



# WATTS

**12-2015**  
Year 85 + 12m

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

PARC, PO Box 73696, Lynnwood Ridge 0040, RSA  
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**Bulletins : 145.725 MHz on Sundays / Sondae 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  
**Swopshop : 2m and 7.066 MHz live on-air after bulletins**  
Bulletin repeats on Mondays / herhalings op Maandae : 2m 19:45



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## Club Meetings / Klub Vergaderings

### Club Social Meeting :

Saturday 5<sup>th</sup> of December from  
11:00 AM at the SAM Clubhouse

### Committee Meeting :

No Committee Meeting is  
scheduled for December 2015





**PRETORIA AMATEUR RADIO CLUB / PRETORIA AMATEUR RADIO KLUB  
KOMITEE 2016 / COMMITTEE 2016**

The following PARC Members were elected as Committee Members for 2016



**Johan de Bruyn ZS6JHB**  
Chairman, Rallies & Social



**Pierre Holtzhausen ZS6PJH**  
Vice-Chairman, Contests



**Andre van Tonder ZS6BRC**  
Treasurer



**Jean de Villiers ZS6ARA**  
Secretary, Bulletin Coordinator



**Etienne Naude ZS6EFN**  
Public Relations, RAE & Bulletin Coordinator



**Graham Reid ZS6GJR**  
Web Coordinator



**Craig Symington ZS6RH**  
Repeaters



**Jaco Cronje ZR6CMG**  
Contests



**Whitey Joubert ZS6JJJ**  
Clubhouse & Contests



**Gawie Marais ZS6GJM**  
Technical, Web & Repeaters



**Andre Coetzee ZS6GCA**  
Repeaters



**Louis de Wet ZS6SK**  
Watts Newsletter, RAE & Clubhouse

**PARC Committee Members / Komiteelede : 2015 - 2016**

**Elected Members**

**Chairman, Social & Rallies**

**Vice Chairman, Contests**

**Treasurer**

**Secretary, Bulletin Coordinator**

**Public Relations, RAE, Bulletins**

**Web co-ordination**

**Repeaters**

**Competitions**

**Clubhouse & Contests**

**Technical, Web & Repeaters**

**Repeaters**

**WATTS, RAE & Clubhouse**

**Co-Opted Members**

**Fleamarket**

**Auditor**

**Historian, Archives, Awards**

Johan de Bruyn ZS6JHB  
Pierre Holtzhausen ZS6PJH  
Andre van Tonder ZS6BRC  
Jean de Villiers ZS6ARA  
Etienne Naude ZS6EFN  
Graham Reid ZR6GJR  
Craig Symington ZS6RH  
Jaco Cronje ZR6CMG  
Whitey Joubert ZS6JJJ  
Gawie Marais ZS6GJM  
Andre Coetzee ZS6GCA  
Louis de Wet ZS6SK

Alméro Dupisani ZS6LDP  
Tony Crowder ZS6CRO  
Tjerk Lammers ZS6P

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[greid@wol.co.za](mailto:greid@wol.co.za)  
[zs6rh@hotmail.co.za](mailto:zs6rh@hotmail.co.za)  
[jacocronje@yahoo.com](mailto:jacocronje@yahoo.com)  
[zs6jii@gmail.com](mailto:zs6jii@gmail.com)  
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012-803-7385 079-333-4107  
012-655-0726 082-575-5799  
012-361-3292 082-467-0287  
083-627-2506  
082-553-0542  
083-701-0511  
081-334-6817  
081-474-2220  
072-120-4516  
083-663-2222  
082-772-5811  
012-349-1044 072-140-9893

083-938-8955  
011-672-3311  
012-809-0006 083-976-4387

## Birthdays – December / Verjaarsdae – Desember

01 Pieter Fourie ZS6CN 07 Hansie Meyer ZS6AIK 08 Hans Kappetijn ZS6KR 15 Louis (Almero) Du Pisani ZS6LDP	27 Pierre Britz ZR6ADZ 28 Allan de Souza ZS6AVC 30 Hans van de Groenendaal ZS6AKV 31 Henk Stuivenberg ZS6CS
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Please Note : If your Club fees are not paid up to date, birthday details cannot be displayed in Watts

### Spouse's Birthdays – December / Desember

06 Sylvia, spouse of Tjerk Lammers ZS6P  
 12 Elsa, spouse of Fritz Sutherland ZS6SF  
 23 Dienkie, spouse of Pierre Britz ZR6ADZ

