

Lighthouse

Founded 1990

The Magazine of the
Eddystone User
Group

Issue 79, June 2003



*EUG MEETS THE PUBLIC
at the
NATIONAL VINTAGE
COMMUNICATIONS FAIR
BIRMINGHAM, May 4th 2003*

EDDYSTONE USER GROUP

A non-profit-making group
for Eddystone Radio
Enthusiasts
Founded in 1990 by
Ted Moore
Issue 79, June 2003

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Workshops, Bassett Down,
Swindon, Wilts, SN4 9QP

Due to illness I am selling my entire collection of Eddystone radios.

Included are some very
scarce sets, prototypes and
development models. For a
full list of sets available
either e-mail me at
simom@nomis.co.uk or
send an A5 (half A4 size!),

self addressed, stamped
envelope to: Simon
Robinson M5POO, 23
Jameson Drive, Corbridge,
Northumberland, NE45 5EX.

Eddystone 940, very nice
condition inside and out,
very stable, £150.

Eddystone 940, as above
but BFO not operative, £130.
Buyer to inspect and collect.
Call Peter Beardsmore
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sliderule valve sets. Have
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GW4RYK has the answer.
Phone him on 01686 630255
and he will tell you how to
repair it cheaply.

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column.

WANTED

Eddystone EC10 in very
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951998. ♣

Chris's Column

Hello and welcome to another fine issue of Lighthouse. In our last issue I asked for contributions to a PC fighting fund so that we can replace computer equipment without increasing members' contributions by more than £2.

I must say that the response has been fantastic, with so many EUG members writing in with their contributions. We also had an ex-Eddystone staff member contribute an EP961 Panadaptor for us to sell off at the NEC Vintage Communications fair and another member who donated the whole proceeds of the sale of an 830/9 he had restored.

These generous gifts plus the cheques that have been sent in have put the fund up to no less than £1,000. I am sure our contributors won't be too embarrassed if we list their act of generosity. The fund is still open so there is plenty of time for those who are still looking for the keys to their wallets to make a contribution. At the time of writing Graeme and I are still deliberating on what PC equipment we should be looking for. A new printer seems to be the highest priority. We will let you know how we get on.

PC FIGHTING FUND

Roger Bunney	£10
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John Cains	£5
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TOTAL (25/5/03) £1,005

The Vintage Communications Fair was well-attended although some thought it was a little down on last year. Prices seem to have dropped a little and there seemed to be plenty of material on show. James de la Mere brought a display of components (*see picture in Graeme's "Ramblings"*) which seemed to attract more attention than his restored 1938 E.C.R. Well done James. Ted was able to make the Show this year and he was able to

meet up with a lot of members. He couldn't resist buying a couple of Eddystones of course.

Another date I've been asked to mention is a special one for all former Staff at the Bath Tub. It's the date of Stan Carney's next bash for former Eddystone Employees. It is at Stan's House on the last Sunday in July (27th). He has to restrict it to ex-

employees, I am afraid, but quite a few seem to read 'Lighthouse' and it has proved a regular and successful Sunday afternoon treat. Contact Stan on 0121 475 4137.

That's all for now; I'll leave you with a couple of pictures to study!

**73 de Chris GØEYO,
Patron, E.U.G.**



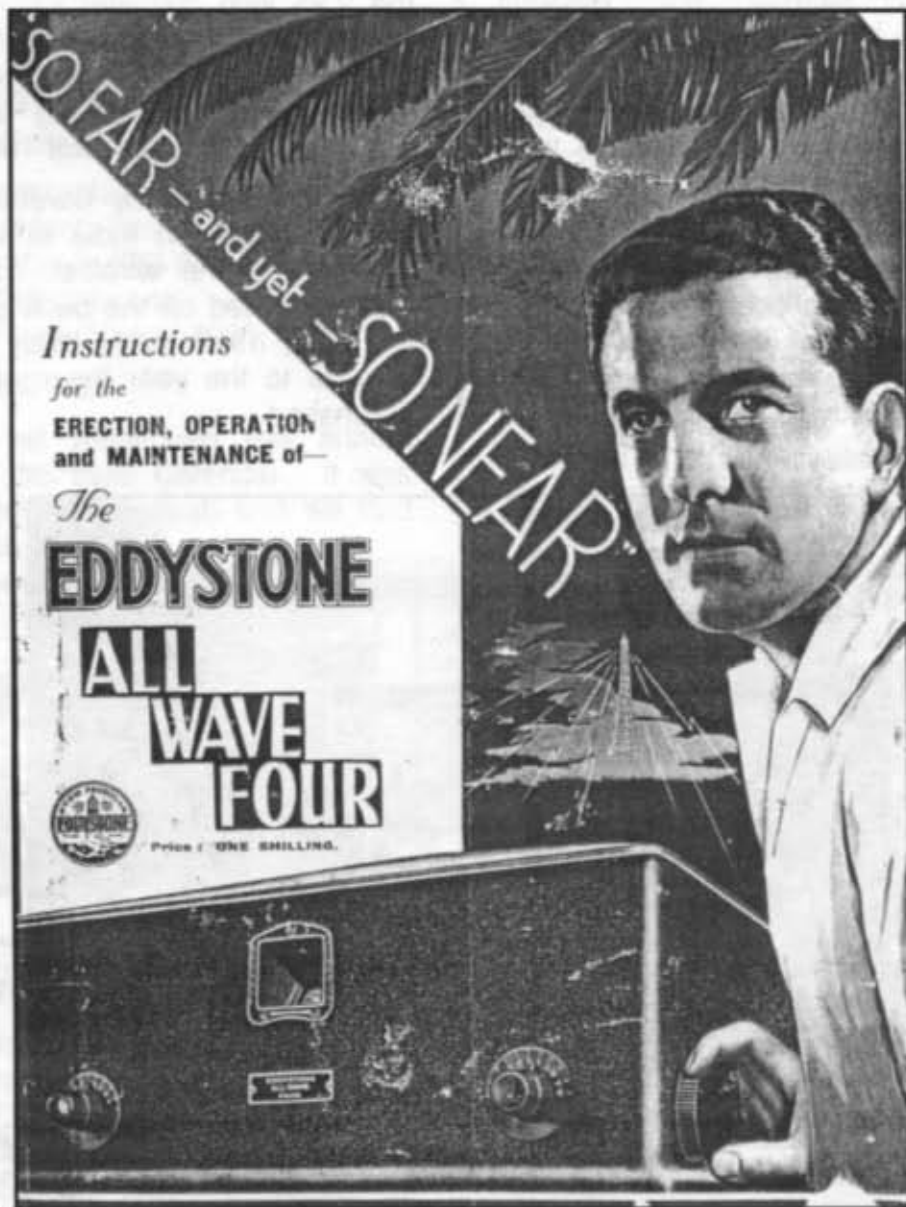
Our centrepiece at the National Vintage Communication Fair, May 4th 2003, Hall 11 National Exhibition Centre, Birmingham.



James de la Mare, Graeme Wormald, Dave Simmons, Ted Moore

The B.B.C. Empire Service, Eddystone and the Raj

In 1927 the BBC made its first experimental short wave broadcasts from station 5SW. This led to the building of the Empire transmitters at Daventry in 1932. During this period Stratton & Co had been developing tropicalised short wave sets to receive these broadcasts. This is the tale of one of them.



An All-Wave Four – heard again after half a century.

By Peter Hallson

Sometime in the 1860s three sisters set sail from England to Australia in search of a new life and doubtless to escape the deprivations of the East End of London where they had lived.

One of them married and, for reasons unknown, left Australia and settled in India. In Bombay in 1890 she gave birth to a son, Henry, known to all as Harry, my father.

Harry grew up in India, trained as an engineer and joined the Indian Army. By nature a quiet yet cheerful and practical person it is no surprise that when wireless came along he took an interest in it.

This I know having found his books and notes on the subject, which date from the twenties. It must have been sometime in the early thirties when he bought an Eddystone All Wave Four

receiver, a set designed for use in tropical conditions and solidly built.

It is hard to determine exactly what vintage it was since it was fitted with the 2.25 inch diameter plug-in tuning coils as found in the 1930 model but another feature, a large transverse mounted two-gang tuning condenser seems to apply to the later 1934 set.

A photograph of my parents outside their bungalow in India in which the position of "the wireless room" had been pencilled on the back along with the date, 1932, is probably the best clue as to the year the receiver was purchased.



Anyone for tennis? Harry, is third from the left (arrowed); my mother is seated in front of him (white table-cloth). The 'wireless room' is the left-hand window.

At that time India was a four-week boat trip away from the UK and the arrival of wireless broadcasting must have been a bigger revelation over there than in England.

I recall my mother saying that friends and acquaintances had visited their home in India especially to listen to the chimes of 'Big Ben' and, presumably also, the news from London. Although in an era of satellite communication and mobile 'phones this might seem trifling, in those days such broadcasts must have been astonishing.

The slogan "*So far – and yet – so near*" which appears on the Eddystone manual accompanying the set was indeed very true.

My parents returned to England before the outbreak of WW2 and settled not far from London. The Eddystone remained our only radio during this time. Some readers may recall wartime BBC comedy programmes like those of Arthur Askey in *Band Wagon* and Tommy Handley in *ITMA* and *Music while you Work*.

Also the *Nine O'clock News*, which was always preceded by a drum-beat tuning signal (*to the rhythm of Victory Vee in Morse*), the playing of the *Trumpet Voluntary* and the announcement "London calling Europe". All these I heard on the Eddystone and remain in my memory from childhood.

The receiver was a battery version but I cannot recall high-tension batteries ever being bought for it. Instead various mains voltage converters were used, the last one being a 'Regentone W5A', providing d.c. at 100 or more volts needed. The filaments were supplied with 2 volts by lead-acid accumulators, which needed frequent re-charging using a small charger which could be plugged into a light socket.

The accumulators were housed in

glass containers about the size and shape of one-litre long-life milk cartons. Near the top of each accumulator was a cell containing a small red ball visible through the glass side. This rose to the top when the accumulator was fully charged and sank when it was discharged.

As a young experimenter, my tests with various simple aerials ended when the set was replaced with a more modern one, an Ultra, in 1947. The Eddystone All Wave Four with its set of tuning coils and spare valves ended up in the loft where it was to remain for 54 years.

To digress a little, there was one experiment which I carried out with the Ultra radio as a boy which still puzzles me. If my memory is correct (and it probably isn't!) it was in about 1948 that I recall reading in the *Radio Times* that the wavelength of the BBC sound transmission was located on the short waves.

On tuning the Ultra to this point, and with the TV on, I seem to recall with (perhaps unjustified) astonishment the television sound booming from both sets! Was the television sound really on a short-wave frequency at that time? Or is the whole thing an aberration of memory? I would certainly like to know.

[Note here from Graeme: During the 1940s my parents had a 'Marconiphone' with three short-wavebands. The shortest one went down to 7 metres and was labelled TELEVISION. Quoting from Jonathan Hill's great work *Radio! Radio!*:-

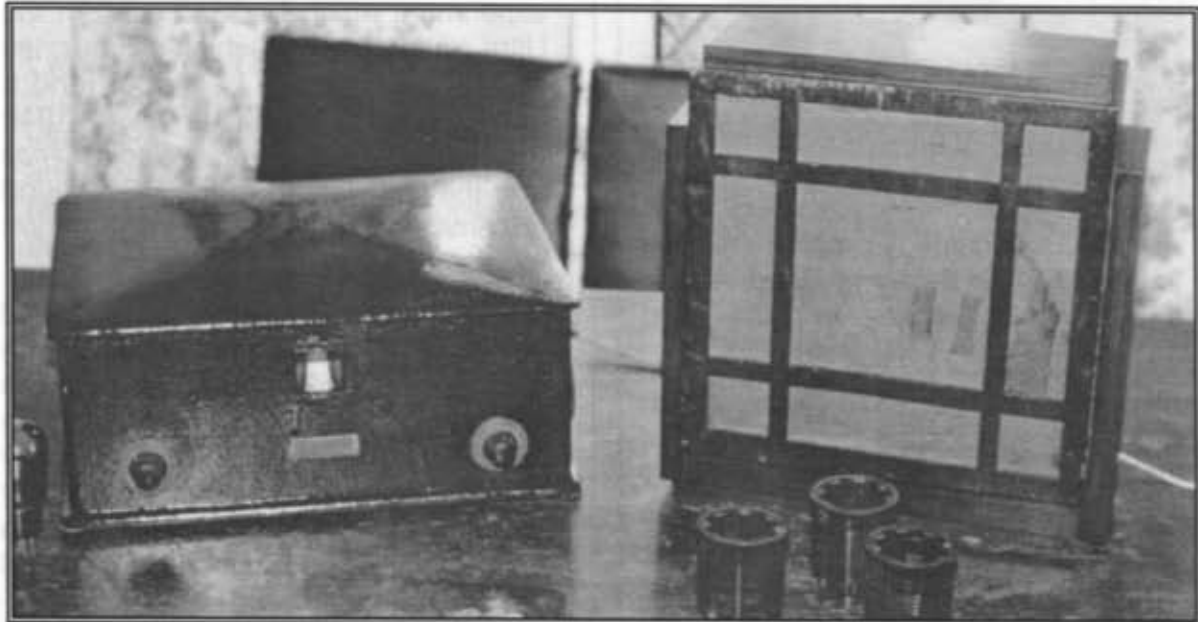
"1936 models on the dial the word 'TELEVISION' began to appear for the first time on some all-wave receivers due to the introduction of the world's first regular high-definition television service from Alexandra

Palace in North London. Television sound was radiated on 7.23 metres (41.5 Mc/s, AM) and this meant that listeners without a television set could at least hear the new programmes provided that their sets had a suitable short-wave band." So there you go, Peter, it really did happen.]

