



WATTS 03-2017

Year 87 + 03m

Monthly Newsletter of the Pretoria Amateur Radio Club
Maandelikse Nuusbrieff van die Pretoria Amateur Radio Klub

✉ PARC, PO Box 73696, Lynnwood Ridge 0040, RSA
🌐 <http://www.parc.org.za> zs6pta@zs6pta.org.za



Bulletins : 145.725 MHz on Sundays / Sondag at 08:45
Relays: 1.840, 3.700, 7.066, 10.135, 14.235, 51.400, 438.825, 1297 MHz
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 19:45



PARC Chairman Graham Reid ZS6GJR recovering at home

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Club Meetings / Klub Vergaderings

Club Social Meeting :
Saturday the 4th of March 2017 from
14h00 at SAM

Committee Meeting :
Wednesday the 8th of March 2017
from 19h00 at POMC

PARC Flea Market dates for 2017 / PARK Vlooiemark datums vir 2017

25 March / 25 Maart ; 6 May / 6 Mei ; 29 July / 29 Julie ; 28 October / 28 Oktober

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

PARC Committee Members / Komiteede : 2016 - 2017

<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, Repeater & Rallies	Johan de Bruyn	ZS6JHB	zs6jhb@gmail.com	012-803-9418	079-333-4107
Bulletins, RAE & Liason	Etienne Naude	ZS6EFN	etienne@afrigrid.com	012-661-6745	082-553-0542
Treasurer	Andre van Tonder	ZS6BRC	andre.vtonder@absamail.co.za	012-361-3292	079-869-0753
Clubhouse Manager	Pieter Fourie	ZS6CN	pieterzs6cn@gmail.com	012-804-7417	082-573-7048
Social	Whitey Joubert	ZS6JJJ	zs6jjj@gmail.com	012-993-2267	072-120-4516
Secretary, Watts & RAE	Louis de Wet	ZS6SK	louis.zs6sk@gmail.com	012-349-1044	072-140-9893
<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	
Historian, Archives, Awards	Tjerk Lammers	ZS6P	zs6p@iafrica.com	012-809-0006	083-976-4387
Contests	Jaco Cronje	ZR6CMG	jacocronje@yahoo.com		081-474-2220
Contests	Pierre Holtzhausen	ZS6PJH	zs6pjh@telkomsa.net	012-655-0726	082-575-5799

Birthdays / Verjaarsdae – March / Maart

14 Uys Classen ZS6UYS	22 Julian Bouttell ZS6AOU
22 Ivan Jancuska ZS6CCW (Hon Member)	25 Doréén de Bruyn ZR6DDB
27 Sarel Stapelberg ZS6EK	

Spouse's Birthdays / Verjaardae – March / Maart

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 / Herdenkings – March / Maart

25 Irene ZS6EIA en Pieter ZS6PAM Myburgh
 26 Sharmaine en Louis de Wet ZS6SK
 27 Fiona en Etienne Naude ZS6EFN

Lief en Leed / Joys and Sorrows

Graham Reid ZS6GJR is still recovering at home from broken ribs. We wish him a speedy recovery. Graham, Joey and his mother depart on the 11th of March for a holiday at the coast.



On the 13th of February, the grandson of Ivan ZS6CCW (Hon. Mem) and Vlasta Jankuska was born. Here he is with his parents David and Claire. PARC congratulates, and wishes them all the best with their new-born son.

Contests and Diary of Events – March 2017 / Kompetisies en Dagboek van Gebeure – Maart 2017 (UTC Times)

04 - 05	ARRL International DX Contest, SSB : 00h00 – 24h00
05	DARC 10-Meter Digital Contest : 11h00 – 17h00
05	SARL Hamnet 40m Simulated Emergency Contest : 12h00 – 14h00
11	Beacon Workshop at NARC (See SARL website)
11 - 12	RSGB Commonwealth Contest : 10h00 – 10h00
11 - 12	SARL VHF/UHF Analogue/Digital Contest : 10h00 – 10h00
18 - 19	Russian DX Contest : 12h00 – 12h00
25	PARC Fleamarket : 10h00 – 13h00
25 - 26	CQ WW WPX Contest, SSB : 00h00 – 23h59

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 ledegedelde 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 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.

