




ZR6FD logo

WATTS

08/09-2014
Year 84 + 8/9m

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> mail: zs6pta@zs6pta.org.za

Bulletins: 145,725 MHz 08:45 Sundays/Sondae
Relays: 1.840, 3.700, 7.066, 10.135, 14.235, 51.400, 438.825, 1297 MHz
Activated frequencies are announced prior to bulletins

Swopshop: 2m and 7.066 MHz Live on-air after bulletins
Bulletin repeats Mondays | herhalings : Maandae 2m 19:45



Highlights of the PARC 84th AGM on Saturday 25 July 2014



Hans Kappetijn (ZS6KR) receiving the Voortrekker's gold medal for exceptional service, presented by Andries Visagie (ZS6VL).

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Next club events

Flea market at PMC
4 October 08:00

Club social at U.P.
Thursday 4 Sept 7:00PM

Club committee meeting
25 Sept 7:00PM

Editorial

It is with the utmost gratitude that the Pretoria Amateur Radio Club hereby wishes to thank Hans Kappetijn for the tremendous hard work and dedication he has put in with the production of the WATTS magazine the past ten years.

Due to personal circumstances, Hans has indicated that the July Issue of Watts would be his last, and appealed for someone to continue with the editing of the Newsletter.

I realise now, after volunteering for the task, how large, metaphorically speaking, the shoes are that I have to fill in order to comply to the high standards Hans has maintained during the years he has been the editor of Watts.

I hereby assure you as members of Pretoria Amateur Radio Club of my commitment to continue in this tradition Hans has established.

However, this task cannot be achieved alone, and I hereby appeal to all members to keep Watts up to date of any new developments, interesting information of a technical related nature, or any projects you may be undertaking. Please do contact me per email at louis.zs6sk@gmail.com if you have any suggestions or contributions to make.

I hereby thank the PARC Management Team for entrusting me with task, and believe that we will continue with the great Watts tradition. My sincere thanks to Hans Kappetijn for his assistance and advice to get this "first" issue out.

Sincerely.



Louis de Wet
ZS6SK

PARC AGM : 26 July 2014

The 84th Annual General Meeting of the Pretoria Amateur Radio Club was held on the 26th of July at the clubhouse of the Pretoria Old Motor Club. After opening and presentation of the minutes of the previous AGM, Pierre Holtzhausen, the Chairman of PARC presented his report for the year 2013/2014. In his report, Pierre thank each member sincerely for their individual contributions they have made during the past year. Pierre, before stepping down as Chairman of PARC, thanked all members for their support during his term.

Other items discussed under the Agenda included the Financial Report, Motions submitted for discussion, and the change of the PARC Logo, which was a detailed discussion with various viewpoints and ideas being raised. This matter has been postponed to a subsequent meeting where the final details of the Logo will be presented and accepted.

The next point of the Agenda was the presenting of Awards (Trophies and Merit Award Certificates) to various individuals who have in many ways excelled in the ways they have contributed to PARC. More on the awards presentation on Pages 3 and 4.

This was followed by the election of a new Committee and Chairman. Johan de Bruyn (ZS6JHB) was elected as the Chairman of PARC for the 2014/2015 year. We sincerely congratulate him on his achievement, and wishes him all the best in his position. The last item on the Agenda was an interesting presentation by Andries Visagie (ZS6VL) on the role of Amateur Radio within the Voortrekkers. The AGM was concluded with and excellent meal provided by Almero du Pisani (ZS6LDP) and his team. PARC hereby thanks Almero for his hard work for organising the Flea Market and lunch with the AGM.

Awards during AGM : 26 July 2014

The following persons received trophies and merit award certificates during the past AGM held on 26 July 2014:



Jan (ZS6OB) : Sunny Don & Jack Bennet



Pierre (ZS6PJH) : Hansie Meyer Trophy



Fritz (ZS6F) : Pretoria Ham Spirit Trophy



Vincent ZS6BTY : Valvoline RAE & Piet Roos



Theo (ZS6TVB) : Eric Brook Constructor's



Joey, Irene and Annatjie : ZSL Trophy



Jean (ZS6ARA) : Merit – SARL Bulletins



Merit Awards : Motor Rally Support

Awards Contd./

The following people also received trophies and merit award certificates during the PARC AGM:

