Antique Wireless Association of Southern Africa

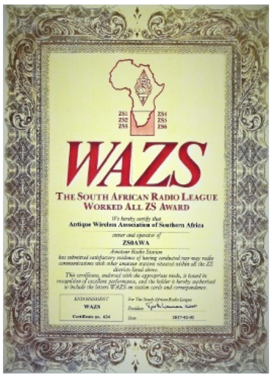
 # 214 **May 2024**

Barlow Wadeley XCR30 MII

The **Barlow-Wadley XCR-30** is a portable shortwave receiver that gained popularity in the 1970s. Let me provide you with some details about this interesting device:
The XCR-30 was introduced in 1969 by Barlow-Wadley in New Germany, South Africa. Despite its appearance resembling a cheap Japanese portable radio from the 1970s, it was actually a well-designed and well-built device housed in a shielded metal case[1].
One of its standout features was its extremely wide frequency span, covering 500 kHz to 30 MHz. This impressive range was achieved through the use of the so-called **Wadley Loop**, an invention by Dr. Trevor Wadley. The Wadley Loop was also used in other receivers like the Racal RA-17.
The XCR-30 was highly desired by radio amateurs, although its initial price of US$ 269 was relatively high. Over the years, several versions and variants of the receiver appeared on the market, including one with a complementary FM broadcast receiver mounted at the top and a rare dark green (military-looking) enclosure.
The receiver was suitable for the reception of AM, LSB, and USB narrowband signals. The FM version could also handle wideband signals in the 87.5 to 101 MHz range. However, its popularity waned with the introduction of the Phased Locked Loop (PLL) and Frequency Synthesizer technologies.
Interestingly, due to its unobtrusive appearance and wide frequency coverage, the XCR-30 was used during the Cold War by intelligence services on both sides of the Iron Curtain. It was employed for tasks such as receiving messages via the One-Way Voice Link (OWVL).

Here’s a quick overview of its features:
The XCR-30 had two tuning knobs and two frequency scales. The left knob adjusted the MHz setting, while the right one handled kHz. This allowed the radio to provide 30 linear segments of 1 MHz each, with a tuning accuracy of approximately 5 kHz. Fine-tuning was possible with a small knob below the S-meter, and a separate clarifier control was present for SSB (LSB or USB) reception.

If you’re interested in vintage radio equipment, the Barlow-Wadley XCR-30 is certainly a fascinating piece of history!



Inside this issue:

AWA Committee:

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Reflections:

The AWA QSO parties began way back in the days when AM was still popular, well, amongst some of the members yes, and were well attended in the beginning.

When I say well attended, there were an average of 25 plus stations on the AM session and around 70 plus on the SSB session.

It seemed that every operator who had an interest in Valve radio and some who only had semi-conductor radios, wanted to try their hand at AM.

The AM group would meet every Saturday morning before the SSB net for an hour, and then every Wednesday evening to play MF (for the uninitiated, that's Musical Frequencies). Helge reminded me of the nights we would play MF's until the early hours of the morning on 80m, and then drag yourself off to work in the morning.

South Africa is, as far as we know, the only country where musical transmissions on 80m are allowed, There are still some ardent MF guys, but all done on LSB and not AM. Just listen out on 3700 on a Saturday evening and you are bound to hear them from 19h00 on.

Prior to that, there were a group of guys who were up virtually every night doing MF transmissions, with Munro ZS5IM, leading the pack. Most of these guys were ex SABC and were well equipped to carry out the task.

But I digress, the Valve QSO party started in May of 2008 and was well attended. Since then, there have been good ones and some not so good ones. But generally speaking, they have been fairly well attended.

The QSO Party suffers from the same problem as do most SA contests, in that people will take part, but don't submit their logs, the result being that we have a great attendance but a not so great result.

I think that often people don't believe they have done well enough in the contest to warrant submitting a log and truth be told it really is more to get guys on the air and occupy the bands than to be a competition. That's why it's called a QSO party.

However, we do award certificates to those scoring the highest points and who would not want to have one of these highly sought after certificates hanging above their valve radio's ? Just ask the guys that have them.

The way to score points though, is to use an all valve Transmitter, or at least a hybrid with valves in the finals. The FT101 has proven to be one of the more popular hybrids used as there are quite a few of them still around, just waiting to be brought back to life. Not everyone has a Collins, so in my view, that is the next best.

I must admit, I still get such a lot of joy out of operating valve radio. Something you still have to tune up by setting the plate and the load to get it to run maximum fire. The plug and plays are great, but they just don't have that tingle, that feeling, that special moment when it all comes together and you hear the report "Copy 59". It is something that's expected from a modern radio, but when you are using something 50 to 60 years old, It's a joy.

Get those radio's tuned up and ready to go for this Saturday's AM and Sunday SSB QSO party and we look forward to hearing as many of you as possible on frequency.

