Newsletter
10th Anniversary

121

March 2016

A Member of the SARL

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* KZN—Don ZS5DR
* Historian—Richard ZS6TF
* Member—Ted ZS6TED

Reflections:

Recently I had the pleasure of getting together with a bunch of friends last seen nearly forty years ago.

Someone, from a bunch of us who used to hang together, decided they were going to try finding everyone from the group and succeeded to find the majority of us.

The thing that amazed me most was that when you closed your eyes and listened to them speaking, you could picture the younger slimmer, person that you knew all those years ago. Of course it goes without saying, most us had gotten older fatter and uglier and in some cases balder.

How often do we, when speaking to someone over the radio that we have never met, develop a picture in our mind about what they look like. Then when we finally meet them face to face, its quite a surprise because that person looks nothing like what we imagined.

The mind can be so good to us at times, but can also let us down on a number of occasions.

I am no psychologist, but I often wonder what it is that makes us form these pictures and very often opinions of people based on what we hear.

The tone or way in which a person speaks can often cause us to form an opinion of the person as to whether we like them or not. This then becomes what was always referred to as a "self fulfilling prophecy", that when we actually meet the person, our first reaction is "I told you so", even if its not true. I know that on many occasions, I have eventually met someone I may have formed an opinion of, only to find out that my opinion is way off base. Tricky it could be, as the great Yoda would say.

Of course one of the things that age has taught me is not to form opinions and mental pictures that could well disappoint me. And when I meet people for the first time after chatting with them for a long time, to not be surprised or disappointed at what I find, but instead to take on the first meeting as that. One of discovery and forming of friendships that could probably last another forty years.

Here's to the many that I have not met and the many that I have. In the words of Spock "Live long and prosper".

Best 73

DE Andy ZS6ADY

WIKIPEDIA

Wireless Telegraphy

In the early 20th century Jozef Murgha's, the "Radio Priest", conducted a great deal of revolutionary work in wireless telegraphy. He established a laboratory in Wilkes-Barre, in which he primarily investigated radiotelegraphy. His article in the *Tovaryšstvo* magazine of 1900 shows that his radiotelegraphy studies had achieved a high level. In 1904, he received his first two US patents: the *Apparatus for wireless telegraphy* and *The way of transmitted messages by wireless telegraphy*. Another 11 patents followed between 1907 and 1911. Based on the first two patents, he created the Universal Ether Telegraph Co., which organized a public test of Murgaš's transmitting and receiving facilities in September 1905. The test was successful, but a storm destroyed the antenna masts three months later, which led to the dissolution of the company.

In 1906, Lee De Forest brought out a vacuum tube device which he called the "audion". This was a very sensitive detector of electric oscillations. It consisted of three electrodes in a vacuum tube; one of the electrodes could be heated to incandescence with the result that it emitted electrons (the Edison effect).

American physicist Theodore Case, while studying at Yale University, became interested in using modulated light as a means to transmit and record speech. In 1914, he opened the Case Research Lab to experiment with the photo-electric properties of various materials, leading to the development of the Thallofide (short for thallium oxysulfide), a light-sensitive vacuum tube. The Thallofide tube was originally used by the United States Navy in a top secret ship-to-ship infrared signaling system developed at Case's lab with his assistant Earl Sponable. Case and Sponable's system was first tested off the shores of New Jersey in 1917, and attending the test was Thomas Edison, contracted by the Navy to evaluate new technologies. The test was a success, and the U.S. Navy used the system during and after World War I. This technology, in conjunction with de Forest's Audion, was adapted after the war, as a means to record and play back optical sound in motion pictures.[92] Another inventor, Charles A. Hoxie, invented a similar device, the Pallophotophone, that also became a speech recorder, used by General Electric to record President Calvin Coolidge in 1921 for radio broadcasts.

When the United States entered World War I, private radiotelegraphy stations were prohibited, which put an end to several pioneers' work in this field. By the 1920s, there was a worldwide network of commercial and government radiotelegraphic stations, plus extensive use of radiotelegraphy by ships for both commercial purposes and passenger messages. The ultimate implementation of wireless telegraphy was telex, using radio signals, which was developed in the 1930s and was for many years the only reliable form of communication between many distant countries. The most advanced standard, CCITT R.44, automated both routing and encoding of messages by short wave transmissions.

