



WATTS 2018-01

Year 88 + 01m

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

South African Radio League



Annual General Meeting

Hosted by the Pretoria Amateur Radio Club
13- 14 April 2018 : Farm Inn: Pretoria

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 13th to 15th 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 14th of April during the SARL AGM. Time to be announced

Club Committee Meeting :

The next Committee Meeting will be on Tuesday, the 6th of February from 18h00 at Farm Inn

Member's Birthdays February 2018 / Lede Verjaarsdae - Februarie 2018

02 John Minter ZS6LED
 03 Willie Greyling ZR6WGR
 03 Nico van Tonder ZS6AQ (Hon. Member)
 04 James Bestbier ZS1XN
 04 Louis de Wet ZS6SK

09 Kenny Martin ZS6KMM
 16 De Jager Burger ZS6ZO
 18 Jaco Cronje ZR6CMG
 23 Pete Smith-Curren ZS6PJ

Spouse's Birthdays February / Gade Verjaardae - Februarie

10 Paddy, sw of Kenny Martin ZS6KMM
 22 Erika, gade van Pine Pienaar ZS6OB

Anniversaries February / Herdenkings - Februarie

03 Heather and Vincent Harrison ZS6BTY
 07 Juanita en Ryan Gibson ZS6GGR
 14 Louisa en Jaco Cronje ZR6CMG
 16 Dienkie en Pierre Britz ZR6ADZ
 27 Zelda en Wnand Wessels ZR6WW

Anniversaries Contd. // Herdenkings - Verv./

18 Sarina en Willie Greyling ZR6WGR
 21 Sandy ZS6ICE en Menno Havelaar ZS6AGC
 27 Paddy and Kenny Martin ZS6KMM
 28 Martie en Jurgen de Beer ZR6YV (Erelid)

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.) ZR6YV
 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

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.

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.

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	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 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

<u>Elected Members</u>	<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	greid@wol.co.za	012-667-2720	083-701-0511
Vice Chairman, Treasurer & Rallies	Johan de Bruyn	ZS6JHB	zs6jhb@gmail.com	012-803-9418	079-333-4107
RAE Training, Bulletins & SARL Liaison	Etienne Naude	ZS6EFN	etienne@afrigrid.com	012-661-6745	082-553-0542
Club Secretary	Irene Myburgh	ZS6IEA	irene@srsa.gov.za	012-304-5109	082-462-6001
Social & Contests	Whitey Joubert	ZS6JJJ	zs6jjj@gmail.com	012-993-2267	072-120-4516
Watts Newsletter & RAE Assistance	Louis de Wet	ZS6SK	louis.zs6sk@gmail.com	012-349-1044	072-140-9893
Youth Development & Competitions	Nic Louw	ZS6NWL	nic.louw@telkomsa.net		083-596-1026
RAE Training & Technical	John Minter	ZS6LED	john.minter.za@gmail.com	012-349-0019	083-291-5422
<u>Co-Opted Members</u>	<u>Name</u>	<u>Callsign</u>	<u>Email Adress</u>	<u>Tel No</u>	<u>Mobile No</u>
Fleamarkets	Alméro DuPisani	ZS6LDP	almero.dupisani@up.ac.za	012-420-3779	083-938-8955
Auditor	Tony Crowder	ZS6CRO	tcrowder@telkomsa.net	011-672-3311	

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

10 - 11	CQ WW RTTY WPX Contest : 00h00 - 23h59
10 - 11	SARL Field Day Contest : 10h00 - 10h00
10 - 11	Dutch PACC Contest : 12h00 - 12h00
10	RSGB 1 st 1.8MHz Contest : 19h00 - 23h00
13	UNESCO World Radio Day
17 - 18	ARRL International DX Contest, CW : 00h00 - 24h00
17	SARL Youth Day Sprint : 08h00 - 10h00
23 - 25	CQ 160-Meter Contest, SSB : 22h00 - 22h00
24 - 25	REF Contest, SSB : 06h00 - 18h00
24 - 25	UBA DX Contest : 13h00 - 13h00
25	SARL Digital Contest : 13h00 - 16h00

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	SARL Hamnet 40m Simulated Emergency Contest : 12h00 - 14h00
10 - 11	RSGB Commonwealth Contest : 10h00 - 10h00
10 - 11	SARL VHF/UHF Analogue / Digital Contest : 10h00 - 10h00
17 - 18	Russian DX Contest : 12h00 - 12h00
24 - 25	CQ WW WPX Contest, SSB : 00h00 - 23h59
31 - 1/4	Russian WW Multimode Contest : 12h00 - 11h59

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

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/) te Silver Lakes, Pretoria Oos. Die Farm Inn bied 'n verskeidenheid luukse akkommodasie vir diegene wat graag Vrydag en/of Saterdagmiddag 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 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 reëlins van die SARL Konvensie kan Etienne Naude by etienne@afrigrid.com of 082 553 0542 gekontak word, terwyl Almero Du Pisani gekontak kan word vir reëlins van die mega-snuffelmark by 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 13-15th of April at the Farm Inn, Pretoria.

