HRSA SOUTH AUSTRALIA

Volume 28 No.4 Feb - Mar 2019

From the Secretary

Welcome to the Feb/Mar edition of the newsletter. I trust that those of you who attended the visit to Broadcast Australia at Mount Lofty found it interesting and have a new perspective on how the signals are transmitted to our radios and televisions. We have been looking at other field trips for later in the year.

In this newsletter I have included a contribution from Chris who wanted to share what he has been working on. As Chris is not on line, the article was sent as a text on an earlier model mobile phone, so the images as not as sharp as you would get with the modern smart phone, however I was able to sharpen them sufficiently for you to see what he is showing you. I hope this encourages more contributions. Joshua has also been a contributor and he has given us a closer look at the different areas that radio has had an impact in our lives. Several members have given me printed articles to put in the newsletter, however I have not had the time to type them out so be patient.

As we are heading toward the AGM I would like you to start thinking about nominations and continuity of the club. I have been putting a significant amount of time into the club and now need to put my focus on other areas of my life so if you have any interest in a committee position, this is a good time to come forward and express your interest. You can be involved in the decision making process and be part of the team. You do not need to have experience, just enthusiasm and you will have the support of the other committee members.

See you at the meetings.

Victor Besz

Coming Events

31st Mar 2019 – Auction at the St. Cyprian Hall, Nth Adelaide

28th Apr 2019 – Home Visit TBA

26th May 2019 – Tony Bell & Chris Ratcliff's Presentation

30th Jun 2019 – Home Visit TBA

28th Jul 2019 – AGM & Auction at the St. Cyprian Hall

HRSA SOUTH AUSTRALIA

The highlight since I published the last newsletter would have to be our visit to Broadcast Australia at Mount Lofty. I received several emails from members who wanted to share that they had worked at the station at some point in their working life and explained their contributions. For the benefit of members who were unable to attend I will give you an overview of the day.

I was on the bus with the group that preferred not to drive and when we arrived at the site, we were greeted at the gate by the site supervisor Ben Vaughan. I could see that the people that had driven to the site had arrived before us and had grouped in the induction area. The gate is not left open for security so once we had entered the site, it was closed behind us. We found the others and after a short reunion, were inducted then were directed to have a closer view of the transmission tower.

ABOVE LEFT: Our pre-tour induction. **ABOVE RIGHT:** gathering under the transmission tower.

When you stand so close to the tower, you realise how tall it really is and wonder how long it would have taken to construct. The amount of cable used is amazing, and it is all neatly bound together. I was wondering if I was holding a fluro tube in my hand, whether it would light up as it does near power lines. I can see why it was positioned at Mount Lofty overseeing Adelaide.

We were then divided up into several groups and allocated a representative to take us to the other parts of the station. My group went to see the power station and back-up generators that were very clean and well maintained.

On the way to the power station we were taken through the museum which displayed items that were familiar to us and I spotted some items such as test equipment that I have seen at some of our auctions.

We were then taken to see the actual transmitters and we were reminded that there are restrictions on what can be photographed so I was being very careful not to take close ups of sensitive items. I explained that the photos were intended to be used in the newsletter and not to be posted on social media. In the remaining photos you will see how clean and tidy the station is. It was most kind of the representatives that gave up their free time to take us around the station and give us such a comprehensive tour. They originally offered us the tour on a week day and were willing to change it to accommodate members who are still working and would not have been able to attend.

I can see the tower from where I live and every time I look up and see it, I have a new appreciation of what is actually there and the infrastructure that is needed to make the station work.

HRSA SOUTH AUSTRALIA




FROM THE HENDON FILES: *The Jammed Door & Excessive Loo Breaks:*

On another occasion BS crafted a couple of slender wedges and waited until BC left his office. As soon as the coast was clear BS entered the office and firmly jammed the inwards opening door before going to the other door, placing a length of string around the second wedge to pull it firmly into place from the outside. Returning to his desk, BS waited until he saw BC coming towards his office and then rang the office phone. BC doubled his pace when he heard his phone ringing and crashed heavily into the jammed door. He tried frantically to open the door and then ran out into the factory to try his other door. This too was firmly jammed but was eventually forced open with some damage only to hear the phone stop ringing as soon as he got to it.

It was known that a certain foreman checked the loos every so often to locate any slackers he might find reading the paper etc. One day an apprentice found a pair of long gum boots and placed them in a cubicle in front of the bowl before locking the door from the inside and then climbing out over the top of the door. The boots were clearly visible through the gap under the door and so after an hour or two the situation came to the attention of the foreman who stormed in and demanded the door be opened. With no response at all, he seems to have assumed that the occupant was unconscious or worse, eventually looking under the door to reveal the trickery.

HRSA SOUTH AUSTRALIA

Farmer Radio Service – Part 1 by Joshua Boxer

LEFT: Bus Radio Amplifier

MIDDLE: Driver Microphone

RIGHT: Public Address Amplifier

Max Farmer started His working career at Earnsmiths from 1934.