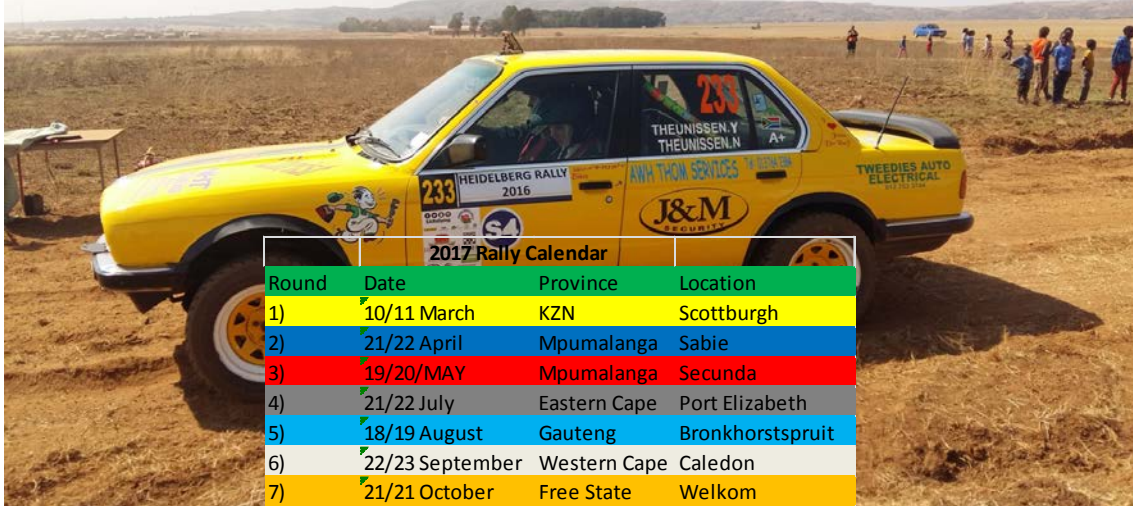
PARK Bulletins word op Sondar oggende aangebied om 08h45, na die SARL Bulletins in Engels en Afrikaans, vanaf 08h15. The Bulletin aanbieders vir die volgende twee maande word onder aangedui. Kontak gerus die toepaslike Bulletin leser indien u 'n bydrae tot die Bulletin wil maak. PARK Bulletins word uitgesaai 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 2017			
Date	Presenter	Date	Presenter
19 February	Tjerk Lammers ZS6P	9 April	Louis de Wet ZS6SK
26 February	Johan de Bruyn ZS6JHB	16 April	Almero du Pisani ZS6LDP
5 March	Louis de Wet ZS6SK	23 April	Etienne Naude ZS6EFN
12 March	Almero du Pisani ZS6LDP	30 April	Tjerk Lammers ZS6P
19 March	Etienne Naude ZS6EFN	7 May	Johan de Bruyn ZS6JHB
26 March	Tjerk Lammers ZS6P	14 May	Louis de Wet ZS6SK
2 April	Johan de Bruyn ZS6JHB	21 May	Almero du Pisani ZS6LDP

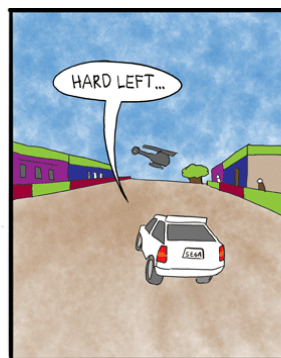
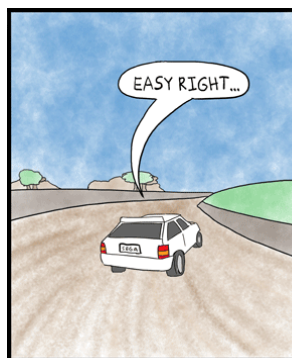
Please do contact Etienne Naude ZS6EFN or Jean de Villiers ZS6ARA for more information or any Bulletin arrangements

Rally News 2017 : Tydren Nuus 2017

Die 2017 tydren seisoen belooft om weer net so opwindend te wees. Indien u sou belangstel om met radio ondersteuning betrokke te raak, kontak gerus vir Johan de Bruyn ZS6JHB by 079-333-4107 of zs6jhb@gmail.com



