



WATTS 2024-11

Year 94 + 11

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 / 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

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

Bulletin repeats on Mondays / herhalings op Maandae : 2m 19h45



Sarel Stapelberg ZS6EK en Kenny Martin ZS6KMM tydens die afgelope PARK
snuffelmark by die Pretoria Ou Motorklub

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PARC Committee Meeting /
PARK Komitee Vergadering

**The next Meeting for the
2024 PARC Committee will
take place by means of
Teams on the 13th of
November**

Birthdays and Wedding Anniversaries / Verjaarsdae en Huweliks Herdenkings

Member's Birthdays November 2024 / Lede Verjaarsdae November 2024

10 Leon Grobler ZR6AVI
16 Vlasta Jancuskova ZS6-2501

19 Joe Katzman ZS6TB

Spouse's November 2024 / November 2024

11 Peggy, gade van Ed Willers ZS6UT
18 Esta, gade van John Olivier ZR6GV
27 Aida, gade van Hugo Pretorius ZS6HP
30 Corrie, gade van Johan de Bruyn ZS6JHB

Wedding Anniversaries November 2024 / Huweliks Herdenkings November 2024

13 Tali en Dylan Foord ZS6TDK
14 Sylvia en Tjerk Lammers ZS6P / ZS1J
26 Marike ZS6MRX en Andre ZS6ARX Roux
29 Moira en Hendrik Ferreira ZS6BUH

Member's Birthdays December 2024 / Lede Verjaarsdae Desember 2024

01 Pieter Fourie ZS6CN
07 Tim Meyer ZS6TIM
08 Kobus du Toit ZS6KD
10 Maurtiz van den Heever ZS6CMH
15 Alméro Du Pisani ZS6LDP
16 Andre Potgieter ZS6EW

20 Jurie Ferreira ZS6JFE
23 Johnny Scott ZS6JSS
27 Pierre Britz ZR6ADZ
28 Allan De Souza ZS6AVC
30 Hans van De Groenendaal ZS6AKV

Spouse's December 2024 / Gades Desember 2024

06 Sylvia, gade van Tjerk Lammers ZS6P/ZS1J
21 Retha, gade van Roy Newton ZS6XN
23 Dientie, gade van Pierre Britz ZR6ADZ

Wedding Anniversaries December 2024 / Huweliks Herdenkings Desember 2024

05 Mary and Nico Michael ZS6BVR
08 Avida en Theodore Bresler ZS6TVB
14 Anna en Barry Bester ZS2BB

PARC Committee Members : 2024 / PARK Komiteelede : 2024

<u>Name & Callsign</u>	<u>Portfolio/s</u>	<u>Email Address</u>	<u>Tel No</u>	<u>Mobile No</u>
Louis de Wet ZS6SK	Chairman, Watts, SARL & ICASA	louis.zs6sk@gmail.com	012-349-1044	072-140-9893
Irene Myburgh ZS6IEA	Vice Chair, Secretary & SARL Bulletins	irene.myburgh@outlook.com	012-304-5109	082-462-6001
Graham Reid ZS6GJR	Rallies, Treasurer, Website	greid@wol.co.za	012-667-2720	083-701-0511

PARC Co-opted Members : 2024 / PARK Ge-koopteerde Lede : 2024

<u>Name & Callsign</u>	<u>Portfolio/s</u>	<u>Email Address</u>	<u>Tel No</u>	<u>Mobile No</u>
Alméro Du Pisani ZS6LDP (Hon.)	Flea-markets, SARL Bulletins	almerodps@gmail.com	012-420-3779	083-938-8955
Johan de Bruyn ZS6JHB	Repeaters & Membership	zs6jhb@gmail.com	012-803-9418	079-333-4107
John Minter ZS6LED	RAE Training, Technical	john.minter.za@gmail.com	012-349-0019	083-291-5422
Pieter Myburgh ZS6PAM	Repeaters	wooden@mweb.co.za		076-140-7562
Jaco Nieuwenhuis ZS6JLN	Repeater Maintenance	jaconieuwenhuis@gmail.com		073-185-4787

Those were the days: Johan de Bruyn ZS6JHB

Johan de Bruyn ZS6JHB, Bill Ingleson (SK) ZS6KO and Pierre Holtzhausen ZS6PJH during a field day way back not remembering when.



