 MHz live on-air after bulletins**  
Bulletin repeats on Mondays / herhalings op Maandae : 2m 19h45



## Bywoning van die afgelope Veterane Tee by Adlers Restaurant. Meer op bladsye 5 - 7

*Andre van Tonder ZS6BRC (Erelid), Jurgen (JB) ZR6YV (Erelid) en Martie de Beer, Sarel ZS6EK en Karin Stapelberg, Kenny ZS6KMM en Paddy Martin, Gawie ZS6GJJ en Elma Basson, Lynn van Tonder, Paul ZS6BMF en Julie Sterling, Hans Kappetijn ZS6KR, Hans ZS6AKV en Elaine van de Groenendaal, Charles Mills ZS6CJM, Jan (Pine) Pienaar ZS6OB, Vincent Harrison ZS6BTY, Pieter Myburgh ZS6PAM, Whitey ZS6JJJ en Erna Joubert, Irene Myburgh ZS6IEA, Fritz Sutherland ZS6SF, Graham ZS6GJR (Voorsitter) en Joey Reid, Johan de Bruyn ZS6JHB, Frank ZS6GE en Patricia Schneider ZR6AVC*

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## **Club Meetings / Klub Vergaderings**

### Club Committee Meeting :

The next Committee Meeting will be on Wednesday, the 4<sup>th</sup> of July from 18h00 at the Waterlab Offices.

## **Next PARC Fleamarket / Volgende PARK Vlooiemark**

Saturday the 21<sup>st</sup> of July from 10h00 at POMC

Saterdag die 21<sup>ste</sup> Julie vanaf 10h00 by POMC

To book a table, please do contact: / Om 'n tafel te bespreek, kontak gerus:  
[Alméro Du Pisani ZS6LDP at 083-938-8955](mailto:almero.dupisani@up.ac.za) or [almero.dupisani@up.ac.za](mailto:almero.dupisani@up.ac.za)

## Member's Birthdays July 2018 / Lede Verjaarsdae - Julie 2018

06 Helen Newton ZR6HN  
17 Jan (Pine) Pienaar ZS6OB  
20 Roy Newton ZS6XN  
29 Lian McAllister ZS5IE

13 Pieter Human ZS6PA  
19 Theo Bresler ZS6TVB  
26 Frank Schneider ZS6GE

### Member's Spouses July 2018 / Lede Gades Julie 2018

01 Avida, Gade van Theo Bresler ZS6TVB  
12 Sharmaine, gade van Louis de Wet ZS6SK  
17 Lyn, Gade van Andre van Tonder ZS6BRC (Erelid)  
17 Judy, Spouse of David Botha ZS6O  
22 Ria, Spouse of Pete Smith-Curren ZS6PJ

### Anniversaries July / Herdenkings - Julie

06 Elsa en Fritz Sutherland ZS6SF

## Member's Birthdays August 2018 / Lede Verjaarsdae - Augustus 2018

03 Paul Sterling ZS6BMF  
05 Hans Gürtel ZR6HVG  
07 Whitey Joubert ZS6JJJ  
07 JB de Beer (Erelid) ZR6YV

08 Raymond de Wet ZS6ALG  
08 Marnix Claeys ZS6MCM  
08 Tobie Jansen van Rensburg ZS6ZX  
28 Jean de Villiers ZS6ARA

### Spouse's August 2018 / Gades Augustus 2018

No Spouse's birthdays

### Anniversaries August / Herdenkings - Augustus

07 Peggy and Edmar Willers ZS6UT

## PARC Bulletins / PARK Bulletins

PARC Bulletins are presented on Sunday mornings at approximately 08h45, after the SARL Bulletins in English and Afrikaans, from 08h15. The Bulletin Presenters for the following two months are presented below. Please do contact the applicable presenter beforehand if you wish to make a contribution to the Bulletin. PARC Bulletins are broadcast on the 2 meter repeater on 145.725 MHz, and 70 cm on 438.025 MHz. Relays are done on 7.060 MHz by Hans Kappetijn ZS6KR and on Echolink by Johan Lehman ZS6JPL. A re-broadcast of the Bulletin is done the following Monday evening at 19h45 by Hans ZS6KR.

PARK Bulletins word op Sondag oggende aangebied om 08h45, na die SARL Bulletins in Engels en Afrikaans, vanaf 08h15. The Bulletin aanbieders vir die volgende twee maande word onder aangedui. Kontak gerus die toepaslike Bulletin leser indien u 'n bydrae tot die Bulletin wil maak. PARK Bulletins word uitgesaai op die 2 meter Herhaler op 145.725 MHz, en 70cm op 438.205 MHz. Herleidings word gedoen op 7.060 MHz deur Hans Kappetijn ZS6KR, en op Echolink deur Johan Lehman ZS6JPL. 'n Heruitsending van die Bulletin geskied die opvolgende Maandag aand om 19h45 wat behartig word deur Hans ZS6KR.

### PARC Bulletin Presenters : May - August 2018

Date	Presenter	Date	Presenter
06 May 2018	Etienne Naude ZS6EFN	24 June 2018	Louis de Wet ZS6SK
13 May 2018	Alméro DuPisani ZS6LDP	01 July 2018	Etienne Naude ZS6EFN
20 May 2018	Johan de Bruyn ZS6JHB	08 July 2018	Alméro DuPisani ZS6LDP
27 May 2018	Louis de Wet ZS6SK	15 July 2018	Johan de Bruyn ZS6JHB
03 June 2018	Etienne Naude ZS6EFN	22 July 2018	Etienne Naude ZS6EFN
10 June 2018	Alméro DuPisani ZS6LDP	29 July 2018	Alméro DuPisani ZS6LDP
17 June 2018	Johan de Bruyn ZS6JHB	05 August 2018	Johan de Bruyn ZS6JHB

*Please do contact Etienne Naude ZS6EFN for more information or any Bulletin arrangements*

### PARC SUBS : PARK LEDEGELD : FROM / VANAF : 30-06-2018

Bank	First National Bank	<b>Ordinary Members / Gewone Lede : R160</b> <b>Spouses / Pensioners : R60</b>	<b>Your call sign must appear as statement text!</b>
Branch Code	25 20 45		
Account No	546 000 426 73		

**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**

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

**PARC Committee Members Contact Details / Komiteelede Kontakbesonderhede : 2017 - 2018**

**Elected Members**

	<u>Name</u>	<u>Callsign</u>	<u>Email Address</u>	<u>Tel No</u>	<u>Mobile No</u>
Chairman, Web co-ordination	Graham Reid	ZS6GJR	<a href="mailto:greid@wol.co.za">greid@wol.co.za</a>	012-667-2720	083-701-0511
Vice Chairman, Treasurer & Rallies	Johan de Bruyn	ZS6JHB	<a href="mailto:zs6jhb@gmail.com">zs6jhb@gmail.com</a>	012-803-9418	079-333-4107
RAE Training, Bulletins & SARL Liaison	Etienne Naude	ZS6EFN	<a href="mailto:etienne@afgrid.com">etienne@afgrid.com</a>	012-661-6745	082-553-0542
Club Secretary	Irene Myburgh	ZS6IEA	<a href="mailto:Irene@srsa.gov.za">Irene@srsa.gov.za</a>	012-304-5109	082-462-6001
Social & Contests	Whitey Joubert	ZS6JJJ	<a href="mailto:zs6jji@gmail.com">zs6jji@gmail.com</a>	012-993-2267	072-120-4516
Watts Newsletter & RAE Assistance	Louis de Wet	ZS6SK	<a href="mailto:louis.zs6sk@gmail.com">louis.zs6sk@gmail.com</a>	012-349-1044	072-140-9893
Youth Development & Competitions	Nic Louw	ZS6NWL	<a href="mailto:nic.louw@telkomsa.net">nic.louw@telkomsa.net</a>		083-596-1026
RAE Training & Technical	John Minter	ZS6LED	<a href="mailto:john.minter.za@gmail.com">john.minter.za@gmail.com</a>	012-349-0019	083-291-5422

