



# WATTS 2018-03

Year 88 + 03m

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 / Sondae 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  
**Swoptshop : 2m and 7.066 MHz live on-air after bulletins**  
Bulletin repeats on Mondays / herhalings op Maandae : 2m 19h45



Pretoria Amateur Radio hereby wishes to inform all Members and Listeners of the National Convention and Annual General Meeting of the South African Radio League on the 13<sup>th</sup> to 15<sup>th</sup> of April 2018. More details on pages 3-4.

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### Club Meetings / Klub Vergaderings

**Club Social Meeting :**  
The next Club Meeting will be on Saturday, the 14<sup>th</sup> of April during the SARL AGM. Time to be announced

**Club Committee Meeting :**  
The next Committee Meeting will be on Wednesday, the 7<sup>th</sup> of March from 19h00 at Farm Inn

## Member's Birthdays March 2018 / Lede Verjaarsdae - Maart 2018

14 Uys Classen ZS6UYS  
22 Ivan Jancuska (Hon. Member) ZS6CWW  
27 Sarel Stapelberg ZS6EK

22 Julian Bouttell ZS6AOU  
25 Doréén de Bruyn ZR6DDB

### Spouse's Birthdays March / Gade Verjaardae - Maart

05 Sue, sw of Tony Crowder ZS6CRO  
18 Estelle, gade van Pierre Duminy ZS6FPS  
21 Martie, gade van JB de Beer (Hon. Mem.) ZR6YYV  
25 Doréén ZR6DDB, gade van Johan de Bruyn ZS6JHB  
30 Madelaine, sw of George Ellis ZS6GWE  
31 Annatjie, gade van Pieter Fourie ZS6CN

### Anniversaries March / Herdenkings - Maart

06 Pikkie en Willie Classen ZS6IAM  
25 Irene ZS6IEA en Pieter Myburgh ZS6PAM  
26 Sharmaine en Louis de Wet ZS6SK  
27 Fiona en Etienne Naude ZS6EFN

## Member's Birthdays April 2018 / Lede Verjaarsdae - April 2018

10 Nic Louw ZS6NWL  
19 Etienne Naude ZS6EFN

24 Jaco Steyn ZSL6119  
29 Jyri Hamalainen ZR5AAE

### Spouse's Birthdays April / Gade Verjaardae - April

10 Joey, sw of Graham Reid ZS6GJR  
15 Joanne, sw of Evan Seligmann ZS6ELI  
22 Marita, gade van Roy Alexander ZS6MI  
27 Ronel, gade van Emil Bohme ZS6EGB  
29 Heather, sw of Vincent Harrison ZS6BTY

### Anniversaries April / Herdenkings - April

06 Lyn en Andre van Tonder ZS6BRC (Hon. Mem.)  
10 Joanne and Evan Seligmann ZS6ELI  
30 Joey and Graham Reid ZS6GJR

## 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 : January - March 2018

Date	Presenter	Date	Presenter
11 February 2018	Almero du Pisani ZS6LDP	11 March 2018	Almero du Pisani ZS6LDP
18 February 2018	Johan de Bruyn ZS6JHB	18 March 2018	Johan de Bruyn ZS6JHB
25 February 2018	Louis de Wet ZS6SK	25 March 2018	Louis de Wet ZS6SK
04 March 2018	Etienne Naude ZS6EFN	01 April 2018	Etienne Naude ZS6EFN

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

### PARC SUBS : PARK LEDEGELD : FROM / VANAF : 30-06-2017

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		
<b>Please remit your subs in time to our Treasurer, or pay per transfer into the PARC account</b> <b>Betaal asb. u ledegelde betyds aan ons Tesourier, of betaal per oorplasing in die PARC rekening</b>			

**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 Adress</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 & SARRL 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:zs6jjj@gmail.com">zs6jjj@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 Adress</u>	<u>Tel No</u>	<u>Mobile No</u>
Fleamarkets	Alméro DuPisani	ZS6LDP	<a href="mailto:almero.dupisani@up.ac.za">almero.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 - March 2018 / Kompetisies en Dagboek van Gebeure - Maart 2018 (UTC Times)**

03 - 04	ARRL International DX Contest, SSB : 00h00 - 24h00
04	SARRL Hamnet 40m Simulated Emergency Contest : 12h00 - 14h00
10 - 11	RSGB Commonwealth Contest : 10h00 - 10h00
10 - 11	SARRL VHF/UHF Analogue / Digital Contest : 10h00 - 10h00
17 - 18	Russian DX Contest : 12h00 - 12h00
22	World Water Day
24 - 25	CQ WW WPX Contest, SSB : 00h00 - 23h59
31 - 1/4	Russian WW Multimode Contest : 12h00 - 11h59