73

DE Andy ZS3ADY

Coronal Mass Ejection (CME) **Wikipedia**

Halo coronal mass ejections

A **halo coronal mass ejection** is a CME which appears in white-light coronagraph observations as an expanding ring completely surrounding the occulting disk of the coronagraph. Halo CMEs are interpreted as CMEs directed toward or away from the observing coronagraph. When the expanding ring does not completely surround the occulting disk, but has an angular width of more than 120 degrees around the disk, the CME is referred to as a **partial halo coronal mass ejection**. Partial and full halo CMEs have been found to make up about 10% of all CMEs with about 4% of all CMEs being full halo CMEs. Frontside, or Earth-direct, halo CMEs are often associated with Earth-impacting CMEs; however, not all frontside halo CMEs impact Earth.

Future risk

In 2019, researchers used an alternative method (Weibull distribution) and estimated the chance of Earth being hit by a Carrington-class storm in the next decade to be between 0.46% and 1.88%.

Let's Talk Transmission Lines

Don't neglect one of the most important parts of your station!

By Edward J. Farmer, AA6ZM

No one wants to discuss transmission lines. Many hams would rather chew aluminum foil. After all, transmission lines are just the cables that link your radios to your antennas. You hook them up and get on the air. Who cares? Boring!

Well, the subject may not have much "sex appeal," but if you want to get maximum performance from your station, give me your attention for a couple of minutes. These lines have a major influence on the results you'll achieve on the air. A little extra knowledge will—literally—take you a long way!

It's a Question of Impedance

Modern solid state radios expect a *load impedance* of 50Ω, resistive. We want to connect them to an antenna, the feed-point impedance of which can be *anything*. It depends on the antenna design, plus how and where it's installed. In general, the impedance is "complex," meaning it has both resistive and *reactive* components. (Don't worry—we'll discuss reactance in a moment.)

Antenna Impedance

Even though the electrical properties are "distributed" throughout the antenna, it's easier to think about a *lumped impedance* representing the load present at its feed point. Two resistors in series with an inductor and capacitor is a useful model (see **Figure1**).

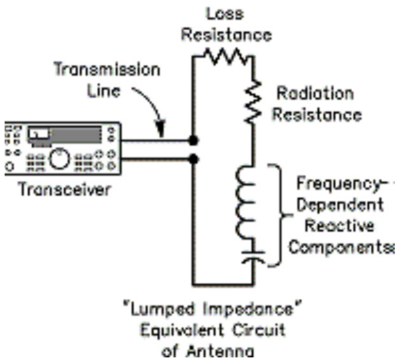

Figure 1—The radio, antenna and transmission line. The object is to get as much power as possible from the radio into the antenna's radiation resistance.

One of the resistors is the desirable *radiation resistance*, which represents the useful work done by the antenna in converting your transmitter's output into radiation that spans states or continents! The other is the *loss resistance* resulting from the resistance of the wire and connections. (Now you know why you need good solder joints and sound mechanical connections on your antenna.)

Power consumed in the loss resistance does not increase the RF field—it merely makes heat. The radiation resistance is usually the larger of the two, but in some designs, such as small loops, radiation resistance is so small that loss resistance becomes significant.

Reactance is the effect produced by the inductor and capacitor. The net effect can be capacitive or inductive depending on the frequency. An antenna is, after all, a distributed tuned circuit. At resonance, the capacitive reactance is canceled exactly by the inductive reactance and the net effect is simply that of the two resistors. When the operating frequency is below resonance, the capacitive component dominates while above resonance the inductive component dominates. Put another way, wire antennas that are shorter than required for resonance are "capacitive" and antennas that are longer are "inductive."

Transmission-Line Impedance

Now that you have a grasp of the nature of antenna impedance, let's consider the pathway from the antenna to your radio: the transmission line. Transmission lines (sometimes called *feed lines*) can take many forms (see **Figure 2**).

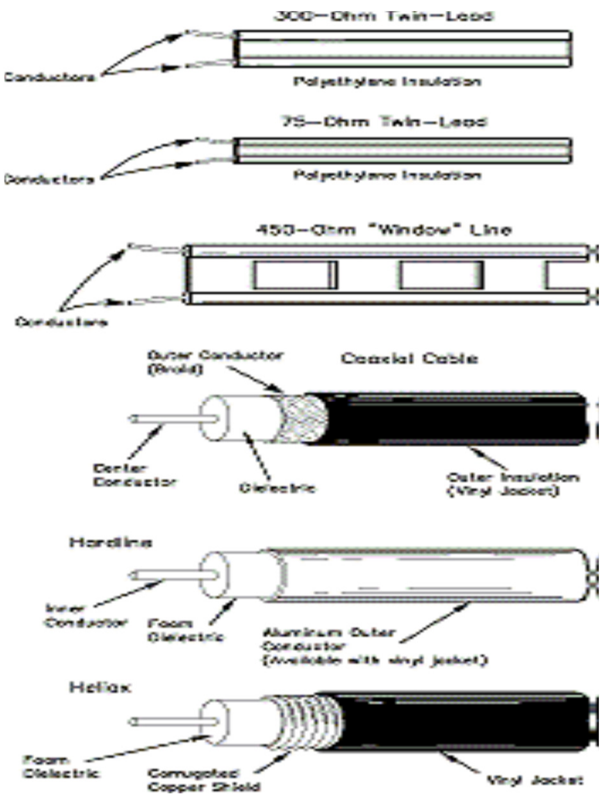

Figure 2—These are the most common types of transmission lines you'll encounter in ham applications.

