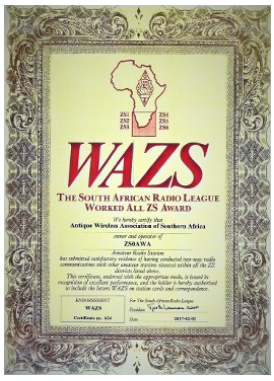
Southern African Antique Wireless Association ZSOAWA

Newsletter

The Antique Wireless Association of Southern Africa

SARL

 # 175 **February 2021**



Inside this issue:

AWA Committee:

* President—Renato ZS6REN
* Acting VicePresident—John ZS1WJ
* Technical Advisor—Rad ZS6RAD
* Secretary/PRO—Andy ZS6ADY
* KZN—Don ZS5DR
* WC—John ZS1WJ
* Historian—Oliver ZS6OG

Visit our website:

www.awasa.org.za

Reflections:

What is it that makes a good radio operator ?

I have often pondered this question when listening to so many different ops using so many different radio's and so many different antenna's.

Is there such a thing as a good radio operator, or is it just something that we decide on our own according to the signal we receive and the way in which the operator conducts himself/herself on air ?

I speak for myself here and for me it would always be the way in which the person conducts themselves on air.

Yes a good signal and nice audio make it so much easier to hear someone, but often these are not things the operator has a lot of control over. Band conditions play a big part in all of that.

So often we talk about the Amateurs Code and how we should all take note of it, but I think it's more than just about a code. It's about who you are as a person.

I have been a radio ham for a good number of years and have had the privilege of meeting many other radio hams. My experience with the large percentage of them is that they are mostly good natured, well mannered people.

Of course there is the exception, as there is generally in life, but for the most times I would stick with my opinion.

From the days when I started with CW on HF in order to get my phone privileges, I learned that there was a way in which operators spoke to each other. CW certainly taught me a lot about communicating with others in a structured way.

Anyone who served in the military will tell you too that protocol is of the utmost importance.

Of course I am not saying that one has to be as disciplined as what the military are, but there should be a form of discipline in the way we treat each other on air.

I will probably need a flame suit here, but I listened to some guys chatting on a 2m repeater the other day. I had no idea who they were, because they did not use names and they did not use call signs. These are the exception to the rule.

After twenty minutes I gave up trying to figure out who they were and switched off.

One of the things I will say about ops on the AWA, is that they do have respect for each other, I don't know what happens when they switch off their rigs, but at least on air there is a common decency which prevails.

Well done to you all, may your names be written in the operators book of life to be remembered for future generations to come and may your valves always glow brightly with cooling fans to maintain them at correct operating temperatures.

Best 73

DE Andy ZS6ADY

Wikipedia

Radio Propagation:

Practical Effects:

The average person can notice the effects of changes in radio propagation in several ways.

In AM broadcasting, the dramatic ionospheric changes that occur overnight in the mediumwave band drive a unique broadcast license scheme, with entirely different transmitter power output levels and directional antenna patterns to cope with skywave propagation at night. Very few stations are allowed to run without modifications during dark hours, typically only those on clear channels in North America.[12] Many stations have no authorization to run at all outside of daylight hours. Otherwise, there would be nothing but interference on the entire broadcast band from dusk until dawn without these modifications.

For FM broadcasting (and the few remaining low-band TV stations), weather is the primary cause for changes in VHF propagation, along with some diurnal changes when the sky is mostly without cloud cover.[13] These changes are most obvious during temperature inversions, such as in the late-night and early-morning hours when it is clear, allowing the ground and the air near it to cool more rapidly. This not only causes dew, frost, or fog, but also causes a slight "drag" on the bottom of the radio waves, bending the signals down such that they can follow the Earth's curvature over the normal radio horizon. The result is typically several stations being heard from another media market – usually a neighboring one, but sometimes ones from a few hundred kilometers away. Ice storms are also the result of inversions, but these normally cause more scattered omnidirection propagation, resulting mainly in interference, often among weather radio stations. In late spring and early summer, a combination of other atmospheric factors can occasionally cause skips that duct high-power signals to places well over 1000 km away.