**Co-Opted Members**

	<u>Name</u>	<u>Callsign</u>	<u>Email Address</u>	<u>Tel No</u>	<u>Mobile No</u>
Fleamarkets	Alméro Dupisani	ZS6LDP	<a href="mailto:alméro.dupisani@up.ac.za">alméro.dupisani@up.ac.za</a>	012-420-3779	083-938-8955
Auditor	Tony Crowder	ZS6CRO	<a href="mailto:tcrowder@telkomsa.net">tcrowder@telkomsa.net</a>	011-672-3311	

**Contests and Diary of Events - July 2018 / Kompetisies en Dagboek van Gebeure - Julie 2018 (UTC Times)**

01	<b>Start of SARL Financial Year: Membership payments are due</b>
01	<b>ZS5 Sprint</b>
01	RAC Canada Day Contest : 00h00 - 23h59
07	<b>SARL Newbie QSO party</b>
14 - 15	IARU HF World Championship : 12h00 - 12h00
21	<b>Pretoria Amateur Radio Club Winter Flea Market : From 10h00 at POMC</b>
21	<b>Winter QRP Contest</b>
21	Jakarta DX Contest : 10h00 - 22h00
21	<b>PARC Flea Market at POMC from 10h00</b>
21 - 22	CQ Worldwide VHF Contest : 18h00 - 21h00
22	<b>ZS2 Sprint</b>
28 - 29	RSGB Islands on the Air (IOTA) Contest : 12h00 - 12h00

**Contests and Diary of Events - August 2018 / Kompetisies en Dagboek van Gebeure - Augustus 2018 (UTC Times)**

4 - 5	10-10 International Summer Contest, SSB : 00h01 - 23h59
4	European HF Championship : 12h00 - 23h59
5	<b>SARL HF Phone Contest : 13h00 - 16h30</b>
11 - 12	WAE DX Contest : 00h00 - 23h59
12	International Youth Day
18 - 19	International Lighthouse and Lightship Weekend : 00h01 - 24h00
18 - 19	SARTG WW RTTY Contest : 00h00 - 16h00
19	<b>SARL HF Digital Competition</b>
25	<b>Pretoria Amateur Radio Club Flea Market : From 10h00 at POMC</b>
25	<b>Pretoria Amateur Radio Club Annual General Meeting : From 12h30 at POMC</b>
25 - 26	YO DX HF Contest : 12h00 - 12h00
26	<b>SARL HF CW Contest : 14h00 - 16h00</b>

More information can be obtained from the SARL website, as well as the WA7BNM contest calendar at the following website: <http://hornucopia.com>



**PRETORIA AMATEUR RADIO CLUB**  
**88<sup>TH</sup> ANNUAL GENERAL MEETING**  
**Saturday, 25<sup>th</sup> August 2018**  
**From 12h30 at the Pretoria Old Motor Club**

**PRETORIA AMATEUR RADIO KLUB**  
**88<sup>STE</sup> ALGEMENE JAARVERGADERING**  
**Saterdag, 25<sup>ste</sup> Augustus 2018**  
**Vanaf 12h30 by die Pretoria Ou Motor Klub**





**88<sup>th</sup> ANNUAL GENERAL MEETING  
88<sup>ste</sup> ALGEMENE JAARVERGADERING  
Pretoria Amateur Radio Club**



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

**Venue**

**Saturday 25 August 2018**

**Time : 12h30**

**Agenda : To be published**

**Plek**

**Saterdag 25 Augustus 2018**

**Tyd : 12h30**

**Agenda : Sal gepubliseer word**

**NB**

Nominations awaited. Latest acceptance by 12h00 on 25 August 2018  
Nominasies word afgewag. Laatste indiening teen 12h00 op 25 Augustus 2018  
Contact details on page 3 of WATTS / Kontakdetails op bladsy 3 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 2018 PARC AGM**

**Volmag om namens my te stem tydens die 2018 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 on **25 August 2018 at 12h00 at the 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 teen 12h00 op 25 Augustus 2018** ingehandig word. Gebruik die Nominasievorm hieronder. Beide Voorsteller en Voorgestelde moet opbetaalde lede wees.

Proposer:

ZS

Signature:

Voorsteller:.....

ZR

Handtekening:.....

ZU

<b>NOMINEE GENOMINEERDE</b>	<b>CALLSIGN ROEPSEIN</b>	<b>NOMINATION ACCEPTED NOMINASIE AANVAAR</b>
1		
2		
3		
4		

## PARC Veterane Radio Amateurs Tee

Die Jaarlikse PARK Veterane tee het gegroei in 'n geleentheid waarna elke jaar uitgesien word. Hierdie jaar het die geleentheid plaasgevind by die Adlers restaurant, Rietfontein. Soos altyd, is dit baie goed bygewoon deur baie ou bekendes, vele van hulle reeds ook veterane van hierdie geleentheid, asook 'n aantal nuwe bekendes wat nou "kwalifiseer" om dit by te woon.

Oudergewoonte is die geleentheid geopen deur die Voorsitter van PARK, Graham Reid ZS6GJR, wat almal hartlik verwelkom het. Hy het ook die organiseerders, Etienne Naude ZS6EFN, Johan de Bruyn ZS6JHB en Irene Myburgh hartlik bedank vir die organisering van hierdie geleentheid. Na die verwelkoming en bedankings het almal weggeval aan die heerlike eetgoed, en lank en sand gesels oor die vervloë dae van Amateur Radio. Fotos van almal wat bygewoon het verskyn op die opeenvolgende bladsye.



