Eddystone User Group Newsletter

Issue No: 55 **June 1999**

Eddystone Radio !
Into the next Millenium

- **A non profit newsletter for Eddystone Users**
- **Compiled and edited by Ted Moore**
- **Information quoted from Eddystone Literature by kind permission of Eddystone Radio Limited**
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FRONTIS

As we go to press, we have just heard the good news from the factory. On 14th May, Megahertz Communications Ltd of Cambridge, bought out the shares of Eddystone Radio Limited from GEC-Marconi. Megahertz have bought the name and the company as a going concern and have stated that " this addition to the Megahertz Group of companies will enhance our position in the Broadcast market enabling us to offer a complete solution from acquisition to transmission". They have taken over the lease and intend to operate Eddystone as a separate entity. The Selly Oak site will give Megahertz access to some good production facilities and I am sure they will transfer some of their other Broadcast work to Birmingham. Megahertz Communications is a leading Broadcast System Integrator. Started in 1982 by Ashley Coles, it supplies broadcast studio systems, Outside Broadcast vehicles and SNG vehicles. (see their web site at http://www.megahertz.co.uk). The Eddystone work force is down to 17 people under Matt Parkes as General Manager. Megahertz are going to leave the current management in place. I am sure that now the future is safer, they will begin to re-employ some of those who left recently. I spoke to Ashley Coles on the telephone recently and thanked him both personally and behalf of the EUG members for his action in saving a company that means such a great deal to so many people. He stated that he intends to develop the business and stay in broadcast and communications. Eddystone will clearly benefit from Megahertz's world-wide marketing effort and financial acumen. The hero of this situation is really Matt who never lost faith that the company could be saved. Well done Matt!!. Remember I warned you that it was not over until the fat lady sings. Well take it from me the fat lady has left the building!.

Our contact in Thudersley is still looking for the ancestors of G3EUG, and is asking octogenarians in case G3EUG is not silent key. Those of you who are RSGB members will have read about the new A/B licence. Starting early this Autumn all class B hams who pas a 5 wpm morse test will be able to use 100 watts on all HF bands. New call signs will be issued in the M5xxx series. Some 70 of our members are currently class B. Most of them have tried and hit the 8 wpm barrier so they should have no problems with 5 wpm by September. I know that Graeme would welcome more of us on the EUG net.

I am still the keeper of G6SL, but have now had it registered as Eddystone Radio User Group.

Finally it was a great pleasure to meet you all at the NEC on the 9th May. Some 35 members registered with us and Graeme, Simon, Ron and Dave were kept busy talking to members and interested visitors.

All the very best
73's

Chris Pettitt - Patron
G0EYO
chris@g0eyo.freeserve.co.uk

Graeme,Simon and Ron at the NEC

N.B. All Ted's contributions were written before the good news about Eddystone was released. . .

A fair amount of mail this past month regarding the closure of The Company. Most of it pretty positive in so far as the writers deplore the situation. Some do point out that it is simply history repeating itself, one example given was the loss of all of those wonderfully evocative names such as Wolseley, Hillman, Sunbeam and others.

None of this helps those of us who have been and still are such fervent fans of the marque. I suppose the front cover of the last issue may have been a bit 'de trop' for some but for me it was spot on. Thanks Simon, for putting it so well, for expressing just how we feel.

Still, EUG goes on despite the continuing difficulties caused by my circumstances. We can only carry on because of the fervent support from such as Simon, Graeme, and more recently Dave. Despite no longer being the M.D of the Company, we also have to acknowledge the full and continued support of Chris. All the above means that when you pay your next years subs for your membership of EUG (hope you have already done so !) you will have a full team to assist and advise you.

Despite my disclaimer in the last issue the Transistor Set was not just an April Joke, as the photo showed it did exist in prototype form. Colin was spot-on when he wrote that "nobody is right one hundred per cent of the time" - this was a case of not checking the market and not getting costings correct before embarking on a project.

Do you really want me to include members lists of Calls Heard ? This seems unbelievable to me and yet two EUGers do suggest the above ! With a two month gap between issues any news would be well out of date anyway. You can hear Canada on almost any cheap and nasty imported tranny, and do you realise Peter that the RCI programme you may have been tuned into actually was transmitted from BBC controlled transmitters here in the UK ? Honest, I kid you not. The Beeb has contracts with many countries to transmit programmes which are prepared by those countries and either sent here by satellite or as pre-taped programmes. In a like manner the Beeb gets our programmes aired over foreign owned and operated transmitters around the world. Nothing is exactly what it seems these days.

Cannibalisation is the one thing which really bugs me ! To take an 870A and gut it of all the valve circuitry, to then fit in a complete pcb from some anonymous black box, connect this up to the tuned circuitry of the original 870A, and to use this mongrel still with its lighthouse logo. This is the epitomy of electronic blasphemy. The guy should be banned from ever again owning an Eddystone for the remainder of his life. That he is a Frenchman may excuse his behaviour to some - but not to me. His letter to me does apologise by saying that it was "all he could do" - but really !

On the subject of 870 sets, how do you like the radiosonde version produced by Graeme ? Whenever we believe that we have found them all, up pops another model. That we were able to have this 'one-off' on display at the NEC

is a big bonus for EUG, likewise the Orion 7000 which we had on the stand. I understand that Graeme had to sign his life away to get THAT and it does show the trust that the Company have in EUG when they will lend us such expensive goodies.'

And so, on to your Newsletter, the featured Model is the 830/7 and it has been chosen by Simon who has also done the necessary write up. Something a bit more substantial than the 1940 of Issue 54. Graeme will be doing the Featured Model for the following issue of the N/L, something which he has christened the Eddystone Orphan, no more - you will just have to pay your subscriptions and wait patiently to see what it is. Plus a lot more of what you like from all of us at EUG. But no Calls heard ! I think that stuff is best left to SWM and the like. Have fun. Ted.

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Going for Broke.

Mike has had his S.358 for many years and it has seen plenty of continuous use as a 'winkler out of broadcast Dx' Mike's own description. I suppose he has over the years become a victim of what is a very common syndrome amongst those of us who use and operate old gear.

Visiting a friend's home during the last Christmas holiday Mike was happy to discover another working S.358. Well used and also lovingly cared for this second 358 was an eye-opener for Mike. For a start the tuning mechanism was so much more 'silky' than that on Mike's set. Secondly - and much more noticeable - was the difference in noise level between the set at the home QTH and this one. Mike could not at first accept that the reduced noise level of his pal's set was not due to a complete absence of local QRM. Even though Mike himself lives in a pretty quiet area.

There was but one possible outcome from all of this. Mike went home and began to prepare his 358 for some pretty radical restoration. Mechanical work on the tuning mechanism was not simply a few drops from an oil can. The whole of the gear box was removed and stripped for cleaning and lubrication with grease - in this case graphite grease as used for automobile generators etc; It was recommended by his pal with the 'new' 358.