1939 was a landmark year for Max Farmer as he was called up for Military Service at the beginning of the Second World War and he was not posted overseas because his experience in radio saw him posted to Brisbane where he serviced and upgraded their radio systems. In 1939 he set up his own Business which would soon be known as farmers Radio Service and installed Car Radios in a facility on North Terrace where he partnered with John Cleary who owned Soundray Amplifiers with PA work.

In the late 1940's he started to manufacture Bus amplifiers. The 1947 version was a straight amplifier, and the 1949 version also contained a radio. These were manufactured for around 5 years where he also travelled while installing the units. Around 400 of these were manufactured. In 1953 Farmers Radio Service supplied & installed amplifying equipment in the Port Augusta Power House.

1954 also saw farmers Radio Service provide sound for Mt Gambier's leg of the Royal Visit. It was the longest sound set up ever done in the region and also provided its own unique technical challenges. The Public Address system was required to be switched off in the sections where the Royal car was entering and switched back on once it was passed. It also provided confusion to the locals as they were wondering where the radio broadcast was coming from as the system was undergoing testing.

By 1954 Max began to manufacture 2 way radio systems for Taxi services beginning with the MRT 13 VHF AM 70Mhz with a new series introduced every 3-4 years. Keeping up with the technology of the time, from vibrator to transistor power supplies, valve to transistor modulator etc. In 1954 Farmers Radio Service installed 2 way radio systems in a Port Lincoln taxi firm, Merchants Lincoln Taxi Service. This was a big asset to the public of Port Lincoln and put the town on a par with other larger South Australian country towns with operating radio taxis. He also manufactures HF radios for the EFS that were a higher power for the time, around 4 watts.

LEFT: First Gen. Radio Telephone

MIDDLE: First Gen. Base Station

RIGHT: In House Test Gear

HRSA SOUTH AUSTRALIA

On the Workbench with Chris Ratcliff

This article was sent by Chris to me as a text on an early model phone so I have tried to sharpen the photos as much as I could, however the important point to take from this is that all you need is a phone to submit an article to the newsletter.

LEFT: Tektronix vertical module type 1A4. Suits the 500 series C.R.O. The 549 turns a single beam C.R.O. into a 4 trace C.R.O.

RIGHT: I had a degree of instability in the unit and added decoupling to it, hence the capacitors on the right hand side of the board.

LEFT: The underneath of the unit. This contains the 4 input amplifiers, each with their own output amplifier. These output devices tend to fail or drift badly. They were not fitted with heat sinks but they are now, which were obtained from the Philips K11. The Taa550 tuning I.C. still drifts but not as badly. I will need to speak to John for replacements.

BOTTOM LEFT: An exploded view showing the heat sinks in more detail.

RIGHT: The top containing the switching circuits. Note the print is not copper but gold.

FROM THE HENDON FILES: *The Singing Turret Tuner:*

While working on the TV turret tuner line this lad wired up a relaxation oscillator inside an otherwise normal looking tuner equipped with a small internal loud speaker. The unit caused quite some alarm and amusement as it made its way down the production line sounding very much like a kookaburra.

HRSA SOUTH AUSTRALIA

If you are ever near Hobart Tasmania……

The Sound Preservation Association of Tasmania is an incorporated body of like-minded people whose interests and aims are to identify, collect and preserve recorded sound, equipment, literature, memorabilia and oral histories of especially Tasmanian origin

The collection includes mantel radios**,** gramophones and telephones**,** as well as recording, broadcast and projection equipment**.** Most of the collection is on display and much is in good working order.

The Association also maintains a collection of recordings which now exceeds 70,000 items and includes early 78s and vinyl records, cassette tapes**,** CDs and a number of rare Edison cylinders.

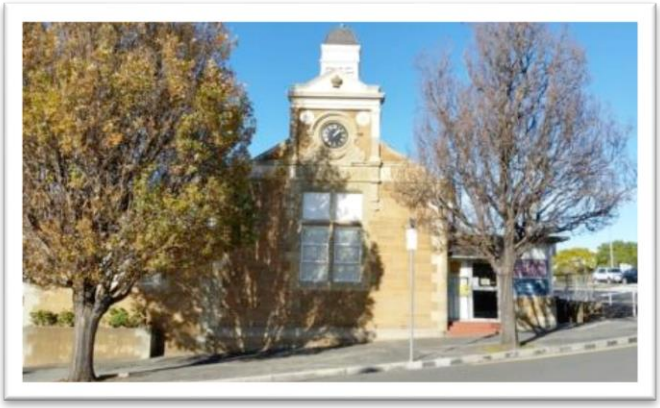
The Sound Preservation Association of Tasmania is open 11am – 3pm on Wednesday, Thursday and Friday.

The Association can open outside these hours if required.