Graham Reid ZS6GJR open die geleentheid



Ondervoorsitter Johan de Bruyn ZS6JHB



Whitey ZS6JJJ en Erna Joubert



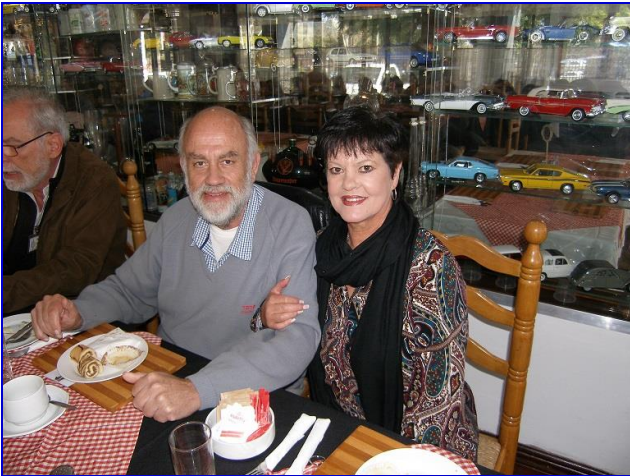
Gawie ZS6GJJ en Elma Basson



Sarel ZS6EK en Karin Stapelberg



Kenny ZS6KMM en Paddy Martin



Jurgen (JB) ZR6YV (Erelid) en Martie de Beer



Jan (Pine) Pienaar ZS6OB



Andre ZS6BRC (Erelid) en Lyn van Tonder



Hans van de Groenendaal ZS6AKV en Fritz Sutherland ZS6SF



Irene ZS6IEA en Pieter ZS6PAM Myburgh



Vincent Harrison ZS6BTY



Elaine van de Groenendaal en Lyn van Tonder



Frank ZS6GE and Patricia ZR6AVC Schneider



Charles Mills ZS6CJM en Hans Kappetijn ZS6KR



Paul ZS6BMF and Julie Sterling



Pretoria Amateur Radio Club herewith sincerely thanks the organizers and everyone who attended for making this event such a great success. We sincerely hope that PARC will continue with this wonderful tradition for many years to come!

Pretoria Amateur Radioklub bedank hiermee die organiseerders en almal wat die geleentheid bygewoon het hartlik om die geleentheid so 'n groot sukses te maak. Ons hoop opreg dat PARK sal voortgaan om vir baie jare hierdie wonderlike tradisie voort te sit!

**“RMS Power” : By Roy Lewallen, W7EL ; Submitted by Hans Kappetijn ZS6KR**

Discussion in the rec.radio.amateur.homebrew newsgroup showed a widespread misunderstanding of the meaning and importance of RMS and average values of voltage, current, and power. So I've put together this explanation which uses as little math as possible, and hopefully explains the concepts in an intuitive way.

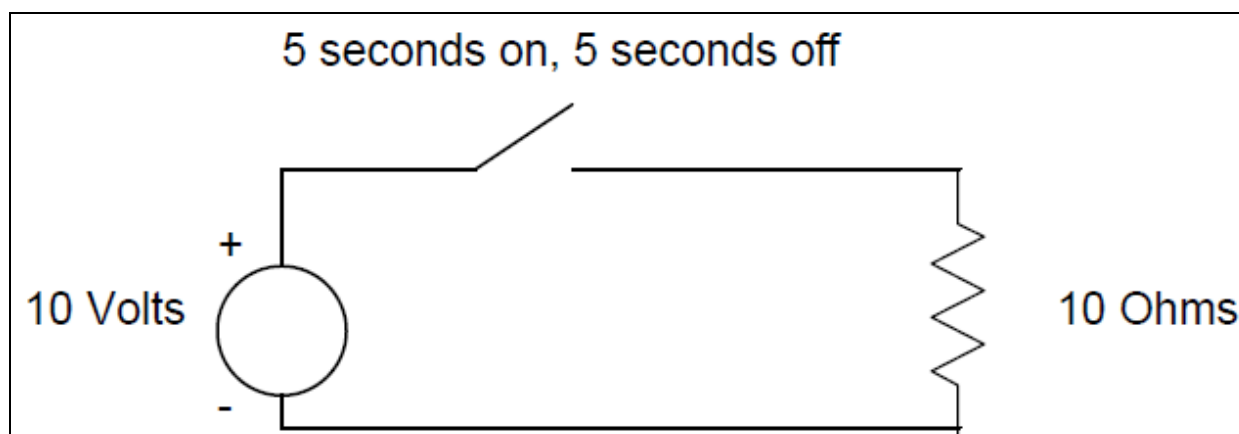
**The Meaning of Average**

Before I can proceed, it's important to explain just what average means. Fortunately, its meaning when dealing with waveforms is essentially the same as its common meaning. If we were to sample a waveform (that is, a graph of voltage, current, power, etc. versus time) at equally spaced times, then add up their values and divide by the number of samples, we'd have approximately the average value of that voltage, current, power, or whatever the waveform represents. The smaller the time intervals between samples, the more accurate the average will be. The mathematical operation of integration is a way to find what the value would be if we could shrink the time interval extremely close to zero, and it's needed if we want to calculate the exact average value of some waveforms. But I'm going to use square waves for this explanation, and we can easily see their average values without any math at all.

A periodic waveform is one that repeats in an identical fashion, over and over. The period of the waveform, or one cycle, is the time interval that repeats. If we find the average of one complete cycle of the waveform, then the average of the next cycle will be exactly the same as the first. If we combine the samples from two cycles, add them together and divide by the total number of samples, we find that not only is the average value of one cycle the same as the average of the second, but also that the average value of two cycles is the same as the average of one cycle. In fact, the average value of any whole number of cycles is the same as the average value of just one cycle. So we can easily find the average value of a very long-duration periodic waveform simply by calculating the average value of one complete cycle.

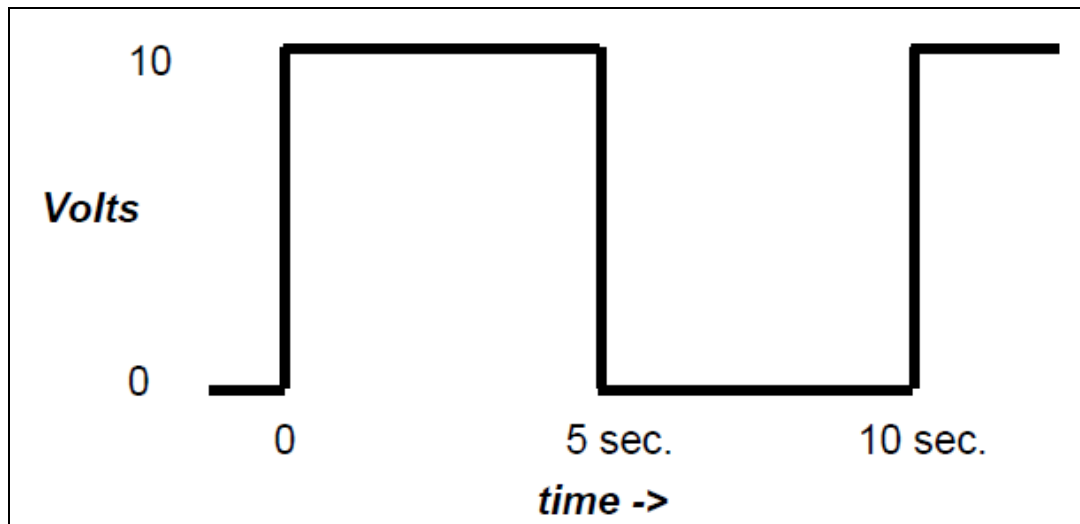
**Equivalent Power**

The next important concept is that of equivalent, or heating power. Let's suppose we put 5 watts into a resistor for 10 seconds. The total amount of energy applied to the resistor is 5 watts X 10 seconds = 50 watt-seconds = 50 joules. This of course raises its temperature by some amount. The actual amount of temperature rise, in degrees, depends on how massive the resistor is, how fast the energy is applied, and how fast the heat can be moved away by conduction, convection, and radiation. So we won't try to calculate the exact temperature rise. But the important thing here is that the total amount of heat (energy) the resistor dissipates is the amount of energy that's applied to it. Put another way, imagine the resistor being immersed in a thermally insulated tub of water. If we apply 50 joules to the resistor, the water temperature will rise by an amount we can calculate, and it won't matter how we apply that 50 joules - suddenly or slowly - that same temperature rise will result whenever and however we apply 50 joules. Consider the following simple circuit, where the switch closes and opens, closes and opens, continuously, with a ten second period:

