

Lighthouse

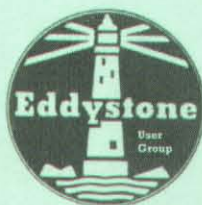
Founded 1990

The Magazine of the
Eddystone User Group

Issue 86, August 2004



EUGer Terry Robinson, VK3DWZ, meets Li Dan,
President of China Radio International,
Beijing, May 2004



EDDYSTONE USER GROUP

A non-profit-making Group for
Eddystone Radio Enthusiasts.

Founded in 1990 by

Ted Moore, G7AIR

Issue 86, August 2004

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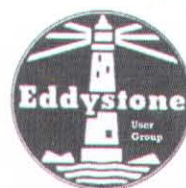
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ALL Above from Graeme G3GGL details opposite

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From Graeme G3GGL details opposite

THIS SPACE VACANT

FREE OF CHARGE TO MEMBERS



Chris's Column

Welcome to another edition of Lighthouse. Those that subscribe to Practical Wireless and RadCom may have noticed that the affair of the "Silent Key Fraud" has been mentioned in both of those magazines but not that the offender was purporting to represent the Eddystone User Group.

Chas Miller in PW wrote to Rob Mannion, G3XFD, the editor:

"Sir, I very much regret having to report another case of the surviving partner in a Silent Key situation having been cheated over the disposal of valuable radio equipment by someone purporting to represent a certain association of collectors.

This individual told the lady concerned that the equipment was little more than junk and then offered her a fraction of its worth, which in the apparent circumstances she accepted."

Chas goes on to say that he knows the identity of the "despicable individual" who perpetuated the fraud. Because this was an EUG member, I was asked by Ted and Graeme if we should ask the member to resign. I felt that such a course of action was only possible if Chas Millar was prepared to put the offender's name in writing so that we could put the accusation to the member and seek his side of the story.

If we found his version unacceptable then we could ask him to resign his membership. Chas was unwilling to put the accusation in writing so I felt we could do no more than draw the membership's attention to the situation and convey our strong feeling that such behaviour was unacceptable which I did in the last edition.

However Chas felt angry enough to air the subject nationally in PW and this drew a reference to it in Technical Topics in RadCom from Pat Hawker, G3VA.

Chas goes on to offer advice to anyone contemplating disposing of a loved one's radio equipment. Rob Mannion also offered his advice based on dealing with a less than trustful family of the seller.

Chas' advice is "never allow anyone, however plausible, even to view radio equipment before having taken advice from an experienced person" and apparently even auction houses can get it wrong. The problem, of course is where does the family find a local

experienced person. Well EUG would certainly recommend the family getting in touch with a specialist vintage radio auction such as those that Chas runs on behalf of the "Radiophile". (Contact No. 01785 284696).

The family can also get in touch with their local ham radio club, but not all clubs are willing to take this on even if they can earn funds for the club. If you are using a club it is important to make sure that where-ever possible, they operate on what Rob calls the "Chosen Group" method rather than one individual on his own. (Rob relates the story of how a club member side-stepped the club and purchased the entire collection extremely cheaply).

The Chosen Group method involves the club selecting a group of volunteers who are experienced in the equipment to be disposed of; such as computers, vintage radio, domestic radio, new rigs, antennas etc. and in whom the club consider above reproach.

These are the only people who deal with the family and dispose of the items. Our club at Wythall recently undertook a SK sale for a local amateur who wasn't a member of the club.

Five of us got to together to pick up, catalogue and dispose of the equipment. Our chosen method of disposal was E-bay because it was a

public auction (with potentially several million customers) and because all revenues and costs were auditable.

The group must not be afraid to point out to the family those things that have no value, mostly magazines and some components. These can be binned or possibly put down the club shack for members to look through and make a donation to the SK fund.

To dispose of a life time's collection of radio bits and pieces for a SK can take several months but by splitting the work up and spending the time researching the items and describing them accurately in the auction, prices are maximised. The family is satisfied and the club earn their commission. (Usually 10-20%).

As for our errant member, well we know who he is, and it is likely that someone who rips people off on his purchases is likely to do the same when he sells on the equipment.

So eventually he will annoy someone who is prepared to make the accusation public and then we can act. But until then, as Chas Miller says, "We shall be keeping a watchful eye on his future activities".

Chris Pettitt

GØEYO

Patron, Eddystone User Group ♠

C.R.I. Tour to China

By Terry Robinson VK3DWZ

Sitting in the “shack” just before 08.00 G.M.T., waiting for HCJB-Australia to come up on 11750kc/s, the telephone rang in the other room. The XYL answered it and, a few moments later, appeared at the door of the shack. “It’s China”, she said. Sensing something important, I grabbed a pen and paper and ran to the ‘phone. The Chinese lady on the other end was indeed ringing from China and she said: “Would you be available to come to Beijing in May?”
Would I ever !!!

Anyway, it transpired that I had won TOP PRIZE in the 2003 China Knowledge Quiz conducted by Radio China International and this consisted of an all-expense-paid trip to China! And not only did we get to see just what a truly great city Beijing was, the tour also included a trip to Xi’an, the Capital of Shaanxi province in the centre of China!

After taking down details of the there were, as you can imagine, 101 things to organise. A passport (easy to arrange, but very costly), a visa (dealing with the Consulate of a “developing” country is not the easiest thing in the world, but at least C.R.I. sent documents that smoothed things over), travel insurance (despite much trying, only obtained at literally the last minute!) and so on.

At last, the great day. Up at 04.00 (local), left Melbourne airport at 08.20 on Air China, one hour later land in Sydney, and then off to China!

We spent all day in the air then suddenly we were landing in China. But this was not Beijing – it was Shanghai. Beijing was another two hours away! Finally we arrived in the city at 23.30 hours (local) after a long, gruelling day. And was Beijing hot –

27° C. as we arrived! Shuo Wang of C.R.I. was waiting to meet me and she took me to the hotel. Nearing the hotel she mentioned that we were passing Tiananmen Square. I couldn’t believe I was finally in China!

At the hotel, the check-in procedure was painless – C.R.I. had arranged everything and I finally got to bed at 01.00. What a day!

Next morning, after just a few hours sleep, it was into the C.R.I. where I met the other 9 Grand Prize winners. They came from Nepal, India, Sri Lanka, Vietnam, Hungary, Columbia, Malaysia, Iran and Benin! Then it was off to see the sights of Beijing.

Shortly after leaving the hotel, the bus stopped in traffic (the traffic, and the Chinese drivers, have to be seen to be believed!) and we heard the strains of “The East is Red” coming from a nearby building. If you have been listening to short-wave as long as I have, you’ll surely remember this as the Interval signal of the old Radio Peking.

Beijing is certainly a wonderful city. Having also been to Tokyo (and Radio Japan) I would say that of the two, Beijing wins hands down! The sights are simply too marvellous to behold.

Tiananmen Square is located right opposite the fabled Forbidden City and to be able to stand upon the exact spot that the late Chairman Mao Zedong stood as he proclaimed the founding of "New China" on 1st October 1949 is an experience never to be forgotten! (See below)



As I said earlier, Beijing's roads are clogged with cars driven by maniacal drivers. How people can afford to keep their cars on the road, I don't know. Petrol costs about 5.5 Yuan (almost Aus\$1) a litre!

A trip to Beijing must certainly include a trip to the Great Wall of China. The section most easily reached, from Beijing, is located at Badalung and is easily reached by expressway. It certainly is a great wall but the section we climbed was so exceptionally steep (in parts) that I had to give up well before the top!

And when you finally "come down" prepare to be assaulted on all sides by Chinese traders selling all sorts of merchandise. Don't be afraid to buy, buy, buy! Thanks to the low value of the Chinese currency, prices are so low that you'll certainly want any number of souvenirs. A mandatory purchase must be an "I climbed the Wall" T-shirt!

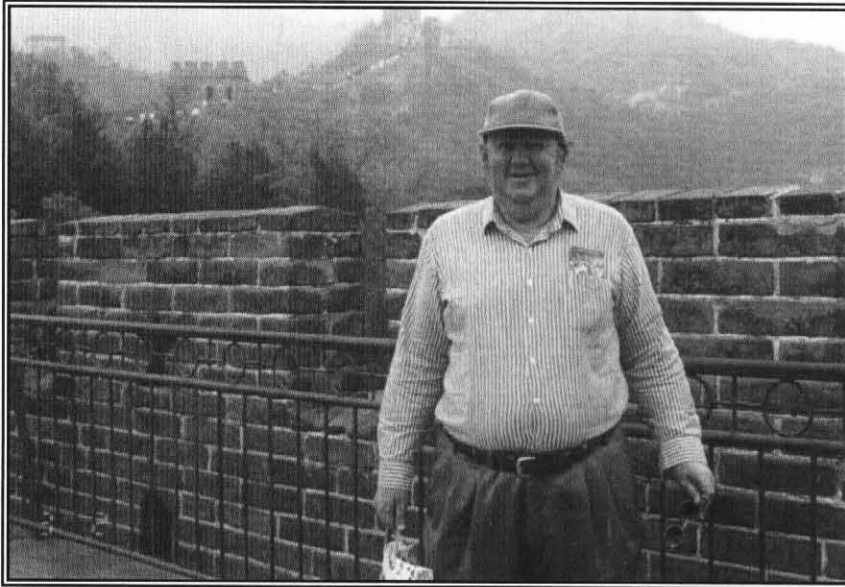
Other highlights include: Sitting in the Summer Gardens listening to Beijingers playing Erhus (my hearing is still recovering!); the food – one Chinese banquet after another; and the incredible warmth and friendliness of the Chinese people.

I also visited the offices of C.R.I. where we met fellow-Australian announcer, Mr. John Kennedy. Mr Kennedy dragged me into a studio for an impromptu interview, later broadcast on "Realtime Beijing". As if that wasn't enough, we also met most of C.R.I.'s English staff including the lady in charge of C.R.I.'s contests – the lady who rang me from Beijing!

C.R.I. has displays of items sent in by listeners over the years and also on display is some very early equipment when they began broadcasting from a cave in Yan'an in Northern Shaanxi Province. Among the equipment was a wire recorder, a war-time U.S. transmitter (I couldn't make out the model number) and two receivers – a BC-342 and an RCA AR-88. the BC-342 was conventional but the RCA was something else! The front panel markings were all in Chinese. I bet you have never seen one of these.

Unfortunately, there was very little time to investigate the "electronics" scene in China. I took along a little Sony portable radio but reception in the hotel was mainly limited to local stations. C.R.I. is broadcast on two medium-wave frequencies in Beijing with 1008kc/s giving best reception. I was able to purchase a Tecsun BCL-2000 radio to bring home after seeing a very good review of it in the 2004 edition of "Passport to World Band Radio". Of course, we only paid a fraction of the

U.S. price quoted in "Passport" and the radio lives up to all expectations. It is easy to use (important for non-technical members of the household), has a good clear digital display, excellent sound and good sensitivity/selectivity. It drifts a bit but at the price we paid we're not complaining!



Terry recovers from climbing the Great Wall of China . . .

After a few days in Beijing, our group travelled by overnight train to Xi'an. Here it is steeped in history, and the surrounding area is very beautiful. Highlights were: the Terracotta warriors; a visit to the KongHong Electronics factory; a visit to a farm where we saw "cloned" goats and the Shaanxi history museum in Xi'an. The area is slightly "underdeveloped" compared to Beijing, but the beauty of the area more than makes up for any shortcomings.

After just a few days in Xi'an it was time to return to Beijing. The same overnight express train as before (the trip takes just over 12 hours) and when we returned to Beijing we had only a little time to prepare for the final "prize giving" ceremony that took place in part of the Chinese Parliament building that was not open to the public! The

prizes were given out by the vice-chairman of China's top legislature; the National People's Congress.

Before the Ceremony he gave a speech saying (among other things) that China is a peace-loving land that would never attack another country. After the Ceremony, we had the afternoon free, thank goodness,

although I was involved in "interviews" for C.R.I. in the latter part. That evening, we travelled to a theatre to see some Beijing opera. Nothing like you will ever see at Covent Garden, I assure you, but entertaining all the same and, thankfully, not nearly as long as "Tristan Und Isolde".

The final day was originally going to be given over to more

sightseeing but instead we decided to make it a free day. And what joy we had! Lots of fun at the Silk market where you can buy clothes incredibly cheaply, if you bargain hard enough. And the things Chinese traders will do just to get you to part with your Yuan have to be seen to be believed! At many locations you will be offered fake Rolex watches and D.V.D.s for only 10 Yuan. Avoid!

Finally, it was time to say goodbye to Beijing and all the friends I had met on the tour. The trip back to Australia was relatively painless thanks to the fact that Air China makes only one stop between Beijing and Melbourne, at Guangzhou. Quite a difference arriving home in literally freezing weather after the heat of Baijing!

And to think it all started with a Reception Report to Radio Peking in 1968! ♠

Visit to HMS Collingwood Museum of Communications and Radar.

By Chris Pettitt GØEYO

Following an article by Michael O'Beirne, G8MOB, in a recent issue of Radio Bygones, describing his trip to the Communications Museum at HMS Collingwood, I decided that being in that area on holiday at the end of June gave me the opportunity to visit the establishment. HMS Collingwood is reputed to be the biggest naval establishment in Europe and thus on arrival Wendy and I had to report to the gatehouse so that we could be photographed and issued passes.

Having pre-booked the visit with the museum curator, retired Lt. Commander Bill Legg RN, our details were in the computer so it only took a few minutes before we were picked up by Bill and taken to the Museum.