### Anniversaries / Herdenkings – Desember / December

04 Henk ZS6CS en Ria Stuivenberg  
 08 Theo ZS6TVB en Avida ZS6AVB Bresler

## Lief en Leed / Joys and Sorrows

No Sorrows to report / Geen leed om te rapporteer 😊

### Contests and Diary of Events – December 2015 / Kompetisies en Dagboek van Gebeure – Desember 2015 (UTC Times)

06	ARRL 160-Meter Contest : 22h00 – 16h00
06	SARL Digital Contest : 12h00 – 12h00
12 - 13	ARRL 10-Meter Contest : 00h00 – 24h00
19	OK DX RTTY Contest : 00h00 – 24h00
19 - 20	Croatian CW Contest : 14h00 – 14h00
26 - 27	World Wide Iron Ham Contest : 12h00 – 11h59
31	Old Years Eve ; 2105 CQ Marathon ends ; End of "Youth on the Air"

### PARC SUBS / LEDEGELD FROM / VAN 30-06-2014

Bank	First National Bank	Ordinary Members / Gewone Lede : R150 Spouses / Pensioners : R50	<b>Your call sign must appear as statement text!</b>
Branch Code	25 20 45		
Account No	546 000 426 73		
<b>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</b>			

## PARC AGM 31 October 2015 : CHAIRMAN's REPORT

Eerstens baie welkom aan almal hier teenwoordig en dankie dat julle tyd ingeruim het om ons 85 ste AJV by te woon.

To one and all, a hearty welcome to this our 85<sup>th</sup> AGM. Thank you for taking time to be here.

A special welcome to the President of the SARL, Fritz Sutherland ZS6FS and our guest speaker for today Etienne Naude ZS6EFN and we look forward to your presentation

To my fellow committee members who supported me during the year. Thank you very much for your support and guidance. It has been said before. This is not a one man show but a team effort. Thank you once again to everyone that served on the committee this past year.

### Silent keys

During the year we lost Luther Uys ZS6GE, Dereck Lambert ZS6KQ and Molly Peer ZR6MOL.

### Club membership

We currently have 76 paid – up members and 7 honorary members which bring the total to 83. As you all know we are one of the biggest clubs in the country. To those members who so regularly renew their subscriptions and who is actively participate in club activities like attending the meetings, participation

during contests, rallies, reporting in on weekly bulletins, contributions to Watts ,keeping repeaters and Echo link working, and arranging and assisting with flea-markets, thank you for your support.

### **Club meetings.**

The attendance of monthly meetings is slowly increasing, please let us know what you would like from the monthly meeting.

### **Repeater**

Thanks to the dedication of Craig ZS6RH and assisted by Andre ZS6CGA, the repeater network is operating very well .Thank you very much. Johan Lehman, ZS6JPL, thank you for keeping our Echo link and IRLP working.

### **Watts**

To Louis ZS6SK, editor of Watts. Thank you for putting the Watts together every month. In my opinion it is a job well done.

### **Rallies**

To all the members of PRC and other clubs who so eagerly offer their service to do communication at all of the events. To one and all thank you for a job well done. It is always nice to receive a email from the organizers to say thank you and that they are happy with our service provided  
Clubhouse

Thank you Pieter ZS6CN and Annatjie for caring for the hungry who attend the monthly meetings. As you know we have moved from Tuks to SAM Clubhouse. This move was made because access to the premises and toilets became difficult. Moving forward the club need to look at what to do with the bar area .Maybe we can keep that area to utilize as a museum. We have been asked by UPE to vacate the kitchen and this needs to be done as soon as possible.

### **Treasurer**

Andre, Thank you for all your efforts in keeping our finances in order. However the membership data base needs special attention. Need I say more?

### **Flea-markets**

Throughout the year the flea-markets were well attended. To Almero ZS6LDP, for organizing these events. Thank you to one and all of our regular and not so regular sellers from other clubs, you are all welcome at our flea-markets .

### **Contests**

Pierre to you and Jaco, thank you very much for your contribution during the past year's contests in the past year. If you know of somebody else that is prepared to assist us, it will be greatly appreciated. Thank you also to the visitors who pitch up on these contest days. Your support to us is appreciated.

### **RAE**

If memory serves me right is this the fourth year that PARC is doing the assisting with preparations for the RAE . I do notice a few of the recent attendees among us. Thank you very much to Vince Harrison ZS6BTY,Louis de Wet ZS6SK ,Etienne Naude ZS6EFN for your dedication to this task.