About ten years ago I came across an article about the Eddystone Radio company, a firm which I wrongly believed to have disappeared long before. I wrote to the author, Chris Pettitt (at that time Managing Director), who very kindly sent me the handbook for the Eddystone set which was still in the attic. →

In January this year I took the vintage machine to my small workshop but with little hope of getting it going – the valves, I felt sure, must have broken filaments or lost their vacuum. The first surprise was to find the filaments still intact.

I tried to locate the various components from the circuit diagram but the resistances all had values twice or three times those shown. In my ignorance of electronics the thought crossed my mind that the set might be an "improved version" designed to lengthen battery life by increasing the resistances! Sometime later I was given the true explanation – ageing.



Eddystone All Wave Four with Eddystone Loudspeaker and plug-in coils

Only one fault appeared, a defective HT switch and although the volume control was badly worn hopes were raised. The supply for testing was a costly series of PP3 batteries giving around 144 volts for the high tension and two D-size alkaline cells with a variable resistance for the filaments.

With all valves removed except for the first I tried it out with a signal tracer and heard the first spoken words on the set

for over 50 years. With the valves replaced the next two stages proved OK and finally the Eddystone speaker was connected which to my surprise also functioned nearly perfectly on the Medium Wave.

In the course of this work a Wharfedale label was found inside the speaker cabinet – did this firm supply speakers to Eddystone I wonder? (Note from Graeme – most firms have supplied

speakers to Eddystone over the years!) It was a memorable event to hear the wireless which had last functioned more than half a century ago.

There is also a Cossor set in the loft which belonged to my grandmother in the nineteen-thirties. Perhaps this will make another story for another group!

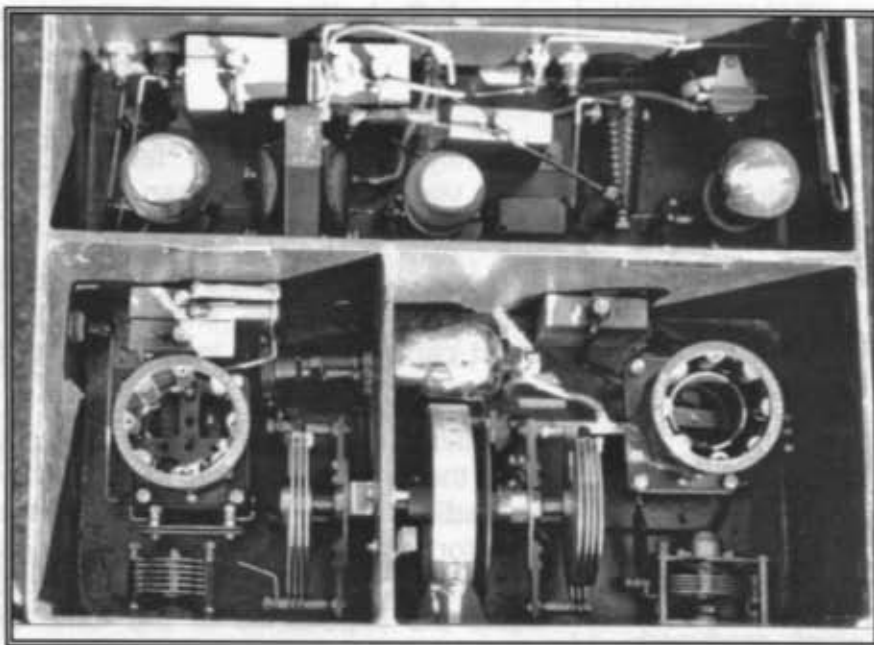
Some details about the All Wave :-

The valves I found fitted were as follows:- output pentode: Tungfram PP2. A.F.: Tungfram HR210. Detector: Osram HL210. Screen grid valve: Osram.

There was a set of eight 2.25 inch diameter coils including the two coils

already in the receiver. These cover 12-520 metres in all. I tried one of two spare valves, a PM22, in the output but it did not function as well as the existing PP2.

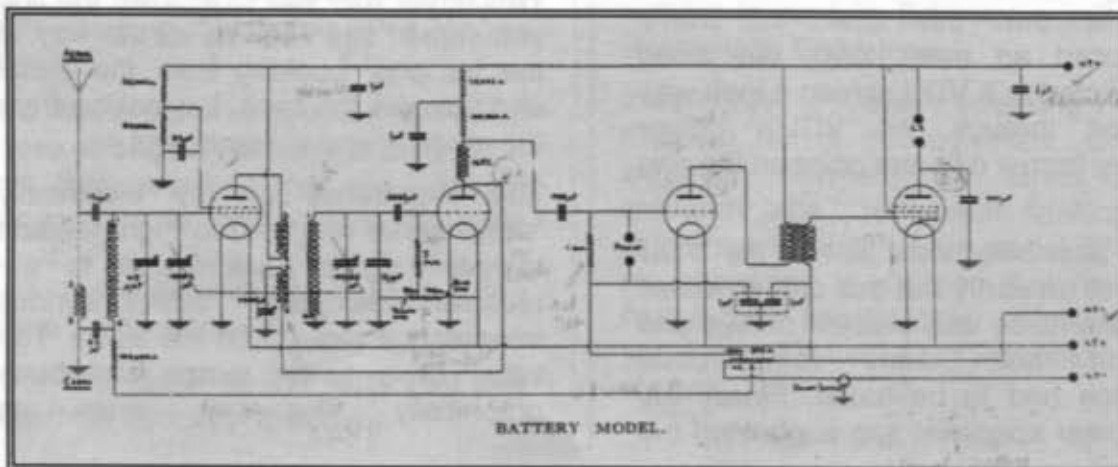
The HT current consumption was 8 mA to give adequate volume. The filament current was found to be 330 mA (the manual gives 550 mA.). Clear and good volume was retained even when the filament voltage was reduced to 1.7 volts. The reaction control was very smooth and gave a gentle hiss when advanced too far and not the anticipated howl. The aerial used was a slanting wire about 20 feet long.



All Wave Four innards from above.

The output stage is top left; detector is top right, and the screengrid H.F. stage is horizontal through the two coil compartments. Aerial circuit on left.

Circuit diagram below.



Where, Oh Where - End Game

By Jack Read

Readers will recall, with a groan, the pages I wrote last year on my problem of computer generated hash being received all the way from long wave to the upper HF frequencies, making anything except local stations unreadable. Tests had revealed a situation where the noise was all over the domestic wiring from which it was getting into the receivers via the antenna system: not at the mains input/power pack end, which seemed adequately protected. The matching of the antenna to the co-ax feeder was also suspect. So both problems needed to be fixed.

The RF noise on the house wiring was finally revealed as the product of a major earth loop. A video line connects computer equipment in two different rooms, the equipment in both rooms being powered from the normal domestic ring main.

Disconnecting the video link or the mains leads would break the loop and the hash radiation would stop. Close reading of the manuals revealed that the video amplifier system was DC coupled, with one end powered from a mains power adapter which produced a floating output voltage.

On its own this could not have produced an earth loop, but when connected to a VDU screen a loop was formed through the VDU's power supply from a different point on the ring main.

One possibility was to run the VDU without an earth, but this only revealed that the noise was present on live and neutral too! Clearly some other solution had to be found. Finally my computer specialist son suggested the

brilliantly simple idea of feeding the VDU via a spur line taken from the other room.

The power line was laid in the conduit alongside the video line (quite the worst cabling practice in my day) and with no loop no hash!

With this success in the bag and spirits high the antenna matching was now tackled. Basic electrical theory says that for optimum power transmission the impedance of the supply should equal the impedance of the load. In this case 75ohms.

Whichever way you look down the line you should see 75ohms all the way to the far end. Looking from the aerial end this was the case, but looking from the receiver end it clearly was not.

The impedance of my electrically 'short' aerial was far too high, leading to poor signal transmission to the receiver coupled with serious interference pick-up on the co-ax. The value of a better match had been graphically illustrated when in

desperation I had dragged out my wartime AR-88 (RAF R1556 version).

I say dragged as at my age it is best not to try to lift it! With just a 10-12 foot length of open wire the AR-88 could blast through all the hash and give acceptable readability. The noise was there to be sure, but only as background.

Reading the handbook gave the clue: an aerial input impedance of 200ohms, significantly less mismatched to an open untuned antenna, and of course direct coupled without a co-ax feeder.

As mentioned in a previous article a Peter Lankshear unity gain Active Aerial was built up, but using a BC213 transistor as a 2N4121 could not be obtained. (See Lighthouse No.72 pages 28-29).

This device is designed to match a high impedance untuned antenna to a 75ohm co-ax line to the receiver. On first powering up the active aerial there was a moment of disappointment as a

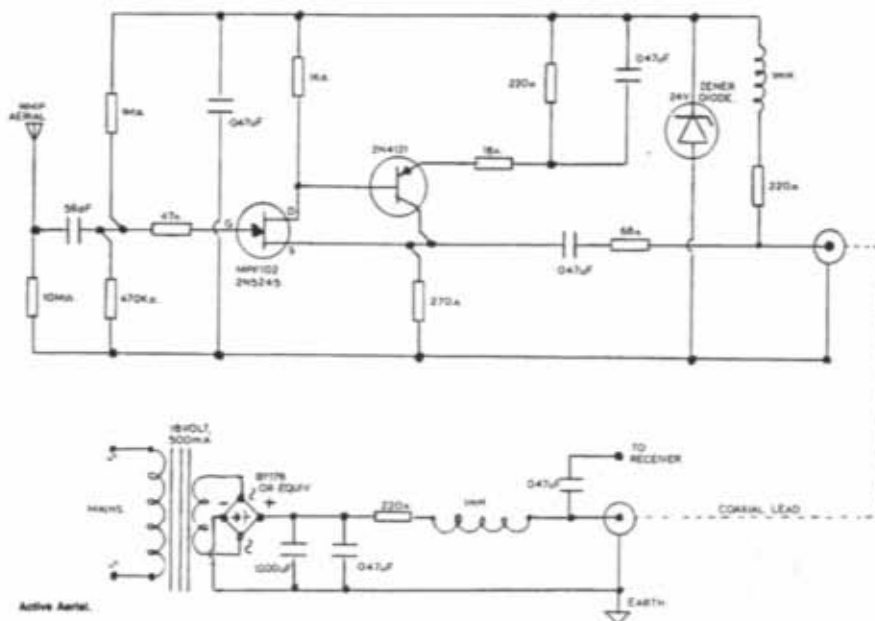
whole spectrum of interference was received, until I realised that this was general background now containing dozens of stations previously unheard.

The performance of the system appears technically perfect. All signals come in via the antenna alone, as verifiable by grounding the input terminal on the active aerial producing total silence at the receiver.

A further check by replacing the active aerial at the far end of the 50 metre UR-70 co-ax with a 75ohm terminator similarly gives total silence. Bingo! Or should I say game, set and impedance match! I now look forward to listening to the first Sunday EUG net on my EAI2 or 830 and actually hearing what people have to say.

Finally and in conclusion, may I offer my thanks for all the helpful contributions over recent issues which have combined to provide the solution to this problem.

Jack Read.



This is the circuit of Peter Lankshear's active aerial published in the April 2002 edition of 'Lighthouse'.

CD-ROMs of back numbers are available from Graeme, G3GGL, (see page 2) at £5 per volume (6 issues) including p & p in the UK or £6 or equivalent banknote (US\$10; €10, etc.) overseas airmail.

Ted's MailBox

A Review of Mail and Happenings
By Ted Moore, G7AIR, Founder of EUG

THE 840A

A very nice, basic, comms receiver which was very popular in the late '50s. It is a bit long in the tooth these days and yet can give quite acceptable results if enough trouble is taken by the operator in getting to know just how to drive the set.



Eddystone 840A, 1954-61

This EUGer had owned the 840A in question for many years and had yet to learn how to resolve SSB. A visit to his home and some basic instructions made him a far happier 'user'. He has now become an avid listener to the HF Airband and the Kinloss Rescue services (5680kc/s), et al.

Although his QTH is way up north from my own I found that his reception of the Kinloss signals was pretty poor, in my area the proverbial piece of wet string is good enough.

Just one peep behind the 840A and the problem was discovered, yes, the usual! There was no link in the aerial panel so that this was another case of poor capacitive coupling from the aerial to the RF coils instead of the correct inductive coupling. A temporary link was made up from a bent paper clip and the results were quite amazing after his previous poor

signals.

So many times this matter has been mentioned by Graeme, by me, by others, and it is in the operating handbook too. Just why it is so often overlooked is beyond me.

PECULIAR TUNING RESULTS ?

I'm sure that I am not alone in having encountered this on numerous occasions. I had it once on a very nice 870A. Not so long back I found it on one of my alien acquisitions (a Bush).



Eddystone EB35, 1965-70

This time I had an EB35, bought some time back but only now have I got around to sorting it out. Quite lively on all ranges and yet things seemed not to be where they ought. BBC Radio 5 on 909 was a bit off but not enough to ring alarm bells.

It was only as it got dark and I looked for Radio Eireann on 567 that I twigged! Opening up the set and sure enough, some mad twiddler had re-strung the tuning drive so that HF was at the left hand end and LF at the right hand end.

