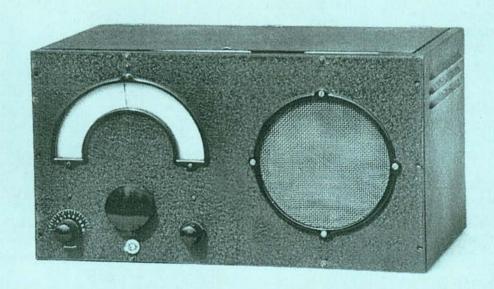
# Lighthouse

Founded 1990

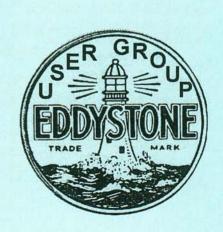
The Magazine of the Eddystone User Group

Issue 95, February 2006



**Eddystone Homelander 1935** 

Meet the little Tea-planters' radio that kept the 1936 Everest Expedition in contact with the outside world



## EDDYSTONE USER GROUP

A non-profit-making Group for Eddystone Radio Enthusiasts Founded in 1990 by Ted Moore G7AIR Issue 94, December 2005

Due to the impending retirement of Graeme Wormald, G3GGL, General Secretary of the Group, NO FURTHER MEMBERS' RENEWALS WILL BE TAKEN. ALL CURRENT MEMBERS WILL CONTINUE TO RECEIVE THEIR COPIES OF LIGHTHOUSE UNTIL April 2006

MEMBERS' QUERIES:adverts, items for publication to:-GRAEME WORMALD G3GGL 15, SABRINA DRIVE BEWDLEY, WORCS. DY12 2RJ, ENGLAND. Tel: 01299 403 372 G3GGL@btinternet.com

Service Manuals, spares, Dave Simmons, Windana House, North Aston, Bicester, Oxon OX25 6HX Phone/fax 01869 347 504

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EDITORIAL,
FORMAT,
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GRAEME
WORMALD G3GGL

WANTED: knobs for my B2 receiver and transmitter, similar to the HRO type however much smaller. Any information on the former Eagle **Engineering Comopany** of warwick and any of their Chakophone wireless sets, particularly the Senior Two. Also any information and photos of the Eddystone Twin and Military 101 receiver and the amateur station at the Festival of Britain 1951. Any help please contact Andrew Humphriss 01789 262872.

FOR SALE: 840A very clean and tidy, GWO, dropper replaced with 110v transformer. £30, Buyer to inspect and collect (Worcs).

WANTED 6B6 UX base. phone Maurice 01584 810041

FOR SALE: DX-70. vgc, £430. TS-120S good condx £100. NDH-515 Memory Unit £30. G3PPD CW501 Insect Filter, £50. TS-751E vgc, £200. Avometer Mod 7 £30. LAG 26 Audio Generator £15. TH-D7E Kenwood Dual Band Handheld £85. Transmitting valves 6BJ6A, 4 of them, boxed, never used, £10 each or £40 the lot.

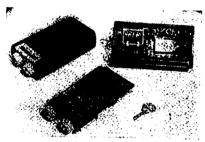
(cont) Brimar Radio
Valve and Teletube
Manual No 5, £2.
RCA receiving Tube
Manual 1947, £10 incl
p&p. Assorted valves
3 boxes full, some
individually boxed £2530 for the lot.
Call Lyndsay on
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inspect and collect and
pay in cash (Glasgow).

FOR SALE: all fully working, good order unless stated otherwise. FRG7 digital readout with perspex front cover, £95 ono. Alinco dual band FM mobile (no mobile bracket, hence:) £45. FT290 MkII boxed, complete all accs, needs nicads or charger connector change, hence £95 ono. Motorola micro ex-PMR 4 mtr FM set, 8 channels inc 70.45 mc/s, base plinth speaker, base mike, 25 watts, £45. Pye Europa 4 channel AM TxRx working on 70.26 plus 3 others, £5. Prefer buver inspects and collects due to mobility problems. Call Phil G8SYS (W. Mids) 07980 420 445.

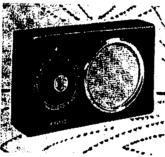
EUG CDs and DVDs still available as previously advertised. WANTED: Transistor pocket radios as follows: 1957/8 Perdio type PR1, PR2 & PR4, these all measure 51/2" x 31/4" x 11/2" (see advert below)



1957 Peto Scott measuring 6" x 3" x 1¾", it has two knobs at one end with the tuning dial just below them (see illustration below).



1957/8 Cossor type 561 measuring 6" x 31/4" x 11/2" (see picture below right)



1958 Channel type 'Transette' measuring 4½ x 3½ x 1½", the case is in two colours with a satin-gold escutcheon (see picture below).



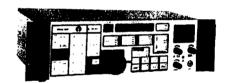
Also any transistor pocket radios in kit or built-up form that were sold by Henry's (Radio) Ltd in the late 1950s. Also, for a new book, any transistor radio sales literature of the 1950s. Call Gordon Bussey 0208 660 2240

**WANTED: Eddystone** 888 or 888A. Contact Chris on 01453 832725

#### FOR SALE: **Eddystone Receivers** & Test Equipment . . .

Dave Simmons is downsizing his collection and is selling test equpt & a number of RXs in an "as is" condition. Those interested please send SAE for a list of items to Dave Simmons, Windana House, North Aston, Bicester, Oxon OX25 6HX. Postal applications only please.

WANTED: New member wants to buy Eddystone EC 10 Mki or Mkil G.W.O. minimum Contact G8SYS, Phil 07980 420445.



**FOR SALE** Eddystone 1650/6 )Ex-**GCHQ** special remote control rx. released 1995).

Unmodified, tested and working in excellent condition £180.

Easy DIY conversion data and kits for local control, USB/LSB/AM etc., £170. Remote Control option with software £25. FULLY Converted £475.

Manual copy £10. Join the enthusiastic band of members of the "1650 Club". Phone for more details Geoff Steedman MØBGS, 0113-2696527 e-mail

00664.3417@compuserve.com

## Chris's Column

Welcome to another issue of the EUG Lighthouse. After this issue there will only be one more newsletter published because, on 26<sup>th</sup> January, at a meeting of the "wise old men" \*, having looked at all our options, the decision was made to wind-up EUG as a membership organization. However we also undertook to see if the EUG cash assets and archive materials could be also used to set up a specific EUG website, make the information we have accumulated over all these years, accessible to all who have internet access.

We have decided that the EUG will officially close on 5<sup>th</sup> April 2006. By that date most of the member's subscriptions will have closed with only a very few who could be entitled to a further one or two issues of a newsletter after that date.

In fact as we stopped taking subscriptions some months ago there are far more members who have gained from having extra issues than have lost out. We hope those members who have failed to get a full years issues of the newsletter will be agreeable to letting us keep their unused subs to invest in our plans for the futures, but if not please get in touch. For those who have benefited, then it is to your fortune, but if anyone feels like making a donation then don't let me stop you.

Strangely enough Graeme continues to get subscriptions from new members who want a year's membership but taking back issues of the newsletter to make up for the ones that they will not be getting in the future.

Our archives comprise newsletters, testimonials, photos, data sheets, manuals, albums, notebooks, microfiches of Eddystone drawings and some original drawings. These have a value and we are examining the possibility of making these the subject of a Declaration of Trust

We have also agreed that because our computer assets have little second hand value even though they are only a couple of years old, that we should gift these to Graeme in recognition of the many years of sterling work he did for the EUG. I am sure members will agree with this gesture.

We are of course sorry to see the end of what has become a valued source of information and comment. Those of us who have been involved with it administratively over the years have all got tales to tell and I know that Graeme has commented in his 'Ramblings' column on how he got involved. I think I shall leave my story until the final issue.

However technology has given us a way forward and that is to set up a web-site. We have registered a couple of suitable domain names to make sure they are within EUG's control and have already started looking into the costs of setting up and running such a site.

Its contents could include the following: -

History of EUG

Potted History of Eddystone Radio

Access to QRG and other supplements

Access to all Newsletters

People and Personalities

Picture Library

A Forum, (with a moderator), to enable people to leave messages passing on or seeking information.

Access to archive materials such as data sheets and catalogues etc

Downloadable handbooks (we could make a charge for these)

Links to other site of related vintage radio groups and magazines

If we can justify the expenditure we will be looking for Sponsors and Advertisers to help fund the cost of running the site. From an initial investigation it would appear that running costs depend upon server memory and access bandwidth

required to service those who down load information. This would be typically £300-£600 per annum.

Set up costs are as yet to be determined. But if any members have any digitized information that they would be willing to let us upload onto the site, or any experience of designing web-sites, or access to low cost scanning facilities for material not yet digitized, I would like to hear from you.

Of course I recognize that a significant number of our members do not use the web for one reason or another, but it is possible that those members that do could act as a post box for non-internet members. Also most libraries have free internet access.

But more importantly I think we need to preserve the history of Eddystone for future generations who will almost certainly have grown up with the internet and will fully exploit it. I feel this is our duty to those who will follow us.

In writing this penultimate frontispiece, I am reminded that many people, some members, some not, have played a great contribution towards the success of EUG over the years. It would take pages to mention everyone and human fallibility being what it is there is always the danger of leaving someone out.

But some that spring to mind (in no particular order) are Anthony Richards GW4RYK for preparing the 'Lighthouse' indexes (or indices if you want to be old-fashioned); Simon Robinson G8POO for scanning the early pictures we used; Chris Morgan G3XFE who chaired the 'First Sunday' EUG net for many years; David Oakden G3UFO/VK6DJO who created and supplies the CD ROMs and DVDs for members.

Tor Marthinsen, who trawled through thousands of vintage radio magazines finding Eddystone references; Peter Lankshear who came up with much Eddystone 'lore' from ZL-land; From the Eddystone factory, Christine Surman, in charge of technical publications at the factory who spent her lunchtimes hunting obscure handbooks for members. Pat

Hawkins, my Secretary at Eddystone who looked after the accounts and mailed out the newsletter for many years. Matt Parkes, the last general manager, who donated hoards of vintage pictures and records as the 'last post' was being sounded at the factory; Jim Murphy who acted as liaison for Ted Moore; Colin Crabb G4HNH for composing dozens of technical crossword puzzles; and Louis Meulstee PAØPCR, who unstintingly allowed us to crib from 'Wireless for the Warrior'.

I would not have got the job at Eddystones without the support and coaching from my predecessor and our President, Bill Cooke GWØION. Bill has been a regular contributor to Lighthouse over the years and has been a final authority to Graeme when disputes of history arise.

Bill has the most remarkable memory of anyone I know and for past events his Cooke Reports have been essential reading for us all. Finally let us not forget the man who started it all and still seeks out Eddystones with a passion bordering on obsession, our founder, Ted Moore G7AIR.

Happy reading and 73s de

Chris Pettitt, GOEYO,

23 Dark Lane Hollywood Birmingham B47 5BS

g0eyo@blueyonder.co.uk

\*The wise old men: -

Chris Pettitt GØEYO Patron, Graeme Wormald G3GGL, Ted Moore G7AIR, Dave Simmons, James de la Mare.

#### Advertisement





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## By Graeme Wormald *G3GGL*

Bewdley February, 2006

First of all may I start by wishing each and every one of you the very best of health, wealth and happiness in 2006. And secondly may I thank all those many members who sent their Season's Greetings and also those who thanked me for my efforts in keeping our Group on the road.

Many of you kindly said how much you enjoyed Lighthouse and were sad to hear of my departure. Very much appreciated. As I write this column our Patron, Chris Pettitt has summoned a meeting of the "old brigade" to discuss the future of the Group. The outcome of this meeting is reported by Chris elsewhere.

Perhaps I should now explain my reasons for "leaving the ship" in a little more detail . . .

I first joined EUG as an ordinary member in 1994, when I attended the RSGB Rally at the Birmingham NEC. I discovered that my ticket gave me free entry to the nearby concurrent National Vintage Communications Fair, so off I toddled.

