



HRSA SOUTH AUSTRALIA

Volume 27 No.6 Jun-Jul 2018

From the President



Well it's hard to imagine that almost a year has passed since I have taken office and I am pleased to report that it has been a successful year. We have been to the Aviation Museum which has been a good venue, was well attended and very interesting. It was amazing to see the F111 and the Spitfire at close range and it is hard to believe that the F111 was built 25 years after the Spitfire and when considering the advancement in technology, it is truly remarkable.

Changing the venue for the end of year lunch to the Jetty Hotel has been a hit with the members. It is a good venue and so is the food. There was an added bonus of using the tram, which besides being a novel idea, stopped in front of the hotel without the expensive parking fee.

We now have a new sales format for our club, which allows members to sell items that are not suitable for the auction. A Robbies type arrangement which proved to be enjoyable. Robbie had a lot of things or items or whatever name you would like to give it. Junk to one eye is a treasure to another, which reminds me of the maxim, "A frog is a jewel in a duck's eye."

The technical meetings that we introduced for those that do not have the technical knowledge and ARE NOT intended as a show and tell, but to give the member actual hands on experience as well as the theory. I was trained as a service technician and not an engineer or designer. I was trained to find faults in equipment and would like to point out that this is no longer taught as a mainstream technical subject.

The club finances are in a healthy state and the committee has been conscientious in managing the club's funds which has allowed us to use the hall more often and have other benefits. The valve bank has been a good source of funding for the club.

The club's future is looking good and we are working toward making the club vibrant and interesting, and not only for the current members, but also to attract new members. Perhaps we could have some of the meetings at member's homes. If you are willing to host a meeting, please let the committee know.

Remember it is not my club or your club, but rather our club.

Yours Sincerely

Chris Ratchiff

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Coming Events

29 th July	AGM and auction at the St Cyprian Hall
26 th August	A visit to the Brewery
30 th September	Two presenters at the St Cyprian Hall

VISIT TO THE RAILWAY MUSEUM

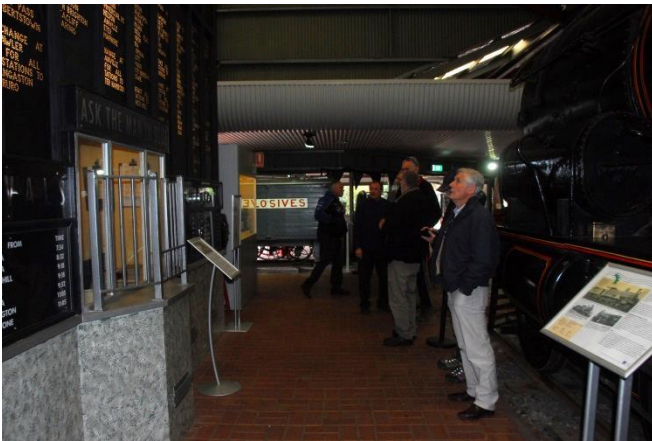


We have now attended the Railway Museum and it proved to be a relaxing day. A small group arrived at the planned starting time and as the day progressed, more familiar faces appeared at the various exhibits. The photo above was taken by Tony Bell as I was in the third carriage at the time, taking photos from inside the train. The train takes you around the museum twice and you get to see the workshop and the trains that are in various stages of restoration. When the ride came to an end everyone seem to scatter in different directions finding an item of interest.



Some of the trains looked like overgrown toys or something that would more at home at a fun park. You could see that a great deal of time had been spent on creating the museum.

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I spotted John spending some time at the display stand (photo above), so I asked him what was so interesting, and he pointed out a document on display that was a part of his own family history. I then asked John if he was willing to share the history with us and he agreed. I requested that he write a short article and email it to me, and I have posted it below:

PORTMANTEAU ART WORK ON DISPLAY AT THE RAILWAY MUSEUM

I think the word "portmanteau" might be appropriate to describe the display shown in this photo. One of the meanings of this word is "a large travelling bag, typically made of stiff leather and opening into two equal parts." The black leather case is open on the table with a display of quite a few papers as shown in the picture.

The photo includes old Crawford friends, Fred and Barbara Whitney, whose son John studied art wife Eva at the Adelaide School of Art. He has been a good friend through their involvement in Adelaide's art scene. Evidently, this display is one of John's art works and I am delighted to find it has found a home in the Port Adelaide Railway Museum.

