



WATTS 2019-07

Year 89 + 07m

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



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



The PARC Veteran's breakfast was held on the 29th of June at the Adler's German Family Restaurant. Members and guests who attended included (from left) Sarel ZS6EK Karin Stapelberg, Whitey Joubert ZS6JJJ, Graham ZS6GJR (Vice Chairman) and Joey Reid, Kenny ZS6KMM and Paddy Martin, Johan de Bruyn ZS6JHB and Corrie Swamers, Jan (Pine) Pienaar ZS6OB, Hans Kappetijn ZS6KR (Hon. Member), Charles Mills ZS6CJM, Richard Peer ZS6UK, Frank ZS6GE and Patricia Schneider, Paul ZS6BMF and Julie Sterling, Vincent Harrison ZS6BTY, Louis de Wet ZS6SK (Chairman) and Fritz Sutherland ZS6SF. More on page 9.

In This Issue / In Hierdie Uitgawe

PARC 2018-19 Committee- & Co-opted Members.....	P 2
Birthdays/Verjaarsdae ; Joys & Sorrows/Lief en Leed.....	P 2
PARC Bulletin Roster ; Club Fees ; Flea-Markets 2019.....	P 3
Dagboek van Gebeure / PARC Contest Participation.....	P 4
PARC Veteran's Breakfast.....	P 5-6
PARC AGM Notification / PARK AJV Kennisgewing.....	P 7-8
Tydren nuus en jaarprogram.....	P 9
Landing on the Moon : Apollo 11 : 50 Years anniversary.....	P 12-14
Possibly the first reference to radio in South Africa.....	P 15-16
Botswana 4x4 tydren nuus.....	P 17
HF Propagation Prediction and Advertisements.....	P 18

Club Meetings / Klub Vergaderings

Club Committee Meeting :

The next Committee Meeting will be on Wednesday, the 17th of July 2019 from 18h30 at the Pretoria Old Motor Club.

PARC Committee Members : 2018 – 2019 / PARK Komiteede : 2018 - 2019

Name & Callsign	Portfolio/s	Email Address	Tel No	Mobile No
Louis de Wet ZS6SK	Chairman, Watts, Club History	louis.zs6sk@gmail.com	012-349-1044	072-140-9893
Graham Reid ZS6GJR	Vice Chairman, Treasurer, Website	greid@wol.co.za	012-667-2720	083-701-0511
Etienne Naude ZS6EFN	SARL Liaison, Bulletin Coordinator	etienne@afgrid.com	012-661-6745	082-553-0542
Irene Myburgh ZS6IEA	Club Secretary	irene@srsa.gov.za	012-304-5109	082-462-6001
Johan de Bruyn ZS6JHB	Rallies, Repeaters & Membership	zs6jhb@gmail.com	012-803-9418	079-333-4107
John Minter ZS6LED	Technical & RAF Training	john.minter.za@gmail.com	012-349-0019	083-291-5422

PARC Co-opted Members : 2018 – 2019 / PARK Ge-koopteerde Lede : 2018 - 2019

Name & Callsign	Portfolio/s	Email Address	Tel No	Mobile No
Alméro Du Pisani ZS6LDP	Flea-markets	almero.dupisani@up.ac.za	012-420-3779	083-938-8955
Tony Crowder ZS6CRO	Auditor	tcrowder@telkomsa.net	011-672-3311	
Nic Louw ZS6NWL	Youth Development	nic.louw@telkomsa.net		083-596-1026
Whitey Joubert ZS6JJJ	Social & Competitions	zs6jjj@gmail.com	012-993-2267	072-120-4516
Pierre Holtzhausen ZS6PJH	Competitions	zs6pjh@gmail.com		082-575-5799
Pieter Myburgh ZS6PAM	Repeaters	wooden@mweb.co.za		076-140-7562

Birthdays and Anniversaries / Verjaarsdae en Huweliks Herdenkings

Member's Birthdays July 2019 / Lede Verjaarsdae Julie 2019

06 Helen Newton ZR6HN	13 Pieter Human ZS6PA
17 Jan (Pine) Pienaar ZS6OB	19 Theo Bresler ZS6TVB
20 Roy Newton ZS6XN	26 Frank Schneider ZS6GE
29 Lian McAllister ZS5IE	30 Dawid Jansen van Rensburg ZS6VS

Spouse's July 2019 / Gades Julie 2019

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 2019 / Herdenkings Julie 2019

01 Ria and Peter Smith-Curren ZS6PJ
 26 Antoinette ZS6D and Danny ZS6AW Liebenberg

Member's Birthdays August 2019 / Lede Verjaarsdae Augustus 2019

03 Paul Sterling ZS6BMF	05 Hans Gürtel ZR6HVG
07 Whitey Joubert ZS6JJJ	07 JB de Beer (Erelid) ZR6YV
08 Raymond de Wet ZS6ALG	08 Tobie Jansen van Rensburg ZS6ZX
28 Jean de Villiers ZS6ARA	

Spouse's August 2019 / Gades Augustus 2019

09 Gelga, gade van Hans-Peter Knoepfler ZS6AJS

Anniversaries August 2019 / Herdenkings Augustus 2019

07 Peggy and Edmar Willers ZS6UT
 29 Joydene and Albert Schreuder ZS6SE

Lief en Leed / Joys and Sorrows

Erna, die gade van Whitey Joubert ZS6JJJ hete verdere operasies aan haar oë ondergaan. Ons wens Erna spoedige herstel en beide Erna en Whitey alles van die beste.