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

05	SARRL 80m QSO Party : 17h00 - 20h00
07 - 08	SP DX Contest : 15h00 - 15h00
07 - 08	SARRL UHF/VHF Digital Competition
13 - 15	SARRL National Convention, AGM and Awards Dinner : Farm Inn, Pretoria
14	Mega Flea-market at the SARRL National Convention : 09h00 - 16h00 : Hosted by PARC
14 - 15	JIDX CW Contest : 07h00 - 13h00
15	Hungarian Straight Key Contest : 15h00 - 17h00
18	World Amateur Radio Day
20 - 21	Holyland DX Contest : 21h00 - 21h00
21 - 22	YU DX Contest : 21h00 - 17h00
22	Closing date for May RAE registration
28 - 29	10-10 International Spring Contest, Digital : 00h01 - 23h59
28 - 29	SP DX RTTY Contest : 12h00 - 12h00
28 - 29	Helvetia Contest : 13h00 - 12h59

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

**Notice of the SARRL 2018 AGM and National Convention**

The Pretoria Amateur Radio Club will be presenting the 2018 SARRL National Convention at the Farm Inn Country Lodge ([www.farminn.co.za/](http://www.farminn.co.za/)) at Silver Lakes in Pretoria East over the weekend of 13 to 15 April. The Farm Inn provides various luxury accommodations for those who would like to stay over on Friday and/or Saturday evening. The accommodation rates for their economy rooms are Single Rooms at R650 per person per night and if you are sharing at R550.00 per person per night. On Saturday afternoon between the flea market and other activities, you can enjoy a game drive at R150 per person. All delegates who would like to stay over must arrange and book accommodation in advance. To book your accommodation online go to [www.farminn.co.za](http://www.farminn.co.za) or contact Farm Inn reservations on 012 809 0266 or 0277.

The SARL AGM will start at 09:00 on Saturday morning 14 April with the SARL Awards Dinner that evening. Registration forms for the National Convention will be published on the SARL web site soon. The Pretoria ARC will be hosting a mega flea market, amateur radio displays and information kiosks on Saturday 14 April. The flea market is open to all radio amateurs who would like to sell their excess amateur goods, we also would like to call on all companies and businesses who would like to make use of this opportunity to display and sell their products and/or services. To date AMSATSA, SDR, BACAR, RaDAR and the AWA will have information kiosks. The flea market and other activities will start as soon as the Annual General Meeting has been concluded.

Tables for the flea market and information kiosks will be made available on the day, take the opportunity now and book your table early to prevent disappointment. Bookings for tables will close on Tuesday 10 April 2018. The information kiosks are aimed at giving organizations the opportunity to promote amateur radio activities and services such as SOTA, satellites, beacons, etc. We would like to call on all businesses and amateur radio organizations like clubs and related institutions to step forward and book your kiosk for the day. More information on the day's program and the names of organizations who will participate in the day's activities will be communicated to all during the weekly SARL news bulletins.

For more information, please contact Almero Du Pisani, ZS6LDP, at [almero.dupisani@up.ac.za](mailto:almero.dupisani@up.ac.za) or call him on 083 938 8955 or you can contact Etienne Naude, ZS6EFN, at [etienne@afrigrid.com](mailto:etienne@afrigrid.com) or call him on 082 553 0542.

### **Kennisgewing van die SARL 2018 AJV en Nasionale Konvensie**

Die Pretoria Amateurradioklub bied die naweek van 13 tot 15 April 2018 die Suid-Afrikaanse Radioliga (SARL) se Nasionale Konvensie aan by die Farm Inn Country Lodge ([www.farminn.co.za/](http://www.farminn.co.za/)) te Silver Lakes, Pretoria Oos. Die Farm Inn bied 'n verskeidenheid luukse akkommodasie vir diegene wat graag Vrydag en/of Saterdag wil oorbly. Die akkommodasie tariewe vir ekonomie kamers is soos volg: enkelkamers teen R650 per persoon per nag, of R550 per persoon per nag as jy 'n kamer wil deel. Tydens Saterdagmiddag, tussen die vlooiemark en ander aktiwiteite kan jy 'n wildrit teen R150 per persoon geniet. Alle afgevaardigdes wat graag wil oornag, moet vooraf akkommodasie bespreek. Om aanlyn te bespreek, besoek [www.farminn.co.za](http://www.farminn.co.za) of kontak Farm Inn besprekings by 012 809 0266 of -0277.

