



AWA Newsletter

Issue 26

February 2008

Antique Wireless Association of Southern Africa

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AWA Committee:

- * President—Rad ZS6RAD
- * Treasurer—Willie ZS5WI
- * Technical—Don ZS5DR
- * Net Controller—Willem ZS6ALL
- * Newsletter/PRO—Andy ZS6ADY

Preservation, the name of the Game

And so we start another year and are swiftly on our way to gathering more equipment from flea markets, from friends who are downsizing and unfortunately sometimes from deceased estates. But no matter where the equipment comes from, we will always have room for more in our tiny shacks.

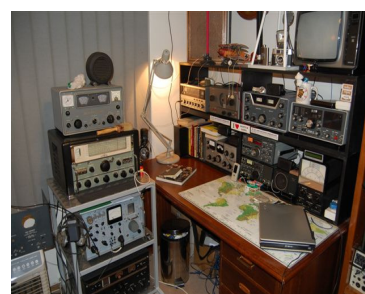
I have added to my collection already this year, a Geloso G212 AM transmitter, which Om Rad is busy trying to resurrect for me after some drastic modifications were made to the band switches so that it only worked on 80m. My Collins 32V-3 is back in the shack after being on a work bench for alignment and a few minor problems and all of a sudden my

shack looks too full again.

Then I get some photo's from guys like George ZSWL505, and I think to myself, I am not doing too bad at all. There really is some well preserved/restored equipment out there that we can be proud of in South Africa.

I often drool over the shacks of some of the US Hams, but when I see what we have here in good ole RSA, I feel quite good.

Yet there is still a lot of used goods lying around in garages and dark dingy places, that could really make a shack look good, and I want to encourage you to encourage others to not scrap these old boat anchors, but to get them out to those who have the



George ZSL505 Shack

heart and mind to restore them to their former glory.

On the back page there are a few items for disposal. If you are a collector/rebuilder, then you will never have another opportunity to get some of these rigs at such good prices. There will always be a home for these rigs, so don't delay if you want one or more.

Andy ZS6ADY

Fastest Electronic Brain Unveiled: Gordon Angilley ZS3AC—Radio ZS December 1953

The most rapid electronic computer that has been developed has been put in to use at the Institute for Advanced Study a Princeton, New Jersey. Small but the tremendous amount of mathematical computations it carries out, the machine is eight by eight by two feet. It has 2,340 vacuum tubes

(enough for 750 television sets), and a mile of wiring.

Data planned by mathematicians is into the computer on a perforated tape. From this point on the machine seems to work by itself. It has four main divisions: a calculating unit, a control organ that carries out the instructions given to the machine, an input-output

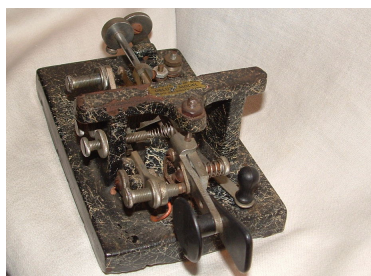
organ and a memory section that stores the figures and instructions for use when needed.

The computer is capable of producing 2,000 multiplications; 1200 divisions or 10000 additions per second. One of it's recent tasks took about an hour and involved 800,000 multiplications.

CW Net:

It seems as though there is a bit of life coming back into the bands again since a few people have heard that there has been some sunspot activity taking place. I must say, I don't notice that much difference in the bands, but the word has certainly gone out.

The CW group has gained in momentum and during the month of January we have had up to 8 keys tapping away on the net on a Saturday after-



Bug ???

noon, which is really encouraging. Now we just have to have conditions good enough to hear the Western Cape on frequency and we might be able to persuade Adrian to join us too.

I'm sure, of course, that this will happen in the near future and if we can go on what people say, then by the end of the year we should have a fair sized group on the CW net.

The bug in the photo is one that was

given to me by Om Rod ZS5RK, and I wonder if any of the fundi's out there can identify it for me.

If only there was a central database on keys that one could refer to, I would then know what half the keys that I have collected are called.

