AWA Newsletter

#74

March 2012

A Member of the SARL

Antique Wireless Association of Southern Africa

Inside this issue:

AWA Committee:

* President—Richard ZS6TF
* Technical Advisor—Rad ZS6RAD
* Secretary/PRO—Andy ZS6ADY
* Western Cape—John ZS1WJ

Reflections:

Have you ever wondered about where technology is going to.

I love Sci-Fi. I really have enjoyed it since the first Star Wars movies came on to the scene. I think up until then, sci-fi had been very limited in their approach, but when these movies came out, it seemed to open up a whole new era.

The ideas became endless and it was though from that time on, peoples minds were opened up to new thoughts and they were able to put them in to action.

Then came the Trekkie invasion and the ideas were carried even further.

Through all of these new ways of space travel and extended travel and transporters and travelling at warp speed, the radio has remained a constant.

Communication via radio waves has been the same throughout.

Yes it has become a bit more sophisticated, like using slow scan TV at higher resolutions, but it has still been done via radio.

If Marconi could see us now, he would shake his head in amazement to see what has become of his dream to communicate by radio waves.

Has much changed ? Not as far as the airwaves are concerned. They have remained the same throughout all the years. We have just improved on the way in which we utilise it.

As technology improves, that is all we can really do and I should imagine that in the future we will find ways of talking further, by using technology to penetrate the airwaves a lot easier and make them travel a lot further, but the basics of radio technology will remain the same.

We will always be dependant on the sun and the effect it has on the ionosphere to enable us to relay radio waves through it.

Whether or not we will find better ways to do it, remains in the hands of those people with great imagination and the ability to harness that imagination.

In the words of one of the heroes of space travel, "Live long and prosper".

De Andy ZS6ADY

WIKIPEDIA

Inductive reactance is an opposition to the change of current on a element. Inductive reactance X_L is proportional to the signal frequency f and the inductance L . $X_L = \omega L = 2\pi f L$
An inductor consists of a coiled conductor. Faraday's law of electromagnetic induction gives the counter-emf $\mathcal{E}$ (voltage opposing current) due to a rate-of-change of magnetic flux density B through a current loop. $\mathcal{E} = -\frac{d\Phi_B}{dt}$

For an inductor consisting of a coil with "N" loops this gives. $\mathcal{E} = -N\frac{d\Phi_B}{dt}$
The counter-emf is the source of the opposition to current flow. A constant direct current has a zero rate-of-change, and sees an inductor as a short-circuit (it is typically made from a material with a low resistivity). An alternating current has a time-averaged rate-of-change that is proportional to frequency, this causes the increase in inductive reactance with frequency.

CW Net:

CW continues to be popular for those who love it. You have to have some kind of feeling to do CW. I'm not just talking about a feeling in the fingers, but a feeling in the heart and the mind which allows you to get the rhythm needed to make your CW your own.

Try telling this to someone who has never used CW or has been totally against using CW as it is an outdated mode, and they will laugh at you. How can you actually feel something for CW ?

Talk to the guys who have been using CW all their lives, or those who have tried CW and found something exciting in it, and they will tell you it is alive. It has a heart beat which is controlled by the hand of the sender. It has a rhythm and a beat that cannot be copied by someone else. It will give you away when you are new to it and tell a story of how you have mastered it.

Can CW really be all of this ? If you don't know the answer to this question, there is only one way to find out. You'll have to try it out and see.

Join one of the many CW nets still available in SA. Get on to the DX bands and listen to the amount of CW out there. See how many are still using this mode of communication and how alive it is.

The results of the CW activity day were not very encouraging. The only log received was from Barrie ZS6AJY who operated the ZS0AWA station for the duration.

Thanks again Barrie for your efforts. Of course now it comes into question whether we should continue to hold the CW activity day as the last 2 years it has been very poorly attended. Even those who regularly join in on the CW nets, do not use the opportunity to join in the activity day.

Your comments would be appreciated.

Remember the CW net on Saturday afternoons at 14:00 SAST and come and get in some good practice.

SSB activity:

Wow ! The bands have certainly been up and down when it comes to phone and SSB. Sunspots have been playing yoyo and really causing turmoil.

The good side to all of this though, is we have still been going National, which seems to be a requirement for the net theses days, virtually every Saturday.