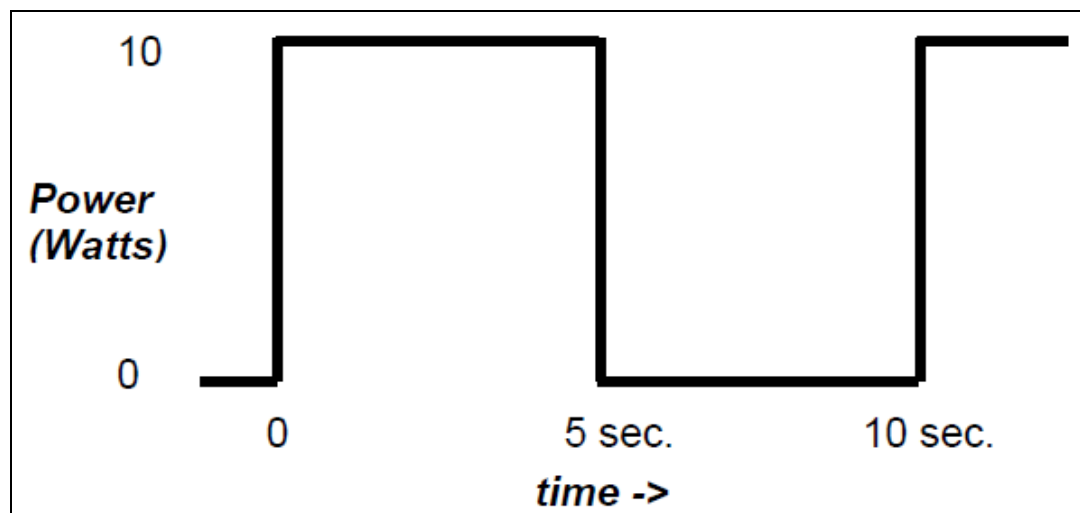




The voltage applied to the resistor will look like this:



And the power dissipated by the resistor will look like this:



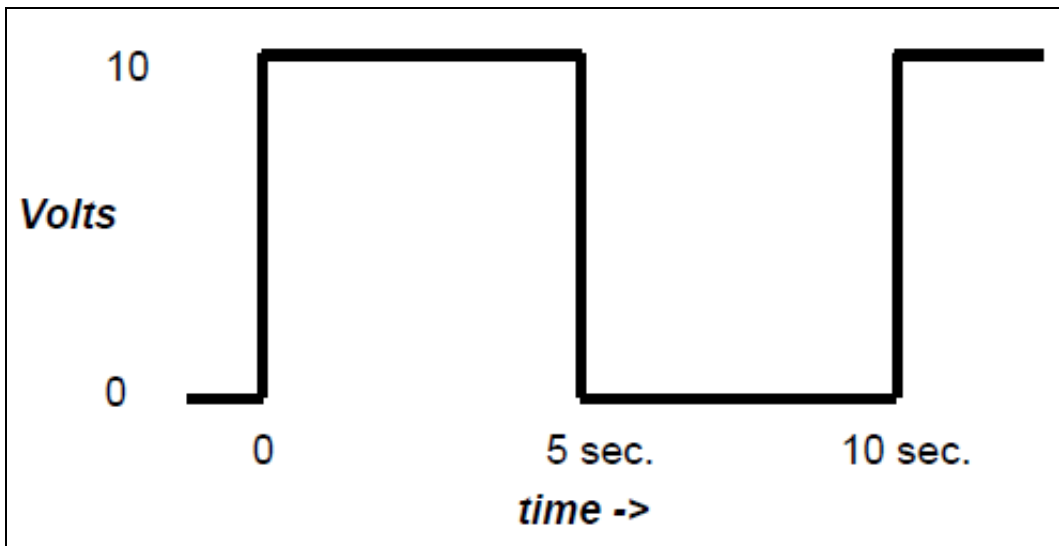
This second waveform of power versus time shows the instantaneous power, that is, the power delivered to the resistor at each instant of time. Too often, it's overlooked that whenever the voltage and/or current varies with time, the power does also. But it's obvious that when the switch is open, no power is being delivered to the resistor. This is extremely important to realize, because it enables us to find the actual amount of energy that's being transferred as well as calculate other important quantities.

As mentioned above, the amount of energy delivered to the resistor is the product of the power and the time. This is strictly true only if the power is constant during that time. When the power varies, the energy can be calculated by sampling the power at frequent time intervals, calculating the power X time product during each interval, and adding them up. The total ends up being the area under the power waveform curve, and it gets more and more accurate as the time interval becomes shorter and shorter. Again, mathematical integration is necessary for all but the simplest curves if extreme accuracy is required. But for our simple power waveform, it's easy to see that in the first five seconds, the area under the curve is simply 10 watts X 5 seconds = 50 watt-seconds = 50 joules. This is the total energy delivered to the resistor during the first five seconds of the period. During the second five seconds, the power is zero, so the energy delivered is zero. So the total energy delivered over one period of ten seconds is 50 joules.

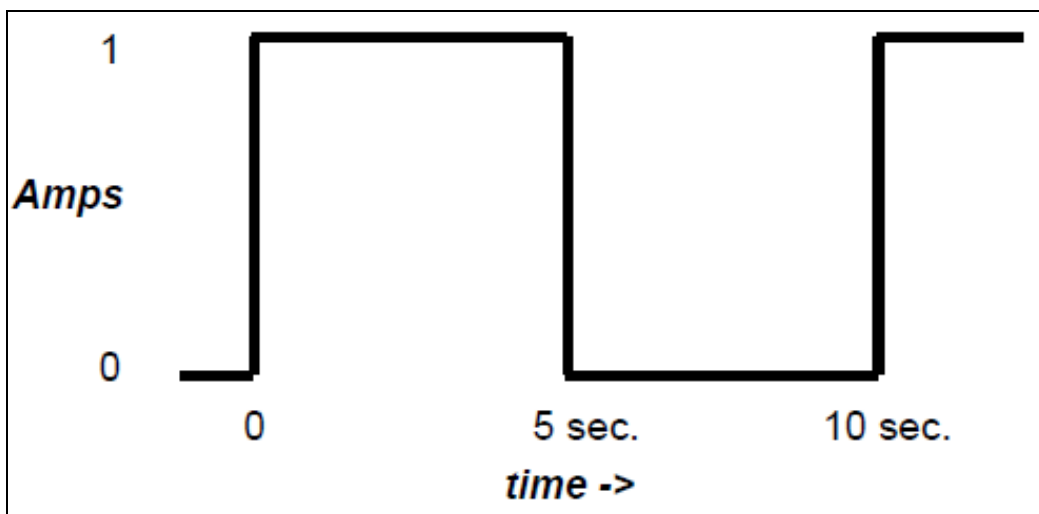
Now let's find the average power during the ten second period.