A new set of valves - a complete line up - made a slight difference in noise and also a noticeable increase in gain. Mike had to admit that his 358 was still running on CV valves fitted in the 1960s !

The coilpack and switch contacts were all cleaned up and the pots were given the usual squirts of cleaner fluid. The noise was still noticeably higher than on the comparison set and so some tests were carried out on both R and C components.

A total of 9 resistors were changed. Some were pretty high in value, well outside of the normal tolerance. Several were changed because they were in the grid circuits and considered to be possible 'noise-generators'. All of the replacements were of the modern low-noise, close tolerance types. No attempt was made to disguise them as 'oldies'.

By far the biggest improvement was discerned when the grid rresistor for the

RF amplifier was swopped, thus confirming the hypothesis that resistors could be noise generators in their own right.

The paper condensers again showed that 'old is not always best'. Most of the waxed paper types showed some leakage. In some cases this leakage went up considerably when left on the bench with an HT supply connected and with a series microammeter to show the leak. Again all modern polyester types were fitted, they were tested individually before being soldered into the circuit.

By now the threshhold noise level, taken when the aerial and earth were shorted together, was so low as to be unmeasurable on Mike's equipment. It was at least as good as his pal's 358 - the set which had been the root cause for this three week restoration project. Leaving labour out of the accounting the job had been an expensive one, just on £35. To Mike's ear the results are well worth this sum. He expects another 50 years of life from this 358, but says that he doubts he will be around to check on things as he is 'pushing 90' already.

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Viva Valves.

A recent letter from an observant EUger mentioned that a recent RS Catalogue had a picture of valves on the front cover. This company have always featured several valves such as the Mullard ECC81 -3 in their stock, no doubt catering for those keen audiophiles who still insist on valve technology for reproduction quality.

Art also writes in to say that if one checks out the Hi-Fi mags then one sees that valve technology is alive and well thought of by many. With prices into the tens of thousands of Pounds range for complete valve type amps and pre-amps.

This is just a couple of letters received as a result of my comment in the last issue re the KT66Rs being manufactured today. Art says that he used an all KT66 home brew transmitter on both Top Band and Eighty. this was a KT66 as a Pierce oscillator driven by exWD type FT243 crystals. A buffer/doubler KT66 was then used to drive push-pull KT66s. His only problem was a lack of drive from some of the crystals and he used two strategems to cure this. the crystals were opened up and washed in carbon tetrachloride, plus the oscillator valve was fitted with a 2500 ohm wirewound pot across the kathode resistor. This could be 'twiddled' to get maximum drive to the buffer valve. The transmitter was only retired in the 1980s when rhumatism stopped Art's CW operation, his receiver then and now has been an S.640. One of the pre-production sets that were sent out to selected 'hams' for their appraisal.

One comment which Art does feel worthy of interest is about his mention of the use of Carbon Tet for cleaning the crystal wafers. Art says that this now banned substance was in very common daily use for cleaning purposes both in industry and in the home. It was sold as Thawpit and used for stain removal. Knowing what we do now about its toxicity and the manner in which it can cause liver damage apart from various forms of cancer Art is astounded at the very casual approach to its use just a few years ago.

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Chris Surman writes to E.U.G. Members from her retirement home in sunny Birmingham

April, 1999

Dear EUG Members,

Thank you all for my lovely gift of a Silver Rose Bowl, engraved to celebrate my association with the User Group. It has pride of place in my window for all to see. It's been a real pleasure to have been able to help, and of course speak to so many of you. I wish you all well, and feel confident that EUG is in very good hands.

I had ten very happy years at Eddystone, and wish them all good luck with any plans the future may hold. Now I am enjoying my retirement and have so very many things I want to do. Thank you all once again.

Love, Chris. X

P.S. And don't forget - Eddystones do it "On Air"!

Good Spotting Sherlock.

In Issue 53 there was a photo of the 'soak-test' bay at the Bath Tub, with enough 940s on test to bring tears to any EUGer's eyes.

John has written in asking whether the item of test-gear on the top shelf and on the right hand side of the photo, was an 'In-House' model ? I had already spotted this myself and mentioned it to Graeme in a phone call.

The item in question does appear to bear a remarkable similarity to an 880 as regards its front panel and case. Maybe Brian can delve into his bio-memory banks and enlighten us, or maybe Cliff Hartles, pictured in this photo, can recall something of the equipment in use on that occasion ?

I thought at first that it was just an 880/2 but there seem to be some differences. Nice to know that I am not the only EUGer who goes over such photos with a magnifying glass for the fine details.

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990R Still in Service

A nice letter from a non-member up in Scotland to say that he has recently carried out a full service on a 990R which has been, and still is, the main receiver at the local Gliding/Parachute Club. The set has had two complete service jobs during it's lifetime, the most recent was occasioned by its having an almost full cup of tea spilledover the top. Even when opened up the most damage appeared to be from sugary deposits which had gummed up the drive mechanism. The earlier service job had occasioned the replacement of one or two trannies after the aerial had been struck by lightning. Not a bad record for any electronic equipment this.

Bill mentions the fact that a suggestion some years ago that the 990R be replaced for some more recent receiver was turned down after the operators declared the 990R to be far more User Friendly. A scale which could be read in sunlight, knobs which could be 'felt' as opposed to those mini push buttons on modern stuff. the last comment came from Bill himself. "In winter the scale lights give a more cheery look to the control cabin".

Not much of the above relates to the 990R's electronic performance does it ? The set was made in many guises and was used by many organisations from University Labs to the Armed Forces, it still is a good performer if fitted with a suitable aerial system. After all, having an overall gain figure which allows reception of fractional microvolt signals - as do some modern sets - is of little use when all you are doing is amplifying signal plus noise.

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ATUs / AMUs.

Both Graeme and I are staunch advocates of some kind of aerial matching unit, call it what you will, ATU or AMU.

Home-brew seems to have become a nasty word these past years, possibly because of the increasingly complex circuitry involved with modern solid-state electronics.

The ATU/AMU must be the one item which is still relatively easy to build with little or no test-gear or workshop facilities. I like to experiment with various circuits myself but Steven must be the only guy I know who devotes most of his spare leisure time to building ATUs, for receiving and for QRP transmitting.

At last count Steven had some 15 such items in his shack, most in working order and ready to be used for comparitive tests at any time. These range from simple 'L' configuration circuits for a single band to one highly complex multi band multi configuration type as described in the ARRL Handbook. Even this has been modified on numerous occasions to suit Steven's needs.

Way back when the bug first bit it had to be decided on the type of connector which was to be used. A multiplicity of connectors would have entailed an equal number of patch leads or adaptors. If you haven't tested them some of those connectors and adaptors are awfully lossy !