Of course it is always good to hear all those who do call in and we do realise there are times when 40m is really not at its best and Om Pieter in Springbok tends to battle with us a bit, but all calls are greatly appreciated.

Div 1 has been coming in quite well on 40m and it seems the 20m band has faded drastically on us. As good as what conditions were when we first started out, so they have gone in the opposite direction.

As a result of this, we have decided to discontinue the 20m relay of the SSB net. We will however, start the 80m relay again as from the 24th of March.

This will assist our local stations when 40m skip conditions prevail and of course open another band to encourage calls from different divisions when 40m is misbehaving.

It is also good to hear the number of restoration projects on the go and of course we look forward to hearing many of these rigs on the air in the near future.

Yaesu FT200

AM:

The AM net still continues every Saturday morning, and although 80m conditions do not tend to hold out very long, there are a few new call signs being heard on the net and some very encouraging MF's being played.

It would seem there is also a bit more interest in AM with a few good projects being listed along the way and we would encourage you to try out AM if you have the mode on your rig.

It is not necessary to use only valve rigs, but we do want to emphasise caution when using solid state rigs to transmit AM. Do not exceed the settings given by the manufacturers of whatever rig you are using and because output power is normally a lot lower on these rigs than on the pure hollow state AM rigs, a linear could also be of assistance in getting your signal out.

Here too, caution needs to be exercised in making sure you do not inject too much power into the linear, as this could cause the common problem of losing smoke, which we know is very difficult to catch and get back in the components.

Be careful of overdriving the audio on AM, which also is very easy to do and one will find the settings normally used on SSB will be quite different on AM.

Progress on my Collins is slow as we are still waiting components from the US, which seem to be taking forever to get here. Hopefully its just a postal problem or hold up in customs and soon will be back on the air again.

My attempts at making time to repair the CE100V have not been very successful.

Hallicrafters SX28

Vintage Product ReviewThe Collins 75A-4 Receiver

Stu Cohen, N1SC

Being asked to do a product review for the venerable Collins 75A-4 receiver is like asking a civil engineer to do an evaluation of the design of the Empire State Building; they both elicit the kind of response and respect normally reserved for benchmark milestones that rarely appear. A review of so lofty a standard can be a humbling experience, and, indeed, many consider the 75A-4 to be the best tube-type amateur-band receiver ever built.

It was, in fact, ahead of its time in many ways. Single sideband (SSB) was a relatively new communications mode in 1954, and the , A-4 was the first receiver designed to make SSB easy to tune and a pleasure to operate, while not ignoring the AM, CW and RTTY modes. Although it was produced in relatively few numbers (less than 6000), the 75A-4 left its mark on amateur receiver design for years to come. Many manufacturers emulated its design. The Collins product was coveted then, and is still coveted by hams today. Unfortunately, its price tag ($595 in 1955 dollars; later raised to $695 in 1958), kept it out of the reach of all but the most affluent or dedicated of hams.

A Bit of History

The 75A-4 was the final iteration of a receiver design series started by the Collins Radio Company of Cedar Rapids, Iowa in 1947. Although the first 75A appeared that year (in prototype form), it wasn't until 1948 that the 75A-l appeared on dealers' shelves. The series shared a unique design for its day:

Crystal-controlled converters operating into a tracking IF amplifier and mixer and fed by a linear, low frequency, permeability-tuned variable oscillator (PTO). The architecture and PTO ensured equal stability and linear calibration on all bands and the tuned IF amplifier ensured optimum image response and gain across the mixer's output. The hermetically sealed linear PTO was not easy to manufacture, but it would remain a Collins trademark for years to come.

The 75A-l receiver was quickly followed (in 1950) by the 75A-2. It boasted a new, redesigned dial with circuitry changes that took advantage of miniature tubes (these had low interelectrode capacity and high transconductance, and performed measurably better at high frequencies than the earlier receiver's octal tubes). 1952 saw the introduction of the 75A-3-its claim to fame was the Collins mechanical filter-a marvel of electromechanical design that is still manufactured today (more about that later).