If you have some strange looking key's, send me photo's of them and we can publish them here too. It Would be nice to know what's out there.

In the meantime, keep those dits and dahs going. Always great to catch up with you on freq.

De ZS0AWA/CW—SK

SSB activity:

At last we are able to hear Div 5 on 40m on the SSB net. Signals of 5/9 plus on a Saturday morning are really good news, but skip conditions still plague the local stations, both Div 5 and 6.

Once again, we want to appeal to the local stations in Div 6 to make use of the 80m relay on 3615. Conditions may not be brilliant on 80m, but at least we are able to have Q5 contacts.

Activity on the band is certainly starting to pick up and we even find more and more call's coming in on the SSB net. One of these days Willem will have to move his coffee pot

For local stations, try using the 80m relay.

in to the shack so that he can top up while running the net.

Welcome to the new stations that have been calling in on SSB. It just amazes me every time how many people are actually out there using valve equipment. By far the most popular rig on our net seems to be the old FT101 in it's various forms that it came out in.

Keep those valves glowing. Unfortunately they don't work on 12v.

AM:

With the recent storm activity experienced across the country, AM has not been that great to work on, but it still works.

Om Ludwig ZS6WLC, is out in Antarctica using the call sign ZS7BYRD and requested an AM contact via Carel ZS3OBE. Unfortunately we could not make the contact on AM with Ludwig, but Carel did. So even in not too good band conditions, AM contacts are still there for the taking.

Well done guys. Ludwig was using a Collins rig as far as I am aware, but not sure which one. The contact was on 20m AM. Rad and Myself managed an SSB contact.

I hope to have my Collins 32V-3 up and running soon and after that maybe the Geloso G212.

Come up and join us on the AM net on Wednesday evening from around 18:00 and Saturday morning from 05:45 on 3615.



Gonset GSB100

A BRIEF HISTORY OF THE SOUTHERN AFRICA ANTIQUE WIRELESS ASSOCIATION.

By Cliff ZS6BOX

In February 2000, Cliff ZS6BOX addressed a letter to a number of Radio Amateurs whom he knew to be using Collins Radios. It was at the flea market event of the SARL AGM held on 8 April 2000, that he herded a number of those persons who were then present, into a corner and so the "Southern Africa Collins Interest Group" was formed.

The Founding President was Basil ZS6BDS. The other founding members were the Late Bushy ZS6YQ/ZS6M, Willem ZS6ALL, Badie ZS4PA, Dudley Z22JE, Gary ZS5NK, John ZS6AN/ZS4S and Ludwig ZS6WLC. Soon they were joined by Rod ZS5RK, Rad ZS6RAD, Daniel ZS6JR, Sid ZS6GQ and Allan ZS1FG/ZS6BIK.

John ZS6AN/ZS4S did a lot to forward Collins Modification and other technical information to the members. Willem ZS6ALL would no doubt, be able to list a number of others who joined in later.

It was Rod ZS5RK, who on realising the group had grown to its limit, proposed the first major change. This was the inclusion of operators of other makes of radios. After all there were only a limited number of Collins

operators. So on 22 March 2003, the Southern Africa Collins Interest Group was incorporated into the now "Southern Africa Antique Wireless Association", with Cliff ZS6BOX as Founding President. Willem ZS6ALL took over as Net Controller and the new group soon grew.

The President for 2004 was the Late Bushy ZS6YQ/ZS6M, followed in 2005 by Rod ZS5RK and in 2006 by Andy ZS6ADY who introduced the excellent Newsletter that has done so much to keep the current interest up. He also started the weekly CW Net on Saturdays at 2 pm on 7020Mhz. Gary ZS5NK was President for 2007 and Rad ZS6RAD has now taken over for 2008.

The annual get-together at Rand Airport, started by Allan ZS6BIK, has been an event well attended and a weekend away in Swaziland is in the planning.