ZS Worked All Grid Squares Award

http://www.zswags.org.za/

The aim of this award is to involve **any** licensed amateur radio station in a fun activity to collect at least one contact from each of the Maidenhead grid squares. There are 83 South African grid squares, which are JF86 – JF89, JF95 – JF99, JG80 – JG81, JG90 – JG91, KF05 – KF09, KF15 – KF19, KF25 – KF29, KF36 – KF39, KF47 – KF49, KF58 – KF59, KG00 – KG05, KG10 – KG14, KG20 – KG25, KG30 – KG37, KG40 – KG47, KG50 – KG57 and KG61 – KG65.

All bands HF, VHF, UHF and Microwave can be used, using all amateur modes. Contacts via Satellite repeaters are accepted, but contacts made via terrestrial repeaters, or by Inter-net connection such as Echolink or IRLP are excluded.

Two classes of operation are defined as follows:
Hunters are amateur radio operators who operate from their home QTH and who seek out and work contacts with stations in other grid squares.

Activators are amateur radio opera-tors who operate a portable or field station from - inside their home grid square **but** away from their home QTH; or inside another grid square for the purposes of activating the grid square for other Hunters.
Activators may claim credit for the activated grid square, provided a minimum of five contacts are made with other stations from the portable or field station during the operation, and provided a log of all contacts made during the operation is submitted.

In addition, an Activator who makes 10 or more unique contacts from any of the rare grid squares may apply for the Activator's Award. To be considered as unique, multiple contacts with the same station must be on different bands or using different modes. For purposes of this rule, a rare grid square is defined to be a grid square in which no currently active radio amateur resides on a permanent basis.
As guidance to determine which squares qualify, refer to the grid square map on the SARL website athttp://www.sarl.org.za/public/QRA/MapGrid.asp, which shows the density of radio amateurs based on current information in the SARL web database. This rule will be interpreted on a flexible basis by the Awards Administrator, to encourage the activation of the more remote, difficult or unpopulated grid squares on a regular basis.

Activators may claim any contacts made from the activated grid square.

African DX

Lesotho, 7P. Mathias, DJ2HD, is once again active as 7P8DJ from Lesotho until 15 March. This is part of his African 4x4 trip. Activity will be holiday style on CW, SSB and RTTY on the HF bands. QSL via his home call sign, direct or by the Bureau.

March—Callendar

18 – All schools close
19 and 20 – SARL VHF/UHF Field Day
20 – Autumn equinox, Palm Sunday
21 – Human Rights Day
22 - Closing date for April Radio ZS articles; World Water Day
23 - World Meteorological Say
24 - Purim
25 – Good Friday
26 – Two Oceans Marathon
27 - Easter Sunday
28 – Easter Monday / Family Day

April

2 - RaDAR Challenge
5 - All schools open
7 - SARL 80 m QSO Party
9 - SARL Autumn QRP Contest
10 - SARL Youth Net at 15:00 UTC on 7 070
18 - World Amateur Radio Day
22 - Earth Day
23 - Pesach (1st day)
24 - ZS4 Sprint
25 - Closing date for May Radio ZS articles
27 - Freedom Day
30 - Pesach (8th Day)

-

The Gambia, C5. Bogdan, SP2FUD, will be active as C5FUD from Brufut sometime between March and April. Activity will be in the HF bands using CW, SSB and RTTY. QSL via SP2FUD. Look for possible updates and more details at http://www.dxpeditions.org

Uganda, 5X. Jay, K4ZLE, will be travelling in Uganda between 10 and 19 March and plans to get on the air from several locations. He will be active as 5X2A on 40, 30, 20 and 17 m using CW and RTTY. QSL via K4ZLE, direct and LoTW.

African Islands

IOTA frequencies
CW: 28 040 24 920 21 040 18 098 14 040 10 114 7 030 3 530 kHz
SSB: 28 560 28 460 24 950 21 260 18 128 14 260 7 055 3 760 kHz

Equatorial Guinea, 3C. Apparently Ken, LA7GIA, is now expected to be active as 3C7GIA from Malabo, Bioko Island (IOTA AF-010), Equatorial Guinea between 10 and 20 March. QSL via LA7GIA and LoTW; log search on Club Log.

