

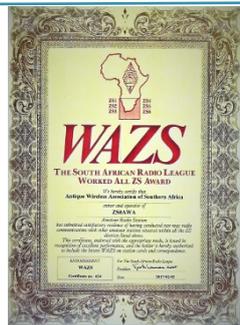


# Newsletter

The Antique Wireless Association of Southern Africa

# 152

March 2019



### Inside this issue:

HF Happenings	2-3
CW Activity Day	3
Vintage Test Equipment	4-7
Items for Sale	8
Heathkit Challenge	9
Notices	10

### AWA Committee:

- \* President and Western Cape—John ZS1WJ
- \* VicePresident—Renato ZS6REN
- \* Technical Advisor—Rad ZS6RAD
- \* Secretary/PRO—Andy ZS6ADY
- \* KZN—Don ZS5DR
- \* Historian—Oliver ZS6OG
- \* Member—Jacques ZS6JPS

## Reflections:

I am sure there are many of you out there who really wonder what to do with yourselves over these long laborious weekends where there is just no propagation happening that you can perceive on any of the bands.

Not everyone is privy to having big antenna setups and large amounts of power to spread across the bands. Well here are a few things you can do to keep yourself occupied and out of the XYL's radar.

DX on 40m. You will find a lot of DX stations on 40m early on a Saturday and Sunday morning. Although many of them work big power with large beams in to SA, I have had a few occasions when I have been able to have a qso or two using my trap dipole and 100w. These guys leave room for callers and often ask if there are any SA stations wanting to call in.

Then there is FT8 digital mode. I have been working FT8 using my FT102 and 50w of output power into my dipole and have been very successful. It doesn't take much to connect up your PC via a soundcard interface. Download the WSJT software and a little bit of setup and off you go. You will be amazed at what you can achieve on low power communications with the simplest of equipment. But beware, it becomes quite addictive. Of course its not rag chewing, but an effective exchange of numbers, just like one does in contests.

Then there's Echolink. World wide communication at our finger tips using the internet and 2m repeaters. Log in to some distant repeater on the other side of the world and call CQ. You will be amazed at the response you get. Of course the contacts don't count

towards your DXCC, but they still are QSO's. You can sometimes even find HF stations connected to Echolink.

These are all cheap options to keeping yourself busy with radio stuff. If you have the bucks, then there is also DMR, which is digital radio, still via the internet, but using a hand held radio. May just give you the satisfaction of knowing the QSO you are having is by using a radio and not worry about how the signal is getting to where it is going.

Don't let the band conditions get you down and make you want to sell up your equipment or cancel your licence.

Discover some new and exciting way to play radio. Then when band conditions do improve, you wont be out of practice.

Best 73  
DE Andy ZS6ADY

## WIKIPEDIA

### Modes of communication:

**A Compatible sideband transmission**, also known as **amplitude modulation equivalent (AME)** or **Single sideband-reduced carrier (SSB-RC)**, is a type of single sideband RF modulation in which the carrier is deliberately reinserted at a lower level after its normal suppression to permit reception by conventional AM receivers.

The benefits of AME over conventional AM are increased spectral efficiency due to a reduction in bandwidth of 50% as well as an increase in signal efficiency. Conventional AM transmitters waste 66% of the transmitter RF power due to AM's carrier and redundant sideband. By using AME, less RF power is required at the transmitter to transmit the same quality of signal the same distance.

AME is currently most popular in high frequency military communications.

## HF HAPPENINGS:

**Three Contests Next Weekend**

On Saturday 9 March, you can participate in the first leg of the SARL YL Sprint. Each year on 8 March, International Women's Day is celebrated. The YL Sprint will run from 12:00 to 14:00 UTC with phone activity on 40 metres. A YL received 5 points for a QSO with another YL and 3 points for a QSO with an OM. A note to certain male contesters - the YL Sprint can only be won by the ladies.

The first leg of the SARL VHF/UHF Analogue contest is on the air from 10:00 UTC on Saturday 9 March to 10:00 UTC on Sunday 10 March with SSB, AM, FM and CW activity on 6, 4 and 2 metres, 70 and 23 cm and higher. Why not combine the VHF contest with some SOTA Activity. Find the complete set of rules for these two contests in the 2019 SARL Blue Book.