Makes one wonder sometimes if, after re-stringing, the culprit ever tries out

the tuning. This was quite simple to correct and the cord in use proved to be adequate with a bit left over - makes a world of difference !

DUFF 770R

The owner had sent this to me to be repaired. He had bought it at a recent rally as a 'worker' but when he got it home the 770R remained silent; all lit up so far as he could see but dead as regards signals.

I had it on for about a half-hour to fully warm up and then began a few checks. Plenty of HT around the various check points on the chassis. A simple screwdriver test found AF getting through but no IF signals.



Eddystone S.770R 1953-63

Out with the bottles and it was then that I found the reason for the complete lack of signals. An EB91 in the second IF amplifier stage, you don't get an awful lot of gain from a double-diode do you ?

Fitting a 6BA6 and putting back in all of the other valves brought the set to life - well with a good signal from the signal generator. A re-trim of the IF transfo cores brought in airband signals and some local taxis plus utility stations.

Cannot count just how often I have encountered this, wrong valve in the wrong hole ! No wonder they accuse these Eddystone VHF/UHF sets of being deaf, even the accidental swapping of an EF91 and an EF92 can have the same results. Hope you are happy now Jim.

MY LOG-PERIODICS

Mention of my DIY log-periodics in the last issue meant that I got seven letters requesting further info on them. Not my design at all ! If you have any copy of the Handbook, or can access one in the local reference library, then you will find full data, including tables giving all measurements.

You just do as I did and trim to suit your needs. I had no interest in the frequencies above 500 Mc/s so omitted those elements, ditto the LF end as I had no interest below about 120 Mc/s.

I am still chuffed with the results I am getting from mine. You can more or less pick your own materials but I found square channel plastic conduit with a slide on lid is very handy.

You can assemble and solder all of the elements and the feed in the 'U' shaped section before sliding on the lid section to give more rigidity. Try one and see.

P.S. - I have now sent out 18 info sheets and have had back 8 results, all okay bar one where he was trying to feed it from the BACK instead of the FRONT of the boom.

MY MIMCO CLONE - AGAIN

Well the work has been completed on this acquisition from the NEC. The circuitry is practically as per the 670A receiver but this MIMCO 2273A, serial number DM0306, has very different ranges indeed. The normal (as per the 670A) four ranges plus Gram position on the switch but the actual coverage is -

Range 1, - 3.7 to 10.6 Mc/s

Range 2, - 1.37 to 3.8 Mc/s

Range 3, - 490 to 1400 Kc/s

Range 4, - 150 to 380 Kc/s

A remarkably low top frequency

coverage of only 10.6 Mc/s which allows a wide degree of bandspread, this allowing much easier tuning of the stations.

This must be the one and only receiver on which I have been completely satisfied with the operation of the Magic-Eye indicator ! On so many sets there is either very little movement of the green bar, or none at all. On this particular set it is so very sensitive that even loud passages of music can be seen to vary the length of the green bar.

The usual, for Cabin Tuners, four knobs are from left to right the Off/On & Tone control, the Range switch, the Tuning knob, & the Volume control.

At the rear the Aerial socket is the standard Eddystone type and this set had the link in situ, a bonus !

The Audio comes out to a dual wander plug socket panel and the internal speaker is connected to this via two wander plugs so that it may be disconnected in favour of an external speaker.

It's the usual impedance of $2\frac{1}{2}$ ohms and on this set the speaker is still in very good condition making for nice sounding audio.

Yes I know that if one takes Graeme's Year/Month tables at face value this was manufactured in the thirteenth (maybe a lunar month ?) of 1926 but it was one of those anomalies which he also mentions, where the month/year letters got stamped wrong way round. So it is actually April of 1961.

Can anybody recognise this particular set and give me any background on it please ? The cabinet and panel are in a very attractive metallic brown a colour scheme which Eddystone ought to have adopted more since it fits in nicely with many domestic decorative effects and has been admired by

several of my female friends. At some time somebody had had it stripped down as there were signs that work had been done on it and the finger plate had been re-attached with superglue !

I would appreciate hearing from you if you have handled it at any time.

THE 940/1 - YES IT HAS SURFACED !

Well here we go on this merry saga of the 940, and it's variations. There really was/is such a beast ! It is very much a normal 940 circuit-wise apart the addition of the 8 crystal controlled channels and the fact that it is mounted on B***** big anti-shock mountings as for use in a vehicle.

I have had a phone call from Sam who owns the set and he is sending it to me for a bit of what he calls 'fettling'. It does work he says but is 'deafish'. Nice to know that these exotic animals do continue to survive out there and to surface occasionally.

Now then, more on a similar matter. There was - according to a Factory spec; sheet I have - another version which had no internal psu at all ! Meant to be rack mounted and fed from common external supplies. I am having belated recollections of an EUGer who mentioned this mysterious 940 without a psu and that he was attempting to build and fit one on the psu chassis from another junked set. WHO was it ? My grey matter refuses to divulge this info. Data overload I think they call it. Anyway I do wonder if he realises that the set in question may be the only known version of the 940/2 as per Factory Spec; Sheet dated 29/8/69. HELP !

WORK LOAD

I have just recently returned to the owners an 870A, a 670C and a 740. There I was thinking that my workload

had been reduced enough for me to get on with some of my own sets. Then I get this 'phone call out of the blue to say that I am to expect a model 1001 for repair, and a letter saying that an 870 is already winging it's way to my QTH. Ah well, I hate being idle anyway. The more the merrier.

870As

For a while I had just the two. Since the NEC I have acquired another, so that makes three. Two are variations of Green, a darker green and a pretty light 'pea-green', and the other is a maroon one.

All very nice lookers, all workers that I enjoy firing up, and they make a nice contrast with the various alien broadcast sets that I own. I saw a nice metallic brown one at the NEC but by then I had spent all of my pocket money and the 'piggy bank' machine would not give me any more that day, still I came home with two sets more than I had intended buying !!! Obsessive, that's Ted.

MIMCOs etc;

Now let us get something done about all of these various clones that Eddystones turned out. I want to try and compile a definitive (in so far as we know) list of the different models. Nobody appears to be able to provide one so this is where I begin.

There is the 2273A as mentioned above, in this issue, all the info is there. So that shall be number one on my list.

Then there is the 2232B which is reputedly a badged 670C, but are there any differences please ? *(note from Graeme; I HAVE a very rough Mimco 2232B 'Ellectra' and it says 670C/1 on the back. I have no circuit but it looks like a 670C).*

There was a Marconi type 810 - MIMCO feeder unit, finished in Marconi

Grey with four ranges of,-

Range 1 - 30 to 10.5 Mc/s

Range 2 - 10.6 to 3.7 Mc/s

Range 3 - 3.8 to 1.36 Mc/s

Range 4 - 1400 to 480 Kc/s

This is peculiar in that it had an external power supply for some reason. Any more info known about this one, please ?

The 881 and /1, /2, /3 series of Cabin tuners too, I know that the 881/1 is also found marked as the Type 2232A MIMCO whereas the 881 designation refers to Marconi sets.

The 881/2 is known as the 2245A, likewise the 881/3 is known as the 2273A (the one I have just acquired.)

The Marconi 889 Feeder Unit (their designation) is also known as the MIMCO Cabin Tuner Type 2244B. The 889/1 is known as the MIMCO 2244A. I have info on all of the above as re range coverage but need to know valve line-up etc; please.

The Marconi HR101 is the Eddystone model 910/1.

The 958/H is also the Hagenuk EE430 model with German finger plate markings.

The 958/4 is also the Marconi H2310.

The 958/10 is a modified Hagenuk EE430

The MIMCO Type 6689A is an EC10 Mk II

The Eddystone EM34 was also the MIMCO Type 3873A

The Eddystone model 1004 was also marketed as the Hagenuk E90 and later the E92 (but what differences ?)

A very special one was a single Eddystone model 1940/1 which went to Marconi for evaluation but no Marconi designation is known.

So, come on you EUGers. Let me have whatever you know about these and others, which surely do exist. I need to know the valve line-up, the ranges, cabinet type, etc; as much info as you can provide so that I can begin compiling my list to be published in this magazine.

TIN CANS

Thanks to the EUGers who answered my call for help over the metal valves for my Command sets, a package from John in deepest Essex and then another from Ray in Yorkshire - who said Yorkshire men are tight? A set of six new-looking 12 volt valves for the BC453. All I need now is the time to get started on them. Ted.

THE 820 AM/FM TUNER

I had this brought to me last week. Personal delivery no less by Jack who has been using it for many years until it succumbed over the Christmas/New Year period. Too much Plum Duff maybe?

I don't usually like to have to do sets in this way, much preferring to have them sent to me by post or carrier. In this case Jack is almost a neighbour so I let him browse around the house and play with my toys whilst I had a look at the 820.



Eddystone 820 FM TUNER

It was an 'easy-peasy' one actually as the 500 ohms, 1 watt, wirewound

resistor in the HT supply had gone open circuit. I fitted a 3 watts 470 ohms as being the nearest available in stock and Jack went home happy, but a little bemused at the way that I have radios in every room of the house, and even in the Garden Shed which has its own VHF Aerial. Never mind Jack - I admit to being an eccentric.

HF LOOP

My HF Loop is now well run-in and is performing nicely on the HF airbands. It is more or less resonant on about 5.65 Mc/s so just nice for such as Kinloss Rescue Primary Channel.

Having said that it also functions nicely with an ATU for both 80 metres and the new 60 metre NVIS band. I am finding that the reception on this band is extremely good from dawn to dusk in this area but that after dark it becomes 'chokker' with utility data signals.

One which seems to be sending no traffic just pulses like RTTY revs must be local to me as I can get it S9 on my BC221 Frequency meter using just a finger for Aerial, very strange this. I wonder who, or what it can be. Maybe a need to get out and about with my 40A and do some DFing.

SEVEN-FIFTY GIFT

I have been offered a 750 free for the collecting by a friend in Suffolk. Looks like I shall be travelling South someday soon to get it.



Eddystone 750 Double Superhet

Seems the tuning drive is all messed up and so I envisage another one of

those marathons where I shall practically need to strip the set to bits to get it sorted out. Just hope that no cogs or pulleys are wrecked.

A local model shop has come up with some only slightly over size plastic pulleys which I am just waiting to try out. The extra 2 mms in diameter ought not to matter - or so I hope ! It ought to be worth a try anyway as he has loads of them in stock. More on this if they work okay.

My 1990R/2S

My 1990 has been pulling in some strange stuff lately and I am beginning to suspect that it is from illegal Baby-Alarms.



Eddystone 1990R/2S 1975-9

There are two of them and both are in the 140 Mc/s band, absolute silence during the day except one has some very slight hum modulation on it and then in the evening the usual domestic sounds associated with infants.

I thought that 140 Mc/s was reserved for local utility services but am willing to be corrected here. The 1990 is still functioning very well and giving me lots of pleasure on the MILAIR frequencies.

This area is well populated with RAF and USAF Facilities so I am spoilt for choice really. The sight of all those transports lined up at Mildenhall is awesome, still a lot of movement there even though the fighting is over.

The EB35 Mk II

This model in its 'mock wood' colour scheme is pretty common and the one I got recently is pretty much as per my

original bought way back in 1981.

It does have a different IF/AF pcb though. Different part number and slightly different layout of components in the AF stage area.



Eddystone EB35 Mk II 1970

Somebody had been having problems with the output transistors and had attempted to get by by wiring a couple of NPN types upside down in place of the original Germanium PNP types.

Not very successful and probably why I got it for twenty pounds. Birketts of Lincoln (01522 520767) can supply new, old, Germanium types and so a visit to their Emporium is on the list of trips to make soon.

I need a few other bits so it looks like a long visit. I shall write up this EB35 II when it is done as it looks like being a long job with cut tracks to replace etc; - watch this space.

Cheers to All EUGers from

TED, G7AIR.

Call me on 01945 467 356 landline,

Or 07957 951 998 mobile

Or write to me at:

21 Prince Street,

Wisbech,

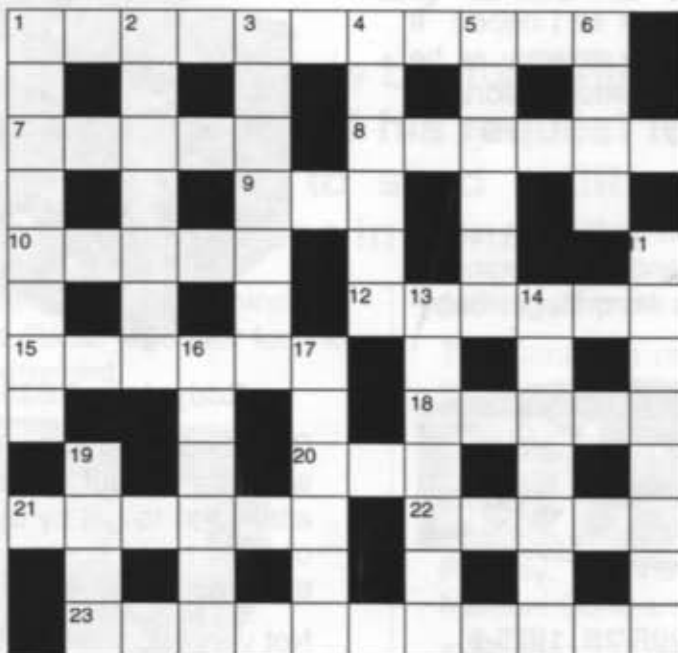
Cambs,

PE13 2AY

E.U.G. PRIZE CROSSWORD No 14

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 July. See previous page for further details. Don't forget to include your name!!