Having been bitten by the vintage bug (radios and gramophones) about ten years earlier I was quite well settled into restoring and playing with classic gear. The NVCF was quite a revelation and one of the more impressive stalls was that of the Eddystone User Group, presided over by Chris Pettitt GØEYO, at that time managing director of Eddystone Radio

I was the proud owner of an Eddystone 680X, acquired from a small-ad in RadCom a year or two previously, so it seemed a natural step to join up. So I did. And then . . .

In 1995 I heard that Eddystone Radio's lease on the West Heath Lido, affectionately called the "Bath Tub", was getting close to expiring.

There were rumours of a relocation on the Marconi site in Chelmsford (remember that GEC-Marconi were the owners of Eddystone Radio). It seemed reasonable to suppose that Chris, who was helped by volunteers at the factory to print and distribute the EUG Newsletter, as well as organising service information, could do with a hand.

As I was only about 40 minutes drive from the Bath Tub I wrote to Chris offering my services during the pending upheaval. He asked me to visit the factory and explained that, in all probability, they would manage to keep the DAB transmitter team In the West Midlands.

Remember that If you listen to your radio on DAB you're listening to an Eddystone transmitter.

I visited Chris in February of 1996, just ten years ago. It was agreed that I would share the workload with him and the volunteers. I would be the focal point of EUG and all communications would come to my QTH.

In the event, the company re-located in

Selly Oak, a suburb of Birmingham about 3 miles from the Bath Tub. I continued to be the 'contact man' for EUG but then it was obvious that Marconi-GEC was going downhill and taking Eddystone with it.

This wasn't helped by the fact that the demand for more DAB transmitters had failed to materialise; the professional shortwave receiver market had faded with the end of the cold war and a large order from Malaysia for the successful range of Stereo-FM broadcast transmitters was cancelled when a massive recession hit East Asia.

Things went from bad to worse, and as the company ran down I took over more and more the running of EUG until the company was finally sold and I took over virtually all of EUG. This was a challenge but a very rewarding one. The past ten years have seen a remarkable improvement in my clerical (and technical) abilities!

But time takes its toll. I passed my three score and ten with flying colours but as time has gone by I find that I am slowing down considerably. I can understand why the traditional professions place a 70-years age limit of their members' activity. I have reached the point where I spend more time sorting out the lost paperwork of EUG than actually doing the work!

I look after a disabled XYL, which is my first responsibility, two lively Irish Setters (which keep me exercised) and then EUG. I have very little time left for my own hobbies of ham radio (surprise!), model making, reading, music and anything else which catches my imagination.

As far as EUG goes, it was obvious that Lighthouse was at its zenith and could only start to slow down. The old saying seemed very apposite: "quit while you're on top!".

I decided to finish EUG activities before my 75<sup>th</sup> birthday, which is next autumn, and last August advised our Patron, Chris Pettitt, GØEYO, that I would retire after the fifteenth year of EUG's life was completed. In other words, after the "Lighthouse" for next April is completed and despatched to members.

I'm sure you all understand.

#### THOSE 'ORNERY' COGWHEELS

On page 16 of our last Issue Tony, GØMQG, demonstrated how to repair 'Slide-rule' Drive Gears using "Farnell" spare plastic gears wheels which, by a stroke of luck, happen to be of the same pitch as Eddystone's

At the same time it was mentioned that this problem had been addressed in an earlier Issue by Anthony Richards, GW4RYK. On checking up I find that this was in Issue 60, five years ago.

Mentioning this on the January "First Sunday EUG SSB Net" Anthony commented that he still has a few of these specially commissioned cogs available. He also mentioned that members might like to take what, in view of the matters mentioned above, might be a last opportunity to acquire some of these items.

I've taken the liberty of reprinting Anthony's original page (opposite) where he gives full details of fitting and acquiring.

I do recall that at the time I had been presented with an Eddystone with several teeth missing. It happens when the drive cord – which is often wire – unhitches and falls onto the gears. The pointer then stops but the logging scale still carries on rotating. Some hopeful punters keep on turning and snap the teeth off! I found the repair job delicate but most successful.





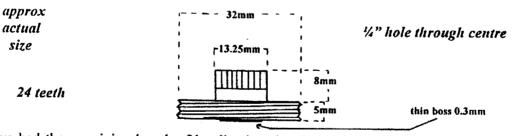
#### CHEWED-UP PLASTIC TUNING COGS - A SOLUTION

A few weeks ago I was at the QTH of a client who, in a remote Mid-Wales valley, restores prewar cars for a living. Much exotic machinery passes through his hands - in recent months I've seen a 1750 Alfa Zagato, Lagonda LG6, Figoni & Falaschi bodied Delahaye 135, 3 and 41/4 litre Bentleys, 4.3 Alvis short chassis Vanden Plas tourers, a couple of Invictas plus many smaller Alvises, Rileys, GNs, Aston Martins, loads of supercharged pointy-tail racers and so forth.

Tossed casually onto the bonnet of the Delahaye was a gear catalogue, browsing through this it struck me that it may be possible to have replacements made for those brittle plastic tuning cogs, the ones which are driven by the large brass anti-backlash wheel and which wind the tuning wire (that is, until it breaks and gets into the mesh thus breaking the teeth!) on the slide rule dial models. I got in touch with the company, sending them a damaged gear, they replied saying yes, they could make the gears but the price would be around £17 each for a run of 50. This seemed rather expensive for us EUGers, so I asked about their lengths of 'toothed bar', thinking that I could perhaps replace the damaged teeth section only. They agreed that they could indeed supply this and at a much more reasonable price, so I ordered a couple of lengths to play with. It's made of Delrin, whatever that is, it seems to be a nylon type of plastic and not at all brittle.

I began by carefully cutting off the toothed part of the cog with a fine hacksaw blade, cutting carefully round the perimeter and gradually working inwards, as it's obviously vital to end up with a flat surface at 90 degrees to the axis. Final trimming was done with a flat file, then an appropriate slice of toothed bar was cut off the supplied length, again trimmed to 90 degrees and attached to the gear with superglue. It had to be offered up a few times beforehand in order to adjust the overall length of the gear so that the solid part of the spindle is *just* proud of the gear, otherwise it won't turn. A 1/2" hole was drilled through the new section, following through the existing hole in the gear. The end product not only works perfectly but the brown colour of the Delrin very closely matches the main body of the gear, an almost invisible repair.

Now, I don't know exactly which Eddystones the gear in question will fit, but from those receivers I have it seems that it will be relevant to most of the slide rule dial valve receivers such as the 840A&C, 670A&C, 888A, 940 etc. For the avoidance of doubt, as the lawyers say, I show below the exact dimensions of the cogs which the Delrin teeth will fit.



I have had the remaining length of bar line-bored and parted into 'ready to fit' slices of about 5mm (about 30 left), so if any members would like replacement sections of tooth I would be happy to supply them at a cost of £3 each or £5 for a pair plus a stamped addressed envelope (basic rates of postage, these weigh nothing). Any overseas members please use initiative, \$US, \$Aus & \$NZ are acceptable alternatives but in notes only, not cheques.

Anthony Richards, Castell Forwyn, Abermule, Montgomery, Powys. SY15 6JH

## Stratton's Enigmatic S-meter

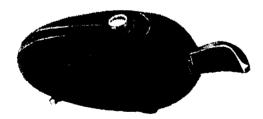
#### by Graeme Wormald G3GGL

In 1947 Stratton's introduced a novel 'economy' product by making the S-meter an optional extra for their new 'budget' model, the S.640. It cost a 'modest' £5 15s 6d (£5.77), which was a week's pay for a junior army officer. But the surprising thing is that on e-bay today they fetch almost as much as the sets they were made to go with! About £60-70.

In fact, the modern-day purchasers (as well as the original buyers) are really only buying a rather swish aluminium diecast box. Or to be precise half a diecast box because it has no bottom or back on it.

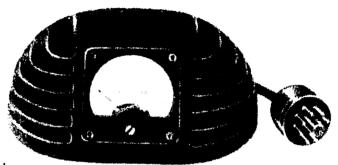
It was produced in two finishes; the standard model in wrinkle black to match the finish of the 640, 740, and 750, all of which have octal sockets on the rear panel pre-wired to take the meter. The special version was in oyster hammer finish to match the 888 and 888A hambanders which were similarly equipped.

For style it ranks with the oncedespised Eddystone semi-automatic Speed Key (bug). That really does look like a bug and fetches extremely good prices these days, (£100+). (I should have kept mine!)



Actually you're also buying a calibrated scale on a very standard ex-RAF  $2\frac{1}{2}$ "  $200 \,\mu\text{A} (500 \,\Omega)$  moving coil meter. I'm sure any vintage ham radio buff will recognise it at once.

One of its oddest features, not clear on our catalogue photograph, is that it carries the legend "1 DIVISION = 4dB".



It is calibrated in rather non-linear Spoints up to "9" then it has two more marks, "+4" and "+8".

This compares with the conventional S-meter of 6dB per division up to S9 and then +20; +40; and sometimes +60. The result, of course, is that the Eddystone S-meter is end-stopping most of the time when a band is more than half-open.

I once spoke to Bill Cooke, GWØION, who became chief Engineer of Eddystone radio shortly after this meter was introduced. "Why?" I asked him. "It was one of Harold Cox's bright ideas," he replied. Harold Cox had been the Technical Director at Stratton's since the late 1920's and was known as a bit of a martinet.

"He thought it would make the set look more sensitive than it really was." It certainly did! In spite of Eddystone's association with the world of amateur radio Harold Cox was very sceptical of hams and their approach to his chosen profession. He could be very sarcastic when it took him that way.



HAROLD COX
Technical Director

The circuit of this plug-in gem is slightly anonymous. I don't know of any of the above set handbooks which carry the circuit. But it **IS** carried in the well-known "Radio and Television Servicing" by Molloy and Poole, in the corner of the 640 circuit.

Actually, the features in R & TV S for all the early post-war Eddystone sets were written by Jerry Walker, G2JS, at that time an engineer at Stratton's, and edited by Pat Hawker, G3VA, of "Technical Topics" fame.

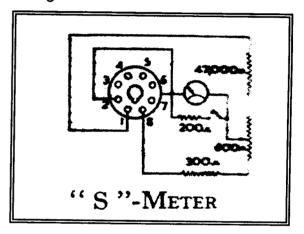
It's a slightly odd little drawing and first of all I must ask you to ignore the extension of the line from the left-hand side of the meter to the rim of the octal plug between pins 6 and 7!

The fixed 47 k resistor at the top right is a chunky 2 watts. The 600 ohm potentiometer is a two watt Colvern wire-wound. Any rating will do so long as it's wire wound and any value from 500 to 1000 ohms would be OK. It is for zeroing the meter when the set has warmed up.

Don't forget that Eddystone practice is to adjust the meter movement to minus zero when switched off. It should then be reading zero when the set is on and the aerial shorted and RF/IF gains at maximum. This means that the meter starts to move at once when a signal is detected.

The bottom line 300 ohm resistor is anything from 1/4 watt upwards.

Now we are left with the 200 ohm switchable shunt below the meter. And there's the enigma. It doesn't exist in the actual unit! But if it did it would make the meter into one of conventional sensitivity. Well, there's a thing!



I have two of these meters; one for my 888A and one for my 750. In both of them I have wired a 200 ohm 1/10<sup>th</sup> watt resistor across the metre movement to reduce the end-stopping.

Now any of you can replicate this meter in a 2" x 3" x 4" Eddystone diecast box (still made) with any movement up to one milliamp that you can locate. I would suggest you make the 200 ohm mystery resistor a variable one (or leave it out if you are using a 0-1 mA meter) and you can then set the whole device up to suit your meter, juggling the zero and sensitivity shunt until you're happy with what you think is S9.

Yes, I know, S-metre calibrations are a figment of most people's imaginations but they're very useful for comparing aerials and setting up ATUs!