This comprises a building that used to house the old camp cinema with displays down each side and up the middle. The old projection room on the first floor, houses a huge collection of vacuum tubes.

of Second World War and later vintage. (See Fig 1 below left.)

A third room in a portakabin, housed a large collection of test equipment, accessories and domestic valve receivers.

The main museum

Going in via the main entrance you go past the tail fin of a 500lb bomb with a coin slot for contributions to the museum. Almost the first thing you see is the reconstruction of a ships W/T office of around 1920's.

(See Fig 2 next page).

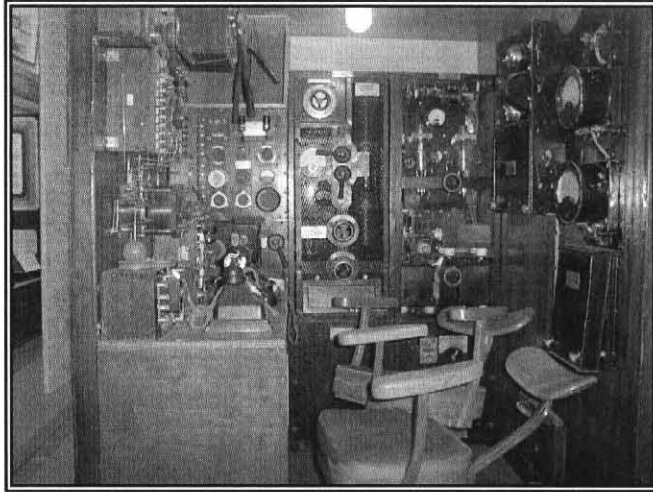
Behind this running down the centre of the building were showcases showing various wireless set-ups from different ages. They also had American equipment and some radar equipment recovered from the German pocket battleship Graf Spee which was sunk in the battle of the River Plate off Montevideo in 1939.



An annex adjacent to the main building houses a very large collection of receiving and transmitting equipment

The showcases took us from the early Marconi equipment of the 1900 up to the 1940's. Both German and allied equipment was on show. In the

projection room on the first floor was a massive collection of valves and test gear.



Ships' Wireless Office of the 1920's

The annexe

The annexe is a mass of receiving and transmitting equipment and there were many favourites such as HRO's, AR88's, RA17's Collins TCS12, CR100 and CR150, B41's and B40's as well as a small collection of Eddystone Equipment.



Fig 3; XYL Wendy with the Eddystone Display

Amongst these I recognised a couple of 358's, a 1990/R1, EC10, 770R, a

couple of units from the VHF radio telephone. A small rack to the side of the Eddystone collection contained a Model 1002 receiver which was being used as the ships broadcast set and the rest of the rack contained amplifiers for shipboard distribution.

The rack and amplifiers were clearly made to RN standard brick *****house standards but the receiver seems strangely out of place. I believe a great many of these receivers were used in this role. (see Figure 4).

They also had a nice copy of the R208 which, as a 10-60Mhz receiver, was used with the WS36 for anti-aircraft communications and sold post war as the sputnik special for £5.19s.6d. (and my first receiver as an 11 year old).

Other equipment in the annexe included the Rees-Mace/Pye CAT transmitters and receivers, Redifon R551N SSB receivers and associated Type 643 transmitter. The Marconi HS11 ISB/SSB /FSK double diversity receiver in a six foot rack. And the Marconi NT204 500W ISB/FSK transmitter and synthesiser also filling up a six foot rack.

The portakabin

The portakabin contained numerous examples of test equipment and domestic receivers. A couple of items that caught my eye were some German WW2 receivers. The RS-1/20 by Rohde and Schwarz worked up to 800MHz and was used by the Abwehr for point to point communications and radar detection. The other was for LF/VLF communications in

submarines. What struck me about both of these receivers was the marvellous build quality.

The collection at HMS Collingwood is

well worth a visit and the curator and his helpers could not be more obliging. I gave Bill a copy of the QRG CD for his library and offered to find any manuals he might need for his Eddystone collection.

He told me they have a workshop with even more equipment which is being rebuilt or used for spares. Like all these museums its future is never assured. Apparently space at Collingwood is becoming a premium and Bill is not sure how long the Royal Navy will continue to provide them with buildings, heating and lighting.

However with enthusiasts such a Bill in charge of our heritage you can be sure that they will fight very hard to survive.

Contact details: Bill Legg 01329 332535.

See also the web site <http://www.recelectronics.demon.co.uk/collingrad.htm>

Chris Pettitt GØEYO

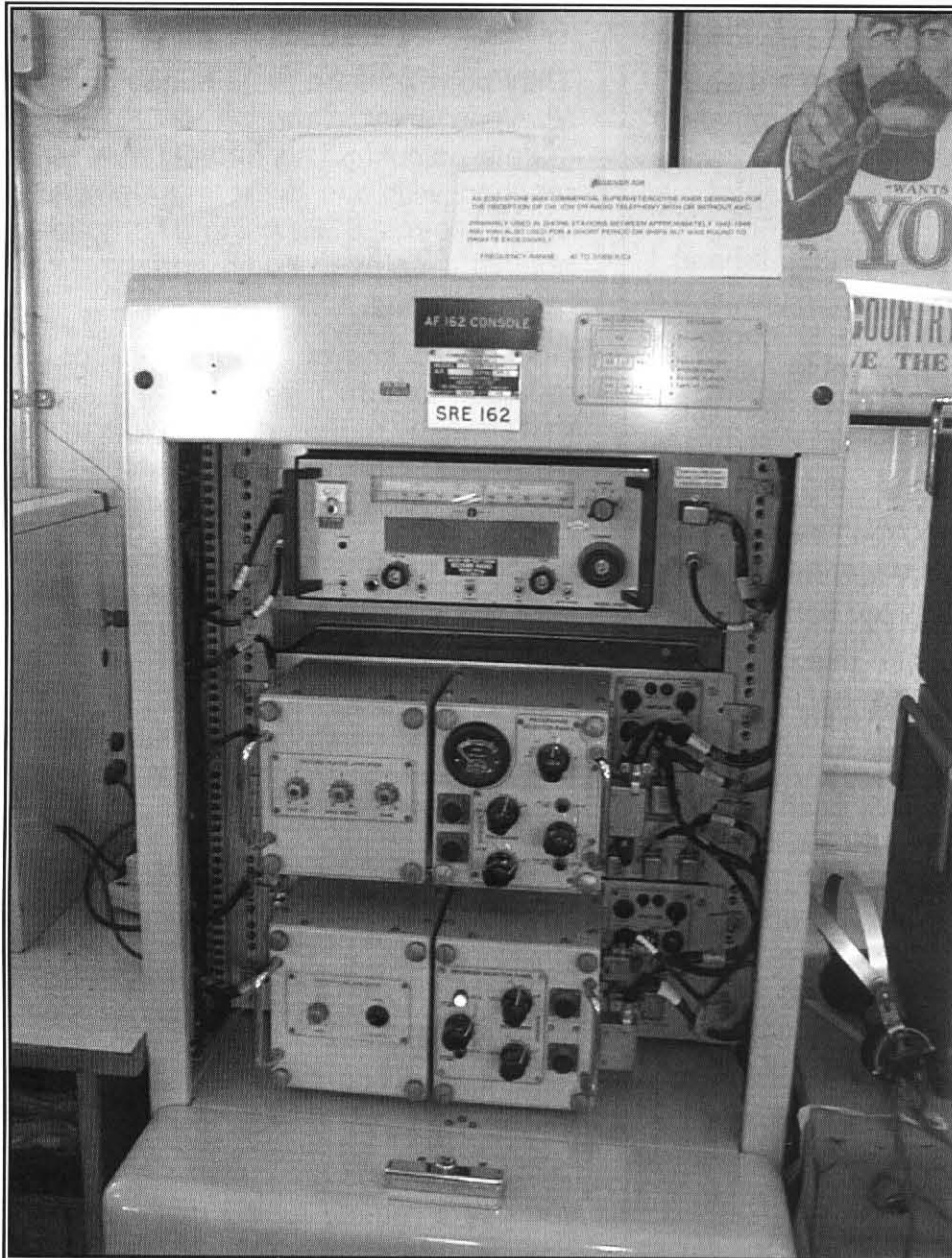


Figure 1:
General view of
the Annexe

Figure 2:
1920's W/T
room from
HMS
Resource

Figure 3: The
XYL with the
Eddystone
Collection

Figure 4: (Left)
Ships'
Broadcast
Receiver
System AF162,
with Eddystone
1002 Rx as the
driver.

Sixty Metres, Aerials and Matching Units, a Review . . .

By Graeme Wormald G3GGL

In our last Issue I wrote about the sixty-metre NVIR experiment and the matter of aerials. The question which emerged was one of resonance and balance. This has rather superseded the question of 60 metres *per se* and so this month I shall address the matter of wire in the sky and matching units.

Some of us understand all about capacitive impedance and inductive reactance but I don't number myself among them. I shall therefore restrict this debate to the simpler back-yard operations.

For the purpose of this article we shall consider there to be two types of wire aerial: end-fed and centre-fed.

END-FED

This represents the simplest all-band aerial, but it's not quite as simple as it seems. All electrical circuits need a 'return' feed, even a humble pocket flash-lamp, and aerials are no exception.

An end-fed aerial needs a good earth or something to do the same job, usually called a counterpoise or a ground-plane.

An end-fed (commonly mis-called a long wire – which is, by definition, at least a wavelength long . . .) may be of almost any practical length, (even a ridiculously short end-fed, such as 8 ft can produce contacts at 100 miles with QRP-CW; I've done it) but at certain points, namely multiples of one half wave, it may present feed impedances which are difficult to match using simple home-brew or commercial ATUs (also mis-named, but let's not get involved in that debate).

For this reason certain "magic lengths" have become fashionable over the years. Two such are 84 ft and 97 ft.

They both work on most bands against a passable earth or 'magic' counterpoises. The furthest I've ever reached with one is Beijing University on 15 metres SSB, using 97 ft loaded against a caravan body, portable from Barmouth Bay.

Goodness knows what sort of a radiation pattern I was putting out, but that's the joy of ham radio. I was using my trusty Trio TS-530S matched up with the AT-230, single-ended AMU (ATU).

The AT-230 is a very popular unit, still sought after today (still in production after 23 years). It will match an unbalanced aerial impedance from 10 ohms to 500 ohms on all bands. But it has a built-in switched single SWR meter which is a pain to use!

The result of this latter drawback sent me scuttling off to acquire a Daiwa CN620A crossed-needle auto-calibrating SWR metre. It works from 1.8 to 150 MHz, from 2 watts to 1 kw without adjusting. Some folk don't care for crossed needles but I think they're the bees' knees.

The end-fed has one drawback; unless you use a remote tuning unit (unlikely)

you will have RF in the shack. This can vary from enough to cause trouble to not enough to notice. It depends on a combination of wire length and frequency in use. The only way to avoid it is not to use it . . .

CENTRE-FED

The most common centre-fed aerial is the half-wave dipole. It is easy to feed; no tuning unit needed, and the efficiency is very high. Against that is the drawback that it is, in effect, a one-band aerial. It will operate on odd harmonics, which means that a forty metre dipole will work on 15 metres, but that's all.

Popular versions of multi-band centre-fed aerials are based on the G5RV dipole, closely followed by the various "trap" dipoles.

Then we have the doublet. By "doublet" some people mean the same as "dipole". I don't. In my book a doublet is fed by resonant feeders and may be of virtually any length. Such an all-band aerial will outperform any other type of wire aerial erected in the same space.

However, it does require a properly balanced matching unit to perform properly. The KW-EZEE Match of the 1960's is a reasonable example of this configuration. It is, in effect, a push-pull aerial matching unit.

On the range 40-80 metres it will match impedances of 30-1000 ohms. But this went out of production thirty years ago and although it can be replicated in the workshop many of us don't have the time or facility.

Many matching units available in recent times do have balanced output availability, but this is a snare and delusion. The facility is usually achieved by placing a balun AFTER a single-ended tuning unit.

This means that the ferrite ring has got

standing waves going through it. It is specifically disapproved by aerial experts as being an incredibly inefficient way of going about things.

The ferrite will saturate, warm up and lose the power. So what can be done?

A new aerial matching unit has been introduced this year by the American MFJ Company (producer of all the inefficient AMUs just described!!). But this one is a true balanced unit; co-ax in and balanced twin out. The balun is inserted BEFORE the tuning elements, not AFTER.

It is specifically designed for use with all-band doublets and will cover continuously (wait for it . . .) from 3.5 MHz to 50 MHz! (There is a slightly dearer version which includes a Top Band – 160 metre - facility.)



MFJ-974 true balanced line ATU

It has a built-in crossed-needle SWR and power meter covering 1 watt to 300 watts. It will handle 300w SSB and 150w CW, giving a 1:1 SWR match over a range of 12 to 2000 ohms. It is, says the book, designed to match a 50 ohm transmitter output to virtually any antenna.

So far, so good. But then, at the end of the book a dire warning is given about using the tuner with a doublet of less than half a wavelength on the lowest band. Mmmm.

It then goes on to explain that the centre impedance of a "short dipole" will only be a few ohms and may lead to disaster. Now this I can understand, but nobody's saying that the tuning unit itself will be at this centre point. In fact, it will be anywhere but!

So in my wisdom I decided that the best way to check it out was to try tuning up on low power (a good maxim at any time) and see what happened.