Looking at the documents included in the display I was surprised to find the names of my parents listed in the central document. Rev Norman Crawford, and Sadie Windsor Crawford are second and third on the list.

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Looking more closely there are other familiar names further down the list. Members of the Society of Friends (Quakers), whose commitment to pacifism and peace is well known. I knew these as family friends during my teenage years, and it was no surprise to find that a record of a meeting seeking to establish a Peace Committee in South Australia included these names.

My father had been the Parish Priest at Saint Cyprian's Anglican church in Melbourne Street from 1943 to 1964. I only mention this because we have often used the church hall for recent HRSA SA Group meetings.

My attention was first drawn to the logo of Amnesty International that you can see in the photo. In 1972 Fred Whitney was President of Amnesty International in South Australia, and he invited me to join SA Branch Committee. I served as a committee member from 1972 to 2016. For some years as President amongst other positions.

When I look more closely at the photo of the documents--now that Victor has asked me for some more information about the display--I see that they are not as I first thought, minutes of committee meetings, but rather are security reports telling of the activities of these organisations. The document on the top left marked "SECRET" appears to be the covering letter from Australian Security when Fred Whitney requested a copy of his security file under the Freedom of Information changes that were made during the 1970s. The lists of names and other documents are part of this file and I presume the pencilled annotations against each name on the middle document refer to my parents' own file numbers.

An interesting part of our history, when people involved in radical organisations like Amnesty International and Greenpeace were monitored. I have forgotten how many Human Rights Day events I helped plan while I was an Amnesty Executive Committee member. I cannot imagine how a simple meeting or ecumenical church service about human rights needed to have a security report on file. The top left document refers to just such a meeting, planned in 1970 before I got involved. I think the document we can see is classified as SECRET.

This added something of a personal story to my visit to the Railway Museum, something I never expected.

John Crawford, June 2018.

Now it was time to rest. Sure miss the cake and coffee that has become a part of our meetings.



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SOMETHING FROM A FORMER HRSA SA MEMBER

I first heard about the HRSA from a member more than 15 years ago, and possibly as much as 20 years ago. His name is Ken Kranz. We became friends at a research organization and he would show me what he would pick up at an auction for very little money and I asked him to bring me to the next meeting, however we were distracted with what was happening at the time and the idea was forgotten. As the years passed we became busy in our own lives and there have been gaps in between our catch ups.

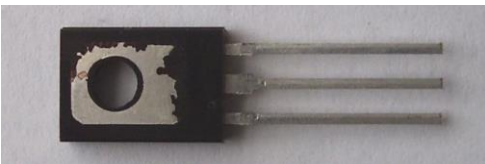
I recently came across material that had posted on his web site so I contacted him and asked if I could use his material for our newsletter. He is a clever electronic engineer and I can remember him using a 9-volt plug pack to run a valve radio and a prototype 4 pin rectifier block that converts DC to AC, in other words, opposite to the bridge rectifier. He has also designed valve testers using programmable integrated circuits with text type displays to give performance details. Ken explained that it is intention to retire this year and he plans to visit our club and design some interesting HRSA style projects for us.

I wanted to insert the following article that Ken posted as it relates to those of us who purchase cheap components from China.

Counterfeit Components

This is simply my experience with counterfeit electronic components. All parts are not made equal and some can get you into quite a bit of trouble.

Below is the image of a less than perfect transistor.



I required a small amplifier with a frequency response of Hz to MHz with an output of 50 volts peak to peak. The class A output transistors chosen were BD139's as they run in an emitter follower configuration it was assumed with an transition frequency of 190 MHz they would do the job. A quality Fairchild spice model was obtained.

Back to the story, a design was successfully spiced, a pcb designed, routed then assembled, it failed to perform as intended. After wasting hours thinking all sorts of things that could be wrong my thoughts turned to the bargain priced BD139's purchased on-line.

Drove 20 km to Adelaide City paid 50 cents each for a quantity of brand name name BD139's from a reputable supplier (Aztronics). Drove home through the slow traffic and fitted the new transistors to the circuit board, guess what? Worked as per the simulation!

Question

How cheap were the bargain on line purchased transistors?

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Time lost, hours. PCB beaten up from fiddling (actually RCB, Routed Circuit Board). At least the grandchildren came around and cheered me up.