I think you can see by inspection of the second (power) waveform that the average power is 5 watts. It's 10 watts for half the time and zero for the other half, so if we were to sample it at regular intervals, half the samples would be 10 watts and the other half would be zero. Dividing by the total number of samples, we'd get 5 watts for the average. If we had applied 5 watts continuously for the whole 10 seconds of the period, we'd have delivered 50 joules of energy to the resistor. The resistor would dissipate a total of 50 joules, exactly the same amount as it does with the 10watts of power being delivered for half the time. ***The effective or heating power of our circuit is 5 watts, which is the average power.***

It's easy to see that if we delivered four times the power for  $\frac{1}{4}$  of the time, we'd still have the same average power, and the same total delivered energy - and therefore the same amount of resistor dissipation. Now let's look at the voltage and current more closely. Recall the voltage waveform:



Ohm's law tells us that the current will be:

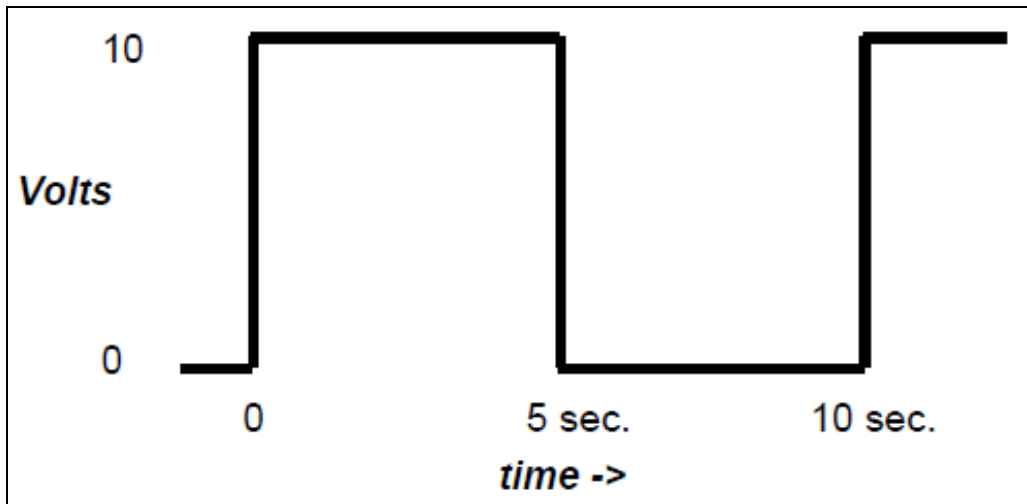


By inspection, the average voltage is 5 volts, and the average current is 0.5 amps. But the average voltage times the average current (= 2.5 watts) is ***not*** the average power. In fact,

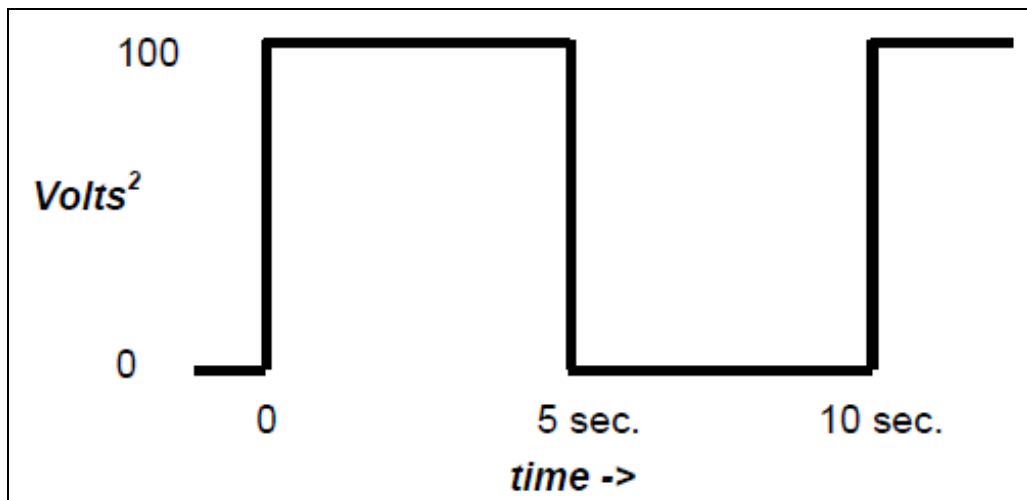
that product is meaningless. We need some other measure of voltage and current if we're going to calculate average power without first finding the instantaneous power.

### The Meaning of RMS

RMS is a mathematical function, like average, that reduces a complex function to a single value. And, like average, it has a precise definition. The definition is revealed by the name - it's the square **R**oot of the **M**ean of the **S**quare of the function. Mean is the same as average, so we calculate the RMS value of a function or waveform by first squaring it, then taking the average of the squared function or waveform, then taking the square root of the average. But it has to be done in the proper order! Let's calculate the RMS value of the voltage waveform from the example. Recalling that the voltage was:



The first step is to square the waveform:



Then we take the average of this waveform, which we can see by inspection is 50 volts<sup>2</sup>. The average is no longer a waveform - that is, it doesn't vary with time - it's just a single value. Finally, we take the square root of the average, and get 7.071. . . volts. That's the RMS value of the original voltage waveform. Doing the same for the current waveform, we calculate an RMS value of 0.7071. . . amps. It turns out that when we multiply these together, we get 5 watts - the **average** power. This is always true, for any voltage and current waveforms (assuming a resistive load for simplicity). The reason comes from the basic mathematical definitions of RMS and average. It's easiest to see by looking just at the voltage or current. The instantaneous power is  $v^2/R$  where  $v$  is the instantaneous voltage.

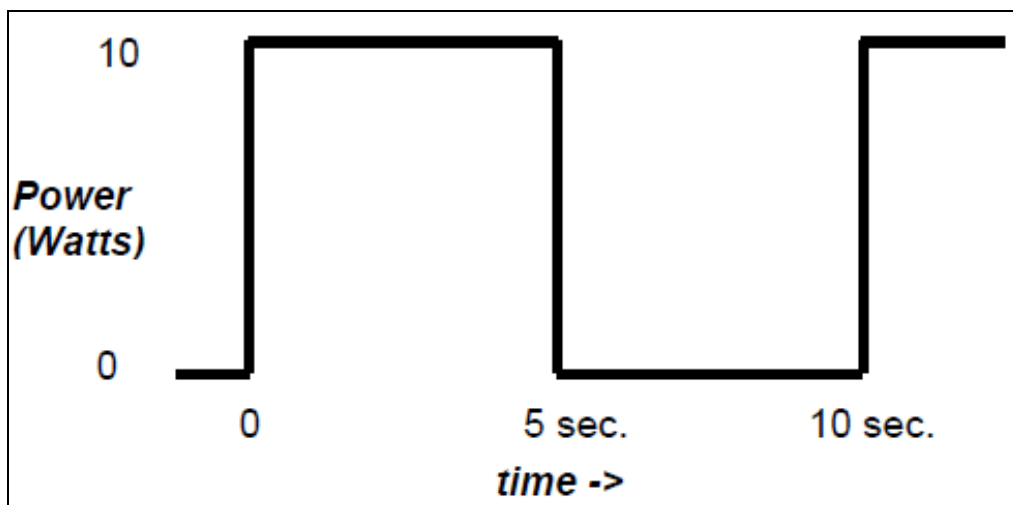
Therefore, the average power is  $\text{Avg}\left(\frac{v^2}{R}\right) = \frac{\text{Avg}(v^2)}{R}$ . (R can be moved out of the average since it doesn't change with time.)

