



## Kempton Park Amateur Radio Technical Society

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Republic of South Africa

<http://www.zs6kts.co.za/>

April 2019 Issue 02

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### Newsletter

Hi everyone

This is our 2<sup>nd</sup> Newsletter for this year, so what's up at **KARTS**

On Thursday evening, Tami ZS6MOZ and myself took part in the SARL's 80m contest,

I was operating as ZS6KTS and Tami used his own Call sign. ZS6BEARE was ready for the action.



### **Club Meetings**

The 2<sup>nd</sup> Saturday of every month from 14H00 onwards, at our clubhouse 58 Ysterhout Street, Birchleigh

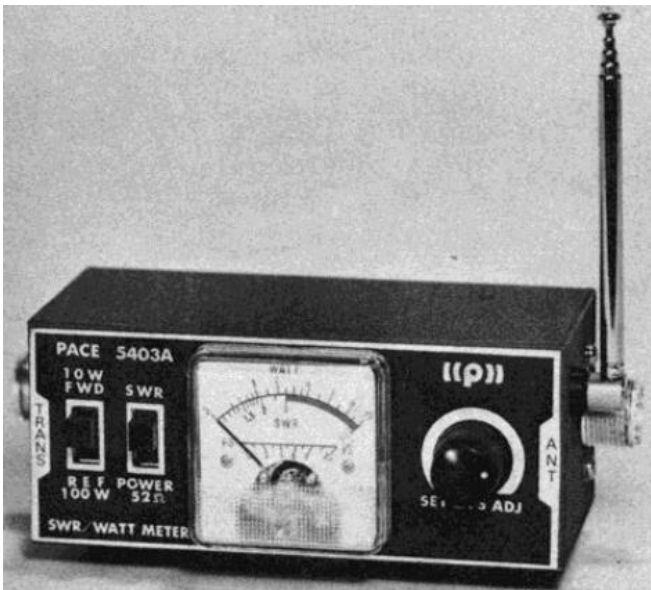
Exchange for this contest was a **RS** Report and your name, I was logging on my laptop in excel, it didn't work out that well, think I'll use some paper next time. I made a total of 18 contacts, still need to confirm some things though.

<u>80m QSO Party 4th Apr 2019</u>					
Callsign	ZS6KTS	Club	Kempton Amateur Radio Technical Society		
Name	Stephen				
Surname	Stuttard				
Address	58 Ysterhout Street				
	Birchleigh				
	Kempton Park				
	Johannesburg				
<b>Category ( Mark with "x" )</b>					
Tel Number	825684019	Single operator	X		
Email	<a href="mailto:stephen.stuttard@imperiallogistics.com">stephen.stuttard@imperiallogistics.com</a>	Multi-operator			
<b>Summary</b>					
<b>Points</b>					
<b>Total number of QSO's</b>	<b>180</b>	<b>x</b>	<b>1</b>	<b>=</b>	<b>180</b>
<b>Points Claimed</b>					
<b>180</b>					

The theme for this year is “**Lets Play Radio**” and if I might add to that, lets become “**Radio Active**” This club has lost its MoJo, we’ve lost the “Technical” part of our hobby, so lets try to be more active this year, lets start doing more things “**together**” lets put the **FUN** back into our Hobby.....

## ***Pretoria Amateur Radio Club***

On Saturday 6 April, club members Stephen and Tami went to the Pretoria Flea Market. We were a little late arriving, but came away with some good bargains, Tami got some poles for R30-00 and bought a frequency counter, and transformer, and a swr meter,



while Stephen bought some wire, and picked up some co-ax cable for free from Almero.

After returning home on Saturday, it was time to build a 40meter inverted V antenna for the RADAR contest.

### Building a 40 meter inverted V antenna

1 x Small plastic box with lid

1 x SO239 socket

3 x EYE Bolts & nuts

7 x 6 mm galvanized nuts

3 x 6 mm lock nuts

4 x 1 – 1.5 mm screws and nuts

4 x 6 mm solder type battery lugs

4 x U Clamps

2 x insulators

10 x 6 mm washers

Some cable ties

42 m 2.5 mm wire

10 m 4 mm nylon rope



For my portable mast I used two paint roller extenders, coupled together with a short piece of aluminium.

### Costructing the Antenna

Drill 3 x 6 mm holes for the two side eye bolts and top eye bolt.

Drill a 12 mm hole for the antenna socket & file the hole bigger with a round file

Bolt the antenna socket in place, I used three bolts, leaving the last bolt out for excess water to drain out of box, solder the 6 mm lugs onto one side of each 10.5 m wire.