Never take google map too seriously!



www.funnywebcomic.com (c) Cameron Davis 2011 cameron@planet-man.com

2017 Cross Country Championship Calendar

31 March – 1 April	Round 1	Lichtenburg
12 & 13 May	Round 2	Dundee Battlefields Lodge
23, 24 & 25 June	Round 3	Jwaneng Botswana
28 & 29 July	Round 4	TBC
15 & 16 September	Round 5	Sun City
27 & 28 October	Round 6	TBC



The Donaldson Cross Country Championship is a national off-road racing series in line with the Dakar Rally. It consists of 6 Southern African events.

If you want to join in the fun, contact Johan de Bruyn ZS6JHB, cell: 079-333-4107, or sent e mail to zs6jhb@gmail.com

Die Donaldson Veldren Kampioenskap is 'n nasionale veldren reeks in lyn met die Dakar-tydren. Dit bestaan uit 6 Suider-Afrikaanse veldrenne.

As jy wil deel in die pret, kontak Johan de Bruyn ZS6JHB, sel: 079-333-4107 of stuur e-pos aan zs6jhb@gmail.com

Cut the Noise: Listening on Antennas for Other Bands : Johan ZS6JHB

Some Good Advice:

As a ham I like learning new ways to improve the quality of DX signals. Last summer, I received some help from a knowledgeable ham who taught me the trick of using off-tuned antennas to hear signals buried down in the noise. By “off-tuned,” I mean receiving on antennas cut for a different frequency than the band one is trying to work, or purposefully adjusting your antenna tuner to an off-tuned setting. **Do not be “That Guy”**

Some of us live at a noisy QTH. We can work to reduce that noise, but in a big city, there is sometimes not a lot you can do. As for myself, I was having a lot of difficulty hearing over the 40m static at my QTH. For weeks, I tried to work, but could only hear very strong stations on very good propagation days -- and it was painful. I studied my radio's DSP, and gave it a real workout. I tried several different configurations on a variety of basic antenna designs. Basic theory helped, and I knew I was getting out, and even receiving 57 to 59 reports once and a while, but I could barely hear the powerful stations coming back to me. Nobody wants to be “that guy” who gets out, but “doesn't have good ears,” but I have to admit, that is exactly who I was.

Solution to a Problem:

I continued working and listening for 40m DX every night, and was going deaf trying. After mentioning my predicament in a QSO, the more experienced ham suggested I try listening on my 20m monobander, but with a little added AF gain. It sounded like something that would not work, but understanding that he knew better,

I tried it, and whaddya know? I could suddenly hear signals that were not there before! Of course, I was not able to transmit well on that antenna, and tuning it did not help it approach my 40m monobander's signal power. Amazingly, however, I found I could listen on that off-banded wire, then flip a switch back to the resonant antenna for transmit. Happily, I now hear and work DX over the noise of my QTH that I did not even know was there. Although I learned to flip the switch carefully (and transmit on the correct antenna!), I am no longer, "that guy," and can work most of what I hear.

New Amateur Radio on International Space Station : Johan ZS6JHB

JIM/ANCHOR: This week's report opens with good news for the International Space Station: They're expecting a special delivery. It's a new radio that's been very much needed for several months now. Here's Amateur Radio Newsline's Mike Askins KE5CXP with the story.

MIKE'S REPORT: The newest amateur radio aboard the International Space Station is on its way: It's an Ericsson 2 meter VHF radio and it took off from Launch Pad 39A at the Kennedy Space Center with the launch of a SpaceX Falcon 9 rocket on Sunday February 19th. Its mission? To replace the Ericsson radio that failed aboard the space station several months ago. The Ericsson will be used for contact with educational groups and schools and for amateur packet radio in the Columbus module.

Frank Bauer KA3HDO, ARISS' International Chairman, reports that the Ericsson will be installed in the Columbus module and will take the place of the UHF radio that has been used in the meantime for some school contacts and APRS packet. Frank announced in a statement that he believed ARISS was making "great progress on the development of the new interoperable radio system that we hope to use to replace our aging radio infrastructure in the Columbus module and the Service module."