Madeira, CT9. Once again Rosel, DL3KWR, and Hardy, DL3KWF, will be active as CT9/DL3KWR and CT9/

DL3KWF from Madeira (IOTA AF-014) from 10 March to 8 April. They plan to operate mostly CW with a focus on 12, 17 and 30 metres. Look for them daily after 16:00 UTC. QSL via home calls (bureau preferred), LoTW and eQSL. Email requests for bureau cards can be sent to dl3kwr@darc.de or dl3kwf@darc.de respectively.

Mayotte, FH. Before joining the Juan de Nova DXpedition (FT4JA), a couple of team members will be active from Mayotte (AF-027) between 18 and 24 March. Look for Patrick, FH/F2DX, and Jacques, FH/F6BEE, to operate mainly CW and RTTY on 40 to 6 metres with two stations. QSL via home calls.

This week in History

(The week starting 7 March 2016)

1451 - Italian explorer Amerigo Vespucci (9 March 1451 - 1512) was born in Florence, Italy. He explored South America and the Amazon River, believing he had discovered a new continent. In 1507, a German mapmaker first referred to the lands discovered in the New World as America.
1475 - Renaissance genius Michelangelo (6 March 1475 - 1564) was born in Caprese, Italy. He was a painter, sculptor, architect, poet and visionary best known for his fresco on the ceiling of the Sistine Chapel and his sculptures David and The Pieta
1609 - The island of Bermuda was colonised by the British after a ship on its way to Virginia was wrecked on the reefs (12 March)
1618 – Johannes Kepler discovers the third law of planetary movement
1733 - Scientist and clergyman Joseph Priestly (13 March 1733 - 1804) was born in Yorkshire, England. He discovered oxygen and advanced the religious theory of Unitarianism.
1876 – Alexander Graham Bell patented the telephone
1934 - Russian cosmonaut Yuri Gagarin (9 March 1934 - 1968) was born in Gzhatsk, Russia. On 12 April 1961, he became the first human in space, orbiting in a capsule 187 miles above the Earth's surface in a flight lasting 108 minutes. His space flight caused a worldwide sensation and marked the beginning of the space race as the US worked to catch up to the Russians and launch an American into space
1938 - Nazis invaded Austria, then absorbed the country into Hitler's Reich (12 March)
1941 - During World War II, the Lend-Lease program began allowing Britain to receive American weapons, machines, raw materials, training and repair services. Ships, planes, guns and shells, along with food, clothing and metals went to the embattled British while American warships began patrolling the North Atlantic and US troops were stationed in Greenland and Iceland (11 March)
1943 - A plot to kill Hitler by German army officers failed as a bomb planted aboard his plane failed to explode due to a faulty detonator (13 March)

A Sputnik transmitter recreated

A transmitter of the type that was on board Sputnik 1 when it became the world's first artificial satellite, and started the space race, has been recreated by a Dutch radio amateur.
The 58 cm polished metal sphere broadcast radio pulses that were heard as it went around the earth for 21 days, the life of its battery. It was in space for three months travelling about 70 million kilometres, before re-entering the atmosphere to burn up on 4 January 1958. Throughout the world, radio amateurs heard Sputnik transmissions on 20 and 40 MHz. What is known is that Sputnik was pressurised with nitrogen, had whip antennas, valve radio transmitters and a fan to keep it cool.

Now Frank Waarsenburg, PA3CNO, has recreated one of the Sputnik radio transmitters, using a set of the original Russian tubes. Until 2013, the design was a state secret, but Oleg Borodin, RV3GM, found a schematic used for the transmitter. The valves were a wire-ended design with all electrodes mounted on rods the length of the glass envelope, making them resistant to acceleration and vibration that could be expected during launch.

www.amsat.org/amsat/features/sounds/firstsat.html

Real circuits with an inkjet printer

Purdue is printing real circuits with an inkjet printer. Researchers there have discovered a means to get a gallium-indium liquid metal mixture to flow through a print head by using ultra-sonic waves to break it into smaller particles, and a carrier like ethanol to get it to flow.