The 75A-4 finally appeared in 1955, and effectively "tied the ribbons" on the series. The receiver boasted, in addition to the standard 75A features, one 3.1 kHz mechanical filter, with an option for two more (switchable from the front panel), detectors for both AM and SSB/CW (including a new SSB product detector), a completely redesigned AGC circuit incorporating time constants specifically tailored to SSB and CW, improved circuit design exploiting the then current best miniature tubes available, a Q multiplier giving up to 40 dB of rejection at the IF and, finally, a novel new tuning technique called passband tuning. Later versions of the 'A-4 also incorporated a special 4: 1 vernier tuning knob and gear mechanism that could be retrofitted to earlier models of the receiver. Interestingly, the RF amplifier had 17 dB less gain than earlier versions in order to cope with strong signal overload and better adjust the receiver's dynamic range in the presence of strong signals.

What Makes It Work?

A block diagram of the receiver is shown in Figure 1. The 75A-4 is a dual conversion design on all bands except 160 meters, where it is single conversion-direct into the tunable IF. The first converter circuit (after the RF stage) employs a crystal-controlled oscillator (separate crystals for each band are selected by the main bands witch) that, with the first mixer, converts the incoming RF signal to a variable IF of 1500 to 2500 kHz. This first IF is tracked. tuned and linked to the PTO (a Collins type 70E-24), through a complex system of gears, cams and powdered-iron slugs as shown in Figure 2. The first variable IF is mixed with the PTO output (1955 kHz to 2955 kHz) in a second mixer to produce a second, fixed-frequency IF of 455 kHz. Amazingly, all of the variably tuned stages, including the RF stage, the first mixer, the variable first IF system and the PTO, are all tuned by the main tuning dial, which is directly coupled to the PTO shaft. All coupling is accomplished through the previously discussed system of gears, cams, slugs and belts. In fact, with the cover removed from its IF section, the 75A-4 is a joy to watch as it is being tuned. One wonders how the designers got all this "Rube Goldberg" complexity to work properly, but they did.

The RF stage, a type 6DC6 pentode, was specially chosen for its low intermodulation distortion (IMD) characteristics. It was probably the best tube choice for its day, although better choices became available later on, and some later third-party modifications reflect that replacement choice. It is probably worthwhile to mention here that this 75A-4 receiver (SIN 1777) is completely "stock" and original; no circuit modifications have been made to it.