Screw a nut onto each of the eye bolts, then a washer, then add soldered wire with lug, Another washer and nut. Tighten these securely, fixing each side of your antenna wire to the two eye bolts, put the bolts through the holes either side of the box, and place a washer and nut on the other side. Tighten this nut, use some locktight if you have it.

Solder a short piece of wire onto the centre of the antenna socket and a 6 mm battery lug onto the other end, do the same with the earth side of the socket.

Add another washer and the 6 mm lugs onto the inside of the box, onto the bolts

Add another washer and lock nut each side, tighten everthing up again.

Add the third eye bolt into the top hole, first add a nut, then a washer, then fit the bolt,

Adding another washer and nut & the last lock nut, tighten everything up.

Loop the antenna wire through the eye of the eye bolt & secure the loop with cable ties

Measure 11 meters each side, add the insulators on each end, and some nylon rope to each end

Design frequency: 7.100 Mhz

Calculation: 300 / Frequency or 142.5 / Frequency

300 / 7.100 142.5 / 7.100

42.253 m for full wave length 20.070 m for ½ wave length

42.253 / 2 for half wave = 21.126

Divide this answer by 2 for wire length for each side of the Inverted V antenna

10.563 m each side or the more acurate 10.035 m

Connect your co-ax and pull up your new antenna on your RADAR Mast, connect your rig and portable power source, you're almost ready.

12 minutes to erect the antenna & mast



Lets tune the antenna.....



Connect the Antenna cable to the socket marked ANT and the fly lead from the radio to the Transmitter side of the Watt Meter.

Firstly, set the middle switch to CAL.

Put your Radio on H3E / AM and on the desired frequency, key the transmitter



Tune the Calibration knob till the needle is in line with the calibration line.

Next switch the middle switch to Power and the Power switch to FWD. Key to measure the forward power, 5 to 10 watts on AM is Ok.



Next switch the Power switch to REF to measure the Reflected Power.

Tune the antenna if necessary in order that the meter reflects the lowest Reflected power at the design frequency.

Flip the middle switch to SWR in order to view the SWR of the antenna.

SWR needs to be below 1.5 at design frequency

## April Club Meeting



Our April club meeting is this Saturday, normally we start at 2pm, this Saturday, the club meeting needs to start at 1 PM!!! Sharp, please take note of the change in time, this is very important, due to the live Satellite Demo that will be given by Tiennie ZS6MHH, on how to work FOX 1B the Satellite will start its 12 minute pass over the West of South Africa at **13:10 pm** so please come early, at 1 pm so you can be part of the discussion and demo.



Uplink (MHz): 435.250  
 Downlink (MHz): 145.960  
 Beacon (MHz): 145.960  
 Mode: FM CTCSS 67.0Hz/200bps DUV  
 Call sign:  
 Status: **Active**

Thereafter, our normal meeting will continue.

We need to discuss our upcoming train trip and we will check the SWR on our various antenna's.

## Team Building Activity

KARTS is planning a team building outing, it will kinda be new technology vs old technology



### Weekly Bulletin:

Tuesday nights @ 20H00 on both of the official repeaters.

- 2 M :145.6625 MHz FM (CTCSS 88.5Hz)
- 70 cm : 438.9250 MHz FM (CTCSS 88.5Hz)

We'll be embarking on this Reef Steamers train trip to Heidelberg on the 25<sup>th</sup> of May, the trip will cost approx. R500-00 per person, this includes the trip on the Gautrain from Rhodesfield station to Marboro Station on the Gautrain (New Technology) in order to transfer to another Gautrain train, taking the group to Park Station, from where we'll depart together on the (OLD Technology) train.

The idea is to take some radios with us, and possibly operate from the train and also where we will be picnicking from in Heidelberg.



For more info, please visit: <https://www.reefsteamers.com/> Please contact Barry ZS6OY to book

Ham radio is changing, come along for the ride.

### News from our members

Lynn & Paul ZS6PJC celebrated their wedding anniversary on the 3<sup>rd</sup> of April and Ronnie & his wife Annelize who celebrated their wedding anniversary on the 9<sup>th</sup> of April



Corrie's wife Yvette celebrated her Birthday on the 4<sup>th</sup> of April and Lucia celebrated her Birthday on the 5<sup>th</sup> of April

Happy Birthday Ladies



Marius ZS6RMM celebrated his Birthday on the 7<sup>th</sup> of April, Happy Birthday Marius



73

KARTS Committee.