Die SARL AJV begin Saterdagoggend om 9h00, met die SARL toekennings-dinee wat vanaf 19h00 plaasvind. Registrasievorms vir die Nasionale Konvensie sal binnekort op die SARL-webwerf gepubliseer word. Die Pretoria Amateurradioklub reël op Saterdag 14 April 'n mega-snuffelmark, amateur-radio uitstallings en inligting kiosks. Die vlooiemark is oop vir alle radio amateurs wat hul oortollige amateur goedere wil verkoop. Ons wil ook graag alle maatskappye en firmas vra om van hierdie geleentheid gebruik te maak om hul produkte en/of dienste aan te bied en te verkoop. Tot op datum sal AMSAT SA, SDR, BACAR, RaDAR en AWASA inligtingskiosks hê. Die vlooiemark en ander aktiwiteite sal 'n aanvang neem sodra die Algemene Jaarvergadering afgehandel is.

Vir meer inligting aangaande die algemene reelings van die SARL Konvensie kan Etienne Naude by [etienne@afrigrid.com](mailto:etienne@afrigrid.com) of 082 553 0542 gekontak word, terwyl Almero Du Pisani gekontak kan word vir reelings van die mega-snuffelmark by [almero.dupisani@up.ac.za](mailto:almero.dupisani@up.ac.za) of 083 938 8955.

## PARC Mega Flea Market at the SARL AGM Venue

The Pretoria Amateur Radio Club will be hosting the AGM of the South African Radio League on the 13-15<sup>th</sup> of April at the Farm Inn, Pretoria.

During the Saturday of the AGM, tables will be available in the Pavillion Lapa for anyone who wishes to exhibit their products or equipment, or to clear out their shacks of excess components or radio equipment.

Electrical outlets will be available close to each table.

John Minter ZS6LED and Louis de Wet ZS6SK will be available at the back entrance of the Lapa to assist you in transferring your goods and exhibits to your table/s. Trolleys will be available for bulky items.

Refreshments can be purchased from the outdoor restaurant next door from the Pavillion Lapa. Outdoor seating is available.

The following rates per table apply: Radio Hams : R50-00 ;  
Ham Radio related Exhibitors : R75-00 ; Other Exhibitors : R150

For more information please listen to the Sunday Bulletins, or contact Alméro Du Pisani ZS6LDP at 083-938-8955 or almero.dupisani@up.ac.za Almero can be contacted to book a table

## PARK Mega Vlooiemark te SARL AJV

Die Pretoria Amateur Radio Klub is die gasheer van die Suid Afrikaanse Radioliga se AJV op die 13-15<sup>de</sup> April by die Farm Inn, Pretoria.

Gedurende die Saterdag van die AJV, sal tafels beskikbaar wees in die Pavillion Lapa vir enigiemand wat hul produkte of toerusting wil tentoonstel, of hul werkskamers wil skoonmaak van oortollige komponente or radio toerusting.

Elektriese toevoerpunte sal beskikbaar wees naby aan elke tafel.

John Minter ZS6LED en Louis de Wet ZS6SK sal beskikbaar wees by die agterste ingang van die Lapa om u by te staan om u items en toerusting by u tafel/s te kry. Trolleys sal beskikbaar wees vir groot en swaar items.

Verversings kan verkry word vanaf die opelug restaurant langs die Pavillion Lapa. Opelug sitplek is ook beskikbaar.

Die volgende tariewe is van toepassing: Radio Amateurs : R50-00 ;  
Radio Amateur verwante Uitstallers : R75-00 ; Ander Uitstallers : R150

Vir meer inligting luister na ons Sondag Bulletins, of kontak vir Alméro Du Pisani ZS6LDP by 083-938-8955 of almero.dupisani@up.ac.za Almero kan gekontak word om 'n tafel te bespreek.

Every single aspect of our lives is governed by measurement. Whether it is the measurement of our heart rates, the water- or electrical current flowing in a pipe or conductor, the radio-activity of a piece of rock, or the intensity of sunlight on a cloudy day. Terms such as voltage, current and resistance are critical and integral parameters in the governing of the functioning of electronic circuits. It has hence become very early clear to humans that a common system of measurement units needs to be adopted internationally in order to standardize all measurements. The French revolution in 1791 saw the formation of the metric system which purpose was to move away from the older variable base systems such as imperial measures<sup>[1]</sup>. These older systems which used 12, 20, 100 and other figures as their base units, resulted in calculations being very difficult and numerous errors being made, often leading to human injuries or fatalities.

By adopting a new system where all measurements use base 10, a standardized system was created making all calculations significantly easier. Advances in science resulted in the need for more complex descriptions and measurements, and the creation of new units, which eventually resulted into the development of the cgs system. The cgs system used the centimeter, gram and second as its base units, while all other units were derived from these three basic units. The main cgs units and their SI equivalents are presented in Table 1.