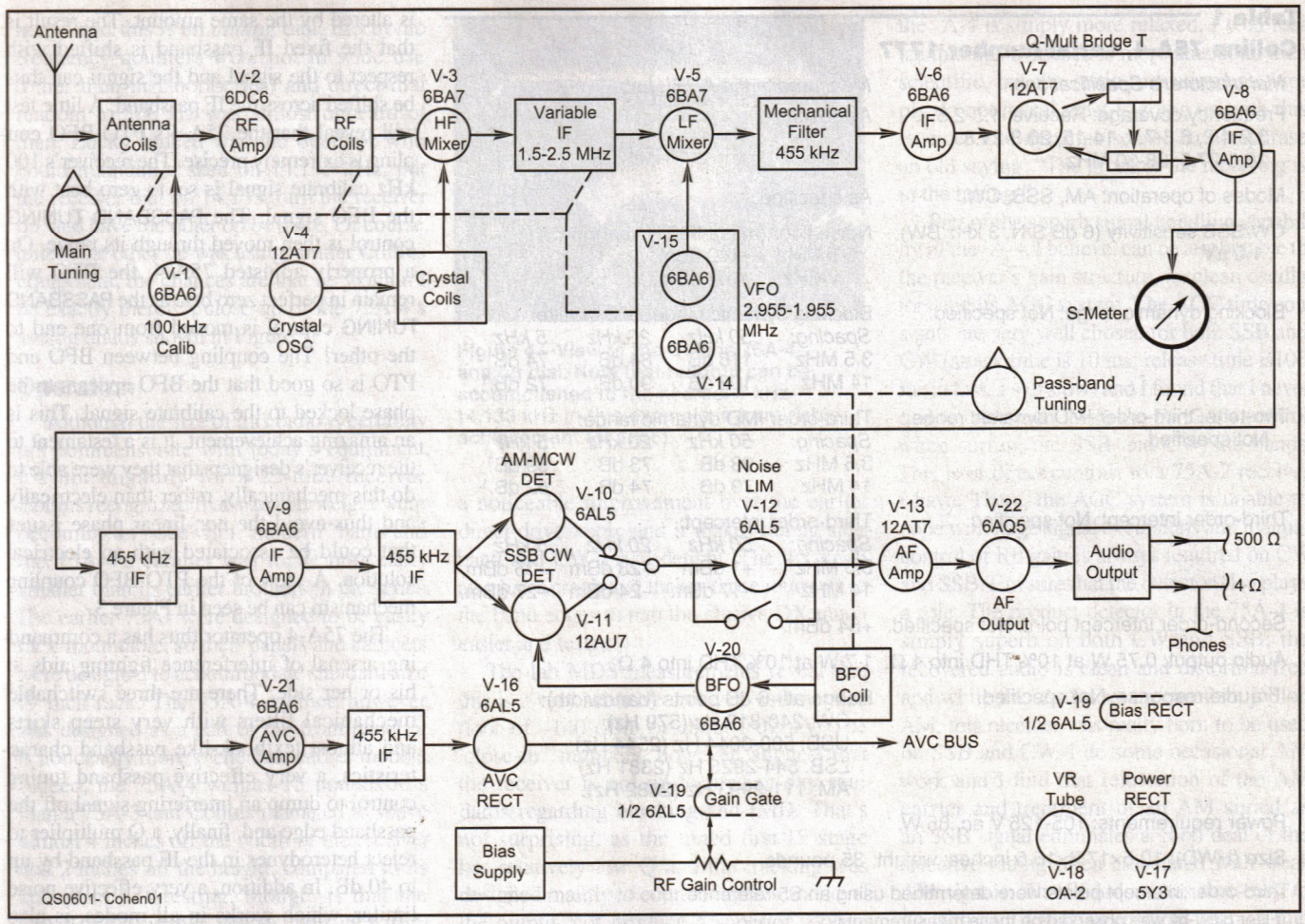

Figure 1—Block diagram of the Collins 75A-4 receiver. Note the tracked, variably tuned stages that are linked to the main tuning (PTO) dial. From *QST*, April 1955, page 41.

The second IF amplifier employs the famous Collins mechanical filter to shape its bandpass characteristic. This filter contains multiple nickel-alloy discs that are driven by magnetostriction in order to convert electrical current into mechanical vibration and back again. Without going into too much detail, suffice it to say that an input coil within the filter, resonant at the IF of 455 kHz, causes a close-coupled nickel wire to vibrate at this rate, synchronizing its mechanical motion to a series of discs contained within the filter. The last filter disc is "read" by another nickel wire coupled to an output coil, which translates the mechanical motion back into an output current.

What all of this fancy magnetostriction conversion does is to produce a selectivity curve with an almost ideal flat top (devoid of ripple) and almost straight sides. Crystal filters, by comparison, can produce as good a skirt response, but usually at the expense of ripple in their passband. Interestingly, mechanical filters are still produced by Rockwell-Collins, and they find wide use in military receivers and avionics equipment. They are currently offered by at least one major amateur equipment manufacturer (Yaesu) as an option for some of their HF transceivers.

The 75A-4 receiver was normally outfitted with one 3.1 kHz mechanical filter. The receiver could accommodate two additional filters; these were left as options for their owners. This particular receiver has the stock Collins 3.1 kHz mechanical filter and, additionally, a 500 Hz CW filter and a 6 kHz AM filter. The additional filters were manufactured and supplied by Dave Curry, WD4PLI, and they function as well as the originals.

A Q multiplier follows, and it is used as a regenerative IF rejection filter, providing up to 40 dB of rejection for any heterodyne within the IF passband. Detectors consist of a standard diode detector for AM followed by a noise limiter and include what is probably one of the first examples of a product detector to be found in a commercial amateur receiver. This SSB detector is actually a mixer, taking the BFO signal and mixing it with the output of the 455 kHz second IF amplifier. The result is a low distortion audio signal with linearity that improves greatly on the use of a diode detector for SSE. Ample and stable BFO injection levels coupled with superior frequency stability, the use of a well-designed product detector, attention to proper AGC time constants (both attack and delay times) and superior, low distortion audio result in the 75A-4's excellence as an SSB receiver. Anyone who has ever tuned a 75A-4 across a SSB signal knows what I mean-it is simply a pleasure to copy SSB and CW on a 75A-4.

Earlier, I mentioned Collins' introduction of a novel "new" tuning technique called "passband tuning." In what was another first, the 75A-4 saw premier use of passband tuning in an amateur receiver. These days, we take passband tuning for granted; many modem HF transceivers offer it. In 1955, however, it was something very special. It's probably an understatement to say that the ability to move the IF passband with respect to a signal in that passband is a valuable attribute.