Once the liquid-metal traces are deposited, pressure is used to make the traces conductive by dis-placing the oxide layer between the particles.

www.purdue.edu/newsroom/releases/2015/Q2/inkjet-printed-liquid-metal-could-bring-wearable-tech,-soft-robotics.html

Next Week's Contests

CLARA Chatter Party, 17:00 UTC 15 March to 17:00 UTC 16 March and 17:00 UTC 19 March to 17:00 UTC 20 March
QRP Fox Hunt, 01:00 - 02:30 UTC 16 March
Phone Fray, 02:30 - 03:00 UTC 16 March
CWops Mini-CWT Test, 13:00 - 14:00 UTC and 19:00 - 20:00 UTC 16 March and 03:00 - 04:00 UTC 17 March
RSGB 80 m Club Championship, CW, 20:00 - 21:30 UTC 16 March
NAQCC CW Sprint, 00:30 - 02:30 UTC 17 March
QRP Fox Hunt, 01:00 - 02:30 UTC 18 March
NCCC RTTY Sprint, 01:45 - 02:15 UTC 18 March
NCCC Sprint, 02:30 - 03:00 UTC 18 March
BARTG HF RTTY Contest, 02:00 UTC 19 March to 02:00 UTC 21 March
SARL VHF/UHF Analogue/Digital Contest, 10:00 UTC 19 March to 10:00 UTC 20 March
F9AA SSB Cup, 12:00 UTC 19 March to 12:00 UTC 20 March
Russian DX Contest, 12:00 UTC 19 March to 12:00 UTC 20 March
Virginia QSO Party, 14:00 UTC 19 March to 02:00 UTC 20 March and 12:00 - 24:00 UTC 20 March
Louisiana QSO Party, 14:00 UTC 19 March to 02:00

Genesis. The 6L6 and the National NTX30 transmitter by Richard ZS6TF

The pentode was invented in 1926 by Bernard D. H. Tellegen working at Philips Einhoven. It became generally favoured over the tetrode due to the non-linearity in the latter's transfer characteristic . Pentodes are made in two types: those with the suppressor grid wired internally to the cathode and those with the suppressor grid wired to a separate pin for separate connection.
It was a serious patent issue for companies such as Marconi-Osram Valve as Philips dominated the audio output market in the early thirties, causing M-OV to commit significant resources to ways of avoiding the Philips pentode patent.

The invention of the 'critical distance' tetrode in 1935, called the "Harries Valve" developed by British engineer J. Owen Harries and marketed by Hivac , set the scene for the creation of the 6L6 a year later. Harries is acknowledged to be the first engineer to discover the "critical distance" effect, which maximized the efficiency of a power tetrode, by positioning its anode at a distance , a specific multiple of the screen grid-cathode distance. Importantly the control grid and screen grid are also wound with the same pitch, or number of wires per inch, and are aligned. This design reduced screen current and wasted energy, further optimising the effect where the space charge itself suppressed secondary emission from the screen grid. This design opened up the possibility of larger anode voltage swings, and therefore higher output power, plus a considerable improvement in gain.
The MOV work led directly to the invention of the beam tetrode by EMI engineers Cabot Bull and Sidney Rodda who improved the Harries design with a pair of retarding beam plates, connected to the cathode, which confined the electron streams into two narrow areas and also acted like a suppressor grid to redirect some secondary electrons back to the anode. This removed the 'kink' from the tetrode characteristic and in so doing, the inventors discovered a device which not only neatly avoided the Philips pentode patent but which possessed even better characteristics when applied to high power, efficient, audio generation especially when used in push-pull.

However, due to the close tolerances, assembly of these valves in production quantities was difficult to handle. In the belief by MOV's engineers that the beam tetrode could not be successfully mass-produced, they licensed the design to RCA. This proved to be a poor business decision on MOV's part. RCA subsequently had enormous success with the mass-produced 6L6 initially with a metal envelope, launched in July 1936.

MOV retrieved the situation by launching their uniquely termed "Kinkless Tetrodes" later in 1937. The KT series, commencing with the KT66, was expanded to cover audio output functions in all types of wireless, car radio, television and, of course, musical instrument amplifiers and PA systems. Both the 6L6 and the KT66 used the RCA 'Octal' base with the same pin-out and the 6.3 volt indirectly heated cathode. The 6L6/KT66 (CV1075) could be found in Aircraft servo-mechanisms, regulated power supplies, CRT deflection circuits, transmitter AM modulators, and they gave a creditable RF amplifier performance up to 30 MHz. A large number were used in the Colossus computer built by the British to decode the Lorenz teletype encryption system used by the German High Command in the latter part of WW2.The 6L6/KT66 characteristics as the power amplifier in audio systems, better quality wireless sets and radiograms, have never been surpassed and original tubes, still working today, are highly prized.