The decision was made to stay with 72 ohm BNC types as the then receiving and transmitting gear had them. This situation exists still, no problems have been encountered in using BNC connectors for a 5 watt transmitter used on 7 and 14 Mc/s. He did not discover until much later that there are both 50 and 72 ohm BNC connectors (plugs and sockets). Some of his early gear had 50 ohm sockets but this did not appear to have any measured effect on his received or transmitted signals.

Steven wants EUGers to know that until you try an ATU/AMU with your favourite aerial - receiver combination you will not realise the possible improvements. Any receiver will have an aerial input circuit optimised for a given RF impedance (he says). The manufacturer will attempt to maintain this impedance within limits, throughout the range of the receiver. You aerial, be it a long-wire or a doublet, or any combination of these, will have an impedance which can range from several tens of ohms up to several tens of Kilohms according to it's frequency characteristics.

This is where the ATU/AMU comes into it's own. It will provide a fairly close impedance match between the aerial impedance and the receiver impedance, hence allowing of a more efficient transfer of the available signal. Seeing your usual S4 signal go up several S points is always a thrill, so go on, get something for nowt, so says Steven. (Yes, Okay, he is a Yorkshireman).

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Centre Electronics.

Howard Turner has decided to call it a day and to close Centre Electronics. By the time that you read this item he will have disposed of his stock and will have gone to work for Billington Valves. BUT SEE PAGE 38!

Bad news for us but as often there is also an element of good news within the bad stuff. Dave Simmons has acquired much of the Eddystone Spares stock from Howard and has transported the lot to his QTH. Dave is probably, at this

moment, busy cataloguing just what he has got his hands on ! A very keen EUGer, Dave is already helping us to run the Group, we have hopes that Dave will soon be in a position to help out other EUGers. Good for you Dave.

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Well They Would, Wouldn't They ?

If you are running a Company where you are building several models at one and the same time it is often advantageous to make some attempt at utilising common components, hardware, or even built modules.

An example for us is where the smaller rectangular front panel was used for a whole range of sets, control differences being marked by a different finger plate. The same for the early slide rule sets like the 840, 670 etc; and later for the 940, 830, 770II etc; all okay there. A A

A good look at most of the valve type Eddystones from the 504/556 models onwards to the 830/940 models will show that the chassis is in fact divided into three major units. You have the Power Supply chassis on one side, the tuning circuits on a central chassis, and the IF/AF circuits on a third chassis. The aforementioned does not always hold good, well not exactly so - take the 640 with its AF output stage mounted as another mini chassis ouboard of the central chassis.

Now it made sense to make these separate chassis on separate production lines and in batches but serendipity being what it is there might often be a few spare chassis of one type or another left over.

I have always believed that the reason for there being some 'odd' or 'one-off' versions of some sets around is that when one model was coming to the end of it's production life and a new model was being conceived, well the odd extra chassis that were on the shelves were used up. Makes sense economically to my way of thinking.

I have myself seen a 670A which whilst being perfectly 'normal' as re the RF side had an AF strip which was exactly that of the older 670. Whether it was a one-off or one of several I know not, it worked as well as any other 670A so why worry ?

A recent letter from Gerry mentions that he has two very different 680 receivers. Both are what we now call the 680/2 to differentiate from the original simpler 680. But these two sets have different circuitry.

As Graeme once verified, all literature for the 680/2 shows it as havinga double pentode in the audio driver stage. Now I know from personal experience that some early sets had a double triode here. And didn't some early 770 sets have this same circuitry ? A double triode stage driving the AF output ?

A letter this week makes mention of the fact that some of the MIMCO variants were almost completely Eddystone models - just minor changes in coverage, controls, or power supplies.

Don's particular hobby is the collecting of schematic diagrams, especially of the valve era and more especially of Marconi and Eddystone products. He has several hundred now, both originals and these same put onto computer by

scanning. He was therefore interested in the items last month anent the badged models which were made by Eddystone for MIMCO/Marconi etc; - he has had no luck whatever with his enquiries via Marconi for information on these badged sets, "almost as if they would lose face by admitting that somebody else had made their products" - says Don. Does anybody ever get an answer from Mr Leadbitter, MIMCO Archives, Chelmsford ? No this is NOT the same as the Marconi Archives place.

His plea to all EUGers is, - Please, if you have any knowledge of badged models made by Eddystone for Marconi or any other such as IMR then please let us know so that this info can be saved for posterity. He has promised that when he has enough info he will supply us (EUG) with a complete list for inclusion in this N/L. Thanks Don.

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The Everyman Short Waver.

When our Issue 40 for Xmas 1996 featured the Everyman model the imagination of one EUGer was heightened to the point where he decided to attempt to build as near a replica as possible. The fact that this was a version of the already well established Kilodyne 4 meant that George would be able to draw upon a pile of available literature and would be able to change slightly some of the construction techniques. The Everyman is basically a Kilo-4 but it has been 'fine-tuned' for Short Wave use.

With the exception of valves, and one or two components there was no chance of getting originals for this replica. George being a toolmaker by trade hoped that he might be able to fabricate some parts in his own workshop. The plywood panel, base, and side supports were easy-peasy George admits, the ceramic parts were not so easy. In the end modern hard plastics were utilised for the construction of the insulating pillars and the valve holders. The pin sockets for the valve holders came easy for George, with a lifetime of metal work behind him. Terminals were made up using modern screws with suitably made and threaded knurled nuts.

A period (or almost) intervalve transformer was obtained, not a Ferranti of course, but it was suitable. The XYL's sister took on the task of hand-painting the Ferranti name inside an oval using gold paint. This has made the transformer really look the part.

The rather large format fixed condensers were of the metal can type that used to be identified as 'Mansbridge' condensers. None of these were available but George made up two tinplate boxes and fitted modern condensers inside these cans, then painted them grey. They really look the part.

The coil formers were a problem but one was obtained and from this sample three exactly similar formers were cast from resin, using a home made plaster of paris split mould. A certain amount of tidying up was necessary when these came out of the cast but a final coat of varnish really makes them look good. The pins were hand made on George's lathe.

The three variable condensers do not yet exist in their completed form. Brass sheet was used to make the plates and they have been cut out by hand. Two separate shapes, one is semicircular with a central spindle the other is more

what George calls 'possibly logarithmic shaped'. He is at present making the necessary endplates for these items, using Tufnol with a final varnish coating.

No decision has yet been made as re the control knobs but George envisions home turned knobs which will be as true to the photos in his period catalogue as it is possible to make them. He says that time is not a consideration in these matters, the main thing is that the finished set looks and works as the otiginal would have done.

He has admitted that the RF chokes came from a period, but non-Eddystone - receiver, they look like new having been re-varnished.

With two years of work behind him the original enthusiasm has not dimmed, he has no set timetable but admits that he would like to be able to send me photos of the completed Everyman by Xmas 1999 - just three years from the start. I wish you luck George and and shall look out for your photos. A Millenium Eddystone ? Ted.