23) Roll off

#### E.U.G. Masters' Crossword News By Colin G4HNH

Those of you who have a go at the EUG crossword may remember that last month we had a clue for 23 across thus:-

"The frequency where the response of an amplifier or filter is 3dB below maximum is known as the ---- frequency (4,3)"

The solution to this was supposed to be "Roll off". I was taken to task over this clue by one of our esteemed members and probably rightly so! The clue was constructed as an almost exact quote from the entry for "Roll off" in Chambers Dictionary of Science and Technology vol.2 (1974) page 1017. Our member states that this definition is more akin 22) Funker to the answer being "Cut off" frequency. A more suitable clue would have been something along the lines of:-

"The term generally used to describe the slope in dB per octave of a filter beyond "cut off" frequency, which is the -3dB point".

So apologies to those of you who also thought along the same lines about this clue. In mitigation I shall raise the plea that if the venerable Chambers cannot get it right then what chance have I got!

Having got that off our chest we come to the results for crossword No. 29.

We had nine entries, four of which were emails. Three entries were 100% correct, the other six mostly had an error for 1 down. The clue for this was:-

"Some info neccessary for identifying RT slang. I get the feeling that a lot of you were puzzled about this one. If you look at the second and third words you will notice the colloquial word "fone" hidden there, a favourite word amongst the ot amateur fraternity to describe the use of RT. Most entries had 1 down as "code" or even "mode" as an answer.

Roll Of Honour for EUG Crossword No. 30 Phil Harris G4SPZ of Bewdley Worcs. Gary McSweeney Gi4CFQ of Belfast NI. Roger Bracey of Crewe Cheshire.

The solution to crossword 29 was:-

	· · · · · · · · · · · · · · · · · · ·
Across	Down
3) Web cams	1) Fone
7) Volume	2) Quadrant
8) Bye	3) Webers
9) Cia	4) Bleep
10) Read me	5) ASCII
11) Replica	6) Seafarers
13) Canals	10) Rectifier
14) Octave	12) Latching
15) Isotron	14) One off
18) Echoes	16) Octal
20) Ift	17) Radio
21) DSO	19) Eden
22) Ermler	ŕ

Here is a run down on the clue types used.

Across	Down
3) Straight def.	1) Hidden word
7) Straight def.	2) Straight def.
8) Straight def.	3) Straight def.
9) Hidden word	4)Straight def.
10) Anag.	5) Pun
11) Anag.	6) Anag.
13) Straight def.	10) Anag.
14)Straight def.	12) Straight def.
15)Straight def.	14) Synonym
18)Straight def.	16) Straight def.
20)Straight def.	17) Anag.
21)Straight def.	19) Straight def.
	_

#### **Technical Reference Books Used**

- 1) Radio and Television Engineers Reference Book 2nd ed. 1956 (Newnes)
- 2) Hutchinson Encyclopedic Dictionary 1991 (BCA)
- 3) Collins Dictionary Of Electronics (1988)
- 4) A Dictionary of Electronics (Penguin) 1966
- 5) Chambers Dictionary of Science & Technology 1974

That's all for now.

22) Straight def.

23) Straight def.

Next time THE LAST EUG CROSSWORD OF ALL! Vy 73,

G4HNH.

## **EUG MASTERS CROSSWORD 30**

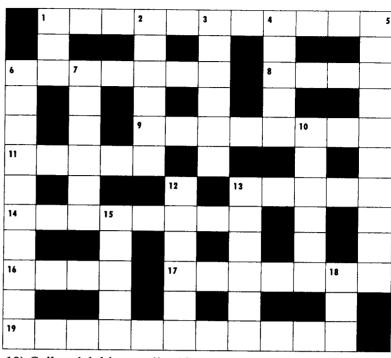
#### Compiled by Colin **G4HNH**

#### Across

- 1) Circuit a mile prelim. To register a small current. (11)
- 6) Yacht's crew edge in, but are not nailed by defeat.(7)
- 8) Enough lives for a French cat we hear. (4)
- 9) ----- antenna. One depending on resonance in it's elements, thereby presenting a certain change in input impedance as the frequency of the drive is varied. (8)
- 11) The odds are 50:50. (5)
- 13) Poetic valve electrode (5)
- 14) Very small power level. (8)
- 16) Royal radio repairers (amongst other things). (4 abb.)
- 17) So far, a day out has revealed an inventor of 18) Off German. (3) some capacity. (7)
- 19) In receivers this practice causes the agc. to be ineffective until the signal strength has attained the required preset level. (7,4)

#### Down

- 1) Favourite radio uncle. (3)
- 2) Insufficient tape recording speed. (3,3 pt. abb.)
- 3) Logic circuits that provide binary summation. (6)
- 4) 101 Dalmations doggy character. (5)
- 5) In a tx pa stage, the output power expressed as a percentage of the DC supply power is referred to as the ----. (10)
- 6) Valve electrode employed to eliminate positive feedback due to anode/grid capacitance. (6,4)
- 7) Troubled, re. news of speaker cloth refurbishment. (6)



- 10) Colloquial thingamajig. (6)
- 12) Confuse with a loudspeaker cabinet component. (6)
- 13) Heart condition on Valentine's day. (6)
- 15) Home gains the last letter, we see. (5)

Please send your entry, to arrive not later than 15th. March, direct to:-
Colin Crabb G4HNH, 41 West Drive, Edgbaston, Birmingham, B5 7RR
e-mail (no attachments please):- g4hnh@smartemail.co.uk
Your name
(Call sign)
Address
email

### The Future of Ham Radio ?

#### **Graeme Wormald G3GGL**

For some years now it has been fashionable to 'forecast' the future of ham radio. This is on a par with most fortune-telling, i.e. imponderable, so I feel no shame in entering the debate and having my two-penn'orth.

First of all may I say that, although the two pastimes may overlap considerably, I'm not talking about the EUG hobby of collecting old radios *per se*, I am talking about going on the air.

Let's consider the history of ham radio and its growth. In the beginning were the scientists, the academics, James Clerk Maxwell, Heinrich Hertz, Oliver Lodge, et al. These were 'professionals' and may be considered the 'fathers' of radio. They opened up the gates for 'amateurs' to start dabbling about.

One of the earliest and most successful of these was Guglielmo Marconi. An academic failure, he used his family influence to gain access to the laboratories of Bologna University during the holiday breaks . . . and look where that led him!

By the early C20th multiple stores such as Gamages of London were offering kits for amateurs to build and licenses were issued by the Post Office. The appeal of this new-found pastime was perforce restricted to the well-healed; the gear was not cheap.

It was really beginning to catch on when the assassination of Archduke Ferdinand in 1914 stopped things for a while. There were over 2,000 licensed radio amateurs in the United Kingdom by this time.

Post-war licenses were not issued until 1920 and it took a year or two for the hobby to take off again. By a happy coincidence a sunspot maximum occurred in the mid 1920s and this gave a terrific boost to short wave

activity. It established the hobby firmly between the wars and interest was growing. It was a pastime on the cutting edge of technology. Remember that telephones were far from universal in the home. The transatlantic service had only just begun and it cost a week's wage to make a two-minute call to New York.

Before WW2 the only requirement for a licence was a 12 wpm Morse test, a good CV and a written recommendation from a person of standing (preferably titled) to vouch for your character. No exam, but a probationary period with an "artificial aerial" licence. This was to show the Post Office inspector you really were capable of building a station.

In 1939 Hitler's war put paid to all this until 1945. Then the Post Office changed the rules, bringing in a stiff exam and scrapping the AA but keeping the first year of operation in Morse only. If you hadn't filled a fair few pages CW in the log when you had your annual inspection (yes!) you didn't get a fone ticket.

By the time I received my licence in 1949 there were over 7,000 hams in the United Kingdom. Considering the fact that many ex-servicemen were exempt the written exam and many others the Morse test I don't think that's a very high figure.

There was very little competition from other technical hobbies. Probably aero modelling and model engineering, but that was about it. On the other hand, with the possible exception of

motoring it was the only pastime requiring a qualification licence.

As the years passed the requirements for holding a licence have slowly reduced until they are a pale imitation of the '40s. Licence holders have gone up to something well over 50,000 and people are worried about the hobby dying away!

The biggest problem is that, as a technical hobby, amateur radio now has an absolute plethora of rivals.

You all know what they are so I won't bore you with reciting them. But most of them are much more fun than blackbox operating on ssb.

It is my considered opinion that most UK hams are not very active on the bands and that the novelty wears off after a few months. This accounts for the lower ratio of amateurs remaining members of the national organisation (the RSGB). There is just no comparison with mobile phones having more bells and whistles than you can count, that will also call New York for the price of a cigarette. And what about e-mail and the web? Enough there to interest the technically (and non-technically) minded for ever!

So where's all this leading?

There are certain traditional diversions that survive into modern times entirely through the use of skills not readily acquired by Joe Public.

A typical example would be fly fishing for trout in Highland streams. Another would be skill in classical Greek so as to read Homer in the vernacular. A more sociable (and admirable) skill would be the capacity to play all Gershwin's 650 compositions on the piano without music.

All slightly off the beaten track but I'll wager that the next half-century will see a rebirth of radio-operating using that time-honoured system that nobody

else can do. Morse code.

I kid you not. It's my considered opinion that sometime within the next 50 years we shall see the mystery of ham radio rekindled by those who are prepared to separate themselves from the run-of-the-mill gadget freaks. It will be those who are prepared to learn the secrets of communicating in Morse code.

And, curiously enough, the means to acquire such skills are better than ever before. In the past, most Boy Scouts learned up to 5 wpm and then stalled.

CCF signals cadets got a badge for communicating at 8 wpm and then stalled. Countless thousands of radio hams also stalled at 8 wpm and pursued the privilege of VHF only.

I count myself as one of the few licensed hams who is entirely self-taught in Morse. In 1949 I knew nobody who could send at 12 wpm. I couldn't afford to subscribe to the Candler system, so I just keyed. And keyed. And keyed. Any telegraphist will tell you not to touch a key until you can receive properly at (say) 12 wpm. I know, I had to send at 24 wpm before I could receive 12 wpm. The result is I've never been terribly good at it. Especially during the last 20 years when I've not used it much.

But now I've discovered the highly scientific "Koch" system, devised in the 1930s by Ludwig Koch, a German psychologist. It's based on a one to one teaching system, previously only available to the affluent but now available to anybody with a PC.

The PC is the teacher, of course and Herr Koch's system is presented by G4FOH on the RAOTA CD (and no doubt other places). Type it into your search engine.

It's my firm intention to re-learn Morse this spring! It's the way to work DX! ♠

## Ted's MailBox

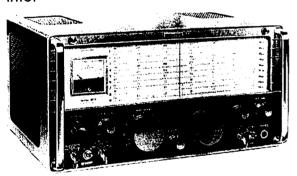
## A Review of Mail and Happenings By Ted Moore G7AIR/G3EUG, Founder of EUG

#### **EA12 - Amateur Bands Only**

True? - Well no not really! Apart the amateur bands of 160, 80, 40, 20, 15, 10 metres this very versatile receiver can receive many other NON-AMATEUR signals.

Take the Range 9, covering 1.8 - 2.4 Mc/s, the 1.8 to 2.0 Mc/s is top band but then we have most of the Marine Band, known to us 'wrinklies' as the Trawler Band. Obsolete? No longer used? Rubbish!

To us 'yotties' as well as to many commercial vessels it is a very much used band. The Coastguard services world wide use it for broadcasting local weather forecasts and navigational info.



Various overseas Volmets can be found too, the SAR services have a night channel in this band; the 2182 Kc/s Distress and General Calling Channel is very much alive and well.

Just to give an example, using a chimney-mounted Datong active ærial in just one evening I logged the following: - Aberdeen Coastguard, (Great) Yarmouth Coastguard, Humber

Coastguard, Stockholm Radio, Lyngby Coastguard, Ostend Radio, Finisterre Radio, Genoa Radio, Las Palmas Radio, Haifa Radio, Gander Coastguard. All these on the Marine Band frequencies between 1.8 and 2.4 Mc/s, mostly calling on 2182 and then saying which frequency they would be QSYing to for Wx & Nav Info, i.e. Aberdeen & Humber on 2226, Stockholm & Haifa on 2168.

A number of USAF 'Scope' and AWACS channels are also listed within the coverage of this Range 9.

Take the Eighty metres range 8, this covers from 3.4 to 4.0 Mc/s, you have Shannon Volmet on 3413; a number of others such as Gander and New York, again a number of Marine Coast Radios and then at the HF end there are a number of Broadcast Stations.