PARC Membership Fees / PARK Ledegelde

During the 2018 AGM, the decision was made that Club Fees would not be increased for the financial year. Club Fees therefore remain at R160 for Ordinary Members, and R60 for Pensioners and Spouse. Gedurende die 2018 AJV, die besluit is geneem dat Klub Ledegelde nie verhoog sal word nie. Dus bly die gelde op R160 vir Gewone Lede, en R60 vir Pensionarisse en Gade.

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

Bank	First National Bank	Ordinary Members / Gewone Lede : R160 Spouses / Pensioners : R60	Your call sign must appear as statement text!
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 oorpasing in die PARC rekening			

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

PARC Bulletin Roster / PARK Bulletin Rooster

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 : June - September 2019

Date	Presenter	Date	Presenter
2 June 2019	Alméro Du Pisani ZS6LDP	4 August 2019	Johan de Bruyn ZS6JHB
9 June 2019	Johan de Bruyn ZS6JHB	11 August 2019	Louis de Wet ZS6SK
16 June 2019	Louis de Wet ZS6SK	18 August 2019	Etienne Naude ZS6EFN
23 June 2019	Etienne Naude ZS6EFN	25 August 2019	Alméro Du Pisani ZS6LDP
30 June 2019	Alméro Du Pisani ZS6LDP	1 September 2019	Johan de Bruyn ZS6JHB
7 July 2019	Johan de Bruyn ZS6JHB	8 September 2019	Louis de Wet ZS6SK
14 July 2019	Louis de Wet ZS6SK	15 September 2019	Etienne Naude ZS6EFN
21 July 2019	Etienne Naude ZS6EFN	22 September 2019	Alméro Du Pisani ZS6LDP
28 July 2019	Alméro Du Pisani ZS6LDP	29 September 2019	Johan de Bruyn ZS6JHB

PARC Fleamarket Dates 2019 / PARK Snuffelmark Datums 2019

The following dates are set for PARC Flea Markets in 2019:

The volgende datums is vasgestel vir PARK Snuffelmarkte in 2019:

3 August / 3 Augustus ; 2 November

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

Diary of Contests & Events / Dagboek van Kompetisies en Gebeure

Contests and Events - July 2019 / Kompetisies en Gebeure - Julie 2019 (UTC Times)

01	RAC Canada Day Contest: 00h00Z - 23h59Z
01	RSGB 80m Club Championship, CW: 19h00Z - 20h30Z
06	SARL Newbie QSO Party
07	ZS5 Sprint
06 - 07	Marconi Memorial HF Contest: 14h00Z - 14h00Z
10	RSGB 80m Club Championship, SSB: 19h00Z - 20h30Z
13 - 14	IARU HF World Championship: 12h00Z - 12h00Z
20	Winter QRP Contest
21	ZS2 Sprint
20 - 21	CQ Worldwide VHF Contest: 18h00Z - 21h00Z
25	RSGB 80m Club Championship, Data: 19h00Z - 20h30Z
27 - 28	RSGB IOTA Contest: 12h00Z - 12h00Z

Contests and Events - August 2019 / Kompetisies en Gebeure - Augustus 2019 (UTC Times)

03	Pretoria Amateur Radio Club Flea Market: From 10h00 at Pretoria Old Motor Club
03 - 04	10-10 International Summer Contest, SSB: 00h01Z - 23h59Z
03 - 04	European HF Championship: 12h00Z - 23h59Z
03 - 04	North American QSO Party, CW: 18h00Z - 06h00Z
04	SARL HF Phone Contest: 13h00Z - 16h30Z
10 - 11	WAE DX Contest, CW: 00h00Z - 23h59Z
17 - 18	International Lighthouse / Lightship Weekend (22 nd Annual): 00h01Z - 24h00Z
17 - 18	SARTG WW RTTY Contest: 00h00Z - 16h00Z
17 - 18	North American QSO Party, SSB: 18h00Z - 06h00Z
24 - 25	YO DX HF Contest: 12h00Z - 12h00Z
25	SARL HF CW Contest: 14h00Z - 16h00Z

The Pretoria Amateur Radio Club does not accept responsibility for the accuracy of contest details listed above. For verification and more information, please visit the SARL website, www.sarl.org.za, as well as the WA7BNM international contest calendar at the following website: <http://hornucopia.com>

PARC Participation in Local Contests for 2019

The Pretoria Amateur Radio Club intends getting back with full force into the contest game during 2019. Under the leadership of Pierre Holtzhausen ZS6PJH, PARC is going to participate in all the South African Radio League contests hosted in 2019. Details of the remaining local contests for 2019 are listed below:

South African Radio League QRP Contests:

Winter: 20 July 2019: 12:00 to 15:00 UTC

Spring: 12 October 2019: 12:00 to 15:00 UTC

South African Radio League National Field Days:

Spring: 10:00 UTC on Saturday 14 September to 10:00 UTC on Sunday 15 September 2019

South African Radio League HF Phone, Digital & CW Contests from home:

SSB: 14:00 to 17:00 UTC on Sunday, 4 August 2019

Digital: 14:00 to 17:00 UTC on Sunday 18 August 2019

CW: 14:00 to 17:00 on Sunday 25 August 2019

For more information on contest participation, please do contact Pierre Holtzhausen ZS6PJH at zs6pjh@gmail.com or 082-575-5799.