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INTERFERENCE.

QRMike to some of us, although if it comes from Mother Nature then it is QRNorway ! Whatever the source it can spoil our use of our Eddystone receivers.

Despite many legal restraints as to the permitted limits of radiated interference it has to be said here. For us those legal levels are always too high. Just think of those 'aerials' many miles long which criss-cross the UK. All of the National Power Grid cables now carry radio frequency signals of one kind or another. These are mostly used for control purposes but they and any harmonics can ruin reception for miles around. Harmonics, quite powerful signals, can be produced by nothing more than a corroded joint. Try taking any cheap MW/LW tranny out with you, walk up towards any National Grid line with the set turned on, but tuned off a signal. The din will amaze you ! The harmonics go way up into the SW (HF) bands with only a slight reduction in intensity.

Almost every modern electronic device will produce QRM, from the simple pocket calculator placed close to an aerial feed line, to the modern computer which radiates sharp toothed pulses throughout the spectrum up into the VHF bands.

Most of these interference sources can be rapidly traced by turning items on/off whilst listening on your receiver. This is not always possible, especially if the interfering item is outside of your own home.

One very recent enigma was from intermittent beeps on the Eddystone receiver right through from Long Wave Radio 4 up to the 15 M/cs broadcast band. No new items of electronic gear had been installed and so the source was a problem. Dissing the aerial lead-in practically killed the QRM, it came back but very weakly with a temporary short wire aerial inside the shack. It thus appeared to be somewhere outside of the shack and closer to the Marconi 'T' type broadcast aerial that was normally used.

Going down to the bottom of the garden and walking back up slowly, following with the eyes the line of the aerial showed nothing at all. So far as

could be seen there was nothing new on the neighbours house but could there be something inside and out of sight ??? Luckily good, friendly relations exist and so some close enquiries were made. Nothing new 'electrical' had been bought or installed recently, both husband and wife swore to this. Giving a last look at the back wall of their house I spotted a miniscule plastic tube attached by very thin twin plastic leads. This was attached to a cuphook screwed into the wood window frame of the kitchen window. When asked they both spoke up together, saying this was 'just a little thermometer for inside/outside measurments. Taking the RM675 button cell out of this device cured my 'beeps' immediately.

The outside sensor of this mini-digital thermometer was interrogated on a 10 second period by the master IC in the unit, which was powered by nothing more than the 1.45 volts silver oxide cell. It was this interrogation signal which was producing the RF beeps which were so badly affecting my 940. The helpful attitude of my neighbours, where they repositioned the thermometer and sensor to a side window, has removed totally the annoying beeps. These things are now truly 'wireless' in that they have no connecting lead from the outside sensor unit to the inside master unit ! Ken.

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The Eddystone ECR.

Having an almost complete ECR which is in good working condition it must be extremely galling to lack just two small items to complete the restoration of this fine set.

Les has this problem. he is not an EUGer but has now the necessary info to contact Graeme and join the Group. What he is after are two of the small gain control knobs with or without pointers. These are black ebonite and if necessary Les is able to manufacture and fit the pointers from brass sheet.

If you have two of these knobs to dispose of then contact Ted who will pass the info to Les. He is perfectly happy to pay a sensible price plus all costs.

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Aerial Feeders

From Harry we get this reminder that the open wire feeders as were so popular in the early days of 'wireless' are still the most efficient if properly tuned and connected from aerial to receiver. They beat co-ax easily in a resonant aerial system, by using transposition techniques it is possible to balance out most QRM.

That the necessary insulators or spreaders are no longer easily obtainable need not be an obstacle. Harry has made his own from cut and drilled perspex off-cuts given away by a local shop. A sharp hack saw and some hi-speed drill bits have so far produced the necessary insulators and spreaders for an approximately 132 foot aerial and some 50 feet of twin feed line. Feeding the line in through the window is also pretty easy. no holes in the woodwork here. It was an easy matter to drill two holes in the glass window and fit screwed rod through the glass pane. Do not be tempted to use the glass as a stress or load point though. Harry has arranged for the load from the feed line to be taken by two large cup-hooks screwed into the top of the window frame.

Harry points out that it is never sufficient to just simply put up the maximum amount of wire and to hope for the best. It is far better to check out local circumstances and then to maybe limit the overall length of the aerial wire whilst ensuring that what you have got up - as high as possible - is also as far as possible from local sources of possible QRM. Orientation too may be just as helpful in that siting the aerial so that it is not 'firing' towards a possible QRM source.

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A New Aerial System.

The following article carries on the theme of aerial systems and is the result of one EUGers labours to prepare for several more years of Broadcast listening.

In this QTH there are several possible items that needed to be taken into consideration. There was a street light - the yellow sodium type - just across the road from the front of the house. There was a sometimes flashing, sometimes steady (in dry weather), Neon sign some fifty yards away, there is still the possibility of ignition QRM from older motor vehicles using the road in front of the house.

All three of these had been noticed as QRM on occasion using the old long random wire which ran from the bottom of the garden right up to the front garden wall, with the feeder coming down diagonally across the front garden to the side window of the upstairs shack.

After four years it was decided to renew the aerial system before the next winter gales could blow it down. Much time was spent looking at and considering the possibilities, given that the rear of the house faces almost due east and that much of the listening time is spent rooting out broadcast stations from more or less that direction.

A final decision was made to use one of those '2FD' types where a folded doublet is terminated by twin feeder, with a resistance matching this feeder being inserted in the other 'leg' of the aerial. The prime consideration here was what kind of wire and feeder would be available for use.

An almost complete 100 metre roll of 300 ohms twin feeder was bought from a pal at the local radio club and sources such as the ARRL handbook, articles in the SWM and PW etc; were consulted.

It was finally decided that the aerial would be run from a newly sited mast at the bottom of the garden up to the chimney on the rear of the house. This would produce a length of some 70 feet which sloped slightly upwards from the 30 foot mast to a point about 36 feet on the chimney.

The feeder would thus descend in a curve towards the shack window where a hole had to be drilled and fitted with a rubber grommet to allow passage into the shack to the Tuner/preselector on the window shelf..

The necessary lengths for the 'top' and the feeder were measured and cut, allowing some extra on the feeder for a bit of 'droop' to allow rain drops to fall off before reaching the shack window.

The nearest suitable resistor which could be found was a 330 ohm non-inductive type rated at 2 watts. This was soldered into place and then fully encapsulated into a cylindrical shaped resin tube - easily done by rolling a paper tube around the resistor, allowing enough length to include the joints, and then filling this tube with resin. Afterwards the paper tube can be peeled away.

The joints at the end of the doublet were likewise soldered together and fitted with strong plastic figure 8 insulators, they were then sealed in resin tubes too. The point where the feeder attached to the aerial proper, opposite the resistor, was likewise sealed in resin and this 'tube' was attached to the resistor tube by binding with resin impregnated tape. the whole thing might sound a little unwieldy but it is not so. With some forward planning it is possible to keep the external dimensions of these 'tubes' to withing reasonable limits and this gives the added advantage of reduced weight.