I erected a 66 ft doublet fed with an unknown length (about 50 ft) of 300 ohm ladder feeder. This entered the bungalow via a section of plastic hosepipe set in the cavity brick wall through a 5/8 in (16 mm) hole. The feeder slides through easily.

Reducing carrier power to about 5 watts the three controls were adjusted in sequence on all nine bands 80 to 10 metres. It was possible to achieve a 1:1 SWR on all bands except 24 MHz, which wouldn't do better than 3:1.

Common sense dictated that operation

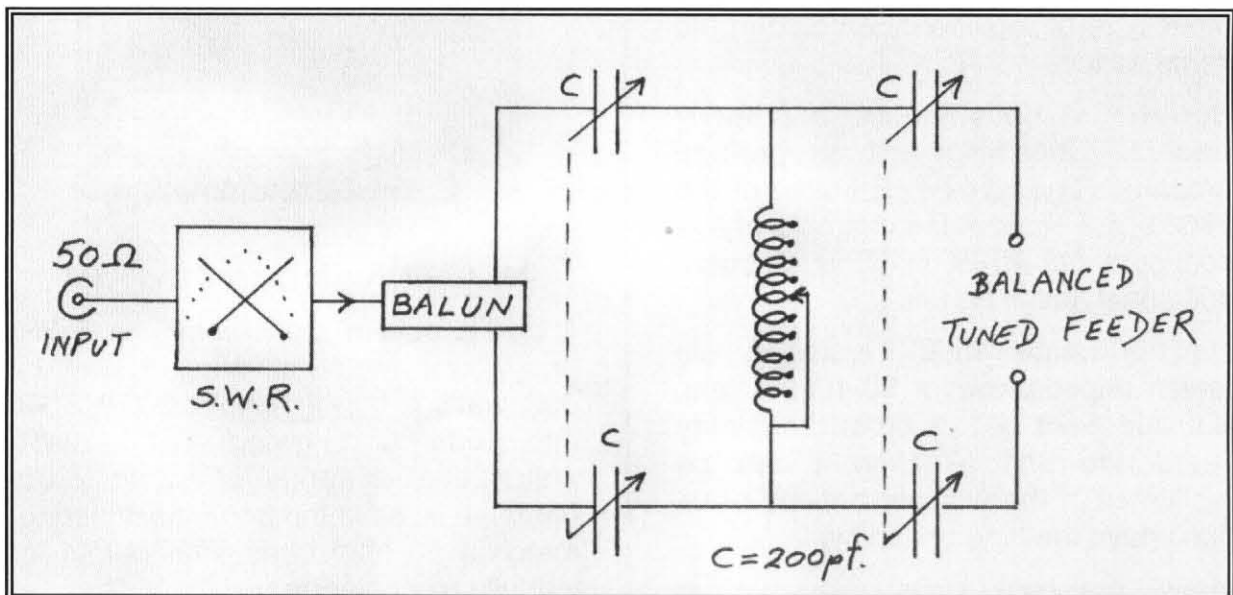
on the eight "successful" bands would be viable, and that the twelve-metre band needed an extension to the feeder to make 1:1 resonance. (This is fairly academic as I don't use twelve metres.)

Accordingly I increased power to 100 watts on 80 metres (the big "NO" situation) and went on the air. Reports of 5 and 9 were forthcoming. So!

I repeated the exercise using a KW E-ZEE Match and got just the same results. So there you have it; a single doublet will work on both sides of its design frequency, regardless of dire warnings. You CAN work 80 metres on a "forty" (i.e. 20) metre doublet.

The matter of feeder length will always come into any calculations for doublet matching, but in practice this is likely to be achieved by trial and error using low power.

Next month I'll address the matter of the all-band horizontal wire loop. ♠



Simplified circuit of MFJ-974 Balanced Line Tuner

The "balun" consists of ferrite beads strung on about a foot of co-axial cable.

The 200 pf capacitors (C) are rated at 1 kV spacing.

The ganging is achieved via 2 ins. dia. plastic cogwheels.

The inductance is switched (not a rollercoaster).

Ted's MailBox

A Review of Mail and Happenings

By Ted Moore G7AIR, Founder of EUG

Readers will recall that in his last episode Ted had just acquired an Eddystone transceiver, the crystal channelised Model 5000 Orion, a compact HF rig of twenty years ago intended for remote areas. He wasn't too impressed with it. So how did he get on?



The Orion 5k

Well, with the able help of Dave Collings from QuartzLab this beast is now working AOK on BOTH sidebands and with one channel crystallised for 3797 and one for 5280 Kc/s. A test with 'GGL is hopefully in the offing. (See further)

It has not been easy - peasy putting it on amateur bands. When I got it there was just the LSB IF filter in situ which due to an inversion process gave USB on receive and transmit. Not what we want on 80 metres . . .

Luckily the whispered (heretical) comment that Eddystone had designed it after having examined in detail a similar transceiver from one of their rivals (Redifon ?) got me on the trail and Dave Collings G4IYB did the rest. (Note from Graeme: it seems the 5000 was a **PYE** clone !! A business arrangement, not a steal.)

A USB filter to match and the necessary crystals came whizzing through the post and work carried on. To change a channel frequency is not

simply a matter of unplugging the one crystal and fitting the new, much too facile, that !

If the new frequency is near the one being removed then 'all' that one needs to do is to set the exact frequency of the individual crystal oscillator using a Timer - Counter (one oscillator for each of six channels !) and then to re-trim FOUR coils, Receive RF amp, Receive RF mixer, Transmit pre-amp and Transmit mixer.

The PA and its driver are broadband tuned so no need to change any of the toroid coils there. If however your new channel frequency is much further from the old frequency then it will be necessary to unsolder and replace the four coils and even to replace the toroids on the PA board ! Luckily I avoided this last chore.

Once aligned on the dummy load - a new QRO one immersed in a Syrup tin - I was, ready to try it out. 'GGL being deeply occupied with getting out the then current (June) Lighthouse I had to leave this until I got back from North Wales.



G3EUG/P with Orion 5000 (above).

Update from G3GGL:- at 08.10 BST on Thurs 1st July I made contact with Ted using his Eddystone Orion 5000. Signals were 5/9+ both ways on 3697 kc/s LSB with Ted using a dipole. This makes a first for G3EUG/P using all-Eddystone gear! Well done, Ted.

The Wooshers et al;

These very light mornings see me up and about at dawn; my normal 06.00 routine becomes an 04.00 routine. On several mornings I have been up at the West Lighthouse just north of Port Sutton Bridge at the mouth of the River Nene. A good place to operate whether just QAPing beacons or amateur bands as I can drive off road onto the river bank and at high tide have the water lapping at the car wheels.

Cannot get much nearer to doing a 'Canute' than this. I have been astonished at some of the antics of the stations on 80 metres. Being so close to the coast and so within reach of the continentals I have heard a whole miscellany of anti-social behaviour.

The Wooshers swish their carrier up and down the band and then stop on top of a QSO simply to annoy the other stations. Then there is the character

who prefers to tune up with passages from a live or recorded broadcast station programming, I have heard both French and English program material used by this 'idjit'.

A third type is the one who uses his 'two-tone' tune up signal to sit on a frequency until the other occupants give up and QSY. There are also those in the UK who act in a similar anti-social manner. The Scottish station insisting to an established QSO that, "this is my frequency, I always use it so move" - it really does let the hobby down a bit.

A Manx Extravaganza

How many different callsigns, and hence how many different QSLs can I get from a week of operating in the Isle of Man ???

Well starting with GD7AIR/P, then GD3EUG/P and then the special event version of GT3EUG (no /P suffix needed if I notify Ofcom by 'phone beforehand).

This gives THREE callsigns and if I operate from Port Erin at the very south of the Isle, then operate from Snaefell Summit, and then operate from Point of Ayre Lighthouse at the northern end of the Isle I get THREE TIMES THREE equals NINE different QSL cards from one week of operating !!!

Grand Activity Week

How about it then ? I am giving notice now that in October I shall have a week over there just simply to air the EUG stations for the benefit of EUGers. The EUGnet date is the 3rd October so I shall start with that and go on for the next SIX days finishing after operation on the Friday,

the 8th.

With operation both morning and evening on EIGHTY metres but with a few excursions up to SIXTY (5280 kc/s) for those with the necessary N.O.V. to their licence. SWL reports too will, as always, be welcome and will get the specially produced customised QSLs. So how about it ?

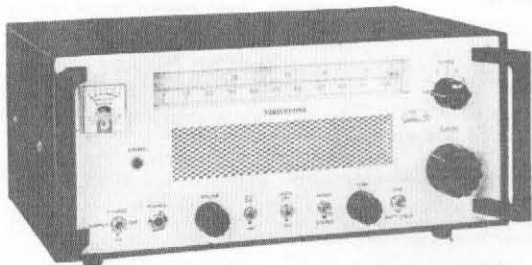
AM or LSB as required and if you contact me beforehand I shall look out for you and give you a call at a suitable time. If you are one of those licensed or not who cannot be bothered, please make an effort this time.

You have plenty of notice to get that rig out and clear away the cobwebs, as an appetiser any station or SWL who earns all nine QSL cards will also get a special Certificate to commemorate this Extravaganza.

More info as to times and dates nearer the end of September from me on my Home or Mobile number. (Home 01945 467 356, Mobile 07957 951 998)

Model 1002 Woes

Well I ought to know a bit about this since I have had mine for almost ten years and as recently as last year did an extensive rebuild after foolishly blowing the 40673 FET oscillator. All because I wanted to fit a nice new panel donated by 'GGL.



Strangely enough I have had three EUGers on to me recently who are having problems with their 1002,

acquired, I believe, from a well known company in the South of England.

In the first case the set did not work on receipt and has never worked - several years on. One possible sign of a problem is that the pcb to case isolation condenser has blown itself apart !

Lot of work needed here I bet, sure to be other 'blown' components and I shudder to think what state the semiconductors are in. Second case seems to be just a matter of mistuning on the VHF/FM broadcast band.

This is almost certainly due to a mechanical slippage in the gearing to the pot which supplies the voltage to the varactors or else possibly the wrong voltage coming out of the DC/DC converter unit which provides the necessary step-up in DC to cover the whole band. The last one sounds ominous too.

It was working AOK but poking around inside with a screwdriver (WHY ???) caused a flash between the pcb and a feed point on the psu case, since then it is as dead as the proverbial Dodo. Oh heck why do people do these things if they are not in possession of the essential knowledge, and tools ? Go on, I know, I did it myself !

In the one case working from a poor photocopy of the manual/circuit is not a help so I have sent an original factory copy of the 1002 manual, okay Anthony now you can see where you are going.

I did see another poorly-looking 1002/2 in the warehouse of M & B Radio up in Leeds the other month but his asking price of £90 for one in such state was deemed a bit over the top. The front panel was in a parlous condition and although I have a replacement here I

balked at the thought of finding a full set of matching knobs.

West Heath Operation

Yes, Honest Injun ! My July EUGnet was done from West Heath, after a friend of Ginny's intervened with the secretary of the local golf club on my behalf.

Too bad it was the West Heath just up the road from DERA near Farnborough and not the Bath Tub one in West Midlands but it was a nice joke. Strange how some folk did not associate the name and asked me what was special about the West Heath location.

I got there at about 0730 and having first been told I would have to operate from 'the rough' a patch of weeds and bushes I discovered that crossing the palm of one of the groundsmen with silver (a fiver actually) I could use their so-called 'machine shed' where they kept their mowers etc.

Pretty handy even though the rain didn't come until I was packing up after the net. Conditions seemed okay at the start but I had a fair degree of local QRM from the nearby railway line and possibly from DERA - some nice looking aërials on the roof there.

In the event there were about eight of us on this monthly net, OFAM (old fashioned a.m.) to begin with, but this had to be cut short as intelligible communications seemed to be hopeless.

SSB was a wee bit better, and so we changed mode early. Not one of the better monthly nets but things may be getting better as we are getting towards the year end and winter conditions.

Future EUGnets

I have been somewhat disappointed in the lack of members who take part in the First Sunday EUGnets, a lot of organisation and hard cash is needed to put the EUGnet on from remote locations, petrol money alone can be a big expense.

Operating from places such as Arran or the Isle of Man push the cost up. I am happy to do this as part of my hobby but it would be nice to hear some of our licensed members on the air, even SWLers can get their QSL card by writing in with a report.

The fact that we use A.M to start off means that a set such as the 1002 or 670 can resolve our signals too. Graeme G3GGL often uses his 840C (see Feb Issue page 33) when working the AM net. So come on guys, less of the sloth-like staying in bed on Sunday mornings.

To see if advance notice will help I shall be trying to announce the EUGnet operating lieux - portable QTHs - at least a couple of months beforehand. **The August operation from Wireless Hill has been in the last issue of Lighthouse.** I plan on having a stand with 'GGL at the Telford Rally, RAF Cosford, on September 1st so shall have to leave it in the hands of G3XFE, Chris, but for a nice fillip the October EUGnet as previously mentioned will be from the Isle of Man.

November is planned to be from up on the Great Orme in Llandudno. I have also plans for the December one to be from near the Guy's Point West Lighthouse at the mouth of the River Nene on the bank at Sea Level!

And in December that really means with the high tide just inches from my

car. Now that you know, maybe some of you living within reasonable distance can join in by dropping by the portable location and even operate G3EUG - it is a Club callsign after all.