So, the EA12, whilst being designed as an amateur bands-only receiver can give you much, much more!

I shouldn't do this, as this is not really the place for frequency lists but just to prove to those doubting Thomas types that Trawler Band / Marine MF is alive and well try some of these. You may well hear some ship-to-ship signals too, as Scottish fishing boats are often heard.

Clyde Coastguard
1883Kc/s 0020H and every
4 hours

Yarmouth "
1869Kc/s 0040 "

Solent

1641Kc/s	0040	**
Shetland 1770Kc/s	Coastguard 0105H and	every hours
Stornoway	"	nours
1743Kc/s	0110	11
Falmouth	11	
2226Kc/s	0140	11
Holyhead	II .	
1880Kc/s	0235	**
Aberdeen	н	
2226Kc/s	0320	11
Milford Hvn	· ·	
1767Kc/s	0335	**
Humber	11	
2226Kc/s	0340	**

Besides marine weather forecasts you will often hear Navigation warnings re such things as gunnery practice or submarines operating in the area. These stations all announce their broadcasts a few minutes before time on 2182Kc/s

Be prepared to log a fair few foreign marine or coastguard stations again calling on 2182 and announcing their broadcast frequency.

A reminder that many of these marine MF frequencies are within the amateur top band and 80 metres band and that amateurs OUGHT to avoid these frequencies if they want to keep within the conditions of their licence.

It is quite common to hear amateurs actually having QSOs or Nets on top of Scheveningen Coastguard on 3673Kc/s. The other evening I heard a very QRO G3+3 in QSO with an M3 right on top of Great Yarmouth Coastguard on 1869 and he had the cheek to be complaining about the 'QRM' from "some commercial station" - is he not aware that he ought to be on reduced power above 1850?

Try this band for a new kind of Dx in

the evenings, but be prepared to put up a 'proper' ærial as trying to QAP these signals with something like a 20m vertical ground plane is like asking for the moon.

On a similar subject, has anybody tried listening on 500Kc/s lately? East European shipping, and others do use this as a calling frequency using either CW or MCW, try it.

#### Finger Plates, as we call 'em

A real shortage of these for all models, however there are ways around the problem. One of our more enterprising members has had a new one designed and made by a friendly computer expert to fit his S.504.

Another way around the problem is to buy up any scrap Eddystones for spares. Again, some finger plates will actually fit a number of models. Take the 670, 670A models, the same fingerplate will fit both. Obvious really but what is not nearly so well known is that the same fingerplate will do for a number of those Marconi, MIMCO, Cabin models.

I have FIVE of these 'clones' and all five use the same finger plate as the 670/670A sets. in fact many of these 'clones' are no more than a 670A in disguise, same four front panel controls and almost exactly the same circuitry but with variations in the frequency coverage. As many will know, the 840 and 840A finger-plates are identical, and so inter-changeable.

#### Strip A Set . . .

And then cannot remember how to put it back together again !! This seems to be a growing habit! Over the past year I have collected from various sources a number of such 'in bits' receivers.

These range from boxes of complete sets in bits with all parts packaged, to

the more challenging boxes of bits but incomplete. Like the 670A which I got recently. All bits are there except for the scaleplate.

Or the 680 which is missing all of the knobs and toggle switches, but is otherwise complete. Those toggle switches are no longer a problem since Squires of Bognor Regis do a line of exact replacements, cheap too.

How about the 750, again complete but with missing knobs and with two wired-in replacement e'lytics, one wrong polarity which went 'pop' after warming up. All good fun for me but WHY, oh why do they do this ???

I now have eleven such cannibalised sets awaiting time and the necessary bits to do them up.

#### Esselle, cont:

Having noted the misprinting of this in the last Lighthouse seems to have reminded me that although I have been using the boat quite a bit since my recovery I have not got around to another maritime mobile EUGnet operation. Will a /P operation whilst high and dry on a sandbank do instead? Hope so.

Bearing in mind that I need to book the Swingbridge down river from Wisbech if I want to go out into the Wash, or further, and bearing in mind the fickle weather that we experience around here, I have decided upon a rather simple stratagem.

I have removed the 23' mast and have fitted a much shorter stub mast simply to take a marine VHF whip. This means I can operate the boat more or less as a cruiser, using the outboard.

In this guise I had my first outing today, just some 20 miles there and back to the Lighthouses at the river mouth. All seemed okay although the motion was decidedly different without the mast.

Since it will take me some two & a half hours to pass down river, then out into the Wash to the sandbank of my choice, and since the EUGnet is on the air at 0900 I guess that to be there at the right time (high-tide) to beach the boat on the sandbank and then to set up the ærial system I must needs go out the day before.

I'm game to try it and so Watch This Space, as they say. Might even get it in this issue, who knows

#### 750/2

Way back in the mists of time (about 1980 I believe) I had for repair this model, honest, it said so on the scale plate and on the model/serial plate.

I cannot recall who owned it and my service records for those years must have been binned by my 'ex' but over the years I have mentioned to various people, 'GGL included, that this 750 variant had but one visible difference to the bog-standard variety. It had an 'S' meter. No, not a diy job but an actual factory job with the indented meter cutout in the scale-plate. There was also a preset pot, for meter zeroing, on the rear panel.

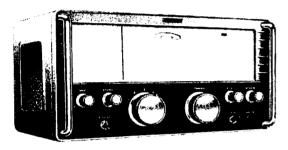
I have never had any other confirmation of the existence of this variant until recently in the last edition of the Lighthouse where an ex-Bath Tub employee does sort of hint at its existence. This has reassured me enough to ask whether anybody out there has one, or IT, since it may well have been a prototype which never 'made it'.

In my first ever copy of MY list of known models sent out in 1993 with the Newsletter I have listed this 750/2 as being a Marconi HR100 but for the life of me I cannot recall where I got this from, since many HR100 badged 750s were the basic version 'sans' meter. HELP!

#### 840C

Another recent acquisition is a very nice looking 840C, now one of 5 which I have. After bringing it home I have had it on for a bit of 'soak-testing'.

Having regard to the fact that it is essentially a basic communications receiver I am pleased with the stability of this set. So many alien AC/DC sets drifted violently as the 'dropper' generated so much heat.



In the case of the 840C it is obvious that considerable care has gone into the design of the set as after a preliminary warm up period of some 30 minutes I tuned in the Volmet signal on 5505 Kc/s SSB and went out shopping.

Back some two hours later the Volmet signal had drifted slightly but it was STILL near enough to be perfectly readable. This one had the mains lead taken directly in, the owner not having had the necessary two pin polarised plug.

When I opened up the case guess what? A small polythene bag was taped to the inside of the case and it contained all of the 'bits' of the mains socket that had been removed, a nice thoughtful previous owner.

#### Drive Mechanisms, and . . .

Having done so many over the years I can replace broken drive cords usually in less than an hour.

A recent Marconi Clone of the 670A was such a job, no problems and the use of my steel crocheting hook bought some years back from the local

Sewing & Embroidery Emporium.

You can get a cheaper plastic version but they tend to be short lived. The 990R & S drive cords are even easier to do. As I have said experience is the main need.

The 640? Don't even think of it! No other set has such a fiendishly complicated mechanism, with the dual concentric pointer mechanism.

My first attempt many years ago probably had something to do with my resulting loss of hair. For me 2005 was an awful year health-wise, but add to that my having to practically totally rebuild THREE 640 drive systems and I can quote H.M and call it my 'annus horribilis'.

The first 640 job at the beginning of 2005 was the easiest in a way. Completely stripped down but with all of the bits in two small containers I did something which has probably saved me a lot of future woes.

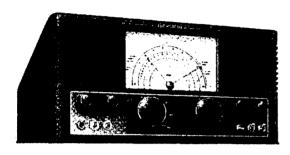
I tipped all of the bits onto my photocopier and made an A4 copy of them arranged in such a manner that each was immediately identifiable; this copy went into my workshop copy of the 640 manual.

Even so I must have spent some 8-9 hours on the job. My last task was to 'fix' the heavy glass into the newly sprayed front panel. I purloined a 1½" x 1" patch from my ever full puncture repair kit (no decent cyclist should be without one). Cutting the patch into strips about 0.2" wide and using some rubber solution these held the glass nicely.

The second 640 which I acquired was not so 'easy', in fact it was a terrible job. The bits had been put into an open plastic bag and in transit some had come loose in the packing, entailing much sorting of Eddystone bits from a mass of shredded paper.

Even so several could not be found. Using the afore-mentioned photo-copy I was able to replace or fabricate the missing items. A chipped scale glass was replaced by an exact copy made for me by a local firm who do plate glass fittings for shops.

I almost gave up at one point but eventually sheer bloody-mindedness brought the job to a successful conclusion, some three weeks after I had begun it.



The third 640 came just before Xmas, as usual with the apologetic excuse that 'I had thought it would be easy'. It wasn't of course.

Usually if you do the stripping down yourself then you have a good idea of what the problem was in the first place. In this case I suspect that a long period of 'rest' had meant that the concentric pointer spindles were binding. A drop of very light oil applied with a syringe would have cured this and dismantling would have been unnecessary.

Anyway this was a real lulu since the original drive cords had been untied from their spring/fixing, AND LOST. I had to open up another 640 and using rough visual estimates make and attach new drive cords. Yes I know that the Molloy/Poole/Hawker R&Tv books shew diagrams but I once tried following these and could not get the measurements correct.

About three weeks were to elapse before my several attempts proved successful. It now works a treat but am I glad that I no longer take in repairs for others. My own take up

more than enough time and patience.

People simply cannot realise that such repairs can take so long to do. My Volvo dealer charges £32 an hour in labour costs to replace a Cam Belt, think how much I would have to charge to do a 640 drive mechanism!!

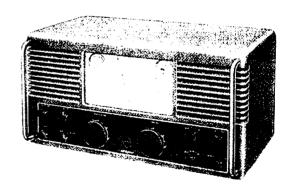
I still have an 820 cord to do, but that is easy-peasey after such arduous tasks as those 640s!

#### **Winter Woes**

Coincidence or what ? On the night after Xmas when our local temperatures plummeted to minus 6°C my S.504 refused to come on.

It has been in regular use since acquired from 'GGL and is one of my favourites, hard to beat on weak signals except by the likes of the 680 or 750.

Well it seemed obvious that no ergs were getting through to the mains transfo as no dial lights came on. It is a hefty beast and so after having removed the S.556 and the 740 that were sitting on top of it, I lifted it down onto the workbench, having first removed a part-repaired 1560 receiver (spare for the Marlin TxRx).



Removing the case I could see nothing wrong and having checked the fuse I powered it up. Came on and worked like a charm, honestly! I tried switching on and off a few times and that brought back the fault, a duff mains switch mechanism on the tone control

pot; R90, meaning a new combined 50K/switch.

The original is a single pole variety but I always replace this with a double pole pot; - safety first. This done the set was tested and boxed up again.

I am constantly surprised at the inherent stability of this comms; receiver considering that Eddystone did not fit the usual stabiliser valve. This just shews one that careful circuit design can do as good a job, just give the set 15 - 20 minutes warm up and the SSB Volmet on 5505 is perfectly resolved for hours, no touch up to the tuning or BFO needed.

#### **Sub-Zero Temperatures**

Mention of the arctic-like conditions as I write this at the end of 2005 and I have to admit that I took pity on both my 960 and the 1570 which I had on the Esselle. I brought them both up into the house where they are now with my other toys in my playroom.

I now have two of my three 1570s there and quite enjoy using them, good basic comms; receivers. One is permanently on 2182 and the other permanently on 5680; cannot be much wrong with a receiver which brings in Genoa Radio in mid-afternoon on 2182.

On the other, Kinloss is a regular S9 and most times the in-flight SAR 'copters are easily readable. The boat however is not 'mothballed' for the winter. Having lost so much sailing time during the summer of 2005 I decided to leave her in the water. As a result there have been a couple of mini-cruises.