ACROSS

- 1) Favour well, oddly, a Stratton first in the professional receiver market (3,4,4,)
- 7) Original Name of the British component supplier now trading as Cirkit (5)
- 8) Editor might be troubled to reveal this valve designation (6)
- 9) This Hollywood production co., formed in 1928, was initially a real knock out (3,abb)
- 10) A single cycle of abrupt voltage or current change (5)
- 12) ----- chloride is used as pcb copper etchant (6)
- 15) Give servicing job the brush off, again (2-4)
- 18) Modern reference to

sound reproducers (5)

- 20) The first name in early British transistor radios (3)
- 21) ----- integrator, pulse shaping circuit that depends on a capacitor connected between the input and output of an inverting amplifier (6)
- 22) Non-repairable transceiver (2-3)
- 23) receiver in embryo? (6,8)

DOWN

- 1) The CGS absolute electromagnetic unit of current (8)
- 2) Identify digital audio transcription (5,2 pt.abb)
- 3) Famed for her dramatic encounter with the Bishop (7)
- 4) 24kv CRT supply

interrupted (3,3 pt.abb)

- 5) ----- Lodge, late 19th C. inventor (6)
- 6) Alternative units to degrees for measuring angles (4,abb)
- 11) Author of "Foundations of Wireless" first published 1936 (8)
- 13) Name Les differently to reveal protective coatings used on some Eddystones (7)
- 14) Possible representation on a map of a danger zone (3,4)
- 16) Nuts about them for German submarine construction (1,5)
- 17) Award winning newspaper perhaps (3,3)
- 19) This watt meter sounds like a high flyer (4)

E.U.G. CROSSWORD NEWS

Smallest Entry of the Year – Too Hard?

Only Nine enter but Five are Correct

Before we look at this month's entries I must make a big apology to Tor Marthinsen, our Norwegian correspondent. Just after the April issue of Lighthouse had been delivered to the printers I was tidying up my files. And what do I find? An all-correct entry from Tor tucked into the back of the correspondence file. I'm sorry, Tor, I'll try not to let it happen again!

Back to this month's entries. As more than 50% were correct we can't say that it was difficult, can we? And the four wrong ones (who shall remain anonymous!) made errors in quite unconnected sections. Let's have a look.

Now somebody seriously failed to check his 'QRG' in 2 across "Sounds like this Eddystone was developed for overseas use as well" (6,3).. Now we know the "sounds like", meaning "as well" refers to "Two (too)", but when did Stratton ever make an "Export" model, when there was a range of "Empire" models!

In 1 down, "CRT electron firing assembly in an RGB colour tv receiver (one of three)" produced the interesting answer of "Triad gun" instead of "Green gun". I suspect our member had recently been reading one of Dr Fu Manchu's adventures with the Shanghai Mafia . . .

Another entrant managed to get "egg ten" in place of "age ten" for 14 across ("Decade counted by junior op."). I guess he must have been doing his puzzle over breakfast and had a 'senior moment'.

And the member with the Chinese

connection had a problem with 10 across, the answer to which was "beam" and he had to do with "farm" (which, admittedly, also has aerial connections).

But now to the roll of honour . . .

Roger Bracey, G4BZI, of Crewe

Terry Emeney, G3RIM, of Esher

Dave Jones, MW1DUJ, of Llanelli

John Read, of Nantwich

John St Leger, G3VDL, of Devon

Well done, chaps, keep it up!

Which brings us to the answers, for those who just do it for fun:

ACROSS; 2) Empire Two. 7) Grid.
8) Op Amp. 9) TVI. 10) Beam.
12) Ebonite. 14) Age ten.
15) Reveal. 16) Aneroid. 19) Mast.
20) Dud. 21) IC lab. 22) Eton.
23) Connector.

DOWN; 1) Green gun. 2) Edometer.
2) Platen. 4) Repro. 5) Tutti.
7) Oxide. 12) November.
13) Transfos. 15) RDS lit. 16) Asdic.
17) End on. 18) Olive.

And now we come to the matter of this month's puzzle. Regretfully I've come to the end of my small supply of 'unique' Eddystone publications. All I have left are some of the colour spec sheets that have been sent out with Lighthouse, but I think you all have these . . . So as a last fling I'm going to risk our Patron's anger and offer some of his new G6SL QSL cards; the ones he used for the Summer contest last year. Keep your heads down and keep quiet (*I don't think he reads this!*)

GRAEME -- G3GGL ♣

Stratton's First Patent Diecast Box, 1930

Graeme Wormald, G3GGL, from material supplied by Peter Carney

Eddystone Diecast Boxes became as famous as Eddystone Radios and are still manufactured in Britain by Hammond Electronics Ltd, a subsidiary of the Hammond Manufacturing Company of Guelph, Ontario, Canada. Rob Hammond, VE3EIL, is a member of EUG.

When the company became totally committed to Short Wave radio in the late 'Twenties the overseas market was paramount. As most of this market was in tropical parts the need for damp- and bug-proofing became of great importance. The company addressed this problem seriously and the result was the case for the first true 'professional' model from Stratton.

This patent application is readily recognised as the casing for the 1930 Eddystone All Wave Four (see QRG page 17).

PATENT SPECIFICATION

Application Date: May 12, 1930. No. 14523 / 30.

Complete Left: Feb. 24, 1931

Complete Accepted: June 11, 1931

PROVISIONAL SPECIFICATION.



Improvements in or relating to Wireless Receiving Apparatus.

We, JARRETT, RAINSFORD AND LAUGHTON LIMITED, a British Company, of Alexandra Works, Kent Street, Birmingham, and GEORGE STRATTON LAUGHTON, British Subject, of the same address, do hereby declare the nature of this invention to be as follows:--

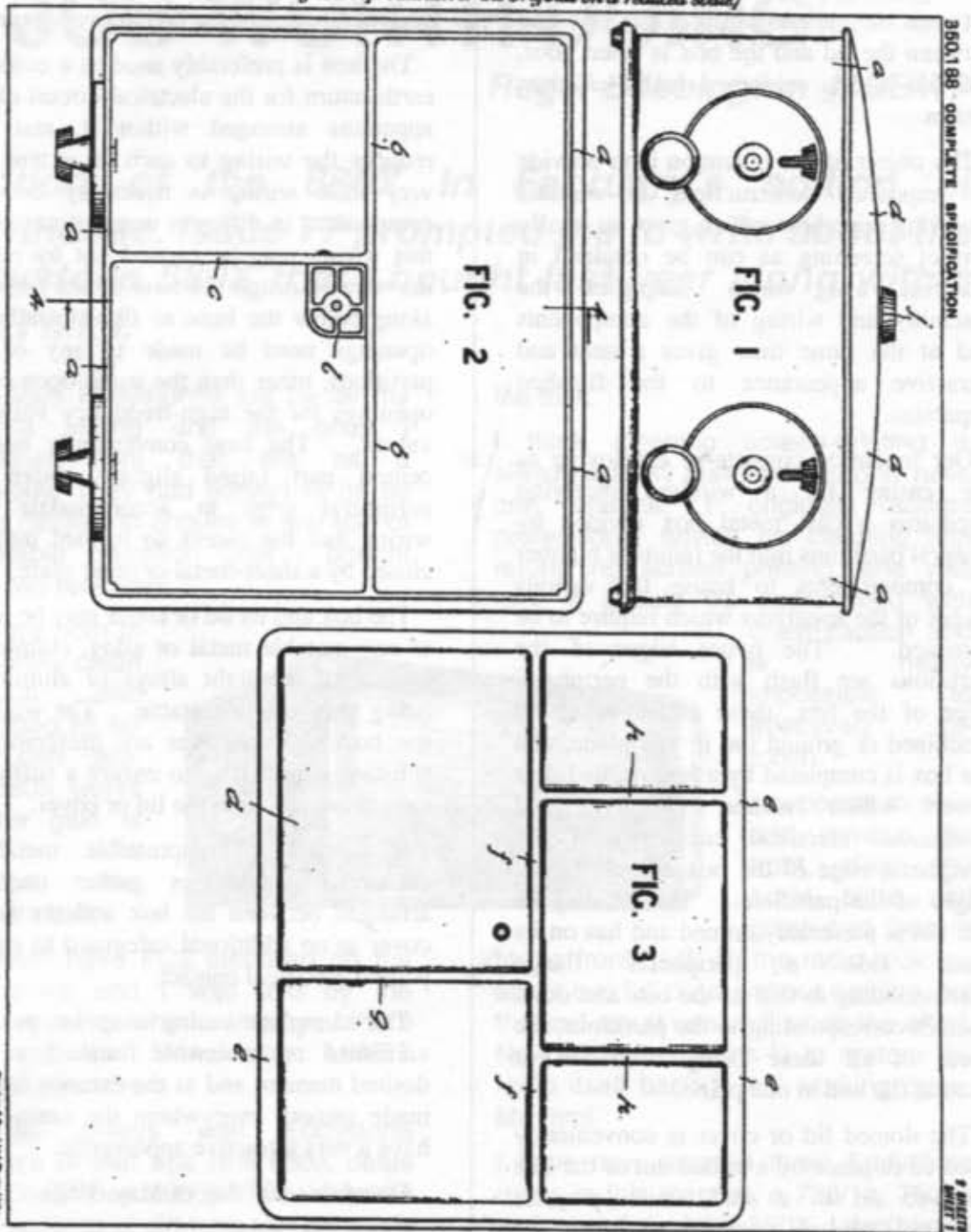
This invention relates to improvements in wireless receiving apparatus.

In wireless receiving apparatus employing modern valves having a very high amplification factor it becomes increasingly necessary to provide efficient screening of the successive stages, and the

higher the frequency of transmission received the more important efficient screening becomes. At present the tendency in transmission, particularly for long distance work, is towards the use of very high frequencies, and the efficiency in the reception of such waves is largely a matter of effective screening in the received (*sic*) apparatus.

The usual method of screening is to enclose one or more stages of the apparatus in thin sheet metal boxes provided with a detachable lid which may have a flange fitting over the sides of the box or may simply be held against the box

[This Drawing is a reproduction of the (Original on a reduced scale)]



This drawing which accompanied Stratton Laughton's Patent Specification is immediately recognised as the case for the 1930 All Wave Four. The same case was used in successive four-valve models until 1936, when the company's first superhet, the All World Eight was introduced. All these models were factory-built, none were offered as kits.

by a screw or screws. The contact between the various sides of the box and between the lid and the box is often poor, and the box is seldom a really efficient screen.

The object of our invention is to provide an improved construction of wireless receiving apparatus which gives as nearly perfect screening as can be obtained in practice, and which simplifies the assembly and wiring of the components and at the same time gives a neat and attractive appearance to the finished apparatus.

Our invention consists in employing as the casing for a wireless receiving apparatus a cast metal box divided by integral partitions into the requisite number of compartments to house the various stages of the apparatus which require to be screened. The upper edges of the partitions are flush with the peripheral edge of the box, these edges being all machined or ground flat in one plane, and the box is completed by a removable lid or cover which makes effective and continuous electrical contact with the peripheral edge of the box and the upper edges of the partitions. The lid may be flat but is preferably domed and has on its inner side a peripheral flange corresponding to that of the box and other flanges corresponding to the partitions, the faces of all these being machined or ground flat and in one plane.

The domed lid or cover is conveniently secured in place by a milled nut or the like screwed on to a stud which projects upwardly through a central hole in the lid and is secured to the base of the box, in one of the partitions, or in a part secured to one of the partitions.

Alternatively the lid may of course be held down by nuts at its corners or sides.

In addition to the flanges which cooperate with the partitions the lid or cover may have any other internal ribs or flanges necessary to render it quite rigid, so that it

will make effective contact with the peripheral edge of the box at every point.

The box is preferably used as a common earth return for the electrical circuit of the apparatus arranged within it, and this reduces the wiring to such an extent that very little wiring is necessary between components in different compartments and this wiring may be carried out by taking the wires through the base of the box and along below the base so that no holes or openings need be made in any of the partitions, other than the usual opening or openings for the high-frequency valve or valves. The base conveniently has its central part raised slightly above the peripheral edge to accommodate this wiring and the recess so formed may be closed by a sheet-metal or other plate.

The box and its lid or cover may be made of any suitable metal or alloy, aluminium or one of the light alloys of aluminium being particularly suitable. The walls of the box and partitions are preferably of substantial thickness to ensure a sufficient area of contact with the lid or cover.

If desired a compressible metal or composite washer or gasket may be arranged between the box and the lid or cover as an additional safeguard to ensure perfect electrical contact.

The complete casing may be painted, varnished or otherwise finished in any desired manner, and as the exterior can be made smooth everywhere the casing can have a very attractive appearance.

Dated this 10th day of May, 1930.

For the Applicants,

BARKER, BRETTELL & DUNCAN,

Chartered Patent Agents,

75 & 77, Colmore Row, Birmingham.

(The Complete Specification is about twice as long. The British Patent Number 350,188 was granted.)

A JOB WORTH DOING

Roger Bebbington MØBWP

Mention of the 680X in February's edition of Lighthouse, Issue 77 prompted me to write about the Eddystone 680X that I bought last year along with a 770R Mk I.