I did get one surprise visit from Doug when operating from New York a few months back - he lives nearby and just turned up. We do have a member on the Isle of Man, several within reach of Llandudno, ditto for Port Sutton Bridge the nearest place to Guy's Point. If you are not sure of my exact position call me on my mobile just prior to setting out. (07957 951 998)

The Marconi Marine MARLIN

This ship's transmitter / receiver is a table top rack-mount rig about twenty inches cubed and consists of the cabinet, the transmitter unit, and the receiver unit.

A real hefty weight too so much so that to carry it in the car meant splitting it into three separate parts. It gives what the operator's handbook says is "at least 200 watts p.e.p. output on AM/SSB". That is what it says in the Operators handbook but the recently acquired Workshop Manual says better. "A possible 300 watts p.e.p with a good matched aerial !. Nice enough that !

So why am I going on about it in the Eddystone Lighthouse ? Well all three units, yes even the cabinet, have labels on the back panels saying: **Manufactured by EDDYSTONE RADIO Ltd in BIRMINGHAM** and the model number is 1560T, on the transmitter, 1560R on the receiver, and 1560TR on the back panel of the cabinet. The manual dates it from circa 1981.

A nice find and although channelled as was for THIRTY marine channels it is now, thanks to our 'Mr 1650', Geoff Steedman, MØBGS, channelled up for Top Band and Eighty, plus a few Volmets.

The synthesiser in both Tx and Rx works from a PROM which had to be programmed at the factory, not something to daunt our resident code-breaker that ! Geoff not only cracked the programming code from the PROM which I had in my receiver, he also figured out how to program the one for the transmitter - not quite the same as the receiver.

He then produced some very professional mini PCBs and converter plugs/sockets which have been made up into plug-in EPROM sockets so that he could program my wanted Top Band and Eighty frequencies into the EPROM.

If there was an Oscar for code-breaking Geoff deserves one. It was probably a 'piece of cake for him though after all the work he has done on making the 1650 knobless wonder (1650/6) into a usable receiver. Talking with Geoff makes me realise just how little I do know about computer programming.

He does have the 1560 receiver part of a MARLIN though, and we have another member up on the Isle of Barra who has the complete thing !

My intention is to get it on the air, to begin with OFAM on Eighty. Then if filters are to be found to match those in the Marlin maybe onto LSB. It has been tried on a dummy load and guess what ? Over THREE & A HALF AMPERES of aerial current ! WOW !

Shades of the 1154, and this was before I had retuned the built-in ATU.

My source of power was a couple of car batteries in series but I do actually have a mains supply should I ever need to power it from a site having mains on tap.

The full manual has now arrived courtesy of our Patron, Chris Pettitt, GØEYO, who still has contacts in what is left of the Marconi Company. Both 'GGL and Geoff should have copies too by this time. More later.

Rat Poison

After an overnight stay in hospital to have a minor operation I came home as fit as ever before, having been pumped full of WARFARIN rat poison which is supposed to prevent blood clotting.

Big joke amongst my near and dear ones. 'They must have got the dose wrong - not strong enough as you're still here' was one comment. Anyway it is all over now and just in time for me to do the EUGnet.

My first ever stay in hospital and the thirty odd hours of inactivity drove me bananas, deprivation for so long from coffee, chocolate and of course my Eddystones - they did give me a couple of ice cream desserts though.

I got home and within minutes had a couple of sets (1990R & 730/4) fired up. The gremlins must have paid a visit in my short absence as the previously good, working, 870A in my kitchen refused to talk to me.

A squirt of switch cleaner into the crevice at the back of the pot/on-off switch put it back on the air but why oh why do these things quit just overnight like this. The set had previously been one hundred per cent reliable. Those darned gremlins!

Colchester Rally

I had made the trip down from Deganwy overnight to get to Colchester for just after 0730, having promised to deliver some 'bits' to EUGer John, G7UNZ, not Eddystone stuff but for his WS19 set.

On arrival I found him already ensconced behind the B & B stand and received a FREE coffee -just the pick-me-up I needed. What a journey that was, across country and the rain and wind did not help.

Still I had an enjoyable time and picked up a few bits and pieces, one find was a DIY narrow/wide band filter board consisting of SIX Eddystone 5.2 Mc/s IFTs mounted on a piece of pcb, plus a wafer switch - for 20p.

I guess that I was the only one to spot the word Eddystone stamped into the side of the coil cans. From the same box and for the same price I got some Eddystone knobs and one of the professional lock-in microphone plugs as used on my Orion and Marlin, plus several of those three pin power plugs/sockets made by Bulgin and used on such as the 990 for battery operation.

Not a bad day as far as spares go. This is one of the better organised rallies with plenty of helpful club members around and both indoor and outdoor stands to keep visitors happy, mostly electronic stuff too with hardly any of those silly toys and bric-a-brac stands which ought to be banned from radio rallies.

Thanks for the 'invite' John, I shall certainly be there next year though hopefully I shall only need to 'drop down' from Wisbech and not have to cover some 300 miles to get there the

day before going into hospital !

The only other Eddystones as seen were a couple of 'tatty' ones at outrageous prices (Marconi 2232 & 1002) and a nice enough but non-working EC10 II on the B & B which was over-priced

My 964/7s

These two rack-mount, slim-line, single channel SSB double superhets are now functioning after I discovered not ONE copy, but EIGHT copies of the /7 specific manual in one of the previously un-explored boxes in my loft. One is on 14,996 to monitor propagation conditions using the SFT transmissions from the ex USSR station.

The other is on 9031 to monitor the RAF/USAF xmissions from aircraft to ground. I have now found that they had been in use on board an Oil Platform in the North Sea, nice to get some history as to what the various models had been used for. I have a nice cabinet courtesy of John down in Colchester which will house both of these 964/7s and just need the time to do the job.

R.I.A.T

The Royal International Air Tattoo was a big event for 'GGL, Jesse and her son Tom. The freebie tickets meant we could spend our pennies on other goodies, like Ice Cream Cornets, of which I consumed a few, or more. *(Note from Graeme: Ted is an incredibly greedy ice-cream eater, every time he went missing he was in the Wall's queue . . .)*

The sight of one of the latest stretched version of the C130J Hercules transports doing a loop the loop

straight up from a STOL take-off caused a whole lot of OOHS & AHS from the crowds. Did nobody ever tell the pilots that these monster transport planes were never intended for aerobatics ?

The Harrier display too was quite fantastic, we had a good spot chosen by Jesse and the Harrier did it's act right in front of us. Felt a bit like Royalty being 'bowed to' by a Harrier after it had done it's performance of forwards, backwards, and roundabout. Being there is so much better than watching on the goggle-box, and you really get a better impression of the size and noise when one of those B-52s flies past and over head.

It was a bit disappointing to go into the Army tactical communications tent and to see the display of radio gear as used in recent wars around the globe - so much of it labelled Icom or Yaesu, not even a hint of Marconi or Eddystone these days.

It was a long, tiring day but one which I found thoroughly enjoyable. Just hope my contact can get us tickets for next year.

Recalcitrant Radios

To come back after a long weekend and discover that not one, but two of my sets were refusing to power up was frustrating.

Being closest to the door my 840A often is the first to be switched on. This time ZILCH ! No signs that any ergs were going into it so what had gone wrong ?

Some quick tests and I discovered that the big thermistor was o/c, not just a case of loose soldered on terminating leads either. Luckily 'GGL and I had bought ourselves a few of these from

the Birkett's stand at a recent Rally (NEC ?) and so a quick solder job and the 840A was back on line.

Not so quick with the 556 which needed more time to sort out the 'gone high' resistors in the Oscillator stage. At 3.5 Megs for a 100Kohm screen dropper I am not surprised that the poor 556 was on strike.

These oldies do need constant TLC if they are to be USED as opposed to just being static museum display items.

Unsolicited Gifts

I have become the owner of a fully functioning, albeit only two foot tall, Lighthouse made or built by some young ladies to repay me for doing some installation work in their personal Club Den, which I keep calling their Nest, gets me into no end of trouble that does !

Anyway they put their heads, and hands too, I guess, together and came up with this idea. And so it happened, I was not supposed to know about it beforehand but Ginny did let me in on the secret. I am over the moon about it !

Lovely thing too. Made of plaster and standing on a heavy, solid base of sea and rocks with a tiny flashing red beacon buoy amongst the rocks. The Lighthouse is striped red and white with a proper Lantern room at the top and a REAL flashing beacon that can literally be seen for miles being as it is a high-intensity strobe light.

I think I shall keep it in my garden at Wisbech. Since it operates from 12 volts I can power it from a small dryfit battery kept charged by one of my solar panels.

Having given them all a hug and said

thanks a bunch I said please can the next one be life-sized, well who knows ? But it was a thoughtful gesture and believe me it is very much appreciated.

O.T.A.

My 940 went Off The Air the other week, playing nicely with Gander on 10,051 when suddenly there was an ominous silence, quite upsetting, was it the set or had somebody nuked Newfoundland off the map ? Hoping it was the former and not the start of WWII I pulled it down off the shelf in my new Welsh Shack and took off the case.

Nothing visible anywhere above or below chassis, all valves lit up and as I found HT at the main points of interest but nothing out from the AF output stage when I touched my finger to the AF input.

So what had gone wrong with it ? After the voltage checks I powered down and began a few continuity checks as the complete silence seemed to indicate that there was a diss somewhere. The speaker worked okay on another set.

The output transfo too seemed to be okay both primary and secondary. But then I got an open-circuit between the phones jack and output terminals. a squirt of cleaner fluid and a bit of 'roughing' with a fine file and the contacts began to conduct again.

Just corrosion which must have got somehow between the contacts which diss the speaker when phones are plugged in. BUT I NEVER USE PHONES DO I and the set was working fine one minute and dead the next so how come the corrosion suddenly got there ???

A mystery to me but thankfully the 940

is back on song with Gander rolling in at S8-9. Only Big Ears & I ever use this new shack and neither one of us uses 'phones so that jack socket had not been disturbed for yonks.

If anybody reading this can supply me with a solution to this conundrum then please, please do so. I await a letter from some kind genius who will put me out of my suspense.

Ærials etc.

Well I am a bit confused here. I have long thought that the random shortish wire type of end fed or centre fed 'T' ærials were basically high impedance however in a recent 'phone call with Graeme I was informed that they are low-impedance.

Now low impedance compared with high impedance means lower volts and higher current. So why then are such big insulators needed for such ærials ?

My Marlin has a pretty big cone type teflon insulator mounted on the cabinet top for connecting a single wire ærial to the built-in ATU, connection between this ærial and the ATU is a simple pressure contact which I figured on being hardly reliable.

Can I replace this with a SO239/PL259 coupling ? And then use co-ax maybe ?

Only time and trials will tell. I do feel that if I am to use this Marlin on 80 metres then I need a better coupling, however I am loathe to change too much on the set. More later.

Help !

I am still looking for spare receiver cases, a 990 type for myself and an 830/7 type for one of our EUGers, Graham. (*Not Graeme*) So please if

you have any such case to sell or swap do get in touch. A scrap 990 would not go amiss if you have one to sell for spares - I need some bits as does John, one of our members. I can collect within reasonable distance of either Wisbech or Conway. I have recently been able to satisfy other EUGers with handles from an S.358, the gearing for the tuning drive of the same model, a dropper for a 670, and two IFs for an 840A. But as this is our only way of getting spares we do need to keep stocks replenished, any scrap models will be welcome.

Spares

A few letters asking for spares which I do not have, can anybody help Tony with Brown volume and tone knobs for a Mimco model 2273A, plus a brown finger plate and tuning pointer ?

Please let me know. Also for Clive who wants to get hold of a scrap 888A for spares or just a scale plate would do ? Contact me and I shall do the necessary.

ENDIT

All for this issue I'm afraid. I'm off now to get my stuff together for the August EUGnet and GB4WTA, a car load of kit to load up and drive to Rutland to take up Wireless Hill. Hope you will be on 80 for it.

Vy 73, Ted.

Note that my mailing QTH is still:-
21 Prince Street, Wisbech,
Cams, PE13 2AY.

Landline: 01945 467 356

Mobile: 07957 951 998



E.U.G. MASTERS' CROSSWORD No 21

COMPILED by COLIN CRABB G4HNH

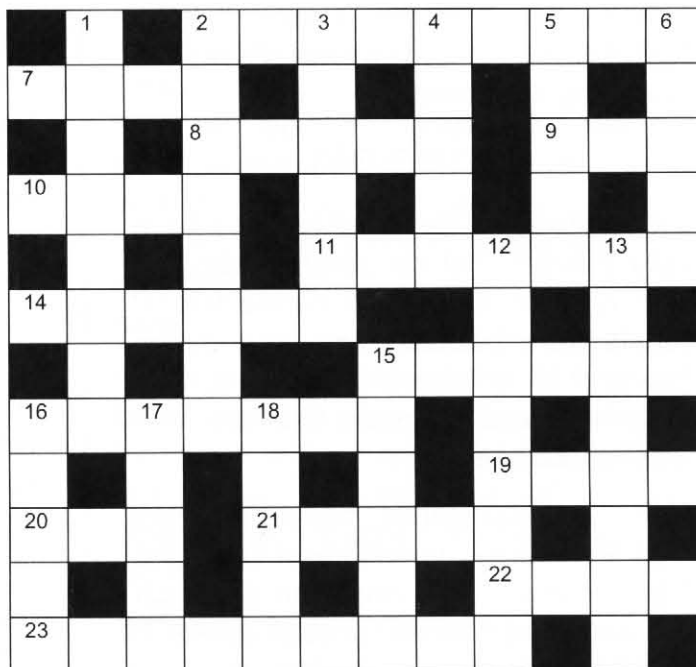
Photocopy or write out the answers so as not to spoil your copy. Send to Graeme Wormald at 15, Sabrina Drive, Bewdley, Worcestershire DY12 2RJ, England, to arrive not later than 25th September 2004. See next page for further details. Don't forget to include your name!!