PARC Veteran's Breakfast / PARK Veterane Ontbyt

The annual Pretoria Amateur Radio Club Veterans Tea/Breakfast was held on the 29th of June at the Adler's German Family restaurant in the Rietfontein Pavilion near Vleria. The event was opened by the Chairman of PARC, Louis de Wet ZS6SK, who also welcomed the 15 members and 6 spouses. After an acknowledgement of the services and achievements of our veteran members, we were treated to a buffet breakfast which featured a large variety of South African and German traditional treats. PARC sincerely thanks Vendi and his staff of Adler's for their excellent service and cuisine. Below and on the following pages are photographs of acknowledgement to all Members and spouse who attended this event.



Sarel ZS6EK en Karin, Kenny ZS6KMM en Paddy Whitey ZS6JJJ and Richard ZS6UK



Graham ZS6GJR (Vice Chairman) and Joey Reid



Paul ZS6BMF and Julie Sterling



Frank ZS6GE and Patricia Schneider



Fritz Sutherland ZS6SF



Hans Kappetijn ZS6KR (Honorary Member)



Vincent Harrison ZS6BTY



Jan (Pine) Pienaar ZS6OB



Charles Mills ZS6CJM



Corrie Swamers en Johan de Bruyn ZS7JHB



Graag wil die Pretoria Amateur Radio Club ons Vetereane Lede prys en bedank vir hul gewaardeerde diens aan die Klub en die menigte prestasies wat hul bereik het gedurende die Klub se geskiedenis. Julle is voorwaar is voorbeeld aan ons almal wat die gees van 'n ware Radio Amateur beteken, en hoe die kode van 'n Amateur uitgeleef word. PARK salueer U!

Sharmaine de Wet en Moeder, Alice Bezuidenhout



PRETORIA AMATEUR RADIO CLUB
89TH ANNUAL GENERAL MEETING
Saturday, 7th September 2019
From 11h30 at the Pretoria Old Motor Club

PRETORIA AMATEUR RADIO KLUB
89^{STE} ALGEMENE JAARVERGADERING
Saterdag, 7^{de} September
Vanaf 11h30 by die Pretoria Ou Motor Klub



Please Note: The PARC AGM will be followed by a bring-and-braai
Neem asseblief kennis; Na afloop van die PARK AJV sal daar 'n bring-en-braai plaasvind

Letter to the Watts Editor / Brief aan die Watts Redakteur

Waarom is ek by PARK.

Sou 'n mens kyk na die aantal radioklubs in ons omgewing, dan wonder 'n mens wat is die bestaansreg van hierdie klubs. Wat kry 'n amateur vir sy ledegeld en watter regverdiging is daar vir so baie klubs.

Uit my eie oogpunt sal ek slegs aan 'n klub behoort indien amateurradio meer pret is wanneer ek lid van die klub is, as wat dit sonder die klub sal wees.

Lidmaatskap van PARK bied baie vreugdes. Ek skryf hierdie brief aan die redakteur om die PARK komitee te bedank vir die persioenaris-tee (eintlik die persioenaris-brekfies) van Saterdag 29 Junie. Hierdie is die derde een wat ek bywoon, en elkeen is lekkerder as die vorige een. 'n Mens kan self 'n ontbyt koop, dit is maklik, maar 'n mens kan nie self sulke lekker geselskap en so 'n goeie atmosfeer skep nie.

Hierdie 'senior lede' funksie is een van 'n hele paar dinge wat PARK reg doen - dit maak die stokperdjie baie meer pret.

Die lekker samesyn het my aan die dink gesit oor ander dinge wat die klub reg doen. Ek wil graag die bulletins ook noem. In Engels sê ons: "The proof of the pudding is in the eating." Vergelyk maar die aantal amateurs wat by PARK se Sondagoggend-bulletins inrapporteer en 'n mens kry dadelik die gevoel dat dit een van die beste bulletins in die land moet wees. Daar is duidelik iets vir almal en die tyd en die aanbieding pas 'n groot deel van die amateurgemeenskap. Ek dink daar rapporteer so baie amateurs in omdat betrokkenheid by die PARK bulletin 'n mens laat voel dat jy deel vorm van die amateurgemeenskap; almal is daar op Sondagoggende.

Daar is ander dinge wat ook bydra tot PARK se sukses; dink maar aan Watts, aan die RAE opleiding, die herhalerstelsel, die ruilwinkel, die Echolink-koppeling, die vlooiemarkte, die webwerf, die deelname aan die wedstryde en die algemene goeie gees in die klub. Daar is meer, maar ek wil nie klink asof ek 'n verkiesingsveltog voer vir die volgende AJV nie; na meer as 50 jaar as 'n amateur, het ek my kwota van klubkomiteeposte reeds gevul.

Weereens dankie aan PARK vir die samesyn van Saterdag.

Fritz, ZS6SF

Baie dankie aan Fritz Sutherland ZS6SF vir sy gewaardeerde kommentaar aangaande die Veteran ontbyt, asook algemene sake rakende die aktiwiteite van PARK. Watts wil graag hiermee "Briewe aan die Redakteur" 'n gereelde item maak, en nooi dus Lede en Lesers uit om u kommentaar (positief en negatief) aan die volgende epos adres te stuur: louis.zs6sk@gmail.com . Ons plaas graag u briewe.