A big apology if I did not mention your name in this list. And if you have any idea on how to improve on what we are currently doing, please do not keep quiet. Do make an effort to inform the committee. All suggestions will be listened too and feedback will be provided.

Thanks to each and every one who is here today and a very special thank you to the ladies ,Joey Reid who took control of the catering ; Annatjie, Irene and Doreen for the salads etc.

To Graham & Joey thank you for handling the trophies and certificates.

Chairman : Johan de Bruyn ZS6JHB

31 October 2015



**PARC AGM AWARDS / PARK AJV TOEKENNINGS : 31 October/Oktober 2015**

The following PARC Club Members received awards at the 2015 Annual General Meeting:



**Johan ZS6JHB**



**Pierre ZS6PJH**



**Fritz ZS6SF**



**Almero ZS6LDP**



**Vincent ZS6BTY**



**Craig ZS6RH**



**Willie ZR6WGR**



**Mark ZS6USA**



**Mark ZS6USA, Pierre ZS6PJH, Jaco ZR6CMG, Theo ZS6TVB**



**Annatjie, Joey and Irene**



**The PARC Rally Team**



**Vincent ZS6BTY, Etienne ZS6EFN, Louis ZS6SK**



**PARK VLOOIMARK / PARC FLEAMARKET : 31 October/Oktober 2015**

PARC Fleamarket dates for 2016 are on page 6 and Weekly on PARC Bulletins





## The PARC Strategy for 2016 : By Etienne Naude ZS6EFN

This article, compiled by Etienne Naude ZS6EFN, follows strategic discussions by the 2015 Committee to discuss the future direction PARC needs to take to ensure that growth in the Club and most important, Ham Radio is sustained.

The PARC strategy has been developed using a 4 phase approach:

### **Phase 1:**

A stagey must have a solid foundation in order to ensure one can develop a solid plan of action. This means that the foundation must be able to sustain the strategic objectives and associated tactical deliverables. The foundation of the PACR strategy consists of:

a) Purpose, as a club we have to reinvent ourselves and therefore the purpose of the club, what is the purpose of the club, what is our role within the community and the amateur community we as a club will serve in years to come. We redefined our club's purpose as to further the exchange of information and cooperation between club members, to promote radio knowledge and individual operating efficiency, to conduct club programs and activities so to advance the interests of Amateur Radio in the community and to perform organized public service during community events and emergencies and disasters.

b) Secondly we had to define our vision. The vision of the club defines where we want to go within the next couple of years, what it is we want to achieve. The club's vision is The vision of the Pretoria Amateur Radio Club is to be responsible for the preservation and promulgation of amateur radio as a hobby, as a science, a sport and a public service within the amateur and greater public community.

c) The third element to PARC's strategy foundation is the mission, the mission defines the means of achieving the vision, what we need to do in order to achieve our vision. The mission of the Club is to provide a mutually supportive and positive environment in which every individual member and interested parties at large has the opportunity to participate in the development of amateur radio through collaboration, participation and direct involvement.

d) The last element of our foundation is to understand what we stand for what is the principles of the club, it's committee and it's members., for this we developed a value statement. The Pretoria Amateur Radio Club's core values are:

- Integrity
- Dedication to excellence
- Service to the members and community
- Respect for the individual and fellow radio amateurs
- Maintain a high level of passion for the hobby, club history and wellbeing
- Adhering at all times to the Amateur's Code.

These are values worthy of a great club, and we believe we should incorporate them as anchor points in every decision we make. Our core values provide us with a means of not only guiding but also evaluating our operations, our planning, and our vision for the future of this great club.

## **Phase 2:**

Phase 2: consist of a SWOT analyses, before we could identify any of the strategic objectives we had to perform a proper SWOT analyses of the club and its environment. The SWOT analyses looked at the Clubs Strong Points, the Opportunities for the club, the club's Weak points, but also the treats. Having defined all of these elements we had a better understanding of the environment in which the club has to operate, but we also had a better understanding of our own capabilities, our strengths and our weaknesses we need to focus on in order to become a better organization.