Uitkamp in styl: Alméro du Pisani ZS6LDP

Alméro Du Pisani ZS6LDP en sy gade Louise het vanaf die 12^{de} Oktober by die Galago Private bush Lodge vir 'n maand uitgekamp in die heerlike somers bosveld weer waar die temperature gedurende die dag geraak het aan 40°C.

Die hitte het Alméro nie afgeskrik nie en hy het sy veldstasie opgerig met 2m en HF stelle. Gedurende hierdie tyd het Alméro steeds sy gereelde sondagoggend bydraes oor toekomstige snuffelmarkte op die bulletin gemaak en hy het hard en duidelik deurgekom.

Op die 21^{ste} Oktober het hulle Louise se verjaarsdag gevier terwyl sy broer Arrie by hul gekuier het. Dieselfde maandag aand het hulle nog ingeluister na die heruitsending van die PARK bulletin. Ons vertrou dat Alméro en Louise 'n heerlike ruskans geniet het en dat hul verfris huiswaarts gekeer het.



PARC Membership Fees / PARK Ledegelde

PARC SUBS : PARK LEDEGELD : FROM / VANAF : 2024-01-01

Bank	First National Bank	Ordinary Members / Gewone Lede : R160 Spouses and 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 Sunday Bulletins / PARK Sondag 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 contribute to the Bulletin. PARC Bulletins are broadcast on the 2-meter repeater on 145.725 MHz, and 70 cm on 438.825 and 439.025 MHz. Relays are done on 7.060 MHz by Pierre ZS6PS and Corlia ZS6CHS Smit and on Echolink by Johan Lehman ZS6JPL. A re-broadcast of the Bulletin is done the following Monday evening at 19h45 by Louis de Wet ZS6SK.

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 438.825 en 439.025 MHz. Herleidings word gedoen op 7.060 MHz deur Pierre ZS6PS en Corlia ZS6CHS Smit, en op Echolink deur Johan Lehman ZS6JPL. 'n Heruitsending van die Bulletin geskied die opvolgende Maandag aand om 19h45, en word behartig deur Louis de Wet ZS6SK.

PARC Bulletin Presenters Schedule / PARK Bulletin Aanbieders Skedule

PARC Bulletin Presenters: November 2024 – January 2025

Date	Presenter	Date	Presenter
03 November 2024	Alméro Du Pisani ZS6LDP	15 December 2024	Alméro Du Pisani ZS6LDP
10 November 2024	Louis de Wet ZS6SK	22 December 2024	Louis de Wet ZS6SK
17 November 2024	Johan de Bruyn ZS6JHB	29 December 2024	Johan de Bruyn ZS6JHB
24 November 2024	Alméro Du Pisani ZS6LDP	05 January 2025	Alméro Du Pisani ZS6LDP
01 December 2024	Louis de Wet ZS6SK	12 January 2025	Louis de Wet ZS6SK
08 December 2024	Johan de Bruyn ZS6JHB	19 January 2025	Johan de Bruyn ZS6JHB