When most hams think of transmission lines, the word "coax" comes to mind. Coax—*coaxial cable*—has an inner conductor surrounded by a concentric shield. Its characteristics are derived from the outer diameter of the center conductor, the inner diameter of the shield and the electrical properties of the medium separating them.

Ladder line (sometimes called *twinlead* or *open-wire* line, depending on the construction) consists of two parallel conductors separated by an insulator, either plastic or simply the air itself. Ladder line also has a characteristic impedance and it is determined by the diameter of the wires, the separation distance, and the insulating material. Twinlead is often used for home TV antennas and has a characteristic impedance of 300Ω. So-called "window" ladder line is commonly used for amateur work and has a characteristic impedance of 450Ω. Other types are also available.

The property of most interest to us is the *characteristic impedance,* which is the impedance an infinitely long line would present to the transmitter. Since your transmission line is unlikely to be infinitely long, let's see what happens if you take a 50Ω cable, such as RG-8, and terminate it with a 50Ω resistor. The RF impedance measured at its source end will be 50Ω regardless of the length of the line. (Well, this is only true of lossless lines, but let's not lose sight of the principles involved!)

Most coax used in amateur service has a characteristic impedance of nominally 50Ω or 75Ω

Figure 3 shows how impedance varies along a near-matched 50Ω line. **Figure 4** repeats the demonstration with the line terminated at 75Ω. When the load impedance is *greater* than the characteristic impedance, a maximum impedance point occurs every half wavelength from the antenna, and a minimum impedance point occurs at every quarter wavelength point between. When the load impedance is *less* than the characteristic impedance, the maximum and minimum points swap places. Sometimes a difficult-to-match situation can be

helped by changing the line length. Doing so changes the impedance seen by the transceiver or antenna tuner (and hopefully gets it within a range the tuner can handle)—*but it does not change the SWR on the line*.

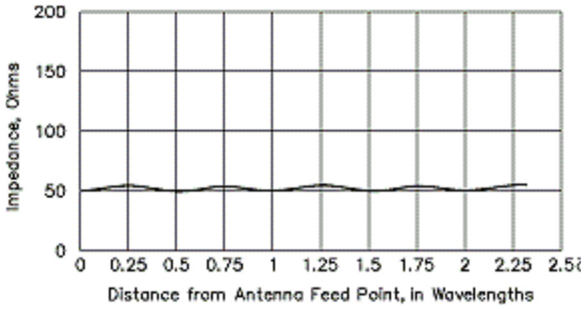

Figure 3—This graph shows the variation in impedance along a 50-∧ transmission line as you get farther from the antenna. In this case, the SWR is nearly 1:1 because the antenna is presenting an impedance that is very close to 50 ∧. Notice that the variations are minimal.

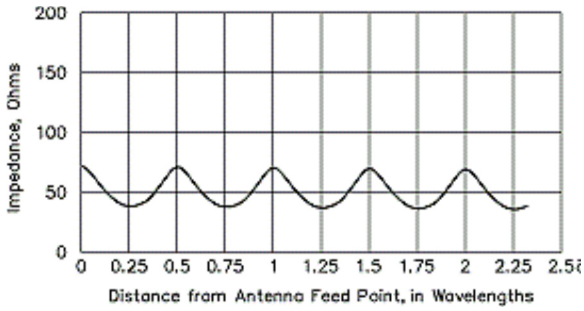

Figure 4—If we attach a 50-∧ transmission line to an antenna with an impedance of 75 ∧, there are substantial impedance variations along the length of the line!

And what about the effects of lossy lines? As Shakespeare wrote, "...ay, there's the rub." All transmission lines have some amount of loss, it's just a question of how much at what frequencies. The result is always the same: *Some of your power isn't radiated*. Stir in a high SWR and even *less* of your power is heading for the heavens. Let's find out why.

Matching Radios, Transmission Lines, and Antennas

If your transmitter needs to see 50Ω at its output, and you use a coaxial cable with a characteristic impedance of 50Ω connected to an antenna with a feed-point impedance of 50Ω, you're on easy street. The entire system is "matched" and maximum power is transferred from the transmitter into the antenna.

The problem is that antennas don't always have the common decency to present an impedance of 50Ω. In fact, the feed-point impedance of a simple half-wave dipole depends on the height above ground, ground conductivity, and, especially, the operating frequency.

When the flow of power from the transmitter encounters an unmatched impedance at the antenna, some of it is reflected back up the transmission line. Try an experiment tonight to understand this concept. Turn on a flashlight in a dark room and aim the beam at the nearest window. The light travels across the room unnoticed and then encounters the window glass. Some of the light passes through, but some of it reflects back toward the flashlight. RF power in a transmission line acts in a similar way when it reaches your antenna.