All efforts were made to ensure that the aerial and feeder remained balanced throughout as this would give good elimination of local QRM signal pickup. The feeder was taken to a newly constructed balanced input on the tuner/preselector. Results so far have proved that the care taken in siting and constructing this new system do give advantages as regards the local noise levels ratio to received signals.

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Stereo Plugs.

Rob tells me that he has been having trouble with modern 'phones which having the modern stereo plugs will not work in his equipment mono sockets. What happens every time is that one earpiece works whilst the other is dead.

Now he has solved the problem quite easily. Either at the plug end (if available in non-moulded plugs), or at the earpiece end (usually more accessible), the trick is to disconnect the wire which goes to the centre contact of the plug. You have basically a Tip, a Ring, and a Sleeve contact on these stereo plugs. The common is the sleeve,the left and right earpieces go to the Tip and the Ring of the plug. By disconnecting and taping up the end of the Ring conductor then paralleling, or series connecting if you prefer, the two earpieces you get a mono set of 'phones which will still work on a stereo set albeit with just mono output.

Rob has now converted three sets of phones used in his radio set-up and all work happily on his 830, 840A and 640. he can also take a pair into the bedroom and listen on them to his BC radio (on mono). This 'mod' applies to either the 'big' plugs as fitting the Eddystone or to the smaller plugs as fitted to modern equipment and then used on the Eddystone via an adaptor.

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Tuning Gangs.

The occasional crackles when the 640 was tuned always seemed to be about eleven 'O' clock on the scale no matter which range was in use. It really was not necessary to an Einstein to work out that the problem must be mechanical and that the most likely culprit was the tuning gang. When the set was opened up

the state of this component was enough to make Dennis run for the vacuum cleaner and to try both sucking and blowing with this. Not much difference though ! It looked as though more radical steps were needed.

Eventually it was decided to remove the tuning gang from the chassis and to clean it in a bucket. No joke this. The gang came out easily after the braid connecting leads were unsoldered and it was seen that the rubber bushes needed to be replaced also.

A fairly strong solution of household detergent (Fairy Liquid) was made up and the whole thing dunked into the bucket of detergent. It was left in the warm solution for several hours before being taken out and the cleaning job completed with a long, soft-bristled brush. By now the aluminium plates were gleaming like new and the only problem was to completely dry the whole unit.

By mounting the tuning gang on some temporary supports - old yoghourt pots - and then by gently angling the air current from a kitchen fan the job was easily finished within an hour. The last job was to re-lubricate the bearings with some machine grease and rotate the rotor several times to distribute this grease throughout the bearings.

When the gang was re-fitted into the Rx and resoldered the improvement was immediate, both in the lack of QRM and the smoother operation of the tuning control. Bill.

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Further GEC Group Closures.

It now seems that Eddystone is not the only casualty from the vast GEC Group of companies. Industry sources indicate that besides Eddystone the cable manufacturing company TCL in Dagenham is to go QRT. Ditto the massive job cuts at Secure Systems, Liverpool and Marconi in Chelmsford. More than a 1000 jobs in all.

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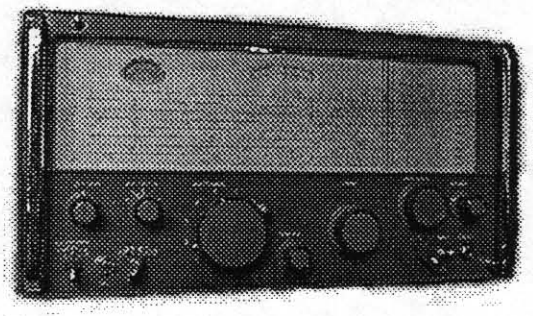
FOR SALE

EA12, IMMACULATE, £275

Will the member who placed the above advert about seven weeks ago please advise me of his name and phone number. I will then forward to him all the enquiries which I receive.

I apologise to all members and the advertiser for this unsatisfactory state of affairs. I set it aside amidst an avalanch of members' renewals and it has mysteriously vanished.

Graeme G3GGL



This month's featured model

Eddystone 830

BY

SIMON ROBINSON G8POO

Every EUG member must have his or her own favourite receiver. The Eddystone Model 830 in its various guises must rank as number one with many people. It represents one of the last valved receivers ever produced by Eddystone and when introduced during the 1960's cost just under £400-00. That may sound cheap but consider that a Mini Car cost not much more.

With the exception of the 880 which does not 'feel' like a traditional Eddystone and requires Geoff Capes to move it, the 830 offers the finest performance of any of their 'hollow state' receivers.

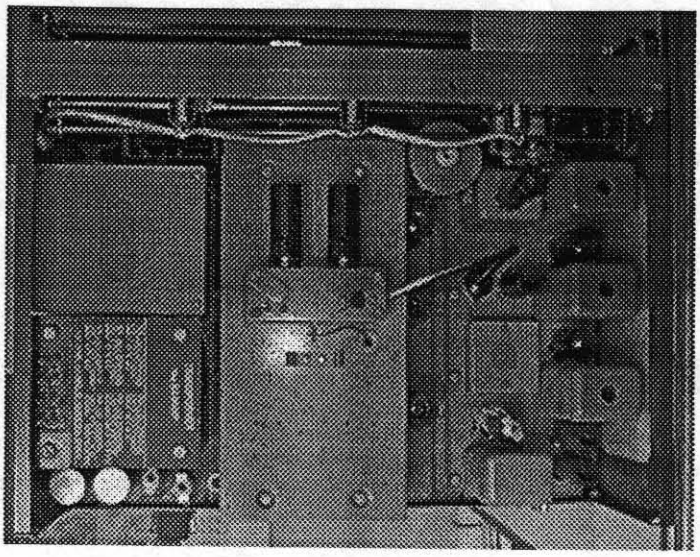
The are several variants of the 830, which I shall briefly cover however most, are very similar to the popular 830/7 on which this article is based. The 830 is a general purpose HF/MF communications receiver covering 300KHz to 30MHz in nine switched bands. Facilities are provided for reception of AM, CW and SSB. An EP20 Panoramic Adapter can be connected to the IF output socket to provide visual analysis of received signals.

The basic design features single conversion on the lower frequencies i.e. up to 1.5MHz and double conversion above. Intermediate frequencies of 1350KHz and 100KHz are utilised to provide good image rejection on the higher bands with the added bonus of incremental tuning on the second oscillator. This allows the use of one of eight crystals in the first oscillator to provide high stability. The second oscillator then tunes +/- 100KHz either side of the front end. Separate detectors are provided for AM and SSB/CW with the latter being a product detector. The audio on a good 830 is truly wonderful to listen to.