PARC BOOT SALES FOR 2024-2025 PARK SNUFFELMARKTE VIR 2024-2025

2024: 07 December

2025: 01 February; 5 April; 17 May; 5 July; 6 December

2024: 07 Desember

2025: 01 Februarie; 5 April; 17 Mei; 5 Julie; 6 Desember

CONTACT PERSON: Alméro Du Pisani (T) 083-938-8955 (E) almerodps@gmail.com

Diary of Contests & Events / Dagboek van Kompetisies en Gebeure

Contests and Events - November 2024 / Kompetisies en Gebeure - November 2024 (UTC Times)	
01	Silent Key Memorial Contest: 0600Z - 0859Z
02	IPARC Contest, CW: 0600Z - 1800Z
02 - 04	ARRL Sweepstakes Contest, SSB: 2100Z - 0300Z
03	IPARC Contest, SSB: 0600Z - 1800Z
04	RSGB 80m Autumn Series, Data: 2000Z - 2130Z
05	Worldwide Sideband Activity Contest: 0100Z - 0159Z
06	UKEICC 80m Contest: 2000Z - 2100Z
07	NRAU 10m Activity Contest: 1800Z-1900Z (CW); 1900Z- 2000Z (SSB); 2000Z-2100Z (FM); 2100Z-2200Z (Digital)
09 - 10	WAE DX Contest, RTTY: 0000Z - 2359Z
09 - 10	10-10 International Fall Contest, Digital: 0001Z - 2359Z
09 - 11	CQ-WE Contest: 1900Z - 2300Z Nov 9: (CW/Digital); 0100Z - 0500Z Nov 10: (Phone); 1900Z - 2300Z Nov 10: (Phone); 0100Z - 0500Z Nov 11: (CW/Digital)
12	Worldwide Sideband Activity Contest: 0100Z - 0159Z
12	DARC FT4 Contest: 1900Z - 2000Z
13 & 20	VHF-UHF FT8 Activity Contest: 1700Z - 2100Z
13	RSGB 80m Autumn Series, Data: 2000Z - 2130Z
16	SARL Newbie Contest
16 - 17	ARRL EME Contest: 0000Z - 2359Z
16	REF 160-Meter Contest: 1700Z - 2359Z
16	RSGB 1.8 MHz Contest: 1900Z - 2300Z
16 - 18	ARRL Sweepstakes Contest, CW: 2100Z - 0300Z
18	RSGB FT4 Contest: 2000Z - 2100Z
19	Worldwide Sideband Activity Contest: 0100Z - 0159Z
23	SARL 40m Club Contest
23 - 24	CQ Worldwide DX Contest, CW: 0000Z - 2400Z
26	Worldwide Sideband Activity Contest: 0100Z - 0159Z
27	UKEICC 80m Contest: 2000Z - 2100Z
28	RSGB 80m Autumn Series, CW: 2000Z - 2130Z
Contests and Events - December 2024 / Kompetisies en Gebeure - Desember 2024 (UTC Times)	
03	Worldwide Sideband Activity Contest: 0100Z - 0159Z
05	NRAU 10m Activity Contest: 1800Z-1900Z (CW); 1900Z- 2000Z (SSB); 2000Z-2100Z (FM); 2100Z-2200Z (Digital)
07	Pretoria Amateur Radio Club Boot Sale: 09h00 - 12h00
07	Pretoria Amateur Radio Club Annual General Meeting: 12h00 - 13h00
06 - 08	ARRL 160-Meter Contest: 2200Z - 1600Z
07 - 08	PRO CW Contest: 1200Z - 1159Z
10	Worldwide Sideband Activity Contest: 0100Z - 0159Z
11	VHF-UHF FT8 Activity Contest: 1700Z - 2100Z
14 - 15	ARRL 10-Meter Contest: 0000Z - 2400Z
14 - 15	International Naval Contest: 1600Z - 1559Z
17	Worldwide Sideband Activity Contest: 0100Z - 0159Z
18	NAQCC CW Sprint: 0130Z - 0330Z
21 - 22	Croatian CW Contest: 1400Z - 1400Z
22	ARRL Rookie Roundup, CW: 1800Z - 2359Z
24	Worldwide Sideband Activity Contest: 0100Z - 0159Z
26	DARC Christmas Contest: 0830Z - 1059Z
31	Worldwide Sideband Activity Contest: 0100Z - 0159Z
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	

NOTIFICATION: PARC ANNUAL GENERAL
MEETING: 07 December 2024
KENNISGEWING: PARK ALGEMENE
JAARVERGADERING: 07 Desember 2024



94th ANNUAL GENERAL MEETING
94^{ste} ALGEMENE JAARVERGADERING
Pretoria Amateur Radio Club



Pretoria Old Motor Club
Keuning Str. Silverton

Venue:

Saturday 07 Desember 2024

Time: 12h00

Agenda: To be published

Plek:

Saterdag 07 Desember 2024

Tyd: 12h00

Agenda: Sal gepubliseer word

NB

Nominations awaited. Latest acceptance by 11h30 on 07 Desember 2024
Nominasies word afgewag. Laatste indiening teen 11h30 op 07 Desember 2024