As the reflected power heads back up the line, it interacts with the forward power to make *standing waves*. It is the ratio of forward to reverse power that you measure with your SWR (standing wave ratio) meter. The standing waves result from the mismatch of impedance between the line and the antenna. The SWR is the same (except for attenuation) everywhere along the line.

A high SWR promotes transmission line loss because the power initially reflected at the load has to make two more trips along the line—back to the antenna tuner or radio, and then back to the load. Thanks to the inherent losses in your transmission line, you're losing power during each one of these trips. The total loss depends on the length of the line through which the current flows.

The higher the SWR and the longer the line, the greater the loss.

In addition, the transmitter-end impedance of the line is no longer the 50Ω the radio needs. The impedance presented by the transmission line now depends on the impedance of the antenna relative to the line's characteristic impedance *and* the length of the line. If this impedance strays too far from 50Ω, your transceiver will begin reducing its output—or it may shut down altogether!

One solution to the transceiver shut-down dilemma is to insert a device between the rig and the antenna system (or directly at the antenna itself) that effectively transforms the impedance to 50 Ω. Such a device is known as an *antenna tuner*. It's a collection of inductors and capacitors arranged to form an RF impedance transformer. When properly adjusted (tuned), the input impedance matches the transmitter (or transmission line, if it's placed at the antenna) and the output impedance matches the load.

When placed at the antenna, an antenna tuner provides a 50Ω impedance at the end of the 50Ω line that is fed from a 50Ω transceiver, resulting in a 1:1 SWR on the transmission line and at the radio. Life on an antenna pole is hard for most tuners, so we typically put them near (or build them into) our transceivers. In that case, they match the 50Ω output of the transceiver to whatever impedance is at the transceiver end of the transmission line. *They do not change the SWR on the line, or the loss it produces.* What can we do to reduce the loss?

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Reducing Transmission Line Losses

Transmission line losses hurt two ways: They waste our transmitter's power and they attenuate the signals we receive. A line loss of 4 dB reduces the output of a 50 W transmitter to 20 W at the antenna. The signals we're trying to hear are also reduced by this same factor of 2.5 !

As we've already seen, losses in transmission lines are directly related to their length. Loss data are usually reported in decibels per 100 feet, so one way to reduce line loss is to use less of it. Assuming the line is the shortest possible length, there are two ways to further reduce loss: Reduce the SWR, change to a lower-loss line, or both.

You can reduce the SWR by adjusting the antenna. In the case of a wire dipole, this means either cutting wire or adding wire. Transmission line loss depends on the type of line and the operating frequency. **Table 1** makes an interesting comparison of transmission line loss under both "matched" and high SWR conditions.

Table 1—How much power are you really radiating?

Assume that you have a 100-W transceiver connected to one of the transmission lines listed below. How much power (in watts) actually makes it to your antenna? Examples are shown for 80, 10 and 2 meters, with 100 feet of transmission line and SWRs of 1:1 and 6:1 on each of these bands.

Transmission Line Type	*3.5 MHz 1:1 SWR*	*3.5 MHz 6:1 SWR*	*28 MHz 1:1 SWR*	*28 MHz 6:1 SWR*	*146 MHz 1:1 SWR*	*146 MHz 6:1 SWR*
RG-58A	85	65	56	33	22	11
RG-8A	91	79	76	52	48	27
3/4-inch Hardline	98	93	93	81	83	63
450Ω Ladder line	99	98	98	91	91	79

It's worth noting that ladder line exhibits substantially less loss on the HF bands than just about any other transmission line available. This means you can get away with SWRs on ladder line that would cause intolerable loss with coax. (This pertains to clean, dry twinlead. When the line is wet—and especially when it's wet and dirty—loss becomes much larger. The less polyethylene and the more air between the wires, the better.)

Let's Summarize...

The object of an antenna is to get RF into and out of the air. Your transmission line plays a critical role in getting this job done. When you shortchange yourself on transmission line, you shortchange your whole station.
As long as an antenna tuner is used, ladder line offers some compelling advantages compared with coaxial cable in almost any medium- or high-frequency application. This is particularly true when you want multiband operation with a single antenna.
When you're working above 50 MHz, remember to use the lowest-loss cable you can afford. The higher you go in frequency, the worse the losses become—even when the SWR is 1:1 !

Unbalanced Transmission Line Currents and Feed-Line Radiation

Center-fed dipoles are *balanced,* which means that they are electrically symmetrical. Ladder line is balanced. If you feed a dipole with ladder line, you have a nicely balanced system. So far, so good.

A coaxial feed line upsets the antenna's balance because the shield ultimately forces a ground at the transmitter. Inside the coax the current in the center conductor is matched by an equal but opposite current on the inside of the shield, resulting in a zero net field. Remember, radiation is produced by RF current flowing through a conductor. If the current in the center conductor and the current on the inside of the shield of the coaxial cable are equal but opposite, then the radiation field from one is canceled by the other resulting in no net radiation. (A similar analysis applies to ladder line.)