Ericsson VHF- The VHF handheld radio model that has been used by the ARISS program to connect students worldwide with astronauts on board the International Space Station (ISS) for over 16 years has given an error message and is unusable at this time. While the ARISS technical team evaluates the best path to restore operation from the Columbus module, ARISS contacts will be supported using the Kenwood radio in the Russian Service Module. During this period, the packet digipeater will be unavailable.



The ISS in full view from the Space Shuttle, and Astronaut Reid Wiseman, KF5LKT making contacts with radio hams during the US Field Day exercise in June 2014.

Occasionally, crew members of the ISS who are also radio hams, make random, unscheduled voice contacts with earth-bound radio hams. This generally takes place during their breaks, before sleeping time, or before and after meals.

In order to contact the ISS, a ground station should consist of a 2-meter transceiver with 25-100 watts of output power. The antenna should be a circularly polarized yagi capable of being pointed in both azimuth (N-S-E-W) and elevation. However, successful contacts have been made by using vertical and ground plane antennas. The beginner can consult http://www.amsat.org/?page_id=1869 for more information on getting started on all modes of amateur radio satellite operation. For daily updates on the current operating status of the ISS, the website <http://www.ariss.org/current-status-of-iss-stations.html> can be consulted.

For QSO's with the ISS, the following frequencies are currently in use: Voice and SSTV Downlink: 145.800 MHz (worldwide), Voice Uplink: 145.200 MHz (ITU Region 1 : Europe, Russia and Africa), VHF Packet Uplink and Downlink: 145.825 MHz (worldwide), UHF Packet Uplink and Downlink: 437.550 MHz, UHF/VHF Repeater Uplink: 437.800 MHz, and UHF/VHF Repeater Downlink: 145.800 MHz.

When contacting the ISS, the following call-signs are available: USA: NA1SS, Russian: RSOISS, European: DPOISS, OR4ISS, IROISS. The Packet Station Mailbox call-signs are RSOISS-11 and RSOISS. After making contact with the ISS, QSL cards can be obtained by consulting the following website: <http://www.ariss.org/qsl-cards.html>.



This Certificate is awarded to

Pretoria ARC ZS6PTA

for

Participation

In the

2016 SARL Field Day Contest (Combined)

Multi Operator Field Station

A handwritten signature in black ink, which appears to read 'Jaco Cronje ZS6C'.

Date 20170221

Contest Manager

South African Radio League
An IARU Member Society

This certificate was received by Pierre Holtzhausen from SARL in recognition for participation in the 2016 SARL Field Day Contest. If you would like to participate in radio contests, please do contact Jaco Cronje or Pierre. Their contact details are on page 2.

2004-2014



Antique Wireless Association of Southern Africa

The Antique Wireless Association of South Africa will be hosting a number of interesting outings during the coming months.

There are 3 possible outings for AWASA Members:

1) Skyclass classic scenic flight

AWASA would like to know who would be interested in a 20min scenic flight in the Douglas DC-3 Dakota or Douglas DC-4 Skymaster, at around R850 per person. See flyer at right for more information. This might take place within a month or two.

2) Visit to the Rand Society of Model Engineers

This will take place on Sunday, the 2nd of April. No entrance fee, and only R10-00 per ride on the miniature trains. For more information: www.rsme.co.za

3) Visit to the James Hall Museum of Transport

Possible date: Sunday the 21st of May when the museum will be celebrating International Museum day. For more information: www.jhmt.org.za

Please contact Jacques Scholtz for more information on membership of AWASA, and/or if you wish to join any (or all!) of these outings. XYL's and friends always welcome. jscholtzp@gmail.com



Enjoy a 20 minute scenic flight on the Douglas DC-3 Dakota or Douglas DC-4 Skymaster from Rand Airport and appreciate Gauteng like never before.