**Table 1 Main cgs units and SI conversions**

Quantity	Unit	Symbol	SI Equivalent
Energy	Calorie	cal	4.1868 joule
Force	Dyne	dyn	10 <sup>-5</sup> newton
Force	Gram-force	gf	9.87 x 10 <sup>-5</sup> newton
Length	Centimeter	cm	0.01 meter
Length	Angstrom	Å	0.1 nanometer
Mass	Gram	g	0.001 kilogram
Time	Second	s	1 second
Work energy	Erg	erg	10 <sup>-7</sup> joule

The cgs system was followed by the creation of the MKSA, which was an attempt to unify all measurements and remove any special cases. As MKSA indicates, it was based on meters, kilograms, seconds and amperes, which allowed virtually any of the more complex measurements to be defined in terms of these base units<sup>[1]</sup>. The current Systeme International d'Unités (SI) being used today, is based on the MKSA, and was defined by the 11<sup>th</sup> General Conference on Weights and Measures in 1960. The SI has seven base units, of which five and other applicable units are shown in Table 2. The units not shown in Table 2 are the mole (chemistry) and the candela (luminous intensity) which are not related to SI units applicable to electronics.

The SI is the simplified, modern version of a variety of metric systems, which has many advantages<sup>[2]</sup>:

- **No conversions** : For each quantity only one unit
- **No numbers to memorize** : Derived units are defined without numerical factors
- **No fractions** : Decimals only
- **No long rows of zeroes** : Prefixes replace them
- **Complete** : SI can measure any physical quantity
- **Coherent** : Units follow natural laws and can be manipulated algebraically
- **Only 30 Units** : Compared to hundreds of non-SI units
- **Clear symbols** : Unique, unambiguous letter symbols
- **World standard** : Virtually all measurements are based on SI, even if expressed in other units

This introductory article is the first which will explore more intricate details of measurement and the pioneers of the SI (Figure 1) in the following issues of Watts.

<sup>[1]</sup>JONES, A. 1992. The naming of names. *Practical Electronics*. 22 - 24.

<sup>[2]</sup>BROWNRIDGE, D. 2006, Practical Guide to the International System of Units (SI). US Metric Association. [www.us-metric.org/](http://www.us-metric.org/)

Table 2 SI base and sub-units of general use and in electronics

Symbol	Unit Name	Quantity (general symbol)	Definition
<b>General Purpose</b>			
m	Meter	Length ( <i>l</i> )	Base Unit
kg	Kilogram	Mass ( <i>m</i> )	Base Unit
s	Second	Time ( <i>t</i> )	Base Unit
K	Kelvin	Temperature ( <i>T</i> )	Base Unit
m <sup>2</sup>	Square meter	Area ( <i>A</i> )	m <sup>2</sup>
m <sup>3</sup>	Cubic meter	Volume ( <i>V</i> )	m <sup>3</sup>
N	Newton	Force ( <i>F</i> )	kg.m.s <sup>-2</sup>
J	Joule	Energy ( <i>E</i> )	kg.m <sup>2</sup> .s <sup>-2</sup>
W	Watt	Power ( <i>P</i> )	kg.m <sup>2</sup> .s <sup>-3</sup>
Pa	Pascal	Pressure ( <i>p</i> )	kg.m <sup>-1</sup> .s <sup>-2</sup>
Hz	Hertz	Frequency ( <i>f</i> )	s <sup>-1</sup>
<b>Electromagnetic</b>			
C	Coulomb	Charge ( <i>Q</i> )	A.s ≈ 6.24 x 10 <sup>18</sup> e
A	Ampere	Current ( <i>I</i> )	Base Unit = C/s
V	Volt	Voltage ( <i>V</i> )	kg.m <sup>2</sup> .s <sup>-3</sup> .A <sup>-1</sup> (W/A)
Ω	Ohm	Resistance ( <i>R</i> )	kg.m <sup>2</sup> .s <sup>-3</sup> .A <sup>-2</sup> (V/A)
S	Siemens	Conductance ( <i>G</i> )	kg <sup>-1</sup> .m <sup>2</sup> .s <sup>3</sup> .A <sup>2</sup> (A/V)
F	Farad	Capacitance ( <i>C</i> )	kg <sup>-1</sup> .m <sup>-2</sup> .s <sup>4</sup> .A <sup>2</sup> (C/V)
Wb	Weber	Magnetic flux	kg.m <sup>2</sup> .s <sup>-2</sup> .A <sup>-1</sup> (V.s)
T	Tesla	Magnetic flux density	kg.s <sup>-2</sup> .A <sup>-1</sup> (Wb/m <sup>2</sup> )
H	Henry	Inductance ( <i>L</i> )	kg.m <sup>2</sup> .s <sup>-2</sup> .A <sup>-2</sup> (Wb/A)