Thank you very much to Fritz Sutherland ZS6SF for his valued commentary with regards to the Veteran's breakfast, as well as general matters regarding the activities of PARC. Watts would hereby like to make "Letters to the Editor" a regular item, and subsequently invites Members and Readers to submit commentary (positive and negative) to the following email address: louis.zs6sk@gmail.com . We will gladly place your letters.

**PARC AGM: PROXY & NOMINATION FORMS
PARK AJV: VOLMAG EN NOMINASIEVORMS**



**89th ANNUAL GENERAL MEETING
89^{ste} ALGEMENE JAARVERGADERING
Pretoria Amateur Radio Club**



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

Venue
Saturday 7 September 2019
Time : 11h30
Agenda : To be published

Plek
Saterdag 7 September 2019
Tyd : 11h30
Agenda : Sal gepubliseer word

NB

Nominations awaited. Latest acceptance by 11h00 on 7 September 2019
Nominasies word afgewag. Laatste indiening teen 11h00 op 7 September 2019
Contact details on page 2 of WATTS / Kontakdetails op bladsy 2 van WATTS

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

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

I/Ekbeing ZS/R/U..... give/geeZS/R/U.....

Proxy to vote on my behalf at the 2019 PARC AGM

Volmag om namens my te stem tydens die 2019 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 **7 September 2019 at 11h00 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 11h00 op 7 September 2019** 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		

Tydren Nuus : Johan de Bruyn ZS6JHB



Met die 2019 tydren seisoen reeds goed aan die gang, was dit sover 'n besige program. 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. Die voorlopige datums van die Nasionale- en Streekstydrenne word onder aangedui.

With the 2019 rally season already well away, it was thus far a busy program. 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. The preliminary dates of the National- and Regional rallies are presented below.

23 August 2019	To be announced
27 September 2019	Secunda Rally
25 October 2019	Electrothread Rally



The Military Phonetic Alphabet

We recently received a copy of the Military Phonetic Alphabet from Richard Peer ZS6UK. A scan on the internet revealed that the history, presentation and usage of various varieties of the phonetic alphabet are quite extensive, and complicated.

The NATO phonetic alphabet and the Allied military phonetic spelling alphabet therefore makes for very interesting reading matter. Watts will therefore be presenting in a future issue a more detailed analysis of the various forms of phonetic alphabets during the course of military and radio history. Thank you very much to Richard for this very interesting idea, which will be investigated and presented soon.

Military Phonetic Alphabet					
Letter	1913	1927	1938	World War II	1957-Present
A	Able	Affirmative	Afirm	Afirm (Able)	Alfa
B	Boy	Baker	Baker	Baker	Bravo
C	Cast	Cast	Cast	Charlie	Charlie
D	Dog	Dog	Dog	Dog	Delta
E	Easy	Easy	Easy	Easy	Echo
F	Fox	Fox	Fox	Fox	Foxtrot
G	George	George	George	George	Golf
H	Have	Hypo	Hypo	How	Hotel
I	Item	Interrogatory	Int	Int (Item)	India
J	Jig	Jig	Jig	Jig	Juliett
K	King	King	King	King	Kilo
L	Love	Love	Love	Love	Lima
M	Mike	Mike	Mike	Mike	Mike
N	Nan	Negative	Negat	Negat (Nan)	November
O	Oboe	Option	Option	Option (Oboe)	Oscar
P	Pup	Preparatory	Prep	Prep (Peter)	Papa
Q	Quack	Quack	Queen	Queen	Quebec
R	Rush	Roger	Roger	Roger	Romeo
S	Sail	Sail	Sail	Sugar	Sierra
T	Tare	Tare	Tare	Tare	Tango
U	Unit	Unit	Unit	Uncle	Uniform
V	Vice	Vice	Victor	Victor	Victor
W	Watch	William	William	William	Whiskey
X	X-ray	X-ray	X-ray	X-ray	X-ray
Y	Yoke	Yoke	Yoke	Yoke	Yankee
Z	Zed	Zed	Zed	Zebra	Zulu

www.StrangeMilitary.com

Notice of the SARL AMSAT SA VHF Workshop

The SARL AMSAT SA VHF Workshop will be held on Saturday, the 20th of July 2019 at the SARL National Amateur Radio Centre, Radiokop, Honeydew. The program contains a variety of interesting speakers and topics. For more information, if you wish to attend, please visit the website of AMSAT SA, and consult page 38 of the July Edition of Radio ZS.

SARL AMSAT SA VHF WORKSHOP

"UNLOCKING AMATEUR RADIO TECHNOLOGY IN WEAK SIGNAL COMMUNICATION"

Programme

08:30 Registration

09:00 Welcome

Nico van Rensburg ZS6QL
President SARL

09:10 The big debate:

Horizontal versus Vertical Polarisation
Dick Coats ZS6BUN

An open discussion will follow

10:30 Update on the Bethlehem and Karoo two metre beacon projects

Brian Jacobs ZS6YZ

10:45 Presentation of Two metre antennas for SARL beacon projects

Sam Ford ZS6BRZ

11:00 Refreshments

11:30 Antennas—the main components of your VHF station and the important things to consider

Pine Pienaar ZS6OB

12:10 The Westcoast propagation phenomena

Hans van de Groenendaal ZS6AKV

12:25 Quick Fire Sessions

* The Reverse beacon project
Brian Jacobs ZS6YZ

* Increasing levels of the HF noise floor is a growing concern
Hans van de Groenendaal ZS6AKV

* Why VHF and UHF has an important future in Amateur Radio
Nico van Rensburg ZS6QL

Date: Saturday 20 July 2019

Time: 09:00—13:00

Where: SARL National Amateur Radio Centre, Sender Technology Park, Octave Street, Radiokop, Honeydew.