The RMS voltage  $V_{\text{RMS}}$  is  $\sqrt{\text{Avg}(v^2)}$ , so  $(V_{\text{RMS}})^2 = \text{Avg}(v^2)$  and the average power is  $\frac{V_{\text{RMS}}^2}{R}$ .

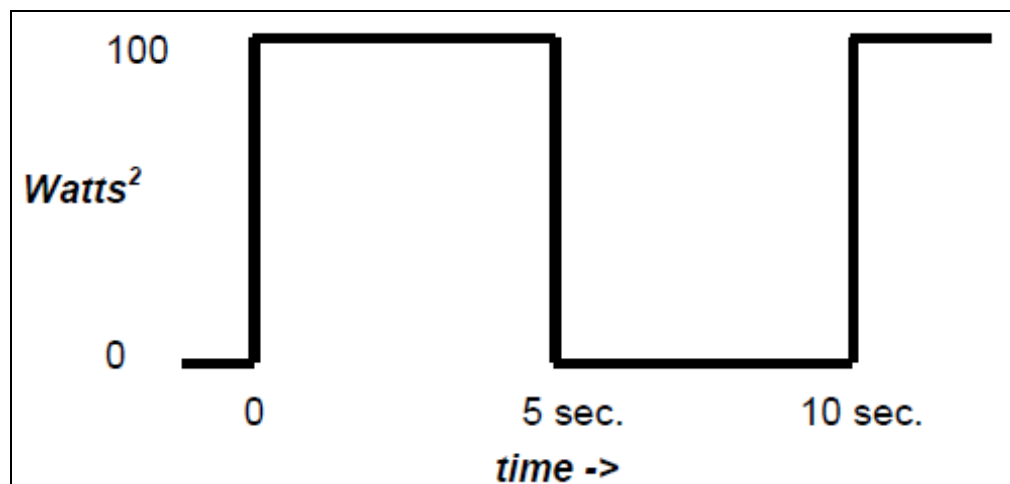
A similar analysis of the current shows that the average power is also  $I_{\text{RMS}}^2 R$ .  
**The importance of RMS voltage and current are that they can be directly used to calculate the average power.**

### RMS Power

The RMS value of a power waveform can be calculated just like the RMS value of any other waveform, although it doesn't represent heating power or any other useful quantity. I'll do it just to show how it would be done. Recall that the power was:



Squaring it, we get:



The average of the square of the power is clearly 50 watts, and the square root of that is 7.0711... watts. We found earlier that the equivalent heating power of our circuit - the average power -- was 5 watts, not 7. **The RMS value of power is not the equivalent heating power and, in fact, it doesn't represent any useful physical quantity.** The RMS and average values of nearly all waveforms are different. A notable exception is a steady DC waveform (of constant value), for which the average, RMS, and peak values are all the same. It should be noted that the term "RMS power" is (mis)used in the consumer audio

industry. In that context, it means the average power when reproducing a single tone, but it's not actually the RMS value of the power.

## Summary

I've shown that:

- The equivalent heating power of a waveform is the average power.
- The RMS power is different than the average power, and therefore isn't the equivalent heating power. In fact, the RMS value of the power doesn't represent anything useful.
- The RMS values of voltage and current are useful because they can be used to calculate the average power.

For those who are interested, mathematical derivations are readily available and can be found on various web sites and in textbooks. What I've tried to do here is to present the basic concepts with as little mathematics as possible. Questions are welcome - send them to [w7el@eznec.com](mailto:w7el@eznec.com). And I'd appreciate very much if anyone finding an error would notify me so it can be corrected.

Roy Lewallen, W7EL

Modified 2004-11-18.

Thanks to Steve Nosko, K9DCI, for suggestions.

Modified 2009-09-11 (typo correction): Thanks to Blaine Newman.

## **PARC 90 Years Celebration / PARK 90 Jaar Herdenking**

With the establishment of the South African Radio League in 1925, and the Pretoria Amateur Radio Club in 1930, the Centenary of SARL will be celebrated in 2025, while the 90<sup>th</sup> year celebration of PARC is approaching in 2020.

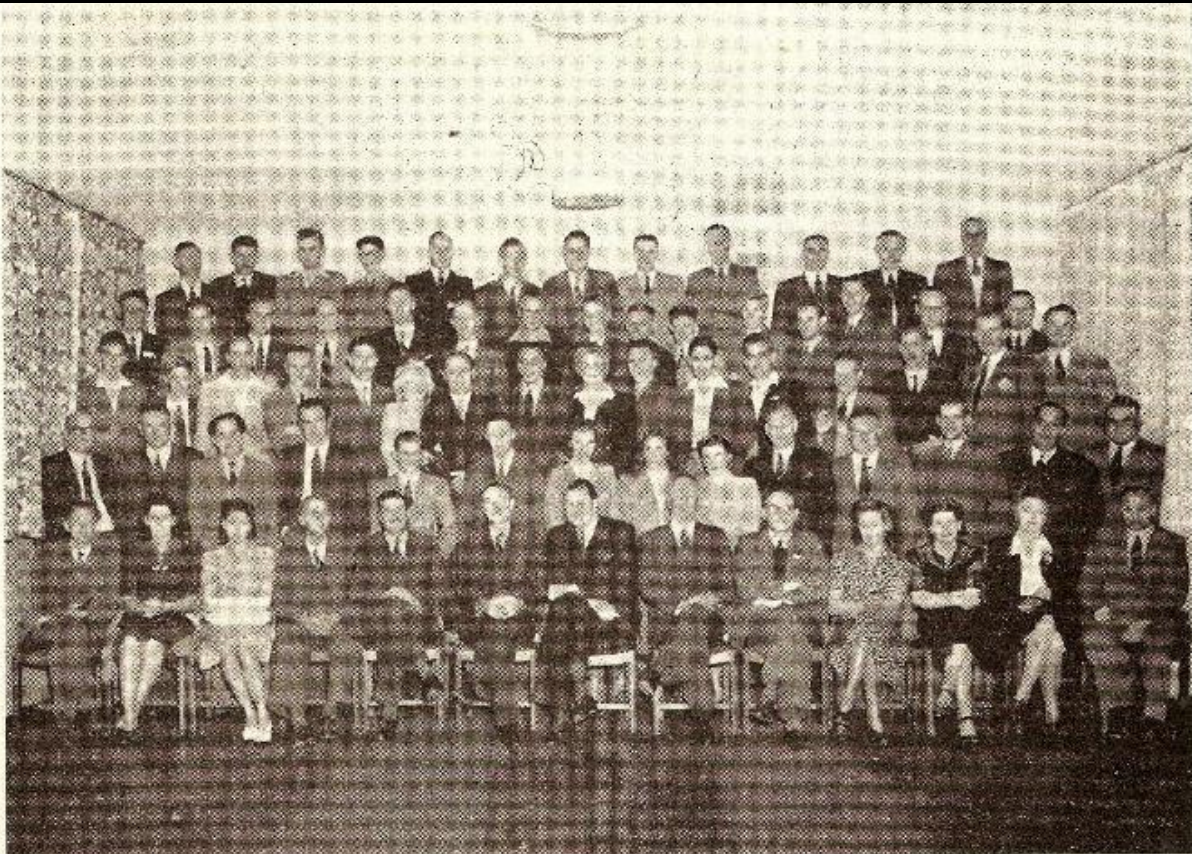
Thanks to two magnificent sources of information; Radio ZS magazines which can be downloaded from the SARL website, as well as Club Meeting and Minutes books kindly supplied by Tjerk Lammers ZS6P, it is possible to collect a wealth of historical information on the past and current Members of PARC, as well as compile a database of Radio Amateurs which were members of PARC since 1947.