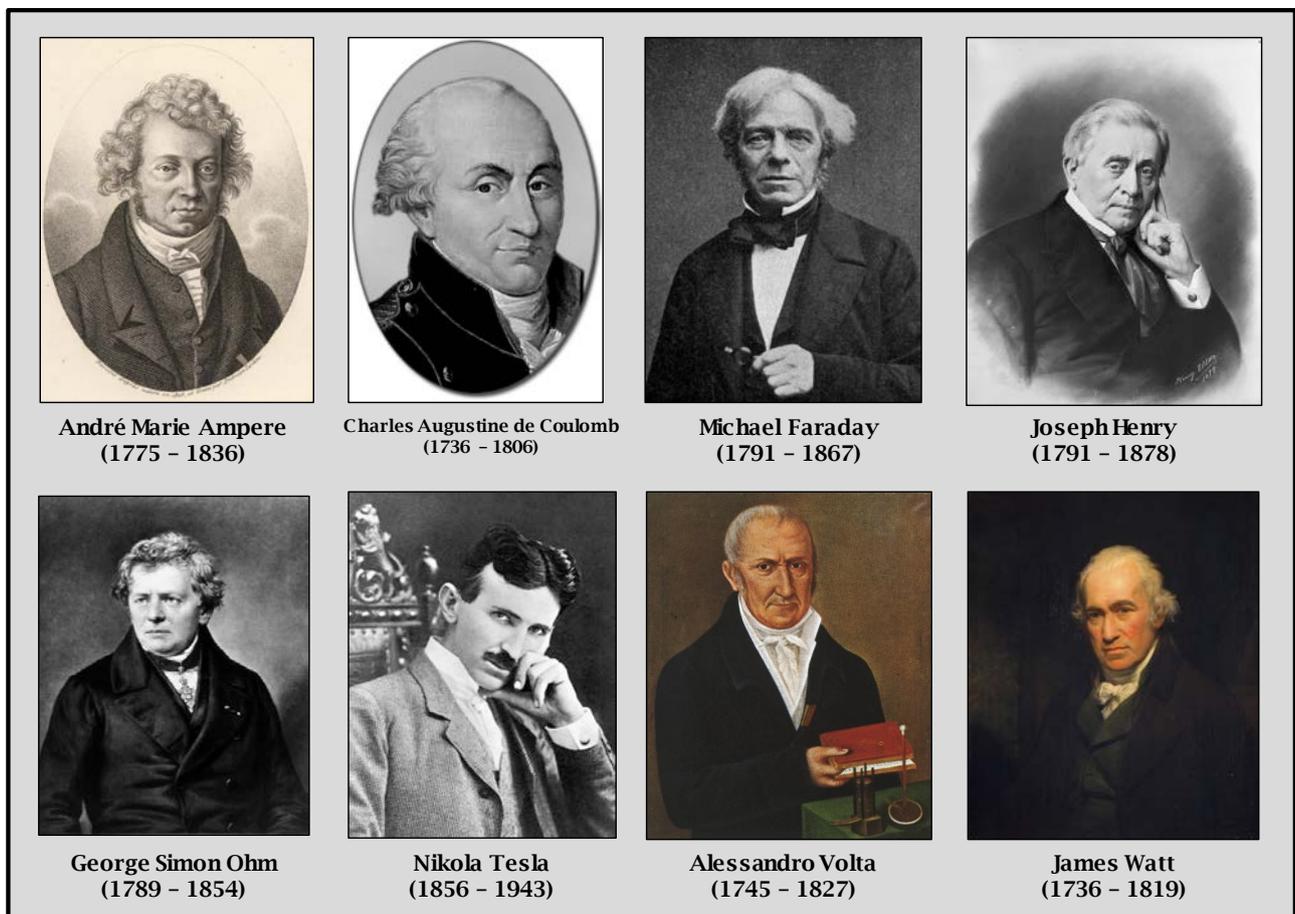


Figure 1 Some of the pioneers in the indirect or direct development of SI Units

## 2018 Tydren Kalender / 2018 Rally Calendar

Met die 2018 tydren seisoen wat voorlê, 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 approaching, 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.

### 2018 SOUTH AFRICAN NATIONAL RALLY CHAMPIONSHIP

Date	Round	Name	Area
09-10 March	Round 1	Trade Brand Natal Rally	Ballito, KZN
20-21 April*	Round 2*	York Rally*	Sabie, Mpumulanga
25-26 May	Round 3	TBA	Delmas, Mpumulanga OR Carnival City, Gauteng
06-07 July	Round 4	Algoa Rally	Port Elizabeth, Eastern Cape
17-18 August	Round 5	Electrothread Rally	Bronkhorstspuit, Gauteng
28-29 Sep	Round 6	Lake Umuzi Rally	Secunda, Mpumulanga
26-27 Oct	Round 7	TBA	Sabie, Mpumulanga OR Tzaneen, Limpopo