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 2024 PARC AGM

Volmag om namens my te stem tydens die 2024 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 **07 December 2024 at 11h30 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 11h30 op 07 Desember 2024** 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		

Agenda for the 94th Annual General Meeting of PARC
At 12h00 on Saturday the 7th of December at the Pretoria Old Motor
Club, Silverton

Agenda vir die 94^{ste} Algemene Jaarvergadering van PARK
Om 12h00 op Saterdag die 7^{de} December by die Pretoria Ou
Motor Klub, Silverton

- 1 Welcome and Attendance / Verwelkoming en Teenwoordigheid
- 2 Apologies and Proxies / Verskonings en Volmagte
- 3 Declaration of Quorum / Verklaring van Kworum
- 4 Opening: PARC Chairman : Louis de Wet ZS6SK
- 5 Minutes of Previous AGM / Notules van Vorige AJV: Irene Myburgh ZS6IEA
- 6 Treasurer's Report / Penningmeester Verslag: Graham Reid ZS6GJR
- 7 Appointment of Auditor / Aanstelling van Ouditeur
- 9 Chairman's Report / Voorsitter Verslag: Louis de Wet ZS6SK
- 10 Discussion of Motions / Bespreking van Mosies
- 11 Election of Committee 2024-25 / Verkiesing van Komitee 2024-25
- 12 General Matters / Algemene Sake
- 13 Guest Speaker / Gasspreker : **To be announced**
- 14 Closing / Afsluiting
- 15 Lunch / Middagete

PRETORIA AMATEUR RADIO CLUB WILL SUPPLY ALL MEAT,
SALADS, AND EATING UTENSILS FOR LUNCH. ALSO INCLUDED ARE
TWO SOFT DRINKS. ALCOHOLIC DRINKS CAN BE PURCHASED
FROM THE BAR.

PRETORIA AMATEUR RADIO KLUB VOORSIEN AL DIE
VLEISGEREGTE, SLAAI EN EETGEREI VIR DIE MIDDAGETE. OOK
INGESLUIT IS TWEE KOELDRANKE. ALKOHOLIESE VERVERSINGS
KAN BY DIE KROEG AANGEKOOP WORD.





PARC 95

95TH ANNIVERSARY OF THE PRETORIA AMATEUR RADIO CLUB

The Pretoria Amateur Radio Club will celebrate it's 95th Anniversary on the 16th of May 2025. More details to follow soon.

Die Pretoria Amateur Radio Klub vier sy 95^{ste} Herdenking op die 16^{de} Mei 2025. Meer details volg binnekort.

PARK 95

95^{STE} HERDENKING VAN DIE PRETORIA AMATEUR RADIO KLUB



DX and IOTA News

This is the second of a monthly information series on DX and IOTA News, which is also presented during Sunday morning PARC bulletins. All information and photographs are obtained from the <https://dxnews.com/> website and they are hereby credited. Where individuals are credited for their photographs which appear on the <https://dxnews.com/> website, they are also credited in this presentation.

5H3MB Tanzania 5H3MB. Maurizio Buffoli, IK2GZU will be active again from Tanzania, 10 October - 11 November 2024, as 5H3MB. He will operate on 80 - 10m, CW, SSB, Digital Modes.

3D2AG/P Rotuma Island Antoine, 3D2AG will be active as 3D2AG/P from Rotuma Island, IOTA OC - 060, during October - November 2024. He will operate on 160 - 6m, CW, SSB. Rotuma Island and nearby islands are located 646km north of Suva, Fiji.

3DA0DL Eswatini 3DA0DL Team will be active from Eswatini, 25 October - 9 November 2024. Team - DK1BT, DL4WK, DL6SAK, DL7BO, DL7UFR. They will operate on HF Bands. 28 Oct: Last night we had a storm, rain and thunderstorms like we've never seen before. Our hostel parents were worried about our antennas. Both Spiderbeams defied the storm. Unfortunately, the storm was accompanied by a power cut that lasted several hours.

E6AQ Niue Island Jacek, SP5EAQ will be active as E6AQ from Niue Island, IOTA OC - 040, 22 October - 9 November 2024. He will operate on 80 - 10m.