Conclusion

Parts from reputable manufacturers and suppliers are often the best choice.

Something to look for with the TO-126 package:

- Cheap looking with the insulating case material actually over the top of the metal pad meant to make good thermal contact with the heat sink.
- The insulation in the mounting hole defective to the extent a collector to screw short circuit can occur.

Ken Kranz



RETIRES LUNCHEON

LEFT: May Retirees Luncheon

BELOW: July Retirees Luncheon

A reminder that all members are welcome to these gatherings that are bi-monthly.



LEFT: Don's 80th Birthday. It looks like a nice cake.

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Sterling Manufacturing Co.

Vacuum Tube Reactivator R-403

Thoriated-tungsten filament vacuum tubes can become weak in emission if they are not operated for a long period of time. The thorium atoms that are in the hardened "paste" that is the coating on the pure tungsten wire filament tend to migrate to the lowest part of the coating. This reduces the filament emission. By heating the filament up to its normal operating temperature the thorium atoms will migrate back up to the surface of the paste (which increases the emission) but it can take a minimum of thirty minutes for the tube to regain its former operating gain. Some radio repairmen didn't have time to wait so the Sterling Reactivator allowed them to speed up the process. By elevating the filament voltage by two times for 30 seconds and then allowing a "burn in" period at 1.5X the filament voltage for 5 to 10 minutes, usually the tube would respond with a measurable increase in gain. The Sterling Reactivator does provide a "Test" function to monitor the results. This device can only be used with thoriated-tungsten filaments. Pure tungsten filaments will not reactivate. Also, DeForest tubes used a carbon based filament that will "burn out" if reactivation is attempted. Only 01A tubes and UV-199 tubes can be tested and reactivated with the Sterling Tube Reactivator.

If you merely install the "weak" tube into the radio and operate the radio normally for about 30 minutes you will notice that the gain and sensitivity will have improved. Further operation will also show more improvement over time but the greatest gain increase will be in the first 30 minutes. Patience rewards you with safely reactivated tube. Also, once a tube is reactivated, it takes a very long time of "non-use" for the tube's emission to decrease again.

Westport Electric

WE-140 Frequency Meter & Counter



This is an early digital frequency counter that doesn't provide the user with actual "numbers" in the readout. Instead the Nixie tube displays, called dekatrons, are a series of ten "dots" that are arranged like a "clock face". As the counter is sampling the frequency the "dots" appear to "spin" around the clock until sampling is completed at which time the "dots" lock in the finished position. The user then has to read each digit somewhat like a "clock face." The Westport Electric counter is for low frequency applications as it's maximum readout is 9999 Hz. Probably dates from the late-1950s.

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THE SMALL CANADIAN TOWN THAT WAS HAUNTED BY RADIO TRANSMISSIONS



Since World War II, residents of Sackville, New Brunswick heard voices in their sinks, refrigerators, and radiator pipes. Lights glowed on and off at random, and even transmitted thoughts into their minds, causing one spooked soul to dream in languages that he was unable to speak. For anyone unaware of their source, these broadcasts from beyond could sound supernatural.

The foreign tongues filtering into the east coast Canadian town with a population of less than 6,000, were actually due to shortwave transmissions, unintentionally picked up from 13 radio towers located in the saltwater Tantramar Marshes. Built by the Canadian Broadcasting Corporation in 1944, Sackville's Radio Canada International (RCI) site relayed content in multiple languages across the ocean. During the Cold War, the 120-meter towers became the first allied site to transmit Radio Free Europe across the Iron Curtain. Their transmissions weren't meant for the Maritimes, but they haunted homes like friendly ghosts.

For her latest documentary, *Spectres of Shortwave*, Moncton-born experimental artist and filmmaker Amanda Dawn Christie spent the last seven years exploring this otherworldly phenomenon. While working at Sackville's Struts Gallery in 2009, she heard stories from local residents about voices in sinks where "pipes acted like antennas and the bowl became a gramophone speaker." Christie was jealous that hers didn't pick it up, so she spent her pay cheques for the rest of the summer at a plumbing store, extending her pipes to bring the sink to the marsh.

"People thought I was crazy, says Amanda. "I set [the sink] up at an agricultural fair, where I met people I normally wouldn't bump into. The farmers whose families have lived there for generations had amazing stories. There was one woman who heard it in her clothing line when it rolled over the wheel." It was then that she decided to start recording their stories and make a film.