The extremely stable "BFO is adjusted by a front panel control labeled PASSBAND TUNING. That control shaft is directly coupled to the PTO mount (which is in a gim-baled crib) by a flexible metal belt, such that the PTO drive shaft doesn't move (the dial frequency remains fixed, held by the friction of the dial drag adjustment); only the PTO mount moves. As the BFO frequency is shifted (through a range of about ±2000 Hz, centered around 455 kHz), the PTO frequency is altered by the same amount. The result is that the fixed IF passband is shifted with respect to the signal and the signal can thus be shifted across the IF passband. A

little test will reveal that the 75A-4's PTO-BFO coupling is extremely precise. The receiver's 100 kHz calibrate signal is set to zero beat with the BFO signal. The PASSBAND TUNING control is then moved through its range. On a properly adjusted 75A-4, the BFO will remain in perfect zero beat as the PASSBAND TUNING control is moved from one end to the other! The coupling between BFO and PTO is so good that the BFO appears to be phase locked to the calibrate signal. This is an amazing achievement. It is a testament to the receiver's designers that they were able to do this mechanically, rather than electrically, and thus avoid the non-linear phase issues that could be associated with an electrical solution. A view of the PTO-BFO coupling mechanism can be seen in Figure 3.

The 75A-4 operator thus has a commanding arsenal of interference fighting aids at his or her side. There are three switchable mechanical filters with very steep skirts and almost textbook-like passband characteristics, a very effective passband tuning control to dump an interfering signal off the passband edge and, finally, a Q multiplier to reject heterodynes in the IF passband by up to 40 dB. In addition, a very effective noise limiter, which works in all modes, is also available by a front panel switch.

Dial calibration is another area in which the 'A -4 excels. A switchable 100 kHz crystal calibrator is included to calibrate the PTO. After calibration, the linear PTO can be read to a marked accuracy of 1kHz and interpolated to less than half that figure. The edge to edge linearity of the PTO is better than the dial index width and, in any case, within 150 Hz. Remember, we're back in 1955 here-and this is an analog dial. Electronic frequency counters were not in wide use (other than in laboratories) and direct dial readout to 500 Hz was almost unheard of then. Lucky indeed was the operator who could maintain a sked on 14,133 kHz, put the receiver dial on 14,133, turn the receiver on, and have the other op be there. Of course, unless the other op was using similar Collins equipment, the chances are that he wouldn't be exactly there! A close-up of the 75A-4's analog dial is shown in Figure 4.

Collins 75A·4, serial number 1777

Manufacturer's Specifications	**Measured in the ARRL Lab**
Frequency coverage: Receive, 1.5-2.5, 3.2-4.2, 6.8-7.8, 14-15, 20.8-21.8, 26.5-27.5,28-30 MHz.	As specified.
Modes of operation: AM, SSB, CWO CW/SSB sensitivity (6 dB SIN, 3 kHz BW): 1.0~V. 3.5MHz -140dBm 14 MHz -141 dBm.	As specified. Noise floor (mds), 500 Hz bandwidth:
Blocking dynamic range: Not specified.	Blocking dynamic range, 500 Hz filter: Spacing: 50 kHz 20 kHz 5 kHz 3.5 MHz 116dB 84 dB 74dB1 14 MHz 108 dB 90 dB 72 dB.1
Two-tone, third-order IMO dynamic range: Not specified.	Third-order IMO dynamic range: Spacing: 50 kHz 20 kHz 5 kHz .5 MHz 93 dB 73 dB 59 dB1 4 MHz 79 dB 74 dB 62 dB.1
Third-order intercept: Not specified.	Third-order intercept: Spacing: 50 kHz 20 kHz 5 kHz 3.5 MHz + 1 dBm -23 dBm -35 dBm 14 MHz -17 dBm -24 dBm -27 dBm.
Second-order intercept point: Not specified. Audio output: 0.75 W at 10% THD into 4 ohm.	+64 dBm. 1.7 W at 10% THD into 4 ohm.
IF/audio response: Not specified.	Range at -6 dB points (bandwidth): CW: 240-819 Hz (579 Hz) USB: 500-3044 Hz (2544 Hz) LSB: 544-2925 Hz (2381 Hz) AM: 111-2993 Hz (2882 Hz).