During the day of the AGM, tables will be available in the Pavillion Lapa for anyone who wishes to exhibit their products or organization, or 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. 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 Companies : R75-00 ; Other Companies : 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

Notice of the SARL 2018 AGM and National Convention

The Pretoria Amateur Radio Club will be presenting the 2018 SARL National Convention at the Farm Inn Country Lodge (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 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 or call him on 083 938 8955 or you can contact Etienne Naude, ZS6EFN, at etienne@afgrid.com or call him on 082 553 0542.

Pretoria Amateur Radio Klub Snuffelmark : 6 Januarie 2018

Pretoria Amataeur Radio Klub het 2018 vroeg afgeskop met 'n snuffelmark op Saterdag, die 6de Januarie. Bo verwagting was die opkoms baie goed, en is talle lede van omringende takke verwelkom, en het die oggend saam met ons geniet. Weereens wil ons graag Almero ZS6LDP en Johan ZS6JHB bedank vir die reeling van die geleentheid. Ook hartlike dank aan Whitey ZS6JJJ en Franco Visser wat alleen die voorbereiding en verkope van die worsrolletjies behartig het. Soos aangedui, is die volgende geleentheid die Mega-snuffelmark by die SARL AJV te Farm Inn op 14 April 2018.





Pieter Fourie ZS6CN se onlangse verhuising : fotos van sy antennas

Pieter Fourie ZS6CN en gade Annatjie het onlangs 'n nuwe woning in Queenswood aangeskaf, en nadat hulle ingesig is, kon Pieter geleentheid kry om die antennas en radios te installeer in sy nuwe "hok" en agter in die tuin. Pieter het 'n paar fotos aangestuur, en soos ons weet is Pieter en Annatjie ywerige tydren radio ondersteuners. Pieter het ter nagedagtenis aan die Welkom- en SASOL tydrenne ook enkele fotos aangestuur. Ons wens Pieter en Annatjie alle voorspoed toe met hul nuwe woning.



Bo: nuut geïnstalleerde antennas by Pieter se woning. Links: Lekker saam kuier by die 2016 SASOL tydren. Onder Pieter en Annatjie se veldstasie tydens die Welkom tydren.



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. Die datums van die Nasionale- en Streekstydrerne 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. 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



The Scientific and Radio Legacy of Professor Arthur Bleksley

Many of our older generation will, with smiling memories reminisce over the days of Springbok Radio between 1957 and 1985, when in particular the Program “*Test the Team*” was broadcast. Presented by Dewar McCormack, often very complex questions were posed to the team which consisted of Grant Loudon in Durban, and Eric Rosenthal and Arthur Bleksley in Johannesburg. After a career of about 40 years in radio, where it is estimated that he spoke over five million words, Bleksley retired in 1977.



Fig. 1. Bleksley in mid-career.

Born on the 27th of April 1908 in Matatiele in East Griqualand, Arthur Herbert Bleksley obtained his B.Sc degree *cum laude* in 1927, and his M.Sc degree in mathematics and physics also *cum laude*, for which he received the van der Horst prize. In 1963 he obtained his D.Sc degree at the University of Witwatersrand with a thesis entitled “*The pulsation variables: an analytical and statistical study of stellar variability*”. As an active researcher in the area of astrophysics, Bleksley undertook a detailed statistical and analytical investigation of variable stars^[1]. Based on previous work done by Eddington^[2], he developed a mathematical model of radially pulsating stars, and compared the predictions of the model with observations for the Cepheid variable stars and the long-period variable stars such as the Mira variables^[1]. During his research period from 1929 to 1969 Arthur Bleksley was the sole author of 50 scientific papers, a feat which is rarely achieved.

"TEST THE TEAM" SOUNDFILE / KLANKGREEP



Dewar McCormack



Eric Rosenthal



Prof Arthur Bleksley



AN EXTRACT FROM THE LONG RUNNING & VERY POPULAR "TEST THE TEAM" WITH DEWAR McCORMACK & THE THREE WISE MEN, NAMELY ERIC ROSENTHAL, GRANT LOUDON & PROF ARTHUR BLEKSLEY. THIS EPISODE DATES FROM 1976.

'N UITREKSEL VAN DIE UITERS SUKSESVOLLE & LANG DIENENDE REEKS "TEST THE TEAM" MET DEWAR McCORMACK & DIE DRIE WYSE MANNE. HULLE WAS ERIC ROSENTHAL, GRANT LOUDON & PROF ARTHUR BLEKSLEY. DIE UITSENDING DATEER VAN 1976.