Jaco Cronje (ZR6CMG) : Roy Alexander VHF Constructors Trophy (Best VHF Construction)
 Pierre Britz (ZR6ADZ) : Roy Alexander Rally Trophy (Best support at Motor Rallies)
 Hans Kappetijn (ZS6KR) : Swop Shop
 Vincent Harrison (ZS6BTY) : Contribution to RAE Classes
 Edmar Willers (ZS6UT) : Bulletin Reports on HF
 Jan Pienaar (ZS6OB) : Bulletin Reports on VHF
 Jean de Villiers (ZS6ARA) : ARTO Relays, Relay of SARL Bulletins and Best Bulletin Insert
 Tjerk Lammers (ZS6P) : Best Bulletin Insert

Contest Award Certificates awarded to : Jaco Cronje (ZR6CMG), Hans Gürtel (ZR6HVG), Whitey Joubert (ZS6JJJ), Sarel Stapelberg (ZS6EK), Theo Bresler (ZS6TVB), Rudi van Dyk (ZS6RVD), Juan van Dyk (ZS6VDJ), Craig Symington (ZS6RH), Raymond de Wet (ZS6ALG), Pieter Fourie (ZS6CN) and Johan de Bruyn (ZS6JHB).

New PARC Committee

The following persons were selected as the new Committee of PARC during the past AGM, as well as the first Committee Meeting held on 27 August 2014:

PARC Management team / Bestuurspan Aug. 2014 – Aug. 2015

Committee members:

Chairman, Social & Rallies	Johan de Bruyn	ZS6JHB	zs6jhb@gmail.com	012-803-7385	079-333-4107
Vice Chairman	Jan Pienaar	ZS6OB	pienaarja@gmail.com		082-447-7823
SARL liason	Fritz Sutherland	ZS6SF	fritzs@icon.co.za	012-811-3875	083-304-0028
Treasurer	Andre van Tonder	ZS6BRC	andre.vtonder@absamail.co.za	361-3292	082-467-0287
Web co-ordination	Graham Reid	ZR6GJR	greid@wol.co.za		083-701-0511
RAE, Bulletin co-ordinator	Vincent Harrison	ZS6BTY	zs6bty@telkomsa.net	012-998-8165	083-754-0115
Contests	Pierre Holtzhausen	ZS6PJH	zs6pjh@telkomsa.net	012-655-0726	082-575-5799
Repeaters	Craig Symington	ZS6RH	zs6rh@hotmail.co.za		081-334-6817
Fleamarket	Alméro Dupisani	ZS6LDP	almero.dupisani@up.ac.za		083-938-8955
Clubhouse	Pieter Fourie	ZS6CN	pieter2@vodamail.co.za	012-804-7417	083-573-7048
Auditor	Tony Crowder	ZS6CRO	tcrowder@telkomsa.net	011-672-3311	
Secretary, WATTS newsletter	Louis de Wet	ZS6SK	louis.zs6sk@gmail.com	012-349-1044	072-140-9893
Historian, Archives, Awards	Tjerk Lammers	ZS6P	zs6p@iafrica.com	012-809-0006	
Photographer, Technical	Theo Bresler	ZS6TVB	theo@bresler.co.za		082-698-1742

Birthdays / Verjaarsdae August

01 Susan Blackburn (ZS6SUE)
 03 Paul Sterling (ZS6BMF)
 05 Hans Gürtel (ZR6HVG)
 07 Jacobus (Whitey) Joubert (ZS6JJJ)
 08 Marnix Claeys (ZS6MCM)
 08 Raymond de Wet (ZS6ALG)
 08 Tobie Jansen van Rensburg (ZS6ZX)
 15 Molly Peer (ZR6MOL)
 16 Pieter Swanepoel (ZS6BOB)
 25 Paul van der Hoven (ZS6BAQ)
 28 Jean de Villiers (ZS6ARA)



September

07 Johann van den Bergh (ZS6ETA)
 19 Andries Hendriks (ZSL006)
 21 Jan Volschenk (ZR6JJV)
 21 Johan de Bruyn (ZS6JHB)
 26 Graham Reid (ZS6GJR)

Spouse's Birthdays

August

02 Marelise, Spouse of Pierre (ZS6PJH)
 09 Helga, Spouse of Hans-Peter Knoepfler (ZS6AJS)
 15 Molly, Spouse of Richard Peer (ZS6UK)

No Spouse's birthdays during September

Anniversaries / Herdenkings

August

15 Jan and Engela Volschenk (ZR6JJV)

September

03 Pieter and Charlotte Swanepoel (ZS6BOB)
 28 Jan and Erika Pienaar (ZS6OB)

Lief en Leed / Joy and Sorrow

Lynn, the sw of Andre ZS6BRC is recovering well after being treated in hospital. We wish Lynn a speedy recovery.