The 82nd RSGB Commonwealth Contest is a CW only contest which runs from 10:00 UTC on Saturday 9 March to 10:00 UTC on Sunday 10 March with activity on 80, 40, 20, 15 and 10 metres. There is also a Team competition and such a team consists of up to five stations. Get the contest rules at <https://www.rsgbcc.org/hf/rules/2019/rberu.shtml>

**African DX**

*Contacts with stations on the African continent count towards the SARL's All Africa Award ([www.sarl.org.za/public/awards/awards.asp](http://www.sarl.org.za/public/awards/awards.asp))*  
Mauritania, 5T. Johannes, PA5X has been active as 5T5PA from Nouadhibou, Mauritania since 17 February and will remain there for the next coming months. In his spare time, he operates SSB, RTTY and FT8 on various bands. QSL via LoTW, Club Log's OQRS or via home call.

Somalia, 6O. Ali, EP3CQ will be active again as 6O100 from Somalia between 26 February and 24 March. Usually he operates FT8 on 20 metres; his activity on the bands is limited to his spare time. QSL direct to Ali Solhjoo, c/o Dr. de Vivanco, Schnackenburgstr. 3, 12159 Berlin, Germany.

Ghana, 9G. Matteo, IZ4YGS has been active as 9G5GS from Sanzule, Ghana since 16 February and will remain there until 13 March. In his spare time, he operates mainly FT8 on 80, 60, 40, 30 and 20 metres. QSL via eQSL, or direct to home call.  
South Sudan, Z8. Diya, YI1DZ is once again operating as Z81D from Juba. Activity is from 80 to 10 meters using SSB and digital modes. Operation until June. QSL via OM3JW, OQRS.

Lesotho, 7P. Rune, LA7THA and team will be operating from 8 to 16 March with the focus on the low bands. The team has 8 operators running 2/3 stations on all bands using CW, SSB and FT8. QSL via M00XO OQRS.

Togo, 5V. The EIDX group will be operating as 5V7EI between 14 and 26 March. Plans are to operate with 5 stations from 160 to 10 meters using CW, SSB and digital modes. QSL via M00XO OQRS. <https://5v7ei.com/>  
Burkina Faso, XT. Max, DK1MAX will be active as XT2MAX from 17 to 25 April 'holiday-style' on all bands using all modes. QSL via LoTW.

## Calendar:

## March

- 1 to 10 – Stellenbosch Wordfees
- 2 and 3 – ARRL DX Phone Contest
- 3 - SARL Hamnet 40 m contest; World Wildlife Day
- 4 – closing date digital logs
- 6 to 12 – Scifest, Grahamstown
- 7 to 10 – Hobby-X, Johannesburg
- 8 - International Women's Day
- 9 – SARL YL Sprint
- 9 and 10 – SARL VHF/UHF Analogue contest; 82<sup>nd</sup> RSGB Commonwealth contest
- 10 - Cape Town Cycle Race
- 11 – closing date for HAMNET logs
- 15 – all provincial schools close
- 16 - AMSAT SA Space Symposium; closing date for YL Sprint logs
- 16 to 20 – Wild Trout Festival, Rhodes
- 19 - Highway ARC Monthly Meeting
- 20 - the Wednesday 80 m Club Sprint; Autumn Equinox; International Day of Happiness
- 21 - SA Human Right's Day; World Down Syndrome Day; International Day of Forests
- 21 to 27 - Klein Karoo National Arts festival, Oudtshoorn
- 22 - World Water Day
- 23 - World Meteorological Day
- 26 - Closing date for April Radio ZS
- 30 and 31 - CQ WPX SSB Contest



## African Islands

IOTA frequencies

CW: 28 040 24 920 21 040 18 098 14 040 10 114 7 030 3 530 kHz

SSB: 28 560 28 460 24 950 21 260 18 128 14 260 7 055 3 760 kHz

Canary Islands, EA8. Claudio, HB9OAU will be active in 'holiday-style' from Lanzarote between 26 February and 12 March. Activity from 80 to 10 meter using SSB, RTTY and FT8. [www.hb9oau.ch](http://www.hb9oau.ch)

Canary Islands, EA8. Erich, HB9FIH is active from El Hierro until the end of March as EA8/HB9FIH. Operation on HF using CW, SSB and digital. QSL via home call, direct or bureau, LoTW.



## Results of the AWA CW Activity Day

Extremely disappointing . Throughout the whole activity ZS0AWA had 2 contacts. One with ZS5EL, and the other with ZU5—, the son of Eric ZS5EL.

Was it band conditions, or has CW finally died its death in SA Amateur Radio ?

But to Eric and his son, well done, thanks for taking the time to come up and answer the call, you take the honours and probably the last CW QSO on an activity day from ZS0AWA.