ACROSS

- 2) Chassis holes produced by the "ring" removal method (9)
- 7) Channel through which signals can be sent (4)
- 8) Regie perhaps, is firmly ensconced by a young Frau in the Swiss alps (5)
- 9) Japanese comms. equipment manufacturer founded in 1977. Developed first continuous coverage wide-band rx (3, abb.)
- 10) Headless bolt, generally screwed from both ends (4)
- 11) Intermediate connection on a transfo. to obtain a lower voltage (7)
- 14) All round AC/DC converter (6)
- 15) Distant plugs exhibit large capacity (6)
- 16) Ostentatious output stage for the senior op. (7)
- 19) Tony's reduced, to rail perhaps, in the lion's den (4)
- 20) Re-tuning Voice Of America briefly, reveals required test gear (3, abb.)
- 21) Smooth tuning facilitator on the fly, especially in certain Eddystones (5)
- 22) Anonymous chimp in the peak of condition (4)
- 23) Device employed by coast stations in the 70's to improve hf speech quality. Required hi-stab. rx such as the EC958 (9) (issue 85)

DOWN

- 1) 3600 Joules is equal to one (4-4)
- 2) Name given to the charge collecting



electrode of a field effect transistor (3,5)

3) Favourite band for inter-G working (6, col.)

4) Filter that rejects a particular freq. is called -- -- (1.4)

5) Navy, Army and Air Force Institutes (5, abb.)

6) Dismantle your station (2-3)

12) Source of error on some analogue meters (8)

13) Tx fault traced to the penultimate stage (2,6)

15) Increase the volume professionally (4-2)

16) Which Eddystone is your holy -- ? (6)

17) A cornerstone, inherently, of miniature valve technology (5)

18) Famous inhabitant of a tv police box (3,3 pt. abb.) ♠

E.U.G. CROSSWORD NEWS

Every One a Winner!

(But only nine entrants . . .)

I think this was one of those puzzles where you get it all correct or you can't finish it off! I say this advisedly, not having been able to complete it myself and, had I been eligible to enter, certainly wouldn't have done so.

I'll explain. Question 6 Down was "Bass boost and treble attenuation for vinyl playback is known as – equalisation (4, abb.)"

The answer to this is "RIAA", so Colin assures me. Fine. But for all I know that could stand for the Royal Institute of Ancient Arrowsmiths. I'd never have found it out for myself and I suspect I'm not the only member!

That's why the sharp-eyed amongst you will have noticed that the title at the top of the preceding page has changed!

Just in case you see a new name in the Roll of Honour and think it's a bit of a cheek, well I've been telling Ted Moore for months that he should enter. He, in his usual shy manner, declined on the basis of hereditary disqualification. This I refused to accept on the grounds of his residence in distant parts.

So let's get on with this month's baccalaureate winners:-

Roger Bracey G4BZI of Crewe

Terry Emeny G3RIM of Esher

Tor Marthinsen of Tønsberg (N'way)

Gary McSweeney Gi4CFQ of Belfast

Ted Moore G7AIR of Wisbech

David Pratt G4DMP of Leeds

John Read of Cheshire

K. Seddon GØOQU of High Peak

John St Leger G3VDL of Devon

Well done, each and everyone.

Now let's have the answers for those of us too shy to submit a half-finished entry . . .

ACROSS: 1) AFTERBURNER

7) ANION 8) RADIAN 10) DIODE

12) TOPPER 15) TOSS UP

18) TENON 20) IRC 21) MARINE

22) ASLEF 23) TRANSCEIVER

DOWN: 1) ARALDITE 2) TRIPODS

3) RONDEAU 4) UNREST

5) NO DROP 6) RIAA

11) TRANSFER 13) OATCAKE

14) PANSLAV

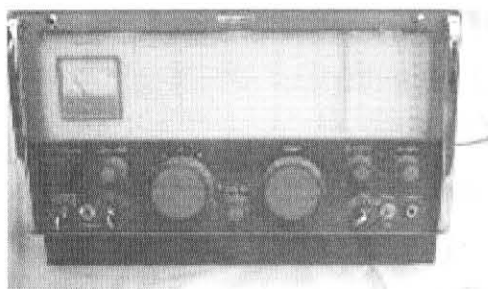
And that's all, folks, there's no more to say about it, so let's conclude with a picture of one of this month's clues (or at least part of one.)



Graeme, G3GGL ♠

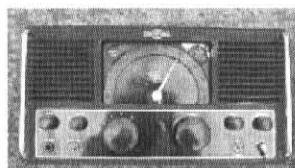
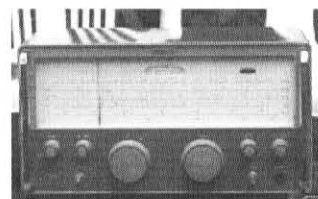
E Bay Watching

By Chris Pettitt GØEYO



The past few months have seen prices for Eddystone equipment reach new heights. One that caught my eye was an EA12, serial no IP0004 (Sept 1964). This was bought from new by the seller's father and used by both of them over the years. It was in very clean and working condition and included the original underbase plinth stand. The S meter was undamaged (often the plastic cover gets cracked). This sold for an amazing £310.

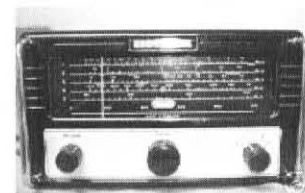
Coming close behind a 840C Communications Receiver went for £295 and another, serial number EO1535 (May 1963) went for £150. Both in clean working condition.



A rather unusual 840 also found a new home for £67. This particular 840 has been modified to a Braille tuning scale and was featured in Radio Bygones issue Number 50 (Christmas 1997). The seller describes the conversion as having been very professionally done, with both the main tuning scale & the logging scale being converted to Braille and a heavy duty pointer fitted to facilitate reading the Braille markings. It is clear

from the wear to the paint on the cabinet and front panel above the tuning and logging scales that this 840 was put to serious use over many years after it was converted to Braille. This went to a EUG member.

Another set to fetch a very high price was a ships' cabin receiver S870A which sold for £280. These small cabin receivers were built into the luxury cabin passenger ships in the 1950's and this was a great example in a beautiful Claret/Aubergine colour.



This month has also seen several accessories go for good prices. S-Meters and Modulation Meters fetching between £80 and £95. An Eddystone Bug Key went for £119 which is top end price and an Eddystone 358 PSU went for £125.

A 940 Receiver, described as Superb went for £335 after quite vigorous bidding and several EB35 Mark III's have been sold for various prices between £98 and £170.

Eddystone Radio continues to be popular amongst E bay buyers. If any EUG member is considering selling this way but is unsure how to go about it, just send me an e mail (g0eyo@blueyonder.co.uk) (All photos taken from Ebay sites.) ♠

In our April Issue we featured David's very nice home-brewed "Eddystone Clone". We have now persuaded him to put pen to paper and tell us his story:

Home-Brew & Eddystone

By David Fletcher G3TVM

My initial interest in wireless was probably aroused at the age of eleven or so by a schoolmate who built a 2 valve TRF and my father then encouraged me by purchasing the parts to build a one valve (HL2) receiver from, I think, a Webb's Radio emporium.

A few years later, in my early 'teens, another friend built a "Williamson" amplifier (at his father's expense) and that seemed to introduce a competitive element amongst my other chums. Who could build the most powerful amplifier? Never mind the quality, watts and *still more watts* became our goal and this led to other aspects of the hobby such as the construction of wooden speaker enclosures, but none of us achieved our ambition to build one the size of a telephone kiosk!

I realised in later years that my parents must have been quite relieved when I finally left home as my 78 r.p.m. record collection ranged from Dixieland jazz to Ravell's Bolero and all were played at auditorium level when I could get away with it.

In those days, the early 'fifties, it was

quite the norm for many enthusiasts to build their own "High Quality Sound Reproduction" equipment but gradually the move to a commercial "High Fidelity" market killed that golden age of home construction in just the same way that "Black Box" SSB equipment was the death knell a generation later for "home brew" ham radio transmitters. "Progress" has a lot to answer for!

With the demise of "roll your own" audio equipment I felt the need for a change of tack and decided to join the local radio society. Their club room was conveniently located above a local hostelry and at the first meeting I attended it was announced that Ray, G3MTL was starting a beginners' Morse class. I have been grateful to Ray ever since because thanks to his coaching and encouragement I passed the Morse test a year or so later. At about the same time another member of the club was running a night school class for the "technical" aspect of the licence with the result that I eventually obtained my callsign G3 Tango Victor Mike.

Whilst the foregoing was happening I was also modifying and then realigning a very nice HRO MX (pictured left) and this, together with a second hand



Panda Cub transmitter, made up my first Amateur Radio Station.

About this time there occurred an episode which still pains me. My dream receiver, an Eddystone 680X, was advertised in one of the radio periodicals. I rang up straight away and yes, it was still for sale and it was agreed the set would be mine. I sent off the cheque within the hour and imagine my excitement now that a long held aspiration was becoming a reality. Two days later my cheque was returned with a brief note to the effect that the unspeakable vendor had sold "my" set to a passing scoutmaster for cash. Such was my disappointment that I have neither forgotten nor forgiven the incident, and I hope the culprit reads this and feels duly mortified.

Some time after the above non-event circumstances entailed a move from "the north" to East Anglia and the upshot of a new location, new job, night school and time with a young family meant that "ham radio" took a back seat for several years but I did keep up the renewal of my Tx licence.

A chance conversation with a colleague at work re-kindled my enthusiasm. He knew of my interest in "old radios" and one day he showed me a small tin box with "Eddystone" embossed on the lid; it contained six 6-pin coils. "You can have it if you want, someone left it here years ago." Some you win! The colleague then mentioned an item he had seen about a recently formed "Eddystone User Group" and that was how I came to subscribe to the "Newsletter" in the days when Ted Moore lived above the northern snowline.

My boxes of treasured parts, squirreled away many years previously were retrieved from the loft and construction

began on a 4-valve TRF, entirely from my own stock and some salvaged items. The only component which gave a problem was the one new capacitor, so there must be a moral in there somewhere. However it was great to be constructing and soldering again and about this time I visited an early NEC Vintage Communication Fair. As I wandered around I came to the "Wireless Workshop" of Jim Cookson, G4XWD and he had a nicely restored and guaranteed 680X for sale, so of course I leapt at it.

After a while I decided I would really like another Eddystone and responded to several adverts, but in each case the set had just been sold. I therefore changed my approach and put a "wanted" ad for a mint condition 940 or 750 in one of the radio periodicals. I was immediately offered a very nice 940 which succeeded the 680X. Some six months later the phone rang and the caller explained that he had just seen my advert in an old magazine. Was I still interested in the fine condition 750 he wanted to sell? You bet I was and as he lived only an hour's drive away I went the same evening, so for me it really did "pay to advertise".

My third Eddystone is an "All World Two". I had watched it pass through the ownership of three of my friends and as the third one did a first-rate restoration of it I thought he would keep it forever. So when he mentioned he wanted to sell it I jumped at the opportunity to add a "rare" one to my small, but choice, collection.

The only real problem I have now is space, or rather the lack of it, because in addition to the Eddystones I have four other communication receivers, all from the "metal octal" era. There is an HRO 5T, a BC348 (above the 940 in

the photo) and on the left of the 940 a Hammarlund, a BC794-B which apart from some minor WW2 cosmetics became the SP-400 in post-war years and it is indeed a fine receiver.

These days my construction projects are usually TRFs as described in last April's "Lighthouse", purely for amusement and some sort of therapy for the wonderful times we all live in

nowadays. I always seem to get some idea for improvement just when I have completed and tested a set and so another one is already on the stocks. I have still not made a "supergainer" that works to my satisfaction and all this really means that when I have a project on the bench and a soldering iron in my hand I am as happy as a sandboy.



Dave's crowded shack of 2004 shows some of his prizes gathered over the years. In pride of place is his pristine Eddystone 940 on top of which sits the diminutive Codar AT5, top band and eighty AM/CW ten watt valve Tx of the 'sixties, with PSU. Very popular with vintage valve users. Above this is the US Army Air Force BC348, standard kit in the Flying Fortress. To the left is the Eddystone "All World Two" and dropping down again we see the Hammarlund HQ120-X.



ebaY mania

*First Impressions after the arrival of Broadband
by Graeme Wormald G3GGL*

Members will be aware that in the past I have been rather scathing about buying things unseen, especially Eddystone Things, from eBay, the www auction site. I must admit that I was reporting without any experience, only other people's horror stories. But things change . . .

Now that our new EUG PC is getting nicely 'run-in' I decided that it would be a good idea to take up BT's new offer of "Broadband Basic" at the new economy price. This would help download material for "Lighthouse" much faster and at the same time cure the problem of my e-mail clashing with the XYL's phone calls.

So I phoned BT and asked them about it. "You only get one Gig a month." they said. I replied that I'd stopped doing Gigs years ago but after the confusion was settled it seemed that it was something to do with downloading albums and movies. "I don't do those, either." I answered. "In that case the scheme is just what you need." they said. Five days later the package arrived. It was up and running before bed-time.