SkyClass Scenic Flights Schedule 2017	28 January	29 July
 SKYCLASS AVIATION "Flying on silver wings"	25 February	19 August
	25 March	30 September
	29 April	28 October
	27 May	25 November
	24 June	16 December

Contact us to book your ticket
enquiries@flyskyclass.com
011 541 9913 / 082 496 4081
www.flyskyclass.com

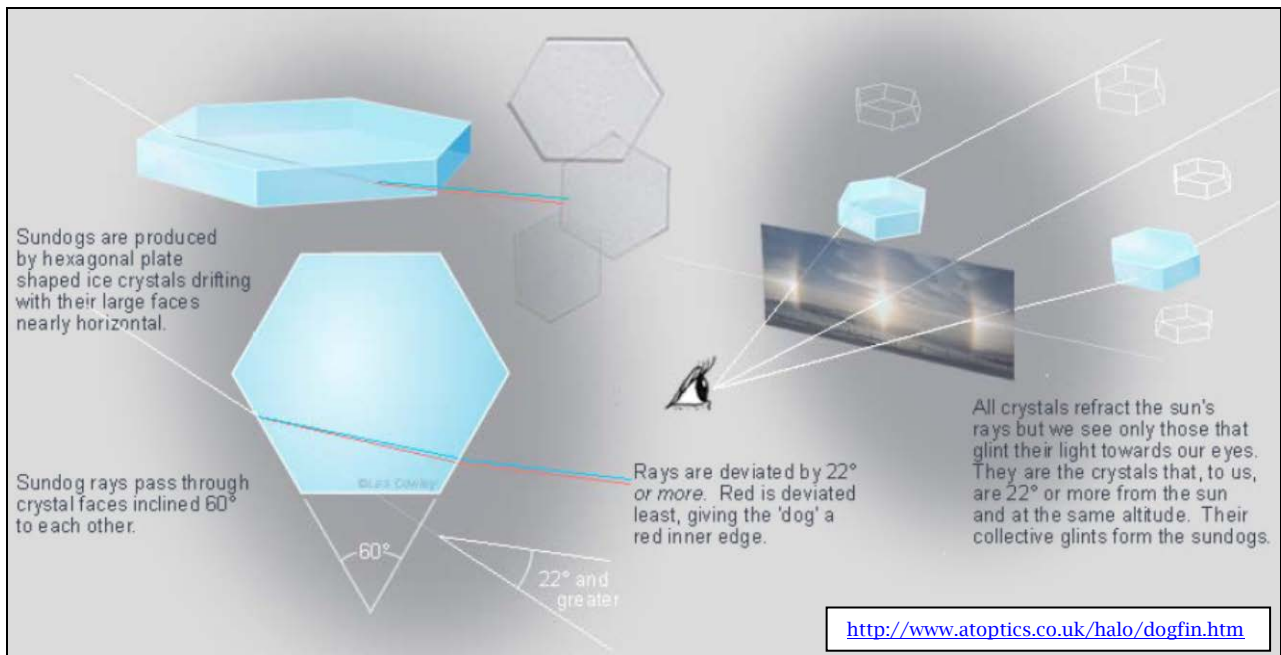
What are sun-dogs?

Seldom, halos around the sun are observed in South Africa under specific circumstances. However, the phenomenon of sun-dogs seems to be quite rare locally. Sun-dogs, mock suns or parhelion are created when sunlight is refracted off plate shaped ice crystals in cirrus clouds. Sun-dogs tend to be most visible when the sun is close to the horizon. The part of a sundog closest to the sun tends to be red in color, while the areas further away from the sun generally appear blue or green^[1].



^[1]<https://www.timeanddate.com/astronomy/optical-phenomenon.html>

Hexagonal ice crystals (diamond dust) formed during very cold weather conditions in cirrus or cirrostratus clouds drift in the air at low air levels, and act as prisms, bending light rays passing through them with a minimum deflection of 22° . As the crystals gently float downward, their hexagonal faces are turned nearly horizontal, and the sunlight is refracted horizontally. Subsequently, sun-dogs appear on the left- and right sides of the sun. Taller sundogs are produced as larger crystal plates wobble more than the smaller crystal plates.



It does not seem that sun-dogs might be present on the Earth only, and might be possible on other planets and moons in our solar system. It is thought that Mars might have sun-dogs formed by water- and carbon and carbon dioxide ice simultaneously. On the gas giants Jupiter, Saturn, Uranus and Neptune halos consisting of four or more sun-dogs can be produced by crystals formed from the clouds of ammonia, methane and other gases.