It is also possible to crystal control the second oscillator if desired thus giving even better stability. The 830/9 of course can employ a synthesiser for all oscillators and the BFO feed for the ultimate in stability.

The set also features variable selectivity with a crystal filter for CW. A noise limiter is provided, as is a built in crystal calibrator. Audio outputs are available for loudspeaker (normally the plinth type), 600 ohm line and headphones.

One of the best features of the 830 is the use of an ECC189 (6ES8) as a cascode RF amplifier. This is possibly the best configuration of an RF amplifier to give very low noise, sufficient gain and protection against cross modulation.



Top view of 830/7 showing location of main components.

As with all Eddystone receivers this one really was built to last.

The small circular retaining plate towards the top right holds the eight crystals in position.

Valve Complement

Ref	Type	Circuit Function
V1	6ES8 or ECC189	RF amp. - cascode
V2	6AK5 of EF95	1st Mixer
V3	6AJ8 or ECH81	2nd Mixer / isol. Amp.
V4	6C4 or EC90	2nd Local Oscillator
V5	6BA6 or EF93	1st 100KHz IF Amp.
V6	6BA6 or EF93	2nd 100KHz IF Amp.
V7	6AL5 or EB91	AM Noise Limiter
V8	6AU6 or EF94	Cathode Follower IF Out
V9	6AT6 or EBC90	AM Det. / AGC Rec./AF Amp.
V10	6AQ5 or EL90	Audio Output
V11	6AU6 or EF94	Crystal Calibrator
V12	6U8 or ECF82	1st Local Oscillator
V13	6BE6 or EK90	CW / SSB Detector
V14	0A2 or 150C4	HT Stabiliser (1)
V15	0A2 or 150C4	HT Stabiliser (2)
D1/4	DD006	HT Rectifier Note: 2 x DD058 may be fitted in lieu of 4 x DD006

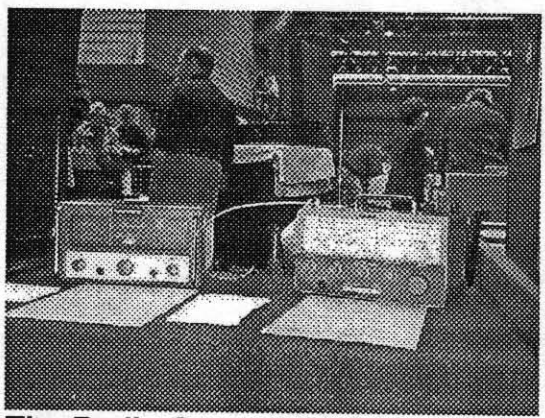
- No or very faint audio - check R45 which is the anode feed to V9 - 270K.
- Meter will not zero - check R32 to R36 although R33 is normally the culprit.
- Other weird faults - change any capacitors in the set with 'HUNTS' written on them. They cause a great number of stock faults.

Whilst an individual set can exhibit many faults those mentioned above have regularly been encountered by the author.

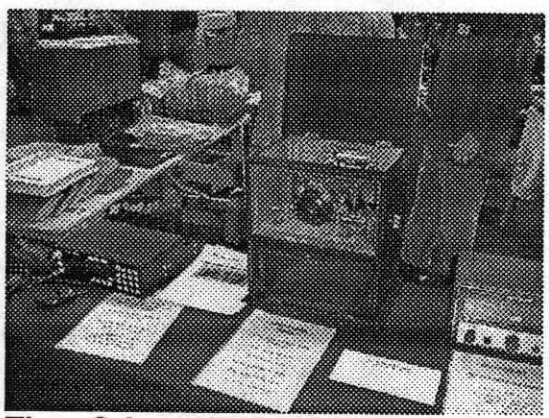
Please remember to fit the shorting plug at the back or you could end up with a very dead set. The audio connector must also have the 'mute' shorting link fitted unless using the 830 with a transmitter.

Pictures from an Exhibition

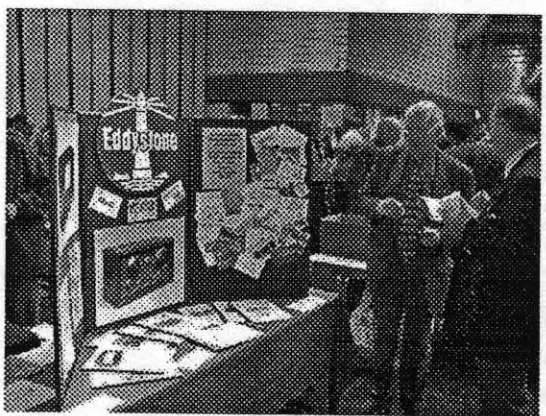
At the recent National Vintage Communications Fair the Eddystone User Group was very much in evidence. Manning the stand were Graeme G3GGL, Ron G8URU, Chris G0EYO and Simon G8POO. The fair was well attended and many members called at the stand to meet the team and pay their subscriptions. We had managed to borrow some receivers from Eddystone before the company was sold on.



The Radio Sonde and Yachtsman



The Orion 7000 and Twin in pride of place.



Graeme G3GGL in full swing

The NEC Team - Left to Right Graeme, Simon, Ron and Chris

"EDDYSTONE SPECIFIED"

A SERIES OF VINTAGE CONSTRUCTIONAL PROJECTS WHICH SPECIFY THE USE OF EDDYSTONE COMPONENTS

IT'S AN ILL WIND . . .

The first edition of "The Amateur Radio Handbook" was published by the RSGB in December, 1938. Five thousand copies were printed and they sold well. A second printing of 3000 copies was ordered. It was delivered to Headquarters the day before World War two started. All transmitting licences were suspended and equipment impounded by the Post Office. The outlook for sales was bleak.

But within weeks, beginning with a few orders from members who had been posted to Signals Schools, the fame of the Handbook spread like wildfire. By 1940 Headquarters were working on a second, improved edition.

The first printing was published in July 1940 and by the twelth printing in July 1946 no less than 181,500 copies had been produced! It was one of the great publishing success stories of the war.

KIT BAG SPECIAL . . .

It must be remembered that this second edition was compiled during the 'Phoney War', before the route of the British Expeditionary Force and the evacuation from Dunkerque in June 1940. One of the constructional projects was for 'a Portable Two-Valve Receiver suitable for a kit bag', although it is actually AC mains powered. It is this set which we feature as this month's "Eddystone Specified". In fact the only component manufacturer mentioned in the whole list of parts is Eddystone, and that only for the three variable condensers.

A very smudgy photo (not fit to reproduce here) shows that the plug-in coils are undoubtedly Eddystone also, and be assured that the anonymous 'R.F.C.' in the reaction circuit could also be a Stratton product. In fact, the whole description is distinctive for its general lack of detail about coils and band coverage, but no doubt it was relying on the fame of the Company's products to fill the gap!

continued . . .

A BIT OVER THE TOP . . .