A few days in the North Sea in early December, a trip out to the Wash a week later and just this past week a 'Show the Flag' convoy up to the end of River Lighthouses by a few of us hardy souls. It was about 25 miles

there and back in freezing weather on the Monday after Xmas day.

I just have to keep up my reputation as the 'busiest' boat in the Marina and show the owners of the unused hulks and Gin Palaces that Esselle is USED, as boats should always be. My only radio gear on board at this time is the usual marine VHF and my DX-394 receiver.

#### Time Warp?

Or Time Bomb maybe. After having bought a very nice 840C from a member in Glasgow you can imagine my surprise when - just 4 days later TNT (!) came and delivered a large parcel which was totally unexpected.

Opening it up I came across yet another 840C but no indications as to why it had been sent to me. Nobody had been in touch with me by mail or 'phone re this set and this "happening" has reminiscences of the 870A that just arrived out of the blue last year, still unclaimed and now 'finders - keepers'; it is in my collection.

The unexpected 840C looked really nice outside with but a few scratches to be seen on the cabinet. Now I have learned the hard way that one must never, ever, take for granted gift horses, remember what happened to the Trojans?

Before rushing upstairs to power it up and check reception I took off the case and had a good 'shufti' at the innards. And a good job too, otherwise Wisbech would have been regaled with the odour of sizzling bacon; my bacon.

We all know, or should know, that with these AC/DC models from Eddystone the actual radio chassis is isolated from the outer case and front panel, just in case some clown decides to connect the AC mains Live & Neutral the wrong way round.

This normally is good enough

protection. In this set, quite apart various other signs of tampering, such as twiddled trimmers and new looking solder, I discovered a very, very lethal mod. Hence my heading bit re Time Bomb.

The mains input cable went as it should via the fuse holders to the on/off double pole switch. From here the neutral line went to the isolated chassis being soldered to a tag near the said switch.

BUT, the live side from the switch went to a newly fitted tag on the outer case!! Had there been a three wire mains lead then fuses would have popped immediately. There was only a twin mains lead and so this mod, if it can be called such, meant that by turning on the power switch one applied full mains voltage to the front panel/outer case assembly. If I had any hair on top it would have been standing straight up just at the thought of what might have happened.

Stranger yet, the name and address on the parcel did not appear anywhere on my large scale maps, nor was GGL able to track it down via his sooperdooper computer. Neither the person nor the locality appear to exist.

Did it come from another dimension? Is it a warning from Al Qaeda or the Taliban or possibly from our homegrown 'listeners'? Have I offended anybody sufficiently for them to wish to hasten my demise, whilst remaining anonymous?

Anyway, suffice to say that after having undone all of the mischief and reset the trimmers to correct the woeful calibration this 840C is now operating nicely. I have three of them here to compare their respective qualities.

But I am making certain that my CCTV has a good tape in it, I am setting my house alarm plus several other home designed personal security devices,

and I am looking behind me, and all around me when I go out. Of course if the donor is reading this and wishes to own up then I shall feel much easier.

#### Manuals etc;

I do appear to be receiving many more requests for service manuals and other items such as photocopied old catalogues of Eddystone bits and the Eddystone Short Wave Manuals, than normally.

Maybe some of you think that this service will end when Lighthouse does. I can assure that it will continue for as long as I am alive.

My thoughts being that with the end of Lighthouse all Eddystone owners, users, and collectors will need copies of manuals for many years to come.

I do not run it as a profit making business and so long as costs are covered I am happy, costs being copier cartridges, paper etc; and the small percentage which goes to the young lady who does the backbreaking copying. From ten to fifteen a week is about the present level but then the other week one person asked for - and received - EIGHT manuals!

ESWMs have been sent out to New Zealand, And catalogue copies of Eddystone components have been sent out this past week. If you want something written by or about Eddystone then just ASK. Call me evenings on 01945-467356. Ted.

#### **Toys**

My latest acquisition, not Stratton-Eddystone related by any means, is an in-car Satellite Navigation System. Helpful when I make my long trips around the U.K.

I have to think of a name for it yet and so for the time being it gets called IT, get it? (Information Technology). Whilst being quite amazing in its versatility one can quite easily confuse the poor thing.

If I take a left turn when it has told me to take a right turn then it repeats 'recalculating' several times until it comes up with a corrected route, and this might involve a circular trip around some 'orrible housing estate.

My first REAL test will be this coming week when I nip down to the Boat Show from Wisbech. The first thirty odd miles of this journey are usually done via back roads to avoid the A47 snarl-ups, it should be a good test.

Yes, before anybody asks, I have tried keying in the word Eddystone both as a town name and as a street name.

#### Thermo-couple Meters

Mention of these devices in last issue by GGL, reminds me that on numerous occasions when I had one of these with a 'blown' thermo-couple, either bought that way or blown by my own mistakes, then I would save them in the junk-box as when needed the movement could be rewired to the terminals. By fitting a suitable shunt or multiplier and re-calibrating the scale I would have a 'free for nowt' meter suitable for my home-brew projects.

In those days despite the profusion of ex-WD gear cost was always something to be kept in mind. I used to think that 807s were expensive at five bob each. 1154s at two pounds ten shillings were only to be dreamed of. But we managed without any of these black boxes to 'plug in and go'. Ingenuity was really the name of the game in those 40s to 50s days.

#### Different Scale Markings?

Nice to have an explanation from "The Horses mouth" - sorry Terry, my sense of humour! In regard to the many slight differences on the scale plates of some models. I guess that I never

thought of that as an explanation - too simple for me. But now another idiosyncrasy which I have discovered.

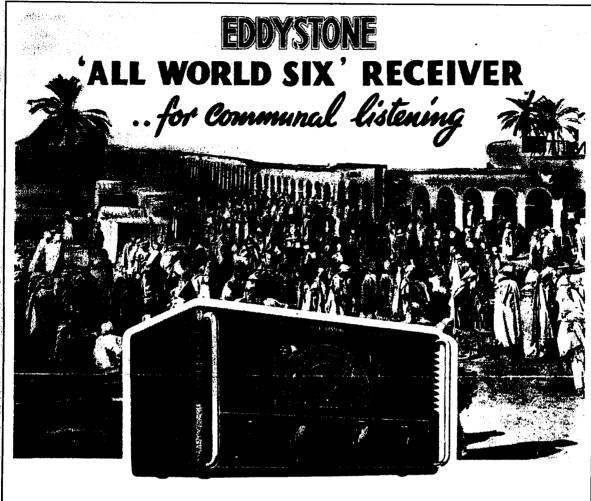
Amonast my several 990R receivers two are which have different fingerplates, with the toggle switches positioned differently from the bogstandard version. One of these came from 'GGL and the other was bought at the NEC. Neither of them have any /suffixes or any other indication, neither are PP or DD early sets. nothing can be found anywhere on paper, so what? Did somebody in the drawing office just have an off-day maybe? or is there another simple reason which I am too dim to think of?

#### Adieu!

If the item in the financial pages is to be believed the name Marconi will be defunct as of the beginning of this year, 2006. An item stated that from now on all of the company's products will be marketed under the Ericsson logo, as that company have now bought what little is left of the once great Marconi Company. Somehow it will just not be the same will it? Telling somebody that you have an Ericsson XX receiver! Even more reason for the likes of us to preserve what we can of these sets.

#### Drake?

have in my possession some transparent plastic scales about 107mm in diameter (I think). I am told that they come from a certain model of Drake receiver; another had it that they came from a Collins receiver. They are of no use whatever to me and if you need them for nowt give me a call (01945 467 356) and we can try to identify them. They are marked 0 to 100 around the circumference in black except for two which are marked 0 to 600 with "20m" in between the digits. A couple of them have gears, a total of 6 scales. Vy 73, Ted



## \* SIX VALVE SUPERHETERODYNE RECEIVER \*

The Eddystone ALL WORLD SIX receiver, fitted with a special output transformer, and used in conjunction with a pressure drive power speaker enables a large number of people, grouped outdoors or indoors, to hear broadcast programmes from local or long distant transmitting stations. Only a six volt accumulator is required for operation. The receiver and the speaker are of robust construction and designed for tropical service.



Stratton's Eddystone All World Six (Type 710) was introduced in 1949 essentially for use in remote areas. It had a built-in vibropack and would only operate from a six volt lead-acid battery. Its potential use in the far-flung corners of the Commonwealth created this "public address" version (710/1). Can you spot the loudspeakers mounted on the Kasbah?

## "ALL WORLD SIX" (OMBINATION

#### or Communal Listening

The ALL WORLD SIX receiver used in this combination has been specially developed to give the best possible results in situations where mains supplies are not available. Due to the modern design and the use of the latest types of valves, the performance is astonishingly good. The audio output is adequate for most requirements and the quality is excellent. The frequency coverage is very wide. It extends from below 10 metres to above 600 metres and this includes practically everything of interest to the overseas listener—B.B.C. transmissions (note that the II metre band is included), local stations, tropical broadcasting bands, world-wide short wave broadcast stations and the medium wave band.

The ALL WORLD SIX Combination is a sound engineering job. Construction is very robust throughout whilst the workmanship and quality of materials are of the finest to ensure reliability of a high order over a long period.

The receiver operates from a 6 volt accumulator and is most economical, the current consumption being only 2.5 amperes (average).

#### SPECIFICATION

#### TUNING RANGE

Range I 30.6 to 10.5 Mc/s. Range 2 10.6 to 3.7 Mc/s. Range 3 3.8 to 1.4 Mc/s. Range 4 205 to 620 Metres

DIAL is directly calibrated and edge illuminated. S.W. Broadcast Bands are marked distinctly.

TUNING is flywheel controlled, smooth and positive. special bandspread logging scale is provided. Reduction ratio 140-1.

CONTROLS CONTROLS comprise main Tuning Control; Band Selector; Volume Control; Tone Control (combined with on/off switch).

CIRCUIT is a six valve superheterodyne with R.F. stage and push-pull output.

LOUDSPEAKER (supplied separately) is a large bell-mouthed pressure drive type correctly matched to the output valves. An internal speaker is fitted, for monitoring purposes and for use when the power speaker is not required.

CABINET is steel, finished ripple brown and specially treated against resonance.

#### OTHER REFINEMENTS include:

Provision for gramophone pick-up; terminals for single or doublet aerial; controlled negative feedback; chromium plated carrying handles; dial lamp switch.

DIMENSIONS: Receiver-Width 163"; Depth 10": Height 8\frac{2}{3}": Weight unpacked approximately 34 lbs. Speaker—Overall length 54": Flare diameter 24"; Weight 16 lbs.

#### Receiver only (Cat. No. 710/I) List Price £39 7 6

#### Pressure Drive Bellmouth Speaker (with fixing bracket) (Cat. No. 791) List Price £12 10 0

Special tropical type 6 volt accumulator (Cat. No. 661), capacity 102 amperes hours List Price £9 18 6

All prices ex Works.

Printed in England



The 710/1 is almost certainly the rarest post-war Eddystone civilian model; indeed, it is doubtful if any have survived the break-up of the British Empire.

## In Consideration of Amplitude Modulation

#### **Graeme Wormald G3GGL**

During the past year I've noticed an increase in the exposure of Eddystone 888A hamband receivers. I've had more enquiries about them and seen more and more exchange hands on e-Bay, as well as working them over the air. For some reason that I can't put a finger on they seem to have more character than the later and more sophisticated EA12. I suspect it may be something to do with the non-existent bandspread on the EA12. Anyway; I'm not likely to swap mine for any other set for use on AM and CW. Considering that only about 500 were made they are surviving better than we thought.

I'll first remind you all again of the Boatanchors' AM activity most mornings between 8 and 10. This takes place on or around 3615 with 3625 being used by other AM groups. I know several EUGers use it and when our AM nets finish in April I urge all AMers to join in, they'll be welcome.

And don't forget the Dutch SRS Group on 3705 most mornings. They often come through perfectly well and those of us with TX facilities will get a reply in English. And if you're wondering what SRS stands for it's "Surplus Radio Society" (yes, in English). They originated as a military surplus group, but don't have a rule about it!