A few of the members have visited ZS6MUS, The Swartkops Air Force Museum Station, religiously operated by Dave ZS6AAW. A get together at this station and a look over the various aircraft, with a SAAF Boeing 707 being the latest addition on display, is also in the planning. So watch out for notice in the newsletter and on the Saturday am SSB

Net on 7070Mhz. Another net, the AM Net, takes place every Wednesday evening at 7 pm on 3615Mhz.

Much of the success on the organisation is due to the fact that membership is free and by association, that the President only serves a single year of office and that any business is handled on the air. The Mission Statement, copy on the back page, most of which was written by Rod ZS5RK and translated into Afrikaans by Willem ZS6ALL, governs the organisation in the deliberate absence of a Constitution. Willie ZS5WI, has been the Treasurer throughout.

A metal badge designed by Andy ZS6ADY, was offered at cost to those interested by Cliff ZS6BOX. What is needed is a D104 Mike on stand on which we can engrave the names of all the past Presidents and pass it around as his gavel.

It is because of you, the associated member, that we continue to grow from strength to strength and that so many rigs that would have been left under the workshop table are now glowing brighter than ever before and receiving signal reports of 5 and 9 plus. And so we Salute you. Dadi-da



Cliff ZS6BOX



Dave ZS6MUS (on far right) at Swartkops Air Force Museum Station.

SWAZILAND DX TRIP

Cliff ZS6BOX

Cliff ZS6BOX and Willie 3DA0BD are busy organising a trip to Swaziland for any and all interested in a getaway and some practice at running with a DX station.

The call sign 3DA0AWA is going to be applied for to be used there.

This event which is to take place from 10 to 13 April and anyone wishing to arrive earlier or leave later are welcome to do so. Bookings are on a first come first serve basis and 50% of the accommodation cost, which is R35.00 per day has to be paid into the AWA Bank Account to Willie Axford ZS5WI in order to secure the booking. Cliff will also announce it over the air for the next few Saturday Nets.

The accommodation, camping or caravanning is on the farm of Swazi Willie, Kirkhill, near to Mtambamhlope. Full directions can be made available on request. There are full ablutions available with hot and cold running water, plenty of firewood etc. You will need to bring along all your necessities for the week/weekend as you require.

Anyone wishing to go, needs to send a copy of their ID and present ICASA licence to Swazi Willie so that application can be made for you to operate out of Swaziland.

Willies address is:

Willie Long
P.O. Box 349
Malkerns
Swaziland

Banking details for Willie Axford are:

Account name W J Axford
Bank FNB Eshowe
Code 220 230
A/c type Cheque
Number 52199008156

Please email confirmation of your deposit to zs5wi@iafrica.com and indicate whether you will be camping or caravanning.



3DA0BD Hideaway in the Mountians



Top Camp up in the hills

DESCRIPTION OF 100W AM TRANSMITTER. POWER SUPPLY

Compiled by Sakkie Coetzee,
ZS6BPA

- 1) Low voltage of +150Volts regulated for the oscillator consisting of a 6J5 valve situated in VFO.
- 2) Low Voltage of +400Volts for the multiplier stage in the VFO which is a 6AU6 valve and Output Stage with a 6L6 valve which can give sufficient drive to RF amplifier stage(2x6146,s) these valves are capable of delivering 100W RF output to the antenna. This VFO is also capable of driving some larger output valves like the 813 or 4/125 and a 4/250. When using these valves then the modulator stages must be altered to give enough audio, to give 100% modulation pattern on to the RF Carrier. The HT supply voltages when using these high output valves will also be as much as 700V it could be in the region of 1,5-2,5 Kilo Volts depending on the spec of the valve used. Descriptions and designs of these high output AM Transmitters will be discussed at a later stage.
- 3) A 6,3volts AC supply for all Heaters of all valves used in the AM transmitter.
- 4) High voltage of + 700 volts are used for the Anodes on the pair of 807's which run in Push/Pull Mode to the

Modulation Transformer usually known as plate modulation.