**Get Registration form and book now .
Details on the SARL Home Page**

Polarisation of antennas

The subject has for several years been surrounded by arguments that Vertical polarisation surpasses Horizontal Polarisation in achieving long distance communication on VHF with equal opposite arguments

Dick Coates has carried out extensive technical paper research and reviewed experiential data from world wide resources and will present his findings and share his own experiences.

Stay ahead of the Amateur Radio Technology game

listen to Focus on VHF and above every Sunday in Amateur Radio Today, the SARL on the air magazine programme.

On the air at 10:00 SAST on a repeater near you. Also on 7082 kHz and on Monday evenings at 19:30 on 3620 kHz



Houston, Tranquility Base here. The Eagle has landed.

EAGLE 35 degrees. 750, coming down at 23,700 feet, 21 down. 33 degrees. 600 feet, down at 19,540 feet, down at 30, down at 15. 400 feet, down at 9. Forward. 350, down at 4. 330, 3-1/2 down. We're pegged on horizontal velocity. 300 feet, down 3 ½, 47 forward. Down 1 a minute. 1 ½ down. 70. Got the shadow out there. 50, down at 2 ½. 19 forward. Altitude-velocity lights. 3 ½ down. 160, 6 ½ down, 5 ½ down, 9 forward. 5 percent. Quantity light. 75 feet, things looking good. Down a half. 6 forward.

CAPCOM 60 seconds.

EAGLE Forward. Drifting right. Contact light. Okay, engine stop. ACA out of detent. Modes control both auto, descent engine command override, off. Engine arm, off. 413 is in.

CAPCOM We copy you down, Eagle.

ARMSTRONG Houston, Tranquility Base here. The Eagle has landed.

CAPCOM Roger, Tranquility, we copy you on the ground. You've got a bunch of guys about to turn blue. We're breathing again. Thanks a lot.

TRANQUILITY Thank you.

ARMSTRONG I'm at the foot of the ladder. The LM foot pads are only depressed in the surface about 1 or 2 inches. Although the surface appears to be very, very fine grained, as you get close to it. It's almost like a powder. Now and then, it's very fine.

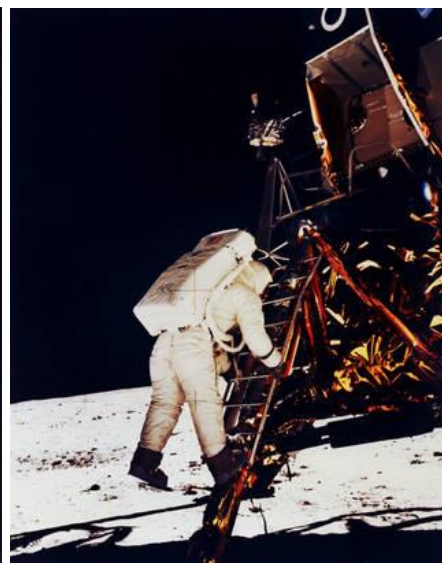
ARMSTRONG I'm going to step off the LEM now.

ARMSTRONG That's one small step for man. One giant leap for mankind.

These transcripts^{1,2} marked the historical event of the first landing on the moon of the Apollo 11 Lunar Excursion Module (LEM) crew manned by Neil Armstrong and Edwin (Buzz) Aldrin on the 20th of July 1969. This mission paved the way for five other missions (Apollo's 12, 14, 15, 16 and 17) where a total of 12 men set foot on the moon. Various scientific experiments and geological excursions were conducted during these missions. However, after the conclusion on Apollo 17, no manned missions were ever attempted due to funding and government and public interest which waned rapidly. Despite the great successes of the Space Shuttle program which followed the Apollo program from 1981, the great courage and spirit for adventure of the Apollo Astronauts will be remember forever. The 20th of July 2019 will celebrate the 50th anniversary of this great achievement not only by man, but by humankind. What will the next great achievement be next? Mars?