But this says nothing about the current that might flow on the *outside* of the coaxial shield. Remember the skin effect? Think about the outside of the shield as a third wire running from the connection point of the shield and antenna back to the connector on the transmitter, and hence to ground. Nothing prevents RF current from flowing on the outside of the shield, thus causing the shield to radiate. How much current flows on the outside of the shield? It depends on the length of the transmission line. A line that is an *integral multiple* of a half wavelength presents a low input impedance and permits current to flow. It's easy to say, "Avoid transmission lines that are integral multiples of a half wavelength," but in practice that's hard to do. The solution is yet another device. This one is known as a *balun*.

The term "balun" is short for "*bal*anced to *un*balanced transformer." Baluns provide a fixed ratio of impedance transformation and limit the flow of the unbalanced current (the one flowing on the outside of the shield).

Digital Filtering - Switched Capacitor Filters

December 1974 Popular Electronics

When this Digital Filtering article appeared in a 1974 issue of *Popular Electronics* magazine, the concept of switched capacitor filters (SCFs) was just entering the realm of digital circuitry. One author, Carmen Parisi, credits none other than James Clerk Maxwell for initially contriving the idea. Today, variations of the switched capacitor filter are ubiquitously incorporated into integrated circuits of all sorts, but at the time of this piece they were assembled from discrete components including banks of capacitors, digital switches (counters), and transistors. Figure 2 shows an experimental circuit that uses six capacitor values for use at audio frequencies. The earliest IC switched capacitor filters worked in the hundreds of Hertz realm, and gradually increased in frequency until today they reach to around 100 kHz (see Digi-Key SCF offerings).

New technique operates from a digital oscillator and uses no critical elements

to

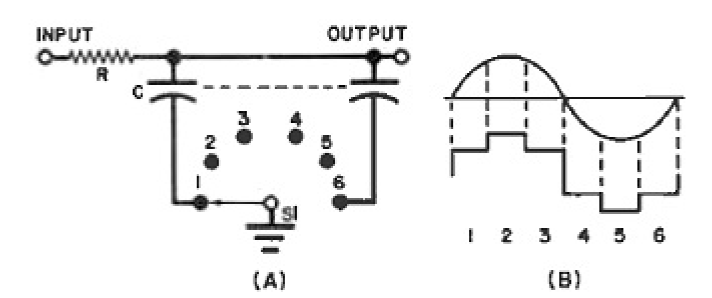


Fig. 1 - At (A) is a simple switch circuit which generates

By Leslie Solomon, Technical Editor

Single frequency filters are important in a number of areas - RTTY, SSTV, radio control, etc. There are two approaches that are usually used accomplish such filtering: either multi-element passive systems (which use precision components and are somewhat bulky physically) or active filters (which use a few passive components and an op amp). Even with the active filter, to obtain careful control of the selected frequency, it is necessary to select precision passive elements.

Though either of the two approaches works well, there is a new filtering method that is unique and should be of interest to the serious electronics experimenter. Called digital filtering, the new method uses no critical elements and is "tuned" with a digital oscillator. High-Q filters (even at low audio frequencies) can be realized and the circuit is very stable since no regeneration is used. These filters use low-cost TTL logic and some conventional switching transistors.

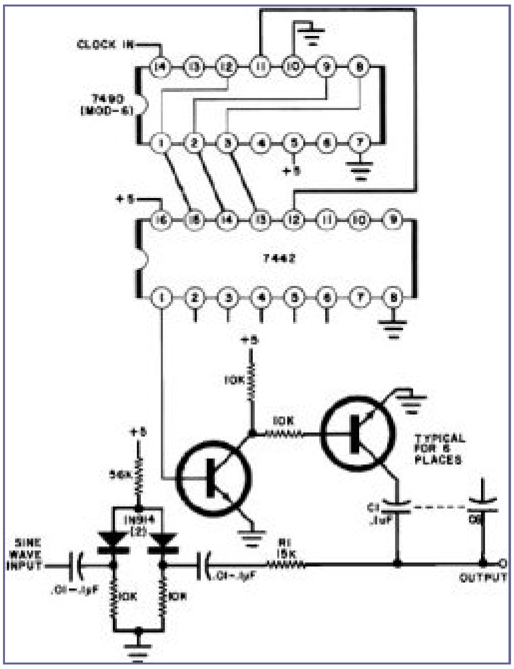


Fig. 2 - Circuit of an experimental digital filter for the audio range.

In the simple circuit shown in Fig. 1A, with the six-position switch in position 1, and with an audio sine wave applied to the input, the first capacitor will start to. charge up toward the signal's peak voltage. If S1 is switched to the next capacitor when the voltage across the first capacitor has reached the average value for that portion of the sine wave, the switch makes another step.

Therefore, as S1 rotates around the six capacitors, each capacitor receives a charge whose value depends on the average value of the sine wave at its portion of the waveform. The charges on the capacitors can be represented by the step curve in Fig. 1B. Of course, the switch must be synchronized with the input sine wave. If the input and switching frequencies are not synchronized, the average voltages stored in each capacitor will differ and will drop very rapidly on each side of the switching frequency. This is the basis of digital filtering; and because of the synchronization system, tuning the filter to any desired frequency is primarily a matter of "tuning" the switching oscillator. Component values for the resistance and capacitance are not very critical.