V55LA Namibia V55LA Team will be active from Namibia 30 October - 11 November 2024. Team - Members of the [Amateur Radio](#) DX Peditions Norway, LA7THA, LB5GI, LB1QI, LA3BO, LB8DC, LA8OM, OE7PGI, LA9KKA, LB1FI. They will operate on HF Bands.

VK9CV Cocos Keeling Islands VK9CV will be active from [Cocos - Keeling Islands](#), IOTA OC - 003, 1 - 15 November 2024. Team - Members of OM7M and CDXP, OM5ZW, OM4AYL, OK6DJ, OK2ZA, OM3PC, OM4MM, OM4MW, VK5GR. They will operate on 160 - 10m, CW, SSB, FT8, RTTY and QO - 100.

ZS7ANF Wolfs Fang Runway Antarctica Oleg, ZS1ANF will be active as ZS7ANF from Antarctica until February 2025. He will operate on 40 - 10m Bands.

XT2MD Burkina Faso XT2MD Team will be active from Burkina Faso, 31 October - 11 November 2024. Team - I8KHC, IZ4UEZ, IZ2GNQ, DL8JJ, OK2WX, HB9TOC, IU3PMA, F6IRA, YO8PS, DJ5IW. They will operate on HF Bands and EME.

ZL7IO Chatham Islands Holger, ZL3IO will be active again as ZL7IO from [Chatham Islands](#), New Zealand starting 25 October 2024. He will operate on HF Bands

JD1BLY Chichi Jima Island Ogasawara Islands JI5RPT will be active again as JD1BLY, from Chichi Jima Island, IOTA AS-031, Ogasawara Islands, 7 - 10 November 2024. He will operate on 40 - 6m, CW, SSB, FT8.

DM70DXMB - DXMB Radio Amateurs members of the DARC e.V. DARC Team SES will be active using special call sign DM70DXMB celebrating 70th Anniversary of the DARC DX Newsletter DXMB, DX-Mitteilungsblatt. They will operate on HF Bands.

Radio Communications by PARC Members 2024 Toyota Gazoo Ermelo Rally

The 2024 Toyota Gazoo Ermelo Rally was held on Friday to Saturday the 27th and 28th of September. Pretoria Amateur Radio Club Members worked very hard from early morning to after sunset in hot and windy conditions with Graham Reid ZS6GJR operating control supported by his spouse Joey. Irene Myburgh ZS6IEA fulfilled a critical role as race secretary, while her husband Pieter ZS6PAM assisted in Car 0. Roy Newton ZS6XN and Louis de Wet ZS6SK did service at several field stations during both days, while Willie ZS6WVN and Annelie ZS6AVN van Niekerk did service as race marshals. Photos below focused more on PARC member activities, but I could not resist the temptation to include two action shots I took at one of the stages.





Photos & videos by Louis de Wet ZS6SK

Pretoria Amateur Radio Klub Snuffelmark

PARK se lente snuffelmark het plaasgevind op die 5^{de} Oktober by die gebruiklike Pretoria ou Motorklub. Daar was baie verkopers en besoekers van verskeie klubs en die verkope van toerusting en worsrolle was goed gewees. Pretoria Amateur Radio Klub bedank van harte vir Alméro Du Pisani ZS6LDP vir die reël van die geleentheid en Irene Myburgh ZS6IEA en Louis de Wet ZS6SK vir die verkope van die worsrolle. Die volgende snuffelmark vind weer plaas op die 7^{de} Desember by die Pretoria ou Motorklub wat gevolg word deur die Algemene Jaarvergadering van PARK.





Motor Rallies: Preliminary Dates of Events for 2024 Motor Tydrenne: Voorlopige Datums vir 2024

  2024 SA National Rally Championship Northern Regions Rally Calendar 				
Round	Date	Event	Location	Country
National 1 & 2 Regional 1 & 2	15 - 16 March	Ermelo	Ermelo	Mpumalanga
National 3 & 4 Double Pointer	12 - 13 April	Swartland Rally	Malmesbury	Western Cape
National 5 & 6 Regional 3 & 4	31 May - 1 Junie	Secunda Rally	Secunda	Mpumalanga
National 7 & 8	5 - 6 July	Algoa Rally	Gqebertha	Eastern Cape
National 9 & 10 Regional 5 & 6	30 - 31 August	Tzaneen Rally	Tzaneen	Limpopo
National 11 & 12 Regional	11 - 12 October	(Rain Date)	TBA	TBA
National 13 & 14 Regional 7 & 8	15 - 16 November	TRAC Rally	Dullstroom	Mpumalanga