## **Phase 3:**

This Phase was all about setting ourselves objectives. Having a good foundation and a better understanding of our own capabilities and the environment in which we need to function now allowed us to put together strategic objectives, These objectives had to align with our view and strategy of achieving our vision using our mission statement as the guideline of achieving it all. The following objectives were defined:

- To promote interest in Amateur Radio and grow the participation, collaboration and involvement of its members and community at large.
- To further the cooperation between the club and other local community organizations.
- Create awareness of the club initiatives, through more active public relationship programs both internal and external through various media channels.
- To provide emergency or public service communications when normal means of communications are disrupted.
- To otherwise conduct programs and activities so as to increase the general interest and welfare of Amateur Radio within the club and the bigger community through collective initiatives and projects.

## **Phase 4:**

We have a solid foundation for our strategic plan, we have a good understanding of our own capabilities and shortcomings as well as knowing the environment in which the club will operate in, we also establish a set of strategic objectives which we know by achieving those objectives one by one will contribute towards achieving our over vision and after all the strategic intent of our PARC strategy.

But having all of this but no plan of action is like going to war with all the knowhow but without a battle plan. Our battle plan is all about execution. The plan of action addresses all the components we need to address through initiatives, tasks and projects. All of which should be aligned with our strategic objectives and should support achieving the strategic objective. Therefore, each objective defined in Phase 3 will have a certain amount of tasks initiatives and projects in place to achieve those objectives.

These tasks initiatives and projects will all be measurable, achievable, must have a set delivery period and should be reported on regularly.

The management of these task, initiatives and projects will all be done on a project management principle basis with a Project office running the program overall. Each portfolio owner will act as project manager, which will form his own project team of other committee members and club members interested in being part of this new and exciting approach.

Enough of the strategy, lets EXECUTE!!!!



## RALLY EVENTS 2016 : PRELIMINARY DATES



Rd 1 : 4/5 March TBA

Rd 2 : 22/23 April – SASOL Rally

Rd 3 : 20/21 May – Secunda Rally

Rd 4 : 15/16 July – Volkswagen Rally

Rd 5 : 19/20 August – Tshwane Rally

Rd 6 : 23/24 September – Cape Rally

Rd 7 : 21/22 October – Polokwane Rally

For more information please contact Johan de Bruyn ZS6JHB

## PARC FLEAMARKETS 2016



**PARC Fleamarkets for 2016 are scheduled for the following dates:**

5 March ; 28 May ; 27 August ; 5 November

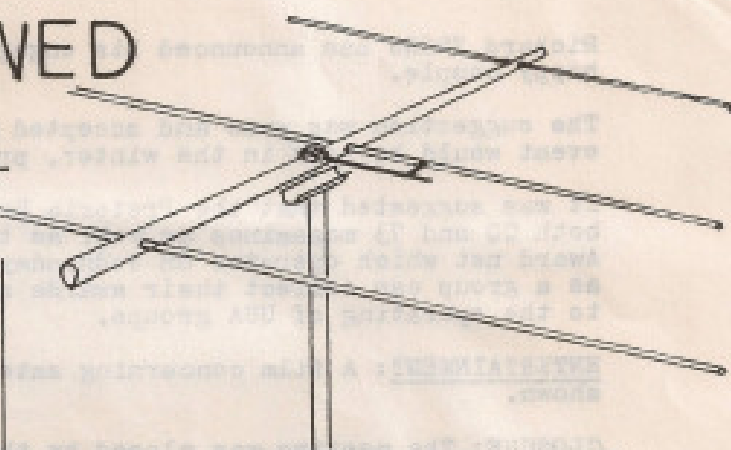
Please do contact Almero du Pisani ZS6LDP ([almero.dupisani@up.ac.za](mailto:almero.dupisani@up.ac.za) 083-938-8955) for more information or to book a table, or if you wish to donate any old equipment to PARC

Here are some old articles submitted by Bill ZS6KO in Watts 1982. If you wish to obtain the original pdf scans, please do contact the Editor of Watts. Sincere thanks to Vincent ZS6BTY for submitting this material.

Watts. DEC 82

# HOME BREWED YAGIS

Bill ZS6KO




Some practical considerations on YAGI construction.

To facilitate easy construction of Yagis, the use of existing materials and components can be made.

For Yagis to be used on 20, 15 and 10 metres, the boom can be of 50 mm outside diameter aluminium tubing with a wall thickness of 1.5 to 2.0mm.

The elements are secured to the boom by means of exhaust clamps, consisting of a bent pressed plate and a U bolt. All that is necessary is one per element.