Power requirements: 105-125 V ac, 85 W.

Size (HWD): 10.5x17.3x15.5 inches; weight, 35 pounds.

Third-order intercept points were determined using an S5 reference. _

1 Filter blow-by was observed on these measurements. ._

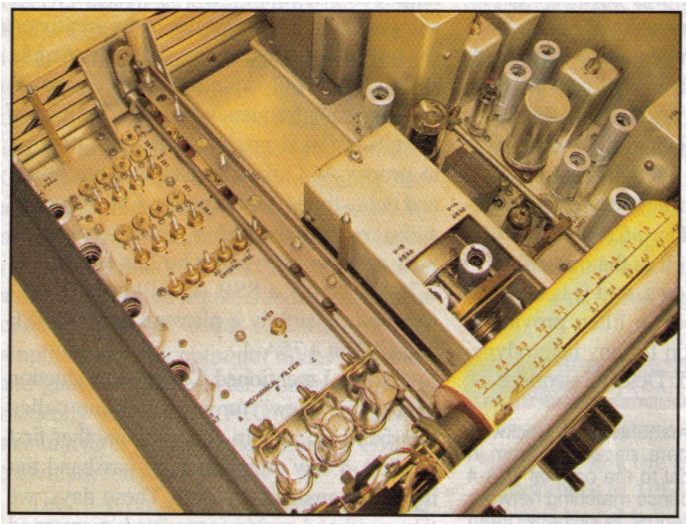

Figure 2-Inside view of the 75A-4 with the cover over the slug rack removed. The bar on the left side of the receiver moves the slugs in the RF and first IF up and down as the PTO is tuned.

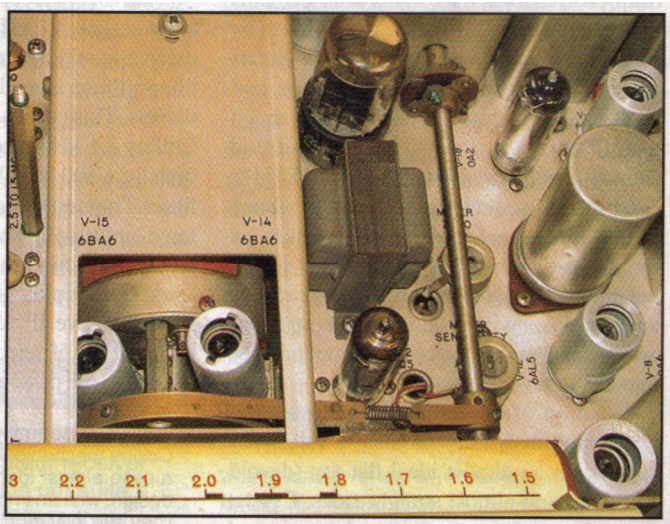

Figure 3-close-up of the BFO-PTO coupling mechanism with the PTO shifted to full USB position. This forms the basis for the passband tuning system.

Operation

Although the size of this radio is certainly not commensurate with today's equipment, it's not ungainly for a 22-tube receiver. Collins recognized that size and weight were becoming an issue with "modern" hams and the 75A-4's cabinet was made noticeably smaller than its earlier brothers in the series. The earlier 75As were designed to be easily rack-mountable, so their panels and cabinets were designed to accommodate standard size 19 inch rack. The 75A-4 cabinet, however, was designed as a part of the front panel; it is noticeably more svelte than earlier models. Indeed, the 75A-4 weighs 15 pounds less than a 75A-3 and Collins managed to shave almost 4 inches off the width of the receiver and 2 inches off the height, compared to it. ancestors. Interesting, though, is that the 75A-4 is 2Y4 inches deeper than its earlier siblings.

Regardless of its size, it's obvious during operation that this is a "real" radio-the controls are large and easy to read-there are no menus, miniature switches or tiny knobs here. Obvious, too, is the fact that vacuum tubes take a while for their filaments and cathodes to heat-we're easily jaded by instant-on communications equipment these days. A good minute passes after ac power is applied before any sounds are heard from this receiver's speaker.