Last week I had a telephone swl report from a licensed member who'd been listening to several of our AM tests. I was horrified to learn that although he could come on the air using AM he was under the misapprehension that he could only join in if using an Eddystone receiver! Now I never said that and I'm sure nobody else did. Don't be shy! Come on in.

Back now to December's First Sunday (4<sup>th</sup>). Several of our AM members were away at rallies and Ted's journey to the I.o.M. to call us from the top of Snaefell was a late decision, missing our October announcement and being too early for the December Issue. The result was that the AM test only produced Howarth GW3TMP in Mold, N.Wales and myself. Howarth and I exchanged 5 & 9 but I could only give Ted GD3EUG/P 3 & 8 with dreadful QSB at my end. Ted gave me 5 & 9 with no trouble at all! Very funny stuff, this ionosphere.

When we changed to SSB at 10.00hrs another five stations arrived and the QSB disappeared!

On the second Sunday 40 metre AM test I called and heard nobody. I then had an e-mail from EUGer Peter DC6BN who was visiting southern Sweden. He heard me 5 & 9 ! Mmmm.

The third Sunday 80 metre AM tests produced Howarth again (GW3TMP) at 5/9 (do you know, Howarth always is

5/9 with me, I reckon he's got his own little bit of special ionosphere up in North Wales.). Ron, G8URU up by Hadrian's Wall came in at 1&1, identifiable only by the distinctive pitch of his voice. Roger G7JAQ came in from Surrey at 4 & 7.

The first Sunday of the New Year produced Ron G8URU peaking 5/9 at best and Ted, signing (unusually) G3EUG from Wisbech only scraped 5&7 through considerable QSB (to say nothing of a sidebander who started up over the top of us half way through).

This was followed by the SSB net when another seven member checked in, but still hampered by QSB.

The second Sunday in January (8<sup>th</sup>) produced a surprise on 40 metres, (which has been very long-skip all year). Ron G8URU came back to me at 5/9 straight away! (200 miles). Then Ron worked a station in Gloucestershire that I couldn't hear even with the BFO on (60 miles). Then John G3VDL in Devon heard Ron (400 miles) but couldn't get out to anybody! After 40 minutes the band faded out and that was that.

Later in the day I had swl reports from Orkney, reading me fine (400+miles) and Bremen (500 miles) also reading me fine.

So the long skip still rules but giving a bit of medium skip to cheer us up (!).

The third Sunday (15<sup>th</sup>) on 80 metres was another strange one. At 09.00 Ron G8URU near Carlisle came roaring down to me at 5/9+. This was followed by Chris G4BYZ in Surrey also at 5/9+. Chris (I think) created a record on our net by using a 1940 Eddystone 358X harnessed up with his Vanguard Viceroy Tx. He was very

pleased with its performance.

No signal came up from Ted G3EUG to my slight surprise, but a phone call later in the day allayed my fears that his health was playing up. It seems his neighbours were playing up and having a rave-party. Too much for Ted. He ended up sleeping the morning away. And very wise too Ted; I sleep most mornings away!

However, to get back to my interrupted report . . .

Then, suddenly around 09.30 things started to get wobbly. I heard a weak called from Graham M5FLY (S. Yorks) and then the band nose-dived. All gone. I hung around for ten minutes with the BFO on, but nothing.

Later on I had an e-mail from Geoff in Weymouth (a non-member!), to say he heard me at 09.00 at 5/3 and that by 09.10 the band had collapsed with just an awful noise level left . . .

Quite frankly, I suspect that if 80 had behaved like this in the old days ham radio would have died a death. The sunspot minimum never used to have this sort of effect on what is practically medium waves!

Could there be any connection with the very mild and dry Wx we are having? 80 metres is supposed to be good in winter!

I guess the VeeMARS boys have the right idea and get their AM net going long before breakfast (3615 kc/s). By the time things get wobbly they're putting the kettle on and signing off.

My main consolation over all this depressing report is that sooner or later things have to get better!

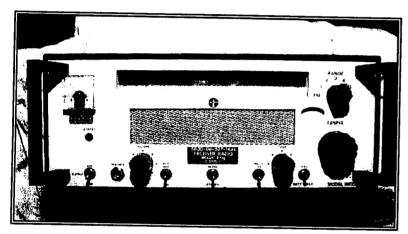
All my very best to the brave souls who venture out with AM.

# E Bay Watching . . .

February 2006

## by Chris Pettitt GØEYO

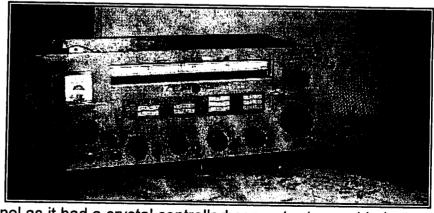
It has been a very quiet time for the sale of Eddystone sets on E Bay, due no doubt to the Christmas holidays, however I do wonder if the market is starting to dry up for our beloved marque. Very little came up that was new or exciting. Prices were very slow and a number of sets failed to reach reserves, which I have to admit were probably encouraged by some very good prices reached during last summer.



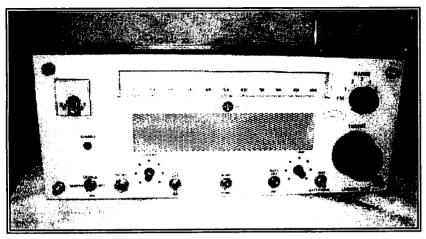
What did strike me though were a number of 1000-series receivers. This 1002 was sold to most Royal Navy Ships and was used as a standard ship's entertainment receiver. It is dual voltage, 240 and 110V and has the following bands: 18-30 Mhz, 8-18Mhz, 3.0-8.5 Mhz, 1.5-3.5 Mhz, 500 - 1500 Mhz, 150-350Khz. The seller obtained this set direct from

the Royal Navy, it was wrapped and sealed in full MOD tropical packaging and to all intents and purposes appeared brand new. It sold for £176 which probably reflects its good condition and rarity. (They sold for £273 in 1972)

Another in that series the 1004 was a marine approved rack mounted CW/AM/SSB receiver cover 150-535kHz and 1.6-30MHz sold for only £63 being the result of a SK sale. The 1004 was



also called the Sentinel as it had a crystal controlled converter to provide instant selection of 2182kHz Distress Frequency channel. As well as 10 other crystal controlled channels. QRG tells me that it was badged for Redifon, ITT, Hagenuk and Marconi (Sentinel) so this must have been a Marconi Marine set.



Another set which looked similar was the 2002 receiver. The set for sale was a test unit which was picked up from a clearing out of old stock from the 1980's by some lucky gent. It was for sale as a repair or restore project as it was

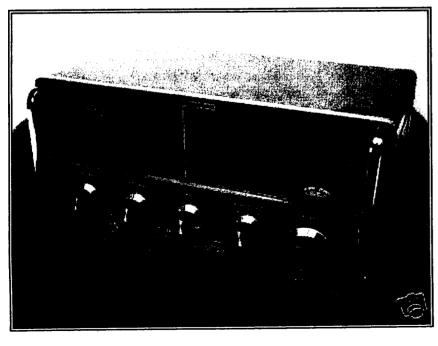
missing a couple of knobs and had no top or bottom panels. The unit had stereo output for the FM VHF band (plus telescopic aerial) and 6 bands for short wave reception. 18-30 Mhz, 8-18Mhz, 3.0-8.5 Mhz, 1.5-3.5 Mhz, 500 - 1500 Mhz, 150-350Khz also included the original operation manual and schematics. Sold for £83 and was probably a bargain given its rarity. I can find no mention of the 2002 in the QRG so I wonder if it got off the ground. No doubt someone will tell us.

(Note here from Graeme) Here goes, Chris... I had an e-mail from a member drawing my attention to this "2002" and asking me why it wasn't in 'QRG'. I replied to him that it was in 'QRG', that it was a 1002 wrongly described! Our member made enquiries and sent me the following reply:

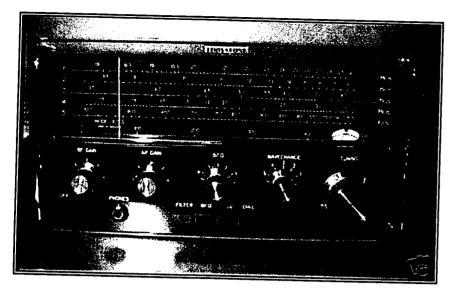
"You were right yet again Graeme!
It seems the seller has now admitted it's a 1002 with parts missing. Another eBay conman exposed!

Regards,

Dave MØTDH. "



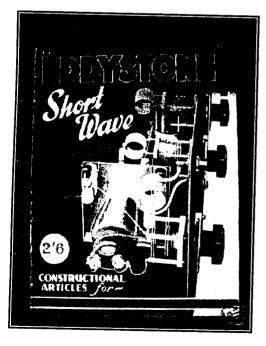
A number of EC10s found their way onto E bay and made varying prices. This EC10 Mk1 looked in good condition and made an excellent £118. It came with its original instruction manual and battery pack and covered from 550kHz to 30MHz.



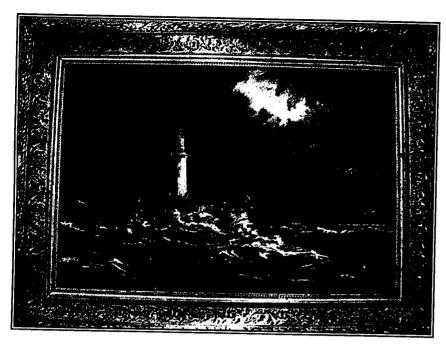
This EC10 Mk1 failed to reach its reserve which was a rather unrealistic £180 allowing for its claimed better than VGC. It came with its original receipt £59-10s-6d (ask your Dad to explain) and the mains unit. It reached £73 but failed to sell.

This is another EC10 (Mk2) which also failed to sell at £40 because it had a reserve of £120 on it.





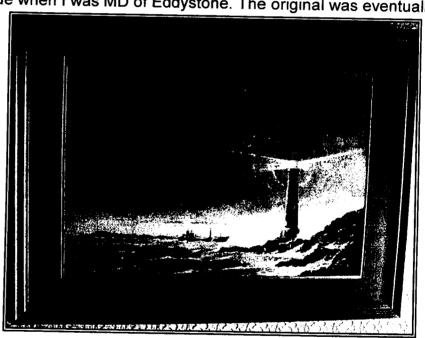
Occasionally the old Eddystone Short Wave Radio Manual comes up on E Bay and this one was number 6 from around 1947 which eventually sold for only £5.50 which I think was a real bargain.



I noticed an oil painting of the Eddystone Lighthouse supposedly painted in the late 19<sup>th</sup> century. It eventually sold for £62 which was a bargain.

It reminded me of a painting I had done in the mid 1980's as the main picture of a short form catalogue when I was MD of Eddystone. The original was eventually

framed by Marconi and presented to me and it hung in my office for many years. When I left I took it with me and it currently hangs on my landing. It was meant to show our communications and broadcasting connections as well as the famous lighthouse. I took a photograph of the picture for you to make a comparison.



Well that about covers it for this month. Since becoming an E Bay watcher some two years ago I have gathered a lot of pricing data on Eddystone sets. I think I will try and present this in a form that members will find helpful in the next (and final) edition of the Lighthouse.

73s de *Chris GØEYO* 

## Another Stratton Patent . . . 457,497

One of the secrets of the Laughton Family's success was to make sure every product was covered by Patent. Even this adjustable bracket for the home-brew constructor was fully covered . . .



#### PATENT SPECIFICATION

Application Date: June 4, 1935, No. 16110/35.

Complete Specification Left: April 2, 1936.

Complete Specification Accepted: Nov. 30, 1936.

PROVISIONAL SPECIFICATION

#### An Attachment Bracket for Wireless and like Electrical Components

We, Stratton and Company Limited, a British Company, of Balmoral Works, Bromsgrove Street, Birmingham, and George Stratton Laughton, British subject, of the Company's address, do hereby declare the nature of this invention to be as follows:--

The invention has for its object to provide a bracket for supporting wireless and like electrical components which enables the distance of the component from a baseboard or wall to be adjusted. A component, such for example as a condenser mounted on a base at a distance from the panel on which a control member is arranged, can thus readily be set at the level of the operating member.