[BACK TO SOUND PAGE / TERUG NA KLANK BLADSY](#)



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For more detailed reading matter on Arthur Bleksley, please consult the article^[1] entitled “*Arthur Bleksley: pioneer of science awareness in South Africa*”. South African Journal of Science. 104: 423-427

Arthur Bleksley the astrophysicist was also an educator and a radio broadcaster for many years, even though some of his academic colleagues felt that it was unprofessional for a professor to give radio talks. They thought he was letting the side down by going into the marketplace and talking to the people. However, he firmly believed that not only were people entitled to know what scientists were thinking, but they also desperately wanted to know.



Fig. C. Special function organized by the South African Association for the Advancement of Science at the Johannesburg Planetarium for Bleksley, when he presented his last lecture as director on 19 August 1968. From the left, Mr du Toit (chairman of the Newspaper Press Union), Professor Bleksley, Professor Raymond Dart, and Professor J.P.F. Sellschop (chairman of the Johannesburg Branch of S_2A_3). (Originally published in the *Rand Daily Mail*, 20 August 1968. © Avusa Media Ltd.)

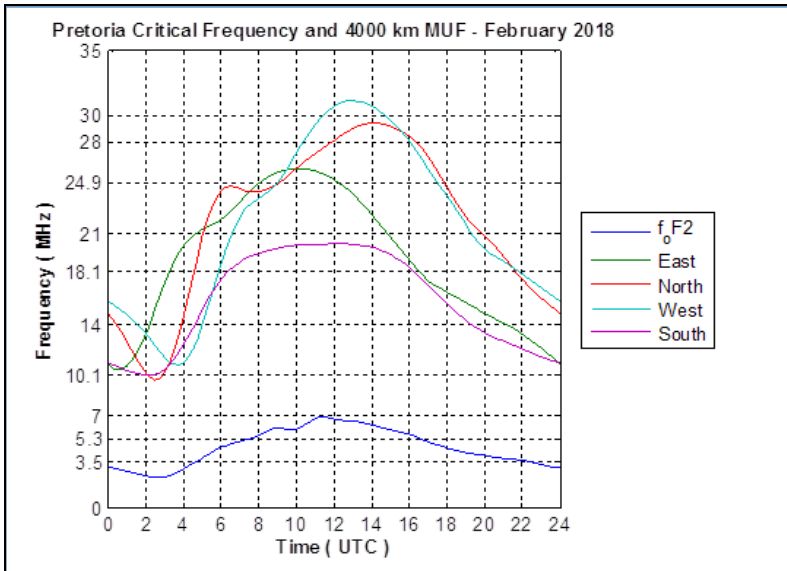
Bleksley presented numerous radio talks on astronomy, as well as children's plays on famous scientists such as Archimedes, Marie Curie, Darwin, Edison and many more^[1]. The topics in his radio plays for schools included the makers of science, modern discoveries in medicine, humans in space, and the wonders of the starry sky^[3]. By 1953, he had delivered 400 broadcast talks on science and authorized 50 radio plays. However, most of us will remember him and his co-members of the team with their own peculiar push-button sounds when they wanted to answer a question. In a sound clip which can be downloaded^[4] the question is posed to the team by a listener: "the number 113355 should have the team in circles". It did not take Bleksley too long to answer that $355/113$ equals 3.1416 which is the ratio of Pi ($\pi = 22/7$). If there was a question the panel could not answer, Bleksley would encourage the panel to analyze the question and deduce the answer. Grant Loudon once commented that Bleksley had the "finest deductive brain" of anybody he had come across. Even during his retirement, Bleksley was active in many aspects. In 1977 he received the highly respected Artes Award for the best broadcaster. However, after a stroke later that year, his voice was never heard again on radio. On the 8th of July 1984 he was rushed to hospital suffering from an aneurism, and passed away peacefully the next morning at the age of 76. He was survived by his wife, daughter and grandchildren^[1].

^[1]MASON, D.P. 2008. Arthur Bleksley: pioneer of science awareness in South Africa. *S. Afr. J. Sci.*, 104: 423-427

^[2]EDDINGTON, A. 1930. *The Internal Constitution of the Stars*. Cambridge University Press, Cambridge

^[3]BURNTON, R. 1970. Arthur E. Bleksley. A bibliography compiled in part fulfillment for the requirements of the Diploma in Librarianship. University of the Witwatersrand, Johannesburg.

^[4] <https://web.archive.org/web/20090119220634/http://www.springbokradio.com/TESTTHETEAM.html>



Long Term HF Propagation for February 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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- Contact Hans at 012-333-2612 or 072-204-3991

Sirius Astronomy

Why so Sirius, eh?

© insert-joke-here.com

Don't take stuff so seriously, remember...

You are here.

Once you go black,

$R_s = \frac{2GM}{c^2}$

You never go back.

WORKING THE RED SHIFT

This is **CRAZY!**
 Either I'm going **BACKWARDS**,
 or the punch-clock's **RECEDING!**
 First day on the job and I'm **LATE!**

ONE DAY ON MERCURY LASTS ABOUT 1,408 HOURS.

THE SAME AS ONE MONDAY ON EARTH.