- 5) From the low volts supply of 400Volts 2xVR150 Regulator tubes are connected in series through a Wire wound slider resistor to obtain a steady + 300Volts to the screens of the pair of 807 valves which gives a good stability to this stage.
- 6) A small Variable Negative Bias supply is constructed to give about -20V to -70V which connected to the control grids of the 807, it is adjusted to hold the Plate current at about 60mA. This bias supply are usually constructed from a small transformer salvaged from a surplus appliance which the secondary of this TRF is connected to the 6,3 volt winding and then the primary output are used for the construction of the negative bias supply.
- 7) High Voltage of + 700 Volts are supplied to the anodes of the pair of 6146,s in the RF Amp, A heavy duty wire wound slider resistor are connected from this HT supply and adjusted to + 180volts for the screen grids of the pair of 6146,s.

NB Very important when constructing the 700V DC and 400V DC supplies is to incorporate the necessary Bleeder Resistors which is usually calculated at 10% of the full load drawn by these supplies, to discharge the smoothing filter capacitors immediately between Receive and Transmit mode to cancel out a delay

of the HT Voltages staying on for short periods of time. Therefore the carrier ON/OFF time are not delayed but it is Zero/time cut off.

CONTROL CIRCUIT

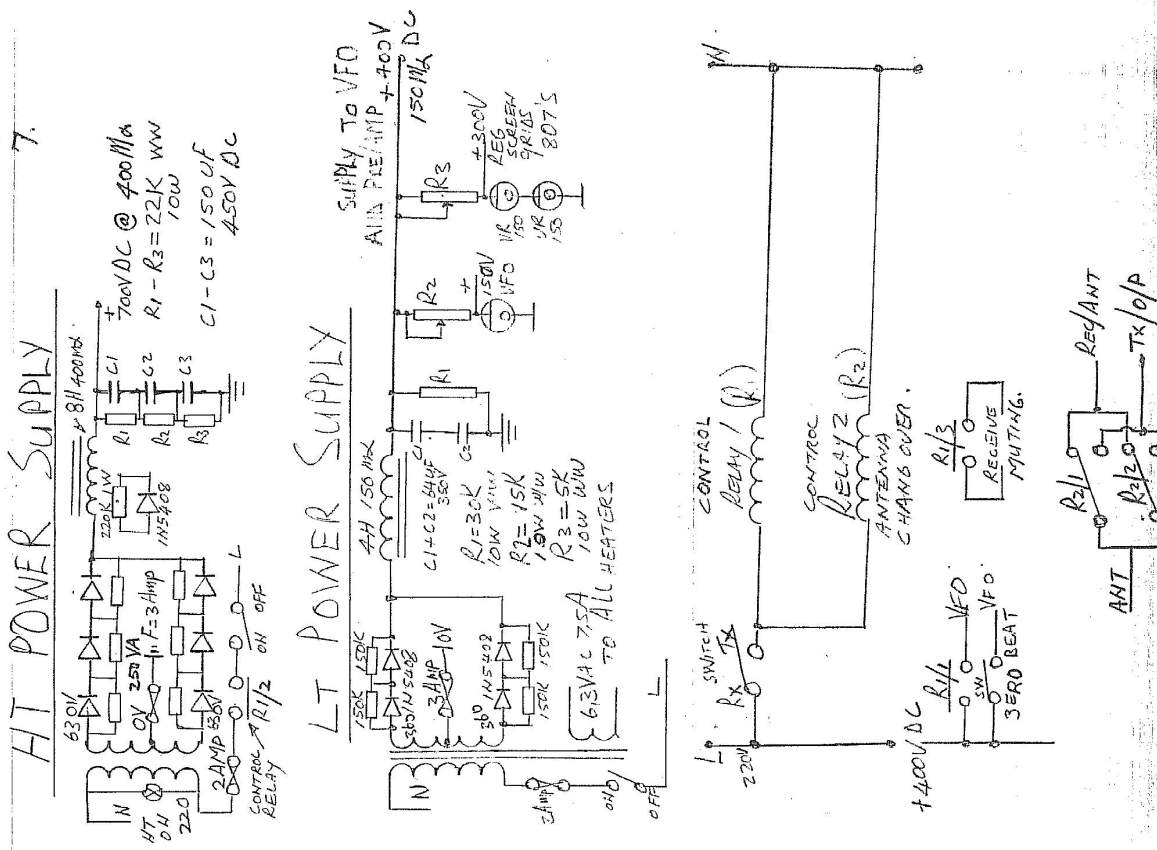
The throw of a Toggle switch between the Receive /Transmit mode controls this system like a Transceiver which is operated the same as from a PTT on a microphone which make it more user friendly when using old Boat Anchors!