Calendar:

February

1 - Registration for the May RAE opens
2 - World Wetlands Day
4 - World Cancer Day
6 - SARL VHF/UHF Activity Day; Durban ARC meeting
7 - AWA CW Activity Day
8 - West Rand meeting
13 - World Radio Day
13 and 14 - CQ WPX RTTY; PACC contest
14 - Valentine's Day
15 – maybe the Provincial schools open
16 - PEARS and Border ARC meetings
19 to 21 – the South American Light-house Weekend http://www.grupodxbb.com.ar/
20 - Magalies and Highway ARCs meeting
20 and 21 - ARRL DX CW contest
23 - Secunda ARC meeting
26 to 28 - Sandstone Steam Weekend, Ficksburg; Clarens Beer Festival
27 - International Milk Tart Day; SARL 40 m Grid Square sprint; CTARC meeting; West Rand Flea Market

YOTA Online – Session #9

Starting at 19:00 UTC on Thursday 28 January 2021, the YOTA Online topic will be "Recap: December YOTA Month 2020." This time we will have our YOTA IT team speaking about their self-developed DYM website and its newest features as well as guests talking about their impressions on the 2020 activity. Furthermore, we will also have a special prize draw after you solved our new riddle live on the show. We will give away two more ICOM merch packages. So, stay tuned and be excited! YOTA Online will be streaming live again on our Twitch, Youtube and Facebook channels www.twitch.tv/hamyota, www.youtube.com/hamyota and www.facebook.com/hamyota. Furthermore, we try to stream via the QO-100 geostationary satellite in DATV mode again.

The Results of the SARL Wednesday 80 m Club Sprint

The Contest committee received 61 logs for the first Wednesday 80 m Club Sprint and 821 QSOs were made. Please read the rules before starting the contest! Yes, you know who you are. Rule 4.3 and Rule 7.2. Use the 2021 log sheet – not the 2020 log sheet! Please submit only one (1) copy of your log sheet.
No, the contest rules have not changed dramatically – the time was changed, the Club name has been added to the exchange and you are encouraged to search and pounce.
The points of some contesters could have been higher, but they did not read Rule 4.3 and its reference to Rule 5 of the General Rules.

5. The QSY rule for the Sprints

5.1 A Sprint is a short one hour activity.
5.2 The use of Searching and Pouncing (S&P) is encouraged. Listen around the frequency range of the Sprint for a station calling, pounce on him/her and make the QSO, then search for the next station.
5.3 Stations who want to run a frequency – sit on one frequency and call – must change frequency by 5 kHz after every 5 QSOs made. If you did not follow this rule, well, you lost 1 point per QSO.

1st the West Rand ARC (WRARC) – 1 069 points (24 logs)
2nd the Boland ARC (BARK) - 390 points (11 logs)
3rd the Bo-Karoo ARC (BKARK) – 324 points (5 logs)

Individual Stations:
1st Woody, ZS3WL - 100 points
2nd Hans, ZS6KR - 87 points
3rd Sybrand, ZS1SJ and Romeo, ZS6ARQ - 84 points

New Website

Mauro, IW9HMQ (IR9P) has created a website devoted to HF Contesting and DX activity https://www.iw9hmq.com/resources_contest.html.

SOTA – The Care and Feeding of Chasers

The January-February-March 2021 edition of the Pacific Northwest SOTA Newsletter has an article by Darryl, WW7D, entitled "The Care and Feeding of Chasers," but it really about how to make more contacts more efficiently. His advice is wide ranging: From antenna and band choices to operating techniques, he covers both HF and VHF/UHF operating.
http://www.pnwsota.org/sites/pnwsota.org/files/downloads/K7ATN/PNW%20SOTA%20Newsletter%20Jan-Feb-Mar%202021.pdf

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)

Kenya, 5Z. Wayne, 5Z4WH is active from Molo. He is generally active on 40, 20, 15 and 12 metres using SSB and FT8. QSL via operator's instructions.