\* Part of the FIA African Rally Championship

### 2018 NORTHERN REGIONS CHAMPIONSHIP

Date	Round	Name	Area
21-Apr	Round 1	York Rally	Sabie, Mpumulanga
26-May	Round 2	TBA	Delmas, Mpumulanga OR Carnival City, Gauteng
18-Aug	Round 3	Electrothread Rally	Bronkhorstspuit, Gauteng
29-Sep	Round 4	Lake Umuzi Rally	Secunda, Mpumulanga
27-Oct	Round 5	TBA	Sabie, Mpumulanga OR Tzaneen, Limpopo
TBA	Round 6	TBA	TBA



## Rally Marshall Training : Johan de Bruyn

On Saturday morning the 10<sup>th</sup> of February, Graham & Joey Reid, Pieter & Annatjie Fourie , Pieter & Irene Myburgh , Willie & Annalie van Niekerk (new members) Pierre Holtzhausen & Pierre Jnr, Dawid & Ronel Janse van Rensburg (all the way from Middelburg) Willie & Sarina Greyling, Franco Visser and myself attended a Marshall Training course which was organized by NRC with William Louw in charge.

We were all very excited, as for many of us it would be our very first official training as Rally Marshalls. Not that is that it is something new to us, oh no, we were fully aware of what the Start Marshal, Flying Finish Marshal, End Marshal and Service Park Marshals were doing when out in the field but unpacking, checking and setting up the clocks etc. was well something else.

The training took place at the Pretoia Old Motor Club, and started on 9h00 with a very well prepared lecture regarding marshalling a Rally presented by William Louw. Indeed, many questions were asked and answered.

A light lunch was served and then all the fun started in the form of practical exercise setting up the timing equipment. As mentioned earlier, unpacking ,checking and setting up the clocks etc was something else. We had a great time in setting up the equipment acting as marshals at Start of Rally, Start and End of stage etc and lot was learned.

Did we gain anything from attending the Marshal Training day? Most definitely so and we all are looking forward to the 2018 Rally season.

All in all we enjoyed the training and the braai afterwards. Thank you to on and all who attended a most enjoyable training day, and a special word of thanks to William Louw, Wim Bester and Chris Barnard for the training.



## 4X4 Tydren beampte opleiding : Irene Myburgh ZS6IEA

Oppad na die 4X4 tydren opleiding by Basis 4 op die 24ste Februarie het ons in die begin bietjie verdwaal as gevolg van verkeerde insteuksies, maar soos dit enige goeie kommunikasie persoon betaam, was ons almal vinnig op die regte pad

Die opleiding is deur Tony Crowder ZS6CRO aangebied, en was baie interessant en van 'n hoë standaard. Hierdie opleiding het soos 'n opvolg gevoel van die opleiding wat William Louw vir ons gegee het op 10 Februarie 2018. Alles het soos 'n legkaart in mekaar begin pas.

Ons was agt lede van die Pretoria Amateur Radio klub wat die opleiding bygewoon het, wat Willie Greyling, Sarina Greyling, Pieter Fourie, Annetjie Fourie, Willie van Niekerk, Annelie van Niekerk, Pieter Myburgh en Irene Myburgh ingesluit het.

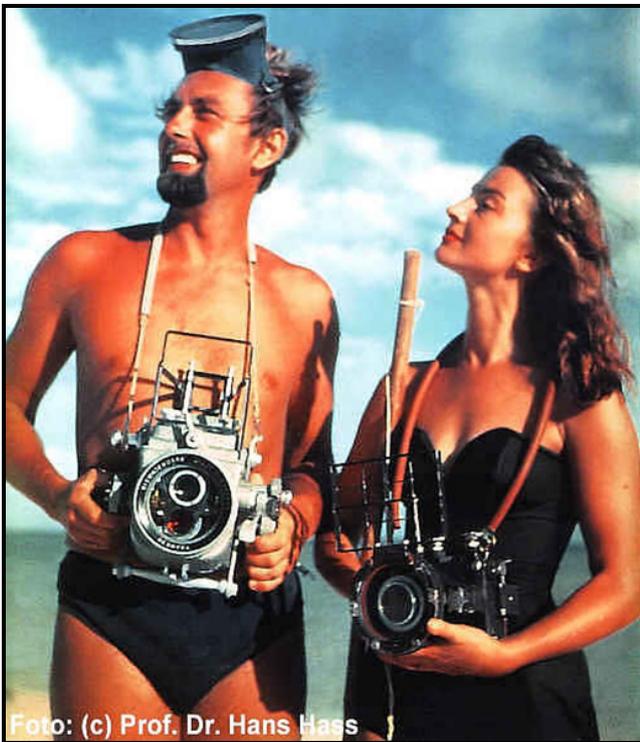
Ons moes almal “eksamen” skryf net om onself bewus te maak dat 'n mens jou reëls moet ken vir wanneer jy dit nodig kry. Een baie belangrike konsep wat by die opleiding deurgekom het, was veiligheid, wat natuurlik baie belangrik is tydens tydrenne, hetsy jy 'n beampte of 'n radio amateur is.