Curiously, for a set which omits an RF stage 'in the interest of size and weight', it incorporates three low frequency chokes, none of which is necessary for its satisfactory operation. The two smoothing chokes (Ch) could quite easily be replaced by two 1000 ohm one-watt resistors. The output anode cicuit, which features choke-condenser coupling to the headphones, would also be perfectly happy without the L.F.C. - just R7 (50,000 ohms) connected direct to the anode of V2 . . .

SO HERE GOES with the original feature:

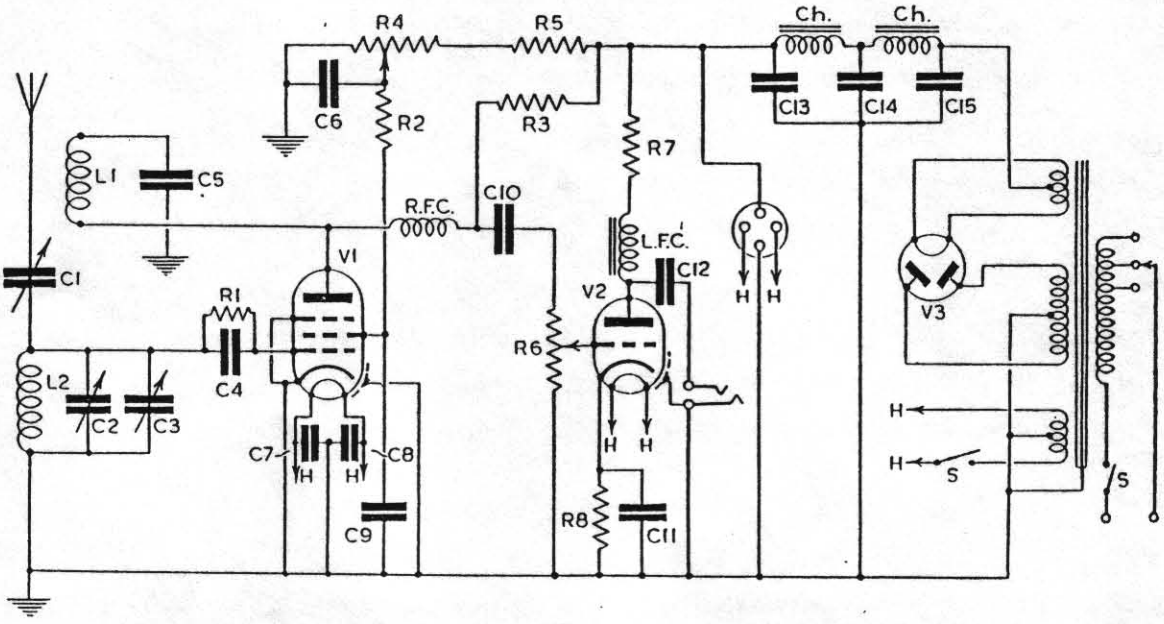


Fig. 2

Circuit diagram of a Portable Two-Valve Receiver suitable for a kit bag.

C_1	65 $\mu\mu$F, Eddystone 978.	$R_{2,3}$	100,000 ohms.
C_2	100 $\mu\mu$F, Eddystone 900/100.	R_4	50,000 ohms potentiometer.
C_3	22.5 $\mu\mu$F, Eddystone 900/20.	R_5	25,000 ohms.
$C_{4,5}$	100 $\mu\mu$F.	R_6	.5 megohm, potentiometer.
C_6	.1 μF, Tubular.	R_7	50,000 ohms.
$C_{7,8,9}$	.01 μF, Tubular.	R_8	2,000 ohms.
C_{10}	.05 μF, Tubular.	V_1	Type 6J7.
$C_{11,12}$	2 μF.	V_2	Type 6C5.
$C_{13,14}$	8 μF × 16 μF.	V_3	Type 80.
C_{15}	12 μF.	CH	Smoothing choke 10-20 H, 30 mA
R_1	1 megohm.	LFC	Low frequency choke

Transformer, 200-240 volts input, 200-0-200 volts, 20 mA, 6.3 volts, 1 amp.; 5 volts, 2 amps. output.

R.S.G.B. 1940 KIT BAG SPECIAL

"The circuit diagram of a simple and compact two-valve receiver specially designed for a kit bag is shown in Fig. 2. Radio frequency amplification has been omitted from this receiver in the interest of size and weight, thus it is particularly necessary to provide an efficient detector. For this reason an R.F. pentode has been chosen. The aerial is connected *via* the variable condenser C1 to a plug-in coil L2. By the adjustment of C1 the aerial loading can be so arranged as to permit of smooth reaction,

whilst coupling can be reduced to deal with strong signals, or provide increased selectivity. This is an important feature when aerials of varying size and type are used.

The main inductance L2 is tuned by C2 and C3, the former being of relatively large capacity for the general coverage of wave bands, and the latter of smaller capacity for bandspread purposes. The coupling of the reaction winding L1 is fixed approximately for each coil, and the fixed condenser C5 acts as a stopper for the anode voltage. Reaction is controlled by variation of screen voltage through R2, R4 and R5.

The condenser C9 by-passes the screen for R.F. potentials, whilst the large condenser C6 is provided mainly to prevent noise when potentiometer R4 is adjusted. An R.F. choke serves to keep excessive R,F. potentials from the L.F. stage V2, and the coupling between the detector and the first A.F. amplifier is by means of resistance capacity coupling, the coupling resistance being R3 and the condenser C10. The potentiometer R6 across the grid circuit of the first A.F. amplifier acts as a volume control.

The anode of V2 is fed through the resistance R7 which limits the anode current and also the audible output to a comfortable level. The choke L.F.C. ensures an ample anode load, and the potentials set up across it are transferred to the telephone jack through the blocking condenser C12, which prevents the H.T. voltage from reaching the 'phones. By this arrangement one terminal of the 'phones can be earthed, so that the risk of shock is minimised. The cathode resistance R8 provides bias for V2, and is by-passed by C11 so that a low-impedance path exists, and degeneration is avoided.

The receiver is fitted with a simple A.C. mains power supply. A plug and socket H, enables the receiver to be fed from batteries when this is more convenient. The switch S opens the heater circuit for battery operation."

SO THERE YOU HAVE IT. It's interesting to note the rather hopeful use of the term 'first A.F. amplifier' for V2 (6C5), because it's the *only* A.F. amplifier! And it's a little odd that it uses two (then current) octal valves in the set itself but has the obsolescent type '80' (American UX base) for the rectifier instead of the octal 5Y3, etc. Actually it bears a strong passing resemblance to the Eddystone 'Amateurs Shortwave Two' of 1938, but features an extra (and very useful) refinement. I refer to the audio gain control, R6, which enables you to copy Morse without getting deafened . . .

GRAEME - G3GGL

`Featured' Model The 659.