I'm located about 400 yards from our local telephone exchange, with an underground pair into the bungalow. It works about twelve times faster than the old connection. And doesn't it show! In five minutes I can research what used to take an hour. In fact, I never used to do such research, first on account of the size of the telephone bills and second on account of the boredom waiting for results.

It was the XYL who first mentioned e-Bay. She'd seen a feature in the Daily Mail which said that Cheri Blair did her shopping on it. And you know how curious XYLs can be . . .

Claiming master's privilege I punched the magic word "eddystone" into the little box. About four seconds later it told me "28 items found" and presented them in a table.

All, however, was not quite what we expected. Half the items were pictures and books about the famous Light and three were pieces of crested china.

Now about 40 years ago when you could buy such pieces for five shillings in bric-a-brac shops I collected a small cabinet full. I find them very attractive; several have the crest of Bewdley and Kidderminster and several are of interesting subject such as battleships, horn gramophones, WW 1 tanks, etc.

Last month somebody took a collection along to the BBC Antiques Road Show and they were valued at £20-30 each, except for those with related crests. For instance a model of Big Ben with the arms of Westminster would attract another zero on the end of the value.

So when I saw 4" china models of the Eddystone Light standing at £2 and £4 respectively I took interest. To cut

several days of tension short I acquired both items at a cost of £4.65 and £10.00 respectively . . .

They have joined my collection quite easily, having small footprints. I have also acquired a CD of Jean-Pierre Rampal's Scott Joplin, (£10) which I had been seeking for three years and a brand new English Lion flag (like the soccer and cricket badges).

I had been hunting the latter for four years without success. The Scottish Lion and the Welsh Dragon are flown everywhere but the poor old English only have St George to wave. Patriotic, I'm sure, but nowhere near as impressive as three lions. Incidentally, did you know that it is exactly like the flag of Normandy (as in D-Day)? Except Normandy has only two lions. When King William I (the Conqueror) took England from Harold at the Battle of Hastings in 1066 he added the extra lion for England's new flag to commemorate his victory.

Now at this point you may think I'm straying away from the subject, and that's what I'm trying to illustrate. No matter how esoteric your interests, you will find e-Bay can lead you to something you'd given up hope of finding. And at the same time give you the thrill of the hunt.

And now we get back to the matter of Eddystone Radio and e-Bay. The vast majority of items offered are illustrated by photographs and the vendor's credentials are given in detail from previous buyers. Not only that but you can see the score of 'Brownie Points' which have been fed back by them.

Items are placed for auction over a period of seven or ten days, timed to the second. It is possible to watch the weak-willed making early bids which drive the price up. I saw one item, a model 870A cabin set, still brand new in its box with all accoutrements,

where it had remained untouched for almost fifty years. After a flurry of bidding it stuck at £109 for the rest of the week until the last few minutes. Then a buyer in Japan pushed it up to £180. Another buyer placed £205 and seconds later it was snatched for £215 by a buyer in South Vietnam. It's as exciting as horse racing and much more interesting.

Then we had an advertiser offering the well-known S-meter (640, etc.) which started at £2 and soon went up to £22. There it hovered for the rest of the week and then rocketed to £83 by the ring of the bell.

But here's a funny one. At the same time the look-alike AM Modulation Level Meter 678 was offered (see QRG p. 57). The description said nothing about the telescopic aerial or the plug-in set of coils – this was one of the few offerings without a picture.

There is, however, a facility to contact the vendor and ask questions. So I did, and the seller replied that he was unaware that the meter should have coils or aerial (obviously not an EUGer!). I kept my hands in my pockets. Then, in the last few minutes the bids shot up to £82. The QRG is worth its weight in gold.

I've changed my outlook concerning eBay; it's a great game and needs skill to play it. I've just seen an immaculate EA12 go from £5 over a period of a week and 28 shouts to a winning bid of £370 that was made 7 SECONDS before the deadline!

This pipped a bid of £360 made just 20 seconds earlier. I doubt if you could do to this sort of bidding without a Rugby radio controlled clock.

By the way, does anybody know what "eBay" means? Somebody once told me it was Turkish for "auction", but I don't know if it's true . . . ♠

The Duffers' Guide to Valve Set fault finding – (part one).

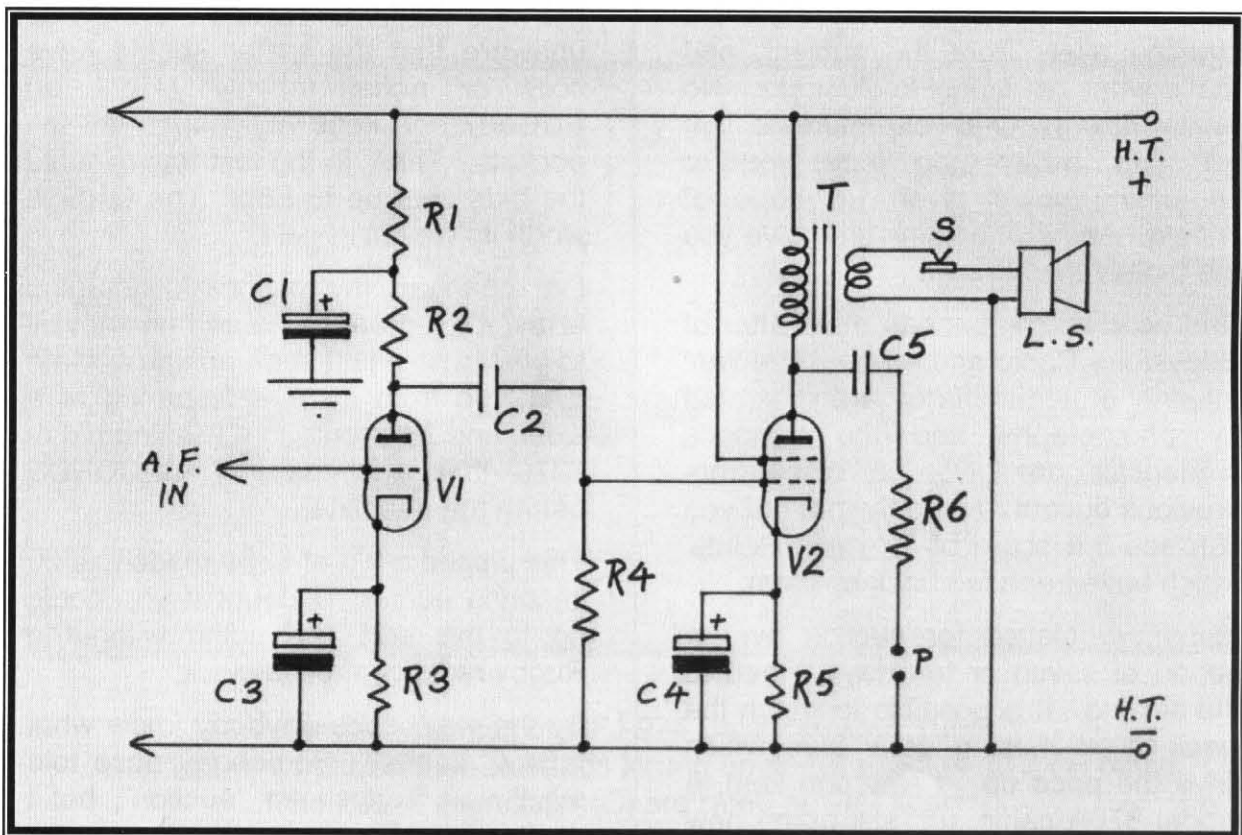
By Graeme Wormald G3GGL

In the past ten years, since I've been active with E.U.G., I have had conversations with some members who have blinded me with rocket science and with others who didn't know what a local oscillator was.

As an entirely self-trained "technician", whose only "qualification" is an old-fashioned City & Guilds Pass in the Radio Amateurs' Exam of 1949, my approach to old valve radios is a very subjective one, entirely devoid of high-tech explanations and based only on experience.

"Lighthouse" magazine, during its 14 years of life, has published very many specific fault problems found in Eddystone models. Some of these are unique to certain sets or groups of sets but many are generic. It is this latter group which I am highlighting in this mini-series of fault-finding for the Duffer. By "Duffer" I don't make any derogatory reference, merely to target those such as myself who, for reasons diverse, never took a trade or professional course in radio or electronic engineering

I would first advise members to read "Electronic Repairs to Eddystone Receivers" by Peter Lankshear, a six-part feature which started in "Lighthouse" Issue 68, August 2001 and was completed in Issue 75, October 2002. (Available from me in two CD-ROMs (Vols 10 and 11) price £10 incl p&p.)



All radio problem-finding starts at the loudspeaker and works its way back to the aerial, so I have started with a basic circuit of the last (audio frequency) stages of an average receiver. It isn't based on any specific model and leaves out all the "trimmings", but it is sufficient to show most areas of concern.

I shall describe the functions of each item in simple terms and concentrate on the risk assessment as we go.

V1 is the first audio amplifier and it works on a low level of signal derived straight from the detector, be that signal AM, FM, SSB or CW. It will almost certainly be a multiple valve, such as a double triode, a double diode triode, or, in many cases of the Eddystone AC/DC models, a diode pentode. This doesn't affect the present approach. Take no notice of the other contents of the envelope.

The signal is fed into the control grid via a network of components which are not under consideration at this stage. It comes out at the anode after being amplified by a factor of anything between ten and a hundred, depending on sundry factors which don't concern us here.

The components surrounding it have the following functions:-

R1 is a decoupling resistor to reduce the possibility of audio instability. It is typically of a value between 5k and 50k ohms. It rarely gives trouble unless it is provoked by the short circuit failure of C1 in which case it will almost certainly have caught fire.

C1 is the decoupling condenser for R1. It is usually an electrolytic having a value between 2 and 8 mfd (microfarads) and a working voltage of about 350v.

As with all old electrolytics it must be treated with suspicion. If in doubt, the neon leakage tester should be applied (*see Appendix*).

This takes us now to R2, which is the "load" resistor of V1. It "forces" the amplified signal through C2 to the control grid (input) of the power stage (V2). It is typically between 200k and 500k ohms and is a very common source of trouble. Its value frequently increases by any figure up to infinity (i.e. open circuit). It is readily checked with the high ohms range of most multi-meters.

R3 is the auto-bias resistor, typically between 100 and 1000 ohms. It rarely gives trouble and may be readily checked both for value and for operating voltage shown in the table in the handbook using the multimeter.

(To digress a moment; the reason it is described as auto-bias is that in the early days of wireless, grid-bias was provided by a small battery. The use of a cathode resistor with indirectly heated valves was termed "auto" and it stuck.)

C3 is the cathode decoupling condenser and is typically 25 to 50 mfd at a working voltage of 25 to 50 v. Being an electrolytic it is also suspect, but difficult to check due to its low working voltage. It will rarely go short circuit, thus giving itself away by

multimeter test. As replacements are very readily and cheaply available (due to their common use in transistor circuitry) it is possible to make a good case for routine replacement.

Normally the replacement of a component without proof that it is the cause of a fault is to be deprecated, but this is an acceptable exception.

C2 is the "coupling" condenser between the anode of V1 and the control grid of V2. Its purpose is to stop the high voltage present on the anode of V1 (anything from 20 to 100 volts) from reaching the control grid of V2, which should be at a potential of several volts *BELOW* H.T. negative (i.e. less than earth).

C2 is a very common cause of fault, varying between distorted audio in the speaker to catastrophic destruction of the whole of the output stage circuitry.

Should there be *ANY* leakage whatever through C2 it will put a certain amount of positive bias on the control grid of V2. This in turn will cause the valve to draw more current from the high tension supply.

As this is already a power stage taking from about 20 to 50 milliamps it soon starts to get hot under the collar. But let us pause just there and describe the circuitry around this output stage, or what a former generation would have called "the loudspeaker valve".

R4 is called the "grid leak" and its purpose is to maintain a steady negative D.C. bias on the control grid with respect to the cathode. Its value is typically 100k to 1 megohm and is

not very critical; it rarely gives trouble. But if it goes open circuit there will be appreciable distortion in the set's output. This must be born in mind, however unlikely.

C4 and R5 are the auto-bias components for the output stage, V2, and do exactly the same job as R3 and C3 do for V1 (*Look back*).

"T" is the output transformer and has a step-down ratio of (about) 40:1 so as to match the 3 ohm impedance of a moving-coil speaker to the several thousand ohms output impedance of the output stage. The actual speaker itself may or may not be incorporated within the set, depending on the model. This makes no difference to fault-finding.

C5 and R6 represent the "padding" components of the high-impedance headphone arrangements. C5 is an H.T. blocker and is typically somewhere between 0.01 and 0.1 mfd's with a working voltage of about 350 v. R6 reduces the audio power being put to the headphones to stop your head being blown off. Its value will be of the order of 50k ohms.

"P" represents the headphone connections on the output jack. "S" represents the switch contacts which open to mute the speaker when headphones are plugged in.

C5 may become leaky and pass current when headphones are in use. Not a common occurrence but worth keeping in mind. A much more common occurrence is a complete loss of audio after headphones have been

unplugged.

This is usually due to a small foreign body (*the proverbial dead fly*) falling between the contacts of "S" and keeping the circuit open. It is usually cured by repeated rapid insertion of the headphones jack plug, and/or blowing and squirting with switch cleaner.