Diary | Dagboek (UTC times)

September

06 Russian RTTY WW Contest : 0h00 – 23h59
06-07 All Asian DX Contest, Phone : 0h00 – 24h00
06 – 07 IARU Region 1 Field Day : 13h00 – 12h59
06 – 07 RSGB SSB Field Day : 13h00 – 13h00
07 DARC 10-meter Digital Contest 11h00 – 17h00
13 SARL Radio Technology in Action : Innovation Hub, Pretoria
13 – 14 WAE DX Contest SSB : 0h00 – 23h59
13 – 14 SARL VHF/UHF Analogue/Digital Contest : 10h00 – 10h00
20 – 21 Scandinavian Activity Contest : 12h00 – 12h00
27 – 28 CQ Worldwide DX Contest, RTTY : 0h00 – 24h00

Dave Larsen Shack Equipment

Hans Kappetijn (ZS6KR), Frank Schneider (ZS6GE) and later Tjerk Lammers (ZS6P) have completed the tremendous task of clearing the shack and radio laboratory of the late Dave Larsen (ZS6DN). PARC hereby thanks these gentlemen for the hard work they have done, and for making available a lot of equipment for sale. As a result of their efforts, the widow of Dave, Ursula Larsen received a considerable amount from the sales. Ursula was so kind to make a most generous donation to PARC. We sincerely thank Ursula for her generosity.

PARC SUBS / LEDEGELD 30-06-2014

Please remit your subs in time to our Treasurer or by transfer to:

Betaal asb. U ledegeld betyds aan ons tesourier of per ooplasing aan:

Bank : FNB Ordinary members/ gewone lede R150
Branch : 25 20 45 Spouses, pensioners R50
Account : 546 000 426 73

Your call sign must appear as statement text!

Competition News August

The SARL HF Phone Contest was held on 3 August 2014. Thirty logs were submitted, which consisted of a total of 1 993 QSO's. Of these, 142 QSO's were made on 20 meters, 1 477 QSO's on 40 meters, and 374 QSO's on 80 meters. PARC members achieved the following positions:

2nd : Hans Kappetijn (ZS6KR) : 182 points
8th : Theo Bresler (ZS6TVB) : 132 points
13th : Pierre Holtzhausen (ZS6PJH) : 95 points
30th : Johann van den Berg (ZS6ETA) : 21 points

Our sincere congratulations to these gentlemen for their achievements.

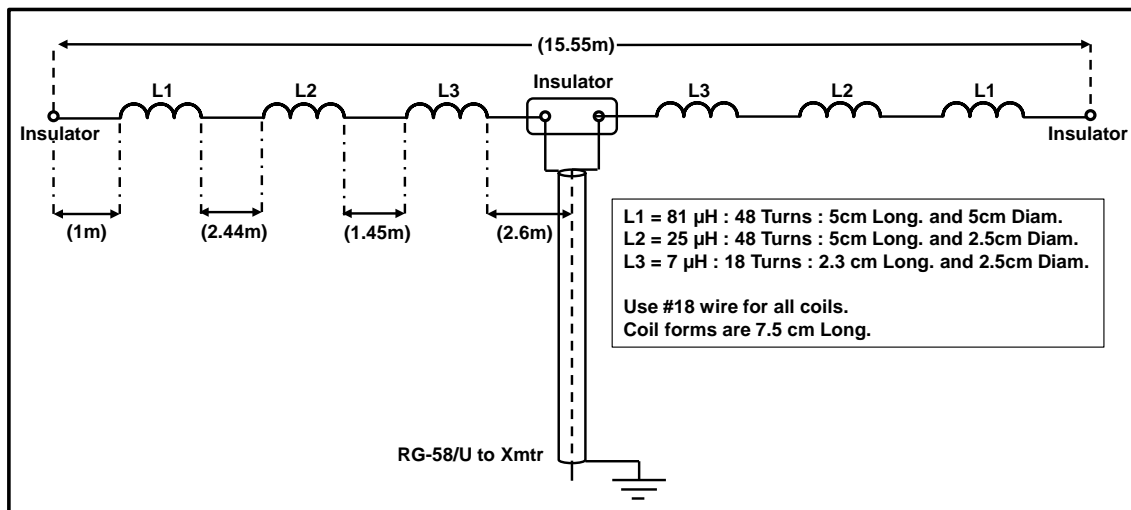
In the Club completion, the following results were obtained:

1st : Bloemfontein ARC : 443 points
2nd : West Rand ARC : 440 points
3rd : Pretoria ARC : 430 points

The W4JRW Loaded Dipole for Multiband Operation

By Jan Pienaar (ZS6OB)

W4JRW, who has been a pioneer in the design of the coil-loaded dipole, has developed an interesting multiband antenna for the HF band (Figure). By proper placement of the loading coils (which also act as rf chokes at certain frequencies), W4JRW has developed an antenna only 15.55m long that provides superior performance on four bands. Three loading coils are used in each half of the antenna. With the dimensions shown, the resonant frequencies of the antenna are 3.9 MHz, 7.25 MHz, 14.2 MHz and 28.6 MHz. The antenna is not resonant on the 15 meter band.



The coils are wound on short sections of PVC tubing. Each coil form is 7.5cm long. Antenna resonance for each band is established by varying the length of the interconnecting wires for the lowest SWR on the transmission line. The proper sequence of adjustment is to start with the highest frequency band first, progressing towards the lower frequency bands in sequence.

Introduction to Automated Packet/Position Reporting System

Automated Packet Reporting System (APRS), developed by Bob Bruninga (WB4APR), is a light-weight amateur radio-based system that allows real time location/position, data and tactical information to be communicated (transmitted) in single data packets, which can be of immediate value in a local area.

Data received by the APRS Internet System (APRS-IS) is distributed globally for ubiquitous and immediate access. In addition to messages, alerts, announcements and bulletins, APRS has an added feature in its map display. Any object or information can be placed by anybody on his or her map, and it will be distributed to all maps of all users in the local RF network or those monitoring the area via the Internet.

Any station, radio or object with an attached GPS is automatically tracked by the APRS system. The usefulness of this system for individuals or groups participating in mountaineering, camping or expeditions in remote areas is quite obvious. Other useful map features included with APRS are weather stations, alerts and objects and other map-related amateur radio volunteer activities such as search and rescue and signal direction finding.



An APRS beacon transmitter with GPS receiver



APRS packets are transmitted for all other stations to hear and use. Packet repeaters, or digipeaters form the backbone of the APRS system. Store and forward technology are used to retransmit packets. All stations operate on the same frequency (144.800 MHz in SA), and packets move through the network from digipeater to digipeater, propagating outward from their point of origin. All stations within radio range of each digipeater receive the packet. At each digipeater, the packet path is changed. The packet will only be repeated through a certain number of digipeaters (or hops), depending on the "Path" setting. Digipeaters keep track of the packets they forward for a period of time, thus preventing duplicate packets from being re-transmitted.