YC-7B outboard digital frequency display option can be mounted on steering column or dash. Big, bright LEDs are protected by sunshade for maximum visibility.

MOS FET front end and Schottky diode ring mixer for high sensitivity with excellent immunity from cross modulation.

Extremely compact design for mobile applications. Mobile mounting bracket is included with your transceiver.

Analog frequency display yields resolution to 1 kHz.

Receiver clarifier is a standard feature.

Choice of VFO or optional crystal control.

High-performance noise blanker for minimizing ignition noise.

Choice of SSB, CW or AM operation. Semi-break-in CW with sidetone is included for maximum versatility.

Razor-sharp audio peak filter for CW provides high selectivity and a significant reduction in background noise.

Every FT-7B comes equipped with a 100 kHz crystal calibrator.

80 through 10 meter coverage is provided. Don't be left out of the fun as band conditions improve!

Single-knob peaking of all transceiver circuits. Husky 50 watts RF output on SSB and CW.

RF/AF gain controls are mounted on concentric shafts for total operator convenience.

Oversize main tuning dial with finger recess for easy tuning. Knob is geared to precision dial mechanism for velvety-smooth tuning with excellent mechanical stability.

Overdrive protection (O.P.)

POWER ON/OFF

FT-7B YAESU

YAESU

Yaesu FT-7B - PE1GVK

## Vintage Test Equipment

Sometime during the month I received an invite to join a group on Facebook called Vintage Test Equipment. The invite came from our esteemed Vice President Renato ZS6REN.

Now having this invite come from him was of no surprise to me, because I have been in Renato's shack and have experienced first hand his passion for these monstrous bits of equipment, filled with valves and weighing more than double any of the heaviest boatanchors you or myself have ever carried.

At first I sort of browsed through the site without making any commitment at all. I belong to a few FB pages, some by my own doing, others having been co-opted into them. But then I started to see where Renato got his passion from, because all of the guys on this FB page had that same passion. I could see it in the way they spoke about these sometimes goliath pieces of equipment and then about the smallest ones they had too.

Now being an ardent lover of vintage radio, no longer such a keen collector, I thought to myself, "well why not see what this is all about ". I started to research s bit more about Vintage Test Equipment, and was absolutely amazed at what I started to uncover.

Seen as I have been unable to find any interesting articles for tis newsletter, and most of my sources have dried up, I decided to put together something that I hope will pique the interest of many of you too.

My XYL has a favourite saying whenever looking for something of interest, "Remember, Google is your Friend",

I have found a few websites of keen collectors of Vintage equipment and I hope they do not have a problem with me showing off their wares to the like of a bunch of boatanchor collectors. Who knows, you may just fins this of interest .

I have taken many of the fine examples from the Website of Steve Johnson and print these with his permission.

This first little item I found quite interesting:

### Antique Manhattan DC Polarity-Indicator

The Manhattan DC Polarity-Indicator was patented in 1905 and shows polarity in a DC circuit using a liquid in a glass tube that when current is passed through it, the liquid in the negative end turns red. It has a patent date stamped on it of Oct. 25, 1905. The earliest ad I have found for it was published in 1903. It was available in two models, a model 3220 for testing the polarity of low voltage DC and battery charging circuits and a model 3221 for testing 50-600 volt DC circuits. They use a liquid filled glass tube that is incased in a hard rubber type case with a connector on each end. Electrodes inside the glass tube attach to the connectors. The metal sleeve can be rotated to cover the glass windows when carried in your pocket. Manufactured by the Manhattan Electrical Supply Company (MESCO), Jersey City NJ.

I tested one of my battery models. The liquid in the end with negative 25 volts DC attached turned dark red after only a few seconds.

[Excerpt from Motoring Magazine and Motor Life - 1913](#)



# MALLORY HAM BULLETIN

## Now!

a new

## MALLORY UHF CONVERTER



With ALL the Features Packed in Half the Size

It scarcely seems possible now, but the original Mallory UHF Converter, model TV101, was first put into production almost 9 months *before* the initial commercial UHF TV station began telecasting. Yet, this same Converter continued to be built without major circuit change for 2 solid years.

Call it genius, or call it luck . . . the TV101 design has been fabulously successful both as a UHF Converter and as an outstanding example of the sensible and far-sighted engineering abilities of the Mallory research organization.

Now, however, as many of you already know, the TV101 design has been retired in favor of a new UHF Converter called the Mallory "88". The Mallory "88" UHF Converter is a product of the same practical imagination which produced the TV101, and incorporates the same well-known tuning characteristics with the added attraction of a much smaller and more compact cabinet.