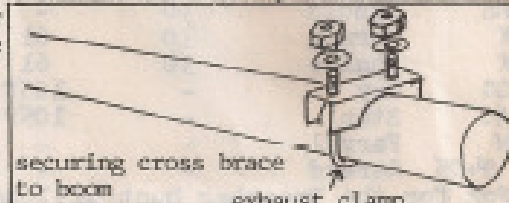
Exhaust clamp. Hose clamp.



Cross braces are made by using the 50 mm exhaust clamps, and a piece of aluminium angle or window frame material, 60 - 90 cm long, drilled and clamped onto the boom. This secures the elements to the support or cross brace by means of hose clamps which go around the element and the supporting brace.

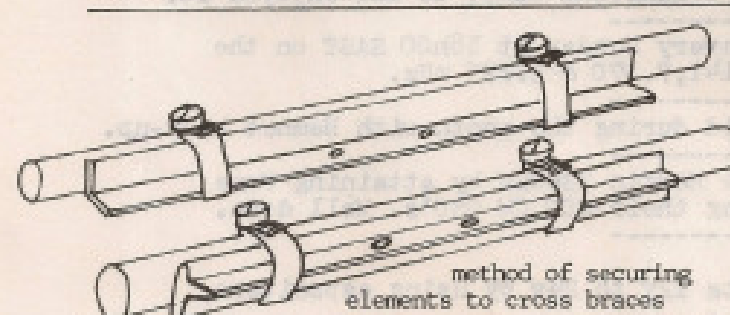
For 10 mtrs, two clamps per support is sufficient, ie one at each end. For 15 and 20 mtrs, two clamps plus wire nearer the centre, or four clamps, for extra security.

All construction is of "plumbers delight" design. However, if the driven element must be insulated from the boom, this can be achieved by using some polythene tubing or plastic hose. If the diameter is not large enough, the tubing can be slit and placed over the element, leaving a gap along the insulating material. This can also be achieved by using insulation tape wound around the element around the support areas.



securing cross brace to boom exhaust clamp

The Gamma matching section can be constructed of two aluminium tubes, one sliding inside the other leaving an air space between the two to form the capacitor. This is a neat and effective means of construction. I've used plastic insulation tape at the one end and one or two places between, wound over the inner tube to form a sliding fit into the outer tube.



method of securing elements to cross braces

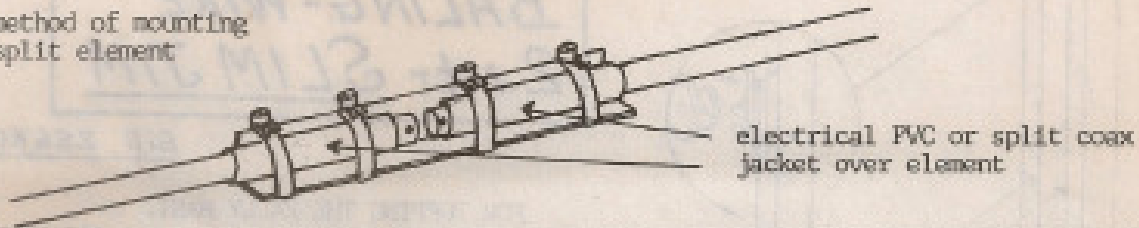
On 20 mtr, eg. I used 23 mm inside diameter tube with a 19 mm outside diameter sliding into it.

Thinner tubes, of course, can be used, and on 15 mtr this was done with similar results.

The capacity formed between the two tubes can be measured with a capacitance bridge to set it at the calculated value for the required band to start with. Make sure that you have sufficient over to ensure enough



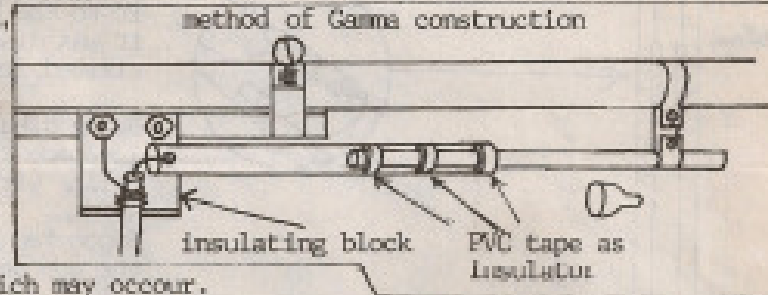
method of mounting  
split element



electrical PVC or split coax  
jacket over element

latitude for adjusting. Close the ends of the tubes to prevent water from entering and when the Gamma has finally been adjusted, wrap insulation tape at the junction of the two tubes for the same reason.