Tuning this receiver is different than tuning a modem radio. The analog tuning knob is connected directly to the PTO-there's no flywheel on a digital shaft encoder here. The tuning is silky, yet it lacks the inertia that a weighted knob would impart. If you've never tuned a Collins amateur receiver, it takes some getting used to. I like the tuning feel-it's directly in touch with the circuit elements that determine frequency in the receiver-a "close to the road" feeling, if you will. There is a dial drag adjustment; this sets the torque level that must be imparted to the tuning knob to get it to move. Properly adjusted, the analog dial has no backlash and is a pleasure to operate. All 75A-4s, save the earliest batch, came with a 4: 1 vernier gear reduction tuning knob resulting in a 25 kHz per revolution tuning rate. This is a noticeable improvement over the earlier direct-drive knob, and it makes tuning sideband and CW a real delight. The 4: 1 knob also has a crank that makes those journeys to the band edges to nab the elusive DX much easier and faster.

The lab MDS measurements reveal that this is a very sensitive receiver, with a noise floor of -140 dEm or about 0.02 JlY. The "close-in" numbers, however, suggest that the receiver is not up to present-day standards regarding blocking and IMD. That's not surprising, as the tuned

first IF stage has relatively low Q and the tracking was designed mainly to counter images and level the output, not produce a superior roofing filter. Nevertheless, performance under all but extremely crowded band conditions is still excellent and a 75A-4 will hold its own against almost any receiver. Under less crowded band conditions, the performance is superb.

Many agree that signal readability is key to the 75A-4's ability to recover signals that are near the noise floor and the combination of the 'A-4's superb mechanical filters and a very linear signal chain results in signal readability that must be experienced to be believed. In a side-by-side comparison I could copy signals better on the 75A-4 than on an all-solid-state HF transceiver 35 years its junior. The signals were present on the transceiver, but they weren't as readable. Perhaps this is due to the superior linear phase characteristics through the receiver's signal processing chain. The signal readability is definitely better on this classic.

The 75A-4 really shines on a quiet band.

Here, the signal to noise ratio is outstanding, and on 20 meter CW I find myself preferring the 'A-4 to every other receiver I have, including the receiver section of my current production medium priced transceiver. The best way to describe this is to say that the signal copy is less fatiguing on the 75A-4 than on the other receivers. Signals seem to rise out of the noise more cleanly, and tuning the ' A-4 is simply more relaxed. I well realize that this evidence is more anecdotal than scientific, but the static measurements simply do not reveal what is going on with this receiver in a dynamic sense. To paraphrase an old saying: "The proof of the receiving is in the tuning!"

Part of the superb signal handling capability of the ' A-4, I believe, can be attributable to the receiver's gain structure, its clean oscillators and its AGC system. The AGC time constants are very well chosen for both SSB and CW (attack time is 10 ms; release time isl00 ms in fast, 1 s in slow) and I found that I never had to "ride gain" with the RF GAIN control when surfing the SSB and CW subbands. This is in direct contrast to a 75A-2 receiver I have. There, the AGC system is unable to cope with large signal excursions and manual control of RF gain is always required on CW and SSB. I'm sure that the detector also plays a role. The product detector in the 75A-4 is simply superb on both CW and SSB; the recovered audio is clean and distortion-free, and while the ' A-4 does an excellent job on AM, this receiver was really born to be used on SSB and CWO I do some occasional AM work and I find that reinsertion of the AM carrier and treatment of an AM signal as an SSB signal eliminates a good deal of the selective fading often associated with weak AM signals. The 75A-4 makes that easy to do with its 3.1 kHz mechanical filter-I find that bandwidth to be just about perfect for synchronous AM detection.

If you've concluded from all of this that I like the Collins 75A-4, you're correct. It's quite amazing to be able to compare a 50 year-old receiver to its modem counterparts, and have a favorable result, but there you have it. It's easy to see why this is a coveted receiver-then and now. The 75A-4 was relatively expensive in 1955, but I think it was worth every penny of its price, and if you ever have a chance to use one, do so--l think you'll be pleasantly surprised.

President's Corner.ZS6TF

Museums

Museums are not my favorite places, but when I was a small boy, my mother who was a teacher used to take me by train to London to see a specialist dentist for orthodontic treatment. My reward for putting up with this was to go to the Science museum afterwards. I always made a pilgrimage to the exhibit of the Lancaster bomber radio operators position with the T1155/R1154 and to the amateur radio station GB2SM where the visitors seats were set among iconic radios of the past and the operator called the world on AM with a Labgear LG300 transmitter, state of the art in those days.