Mallory distributors are now featuring the new "88" in UHF TV territories everywhere and will be pleased to show this new model to you. In the meantime, we have listed the important physical and electrical characteristics of the "88" at right as advance information prior to your next visit to your Mallory distributor.

*Tuning Range:* 470-890 Mc. continuous

*Tube Complement:* 6AF4/  
6T4 OSC.; 6CB6 I-F; IN72  
XTAL

*Front End Circuitry:* 3 tuned  
circuits on all channels

*I-F Output:* VHF channels  
5 or 6

*Input & Output Impedances:*  
300 ohms

*Ant. Changeover:* 3 position  
panel switch

*Power Supply:* Transformer  
and selenium rectifier

*Cabinet Dimensions:* 7½"  
W x 4⅝" D x 5¾" H

*Weight:* 3¼ lbs.

P. R. MALLORY & CO. Inc.  
P. O. Box 1558  
INDIANAPOLIS 6 INDIANA

P.R.MALLORY & CO. Inc.  
**MALLORY**

The next item I found was actually associated with the polarity indicator:

### Antique Radio Battery Meter

Like the DC Polarity-Indicator above, this meter is also manufactured by the Manhattan Electrical Supply Company. It was used by the radio operator to test the batteries used to operate the radios of the 1920's. It's about the size of a pocket watch. Note the nice lettering on the face.



**Antique 4 Pin Tube Tester**

Here is a very early Montgomery Ward tube tester model 5156 that only tests 4 pin tubes from the 20s. (Let me know if you have any info on it) This tester plugs into the tube socket in the radio and the tube under test plugs into the tester. The meter can be moved from the "A" position to the "B" position to test the plate and the grid side of the tube.

### RCA Rider Chanalyst

The Rider Chanalyst is designed to allow the serviceman to listen to and measure the signal as it passes through each of the components in a receiver. The Chanalyst has four tuning eye tubes. (RCA Catalogue 1940)



**Meissner Analyst Model 9-1040**

The Meissner Analyst is designed to allow the serviceman to listen to and measure the signal as it passes through each of the components in a receiver. This model Meissner Analyst has four tuning eye tubes. The first model had five. This is a very unique piece of test gear. It uses a similar if not a direct copy of the Rider Chanalyst circuit above.

As one can see from just a few of these postings, how much there is actually that was made to keep our fine old boatanchor radios in tip top working condition, and believe me, this is not even a scratch on the surface of what was actually out there. Of course I would like to know as much about these fine old pieces of equipment, but I don't think I have enough time left on this earth to actually get it all.

As I go through more and more of this, I wonder how many of these pieces, if any, ever found their way out to land on our counters and be sold or moved into use here in South Africa. There must at least be a few of them around somewhere.

I am sure that many of the Radio Technicians of an era gone by would recognise some of these and have a story to tell about them.

I know from previous displays we have had for the AWA with some of the fine Radios that many of our members have put on display, and have heard the comments from some of the old timers about how they had operated rigs like this or that, and how many contacts they had using nothing more than a "wet shoe string". Surely the same would apply to test equipment for those who have been privileged enough to work with them.

One thing I am sure of too, is that these were all the forerunners to some of the very modern diagnostic test machines available today that would incorporate all and more of these simple test units.



### Preceptor Tube Tester

Manufactured by the Preceptor Electrical Corp., this model K tube tester is a little different as it uses 12 lights with different levels of brightness to indicate tube quality and seven neon lamps to indicate shorts. There is a set of six standard lamps which are set to individual brightness levels as called out in the setup chart. To measure tube quality, the brightness of the Load lamps are then each compared with the corresponding standard lamps. The smaller meter in the upper right is to set the AC line voltage.



### Cornell-Dubilier Capacitor Bridge

Model BN. This compact Cornell Dubilier unit has 3 ranges and uses an eye tube as an indicator.



### "The Ferret" Model 721 Test Speaker

This test speaker built by Coastwise Electronics in 1947 is also designed for the radio test bench. It has selectable field coil resistance and speaker impedance (top row). Input settings are selected by chart at left according to radios output tube.

It is also a capacitor and resistor substitution box. (bottom row)

There is of course so much more in terms of test equipment and what I have shown here are by no means even the start or the end of what was manufactured as test equipment.

It was just so interesting to me what is out there and what has been built to keep things happening just on the Radio side of things. How much more was made for all the other pieces of equipment that needed to be repaired ?