The invention comprises the combination with an attachment part, preferably of pressed metal, of an insulating member guided and capable of sliding on, and being clamped in adjusted relation to the metal member; the insulating member carrying a support in which a component may be secured.

The metal part may be a tube of appropriate section with one end slitted to leave tongues which are bent out to form attachment parts by which the bracket is mounted. In two opposite walls of the tube, two screw holes are arranged in line and the holes in one wall are internally screw-threaded.

Instead of the tube the metal part may be pressed from a sheet metal blank. This is the preferred construction. It is then formed with its two longitudinal edges flanged at right angles to the main plane of the blank to form a channel. The flanged part does not occupy the whole blank and the part which is left at one end, which is preferably wider than the channel is bent up to lie against the ends of the slide flanges. This part is then perforated, say near each end, to form an attachment foot. The wall forming the base of the channel section is provided with two holes in line and these are screw-threaded.

Into a metal part so made, we insert a moulded, insulating part having a slotted stem and a ring or jaw at one end. The stem fits the channel or tube and is guided thereby as it slides in or out to an extent limited by a pair of screws passing through the slot in the stem and screwing into the holes in the wall of the channel or tube.

The screws have heads which clamp the parts together in any position within the limit of adjustment provided by the slot. In the case in which the metal part is a pressed metal channel, it is preferred to employ washers or a pressure plate under the screwthreads and bearing on the stem across the slot therein.

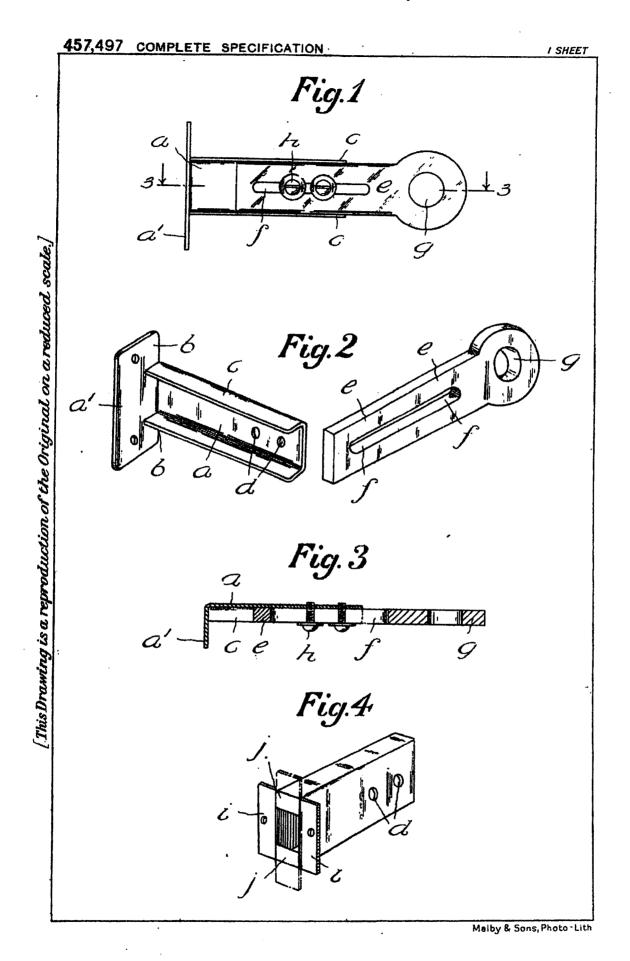
This bracket permits easy fitting of the components to base boards or walls of wireless sets or television sets and enables the best working relation of the component to a remote operating or control member on a panel to be more readily attained.

Dated this 3<sup>rd</sup> day of June, 1935. BARKER, BRETTELL & DUNCAN,

Chartened Details Accuse

Chartered Patent Agents,

75 & 77, Colmore Row, Birmingham, 3.



Page 33

# The Saddest Night of the War...

Our EUG President, Bill Cooke, GWØION, former chief engineer and managing director of Eddystone was conscripted into the R.A.F. in the summer of 1939. Everybody knew that war was coming and Chain Home radar (or RDF as it was called in those days) needed skilled technicians to keep it running. He served through the Battle of Britain then moved down to the war in North Africa. After the desert war was won he returned to England.



"I had returned to England in 1944 and became once again part of the huge radar chain protecting the eastern and southern coasts of Britain. The German air offensive over the country had long since dwindled as the Russian front absorbed more and more of the Nazi war machine.

"We were based at Bard Hill, near Holt, on the north coast of Norfolk. The whole of East Anglia was bomber country; there were more airfields than you could count.

"Our job now was more one of search and rescue as the enormous offensive against the German mainland was prosecuted by RAF Bomber Command and the American Eighth Air Force. The losses were always high on these raids, especially among the RAF bombers which operated during darkness without escort.

"Every morning at dawn the North Sea was filled with Lancaster bombers seeking their way home, often carrying heavy battle damage with crew and equipment out of action.

"The RAF operated a rescue service,

code-named "Darkie", for guiding these lame ducks back to the nearest airfield to make a landing, regardless of where they were based. A pilot, who may have lost his signaller and navigator would call "Mayday" on 6.4 Mc/s on his H.F. R/T and request "Darkie".

"Sector control would alert the nearest CH station and we would try to locate the aircraft in distress, often with no IFF transponder to help us. When the aircraft was identified he was given a course to steer and a distance to base. Fortunately the landscape is as flat as a pancake so aircraft could descend to safety height and look out for runway lights.

"When the Allies mounted the Normandy invasion in June 1944 we were all convinced that the war in Europe would be over by Christmas. The Nazi resistance seemed so disjointed and we were in Paris by August.

"But as the autumn drew in and the German forces rallied the Americans had a big setback in the Ardennes (the Battle of the Bulge), and we Brits had a disaster at Arnhem (a Bridge too Far).

"Incredibly, German war production was still rising at the end of 1944. It was essential that the strategic bomber offensive be maintained to destroy the means of moving this *matériel* to the front line. Railheads and canals were prime targets.

"Shortly after Christmas, January or February 1945, Bomber command mounted one of its maximum effort raids against Frankfurt am Main. Not only was this great city a source of chemicals and aero engines, it was a major railhead and the terminus of the Rhine river traffic. The nights were very long and Lancasters were having to cope with arriving back home in the dark.

"We were alerted to a couple of aircraft, both badly shot-up, limping back across the North Sea completely lost. We soon identified them on our scopes using the CHL system (Chain Home Low, to detect low-flying aircraft).

"As they came closer we were able to make a more accurate estimate of their height, which had been falling all the time as they approached. This gave me cause for concern as they were now below the safety height of 1000 feet.

"The CH radar masts which surrounded the east coast were huge timber lattices holding the dipoles high to achieve the greatest range of detection, upwards of 350 feet high.

"My concern was well-founded. Within minutes the radar traces closed in on us and then vanished. At the same time a noise like machine-gun fire echoed through our hut as hardware from the lattice tower rained down on our corrugated iron roof.

"We were greeted by a sight of utter devastation. The top had gone off one of our masts and the disintegrated smoking wreckage of a Lancaster bomber littered our camp. The ambulance crew were there in minutes but to no avail. The seven members of the crew were scattered in lifeless form with hideous injuries.

"The medical officer was rushing round with his morphine hypodermics in case he found life; the stretcher crews were following. Our radar crews were doing their best to help but to no avail. I tried to help a sergeant out of a ditch and gently pulled his shoulder. He had no face and his brains were in the ditch. The stretcher-bearer by my side heaved and turned away.

"The rear gun-turret had broken away and rolled down the field. As we approached it we realised the gunner was impaled on his four machine-guns. The rescue officer wouldn't allow anybody to approach until the armourer's team arrived to make the guns safe. That seemed to take most of the morning.

"I'd seen some grizzly sights in my time in the Desert war, but nothing to match the sheer awfulness of this crash on home ground.

"Many, many years later I was approached by the members of an historic research group. They were tracing wartime crashes on behalf of descendants of dead aircrew. It seemed that the rear-gunner was newly married at the time of his death. His widow was alive and living in Lincolnshire.

"It seemed that I was the only witness of the event that could be found. One of the researchers came, heard my story and carried it to her. She had little idea of the details of the tragedy but it helped lay to rest the demons which had followed her for half a century."

Bill Cooke, former corporal, RAF.

# TO BENGAL WITH AN EDDYSTONE BY GRAEME WORMALD G3GGL

When famous climber Hugh Rutledge led the 1936 British expedition to Mount Everest he took a vast amount of radio equipment. It took 36 fully-laden yaks to carry the base camp radio gear alone (see Lighthouse Issue 76, December 2002 for the full story).

The vast majority was Eddystone, including six five-metre portables and two sets of HF CW Morse transmitting and receiving stations. One of these was established at Darjeeling under the auspices of the Royal Corps of Signals, Lance Corporal Maudsley in the hot seat.. The transmitter was a Stratton two-valve special featuring a crystal controlled pentode oscillator driving a TZ05-20 triode with an output of 50 watts on 7020kc/s. It was designed at the Eddystone works by Tommy Martin, G2DL.

A similar rig was established at Base Camp, over 100 miles distant, under the control of Lieut. Smijth-Windham, a young officer who rose in his profession. He was promoted Brigadier in 1957 and appointed Chief Signals Officer, U.K. Land Forces. Back to Bengal . . .

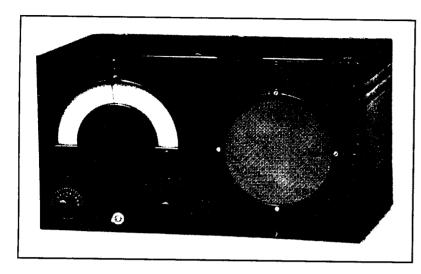
The receivers used with these two HF stations were standard Eddystone "Homelanders", by no means the top of the range at £14 including batteries! Why was it chosen when money was no object? In my opinion it was due to a combination of circumstances.

Firstly it was completely self-contained and only had three control knobs (detector tuning, reaction and RF gain). It had an aperiodic (untuned) RF stage which isolated the regenerative detector from the aerial, thus stabilising reaction. It had two audio stages and a built-in loudspeaker, thereby making it suitable for the members of the expedition to 'listen in' to the BBC Empire Service transmitted from GSH in Daventry to the subcontinent. Last, but not least, its simplicity combined with legendary Eddystone quality made it a reliable performer under adverse conditions

After initial problems, using a half-wave end fed aerial the Lieutenant tried a centre-fed dipole. This "blew the Lance-Corporal's head off" back in Darjeeling.

Time now to take a closer look at this very effective and simple receiver. Thanks to our Norwegian member, Tor Marthinsen, we have a photoset of one of these extremely rare models of 70 years ago which he had the

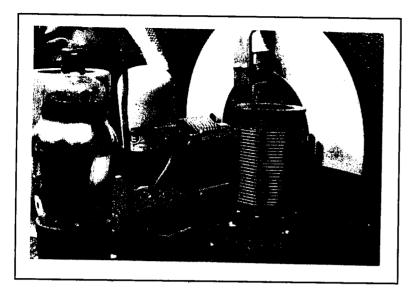
pleasure of restoring a short time back. Read on . . .



The 1935 "Homelander" was aimed at the teaplanter market. It presented a neat appearance, with a broad easy-to read logging scale.

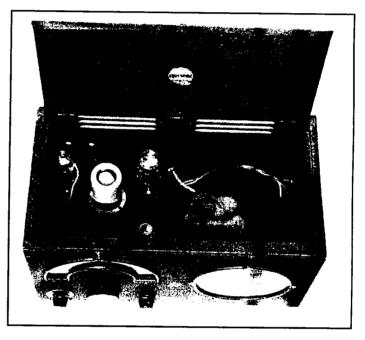


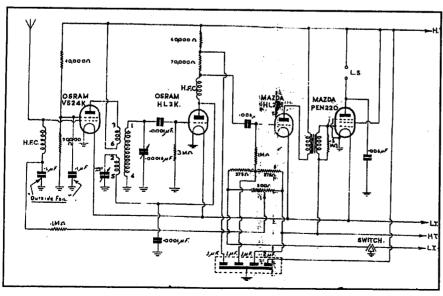
The front panel and chassis are seen here removed from the cabinet. Band-changing is effected by changing just one plug-in coil from a selection of nine, eight of which are shown standing where the batteries would normally be stored. The screengrid HF stage is the valve on the extreme right of the picture. The detector is inside the screening can and the output pentode is nearest the camera. The speaker matching transformer is inside the black protective speaker shroud. Wavebands from 7 to 3000 metres may be selected.