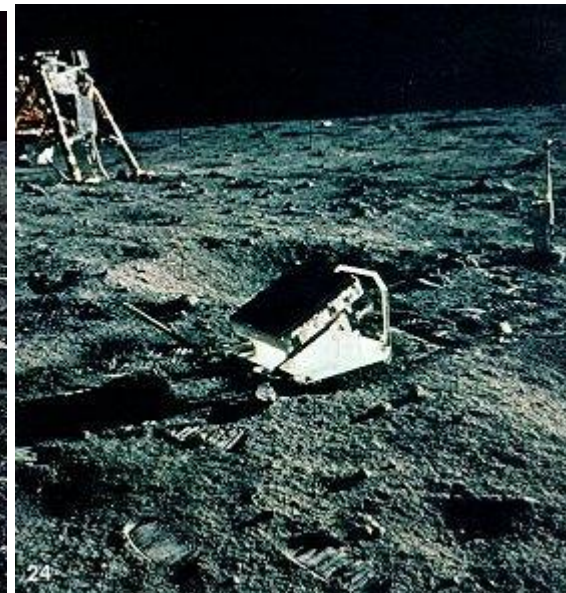
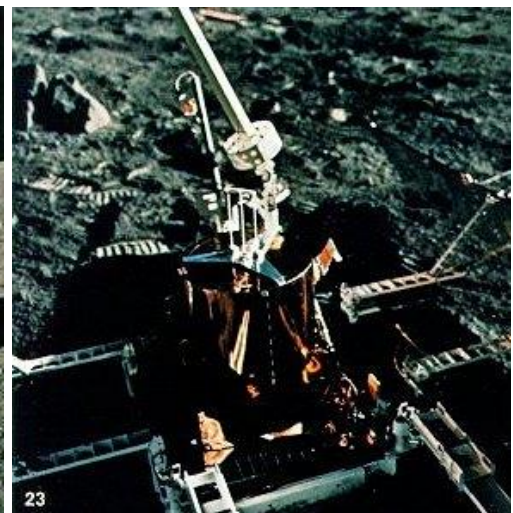


Neil Armstrong, Michael Collins and Edwin Aldrin



Aldrin descending the steps of the LEM

Below are a selection of photographs taken during the Apollo 11 excursion on the Moon showing some of the physics and seismic experiments that were conducted. During the Apollo missions, an extensive communication network was used for navigation and earth to spacecraft communications and data transfer. In the next issue of Watts, an overview of this network will be discussed.

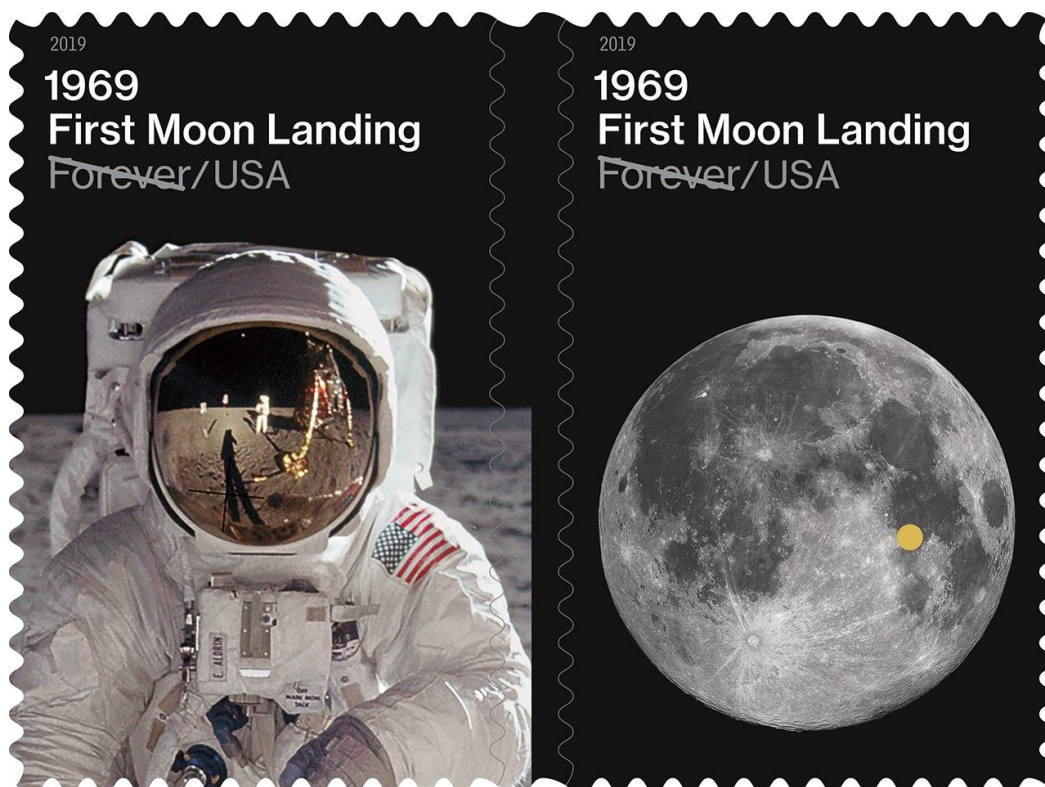


References:

^[1]https://www.nasa.gov/sites/default/files/files/Apollo-11_Day-05-Highlights.pdf

^[2]ARMSTRONG, N., COLLINS, M., ALDRIN, E.E., FARMER, G. & HAMBLIN, D.J. 1970. First on the Moon. Michael Joseph. London.

Following the first landing on the Moon, the United States Postal Service issued a commemorative postage stamp, as well as a number of first day issue envelopes. With the celebration of the 50th Anniversary of the first landing on the Moon, the US Postal Service will be issuing two commemorative stamps in 2019.