The circuit of an experimental digital filter for the audio range is shown. in Fig. 2. This circuit consists of a conventional mod-6 counter (7490) driving a BCD-to-decimal counter (7442). The audio input to be filtered is passed through a simple clipper and then coupled to the digital filter consisting of R1 and the six transistor-switched capacitors (C1 through C6). The digital logic and transistors form the switch in Fig. 1A. The digital clock that actually tunes the filter can be any variable-frequency triggering source at six times the required filter frequency.

To tune the filter, connect the audio input to the clipper and a scope to the output. For a dual-channel scope, use the second channel to observe the sinewave input. Care must be taken in tuning the variable clock since the Q of the circuit is high and the filtering action might be missed. As the input is tuned up further in frequency, a peaking in the digitized waveform will be reached at the harmonics of the original setup, with the steps getting coarser each time. This will happen until the harmonic number corresponding to the number of switching positions is reached (six, in this case). There will then be no output, but there will be at the next harmonic. As each harmonic is viewed, it will be lower in amplitude and coarser.

The filtered output signal is a distorted version of the original input so the output can not be used as a sine wave. However, it is useful for triggering other circuits. The bandwidth of the filter remains substantially the same even when the filter frequency is changed. Once built, to change the filter's center frequency, it is only necessary to change the clock frequency to the TTL counter (7490), with the frequency six times the input. The number of switched capacitors is not limited to six but can be any number from a minimum of three to as many as required. The larger the number of capacitors, the smoother the displayed waveform.
The number of capacitors also determines the clock frequency. With six capacitors, the clock must be six times higher in frequency than the input. With five switched capacitors, the clock must be five times higher than the input signal, etc.

(A question to the learned reading this article, "How much has this changed since 1974 and how much is still valid" ...Ed)

"That Old Regenerative Set of Mine"

January 1968 Popular Electronics

"...Or, Never Throw Anything Away, If You Can Help It." That is the full title of this story by Freb Ebel which appeared in a 1968 issue of *Popular Electronics* magazine. In order to "get it," you would need to have been the owner and operator (and preferably builder) of one of the vintage (now, not then) manually adjusted (often) regenerative receivers in order to optimize performance. Anyone who would have considered a regenerative "squealer" to be the electronics of yore in 1968 would be half a century older today. It might seem there would be few of those gents left, but judging by notes I get from RF Cafe visitors, their numbers must be fairly large, and I'm glad to know it.

"That Old Regenerative Set of Mine"

Or, Never Throw Anything Away, If You Can Help It

By Fred E. Ebel

It was pure coincidence. I was hunting for a power transformer in the storeroom when I came across my old regenerative receiver. What fond memories of the 500-kHz band it evoked.

I just had to hook it up to see if the old squealer still worked.

I rummaged around, found the old "B" battery eliminator. In another corner of the room was an old storage battery I'd used for the filaments.

Ten minutes later, I turned on the switch, and - Happy Day ! - it worked. The heterodyne squeals were sweeter than hi-fi to my nostalgic ears. Even the spill-over feedback howls were a delight - and that's when fate conspired to change my way of life.

The windows were open - since it was a warm Saturday afternoon - and the set had just finished an unearthly howl. At this moment I heard the squealing of brakes outside, a thump-thump like a lumbering elephant, then door chimes.

When I opened the door, I beheld a blimp of a man. Atop the blimp was a bright red beret. Behind the blimp, in the street, was a fire-engine red sports car.

The blimp spoke excitedly, "I must have it! I must have it!"

I looked around for some suitable weapon. "Just what is it you must have ?" I asked.

"That beautiful bloodcurdling sound. I must have it for my picture."

"Your picture?"

"Yes, my picture. Don't you know me ? I'm Franz Von Schloggen, the movie director."

Von Schloggen, the movie director! Of course I'd heard of him. Who hasn't? It was the great Von Schloggen who directed the spine-chilling "The Slime That Oozed in the Night," and it was the fabulous Von Schloggen who made the country shudder with "Doctor Weirdo's Garden of Ghouls." Now this genius, this wizard of horror and science -fiction movies, was talking to me - an ordinary guy whose hobby was electronics.

I unlatched the door and he barged in.

"Where is it he demanded. "It will be just the sound for 'Son of Transistor Man'."

But when I showed him the regenerative receiver, his face fell. Pointing a stubby finger at the relic, he queried in disbelief, "This old thing made that bloodcurdling sound?"

I nodded. "It's a regenerative receiver I made about 30 years ago. You see, a part of the voltage in the plate circuit is fed back to the grid. I can get more feedback by varying this tickler coil. If I get enough feedback, the set oscillates. Then I zero-beat the incoming signal and - " I stopped as I noted his disappointed look. "I suppose your sound specialists have more sophisticated equipment."