CCTS CONTROLLED BY RELAY NO 1

- a) The mute function contacts to fade out the receiver used with the AM Transmitter.
- b) Supply voltage to the relay in the HT Power supply that controls the 230V to the primary of the High voltage TRF.
- c) The centre tap of the low voltage 400V DC supply, as well as cold side of relay No 2 coil are switched to ground by this relay.

CCTS CONTROLLED BY RELAY NO 2

The Antenna change over relay between the RX and TX are controlled by this relay.





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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 yesterdays radio transmitters and receivers. 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.



Wanted / for Disposal

Munro ZS5IN, is looking for the VFO cover for a Johnson Viking Valiant/ Ranger . Anyone that can help him should contact him at 039 695 0997.

The following rigs have been made available to me for disposal for the AWA. Suitable donations to the cofers would be considered :

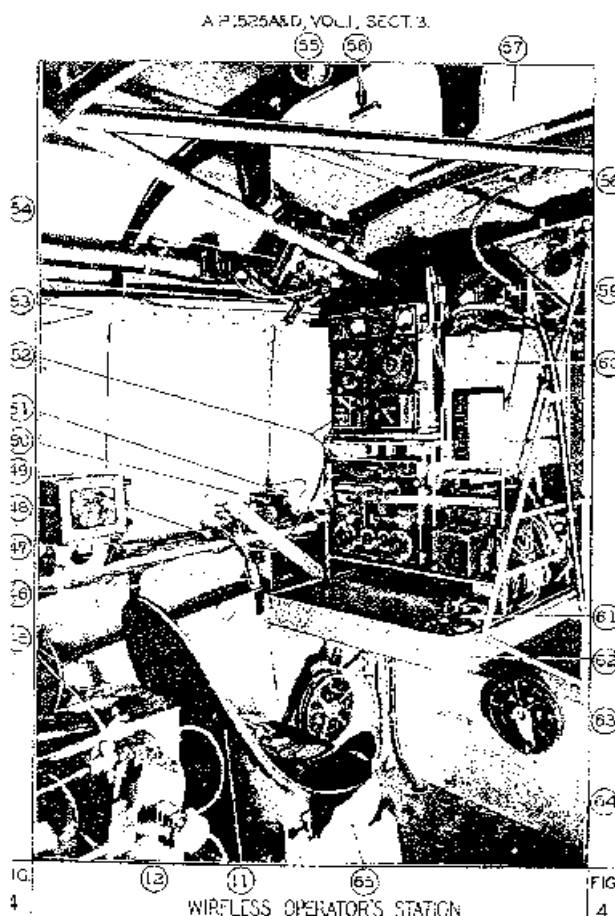
Hallicrafters SX42 receivers for restoration. The transformer is u/s but otherwise in fairly good condition.

Hallicrafters SX43 receiver for restoration. Rig complete in fair condition.

TR15 HF Tx. Condition fair to good, works on 24V.

Tombstone type commercial radio from about 1930-40. Wooden case still in good condition. Photo's available.

Contact Andy at 0824484368 or email if you are interested at all.



This Picture is of the Radio Operators station on the Anson 1. The Friends of the SAAF Museum are looking for any radio equipment of this type. If you can recognise any of it and know of any units available, please contact Dave ZS6AAW on 0126672153 or davegem-mell@bmknet.co.za . (I have an A4 size photo if anyone would like a bit clearer picture—Ed)