“Wireless” Telegraphy in South Africa : 1905

Searching through electronic archives of the South African Journal of Science, which is the official Journal of the Academy of Science of South Africa, I came across a paper entitled “Wireless” Telegraphy, written by Sir William Henry Preece, F.R.S. This paper was published in Volume 2, Issue 1, January 1905^[1]. Preece writes “*With the inception of aetheric telegraphy in 1884 and the various stages of its progress in Great Britain were regularly reported to me to the British Association up to 1896, when Mr. Marconi appeared and succeeded in capturing the enthusiasm of the press and the public by his wonderful experiments. The first practical results obtained by the Post Office with the Marconi system on Salisbury Plain were reported by me to the British Association at their Liverpool meeting in 1897. Since then its progress has been slow but satisfactory, and it is gradually attaining the practical stage*”. Preece describes the use of aetheric telegraphy in war times and reports two thousand uncensored words were one day send across 180 miles of sea at a mean speed of thirty words per minute, and thence 14,010 miles to London, where they were printed in the “Times” the next morning with marvelous accuracy. The Post Office during this time has developed a system of diplex communication, where two messages could be sent in the same direction at the same time. The system also measured the strength of the signals with great accuracy in micro-amperes.

***Aetheric force:** *The term coined by Thomas Edison to describe the phenomenon we now understand as high frequency electromagnetic waves, or radio. Edison believed that it was a mysterious force that some believed pervaded the ether.*

The War Department has also been experimenting with different transmission systems, and reported that experimental apparatus send to South Africa and Somaliland were lamentable failures, which were probably due to the dryness of the earth in these two countries. Preece describes numerous examples worldwide where these communication systems were installed and implemented, but on page 278^[1,2] provides a description of the system, where in every wireless telegraphic circuit the following need to be considered:

- | | |
|------------------------------|--|
| The Sending Station A..... | { i. The source of energy
{ ii. The transmitter
{ iii. The antenna |
| The Medium | iv. The air and ether |
| The Receiving Station B..... | { v. The antenna
{ vi. The receiver
{ vii. The earth |

Preece subsequently comprehensively describes the various components and scientific principles of radio as listed above, and propagation of electromagnetic waves. To obtain the pdf version of the full article, please visit the website of the South African Journal of Science and follow the link^[2] listed as a reference.

Although not so well known as the great names in radio, William Preece (1834-1913) the Welsh born electrician educated at King’s College, London, became known for his advancements in the fields of telegraphy, telephony and radio^[3]. According to Engineering-timelines.com, Preece developed block signaling for railways, brought the first telephone into Great Britain, and encouraged the uptake of electric lighting and power. Being a genial scientist and engineer, he held a number of professional offices, which included the presidencies of the Society of Telegraph Engineers & Electricians, the Institution of Electrical Engineers and the Institution of Civil Engineers^[3].

During the commencement of career, Preece worked briefly under Michael Faraday, where-after he pursued telegraphy at the Electric Telegraph Company, the Channel Islands Telegraph Company and the London & South Western Railway. For the remainder of his career he spent as a “member of the great Civil Service of this country”^[31]. During research conducted with Arthur West Heaviside (1844-1923), Preece discovered the effect of radio induction between parallel telegraph wires and an unwired telephone receiver. In the following years, he sent a signal across Coniston Water, Cumbria. This was followed by transmissions over greater distances, which included the Bristol Channel in 1892 and over Kilbrannan Sound in 1894.



Sir William Henry Preece (1834-1913) : Preece in his office at the Post Office (4th December 1892)



In 1891, Preece attended the *Internationale elektrotechnische Ausstellung* (electro-technical exhibition, 16th May & end; 19th October), Frankfurt am Main, Germany. It was supplied with electricity from the world's first three-phase power plant, 175km away in Lauffen am Neckar. The photograph was taken on 12th September 1891. From foreground left — Professor Dr Dietrich, Baudirektor Karl von Leibbrand (1839-98), Innenminister Johann von Pischek (1846-1916), Dr Otto Arendt (1854-1936), unknown, Emil Rathenau (1838-1915), Marcel Deprez (1843-1918), Colonel Emil Huber (1865-1939), Preece and Oberpostrat Ebert. Gisbert Kapp (1852-1922) is behind Rathenau, Charles Brown (1863-1924) is behind Preece, and Dr John Hopkinson (1849-98) is at rear left (in bowler hat). Reference:^[31]

A composite image of photographs taken at the 1900 *Exposition Universelle de Paris* (15th April to 12th November 1900). The electrical engineers shown include (left to right, front row) — Preece, Silvanus Phillips Thompson (1851-1916), William Edward Ayrton (1847-1908), Alexander Siemens (1847-1928) and Charles Proteus Steinmetz (1865-1923). Reference:^[31]

Preece achieved his greatest ambition in 1898 by being elected the President of the Institution of Electrical Engineers. He will be remembered for his uncomplicated solutions of practical problems. He was also a prolific writer, publishing in well known journals during those years which included *Telegraphy* (1876), *The Telephone* (1889) and *A Manual of Telephony* (1893). During his presidential address to the Institute of Electrical Engineers (currently Institution of Engineering and Technology), Preece indicated that during the preceding 40-year period, the total length of telegraph cables laid worldwide increased from 161km to 258 526 kilometers. On his retirement he was knighted and served as consulting electrical engineer to the Colonies. William Henry Preece passed away on the 6th of November 1913 at an age of 79.