The voltage and power ratings of the 6L6 series were gradually pushed upwards by adding features including a low loss base, thicker plates, thicker grid wires, grid cooling fins, and special ultra-black plate coatings. The original metal version was rated for 19 watts dissipation while the later 6L6GC is usually rated for 30 watts.

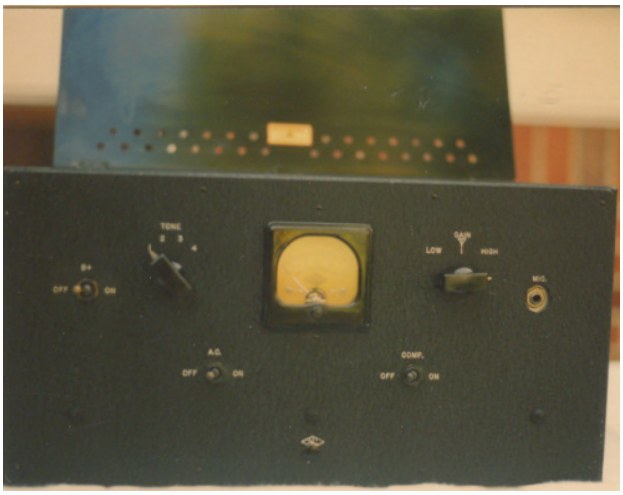
The 6L6 has had one of the longest active lifetimes of any electronic component, more than 70 years, and it is still in production by the Chinese and Russians for valve guitar amplifier applications. Radio amateurs however did not recognise the potential of the 6L6 in 1937 nor did RCA advertise them in the ARRL handbook of that year. It was probably overshadowed by the launch of the 807 which is a 6L6 with the anode connection brought out to top cap permitting much higher anode voltages, thus higher power operation, and useful performance up to low VHF. Nevertheless the 6L6 became a favourite for one or two valve Homebrew HF CW transmitters and many designs were published in QST and the handbooks up until 1941, and postwar when restrictions were lifted.

In 1939 National released the NTX30 transmitter, a desktop self-powered crystal controlled CW transmitter in a standard cabinet of the same dimensions as the HRO and the NC100 re-

ceiver for a price of $129.

The NTX 30 contained 4 metal 6L6's and 2 glass 6L6's in the final. This neat package featured interlocked press button band change and a withdrawable switched turret for up to 4 crystals. The crystal oscillator drives the finals directly on 80 metres and up to three doublers allow transmission on 40, 20, and 10 metres. Plug–in coils are used to change final band tuning. A glance under the lid shows that this transmitter oozes the same quality all National products had established over the previous decade.

The final plate supply was taken out to links at the rear panel to enable connection to an external modulator for AM transmissions. National offered a matching modulator type NSM which used 2 more 6L6's in the push-pull audio output, but It is doubtful whether National sold many because radio amateurs mostly built their own.



Both units monitored the excitation and current levels in the equipment with a centrally mounted meter connected to a range and function selector switch. Unusually for the time, the transmitter output coupling was designed to feed a 72 ohm balanced antenna load (the 50 ohm standard had not yet arrived!) aimed at direct connection to a dipole which was made easier by running the finals in parallel. Half power operation in the event of one final tube failing was promoted as an advantage.

The NTX30 could also be coupled to a National NC100 receiver via a relay with contacts to mute the receiver during transmission to allow semi break-in operation on CW, and transceive on AM, controlled from the B+ switch on the transmitter front panel

Note the absence of 15 metres on both these units because the 15 metre band was first allocated to amateur use for CW in 1952 and phone in March 1953.

The war intervened and as a result these fine pieces of equipment are almost endangered species. The NTX30 also embodies important design cues which manifested themselves in transmitters such as the DX40,60, and 100 of the fifties and the transceivers of the sixties.

Happily the units pictured left reside in the museum station ZS6IEE and will be heard on the lower HF amateur bands in the future.

With acknowledgement to AWA members Henry ZS6MC and Oliver (license in progress) for their conservation efforts in respect of this equipment.