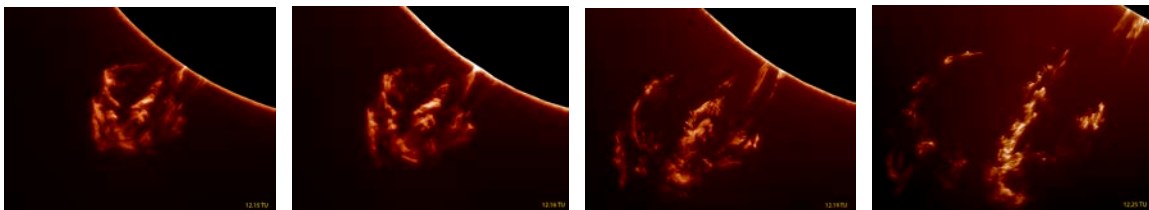
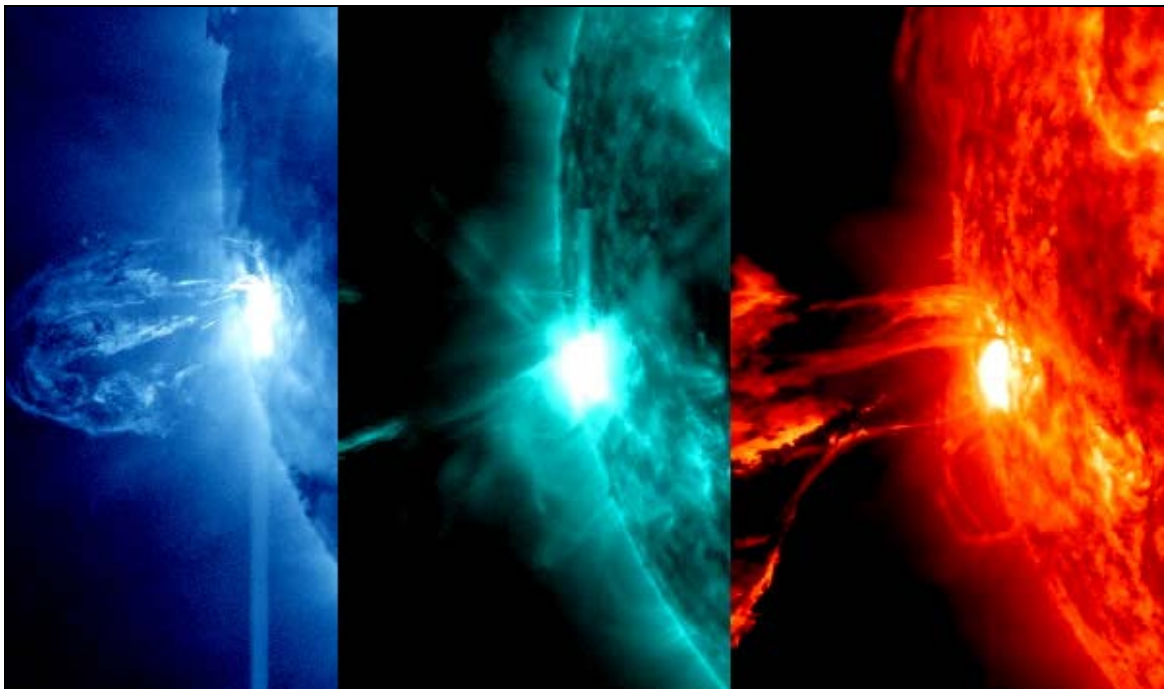
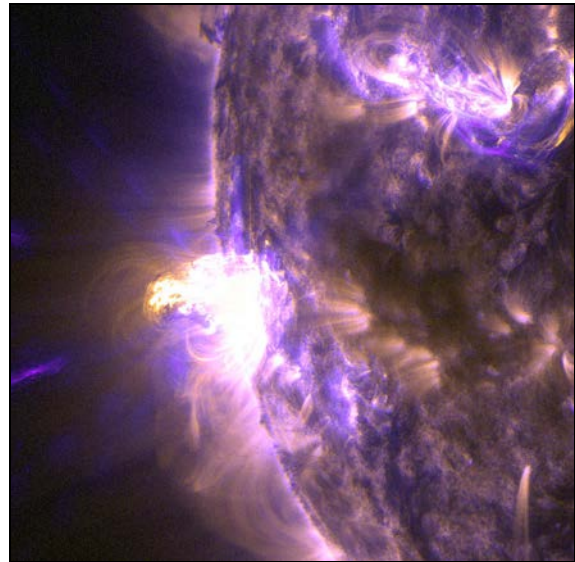
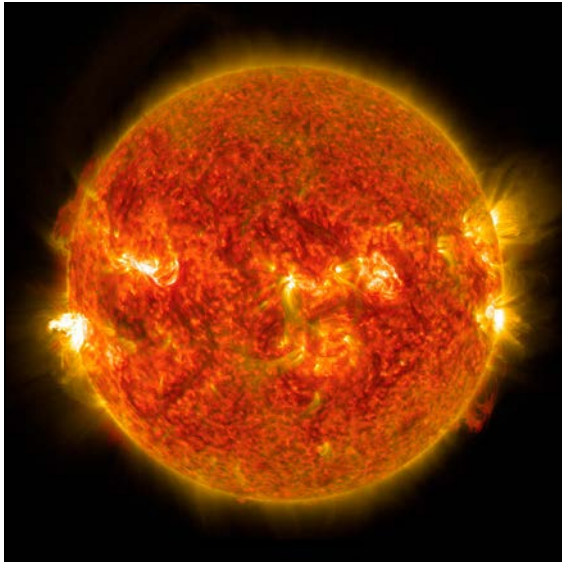
Applications of APRS

- Post Disaster Management
 - Damage assessment
 - Liaison tracking
 - Logistics management
 - Site talk in
- Search and Rescue
- Mountaineering & Expeditions
- Public Service Events
 - Bike and Motor Rallies

[More on APRS in next month's WATTS](#)

A number of radios are available which include a built-in AX.25 Terminal Node Controller and APRS software. These radios are capable of working with or without the need for an external GPS device. Models which include these facilities are the Kenwood TM-D700A & TM-D710A, and the handheld Kenwood TH-D72. Yaesu offer the FT1DE/DR handheld and FTM-400DE/DR mobile transceivers with full APRS capabilities.