Returning now to the question of H.T. leakage through C2. This usually starts off as the merest hint of leakage which causes so little distortion that it isn't noticed. As time passes and it gets worse the output valve V2 will start to take more H.T. current which, in turn, will help to counter the problem to a degree.

This is due to R5 trying to create more negative bias, but the stage will take more and more current, causing R5 to overheat and the primary of the output transformer "T" to do likewise. Either of these could burn out, giving silence. A more likely occurrence is a ruined valve. It is essential that C2 be changed at once if there is the slightest hint of this problem.

Once again this is a case where it is worth changing without proof positive, (which can only be confirmed by the use of a neon leakage tester). I would urge any member who aspires to repairing old valve sets to have one to hand. (*See appendix.*)

A source of modern high voltage 0.01 to 0.1 mfd condensers must be found even before you think of opening an old valve radio. John Birkett of Lincoln always carries stocks at rallies. They

can be acquired brand new from Maplin, RS, and other catalogue dealers; some of them quite "small" operations. A mender of old valve sets needs to hunt around.

One other thing; get the set's handbook and check out all the valve electrode voltages as given in the table. Use a 20,000 ohms per volt analogue multimeter, easy to obtain these days. The figures quoted in the table are not gospel, but look for the wild errors.

To sum up: by far the most common faults in the area we have looked at (*in my humble experience*) are R2 going very high and C2 leaking badly.

In our next issue I shall look at the circuit details of the average RF/IF amplifier.

APPENDIX

In the "Eddystone User Group Newsletter" (*as "Lighthouse" was then called*) Issue No 34, December 1995, pages 6 & 7, there appears an article entitled "Condenser Zapper".

In it I described the construction and use of a simple neon condenser tester and electrolytic re-former. It is worth its weight in gold when working on an old valve set, especially an Eddystone!

It is available from me, G3GGL, as an archive print of the article, for £1 coin taped onto a card – see inside front cover for QTH. Overseas members may send a bill in their own currency for sufficient to cover postage.



MARCH, 1943

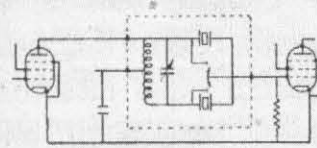
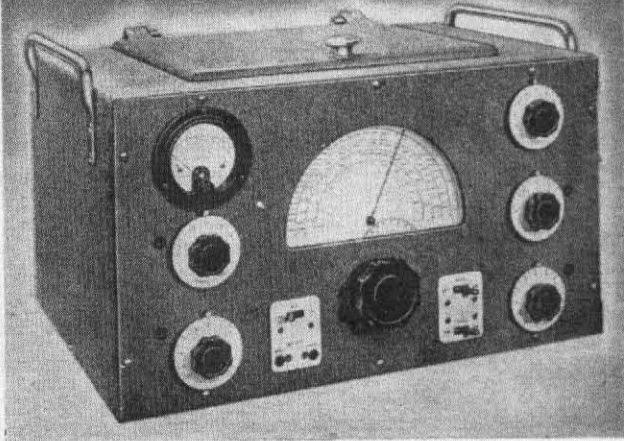
WIRELESS WORLD

Advertisements 9

EDDYSTONE

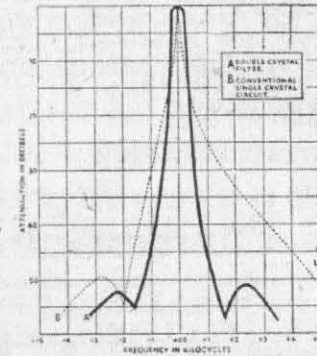
COMMUNICATION RECEIVER

358x



BAND-PASS FILTER CIRCUIT

Above is shown the fundamental circuit similar to that employed in the Eddystone 358X receiver. When in circuit the bandwidth is 300 c/s, front panel control allowing optional use of normal I.F. selectivity, bandwidth 5 Kc/s.



SELECTIVITY CURVE "A"

shows the steep sides and flattened top response curve of the Band-pass Filter. Compare the normal crystal gate (Curve B) with its typical sharp peak necessitating constant tuning adjustment with the slightest signal frequency variation. Note the symmetrical rejection given by Curve "A" as opposed to the uneven tail effect of Curve "B."

In the 358X version of this famous receiver a Band-pass Crystal circuit is employed giving high selectivity and complete rejection of unwanted adjacent signals. Furthermore the double crystal circuit avoids the extreme "peaked" effect of the conventional crystal gate, allowing easier tuning and accommodating some frequency drift of the wanted signal. These advantages are readily appreciated by operators familiar with the hair-breadth tuning of the normal filter.

The "358X" may be inspected at 14, Soho Street, preferably by appointment.

EDDYSTONE COMMUNICATION RECEIVERS ARE AVAILABLE ON PRIORITY ORDER ONLY.

WEBB'S

RADIO

Hours of Business 9 a.m.—5 p.m. Saturdays 9 a.m.—12 noon.

14, SOHO ST. OXFORD ST. LONDON, W. I. Telephone. GERRARD 2089

This 1943 advert for the Eddystone 358X explains the superiority of the double crystal gate over the single crystal filter used by most rivals. It was well ahead of its time in this part of the circuit. Remember that CW ruled the roost in WW2

RADIO RAMBLINGS

Gotting's from my Notebook



By
Graeme
Wormald
G3GGL

Bewdley, July 2004.

Summer greetings, gentlefolk, and winter commiserations to those south of the Equator.

I cannot, however, recall a month of July so lacking in summer seasonality for a long time. In fact, I've known warmer days in December than some of this month's in Bewdley.

Fortunately today is mild and dry because within hearing, as I write, Bewdley Regatta is taking place. It is one of the largest in Britain and is a masterpiece of organisation on the part of Bewdley Rowing Club, the hosts.

A tented city of Biblical proportion has risen in the night and something over 500 heats are being administered, to say nothing of the finals.

A QUESTION OF FORMAT

Last month I made an experimental change in my typing layout. I aligned my typeface 'left' (like this paragraph) instead of 'justifying', as in newsprint. I asked readers which way they preferred it.

That was a big mistake as the only response was that of Ted Moore, G7AIR, who, ignoring the question, asked what the h - - - had I been doing to all my columns? When asked to enlarge on this bigotry he replied that it looked a ragged mess . . .

So in the interests of artistic balance I think I'll go back to the classical style of formatting. OK Ted?

CAN IT BE TRUE?

In the August edition of RadCom, recently arrived in Bewdley, I see that my previous, rather pessimistic report that the forty metre band might double in size to 200kHz in 2009 may be overtaken by events.

It is now forecast that the band will be extended from 7000-7100kHz to 7000-7200kHz at the end of October 2004. Wonders never cease.

The more mature members among us will recall that the band was set at 7000 to 7300kc/s at the Washington conference of 1927 and remained at that width until the mid 1950's, when Europe lost 2/3rd of it to the Cold War broadcasters (but not the New World or the Far East, which still retain the whole band).

ROYAL I.A.T.

Thanks to the generosity of Ted's contacts we had a fantastic day out at the Air Tattoo last weekend. Unlike the previous year, when my mobile phone got the better of me and I only met up with Ted after lunch, I had taken the precaution of issuing each of us with a PMR445 handie-talkie.

We agreed to switch them on at 7.30 a.m. and call when parked. At 7.40 I called Ted and had an instant reply. He was about 3,000 people ahead of us in the queue into the security area. We were all checked for weapons of mass destruction and then let free, where Ted was waiting patiently

beside the Air Cadet contingent selling Souvenir Programmes. (The Air Cadets, not Ted . . .)

This gave us about another couple of hours or so to tour the static display before flying commenced. Quite frankly it needed a whole day to do justice to the 200-plus machines on static display to say nothing about the huge variety of aviation related shops parked at this incredibly huge airfield of Fairford in Gloucestershire.

HEALTH HAZARD?

One of the Royal Signals displays featured an HF magnetic loop (about 7 ft dia) surrounded by a wide fence and the legend "Keep Clear, Radiation Hazard". How long will it be before the Health and Safety busybodies turn their attention to ham radio stations and enforce warning notices at the gate? It won't be "Beware of the Dog", it will be "Keep out whilst the Red Flag is Displayed" (*on the air*). Mmmm.

VULCAN TO FLY AGAIN

It was gratifying to read in the Show Programme that the "Vulcan to the Sky Trust" has been awarded a £2.75M Grant by the Heritage Lottery Fund so that the world's greatest delta-winged bomber may be returned to flying condition.

This, of course, is Avro Vulcan XH558, the 50-year-old atom bomber which thrilled show crowds throughout the 1990s but finally ran out of "air hours". The Trust has to match the grant and details can be seen on www.vulcantothelky.com

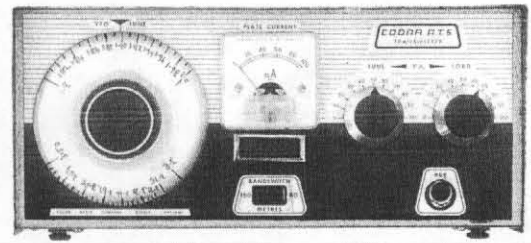
CODAR RENEWED

Readers may recall my small-ad in our last issue seeking a matching PSU for the diminutive Codar AT5 of 1964. This was a 12 watt (input) AM/CW rig for Top Band and Eighty. I had acquired the Tx from a SK sale some time ago but it was without the PSU

and I had a hankering for the matching unit instead of homebrew. (*Snob!*)

Well, after my small-ad in the last issue of 'Lighthouse' nobody offered to sell me either a PSU or a whole rig, but Anthony, GW4RYK, phoned me to point out a small ad in July's 'Radcom' for just such a rig (both PSU and TX). The price was a bit uppish but I've reached the stage in life now where I realise that price is not the be-all and end-all. It's a question of satisfaction.

To cut a long story short, the new arrival had been subject to the attentions of the phantom "improver". The rotary switch type controller (NET / STANDBY / TX) had been augmented by a push-to-talk relay system . . .



As it had obviously been used with a separate DC supply (missing) it took me about 10 minutes to decide that a complete retro-restoration to "as new" circuit would be the order of the day. In fact my previous TX which had been in store for some time is a later model than the recent acquisition and is totally original. It has the later tank circuit mods incorporated.

However, there is one odd thing about the S/R switching which I'm not too sure about. It's like this. No provision is made in the original circuit for externally muting an associated receiver.

But instead, the Rx aerial feed is earthed whilst on Tx. Is this meant to be for "listening through"? And if so, is it effective?

I know several of our members own

these little gems so perhaps they could advise me?? (I must admit that I've used the earthing pole on the system switch as a muting contact instead.)

And if anybody's looking for a winter restoration programme they can probably persuade me to part with the 'marmalised' AT5 (see this month's small ads).

MORE ON E-Bay

One way or another it seems that E-bay has become the prime source for selling Eddystones. You'll see two 'Bay-centred features in this Issue ("E-bay Mania" by yours truly and "E-bay Watch" by our Patron, Chris, GØEYO.)

I know that since I acquired the "Broadband" facility on the EUG PC it is my first port of call each morning, such is human curiosity! Pretty well every day a new "Eddystone" product will appear on the site (together with a mixed bag of miniature crested china Eddystones lighthouses; special fly-fishing equipment (!) and ancient postcards of the Light).

It's not only the "carriage trade" reported by Chris that appears. For instance an S870A in GWO but a little scuffed went for £29 and a 670 in VGC was withdrawn at £41 when it failed to make its (unspecified) reserve. A very ratty 990R fetched £91 for spares.

A Mimco 2273A (Eddystone 670A close relative) cabin receiver was placed on the site at a starting bid (i.e. reserve) of £75 and received absolutely no bids at all!

A nice pre-war set of six plug-in coils in matching case went for £16, which I thought was very fair. A super-looking 680X was posted yesterday and is standing at £51 with 6 days and 4 hours to go! Very exciting to watch!

The incidence of Eddystone receivers being advertised in the radio-hobbies press has certainly dropped in the past

12 months and this new outlet must be the reason. It also marks the start of Eddystone receivers as serious collectors' items.

In future years they may well rival limited edition art prints! But remember that condition is all important, as is originality (no mods!)

ATLANTIC TWO REPORT

Having been swept away by electronic auction mania I've forgotten to report on the old-fashioned human auctions!

You may recall that in our April Issue we carried a notice of the "Radiophile" auction to be held in June in Staffordshire. A collector had entered a vintage Eddystone Atlantic Two of c.1927.

After brisk bidding it sold for £480 after one of the main bidders got cold feet and withdrew! But this is the strength of the market. Items fetch what buyers are prepared to pay.

SILENT KEYS

It is in the nature of things that collectors of vintage technicalia tend to be of mature years. That means that out of our 350 members we have more Silent Keys than the average social club. Many of them have made arrangements for the disposal of their collections. Some haven't.

I get 2 or 3 enquiries each year from executors asking about how to dispose of radio gear. They usually get my phone number from a copy of "Lighthouse" found in the SK's shack.

At this point I'll refer you to Chris Pettitt's Column where he does address this matter. And I will add to it and say that once (some years ago) I attempted to clear a shack on behalf of a deceased member's widow.

Fortunately I had a licensed ham friend staying with me, (Ron G8URU) because it took us two round-trips of

40 miles (i.e. four car-loads, a total of 160 miles) do move the contents into my carport. Fortunately it was summer.

I then advertised it in the EUG Newsletter (as "Lighthouse" was known in those days) on an "inspect, offer and collect" basis. For many weeks I had a trail of members raking over the gear and cherry-picking. There was a lot of "miscellanea". I finally presented £750 do the widow, being the total realised, and sent quite a lot of oddments to the tip.