Results of the AWA CW Activity Day—Feb 2016

Top score on the CW Activity day was Stephen ZS6SVJ
2ND was Barry Nugent ZS2NF.

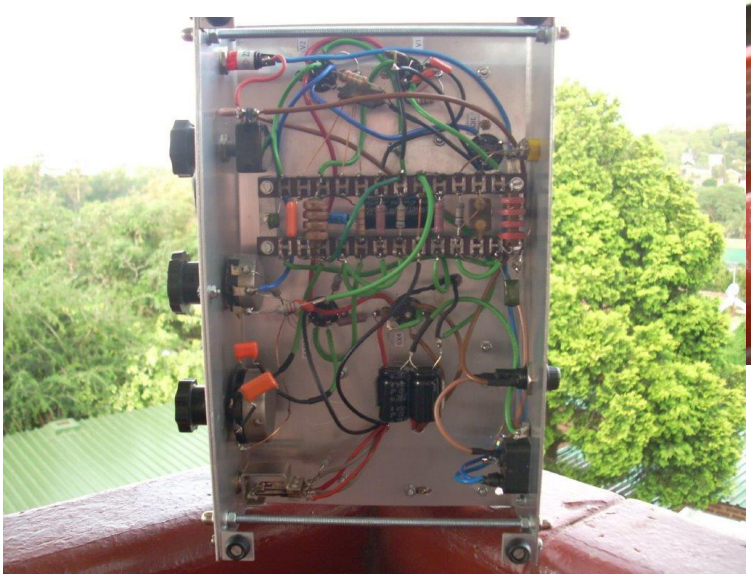
Thanks guys for taking the time to send in your logs and for taking part.

Homebrew Regenerative AM four Valve Receiver
By James Fairlie ZS5ABW

The circuit is based on that in an article that appeared in the May 1967 edition of Practical Wireless.

I have added an audio amplifier stage using a 6AQ5 valve to drive the speaker. There are two EF92 valves and I have changed the power supply to use a 6X4 rectifier valve. My coils are wound on 'Denco' coil formers and cover 1.8 to 25 MHz in four ranges. The coils not in use are housed in the 'pill container' to the left rear of the chassis. Performance is remarkably good for such a basic set.

Building it during July 2015 gave me much enjoyment.



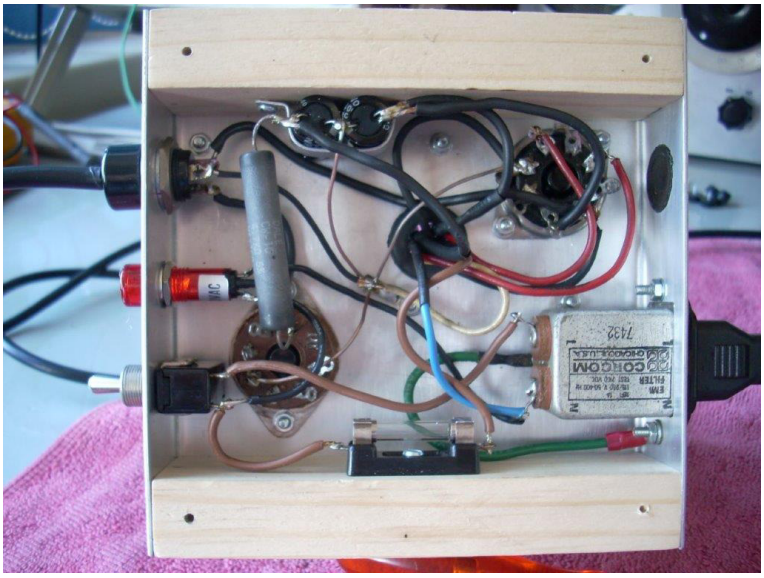
BC221 Restoration
By James Fairlie ZS5ABW

When I received the BC221 last year it was in quite reasonable condition. A homebrew power supply was included, housed in a wooden box. I built a new power supply using some parts from the existing one.

The unit is sized such that when not in use it' lives' in what was originally the battery compartment.
I prefer to have the power supply outside of the meter when in use mainly because of the heat factor. The case of the meter I spray painted. I fitted a new polycarbonate calibration book window as the existing one was yellow with age.
A compartment in the 'front' of the meter houses a set of spare valves retained with 'terry' clips as per original. All works fine business and is a treasured addition to my motley collection of vintage gear !!