Ons wil graag hiermee vir Tony Crowder van harte bedank vir die aanbied van die opleiding. Ek sal die opleiding aanbeveel aan enige persoon betrokke by tydrenne.

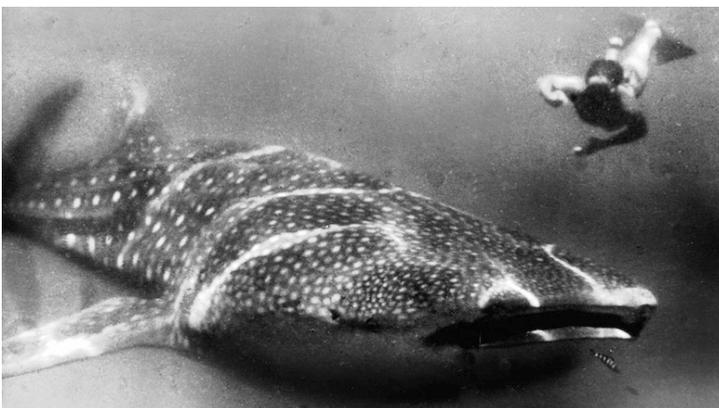


Almal sit aandagtig en luister terwyl Tony Crowder ZS6CRO die lesing aanbied

Nearly all of us know about the wonderful undersea explorations of the French scientist and film maker, Jacques Cousteau. Watching his documentaries and reading his books, one was transported into a magnificent undersea world of sharks, whales, corals and numerous other marine organisms. My childhood dream of becoming a marine biologist, which became partially true, was not sparked by Jacques Cousteau, but by a book written by Dr. Hans Hass, a German undersea explorer which is entitled: "We come from the sea" (*Wir kommen aus dem Meer*) translated into English in 1958. Hans Hass, born on the 23<sup>rd</sup> of January 1919, described with magnificent detail the first contact by him with a whale shark in the Red Sea, followed by numerous encounters all over the world which included the Galapagos Islands and the Great Barrier Reef to name a few. Over the years I have collected many of his books and films and watched them transfixed and fascinated as I lived myself into diving along with him under the Red Sea. Hans Hass received numerous awards for his creative work, and was the owner of a number of patents which included a re-breathing apparatus for underwater work. Hans Hass passed away on the 16<sup>th</sup> of June 2013 at the age of 94, leaving a magnificent legacy of marine biology and exploration.



Dr. Hans Hass and wife Lotte busy diving and filming the oceans



Left: Hans Hass taking the first film of the giant whale shark, *Rhincodon typus* on the 7<sup>th</sup> of May 1950 in the Red Sea  
Right: Holding on to the tail of a harpooned sperm whale off the coast of the Azores

Ref: Hass, H. 1958. We come from the sea (*Wir kommen aus dem Meer*). Jarrolds Publishers. London.

As I happened to page through the book a couple of weeks ago, many years after I have read it so many times over and over, I came across a photograph of a person sitting in front of a tent with a radio inside, and a little board fixed to the front of the tent, bearing the letters "TI9AA". Immediately of course, I recognized it as a call-sign of a radio ham! So, by now, you may have been wondering: what on earth is all this writing about marine biology in a newsletter for radio amateurs? Three years after their expedition in the Red Sea, Hass left the Hamburg harbor on the 23<sup>rd</sup> of August 1953 for a 4 year expedition on his newly acquired Xarifa (*Die Schone*) which would visit the Azores, Galapagos and the famous Cocos Islands. The Xarifa had three masts, of which the main mast was thirty-three meters high. Fully equipped, Xarifa had a variety of scientist on board having their laboratories to work on various aspects of marine biology and oceanography.

Hass, to my great delight quotes in "*We come from the Sea*" the following: "*Dr. Heino Sommer was our physician and radio specialist. In his former capacity all he had to do at first was to prescribe for his own seasickness; as a wireless operator, however, he was, for a time, the busiest of us all since we had an amateur radio station and kept in touch with a number of amateurs all over the world*"<sup>[1: p139]</sup>. Around the Coco's Islands, while filing in very stormy and dark waters, an appalling grinding noise came through Xarifa and the motor stopped. Soon the main engineer reported that a bearing had broken in the turn-over gear and that the main engine could not be used anymore. In the meantime, however, Dr. Sommer had managed, through amateur radio-stations to get through an order to Germany for the replacement of the bearing. This is but one of many instances where one would the least expect ham radio to play a role, or be associated with an activity such as marine biology, play an integral part in the survival of human beings.



The magnificent Xarifa at sea



QSL card of Dr. Heino Sommer TI9AA from Cocos Island on 2 April 1954



Dr Heino Sommer operating TI9AA from Cocos Island ordering a ship's motor bearing

## Some Automotive Battery Facts : By Hans Kappetijn ZS6KR

I recently bought a battery analyzer and think it is worth while to share some information from its manual.