"Even if you study antennas and understand how they work there's still something amazing about radio waves," Christie concludes. "They're all around us and passing through our bodies. That's why I like voices in the sink and in the fridge. All of a sudden you're an unintentional witness to a broadcast that was meant for someone else. I'm sure some people find it annoying but to me it's a magical gift."

MORE FROM THE HENDON FILES:

Early knock off:

When the radio production line began manufacturing tape recorders an enterprising apprentice made a recording of the knock off siren and played it back at full volume the next day a couple of minutes before the real siren was due to sound. The entire radio and TV production lines began a mass exit while the manager tried to stop them. I believe he failed but the apprentice was hauled over the coals for this stunt.

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The fuse tester:

The instrument maintenance department in the TCA division was a regular training spot for apprentices and most gained a great deal of valuable experience from their time there. One lad however was a born practical joker and spent a great deal of spare time building a piece of test equipment that everybody assumed was a show model. At least a year after he was rotated into another department, one of the technicians discovered a robust hammer-tone grey box bearing a very professional looking label "Fuse tester". The apparatus did not carry the mandatory calibration tag and so it was duly brought to the attention of the boss. Nobody could remember the device and so it was entered onto the asset register and a technician was given the task of checking it out. It was equipped with a heavy three phase power lead on the back, and a small toggle switch on the front. It was reasoned that the small toggle switch must activate some complex internal process as it was clearly far too small to be connected to the three phase mains.

Well, it was plugged in and the switch flicked ON. There was a loud bang and the entire factory fell into silent darkness! After the power was restored to the factory, the box was carefully opened to reveal a very large three phase contactor connected to short out the three phase supply. The coil of the contactor was connected via the toggle switch to a simple dc power supply that drew power from the three phase supply and held up just long enough to allow the contactor to do its job.



STORIES WANTED

Everyone must have at least one interesting story or experience with radio that they would like to share. If I had one contribution from each member, I would have material for quite a few newsletters. My email address is vbosz@adam.com.au

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 Group Secretary please.

President – Chris Ratcliff – ph 0419 834 502 pres@hrsasa.asn.au

Vice President – Antony Bell – ph 08 8269 4095 vicepres@hrsasa.asn.au

Secretary – Alan Taylor – ph 08 8344 6708 m 0417 859 074 sec@hrsasa.asn.au

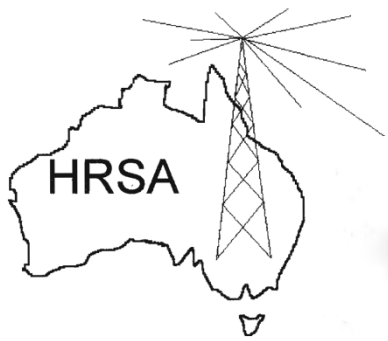
Treasurer – John Crawford – ph 08 8344 4978 treas@hrsasa.asn.au

Newsletter Editor – Victor Besz – ph 08 8336 4206 m 0414 620 544 editor@hrsasa.asn.au

Shop Keeper – Rob Olding – ph 08 8365 3168 shop@hrsasa.asn.au

Web Manager – Peter Hartung – ph 0401 692 057

Valve Bank Manager – John Crawford – ph 08 8344 4978 vbm@hrsasa.asn.au



**HISTORICAL RADIO SOCIETY OF
AUSTRALIA (Inc.)**

SOUTH AUSTRALIAN GROUP

HRSA SA GROUP AGM

1 pm, Sunday 29th July 2018

St Cyprian's Hall, 72 Melbourne Street, North Adelaide.

Also access from the rear of the church,
43 Sussex Street, enter via East Pallant Street.

Following the brief AGM, there will be our usual AGM auction. Sellers who have booked can bring items for sale from 12 noon (please not earlier).

We will have our AGM meeting at 1 pm prior to the sale.

We request that members park in the street so that the sellers can use the car park as the space is limited.

Be careful to observe the "residents only" parking signs (the residents won't hesitate to call the Council if you infringe - \$83 parking fine).

If you have difficulty finding a park in the street, there is easy free City Council parking available almost opposite the Church on Dunn Street on the other side of Melbourne Street (50 metres West of the Church).