Do yourself a favour and go look at Vintage test equipment that is available on the internet. I am sure it will keep you busy for hours, if you have enough data that is, and really open your eyes to what is out there.

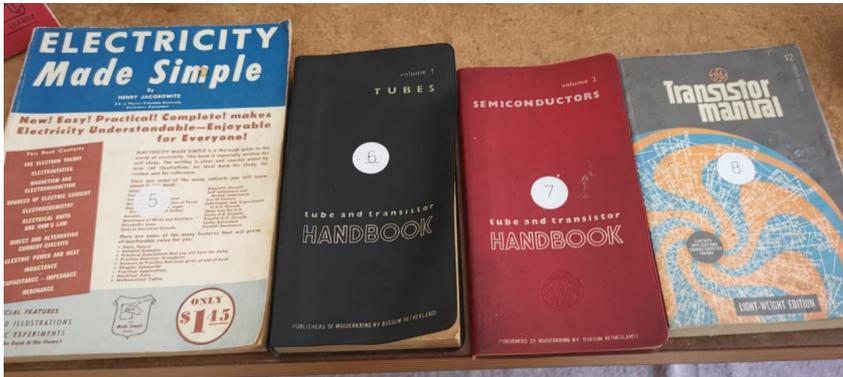
Thanks Renato for piquing my interest a bit and for opening up a new and interesting part of our radio heritage to us. Look forward to seeing a few more articles coming from those of you who have the knowledge and experience of these fine pieces of equipment.

My thanks again to Steven Johnson for allowing me to share these few items with you the reader.

([www.stevenjohnson.com](http://www.stevenjohnson.com))

For Sale:

I have been contacted by Nic Stoop, who was an ardent SWL and has quite a collection of items that he wishes to dispose of. The Photo's below are some of the items Nic has and as you can see they are all in quite immaculate condition. Anyone interested in any of these and more items is welcome to contact him on 083 742 6963. I would recommend Gauteng only as he is in Hartebeespoort, unless you are willing to arrange transport.



## The Heathkit Challenge.

Don't forget about the Heathkit Challenge coming up at the AGM at the end of this year.

As a reminder, John ZS1WJ (our president) put a challenge to everyone to find a Heathkit SB/HW101 and restore it as part of an endeavor to bring back some of these fine old kit radios, to life. The idea is that you find an old Heathkit SB/HW101 and document the restoration process from the time you received it to the time you finish it, hopefully in all its glory, firing on all tubes and working the way it was designed to.

There are still many of these fine old rigs out there somewhere and so it will be a challenge to find them, and then to restore them.

Once you have documented the process you have gone through to restore the rig, the object is then to convince the panel (still to be decided) that your restoration project was the best one and you can win R1000 .

The decision of the judge/s will be final and the winner will be announced at the AGM in November. So there's not that much time left to get stuck in and do your restoration, document it all and get your project in. Documents can either be sent to myself, ZS6ADY or Rad ZS6RAD or John ZS1WJ. Email addresses can be found on the SARL website or if you are in doubt simply contact the editor and I will pass on details to you.

Even if you are out of SA and want to partake in the challenge, you are quite welcome to do so.



Heathkit HW 101



Heathkit SB101

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**Antique Wireless Association  
of Southern Africa**

**Mission Statement**

Our aim is to facilitate, generate and maintain an interest in the location, acquisition, repair and use of yesterday's radio's and associated equipment. To encourage all like minded amateurs to do the same thus ensuring the maintenance and preservation of our amateur heritage.

Membership of this group is free and by association. Join by logging in to our website.

**Notices:****Net Times and Frequencies (SAST):**

Saturday 06:00 (04:00 UTC) —AM Net—3615  
Saturday 07:00 (05:00 UTC) —Western Cape SSB Net— 3630  
Saturday 08:30 (06:30 UTC)— National SSB Net— 7140; Sandton repeater 145.700  
Echolink—ZS0AWA-L; ZS6STN-R  
Relay on 3615 for those having difficulty with local skip conditions.  
Saturday 14:00 (12:00 UTC)— CW Net—7020; (3550 after 15 min if band conditions not good on 40)  
Wednesday 19:00 (17:00 UTC) — AM Net—3615, band conditions permitting.

**Swop:**

Ed ZS6UT, has a Collins 180S1 Antenna Tuner that he would like to swop for a high power ATU that is easy to Use. Either Commercial or Homebrew.

Contact Ed on 072 372 4149. Goods are in Reyton, Pretoria.