Pretoria Amateur Radio Klub wens hiermee om 'n projek te loods waar ons graag 'n gedenkalbum wil skep vir lede wat die 90 jarige herdenking van die Klub in 2020 vier. Ons vra graag dat enige Lede wat graag inligting wil deel, met ons kontak maak vir insluiting in hierdie album. Enige materiaal is welkom, wat fotos, dokumente, staaltjies en dies meer kan insluit.

Net om die aptyt vir die projek te stimuleer, het ons 'n paar fotos uit 'n paar uitgawes van Radio ZS van 1948 gekopieer, asook enkele bladsye uit die PARK argiewe van 1948 (p14-16). Sommige van u sal van die name herken, en ons sal graag enige inligting met ons mede Klublede wil deel in die voorgestelde gedenkalbum.

Indien u oor enige materiaal beskik wat u wil bydra (leen of skenk) vir die projek, kan u gerus vir Louis de Wet ZS6SK by [louis.zs6sk@gmail.com](mailto:louis.zs6sk@gmail.com) (012 349 1044/1066), Etienne Naude by [etienne@afrigrid.com](mailto:etienne@afrigrid.com) (082 553 0542) of Irene Myburgh ZS6IEA [irene@srsa.gov.za](mailto:irene@srsa.gov.za) (084 544 0618) kontak. Ons gaan poog om die name en roepseine van soveel moontlik radio amateurs wat lede van PARK was en is, in te sluit in die gedenkalbum.

If you have any material available (loan or donate) for this project, please do contact Louis de Wet ZS6SK at [louis.zs6sk@gmail.com](mailto:louis.zs6sk@gmail.com) (012 349 1044/1066), Etienne Naude at [etienne@afrigrid.com](mailto:etienne@afrigrid.com) (082 553 0542) or Irene Myburgh ZS6IEA [irene@srsa.gov.za](mailto:irene@srsa.gov.za) (084 544 0618). We are going to attempt to place as much as possible names and call-signs of radio amateurs which were, and, are Members of PARC in this commemorative album.



**FIRST POST-WAR JOINT MEETING OF THE JOHANNESBURG, PRETORIA AND EAST RAND BRANCHES OF THE SOUTH AFRICAN RADIO LEAGUE, HELD AT HALFWAY HOUSE, FEB., 1948**

Back Row: ZS6MU, ZS6JH, ZS6KE, ??????, ZS6LO, J. Stephen, ZS6KY, A. E. Ovgan, ZS6OI, ZS6OD, ZS6LA, ZS5BC, ZS6KG, ZS6PF, ZS6OK, ZS6EK, J. Robertson, ZS6PB, ZS6JW, Mr. Brooke, Mr. Moir, Mr. B. Wilson, Mr. M. Duncan, ZS6U, Mr. Rosewarne, Mr. Hoogenhout, ZS6ME, Mr. L. Webb, Mr. J. Turvey, ZS6NJ, ZS6RA, ZS6HO, ZS6KK, ZS6JF, ZS6MD, Mrs. Twersky, ZS6JL, ZS6B, ZS6ET, ZS6LT, ZS6PZ, ZS6MY, ZS6GV, ZS6EG, ZS6DL, ZS11K, ZS6BW, ZS6NY, ZS6LZ, Mrs. Wayburne, Miss Speyer, Mrs. Dickman, ZS6EU, ZS6GO, ZS6ML, ZS6CZ, ZS6CT.  
 Sitting: ZS6SB, Mrs. Baumann, Mrs. van der Merwe, ZS6OY, ZS6LH, ZS6A, ZS6Z, ZS6MH, ZS6GF, Mrs. Nel, ZS6LK, Mrs. Hoogenhout, ZS6DW.

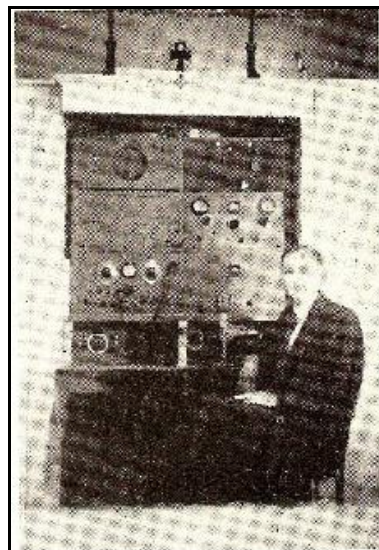


OM's Mike Smuts, 6GO, and Boet Kok, 6LO, have the RF under control during the 125-mile air race staged by the Pretoria Light Plane Club on the 11th April.

**Bo:** Augustus 1948: Eerste post-oorlog gesamentlike vergadering van die Johannesburg, Pretoria en Oos-Rand take, gehou te Halfweghuis, Februarie 1948.

**Links:** A.M. (Mike) Smuts ZS6GO en D.J. (Boet) Kok ZS6LO besig met radio ondersteuning tydens 'n lugresies op 11 April 1948.

**Regs:** Die stasie van Eddie Prins ZS6LR. Vergelyk met vandag se SDR toestelle!



Die stasie van onk. Eddie Prins, ZS6LR. Hierdie toestelle het ondertussen alweer baie veranderings ondergaan en ten goede. Nog net Eddie is dieselfde.

MAANDELIKSE VERGADERING  
MONTHLY MEETING.

LEDE / MEMBERS.

NAAM / NAME.

ADRES / ADDRESS.