BC221 Power Supply

Underside of P/S



Theodore Roosevelt McElroy

World's Champion Radio Telegrapher

The Man, The Legend and The Keys

by Neal McEwen, K5RW

Theodore R. McElroy lives on, almost 40 years after his passing. His ability to copy code made him a legend in his own time and the keys he made serve as reminders of his accomplishments. The photo at the left was taken in a Life Magazine photo op in 1962 and shows McElroy with his American Morse practice sets. Notice the Prince Albert can in the resonator box!

Born in Boston in 1901, Ted went to work for Western Union as a messenger boy at age 14. The telegraph operators taught him American Morse and by age 15 he was working the wires. During W.W.I he was a civilian operator at Camp Devins.

Shortly after the war, McElroy went to work for WSO, one of RCA's transoceanic wireless stations. There he worked the Morse wires until he learned the International Morse code used in wireless work. Until 1920 he worked the wireless circuits to POZ in Nauen, Germany and LCM in Stavanger, Norway, keying the giant Alexanderson alternators on 20,000 Meters. Ted stated that the signals were so strong that it was almost like working an "iron wire." Ted returned to Boston to work for Western Union once again.

In 1922 McElroy entered his first code copying contest and won hands down, winning at a speed of 56 words per minute (WPM). From then on he was untouchable. He was beaten in 1934, but regained the championship in 1935. At his last official competition in 1939 in Asheville, North Carolina, he won with a speed of 77 WPM. This Continental code record was untouchable for almost 60 years and was only recently challenged. Ted also was the American Morse code champion and Japanese Kanji code champion.

Ted's phenomenal success at copying code was due in part to this ability to type. He could type 150 WPM as recorded by his seventh grade typing teacher! He remarked once that he could type three letters for every letter that his secretary typed. Needless to say, he also won typing contests.

In 1934, Ted started his own business manufacturing telegraph equipment. The first key to come out of the McElroy factory was called the MAC-KEY. The base, mainframe and posts were a one piece casting. This design helped to eliminate vibrations and the need for frequent adjustments. The "Tee-Bar" across the top of the frame served several purposes. First it was an integral part of the frame holding the trunion pin. Second, it provided a convenient means for the professional operator to carry his key to and from a shift. The fingers were merely curled under the bar and the key lifted. Third, though probably seldom used, it allowed the key to be turned on its side; once the pendulum was locked with the damper post clip, the MAC could be used as a hand key.

Many MAC-KEYs were made. The topmost image is the third variation introduced in 1936. They were heavy and rugged and once adjusted required little maintenance. Many MAC-KEYs are still in service today. One of McElroy's many refinements, was his "dot stabilizer." This was a small assembly fitted to the pendulum, which pre-loaded the dot spring. This slight amount of pre-loading gave smoother and better weighted dots, while eliminating contact bounce.

The MAC-KEY was the first of many models. In 1937, a modified design was introduced. Several of the new models were advertised in the December 1937 issue of QST. These keys were labeled with

an inscription attesting to the skill of the maker. See the image at the left. The top of the line model had a simulated marble finished base and chrome upper parts. This Deluxe model, shown above, sold for $9.50; wouldn't you like to find one today for that price! The Standard model had a black wrinkle finish and nickeled upper parts. It sold for $7.50. The Junior Model, very, very rare, had the same working parts as the Standard model, but was on a stamped steel base and sold for $4.95.

Even though other manufacturers were doing so, McElroy preferred not to make a chrome based model. "I know as an operator of about 25 years experience that it is very poor practice to have a chrome or nickel plated base on a key. Light reflection from such a base is a severe strain on an operator's eyes." This was so stated in a McElroy flyer dated 1938. Ted would later go against these very words. Read on! There were also four models of hand keys ranging in price from $1.20 to $2.25.

Just before W.W.II, the famous McElroy "teardrop" bug appeared. These keys are popular collectors items because of the unusual shape of the base. The "art deco" base resembles a flatiron or tear drop. Some operators called them "flatiron" bugs. The "teardrop" was available with platinum contacts for the very competitive price of $11.85. The model with silver contacts was slightly less. Many CW men thought McElroy's sanity should be questioned because of the unconventional design. However, in spite of all the cat calls, this was one of the finest handling semi-automatics built. The "teardrop" bug shown in the in the image saw duty on a DC-3 flying Pan American routes. It is often forgotten that commercial aircraft has a Flight Radio Officer of FRO as they were called. Notice the suction cup feet on this bug that keep it on the FRO's table. The teardrop shaped hand keys also appeared at this time. Two models, one with a metal base and one with a plastic base are shown below. The key with the plastic base has raised letter with a testimonial similar to the inscription on the bug label shown above.