This may be old hat but worth reading again.

Buyer beware!

### Battery types.

**Starting Battery.** - Sometimes called SLI (Starting, Lighting and Ignition) - is designed to start and run engines. It delivers quick bursts of energy and has a greater plate count. The plates will also be thinner and are compared to lead "sponge" similar in appearance to very fine foam sponge. This gives a very large surface area. If deep cycled, this sponge will quickly be consumed and fall to the bottom of the cells.

Automotive batteries will generally fail after 30 to 150 deep cycles, while they may last for thousands of cycles in normal starting use (2-5% discharge)

Starting batteries are usually rated at CCA (Cold Cranking Amps) or MCA (Marine Cranking Amps)

**Deep cycle battery.** - These batteries are mainly used on golf carts, scooters , RV's etc. They have less instant energy but greater long-term energy delivery.

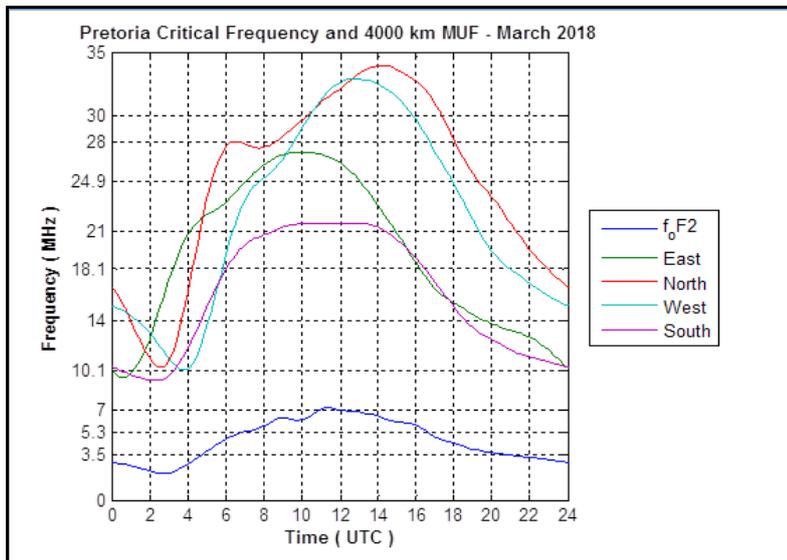
They are designed to be discharged down as much as 80%, time after time, and have much thicker plates. The major difference between a true deep cycle battery and others is that the plates are solid lead plates and not sponge.

**Marine battery.** - These are actually hybrid models and fall between starting and deep cycle types. The plates may be composed of lead sponges, but they are coarser and heavier than those of starting batteries.

Hybrid types should not be discharged more than 50%.

**Battery standard and rating:** - You may find some markings below on the battery:

<b>CCA</b>	Cold start current of the most specifications developed by the SAE and BCI. The most common starting battery rated at 0° F (-18° C)
<b>BCI</b>	International Battery Standards Committee
<b>CA</b>	Effective starting current at 0° C
<b>MCA</b>	Marine Battery Standard
<b>JIS</b>	Japanese Industrial Standard. Effective starting current rating at 0° C
<b>DIN</b>	German Automotive Industry Standards Committee
<b>EN</b>	European Automobile Manufacturers Association Standards
<b>SAE</b>	American Society of Automotive Engineers
<b>GB</b>	China National Standard



## Long Term HF Propagation for March 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 NELSPOORT & 801 MALMESBURY STR, WINGATE PARK, PRETORIA [S25.49.36 & E28.16.07]

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- Legal limit 30m and 40m dipole traps
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  - Plug-in triple sequential industrial timers
- Contact Hans at 012-333-2612 or 072-204-3991

## English... that "punny" language!

The person who invented the door knock... won the No-bell prize.  
 I couldn't work out how to fasten my seat belt... but then it clicked.  
 I can't believe I got fired from the calendar factory... all I did was take a day off!  
 To the guy who invented Zero:... thanks for nothing!  
 Want to hear a construction joke?...i'm working on it.  
 A prisoner's favourite punctuation mark is the period... it marks the end of his sentence.  
 I am going to stand outside, so if anyone asks, I'm outstanding.  
 Two antennas met on a roof and got married... the wedding was ok, but the reception was incredible.  
 Where do TV's go on vacation?...to remote islands!  
 Sleeping comes so naturally to me,... I could do it with my eyes closed.  
 There was once a cross-eyed teacher...she just couldn't control her pupils.  
 I am selling my guitar,...no strings attached!  
 I usually take steps...to avoid elevators...  
 A small boy swallowed some coins and was taken to a hospital. When his grandmother telephoned to ask how he was, nurse said..."no change yet!"