Togo, 5V. Daniel, HB9EHD will be active again as 5VDE from Kara, Togo between 11 and 20 February. In his spare time, he will be active on QO-100 SSB as well as on 40 and 20 metres FT8. QSL via LoTW and eQSL, or direct to home call.

African Islands

Ascension Island, ZD8. Tev, TA1HZ is active as ZD8HZ during 2021 while on work assignment in Georgetown. Activity will be in his free time on 80 to 10 metres using mainly FT8. QSL via LoTW.

Antarctica

Oleg, ZS1ANF/UA1PBA is currently on his way to Wolf's Fang Camp in Antarctica (WAP MNB-12) and hopes to start operating as ZS7ANF in February. QSL via RK1PWA.

AWA CW ACTIVITY DAY

1. Aim

The aim of the CW Activity Day is for participants to contact as many amateurs as possible on the 20, 40 and 80 m amateur bands.

2. Date

07 February 2021

3. Times

From 13:00 UTC (15:00CAT) to 15:00 UTC (17:00 CAT)

4. Frequencies

14,000 to 14,060 MHz; 7,000 to 7,035 MHz; 3,500 to 3,560 MHz

5. Categories

a) Single Operator All Band – Low Power (maximum 100W)
b) Single operator All Band – QRP (Maximum 5W)
c) Single Operator Single Band - Low Power (maximum 100W)
d) Single operator, single band – QRP (maximum 5W)
g) Short Wave Listener (SWL)

6. Exchange

RST, operator name and Grid Square locator.

7. Scoring

Contacts count 1 point for low power, 2 points for QRP.

8. Awards

Certificates are awarded to the first three places and the highest single band score.

9. Sponsor

Antique Wireless Association of Southern Africa, PO Box 12320, Benoryn, 1504
E-mail: andyzs6ady@gmail.com

10. Closing date for log submission: 1st Weekend March.

Hallicrafters Model SX-28
Communications Receiver (1941)

One of the most beloved of all communications radios, Hallicrafters' Model SX-28, dubbed the Super Skyrider, was sold from 1941-1944 and was their top-line receiver. Many thousands were manufactured for government service during World War II, so this radio has historical significance and is also fairly plentiful.

This article contains a detailed account of how I restored my SX-28, with a number of photos, so please be patient while it loads. You can click on any of the thumbnail images on this page for a larger view.

Description

Model SX-28 was Hallicrafters' finest receiver during the years 1940-1944. It originally sold for $159.50. During the wartime years, Hallicrafters introduced Model SX-28A, essentially the same receiver with minor modifications in the RF section. By 1944, the SX-28A sold for $223.

This Hallicrafters ad from 1944 shows the SX-28 and tells people that "the time will come" when they'll be able to buy such a fine receiver. (During World War II, all domestic radio manufacturing was diverted to military production.)

MEET YOUR NEW NEIGHBOR . . .

Your new neighbor, half way around the world, will be closer than ever with improved short wave radio communications. For instance there will be new light on "darkest Africa" and descriptions by explorers of strange tribal customs as pictured above will be sent around the globe through the magic of short wave radio.

Here's a whole new world open to you. An African jungle ceremony is only one of thousands of universally important and exciting events that will be brought home through good short wave receivers. Hallicrafters' equipment reaches far out and brings in high quality reception from the most obscure and distant points.

Famous as builders of "the radio man's radio", Hallicrafters will continue to make the finest short wave equipment available. Wherever you are . . . whatever you do, be it business, science, industry, government, teaching, you'll want to be quickly, reliably and regularly informed of fast breaking events in the post war world. For you and your particular needs there will be a Hallicrafters receiver . . . to help you meet and know your new neighbor, to help secure the peace we fight for.

Here is a Hallicrafters communications receiver with an amazing range and capacity. Right now all of Hallicrafters production goes into war communications equipment. But the time will come when you can own a set like this, a set that has been tried under fire and refined and perfected to the highest degree. Keep an eye on Hallicrafters to keep you in touch with the exciting new world to come.

BUY A WAR BOND TODAY!

hallicrafters RADIO

THE HALLICRAFTERS COMPANY • MANUFACTURERS OF RADIO AND ELECTRONIC EQUIPMENT • CHICAGO 16, U.S.A.