(Veranderings alleen - Changes only)

<u>NAAM / NAME.</u>		<u>ADRES / ADDRESS.</u>
<i>[Signature]</i>	ZS6EX	
<i>[Signature]</i>	ZS6ET	
A.M. Smuts	ZS6GO.	
<i>[Signature]</i>		
<i>[Signature]</i>		912 Arcadia St.
T.L. Webb.		266 Venogre St.
<i>[Signature]</i>		225 St. Patrick Rd.
<i>[Signature]</i>	ZS6HJ	
H. Bennett	ZS6AK	
<i>[Signature]</i>		389 Schoonman St.
M. M. M. M.	ZS6me	Boon 405 Pla.
<i>[Signature]</i>	ZS6KF	482 Frederick St. Pla.
W. Kegel	ZS6NH	438 Frederick St. Pla. W.
J. Williams	ZS6JW	250 Montague St. Hercules
<i>[Signature]</i>	ZS6LR	61 Vella St Sunnyside.
<i>[Signature]</i>		1067 Boreth Street
<i>[Signature]</i>		250 Oliver St Brooklyn.
<i>[Signature]</i>	ZS6M V	Waldhof His Station. P.O. Adonata
<i>[Signature]</i>	ZS6IJ	Waldenloof Am Stm
a.w. Jones	ZS6H	Waldkloof <u>Schurb.</u>
<i>[Signature]</i>	ZS6M W	do
<i>[Signature]</i>	ZS6CR.	
F. Ingleson	ZS6KO	162 14th Ave Waverly Park South Pa

Page from the Monthly Meeting attendance of a PARC Club Meeting held in September 1948. The signatures and call-signs of A.M. (Mike) Smuts ZS6GO and Eddie Prins ZS6LR (reported on previous page) can be seen on the scan of this page.

SOUTH AFRICAN RADIO LEAGUE.  
(PRETORIA BRANCH)

FINANCIAL REPORT. SEPT. 1948

Balance B/P	£ 63-19-11	Stamps	£ - 4 - -
Subs & Badges	19 7-6	Admin.	£ 2-10-0
		Remit to HQ.	7-7-6
		Balance	73-5-11
	<u>£ 83-7-5</u>		<u>£ 83-7-5</u>

Pretoria  
7/10/48

Treasurer: *[Signature]*  
 Chairman: *[Signature]*  
 Member: *[Signature]*

Scan from the Monthly Financial Report of PARC in September 1948. Note the signatures of PARC Chairman, L. Verheijen ZS6GF, Hon. Treasurer, P.J. Odendaal ZSL6PJ and Hon. Secretary, P.G. Hoogenhout ZSL6PQ.



**PRETORIA SECTION S.A.R.L. 1929**  
 R.H. Borchers (listener), ZS6V "B.J." Nyenhuis, ZU6R Len Nicholson, ZU6B Fraser Alexander, ZS6AH "Viv" Hicks, ZU6M "Brian" Scallan, B. Van Heerden  
 ZU6K "Ronny" Levy, ZU6E "Wally" Browning, ZS6AF "Bill" Lister, ZT6W "Watty" Watson, (SABC Engineer, Pretoria),  
 ZU6L "Tommy" Laxton, ZU6D F.H. Connolly, ZU6N "Nellie" de Kock.

From Radio ZS, August 1974



## 2018 Tydren Kalender / 2018 Rally Calendar

Met die 2018 tydren seisoen in volle swang, kan ons weer uitsien na 'n besige program met baie radio-aktiwiteit tussen die aksie, stof en geraas! Die Tydren Kalender is voorsien deur Johan de Bruyn, wat tydren aktiwiteite koordineer. Indien u belangstel om deel te wees van tydren radio-diens, kontak gerus vir Johan by 079-333-4107 of [zs6jhb@gmail.com](mailto:zs6jhb@gmail.com). Die datums van die Nasionale- en Streekstydenne word onder aangedui.

With the 2018 rally season in full swing, we can again look forward to a busy program loaded with radio-activity in-between the action, dust and noise! The Rally Calendar was provided by Johan de Bruyn, who is the coordinator of rally activities. If you are interested in becoming part of rally radio-service, feel free to contact to contact Johan at 079-333-4107 or [zs6jhb@gmail.com](mailto:zs6jhb@gmail.com). The dates of the National- and Regional rallies are presented below.



Round 1	9-10 March	L&G Tools Rally <small>Balito - KZN</small>
Round 2	20-21 April	York Rally <small>Sabie-Mpumalanga</small>
Round 3	25-26 May	Rally Star Carnival City
Round 4	6-7 July	Algoa Rally <small>Port Elizabeth - EC</small>
Round 5	17-18 August	Electrothread Rally <small>Bronkhorstspuit - Gauteng</small>
Round 6	28-29 Sept	Lake Umuzi Rally <small>Secunda - Mpumalanga</small>
Round 7	26-27 Oct	<b>TBA</b> <small>Tzaneen or Sabie Limpopo / Mpumalanga</small>

Rounds 3 & 7 : Venues to be confirmed








Round 1	21 April	York Rally <small>Sabie-Mpumalanga</small>
Round 2	26 May	<b>Delmas/Carnival</b> <small>Mpumalanga</small>
Round 3	23 June	<b>SAM RALLY</b> <small>Location to be confirmed</small>
Round 4	18 August	Electrothread Rally <small>Bronkhorstspuit - Gauteng</small>
Round 5	29 Sept	Lake Umuzi Rally <small>Secunda - Mpumalanga</small>
Round 6	27 Oct	<b>TBA</b> <small>Tzaneen or Sabie Limpopo / Mpumalanga</small>

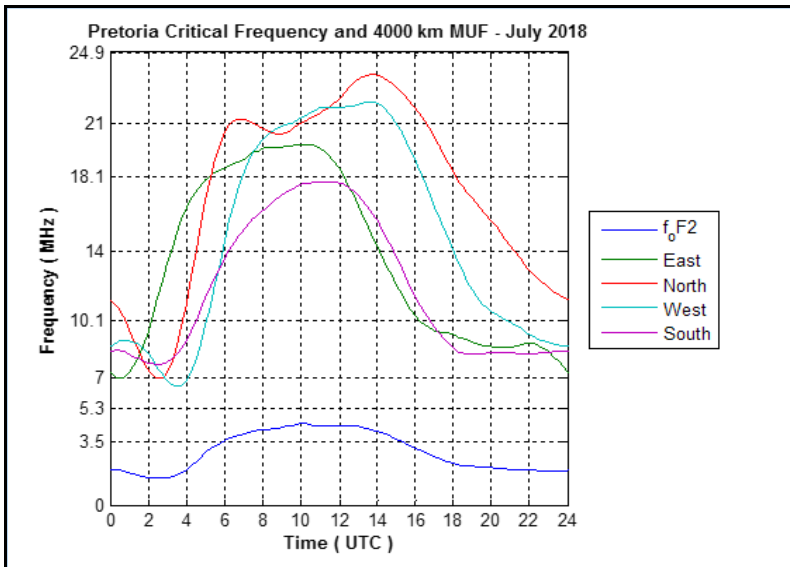
Rounds 2,3&6 : Locations for these events to be Confirmed.









## Long Term HF Propagation for July 2018

### 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.

For worldwide propagation see: <http://www.parc.org.za/index.php?page=propagation>

Courtesy Vincent ZS6BTY

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

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### QRV Services offers the following expertise:

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- 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

**LM2576 FACT #2576:**

Hey buddy! Why so sad?

My doctor told me I was bipolar...

Well, at least you are not as FET as me!

LET'S SHUT DOWN ALL HIS BODY FUNCTIONS THEN START THEM UP AGAIN...

WHY COMPUTER ENGINEERS SHOULD NOT BE SURGEONS

WHAT DO YOU CALL A GUY WHO WORKS PART-TIME ON A TRAIN? A SEMICONDUCTOR

**APPLYING -12V ON THE ENABLE PIN WILL PERMANENTLY DISABLE THE CHIP.**