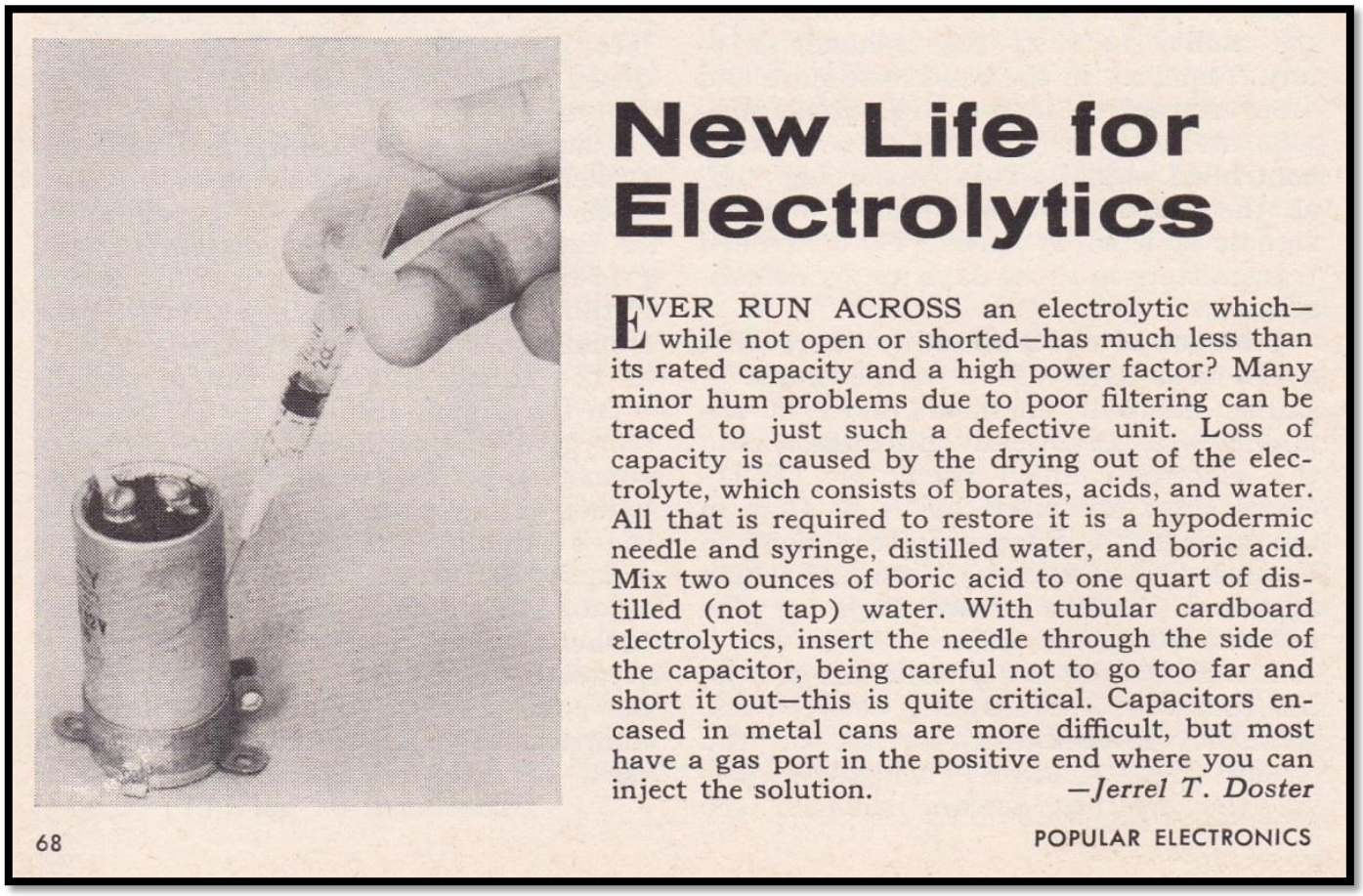
The Association is a non-profit organisation. Entry to the museum will only cost you $5 for a family/couple or $3 concession and U/16s.

Website https://soundpreservation.org.au/

Photos courtesy of Keith Ellison



HRSA SOUTH AUSTRALIA



New Life for Electrolytics

EVER RUN ACROSS an electrolytic which—while not open or shorted—has much less than its rated capacity and a high power factor? Many minor hum problems due to poor filtering can be traced to just such a defective unit. Loss of capacity is caused by the drying out of the electrolyte, which consists of borates, acids, and water. All that is required to restore it is a hypodermic needle and syringe, distilled water, and boric acid. Mix two ounces of boric acid to one quart of distilled (not tap) water. With tubular cardboard electrolytics, insert the needle through the side of the capacitor, being careful not to go too far and short it out—this is quite critical. Capacitors encased in metal cans are more difficult, but most have a gas port in the positive end where you can inject the solution. *—Jerrel T. Doster*

68 POPULAR ELECTRONICS

FROM THE HENDON FILES: *A Painful Catch:*

Back in the instrument maintenance department one of the apprentices taped a number of bare wires around a high voltage electrolytic capacitor and connected them to the terminals. The capacitor was then charged up to several hundred volts and with a gloved hand, thrown towards some poor individual who happened to enter the door, the natural reaction was to catch the item thrown, but it was a very painful catch indeed as the capacitor discharged through the victim's hand!

Committee

Members of the public are requested to direct all enquiries, including those regarding membership, information on radios (wireless sets) and the estimated value of radios (wireless sets), to the Public Relations Officer please.

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