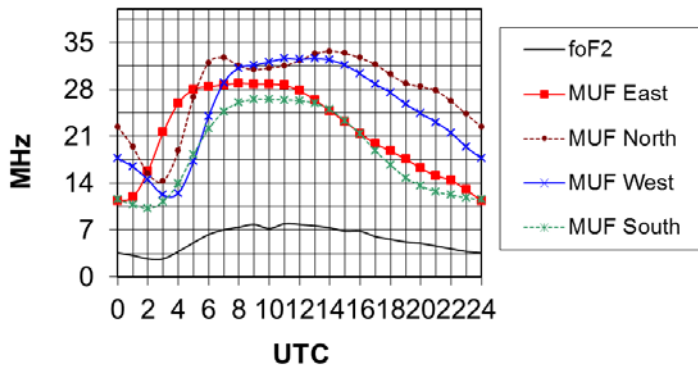
Spectacular Solar Flare on August 24



The photographs presented above were recorded by astronomers during the solar flare which erupted on 24 August from an active sunspot known as AR 2151. The flares were first detected by NASA's Solar Dynamics Observatory and Solar Heliospheric Observatory (SOHO). This flare was an intense M5.6 eruption, which is about 10 times weaker than a X-class flare, which are the most powerful storms on the sun. The least intense is a C-class, while M-class flares are ranked as mid-range. Some of these flares could be at least 14 times the size of the Earth. While sunspot AR2151 was not facing the earth during the time of the flare, it is currently turning towards the earth, boosting chances for geo-effective solar activity.

The sun is going through an 11 year cycle, which at its peak is known as a solar storm maximum. The sun is currently going through Solar Cycle No 24. Please visit NASA's SOHO website for more photographs, information and video files at <http://sohowww.nascom.nasa.gov/>

**F2 Critical Frequency and 4000 km MUF
Pretoria - September 2014**



**Long Term HF Propagation
for September 2014**

DX Operating

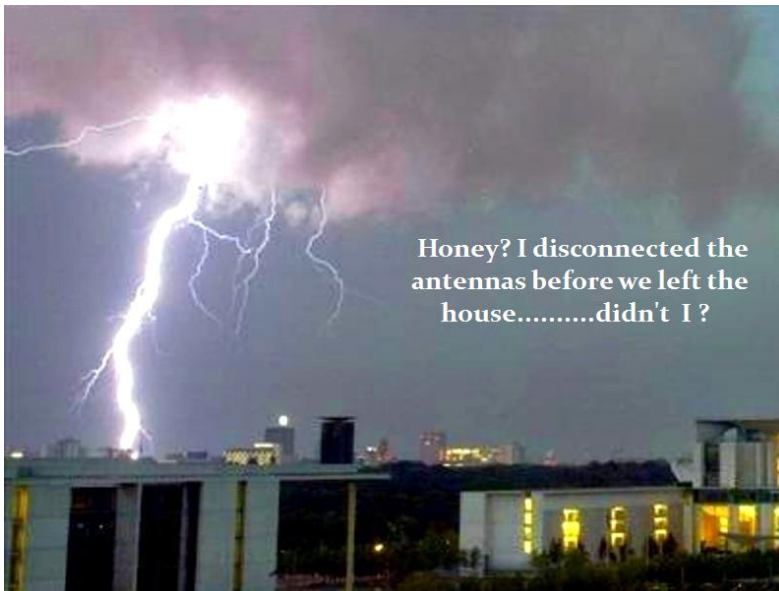
The graph shows the 4000 km maximum useable frequency (MUF) to the East, North, West and South from Pretoria for the first hop using the F2 layer.

Local Operating

The F2 critical frequency (foF2) is the maximum F-layer frequency for short range communications.

See also the Propagation tab at <http://www.parc.org.za/>

Courtesy Vincent ZS6BTY



Amateur Radio Hall of Fame

Marlon Brando (1924-2004)



KE6PZH and FO5GJ (Silent Key)

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If I have seen further than others, it is by standing on the shoulders of Giants. Isaac Newton (1642 – 1726/7)