The 1950s Eddystones are by far my favourite styling and the ones I remember from that era as a schoolboy. They had proved to be by far the hardest to acquire in any sort of reasonable condition until I bought these two receivers.

They are both in a generally clean condition and untouched as far as I can see. The 680X works but the gain is down and distorted, the 770R is dead.

Also both have FC2 stenciled on the top covers and I was told by the previous owner who is employed there they are ex Manchester UMIST university receivers.

But as always with Eddystone receivers of that age (the 680X dates from December 1960) there was the usual build-up of dirt between the scale plate and the glass front, which had also discoloured with age. So I decided to remove and dismantle the front of the radio in order to clean them.

I always approach cleaning the scale plate with a good deal of caution, dipping a wad of cotton wool into lukewarm water with a drop of Fairy liquid in it, and then dabbing the scale plate with the cotton wool usually does

the trick.

I think cleaning screen-printing is always a tricky task and you only have one chance. I originally sought professional advice on cleaning and retouching screen printing, and was told "it should be approached with great caution and is nearly impossible to effectively re-touch."

I suppose to strip and remove the front, clean the scale plate and glass and then re fit the front back on the radio took me about two full days without rushing, but the end result was well worth the effort. Now all that remains is to restore the radio itself back to full working order. Mmmm!

I have now cleaned three Eddystone fronts in this manner, a 730/1a, 750 "a nightmare", and this 680X. I don't know how many EUGers have tried this but the end result in having a clean glass and scale is well worth the effort.

With Graeme's mention of Bulgin mains plugs and sockets in Issue 77 it is worth noting that this 680X uses a polarized mains plug with a side earth contact.



THE EDDYSTONE ALL-WORLD TWO KIT

In the issue for June 12th 1936, Practical and Amateur Wireless (now P.W.) reviewed Stratton's new (and to be the longest-running) kit-set. The All-World Two remained in production as a kit and was also factory-built until the fall of France in 1940. It was used by Voluntary Interceptors (civilian monitors for military intelligence) in the early years of Bletchley Park and the Ultra de-coding service.

The new short-wave, two-valve receiver which has just been issued by Messrs. Stratton & Co. for home assembly is shown in the two illustrations on these pages in completed form. This is a novel kit in several directions, the most important of which is the form of chassis which is employed.

This is a die-casting 8½ins. by 6ins. and 2½ins. deep, and this includes on the under side a short pillar which is used as an anchoring point for one of the condensers employed in the circuit. Holes for the valve-holders and slots for the terminal connecting strips are provided in the casting, and these components are attached to the chassis by means of nuts and bolts.

The complete kit contains the necessary connecting wire and screws in addition to the components, which are very few

indeed for this particular receiver. The circuit employed is a simple detector and L.F. arrangement, the detector valve being of the H.F. pentode type, and the coupling between detector and L.F. valve being of the resistance-capacity type. A six-pin coil is employed for the aerial circuit, and this is tuned by a microdenser fitted with a slow-motion gear.



To operate this condenser one of the well-known Eddystone two-inch knobs is employed with a travelling cursor which passes over an engraved aluminium dial, and a band-spread condenser is mounted beneath the

chassis and provided with a ten-section divider plate.

It will thus be seen that this combination takes the form of the band-spread tuning unit which was reviewed in our issue dated April 18th last, and which provides, in effect, a reduction gear of 90 to 1.

Circuit Details

The aerial is connected to the primary winding of the coil through a small "pre-set" condenser which may be adjusted when setting up the circuit to the best value (it can only be adjusted from beneath the chassis). The usual grid-leak and condenser connections are adopted, but the screening grid of the detector valve is connected to the arm of a potentiometer joined across the H.T. circuit so that the best value may be found on test.

The reaction circuit is completed through a pre-set condenser, the adjusting screw of which is immediately beneath a hole in the upper surface of the chassis, and thus may be adjusted to such a value that the control of the screening-grid potential will provide the reaction control.

This gives a very smooth arrangement that is even better than the normal capacity controlled reaction circuit of a triode valve. Added to this, there is an increased amplification which is very useful in a small receiver of this type.

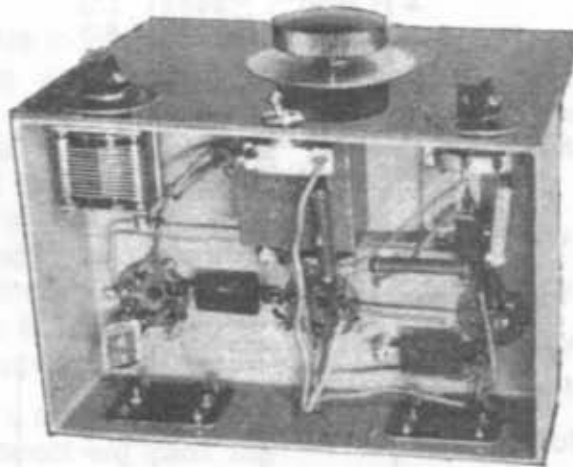
Test Results

The receiver was tested on our normal aerial and gave very good results. The principal feature which was noticed was the effectiveness of the reaction control, which functioned noiselessly and smoothly, giving a gradual build-up from the weakest signal to smooth oscillation

when the pre-set condenser was correctly adjusted. The receiver was very free from hand-capacity effects. The effectiveness of the band-spread tuning combination

enabled stations to be located as easily as on a standard broadcast receiver, and the All World Two will provide the listener with hours of interesting entertainment at all hours of the day. The price of the kit is £3 7s. 6d., and two valves for the

receiver will cost 20s. 6d.



SPECIFICATION

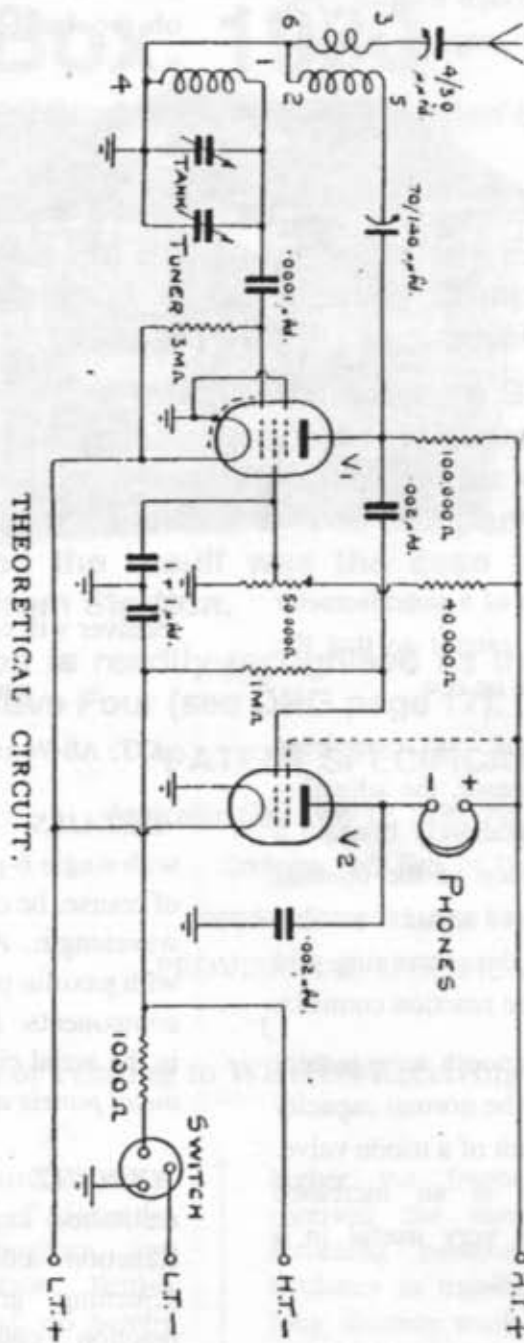
KIT: All-World Two Assembly.

DETAILS: Detector and L.F. circuit with single 6-pin plug-in coil which may, of course, be changed for any desired wavelength. All metal die-cast chassis, with paxolin panel and modern low-loss components. Band-spread tuning adopted in the aerial circuit. (*Later models had metal panels and cases, see advert - Ed*)

CIRCUIT: Pen. grid-leak detector with resistance capacity coupled L.F. stage. Reaction controlled by varying the screening grid voltage, with pre-set reaction condenser in usual circuit. Interchangeable plug-in coils.

PRICE: £3.7s. 6d. (plus 20s. 6d. for valves)

MAKERS: Stratton and Co., Ltd., Eddystone Works, Bromsgrove Street, Birmingham, 5.



Circuit Diagram of the Eddystone All World Two

THE T. & R. BULLETIN, May 1940.

435

FOR EVERYONE INTERESTED *in* SHORTWAVES



— We offer this

EDDYSTONE ALL-WORLD TWO

YOU can get first-class headphones reception of World-wide short-wave broadcast and experimental amateur transmissions with this Eddystone battery operated "All-World Two." It will consistently receive many American, European, Australian and other long distance short-wave stations at good volume and quality. It is fitted with special "Eddystone" bandspread tuning. Wave range 15.5 to 52 metres. Price, with valves and coils, guaranteed aerial tested and ready for immediate use.

PRICE ONLY £4-5-0 for All-World Listening
RECEIVERS BOUGHT FROM OUR SERVICE DEPOTS (SEE BELOW)
CAN BE OBTAINED ON MOST FAVOURABLE EXTENDED TERMS

WRITE NOW TO

STRATTON & Co. Ltd.

EDDYSTONE WORKS

BROMSGROVE STREET, BIRMINGHAM

OR FROM SERVICE DEPOTS

WEBB'S LONDON: 14 Soho St., W.1.
BIRMINGHAM: 133 New St., 41 Carr's
Lane, 23 Shirley Rd., Acocks Green.

COUPON

To STRATTON & Co., Ltd., EDDYSTONE
WORKS, BROMSGROVE ST., BIRMINGHAM
Please send me full descriptive details of the
Eddystone All-World Two Short-wave Receiver and
address of my nearest stockist. (I enclose 1d. stamp)

Name _____

Address _____

Only a month before Dunkirk, Stratton's were still advertising the popular All World Four (Advert courtesy of Angus, G3TXL)

The Eddystone 830/4 in Canadian Government Service

By David W Whiting

In response to the article by Joe LeKostaj, K9LA, on the Eddystone 830/4 and his request for information on its use I will try to shed a little light on this particular receiver's use in Canada.

Its career here pretty well coincided with mine as a Radio Operator for the Canadian Government.



After passing my 2nd Class Certificate of Proficiency in Radio (same as the old UK PMG 2nd Class) I started work as a radio operator for the Canadian Department of Transport, (D.O.T.) (Now Ministry of Transport M.O.T.), Telecommunications and Electronics Branch, in 1965 and retired in 1995.

The Eddystone 830/4 receivers were phased into service during 1966 and lasted in the D.O.T. until well into the '80s, perhaps the '90s at some sites before being disposed of. So I had a fairly long acquaintance with these receivers and can honestly say that I put several thousand hours operating time on them myself.

These receivers were purchased by the Canadian D.O.T. who were (and are) responsible for marine, aviation (aero) and fixed point-to-point official Government communications as

general-purpose receivers.

The Canadian military did not acquire this model so far as I know, as they had larger budgets, especially during those Cold War years. They tended towards more expensive and exotic offerings from the likes of Racal, Plessey, Collins and the Canadian Marconi Company, to name a few.

The D.O.T. used these receivers across Canada and afloat for a variety of tasks in aeradio, marine, marine-aeradio stations and Coast Guard ships.

With the introduction of SSB in the mid '60s, especially to domestic and international air-ground HF use, most of our general purpose HF receivers then in use (mostly WW2 vintage RCA AR88LF and Canadian Marconi CSR-5A models, but lots of others too) were rapidly becoming obsolete as well as old and worn.

The D.O.T. purchased several hundred 830/4 models -- actually to be technically correct they were probably 830/4/RM models as all the receivers I ever saw had the end-plates fitted and were rack mounted.

These sets were up-to-date in all respects, including SSB capability with the coveted product detector stage

using a 6BE6/EK90 tube (V13), and much improved frequency readout capability.

The specially specified LF bands, 120-560kHz, were needed for monitoring the status of aero and marine non-directional beacons (NDBs) and radio ranges, (*note from Graeme:- these latter dated from the early '30s and were the origin of radio beam flying; simple and effective.*), and also for LF point-to-point CW reception, as some of our isolated Northern stations had ITU-allocated LF CW frequencies as well as HF for point-to-point working.

LF was supposedly less affected by auroral disturbances (not totally 100% true!) in the higher northern latitudes. One station in Northern Quebec at which I worked had a pre-WW2 RCA TX on 153kHz with 3kW output!

Yes, we did hear the LF broadcast stations from Europe quite often, though we used as narrow selectivity as possible for CW reception! Another northern Quebec station had 163 or 173 kHz I believe. These LF frequencies were generally very reliable.

The MF aero and marine beacons were monitored every 30 minutes and a particular D.O.T. station might have monitoring responsibility for several of these, about 6 being typical.

This meant a lot of tuning back and forth and switching on ranges 7 and 8 of the bandswitch. It was very unlikely that all the beacons would be on the same band! In fact, this was one of the most common faults with the 830/4 – the whole bandswitch assembly becoming loose and having to be serviced, hopefully caught early enough that no damage to the wafer contacts had occurred!

As well as beacon monitoring, an aeradio station would use the 830/4 to receive WWV or CHU time signals

(station clocks kept to rigid tolerance as per regulations), and monitoring of any requested or special HF frequencies as might be specified.