The radio was also manufactured under the model number SX-28A-FCC, indicating radios made for the Federal Communications Commission, and the military model number AN/GRR-2. Tens of thousands of SX-28A and AN/GRR-2 receivers were manufactured for wartime use, so you're more likely to find one of those than an "original recipe" SX-28 such as mine.

The next photo shows my restored SX-28 in its cabinet, with matching PM-23 speaker.

This style of cabinet, sometimes called the Gothic, is somewhat scarce because many radios were rack-mounted. A rack-mounted set usually had a smaller rectangular cabinet, or none at all.

Hallicrafters offered two matching speakers for the SX-28, the model PM-23 shown above, and a large wooden console speaker, model R-12. Most PM-23 speakers do not have the chrome lowercase "h" logo.

As with many communications receivers, the matching speaker is harder to find than the receiver itself, since the speaker was an extra-cost option and many owners chose to use other speakers or headphones. If you have a big R-12 console speaker, hang onto it! They are quite rare.

The Super Skyrider name was used for several of Hallicrafters' high-end receivers during the 1930s and 1940s. The company used Sky in several other names, including Sky Challenger, Sky Buddy, Sky Champion, Sky Ranger, and even Skyrider Jr.

The SX-28 is a general-coverage AM receiver, covering the frequencies .54 - 44 megahertz in six bands. Special features include variable sensitivity in three stages (sharp, narrow, and broad IF), BFO, a crystal filter for CW (code) listening, automatic noise limiter (ANL), automatic volume control (AVC), a calibrated bandspread tuner, antenna trimmer, and an S-meter to indicate signal strength.

The push-pull audio amplifier uses two 6V6 output tubes, giving excellent audio quality. The audio section includes a bass boost switch in addition to a variable tone control. A phono jack in the back allows you to play an external source such as a record player through the amplifier. A headphone jack is provided on the front panel. On the back panel are two sets of speaker terminals, for a 500-ohm or 5,000-ohm speaker.

The Receive/Standby switch on the front panel is for use with a transmitter. When you switch to Standby, most of the receiver is turned off, but the tube filaments are kept under power, allowing the set to come back almost instantly when you switch back to Receive.

Hallicrafters made a number of small changes during the SX-28/SX-28A production run. Some sets have an inline fuse on the back panel; some have a rectangular AC outlet on the back panel.

These minor differences do not indicate whether you have an SX-28 or SX-28A. The only sure identifier is the type of coils used in the RF section, which are visible under the chassis. If the coil forms are round, as in my set, it is an SX-28. If they are square, the radio is an SX-28A. Note that some SX-28A sets say SX-28 on the front panel, while others say SX-28A, so even that is not a positive way to ID your set.

Tube	Type	Function
V1	6AB7	1st RF amplifier
V2	6SK7	2nd RF amplifier
V3	6SA7	Mixer
V4	6SA7	Oscillator
V5	6L7	ANL/1st IF amplifier
V6	6SK7	2nd IF amplifier
V7	6B8	Detector/S-meter amplifier
V8	6B8	AVC amplifier
V9	6AB7	ANL amplifier
V10	6H6	ANL
V11	6J5	BFO
V12	6SC7	1st audio amplifier
V13	6V6	Audio amplifier
V14	6V6	Audio amplifier
V15	5Z3	Rectifier

Here is a list of the SX-28's fifteen tubes.

The AVC (automatic volume control) circuitry in the SX-28 is more complex than usual. It has two AVC circuits rather than the usual one. One circuit regulates the first IF amplifier, while the other regulates the RF amplifiers and the second IF amplifier.