A "plug to distributor wire" rubber or plastic insulator was used on the 15 mtr Gamma because the tubes thinner, still ensuring a tight waterproof coupling. Tiny holes can be drilled at the bottom of the outer tube at strategic points to release any condensation which may occur.



method of Gamma construction

insulating block

PVC tape as  
insulation

For mounting the antenna system to the vertical pole from the rotator, a bracket can be made of angle and flat iron.

Cut into sections and weld together so that a right-angle support is made, and clamped onto the vertical pole by means of U bolts.

The beam is clamped to the support also using U bolts.

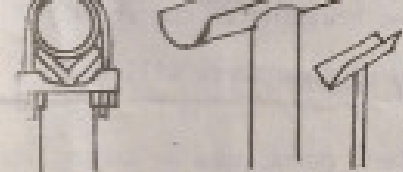
In my case, I have to climb the tower, so the bracket is mounted in position before the antenna is raised. If there is more than one antenna (beam), to mount (stacked) the bracket must not be tightly screwed up until the beam is in position, and all booms lined up (aligned).

However, depending on individual cases, the bracket can be clamped onto the beam first, at the balance point, and then raised and clamped to the pole.

It is easier however, to have the clamp in position and the beam resting on the bracket while clamping it down.

The size of the bracket will depend on the beam size or it's mass.

support on top of  
pole



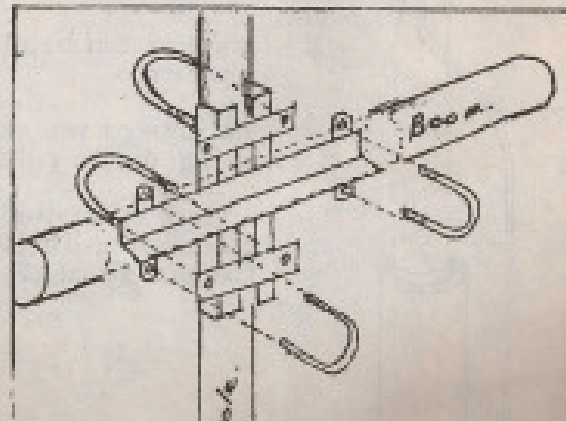
clamp boom on with suitable  
size exhaust clamps

The brackets for a 10 mtr 5 element and a 15 mtr 4 element arrays are smaller than for a 20 mtr two or three element array, the elements being longer.

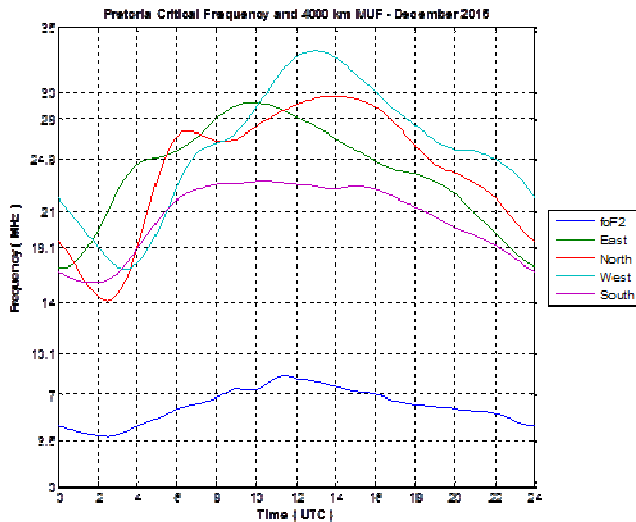
Because of the longer elements and the gamma of the 20 mtr array, a sag on the one-side was experienced.

This was corrected by placing a piece of car tyre between the clamp and the boom, creating a tight friction fit.

In the case of a single Yagi on top of the pole, the support can be made of a section of tubing saw lengthwise, down the centre, and welded onto the top of the pole into which the boom is placed, and held in position by means of exhaust clamps. A section of angle iron can be used similarly.



Clamp construction for mounting boom on  
side of pole.



## Long Term HF Propagation for December 2015

### 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

C/O NELSPOORT & 801 MALMESBURY STR, WINGATE PARK, PRETORIA [S25.49.36 & E28.16.07]

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  - Linear power supply O.V. protection kits
  - 30A 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

### Recent photos taken showing the magnificent beauty of Aurora borealis