"I want to hear that sound," he said. "That yowl-!-!-!-!"

I threw the set into the feedback howl that had captured his interest.

The effect was magical. "That's it! That's it!" he shouted. "I know just where to put it. When the son of Transistor Man is born, the doctor slaps his rear chassis and the baby makes this sound."

He jumped up and down. "It'll make the picture. I must have it. How much?" He extracted a wallet that looked like a portable Fort Knox.

I looked at the roll of bills, coughed. "Would - would ten dollars be too much?"

"Here," he said, peeling off a hundred dollar bill. "Bring it to Monster Studios Monday morning. Be there at six, ready to work."

"Ready to work?"

"Of course. You know this equipment best. You must operate it."

"But I have a -"

He held up a pudgy hand. "Whatever you're making now, we'll double it."

And that's how I became Special Sound Effects Man at Monster Studios. Maybe you've heard some of my work.

There was "A Man Called H2O" in which I had a watery monster talk like water if water could talk. What I did was make a recording of bubbling water, and I modulated the water sound track with a human voice.

And then there was "The Transistorized Werewolf." I made a recording of a wolf howl and mixed it with the howl of my regenerative set. The result scared even me. Movie critics acclaimed it as "the sound that gave America insomnia."

I was most proud of "The Five Headed Monster from Planet Beta." This was a real challenge. But I solved it, thanks to CB radio. What sounds like five heads talking at once? QRM; of course? I simply mixed five voices, threw in a handful of CB heterodynes, and I had it.
And Von Schloggen is greater than ever. Good man that he is, he attributes much of his fame to my sound effects. But I think he goes overboard so far as my old regenerative receiver is concerned. He insists that an armed guard place it in the vault every night.

Early Regenerative Receiver...1918

A Poem Written by MS Co-Pilot

Lynn NG9D (Ex ZS6LAH)

Dits and Dahs

In the quiet of night, where shadows sway,
A secret language pulses, finding its way.
Not in spoken words, nor ink on paper,
But in dits and dahs, a silent caper.

Dah Di Dah Dit

The heartbeat of connection, across vast seas,
A sailor's hope, a lover's pleas.

Dah Dah Di Dah

Echoes of longing, carried by the breeze,
From ship to shore, through ancient trees.

Dah Dit

A beacon in darkness, a lighthouse's call,
Guiding lost souls, preventing their fall.

Dah Dah Dit

Urgent cries for help, a desperate plea,
In the heart of battle, across land and sea.

**Dah Dah Dah Dah Dit **

A clandestine message, hidden in the night,
Resistance fighters plotting, their cause alight.

Dah Di Dit

A lover's vow, etched in the moon's soft glow,
"I am here. I am waiting. Don't let go."

Di Dah Dit

A symphony of silence, a code unbroken,
Across mountains, valleys, words softly spoken.

Di Dah Dit

A rhythm of hope, resilience, and grace,
In the spaces between, a sacred embrace.
So let us honor the dits and dahs,
The language of whispers, the unyielding applause.
For in Morse code's dance, we find our way,
Navigating life's storms, night into day.

Dah Dah Di Di Dit ... Di Di Di Dah Dah

- NG9D

AWA Valve QSO Party

1. The aim of the AWA QSO party is to create activity on the 40 and 80 meter bands. It is a phone only contest.

2. Dates : Saturday 04 May 2024 and Sunday 05 May 2024. The Saturday will be an **AM** QSO Party and the Sunday an **SSB** QSO Party

3. Time. From 15:00 - 19:00 SAST (both dates)

4. Preferably, Valve radio's, or radio's with valves in them may be used.

5. Frequencies - 80m 3,600 to 3650 Mhz
   40m 7,050 to 7,100 Mhz

6. Exchange - call sign, RS and consecutive serial numbers starting at 001, plus type of radio used. eg HT37 Tx.

7. Scoring - All valve radio 3 points per contact
   Hybrid (valve & solid state) 2 points per contact
   Solid State Radio 1 point per contact

8. Certificates will be awarded to the first three places in each category. (AM/SSB)

9. Sponsor : The Antique Wireless Association of Southern Africa (AWA).

10. An excel log sheet is available on the AWA website, or under "Contests" on the SARL website. Copy and paste the following link : Downloads (awasa.org.za) Look in "Other Downloads"