Possibly they would be kept on 5680kHz, the world-wide search and rescue (SAR) frequency which was also used as a general communication frequency in isolated northern areas as per ITU/ICAO regulations.

This was especially so in some stations where I worked, as the 830/4 was better than the (*probably more expensive*) dedicated fixed-frequency xtal-controlled receiver that was supposed to guard 5680.

At Frobisher Bay Radio/VFF (now Iqaluit Radio/VFF) a combined marine-aeradio on Baffin Island, and one of our largest northern stations we had at least eight 830/4's.

This station did just about everything, including international air-ground, marine point-to-point, Hudsons Bay Company radio circuit and Aeradio Advisory Service.

At a typical operating position there in the mid '60s each operator would have several HF frequencies to use. Each transmitter was controlled via landline from a remote receiver site which was widely separated (in miles) from the transmitters site, the remote receivers being perhaps Collins 51N-7's or Plessey PR-51C's.

Each of the operating positions, plus the supervisor's position, also had what we called a 'floater' receiver, which was right in front of the operator and connected by co-axial cable to a multicoupler-fed 35ft. whip antenna located at the operations site.

This is where the 830/4's were used, and they replaced the older AR88's, CSR-5's, etc., in these positions. They were able to take over any of the fixed-frequency receivers' jobs if necessary

or any other assigned frequencies as required. They were much easier to put on assigned frequency than the older receivers, especially if you did not have a TX to key on the frequency to set you up!

The smaller Domestic Aeradio Stations (now called Flight Service Stations) at airports in populated and remote areas each had at least one G.P. receiver, and that would have eventually been an 830/4.

Their main task was beacon monitoring and Time Signals as most voice communication there was on VHF/UHF. They were also used as backup for 5680 and 3023.5 if necessary.

Incidentally the Australian AWA CR-6B receiver seems to have been designed for and used for exactly the same tasks as the 830/4 in Canada. I wonder what what used in UK aero stations? (*Answers, please, to Graeme at Lighthouse magazine.*)

I am not familiar with the smaller Canadian Marine Stations and don't know how many 830/4's they may have had. But they monitored lots of NDB's (marine and some aero) and had to guard the 2MHz marine SSB voice frequencies including 2182kHz, so the receivers must have been well used there as well.

Afloat, all the Coast Guard icebreakers with which I was familiar had an 830/4 aboard. I was a Radio Officer for one of the Arctic Re-supply Seasons, being 'loaned' (at my request) from Air to Marine Services for the trip.

I was assigned to CCGS (*Canadian Coast Guard Ship*) "d'Iberville" (callsign CGSM), a full sized icebreaker which, incidentally, had represented the Canadian Coast Guard at the Spithead Review during the Coronation Ceremonies for Queen Elizabeth II!

The ship at that time was brand new, having just been launched and commissioned.

She normally carried one Radio Officer for work in the Gulf of St Lawrence, but all Icebreakers took on three R.O.'s for continuous watch when operating in Northern Arctic waters. Each ship had its normal MF/HF CW Marine installation (Marconi, RCA or Mackay, depending on the ship) plus each one had an 830/4 and a separate HF SSB/CW TX.

Ours was a Redifon 1.5 kw unit, which I think put out 800-1200 watts on CW! We had no trouble with HF communications during the four-month trip (never did use it on SSB, though).

So you can see from my humble experiences that the 830/4 was used for just about every receiving job going and performed admirably in all of them.

My only 'gripes' with the 830/4, which are very minor, was my dislike (perhaps too strong a word), of the 'springy' RF Peak control (*I'd call it 'spongy' - Graeme*) and the spring-loaded Calibration toggle switch.

Most (if not all) professional receivers I had used were capable of one-handed operation (the other one is usually occupied doing something else when things were busy), and I would have preferred an ordinary on/off Calibration switch with no spring.

Also, after several hours of much frequency changing, as in some types of monitoring or surveillance work, the Incremental Tuning got to be a mite tiresome. I longed for the simpler, single control of my 940's tuning (*but it doesn't have the resetting accuracy, does it? - Graeme*).

This is where, I suspect, the model 880 excelled (and why GCHQ had same), with the frequency readout accuracy of the 830 or better, and with the tuning

ease of the single flywheel tuning knob!

However, for its price at that time it would have been pretty hard to beat the 830 series and I don't think anybody else did, cost-effectiveness-wise.

I also liked its sensitivity. Most valve receivers at that time (mid-'60s), seemed to run out of steam around 20MHz or so, but the 830/4 and its cousins with the same high-gain 1st RF stage (ECC189/6ES8 cascode) worked well right up to the top end.

I did a fair amount of tube (oops, valve) testing in those days as part of radio maintenance duties and it seemed the ECC189/6ES8's were great for a while, but when tested after a few months or so, the Gm of one of the triode sections had dropped quite a bit, although still serviceable. The other side was 'as new'.

I don't know if this affected the high-end sensitivity or not as we didn't do much above 20MHz anyway. Still, I wonder if this was normal or particular to the brand of tube in use. My 940 is the same, but it is also fitted with the same brand of tube I believe. Does anyone have any comment on this?

Anyway, the 830/4's were operated continually (24/7 as they say nowadays) for years and years with not much TLC I'm afraid. It's gratifying to know that some have survived, hopefully in their senior years to get some TLC and serve their new owners for many more years.

When delivered new, if I remember correctly, the 830/4 came with two Instruction Manuals and a spare parts kit. This included a spare steel wire dial cord and plastic control knobs. I suspect all the manuals ended up in the Technician's library and the spares kits in 'technical stores', never to be seen again! I guess it would be a minor miracle if a spares kit, or manual

even, ever paired up with one of the 830/4's when they were disposed of!

On the control knob theme, does anyone out there know why a high percentage of the Eddystone plastic two-tone control knobs had cracks in the grey plastic around the set-screw holes? A good percentage of the new 830/4 knobs had these cracks, even the unused ones in the spares kits (I know, I've seen them) and I've been wondering why for over 35 years!

The knobs on the model 940 which I bought new in 1964 were all OK, but I was always wondering if they would eventually crack on their own. They haven't so far, so I guess that's a good sign. Perhaps something a bit awry in the manufacturing process?

(note from Graeme:- I've never seen these cracks in the knobs on an 830/7 – or any other set with the same pattern knobs. Could there have been a special specification for the Canadian model? Seems unlikely. Any memories from the lads at the Bath Tub? Bill, Stan, Terry?)

The 830/4's were a quantum leap ahead of most of the receivers they replaced (although I liked the AR88's) and held their own for many years of sterling service.

So, in retrospect, it seems the Canadian D.O.T. made a very wise decision in buying several hundreds of the 830/4 model Eddystones.

*David W Whiting
South Porcupine
Ontario*

We sometimes think England has some quaint place-names, but it takes something to beat David's QTH!

Any comments or observations to David via 'Lighthouse' office, Bewdley, please, so we can all see them.



MARCONI general coverage doublet Type 1818

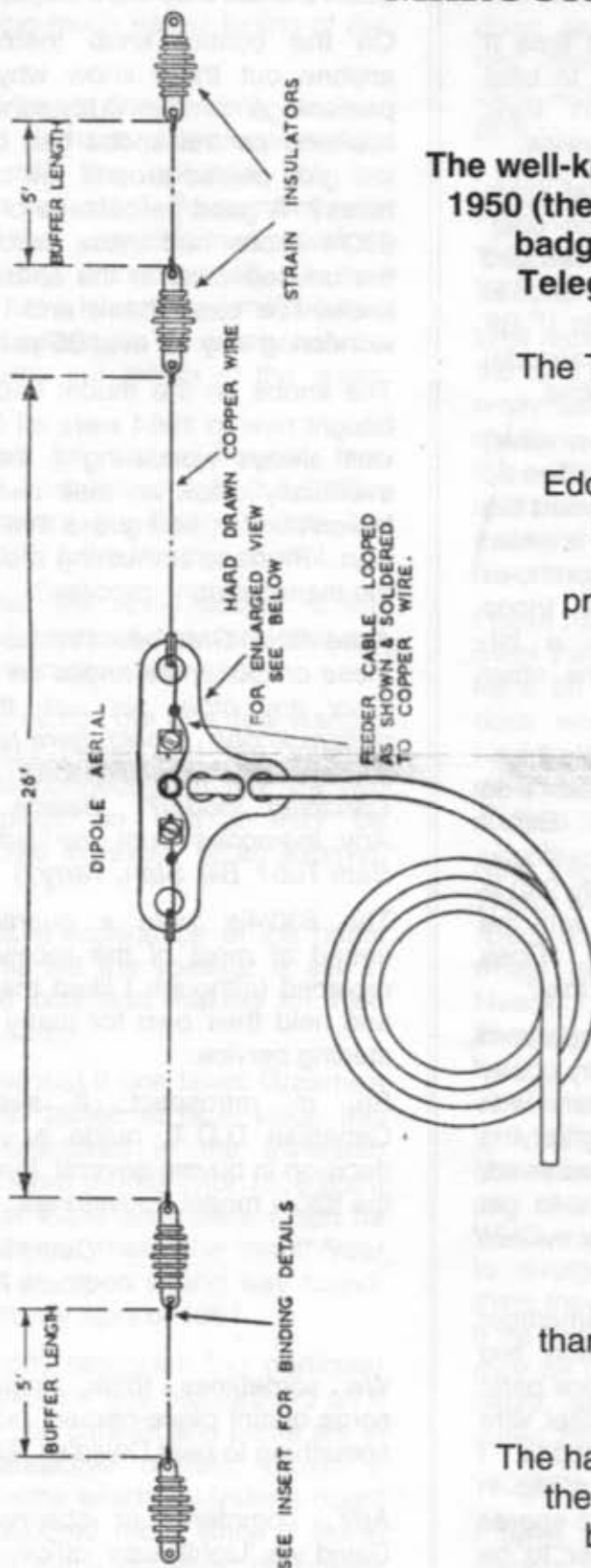
Graeme Wormald - G3GGL

The well-known Eddystone S.750 of 1950 (the first 'slide-rule' dial) was badged by Marconi's Wireless Telegraph as the Type HR.100

The Technical handbook for this set was much more comprehensive than the Eddystone folder and included full details of operating and installing the set for professional communications use (on shore, I hasten to add, this was not a ship's receiver).

Among these details was a description of the M.W.T. untuned doublet aerial type 1818. Many people think a dipole (or doublet) is a one-band aerial, but this is not so. When it is erected away from local interference (ie, the house) and fed with balanced twin feeder it is essentially a low noise device and much 'cleaner' than the average end-fed bit of wire.

The hardware is still obtainable at the average radio rally, hidden between the old computers.



If you cannot find 80-ohm flat twin feeder, ordinary 3-amp twin mains flex will do (or speaker cable).

Here's the entry from the Marconi handbook:-

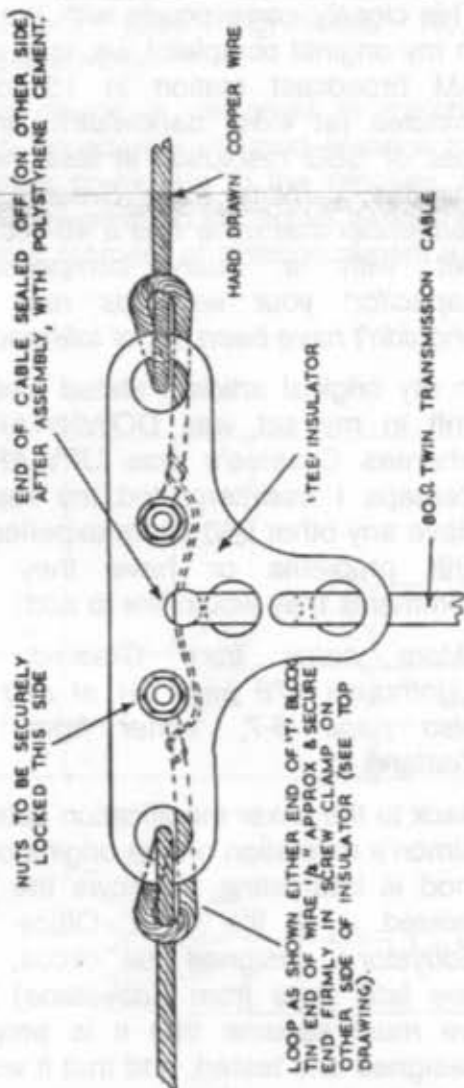
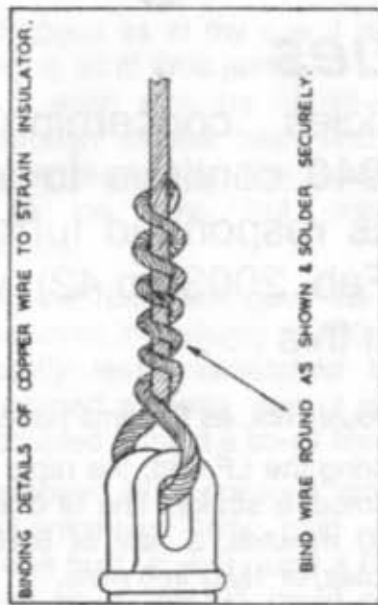
"6. AUXILIARY EQUIPMENT

6.1 Doublet Aerial

The doublet aerial Type 1818 is designed to provide good reception over the whole receiver range (480 kc/s – 32 Mc/s).