Where moth and rust doth corrupt: Louis ZS6SK

The “Iron Pillar of Delhi”, located at the center of the Quwwat-ul-Islam Masjid, the first Moslem mosques in Delhi and India, has, for the past 1600 years amazed and puzzled tourists and scientist alike that it remained rust-free. Weighing in at approximately 6 tons, and standing seven meters high, it has withstood cannon balls being fired at it by enemies, and worst of all, the onslaught of nature in the form of corrosion. The smooth blue-black cylindrical mass, with its rough, pitted base has a slot at the top, which could be the result of a section of the pillar went missing somewhere in history. It is however interesting that while most of the pillar is cover by a thin film of rust, the slot has always been rust free, a phenomenon that not be completely be explained by scientists.

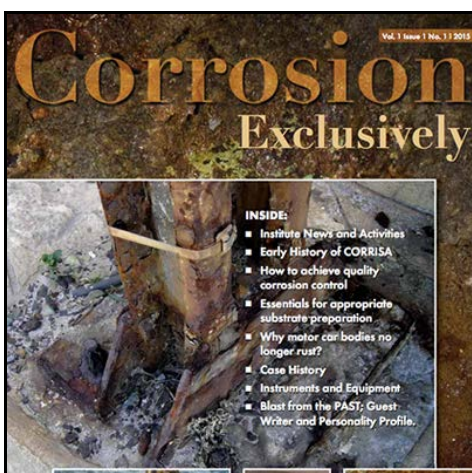


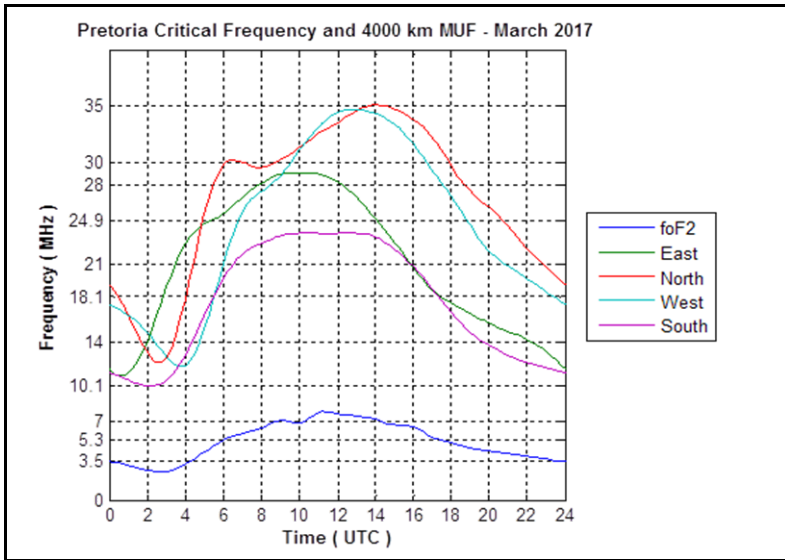
Various have been suggested regarding the corrosion resistance of the Delhi Tower, and may be in short be summarized as follows: (i) purity of the iron in the column, (ii) high phosphorous and (iii) low sulfur content, (iv) absence of any other metal, (v) cinder coating formed on the surface, (vi) high quality forge welding during construction, (vii) dry and uncontaminated atmosphere of Delhi, and (viii) mass effect of such a large volume of metal. For more information on the Delhi Pillar please consult the corrosion doctors website: <http://www.corrosion-doctors.org/Landmarks/Pillar.htm> .

Unfortunately, the Delhi Pillar is a very rare example where corrosion resistance is achieved to such an extent. Mankind has been plagued by corrosion in various form on any and metal structures that have been constructed. Corrosion prevention and development of metal alloys which are potentially corrosion resistant have become a multi-billion worldwide industry. Corrosion is found everywhere: motor vehicles, antennas, concrete reinforcing, ships, aircraft - the list is vast.

In Watts during the following months, an article series regarding corrosion, covering various aspects such as theory, occurrence and prevention, will be published.

If you are interested in corrosion in South Africa, feel free to visit the website of the Corrosion Institute of South Africa: <http://www.corrosioninstitute.org.za/> . The Magazine “Corrosion Exclusively” is published on a quarterly basis on the website, and hard copies send to Members of the Institute. A very interesting article series “Why motor car bodies no longer rust” can be found in the last three issues of this magazine.





Long Term HF Propagation for March 2017

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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