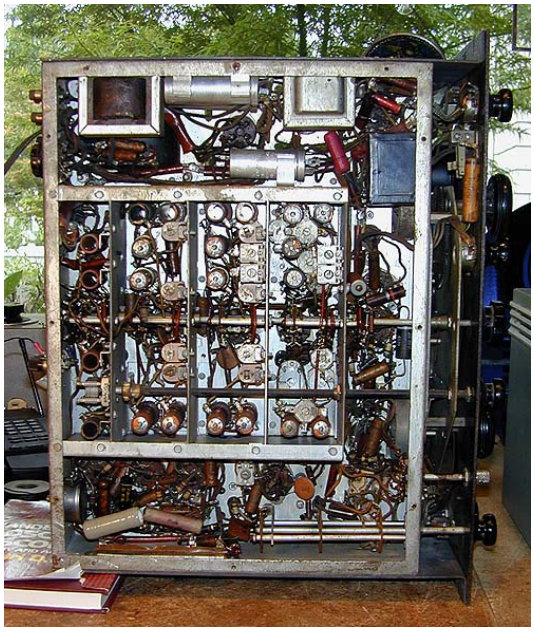
The following photo shows my SX-28 on the day of purchase. To the right of the chassis are its empty cabinet and a matching PM-23 speaker that I had bought the previous year.

This photo shows the top of the chassis

The seller of my SX-28 had owned it for 31 years and used it much of that time. The set was well cared for, but showed an average amount of corrosion on the chassis. Some previous owner had stripped the paint from the front panel and then applied a coat of orange shellac to the panel as well as all of the knobs.

I paid $150 for the receiver and cabinet, which seemed like a fair price to me. My cabinet has good paint, but a previous owner had added two chrome carry handles on the top. I will need to remove those handles, fill the holes, and apply a little touch-up paint to make the cabinet look authentic.

The following photo shows the underside of the chassis before restoration. The SX-28 uses dozens of paper capacitors and half a dozen electrolytics. All of those sixty-year old capacitors are candidates for replacement. Mixed in with the original paper caps, you can see a few disc ceramic and plastic-coated units, indicating that this receiver was serviced more than once over the years.



My radio also had a non-authentic bandswitch knob at the time these photos were taken. The original knob has two large rectangular "ears" and the lowercase Hallicrafters "h" symbol in the center. A couple of years after I wrote this page, I obtained the correct knob from a fellow collector.

Next Month, the restoration process.

(This article is reproduced with permission from Phillip I Nelson from Website Phil's Old Radios : https://antiqueradio.org)

CONTACT US:

P.O. Box 12320
Benoryn
150

Mobile: 082 448 4368
Email: andyzs6ady@vodamail.co.za

Get your backdated issues at
http://www.awasa.org.za/
index.php/newsletters

Visit our Website:
www.awasa.org.za

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'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— 3640
Saturday 08:30 (06:30 UTC)— National SSB Net— 7140; Sandton repeater 145.700
Echolink—ZS0AWA-L; ZS6STN-R
Relay on 14.135 beaming to WC
Saturday 14:00 (12:00 UTC)— CW Net—7020
Wednesday 19:00 (17:00 UTC) — AM Net—3615, band conditions permitting.

AWASA Telegram group:

Note that we are no longer active on WhatsApp, but have migrated to Telegram.
Should you want to get on the AWA Telegram group where a lot of technical discussion takes place, send a message to Andy ZS6ADY asking to be placed on the group. This is a no-Nonsense group, only for AWA business.
+27824484368

FOR DISPOSAL

United Transformers CVM3 125W modulation transformer,
suitable for pp 807's

3/ R1155 dialscales
11/ 100pF4Kv DC
6/ 820pF 2Kv AC
5/ 240pF 2Kv AC
10/68pF 2Kv AC
9/ 130pF 2Kv AC
3/ 430pF 2Kv AC
10/ 10pF 2KV AC
the above listed capacitors are ceramic.

John ZS5JX
Cell 0824865280
e mail johnnormanzs5jx@gmail.com

FOR DISPOSAL:

Heathkit Model IG-82 sine and square wave generator R100
Heathkit SB630 scope—needs attention R50
RCA Scope—needs attention R50
Griffin model A RF Sig Gen, 100Hz to 100kHz R50
Hallicrafters model S40-A receiver completely restored R300

Contact James Fairlie ZS5ABW
072 179 9906

FOR DISPOSAL:

Two mechanical Reed Filters
EFM0892C4B
EFM0652C4B

Contact Karel ZS6WN
084 212 0733