I have been back a few times since, roughly once a decade. The last time was on a wet Wednesday last August during the school holidays. The transformation tested the imagination and personal endurance to the limit. With about 10 cafés, happily with loos to match, and interactive everything from the space program to re-cycling technologies, with a science shop to die for, the kids of my age 55 years previously were having a ball. I retreated into the more serious parts of the museum but found no radio station, and the communication exhibits were "under re-organisation" with an apologetic notice, the centerpiece being an FT101ZD Mk 3.

I came way without regret, understanding for the first time that museums have to be a unique blend of fun, underlying education, attractive, and interactive, and my personal disappointment bore no relation to the museum's success in fulfilling its destiny.

I belong to the Duxford radio society based at the Imperial War Museum site at Duxford aerodrome, Cambridge. There they operate the club station GB2IWM every day on a roster of local radio hams. As you walk into "building 177" your ears are assailed by the sounds of air traffic control from a classic receiver, the sight and sounds of a DX QSO from the ham station, and children queuing for their turn as a schoolgirl tries for a certificate for sending her name in morse at the hallowed Lancaster RO ops position (compliant with "health and safety" regulations and adapted for disabled access!) surrounded by working exhibits of icons of the airwaves, WS19, TR9D, and R1155.

Adjacent is "Building 178" crammed full of old military radios and associated equipment with volunteer 'explainers' on hand to inform you about the treasures displayed there.

In South Africa we have a proud radio heritage and there are a few organizations and individuals who have amassed significant collections of equipment and memorabilia and sit on the narrow dividing line to become a world class museum. Among the most informative must surely be the George Latsky radio museum in Vanryhnsdorp, André s military wireless museum in Bloemfontein, and the collection at the SAIEE HQ in Observatory, with many of the exhibits explained by cards associated with the equipment.

However, I am not really turned on by an array of silent and often dusty boxes. Herein lies the challenge, the key to which is amateur radio in general, and a love of antique radios in particular. How much better that they should be readily accessible , where everything works, there are live radios to be heard and used under supervision at the venue, and that there are interactive opportunities for the younger members of society to ensure the preservation of our radio heritage.

AWA WESTERN CAPE

The Western Cape section of the Antique Wireless Association of South Africa will be holding an Expo which will be open each day for the whole of the Easter long weekend, 6th to 9th April at the farm QTH near Stanford of John and Judy Martin ZS1DI and ZS1JEG. A large display of radios of yesteryear and associated equipment will be on show and a classic radio station will be in operation. GPS coordinates for the farm are 34 25.458S and 19 24.922E. There will be a call in on 145.500 and on the Hermanus repeater on 145.725

The focal point will be from 16h00 SAST on Saturday which will commence with presentations by AWA President Richard ZS6TF and other members on some of the equipment and their restoration projects. An interactive discussion forum will follow for anyone to contribute or for those who need questions answered or need assistance. There will be a bring and braai in the evening and for those who wish to camp over on the Saturday night, just bring your camping kit as there are camping facilities on the farm.

Please contact organizer and AWA committee member John ZS1WJ on 0826735337 for more information, and to let him know if you are attending. Visitors are encouraged to bring an antique radio to exhibit, maybe a restoration project, homebrew, or "as found" to add to the interest of the Expo.

CONTACT US:

P.O. Box 12320
Benoryn
1504

Fax: 27 86 620 3291
Mobile: 082 448 4368
Email: andyzs6ady@vodamail.co.za

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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.

Notices:

NET TIMES AND FREQUENCIES:
The following are times and frequencies for the AWA nets:

AM Net—Wednesday evenings from around 18:30: Saturday mornings from around 06:00 or when band conditions allow. Frequency—3615.

SSB Net—Saturday mornings from 08:30. Frequencies—7070 with a relay on 14125.

CW Net—Saturday afternoon from 14:00. Frequency—7020.
(Times given are CAT or SAST)

AWA Open Day and Flea Market:

Once again it is time for our annual open day and flea market.

Date: Saturday 31 March 2012
Time: 09:30 to 14:00
Venue: Transvaal Aviation Centre at Rand Airport

Bring along your display radio's as well as any odds and bits you want to get rid of.
Bring along the family and enjoy the SAA museum and static display. Watch the aircraft coming in and out at Rand Airport.
Cash bar, restaurant on site.

Contact Andy ZS6ADY for any further details.
0824484368