The two arms forming the aerial proper can be slung between two high points at any convenient position and the flexible insulated feeder brought down to the receiver through any convenient aperture, a lead-in insulator being unnecessary. Pick-up of electrical interference is minimised, with a consequential reduction in noise. The peak efficiency is achieved at a frequency of approximately 18 Mc/s, and the aerial presents an impedance of approx. 400 ohms to the receiver."

Readers wishing to use this aerial with a 50-75 ohm co-axial input should use a 4:1 balun to match it.



REAR VIEW OF 'TEE' INSULATOR (FULL SIZE).



The S.940 Saga Continues . . .

Recent articles concerning the Eddystone 940 continue to attract comment and Alan Robinson has responded further to his article in Lighthouse #77 (Feb 2003, p.42) which should be read in conjunction with this . . .

Like Simon I am surprised at the responses to our articles on the 940 drift problems, so I thought I would add some more observations of my own.

First a slight correction to my article, about the nuisance of having to adjust the RF gain for stations of different strengths. I should have added that it was with the AGC off.

Concerning the set temperature:-

One of my earlier investigations was to put a glass tube thermometer inside the set and leave it running for a couple of hours. When I removed the (solid top) case, the thermometer read 40 deg C, which I suppose is about right.

This gave me the idea to fit semiconductor diode rectifiers to make the set run a bit cooler. (But see Peter Lankshear's recent article *Lighthouse* #78, April 2003, p.37).

Congratulations to Graeme for his excellent Drift Charts (*Lighthouse* #78, p.27) (Did he stay up all night to take reading?) (*Note from Graeme - No, I just kept waking up!*)

In the first set of readings with solid-top case and original (40-year-old) C62, the rapid drift occurring one-and-a-half to three hours after switch-on is of interest to me. After one and a half hours I would have thought the set would have reached stability, but

obviously not, as Graeme points out.

Ignoring the LF drift, the rapid HF drift is almost a straight line of 0 to 15kHz in 90 minutes, a rate of 5kHz in 30 minutes, or 1kHz in 6 mins.

This closely corresponds with the drift in my original complaint, i.e. loss of an AM broadcast station in 15 to 30 minutes (at 4kHz bandwidth), and a loss of SSB resolution in less than 5 minutes. (*Note from Graeme: but remember that mine was a 40-year-old set with a faulty compensating capacitor: your set was new and shouldn't have been out of tolerance!*)

In my original article I stated that the drift in my set was DOWNWARDS, whereas Graeme's was UPWARDS. Perhaps I misinterpreted my results. Have any other 940 users experienced drift problems or have they any comments they would like to add?

(*More notes from Graeme; see Lighthouse #78 page 34 et seq and also page 6-7, 'Letter from New Zealand.'*)

Back to the mixer modification debate:- Simon's revelation on the origins of the mod is interesting, it shows the fault existed. If the Post Office and Eddystone designed the circuit, (*but see later note from Eddystone*) then we must assume that it is properly designed and tested, and that it works. But did it cure the temperature drift

problem?

In the modified circuit, C45 is reduced to 5pf. In an early experiment I fitted a 10pf in series with the 50pf C45 (total approx 8pf), but it reduced the sensitivity of the LF ranges quite considerably, so I returned C45 to 50pf.

From my Mullard valve data book, I estimate the stage gain of the modified triode is 14, but this is at low frequency. What would it be at, say, 20MHz?

One early observation I made was when I removed the screening cans of the RF amplifiers and mixer, or adjust the RF amplifier trimmers just a little, the Local Oscillator frequency would change noticeably.

To me this indicates significant coupling between the RF stages and the LO.

One good thing - all this discussion has encouraged me to get the old girl out of her box, and I might start work on her, once I've de-cluttered my workshop.

PS, What happened to the Post Office 940s?

Alan Robinson.

Keyboard now taken over by Graeme . . .

You will all recall that this 940 debate was started by Simon's feature in Lighthouse #75, October 2002, pages 40-43.

This levelled criticisms at the 940 when it was in original production c.1962. It was then revealed that the criticism came from no less a body than the British Post Office. These were so great that it gave rise to queries of the whole production line!

Let's look back at the history of this extremely successful model.

In 1961 Stratton's had a gap in their 'shop window'. The long-running 670 cabin series and 840 'economy' communications series were still in production at around £50 and were just entering their third and final phase; the 'C' models.

Progressing up the ladder the next model was the professional 830-series priced at around £275. This left a yawning gap in the range. A mid-priced model for the well-heeled SWL and radio ham.

Harold Cox, then technical director, charged Bill Cooke, chief engineer, with the task of designing such a set, using as many components held in the company store as possible. The result was the 13-valve model S.940, originally priced at £125 (rising to £153 by the time it ceased production in c.1970).

Harold is no longer with us but Bill is a very active radioamateur (GWØION) and one of our members. He also has a memory like an elephant, as members who read our long-running 'Cooke Report' will recall.

Bill tells me that the Post Office Engineering section in Fordrough Lane (B'ham) purchased a small number (single figures) of 940s to fulfil the requirements of a low-cost monitor receiver. For reasons best known to themselves they decided to make modifications to the set which were nothing to do with Eddystone and not financed by Eddystone.

Incidentally I was speaking this morning to a retired Post Office engineer, formerly of Dollis Hill research labs. (He was seeking a workshop manual for his model 6200). He happened to mention that he still had a 940, bought new. 'How have you found it?' I asked. 'Splendid!' he replied... ♦

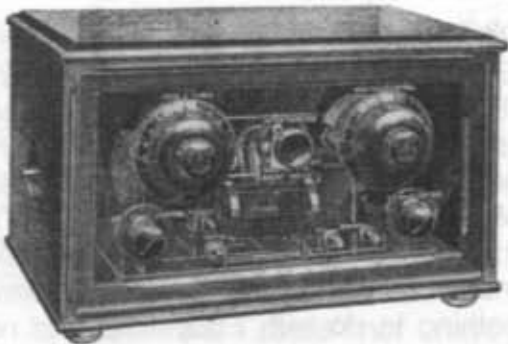
Letter from Tønsberg

Our Norwegian Correspondent, Tor Marthinsen, continues with his roundup of early Eddystone receivers featured in QRG: this month we have "Eddystone Twos"

Hello Graeme,

This is about the two-valve receivers produced by Eddystone. There will be no surprise types not previously mentioned, but perhaps some comments/views different from yours! The two-valve receiver was the most popular configuration in the late twenties and Eddystone had some sets to offer.

I have nothing to add regarding the two valve receivers covered in the 1926 catalogue apart from the comment about the 'Eddystone Two', perhaps it does NOT have reaction! Personally I believe it has, but the point is not proven.



'Atlantic Two' or 'Short Wave'?

However on the next one our ways diverge, as I believe there was a two valve receiver named the 'Eddystone Short Wave', as shown on the glass front of these receivers. On the last page of the handbook for the 'Scientific Four' we can read about the 'Eddystone Two Valve Short Wave'

receiver. Now, if this receiver really was called the 'Atlantic Two' why did they not say so?

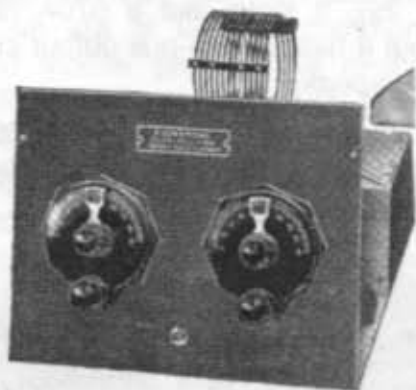
Perhaps the Eddystone people wanted to stress the point that this was a short wave receiver, this was something new at that time. However I can easily imagine that soon afterwards they understood that this name could be misinterpreted to mean ONLY short waves, and this was not the case, as medium wave reception was also possible. So perhaps they changed the name to 'Atlantic Two'; this time to tell the people about the possibility to listen to stations across the ocean.

To me this receiver will be the 'Short Wave' also to distinguish it from the next one which is the genuine 'Atlantic Two' from New Zealand. Now how did you figure out the waverange of this one I wonder? The change from the Eddystone 1:128 type dial to the Indigraph 1:10 dial must have been a step backwards!

Apart from the first one, the 'Eddystone Two', these two-valvers were standard types, state-of-the-art for that time. Now what happened to the Eddystone two-valvers from 1927-8 to 1931 is anybody's guess, but I believe that there must have been something!

Anyway the next entry is the 'Scientific Two' which was described in WW for July 22nd 1931. I disagree most strongly to your idea of 'shifting old stock'; perhaps this receiver was out years earlier? The range ought to be

included, 15 to 93 metres with three coils. These coils were also used in a construction published in WW by that Eddystone fan H. B. Dent at the end of 1932! I do not recognise the dials used, they are different from the Indigraph types. I guess that it would be difficult to make a two-valve receiver with less components!



Eddystone 'Scientific Two'

In the ESWM#1 of 1932 there are two entries, the Empire Two is a close copy of the Scientific Two but with new variable capacitors and the new small diameter coils. Also the aerial coupling capacitor is now mounted on the front panel.

The second entry, the 'Amateur Bands Two' is an entirely different receiver, this is perhaps the maximum you could get with just two valves, a point appreciated by the amateur crowd. I would not compare this receiver with the two cheap two-valvers.

The next is from the ESWM#2, the '1935 Amateur Bands Two', which is a slightly modernised version of the 1932 type. It is interesting to note that there are no valve types indicated, perhaps one took it for granted that one could use the same types in both versions?

The price was only a few pence higher for the -35 type. The input is

redesigned and the choke connected to the anode of the detector valve is now wired up differently, this difference is explained in the text as giving better performance.

The 'All World Two' – glad you could fit in so much text here, this is a most interesting receiver. More in the 'Scientific Two'-class than the 'Amateurs Two'-class though.



"All World Two" of 1936-1940

I guess that I would have included both the 'Amateurs Short Wave Two' of 1938 and the 'Short Wave Two Battery Receiver' of 1947, the last one if for nothing else than for showing the likeness to the 'All World Two'. ♣

Thank you Tor, for another interesting roundup. It does go to show how confusing the early pre-war Eddystone range can be!

The reason the 'Amateurs Short wave Two' and the 'Short Wave Two Battery Receiver' (mentioned above) were not included in QRG is that, so far as I am aware, Stratton never actually produced any. They were merely constructional projects using Eddystone Components.

Graeme – G3GGL

RADIO RAMBLINGS

Gottings from my Notebook



By
Graeme
Wormald
G3GGL

Bewdley, May 2003

Spring Greetings! May the sun shine! (except for our colleagues in OZ who badly need the rain). I think the months of February to April have probably been the best ever recorded, certainly here in Bewdley and probably in most of England.

I won't speak for the rest of the UK as it can be risky. But the skies have been blue; the nights have been crisp and the barometer has rarely dropped below 1030 millibars. VHF propagation has been absolutely cracking!

This month we are having the rain we should have had in April. Much needed. The River Severn has risen six feet in a week (it needs to rise 12 feet before it starts to overflow).

In our Saturday market there is a wise woman who sells potted shrubs. She knows the Latin name of every one of them. And she tells me that this summer we shall have a heatwave from June to September! Keep watching.

MORE 'METALPACK' PROBLEMS

Last week I brought out of storage a 'MIMCO'-badged Stratton product (*Marconi International Marine Co.*). I had acquired it about three years ago for a modest sum from a Silent Key sale, but never tried it. It's a 'Cabin Tuner Unit Type 2245A', which doesn't seem to have a direct Eddystone equivalent. It's almost certainly one of those mysterious S.881 sets (QRG

page 29). It looks like a 670A cabin set, but it has a push-pull output stage and no speaker.

It bears the serial number AK0076, which means that it was made in January 1959.



MIMCO 2245A (or what?)

I'm very pleased to see that Ted has started to research the whole of this 'badging' business, especially MIMCO. (See the current edition of 'Ted's MailBox' elsewhere in this issue).

Anyway, back to the matter in hand. Somebody had built in (very neatly) a 7"x4" oval speaker and the set worked straight off. So I left it going for a good soak.

Then I realised that the Home Service (*now re-named BBC Radio 4*) was no longer talking to me! A touch of déjà vu, I think. Remember my 'new' Model 670C of last year?

Yes, that's right, it has the same 'brute force' mains filter with the same 'TCC Metalpack Visconol X' 0.05 mfd bypass condensers across the mains.

The sort which break down and then re-seal themselves. So when you test

them they're fine! They just keep blowing fuses. Whenever you acquire one of these 'universal' AC/DC models, check what's across the mains, and if it's a nice silver TCC 0.05 change it at once! The value isn't critical, 0.01 to 0.068, but make sure the working voltage is at least 1kv.

ANTIPODEAN HOSPITALITY

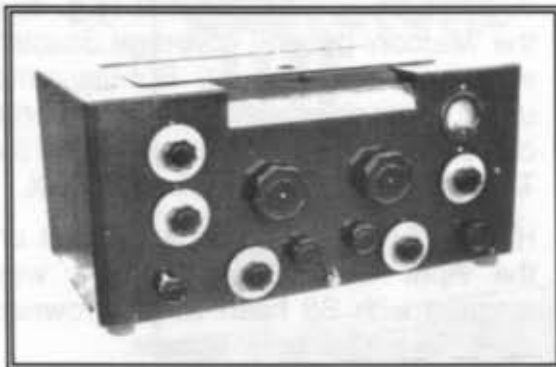
EUGer Peter le Quesne (*pronounce it 'Cane'*) ZL4TCC, writes from Auckland with an offer no traveller can refuse! Any EUGer visiting New Zealand is invited by Peter and his XYL Anne to call and stay with them in one of the most interesting towns in NZ; Napier.