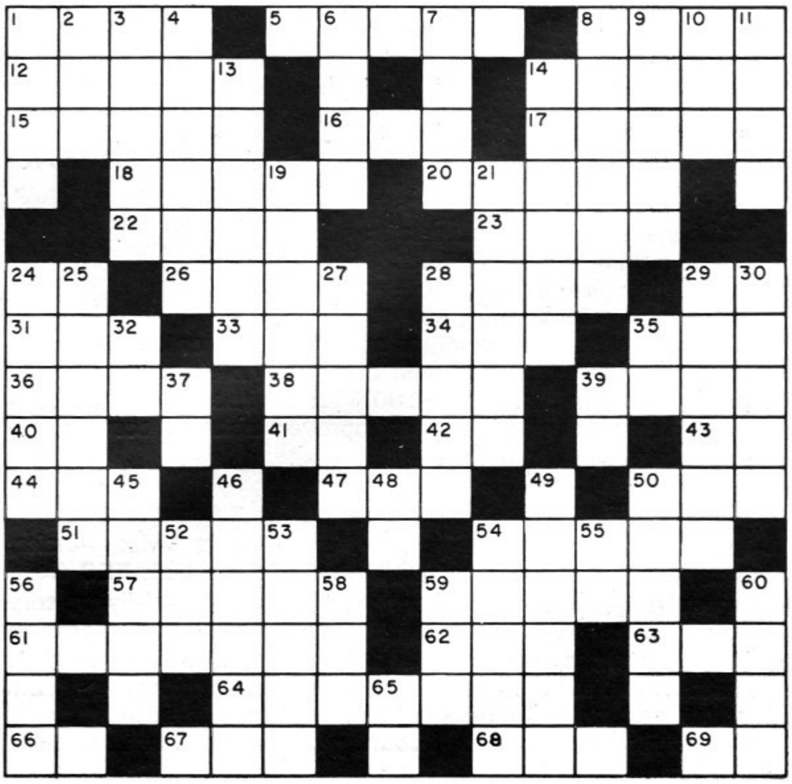
All contact logs to be sent to:

email: andyzs6ady@vodamail.co.za

All Valve

Hybrid

Solid State



Down

1. Part of transistor.
2. Sick.
3. Set properly.
4. Element found in salt.
6. Receptors for audio.
7. Man's name.
8. Tidied up the house.
9. Food for thought.
10. One vital commodity missing on the moon.
11. Attenuation.
13. Color code for four.
14. Containing gold.
19. Insurance underwriters.
21. Bear witness.
24. Pattern traced by some types of antennas and microphones.
25. Personal property (legal).
27. College administrators.
28. Locks signal to a reference.
29. Medical man.
30. Connection which must be made where it can't be seen.
32. Small current (abbr.).
35. Compass point (abbr.).
37. Radio navigation unit.
39. Unidirectional current (abbr.).
45. Type of three-phase connection.
46. Income from investments.
48. Computer function.
49. Female sibling.
50. Auto body type.
52. Born (Fr.).

Across

1. Preset condition.
5. Change in time relationship.
8. Shows station to which you are tuned.
12. Combination of two or more metals.
14. Frequencies which can be heard.
15. Record players are often mounted on one of these.
16. Broadcaster to Iron Curtain countries (abbr.).
17. Consumers.
18. Aquatic respiratory organs.
20. Part of the title of document guaranteeing civil liberties.
22. Valley between peaks.
23. Pedal extremities.
24. Type of circuit board (abbr.).
26. Human emotion.
28. Threaded rod attached to chassis.
29. Power ratio.
31. Unit of resistance.
33. Type of three-phase connection.
34. Affirmative.
35. Peruvian coin.
36. Output is dissipated across this.
38. Mends.
39. One-tenth (prefix).
40. Equally.
41. Ratio indicating usefulness of signal.
42. Transformer notation on schematic (abbr.).
43. Isotope of radon.
44. Color code for two.
47. Distress signal.
50. Earth.
51. Ability to perceive.
54. Production-line worker.
57. Wires attached to components.
59. Started from and returned to one place.
61. Receives and transmits signals.
62. Goods shipped (abbr.).
63. To be enjoyed.
64. Emits electrons.
66. Measure of noise generated by amplifier (abbr.).
67. Non-reactive impedance (abbr.) .
68. Hit show ticket status.
69. Place for making measurement (abbr.).

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53. Miss Oliver's namesakes.
54. Political subdivisions of a city.
55. Transistor schematic abbreviation.
56. Function performed by amplifier.
58. "Best" day of the week (abbr.).
59. Oscillator in receiver (abbr.).
60. Abrupt change to new voltage.
65. Transistor current amplification

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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'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.

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

Visit our website:
www.awasa.org.za

Notices:

Net Times and Frequencies (SAST):
Saturday 07:00 (05:00 UTC) —Western Cape SSB Net —7.140; Every afternoon during the week from 17:00—7.140
Saturday 08:30 (06:30 UTC)— National SSB Net— 7.125;
Echolink—ZS0AWA-L; ZS6STN-R
Sandton repeater—145.700
Kempton Park Repeater—145.6625
Relay on 10.125 and 14.135 (Try all and see what suits you)
Saturday 14:00 (12:00 UTC)— CW Net—7025; 14:20 10.115/14125

AWASA Telegram group:

Should you want to get on the AWA Telegram group where a lot of technical discussion takes place, send a message to Andy ZS3ADY asking to be placed on the group. This is a no-Nonsense group, only for AWA business. You must download the Telegram App first. …..+27824484368

Thanks:

I would like to thank Daniel VE7LCG, for the many articles that he has sent me and that have been used in the Newsletter. Daniel is no longer able to write any Technical articles due to other activities.

Best 73 in your new endeavours Daniel.