Never again.

Now whenever I get such an enquiry I pass on the phone number of Chas. Miller, of "Radiophile" (as suggested by Chris). Let it all be auctioned in public. There will be no recriminations and all the oddments will go for peanuts and be re-cycled back into the hobby.

Chas's phone number is 01785 284 696. Leave it with your executor / trustee / XYL. Have a thought for the future.

A TOUCH OF HISTORY, $\overline{\text{SK}}$

By the way, to strike a morbid note, do you know the origin of the use of SK to mean Silent Key (meaning passed on)? It stems from the procedural sign SK barred (i.e. the Morse letters SK sent without a gap). Like this, dit-dit-dit-dah-dit-dah.

The meaning of the sign is "This station is now Closing Down". A bit macabre but quite poetic. It dates back in CW usage to the early C.20th, possibly earlier in wired telegraphy.

PANORAMAADAPTER PaG 148

No, not a spelling mistake but a "panadaptor" by Telefunken, the German rival to Marconi (in the old days). EUGer Peter Nolte, DC6BN, writes to tell us:-

"Sometimes people are keen to

observe part of the radio spectrum on a panoramic adaptor, like the EP17R, as mentioned in the 990R manual. This display unit, however, requires the converter 959 (10.7 MHz to 5.2 MHz). (Note from Graeme, this is because the EP17R was designed for the valved 770R which has a 5.2 MHz IF).

"As panoramic display units made by Eddystone are rare and expensive, I have recently tried and tested the Telefunken PaG 148, which is made for 10.7 MHz operation. It works very well with the 990R.

"This PaG 148 is still widely available in Germany and usually reasonably priced. It offers three modes of operation or observation.

- a) 1 MHz up or down on the centre frequency;
- b) 0.2 MHz up or down . . .
- c) as b) but additionally a centre marker."

Peter has sent a page from the catalogue of one of the German dealers, Rainer Förtig-EleKtronik of Swingenberg. They offer it in very good condition for €130 (about £80). Take a look at <http://www.rainer-foertig.de> It's a very big site (all in German) but you'll find the unit on page 7 of their "Sonderangebote & Neuzugänge" section. That translates roughly as "Special Offers & New to go". It gives QTH and telephone details also, so perhaps you could make it a "first" for a duty-free import!

It may not be Eddystone but that's not the end of the world for an enthusiast!

THE SIGN OF A TRUE AMATEUR?

I know I'm not the only ham to keep a shack and workshop which spends most of its time in a state of organized abomination. I make resolution after resolution to TIDY UP, but somehow the thought is worthier than the deed. I

suffer from a virtual inability to throw anything away, and although I have two large (full) filing cabinets I still sink under waves of paper.

I collect hardware in jar-lids, even though I've got proper storage facilities. I hoard components of every description, just in case. It has the advantage that I rarely get stuck for an item, so long as I know where to find it.

But what's that got to do with anything? Well, last week I had a last frame in a camera and wanted to process, so I snapped my electronic workbench. Here it is. A shambles.

And here's the answer. It 1969 when British television adopted the 625 line system and went into *PAL* colour the firm for which I was working, Associated TeleVision, or ATV for short, moved into a grand new studio complex in the centre of the city of Birmingham. A far cry from the semi-derelict Victorian play-house-cum-back projection cinema (closed down) that was taken over for the start of ITV in the Midlands in 1956.

Included in the new complex was a top-notch mechanical workshop. (Things were still fabricated for professional home-brew in those days.) It was run by a time-served mechanic with two assistants. They had the latest capstan lathe; pillar drills of every description, shaping machine and last, but not least, a giant guillotine and bender.

Needless to say I was attracted to this latter combination and cultivated the friendship Stan, the workshop man.

Raw materials of every description were stacked on shelves in a lockable (and usually locked) cage in the

corner of this wonderful room and a little coaxing would produce 'off-cuts' of 18 SWG aluminium sheet. Many were the constructions at G3GGL that started life in this holy of holies.

But, and this is a big BUT, I learned that whatever work you were doing, no matter how 'important', everything stopped at 4.30 pm. And I mean STOPPED.

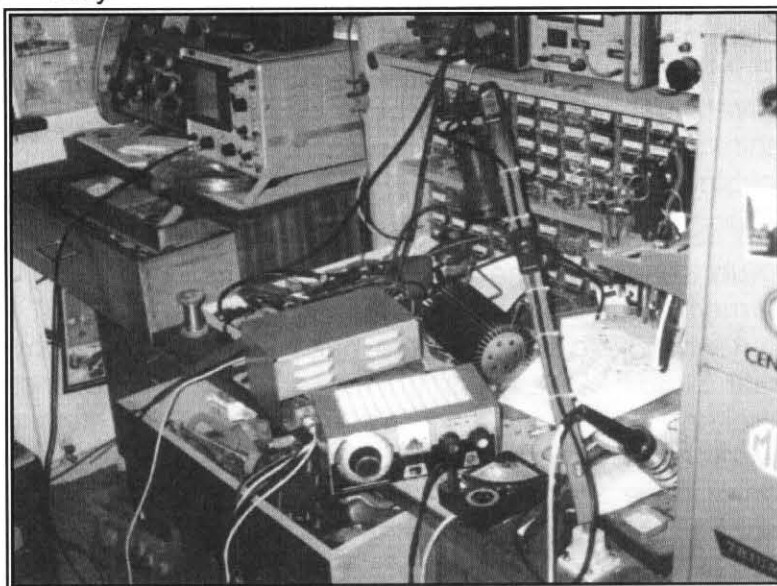
Because that's the time tidying-up commenced. Real tidying-up. Every half-finished project was put in cupboards provided for the purpose.

Every single hand-tool (and there were hundreds) had an image on a rack and every piece had to be in its own home. No mixing and matching.

Every bit of waste metal larger than your thumb was picked up and binned. Then the dust-pans and brushes came out. By quarter to six the whole workshop was fit to eat you dinner off. And that's when the troops put the kettle on and had a last brew before heading for home.

And that happened every day, not just on Fridays. It is the mark between the true professional and the amateur!

On that note I'll bid you all goodbye for the Summer. I've got a lot of tidying up to do. ♠



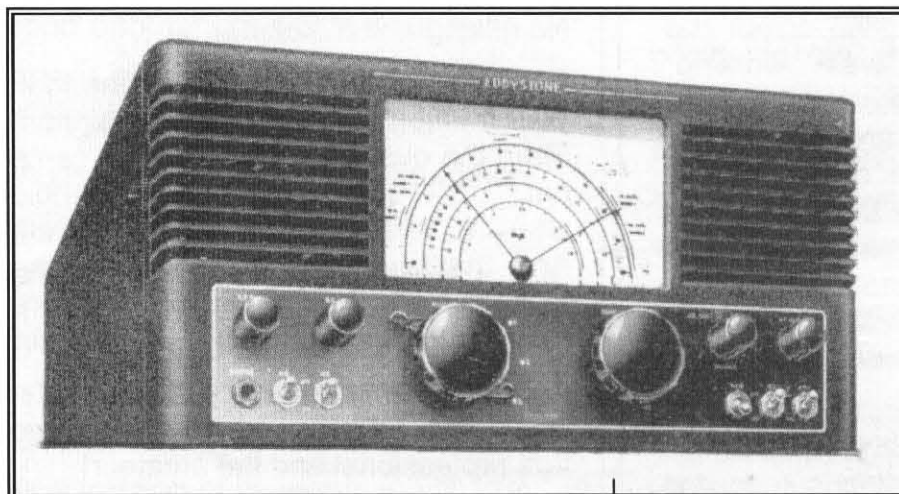
Letter from Port Elizabeth

Members will recall seeing photos from the shack of newly-joined EUGer Barry Jackson, ZS2H in our last issue (page 31). They showed his two Eddystones, an 888A and a 680X in pride of place. Since then he has been the fortunate recipient of a 640 and he now reports on it.

Greetings Graeme,

I've had time to assess the 640 that I acquired last week, it does work quite well. However I had to do a couple of small "fixes" to it.

Firstly the bandspread pointer stuck at 12 o'clock and the electrical bandspread stuck with it in spite of the



tuning knob being rotated. Next, it started to jump frequency.

OK, so let's see what the Lighthouse has to say about these situations. Both faults were known and a solution given. This is going to be a doddle, thinks I, taking the chassis out of the cabinet . . .

So let's start with looking for those grub screws in the dial drive. As it turned out there were no loose screws but what I did find was the base of a dial lamp. The glass envelope was broken and lying on top of the workbench. This piece of debris could only have come out of the 640, confirmed by the fact that the dial drive

works perfectly with no further investigation. So it must have been lodged somewhere in the drive.

Now for the frequency jumping. Lighthouse suggests that we make sure the earth strap to the band-spread tuning condenser is making a good earth. Obviously sound advice; but the trouble was there was NO earth strap to be seen!

A length of screening from an audio cable was soldered in series to each of the condenser sections. It was then earthed to a screw which secures the die-cast alloy box to the chassis to complete

the exercise.

Just for good measure I soldered the earth strap from the band-set condenser to its chassis point.

A test run, I am very pleased to note, shows a complete cure for both maladies. I just had to pass the above on to you.

Otherwise, I'm having a great time with the Eddystones.

And by the way, have you tried the internet <www.olderadios.co.nz> ? Some interesting subjects on there; take a peep.

Vy 73, Barry, ZS2H



G3EUG/P and GB4WTA

First of August Report by Graeme G3GGL

Writing this on the day before 'Lighthouse' goes to press I have a late news report on today's EUG First Sunday plus the start of the EUG Special Event Station GB4WTA (*Wireless Telegraphy Act-1904*) to celebrate 100 years of Licensed Amateur Radio.

The day started early for our special operator, Ted Moore (G7AIR) who rose at 4 am to set off for "Wireless Hill" in the tiny County of Rutland, the centre of England.

By 8 am (local) he was all set up with inverted "V" dipole for 80 metres and fully charged portable batteries. The first session was on AM using the Group's own call, G3EUG/P, of which Ted is the holder.

At 8.18 I made contact with him at 5/9+ both ways, using my 50-watts input KW "Vanguard AM Tx of vintage 1957 and a 250 ft circumference horizontal loop fed with balanced resonant feeder. My Rx was the trusty Eddystone 730/4 which produced the most perfect armchair copy from Ted's AM sigs.

We were joined by Chris G3XFE (Watford) also using an inverted "V" giving 5/9+ and Mike G1EDP using 60 watts from a Heathkit DX100 paired with an Eddystone 888 hambander of 1956. 5/9+ from the Forest Of Dean (Gloucestershire).

Geoff MØBGS, our 1650 expert from Leeds came in at 5/9 with occasional QSB. Then John, G3VDL, reported in from Devon using a homebrew Tx and Eddystone 888A Rx with a 250 ft long wire. John has NEVER worked SSB and has over 200 countries in the bag on CW. (He is also a winner of last month's crossword.)

After almost 2 hours of true AM quality

QSOing it was time for Ted to open up with his Special Event Call GB4WTA for the first shout (it is valid for the month of August only).

Honestly; you wouldn't believe how SSB grates on the ears after a long AM session!

In addition to the stalwarts already recorded Ted had calls from G3VFO, Terry in East Sussex, followed by MØJXX, John, in Scarborough.

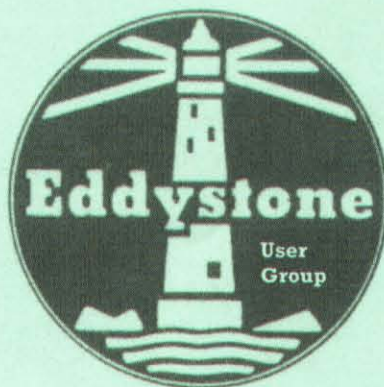
Old Timer Gerry G2BTO was running 25 watts from a vintage "Panda Cub" from Bolton in Lancashire. David, GØSKE reported brilliant sunshine from Suffolk, as did all the rest of the contacts except for Ted himself, who was surrounded by thick fog on the top of "Wireless Hill", the only high ground in his County! He reported that his summer clothing was quite unsuitable for the chill factor . . .

M1KTM, David, reported in at 5/9 from pork pie country in Melton Mowbray. Ralph G4EBL called from north Hereford and Steve G4XCK sent a 5 and 9 from near Derby.

At 11.55 local the chaps were getting about their business and I thought Ted was a bit quiet. A last call to him brought no reply . . .

A phone call later in the afternoon explained that a violent hailstorm had made him take emergency cover in the car! But we had a good time. (See back page for further G4WTA details).

♠



“EUG on the Air”

The next “First Sunday” net will take place on 5th September at 10.00 for LSB, on 3695+ QRM. Listen for Chris G3XFE.

Ted, G7AIR and Graeme G3GGL will be attending the Telford (RAF Cosford) Rally with the EUG stall on that day. (Come and visit, parking and entry are free and the RAF Museum is Terrific!)

The following “First Sunday” will be 3rd October at 9.00 for AM and 10.00 for SSB, same frequency.

August sees the special EUG Wireless Telegraphy Act 1904 Centenary Station using the callsign GB4WTA.

First contacts have already been made and Ted will be operating under this call on 8th, 15th and 22nd August, plus other days by special arrangement. Frequency +/- 3695 from 0800 local time until about 1200.

Call him on 07957 951 998 for the latest details.

Also e-mail Graeme at G3GGL@btinternet.com for details.

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