The town was destroyed by an earthquake in the early 'thirties and was re-built entirely in *Art Deco* style. A unique chance.

Anybody interested in Peter's kind offer should contact him direct. His NZ phone number is (06) 843 8212, e-mail pleq_tbc@clear.net.nz His QTH is 23, Oriel Place, Napier 4001, N.Z.

NVCF at the NEC

I've not yet mentioned this annual event on the EUG Calendar. It was well attended (as usual) and we had an unusual display.



EDDYSTONE MODEL E.C.R. (1938)

EUGer James de la Mare brought along his newly acquired pre-war model E.C.R., serial number 004. This was Stratton's first 'modern' communications receiver, having all

the attributes of its American rivals.

It was not, however, taken up during the War. The rather more robust 358 series got the orders from the Admiralty. But the result is a great rarity factor.

James is also an avid collector of 'new and unused' Eddystone short wave components, the sort supplied for home constructors. He has a good selection from the late 'twenties to the mid 'sixties.

Manufacture of these ceased when Marconi bought the 'Wireless Business' from Stratton (1965). They foresaw the demise of home construction and dropped the whole range.

James had the clever idea of acquiring a large (2 ft by 1 ft 6ins) flat aluminium flight case. He then had a heavy perspex cover fitted to discourage light fingers and filled it with pre-war goodies, many with original brightly printed boxes.

This black and white photo doesn't do it justice; it looked very appealing and attracted much favourable comment.



JAMES'S PRE-WAR GOODIES

Next year he aims to fill the case with

post-war components for our delectation. Well done, James!



CHRIS (GØEYO) SNAPS THE TEAM

Just before the public descended upon us at the NEC, Chris snapped the Old Codgers' team manning the EUG display. From left to right, looking like garden gnomes seeking a home: James, Graeme, Dave and Ted.

EDDYSTONES FOR SALE

The quantity of our favourite sets is never very great at the NEC and this year was no exception. Having taken to heart the issue of 'collecting for collection's sake', I was very circumspect about lashing out on any 'new' models.

The result was that I prevaricated so much I 'lost' a very nice model 750 at the reasonable price of £85. Although the 750 looks like any other 'Type B' set, it is actually a very good performer, being a double conversion job with a second IF of 85kc/s. Ah, well. Such is life. He who hesitates is lost, so they say . . .

FIRST SUNDAY

I never seem to give the EUG 'First Sunday Net' the coverage it deserves. So I'll remind old members and let newer members know the details.

This is a very informal chat-net, which takes place on the first Sunday of each month. The one for June will have happened by the time you read this but you can make notes on your calendar for July onwards, viz: 6th July, 3rd August and so on.

It takes place on 80-metre LSB at

10am local time. The nominal frequency is 3695kHz but if there is QRM from other nets we go HF, never LF. I don't think we've ever had to move more than 10kHz and only once did we manage to get two EUG nets running at once, 8kHz apart!

The 'chairman' or net controller is Chris Morgan, G3XFE. He is located in the Watford area and is very solid armchair copy on the band throughout England and Wales. I'm not too sure about Scotland or N.I. as I can't recall one signing on!

We rarely get more than half a dozen members calling in but it usually carries on until about 11.30, so even if you can't make the start time have a listen later. Regular pauses are made for breakers to call in. SWL reports are also welcome and will always get a QSL from G3GGL.

MAN MADE QRN

A recurring feature in Lighthouse is the perennial problem of local man-made QRN. The sort of stuff emanating from the high-tech goodies without which our neighbours (or ourselves) cannot survive.

This can be tackled on the SWL front (among other things) by using a low-interference receiving aerial (e.g. see the 'Marconi general coverage doublet' elsewhere in this issue). But using the usual transceiver with a common aerial can be a problem. The best aerial for TX is frequently NOT the best for RX.

However . . . it so happened that on the April 'First Sunday' net I was plagued with S8 hash which drowned the weaker members' signals.

TRACKING IT DOWN

Determined to locate it I followed the classic procedure, which is common to all locations. For this, a portable radio that receives the QRN is essential.

If it comes through on MF/LF then a normal domestic set (tuned to an empty channel) will suffice. But if it's only present on HF then a general coverage set is needed.

I have a Sony model 7600 (100kHz – 30MHz), which I acquired during the first Gulf War when I was abroad and needed to listen to London. This also does double duty as an alarm clock and QRN detector.

Here's how you do it:- with the noise 'tuned in' switch off the mains electric at the fuse-box. If the noise goes, then it is your problem. If not, then you need to start investigating street lamps and neighbours (in that order!). In my case the noise died when I killed the mains. So I switched on again and started to remove the fuses

The noise vanished when the 'bedrooms' ring-main was killed. Mmmm. As the radio shack is located in what is listed as a bedroom and has 48 outlets (!) I decided to start there.

Switching off the shack master switch killed the noise. So I started to disconnect each 4-way distribution box in turn. The noise vanished when I pulled out the board feeding the PC on which I am composing this 'Lighthouse'. The PC wasn't switched on!

So I pulled out each plug feeding the various component facilities. And when I pulled out the scanner the QRN disappeared.

It was only then that it dawned on me that only the PC 'tower' had a master switch! The peripherals (printer, monitor, scanner) are 'on' all the time, merely being controlled by the PC when it's working.

The ubiquitous black 'brick' plugged straight into the distribution board powers the scanner. Goodness knows what goes on in there (it's too light to

have a transformer in it) but it still does its job of powering the scanner OK (for how long?).

So it's been left 'on' for almost four years . . . All I can say is that **now** it's always left unplugged unless I'm scanning, and I don't scan when I'm working the bands!

It may have been a rather curious source of QRN, but the procedure for finding it is the same whatever it is.

<http://www.seefunk.hbusch.de/>

Those of you who did your German homework will note that the above website concerns marine radio (seefunk) and is nothing to do with ITMA. It was spotted by that old salt David Oakden, G3UFO, and includes some super colour pictures of Eddystones – among them is an 840C which is described as an '830'! I wonder how you tell them . . .

MEDIUM WAVE SURVEY

Among other eccentric radio-orientated outfits, I'm a member of the Medium Wave Circle (<http://www.mwcircle.org> for information).

This brings me their excellent "Medium Wave News" and the current issue contains the result of their recent members' survey. Out of the eighty-odd members responding it's interesting to note that among the AOR 7030's and Lowe HF 150's there are also representatives of our favourite vintage brand.

No less than three Eddystone 840C's plus two 730/4's a 958, a 940 and a 830/7. Well done, those sets.

They also report that Grundig, the star of Germany's postwar economic recovery, declared itself bankrupt in April. Sad times.

ANOTHER DRIFTING REPORT

Chris Morgan, G3XFE, our 'First

Sunday' net controller (as already mentioned), sends in another curious report of a drifting Eddystone, this time a model 888A, the Ham Band Special of 1957. Chris continues:-

"I noted the item on page 6 of the April Issue concerning the stability of a 940 and how changing the VR150 cured it.

"This set me thinking about my 888A. This had always drifted so much that I always put on a pair of running shoes whenever I switched it on so I could keep up with the drift.



MODEL 888A HAMBANDER

"It was so bad that if I tuned to a SSB station on 80M then walked out of the room, by the time I reached the door it needed re-tuning. That was the case whether the set had been on for ten minutes or an hour. The drift never seemed to reduce.

"I changed the VR150, which didn't appear to make any difference. Noting the comment about changing the 6BE6 product detector, I loosened the case and eased it back to gain access to that valve.

"I changed it for the first one I could find in my spares box. No niceties about testing it and as it was 'used' I didn't expect to spot any difference.

"Oddly enough the drift stopped in its tracks. I left it tuned to a SSB QSO yesterday for about an hour with only one or maybe two very minor tweaks to the main tuning to bring the voice to its natural sound, but it wasn't because I had to.

"What I don't understand is why a valve that was obviously working, albeit causing drift, made of the same fixed/rigid bits of metal welded inside a glass tube, should make such a significant difference to the performance of a receiver.

"If there was a mechanical defect then I could understand it. Is it something to do with the inter-electrode capacity perhaps, something out of limits with the first valve that was beyond the temperature compensating capacitors in the 888A? What Say?"

Well, Chris, the first thing to strike me is that this is drift in the product detector, operating on 85kc/s! No compensation needed here . . . wow!

Keep thinking, folks *.(and let us know!)*

PAYING BY PLASTIC

From time to time members, especially overseas members, ask me if EUG will take credit card payments. It makes it much cheaper and easier for them.

I've always fought shy of this without being quite sure why. So last month I visited our EUG bankers (*that Chinese outfit that I still call the Midland Bank*) and asked them about it.

"Nothing could be simpler," they said. "You just make a payment of £299 to register the account . . ." At this point my eyes glazed over and I lost track of the conversation. I now know why I've always fought shy of being at the receiving end of plastic.

"Sorry, no plastic"

I THINK THAT'S ABOUT IT, SO . . .

VY 73 for this month and don't forget, if you want to be a published writer, let me have the manuscript!

Graeme -- G3GGL ♣

رَادِيُوَادِيَسْتُونِ الْجَدِيدِ الْمَسْمِيُّ "الْجَمَّازِ الْعَالَمِي"
وضع تصممه بشكل خاص للمستمعين في الجهات النائية من العالم

صنع في بريطانيا

هذا الجهاز يعمل بواسطة مجمع كهربيك (بطارية) قوته 6 فولتات، ولا يستهلك سوى مقدار مشيل من التيار الكهربيك الذي يستمد من هذا المجمع.



أنت واديو إديستون للسي «الجهاز العالمي» All World 6 هو جهاز للاستقبال صنع بصفة خاصة ليحقق رغبة المستمع للدق الذي يتم بالإذاعة والذي يقع في إحدى الجهات النائية حيث يستعمل الأمر استخدام البطاريات لعدم وجود محطات توليد الكهرباء. فهذا الجهاز يعمل بواسطة مجمع كهربيك (بطارية) قوته 6 فولتات فقط. ولا يستهلك سوى مقدار بسيط جداً من التيار الكهربيك الناتج من المجمع، كما أن استهلاكه الاقتصادي جداً. ومع ذلك فهو يضارع أحسن الأجهزة التي تعمل بواسطة التيار العادي. فهو شديد الحساسية يتناثر بدقته في الفصل بين محطة وأخرى من محطات الإذاعة، كما أنه يفرج الصوت في غاية الوضوح، ولا فرق في ذلك بين موجة وأخرى من جميع الموجات التي تتراوح أطوالها بين 908 متراً و 620 متراً. ولقد قامت بصنعه أشهر الأيدي مستعملة أحسن المواد. ولذا فإن واديو إديستون «الجهاز العالمي» هو جهاز يتناثر بكفاءته وقلته نقائه ويمكن الاعتماد عليه.

تتم الجهاز حسب سعر المصنع هو 39 جنيهًا و 7 شلنات و 6 بنسات

STRATTON & CO. LTD.
EDDYSTONE WORKS, WEST HEATH, BIRMINGHAM, 31, ENGLAND.

استكتب طالبا الشفاسيل والبيانات من المصانع الوحيدين: Cables: Stratton, Birmingham

Display from the Baghdad Weekly Advertiser, August 1949

With so much news coming out of the Middle East this year I thought readers might like to have the opportunity to see what Stratton & Co. Ltd. were getting up to in that part of the world in the middle of the Twentieth Century.

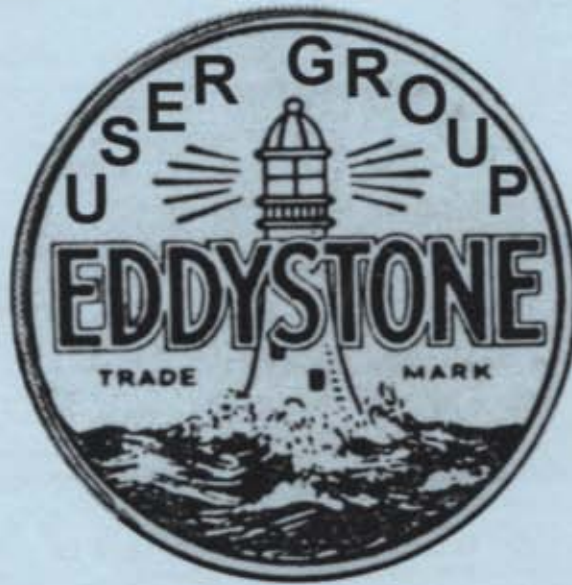
What we now know as the Republic of Iraq was previously better known as Mesopotamia, or 'Messpot' as my old history master used to call it. He reckoned that its early civilisation dating back 8,000 years made it the cradle of the western world.

Be that as it may, it fell into bad company, being taken over by the Turks in the Middle Ages. As you may remember, Johnny Turk made the

mistake of siding with Kaiser Bill in 1914, which led to British occupation by Lawrence of Arabia *et al.*

This, in turn led to the country becoming a British Mandate under the League of Nations in 1920. Independence was achieved in 1931 and the country remained stable, with a strong British influence, until 1958, when everything started to go pear-shaped.

In the meantime the Eddystone Model S.710, known as the 'All World Six', was offered to those out-of-town residents who had a camel load of dinars to spend. It operated from a six-volt car battery. **Graeme - G3GGL ♣**



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