Directors A RUTHERFORD, Dr. S LABUSCAGNE
Enterprise Number 2009/011303/08
ASSOCIATION INC UNDER SECTION 21
VAT Registration Number 4900 254 29 5

For More Rally information please contact the following Radio Marshalls:

Graham Reid ZS6GJR at: 083-701-0511 or greid@wol.co.za

Irene Myburgh ZS6IEA at: 082-462-6001 or irene.myburgh@outlook.com

Johan de Bruyn ZS6 JHB at: 079-333-4107 or zs6jhb@gmail.com

Long Term HF Propagation for November 2024 : 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.

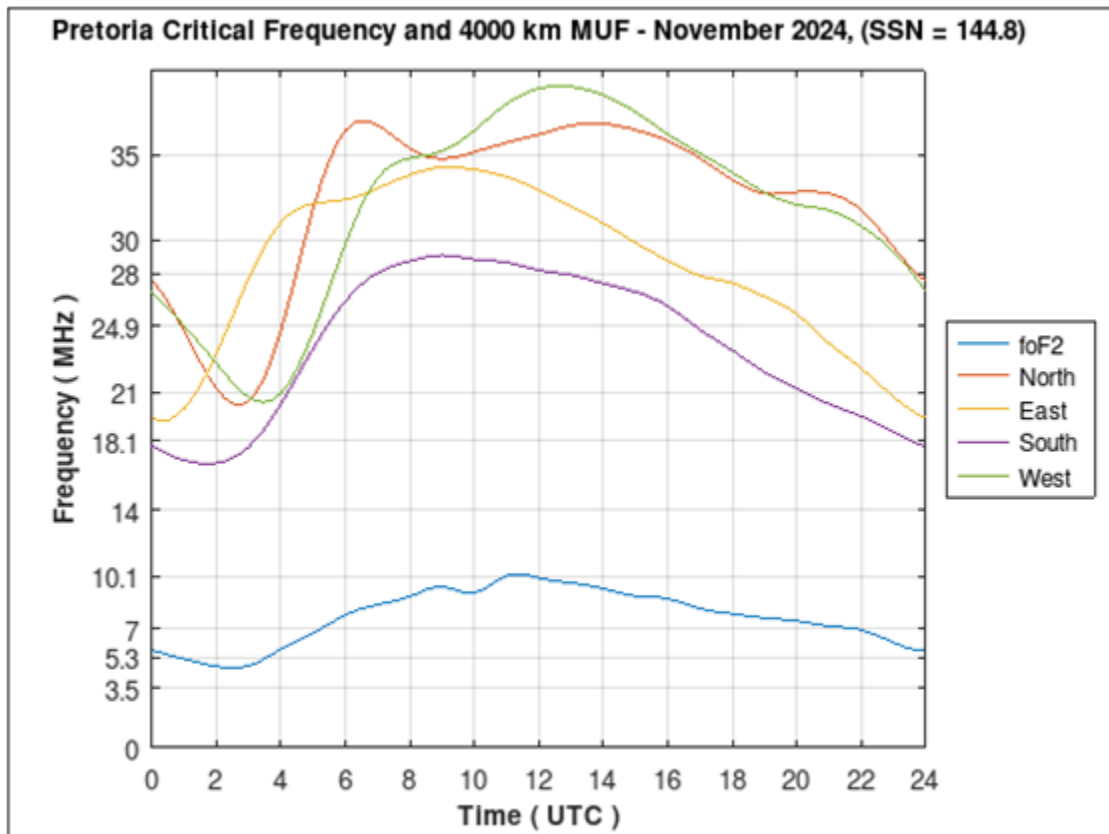
Long Distance Propagation: The MUF for a first hop of 4000 km in the cardinal directions is labeled North, East, South and West. They indicate the direction that propagation may be expected.

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]

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