^[1]PREECE, W.H. 1905. “Wireless” Telegraphy. S. Afr. J. Sci. Vol 2, Issue 1. 272 - 281

^[2]<https://journals.co.za/content/sajsci/2/1?page=2>

^[3]http://www.engineering-timelines.com/who/Preece_WH/preeceWilliamHenry.asp

4X4 Tydren Nuus

Pretoria Amateur Radio Klublede Willie ZR6WGR en Sarina Greyling, Irene ZS6IEA en Pieter ZS6PAM Myburgh, Willem Weideman ZS6X en sy gade, Willie en Annelie van Niekerk en Tony Crowder ZS6CRO was onlangs by die Botswana 4x4 tydren. Watts het 'n aantal fotos vanaf Sarina ontvang van die aktiwiteite wat ons graag plaas.



Long Term HF Propagation for July 2019: Courtesy Vincent Harrison ZS6BTY

The graph below shows the predicted F-layer Maximum Usable Frequency (MUF) for propagation from Pretoria^[1] using monthly sunspot numbers from SILSO^[2].

Local Propagation (up to 500 km): The F or F2 critical frequency (f_oF_2) is the MUF for short range, near vertical incidence sky-wave (NVIS) propagation.

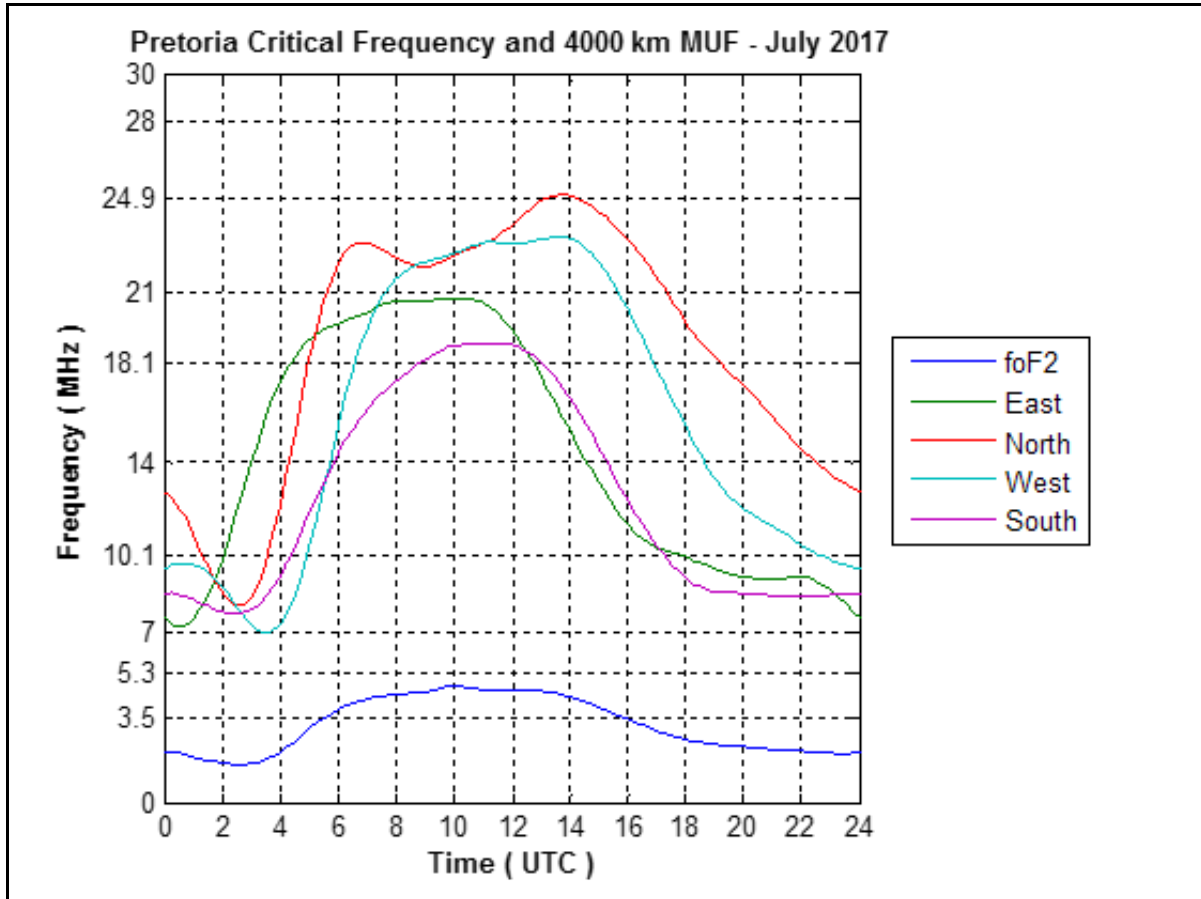
Long Distance Propagation: The MUF for a first hop of 4000 km in the cardinal directions is labeled North, East, South and West. They indicate the direction that propagation may be expected.

Worldwide Propagation Maps: <http://www.parc.org.za/index.php?page=propagation>

"Prediction is difficult, especially when dealing with the future" . . . Danish Proverb. 73 Vincent, ZS6BTY

^[1]FTZMUF2: A simple method of estimating the ionospheric parameters of f_oF_2 and M(3000) with the aid of a home computer - Thomas Damboldt and Peter Süßmann, Deutsche Bundespost, December 1988.

^[2] Silso 12-month forecasts of the monthly sunspot number (<http://sidc.oma.be/silso/FORECASTS/prediML.txt>)



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
- 3rd 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
- 50A 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