In the late 30s, McElroy traveled the country giving code copying demonstrations. He loved to put on a show and thrived on attention paid to him.. One of his favorite tricks was to stop in the middle of a high speed run, drink a glass of water, and resume copy without missing any text. Ted was in Dallas in 1939, putting on a demonstration of his remarkable abilities in front of the Dallas Amateur Radio Club. Afterwards, he opened a case full of keys and sold a bunch of them. McElroy worked with noted code instructor Walter Candler, giving demonstrations and teaching the "Candler Method" as advertised in QST.

During W.W.II, Ted made telegraph apparatus for Uncle Sam. Ted and his "gang" produced more such gear for the Allies than any other company. They received the Army - Navy "E" Award for excellence and were able to complete many contracts ahead of schedule. Ted rewarded his "gang" with parties and jam sessions. Morale was high and the employees had fun. McElroy even made J-38s, the famed bakelite based key made by many contractors for the Army during W.W.II.

After the war, McElroy continued to manufacture automated high speed telegraph apparatus. A former employee related that Ted could adjust the instruments sending at a speed of 100 WPM, when others in the factory had to use an oscilloscope! In 1955, he sold the company and went into semi-retirement. He later became a manufacture's representative and even dabbled in local politics. It is said that during this time, Ted liked to give telegraph keys to his friends as gifts. He passes away in his native Boston in 1963.

As long as there are those that are interested in the code and keys, McElroy the man, the legend and his keys will be remembered.

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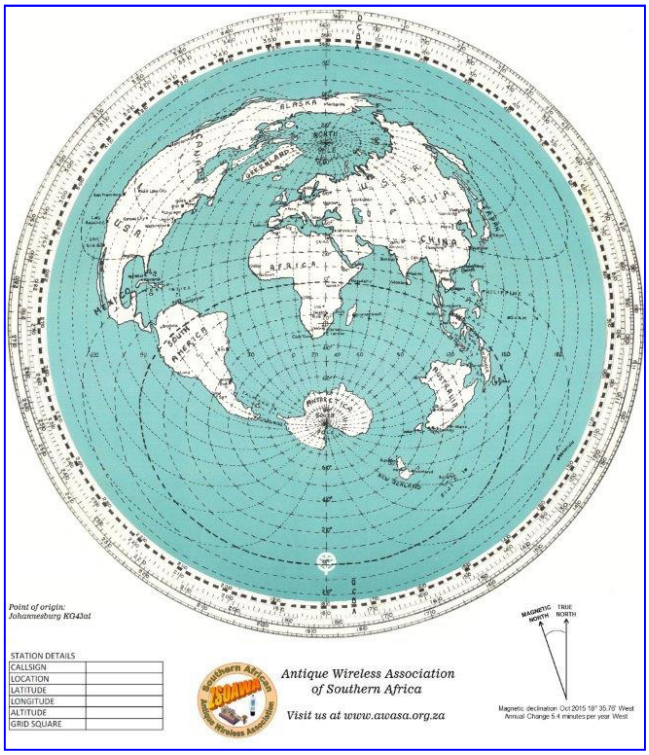
Net Times and Frequencies:
Saturday 05:00—AM Net—3615
Saturday 07:15—Western Cape SSB Net— 7140 (Alternate 3630)
Saturday 07:30—KZN SSB Net—7150
Saturday 08:30— National SSB Net— 7140; relayed on 14135 beaming to WC and on Echolink (ZS0AWA-L)
Saturday 14:00— CW Net—7020
Wednesday 19:00— AM Net—3615, band conditions permitting.



This Azimuthal map is ready to go to print.
Centered on Johannesburg it will be a great addition to any shack.

If you are interested in getting one of these, please send an email to info@awasa.org.za . For Jacques ZS6JPS attention. Jacques will be getting quotes on printing costs according to quantities, so the more we order, the cheaper they will be.