A closeup of the 'business' part of the 'Homelander'. The screengrid HF amplifier is on the left with an anode top cap. The output is fed through the chassis to the plug-in coil which is situated adjacent the tuning condenser. The simple and reliable construction is clearly seen.

Access to coil changing and batteries is obtained via the simple hinged lid. The set used no wooden parts, thus making it immune to damage by termites, a serious risk in the sub-tropics.





Not much to go wrong in this circuit.

A neat rig for both CW and DX broadcast reception.

## A Peak at the Eddystone 940

#### By Graeme Wormald, G3GGL

One of the more popular Eddystone valve sets of the 1960's is the model 940 introduced in 1962. It was produced at a time when the variety of Eddystone sets available in the high street was at a rather low ebb. In fact, the only model aimed at the amateur/SWL was the 840c. This was a good enough set, actually derived from the 670-series of 'cabin sets', but fitted with a BFO to warrant the appellation of 'Communications Receiver'.

In truth the 840c was a very well-made set, true Eddystone quality, but it had no 'bells or whistles' and was really intended to appeal to the expat Brit who wanted something more impressive than a 'cabin set' with which to travel the world. The one thing that made it appeal to the expat (being for AC/DC 110-230v mains supply) made it less acceptable to the home SWL on grounds of such arrangements being cheap and nasty!

Having said all that I can tell you that I have in my shack the 840c that was originally the property of the chief engineer of the Anglo-Iranian Oil Company (to monitor the General overseas Service of the BBC!) It's an absolute cracker and harnessed up to the faithful KW Vanguard AM Tx I've used it on the Boatanchors' 80-metre AM net to great effect. It was offered at around £60 new. (About £1500 in today's buying power . . .)

Truly, the Sales Director at Stratton, Arthur Edwards, G6XJ, had a poor hand dealt him in 1962 when it came to the 'civilian' market. The professional market was doing very well and the development section was hard at work on a new generation of sets.

Heads were put together with Harold Cox, the Technical Director at Stratton. Before long Bill Cooke, the chief engineer (now GWØION, the President of EUG) – was pulled in to the debate.

"We have a gap in the retail market; we have absolutely nothing for the well-heeled amateur/SWL."

But Harold Cox was a sceptic; in spite of the company's fame in the amateur market he held no great store by it. He declined to take engineers out of the design and development sections. And it was out of the question to take on new staff to produce what Harold thought of as a stop-gap.

The result? Bill Cooke was detailed to design a set for the carriage trade which could be on the market in a few months using as many components as already existed in the stores at the Bath Tub. Price guide £100. Bill took the task on board with his usual enthusiasm and the 940 soon hit the streets.

Much to Harold Cox's surprise the company had a winner on its hands. It became popular round the world and stayed in production for eight years, almost to the end of the valve era.

Apart from a small quantity of variants for the Royal Signals and H.M. Coastguards virtually the entire production run went into private hands. This means that they still crop up in SK sales and on e-bay fairly regularly. The new price started off at £106, soon jumping to £125.

Let's take a closer look at these two contemporaries . . . >>>



# THE EDDYSTONE '840c'

THE EDDYSTONE '940'

The Eddystone "840c" is an inexpensive, soundly engineered communications receiver giving full coverage from 480 kc/s to 30 Mc/s. It possesses a good performance and is built to give years of reliable service. The precision slow motion drive—an outstanding feature of all Eddystone receivers—renders tuning easy right up to the highest frequency, and the long horizontal scales aid frequency resolution. Modern styling and a pleasing two-tone grey finish lead to a most attractive receiver.

List price £62. 0s. 0d.



The Eddystorie "940" is a larger and more elaborate communications receiver, with a correspondingly better performance. It has two fully tuned radioernediate requested two intermediate requestry variable selectivity with a crystal filter; built-in carrier level meter and push-pull outpursacte. Sensitivity is very high and outstanding results can be expected. Workmanship construction and finish are all to the usual high Eddystone standards. Styling is modern with two-tone grey finish.

List price £125. 0s. 0d.

THERE'S AN

FOR ANY FREQUENCY
BETWEEN
10 kc/s and
1,000 Mc/s

Please write for full Technical Specifications to the Manufacturers

STRATTON & CO. LTD., BIRMINGHAM, 3

RSGB BULLETIN FEBRUARY, 196

The date of this advert in the RSGB Bulletin (alias RadCom) is February 1965, the month before the Eddystone Marque was purchased by the Marconi Company.

(The 840c had a built-in speaker, the 940 didn't.)

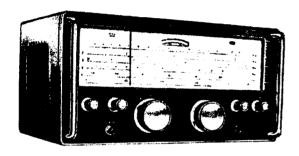
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## Eddystone

## TWO FINE RECEIVERS

840c

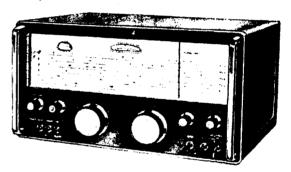


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List price £66 0s. 0d

The Eddystone '940' is a larger and more elaborate communications receiver, with a correspondingly better performance. It has two fully tuned radio frequency stages and two intermediate frequency stages; variable selectivity with a crystal filter; built-in carrier level meter and push-pull output stage. Sensitivity is very high and outstanding results can be expected. Workmanship, construction, and finish are all to the usual high Eddystone standards. Styling is modern with two-tone grey finish.

List price £133 0s. 0d



There's an Eddystone communications receiver for any frequency between 10kc/s and 1,000 Mc/s

## **Eddystone Radio Limited**

Eddystone Works, Alvechurch Road, Birmingham 31 Telephone: Priory 2231 Cables: Eddystone Birmingham Telex: 33708

LTD/FD7

This advertisement appeared in the late lamented "Radio Constructor" in February 1966, exactly a year later. Note that the new logo has appeared, the prices have gone up and the siyle has been simplified. Whilst Eddystone was part of Stratton (1925-1965) there were no separate accounts, they were all lumped together with the hairpins and cufflinks. Nobody was sure how much profit the "Wireless business" generated and after a lot of accounting Marconi decided "not enough". The text has remained exactly the same but a full QTH together with Telephone, Telegram and Telex numbers are given. (But never a word about Marconi.)

## The Episode of the Phantom Spider

#### By Graeme Wormald G3GGL

A few years ago I happened to meet up with a former Leeds schoolmate who I'd not seen for forty years. He was much more in touch than I was, as I'd left school to join the Air Force and never returned to Yorkshire. "Do you remember the episode of the spider?" he asked. I raised my eyebrows. He had left school a year later than me. "You know they never discovered who did it ..."

My partner in crime (the future G4GGQ) and I were members of the school CCF and, although in the RAF section, we also ran the Army Signals Platoon.

The school year was about to end in the summer of 1950 and we were due for the Call-up. During the last few days we pondered how we could leave our stamp on the school; anonymously, of course.

The assembly hall, complete with stage, was above the refectory, as befitted the Victorian Gothic pile that it was. We had discovered a 'secret' connection between the two and decided that our plan would be based on this fortuitous circumstance.

Our school radio station (as featured in the infamous Chess League) was actually situated in the 'Green Room', adjacent the stage, and had access via a hinged panel to a mysterious cavity beneath the 'boards'. On exploring this stygian hollow we had discovered a glimmer of light against the back wall. Close examination proved that it was a gap in the floor which lined up with a hole in the ornamental coving in the refectory. It was directly above the headmaster's table . . .

The Signals Platoon benefited from a generous supply of military radio

equipment of wartime vintage including about a dozen Wireless Sets Type 38. These were the first successful British military walkie-talkies and were about the size of the New Oxford Dictionary. They had one practical advantage over most other 'field' sets of the period. They used a compact throat microphone which was invisible under the shirt collar and the send/receive switch was a Yaxley type that could be left in the Send mode.

It could be used for clandestine communication! The germ of an idea entered our minds.

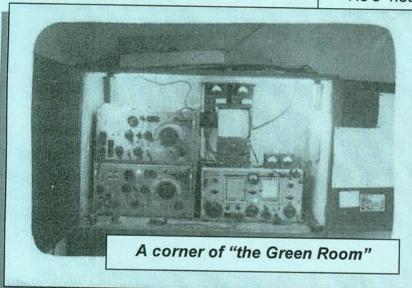
We visited the local branch of F.W.Woolworth and purchased a giant rubber spider; about the size of a soup-plate. This we anchored to a reel of stout black twine.

On the final day lunchtime arrived and I entered the cavity 'neath the boards, equipped with a W.S. 38 fitted with a short trailing aerial, with the giant arachnid to hand.

My confederate went for school dinner in the usual way but equipped with a W.S. 38 secreted in his knapsack, switched to SEND, with throat mike under his collar and a short wire aerial tucked round the bag. He sat facing the masters' top table. I heard every word he uttered.

Plates were filled, the Head gave the benediction and everybody tucked in. I slowly started to lower Septimus (for thus we had named our pet) through the hole.

After what seemed like an age (probably 30 seconds) a conspiratorial voice muttered in my headset. "I can see it; it's about six feet down from the ceiling." I held it for a while. "It's stopped now; nobody's noticed it."



The ceiling in the refectory must have been a good twenty-five feet high. I let Septimus creep another yard down his web. "It's moving again. Hardaker Minor's spotted it. He's nudging his mates and they're all turning."

I jiggled Septimus up and down a bit. "They're starting to point now. The Boss is looking at them." (The Head was always called 'the Boss' by the troops.) "The whole school's spotted it now. The Boss thinks they're looking at him."

Septimus slowly shortened the distance to the Boss's head. It dawned on him that everybody's gaze was on the wall above him.

"The Boss has spotted it. He's standing up."

Septimus stopped.

"He's telling Beefy to stand on a chair."

'Beefy' was the nickname of the rather diminutive senior biology master.

"He's reaching up but it's still about a yard away."

Septimus lowered inch by inch.

"He's nearly got it, he's making little jumps."

Septimus started making little jumps.

"He's missed it!"

The roar of uncontrolled mirth was streaming through the ceiling.

"Joe's going up to the Boss."

Joe was the senior geography master and knew the stage well; he doubled as the school

play director.

"Joe's talking to the Boss . . . he's leaving the table . . . he's heading for the door."

Septimus headed for his lair in a series of jerky leaps. I vacated the gloomy den and headed for the school library. I spent the rest of the dinner hour studiously examining the National Geographic magazine.

I heard some wonderful tales after school about the unprecedented activities in the refectory that lunchtime. We had made our mark.



#### A MEMBER IS SOUGHT TO CONTROL THE "FIRST SUNDAY" NET FROM 2<sup>nd</sup> APRIL. IF YOU COULD VOLUNTEER PLEASE ADVISE GRAEME G3GGL (DETAILS BELOW) FOR ENTRY IN THE LAST ISSUE OF 'LIGHTHOUSE'

Graeme's final "First Sunday" nets will take place on 5<sup>th</sup> March and 2<sup>nd</sup> April Freq. 3695+/- QRM
Times: 09.00 for AM and 10.00 for LSB (local times) Controller G3GGL

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"SECOND SUNDAY 40 metre A.M. Test"
12<sup>th</sup> February and 12<sup>th</sup> March
Frequency 7143 +/- if spot in use by other net
Listen for G3GGL on A.M. time 09.00 – 10.00 local

•

"THIRD SUNDAY 80 metre A.M. TEST"

19<sup>th</sup> February and 19<sup>th</sup> March
Frequency 3605-3025 kc/s. A.M. only! Time 09.00 -- 10.00
local time
Listen for G3GGL

This schedule concludes the EUG nets chaired by G3GGL

#### SEE TOP OF PAGE!

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