"Whats that ?" says one EUGer. Well there are not many about, probably they never did make too many of them, but it did exist in 1947.

Described as a Broadcast Listener's version of the famous 640 it looked much the same except for a dark scale with light markings. It featured a full coverage from 480 Kc/s up to 30 Mc/s in four ranges using eight valves in a traditional single superhet circuit. It also featured a 'magic eye' for station tuning - a pretty common feature in those days. It was designed for AC mains operation and suited most of the then current supplies around the world. A /B version was made for operation from a 6 volt vibrator pack.

The publicity blurb described this set as a 'High Quality Broadcast Receiver for use with a High Fidelity Console Speaker. It was pictured on top of a massive metal cased console which must have held at least a 10" speaker. The model number for the speaker is lost to us apparently. Using octal type valves as per its sibling the 640, this receiver must have been very similar in performance to the later 740.

An RF amplifier feeding a single mixer oscillator valve which then fed the single stage IF amplifier which fed the then common double diode for detector and AVC. The AF signal went to a voltage amplifier and thence to the potent 6V6 output valve. HT power was from a full wave rectifier and as previously mentioned the accuracy of fine tuning was determined by the use of a 'shadow' type of magic eye valve. A schematic is given but be warned - there was a similar version called the 659/670 so yours may not be the same.

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MIMCO 640 ?

Well okay I did hear this rumour way back in the mists of time when Tarzan was in nappies ! Colin has brought it up again and I am fully prepared to accept that there was one. Just show it to me, or a photo, and tell me the Marconi/MIMCO model number. PLEASE !

I have never seen it advertised and my original information came from an ex Merchant Navy type who may have confused his models - a 670 badged as a MIMCO maybe ?

Geoff Woodburn did tell me that no such animal had ever existed and that he WOULD have known if it had.

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Mystery Components ?

Whilst servicing his station receiver - a 750 - recently Bill had cause to replace the anode to grid coupling condenser from the AF voltage amplifier to the output valve. It had finally succombed to old age and was leaking a few volts too many onto the control grid of the output valve, thus causing audio distortion and overheating of the output valve. (Did you know that this has caused output transformers to go open circuit Bill ?).

The letter to me was prompted by the discovery of a small value condenser which was connected from the output valve anode to its grid. No marking could be seen on it but the circuit suggests it was 6 pF.

Such a low value is generally associated with RF or IF circuits, and not found in audio circuits. In this case disconnecting it made absolutely no difference but working on the principle that it must have some reason to exist it was first tested and then resoldered into place.

The 750 audio output stage is a bit 'different' in other ways as a cursory look at the circuit diagram will show. What, no kathode bypass electrolytic condenser at all ? FACT. This was to introduce some negative feedback into the stage which corrected the sound quality. The mini condenser of a mere 6 pFs was there for a similar reason - to introduce a degree of tone correction to the stage.

One of the selling points quoted by the Company for the 750 was its High Quality Audio Stages, but why so much was made of this on a Communications Receiver I shall never understand.

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Marconi 'T' Ærials.

Well whether they are truly described as Marconi types may be in question but the particular type has come up several times in recent mail.

A long vertical top wire centre, or off-centre, fed by a single feeder wire and connected into the Receiver or Transmitter by an ATU. Nothing esoteric about such an aerial and it may still be seen today on many ships - and some small boats. It is easy to make, easy to erect as it need not even be vertical but may slant, it seems easy to feed over a wide band of frequencies.

This is a high impedance aerial system and especially when fed off-centre it does appear to work over quite a wide range. The version used by one correspondent is about 130 feet in overall length, almost but not quite vertical, and it is fed at a point 45 feet from the end nearest to the house. Used with a simple home-brew ærial tuning unit of the PI type this aerial has long given a satisfactory performance over all bands from LW Broadcast to the ten metre amateur band. It can even produce pretty good signals on the very low frequencies around 50 Kc/s when used without the ATU.

Whilst very little is known about the technical aspect of this system it is believed to have originated in the early days of maritime radio. Does anybody care to write us an article which goes more fully into the technicalities of the 'T' type ærial ?

- - - -

Delayed AVC ?

A query from one non-technical member here. What is the 'delayed' bit, he has some understanding of Automatic Volume (or gain) Control.

This is not referring to a delay in TIME as he supposed but a delay until the

signal level reaches artificially preset levels - at which point the AVC kicks in. Hardly a very technical explanation but one he discovered in an old Wireless Encyclopaedia. He now asks how is it done ?

In so far as it goes the Encyclopaedia is right, the delay is introduced by feeding a preset voltage derived from a potentiometer across the HT to chassis lines. Only when the signal level in that AVC controlled stage reaches, or passes that preset voltage does the AVC begin to work.

This is the sort of thing that is adequately covered in many books on theory such as the RSGB or the ARRL Handbooks, get one today ! They may be old but they are never out of date.

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Protective Diodes.

There has been some thunder and lightning about already this year and so that may account for Tom's problem.

The EC10A went deaf the other week and after first suspecting his aerial it was necessary to open up the set and have a quick shufti - says Tom.

Not a lot to be seen but the protective diodes bridged across the ærial and earth socket were measured and found to be almost short circuit on a good quality DVM. Definitely no rectifying action either.

Silicon type 1N4004 types were to hand and they were used to replace the originals, Lucas types he believes, wired back to back. The EC10A was soon back and working as usual but now Tom has also wired a 10 Kohm resistor across his aerial to earth wires to discharge any static that might be built up on his long wire aerial should it be left unconnected. He has experienced shocks in the past when coming back from holiday and reconnecting the aerial lead to the receiver socket.

Tom also mentions that he suggests ALL equipment ought to be dissed from both mains supply and aerial and earth leads when not in use. This was always the practice in the early days of 'wireless' and should still be.

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The EY11.

Graeme tells me that the one in the 'museum' is the only extant specimen as his information via Bill Cooke is that none were made for manufacture, just the one prototype. strange this since I feel sure I have encountered one somewhere in the past. We may get a 'write up' on this one though from Graeme since he was able to borrow it for the NEC Stand this year. Simon is sure to have photos of it as with the others so we shall just have to be patient.

- - - -

The EUG Capacitor Reformer and Tester

A Construction Project

BY
SIMON ROBINSON G8POO

WARNING: This equipment generates potentially lethal voltages. No responsibility will be accepted by either the author or the EUG for injury howsoever caused in the use or misuse of this equipment.

Having just acquired your new addition to the family *(an Eddystone Radio of course!)* most people, including myself, can't wait to rush home and plug it in. Once plugged in you then leave it 'for a few minutes' to warm up. You watch the dial lights come on and then the telephone rings. It's your pal from up the road and you chat for nearly half an hour. Suddenly all the lights in the house go out with a loud bang. You run to the shack and find black smoke pouring from your latest treasure and soon notice a new loft access hole created by a spacebound HT electrolytic capacitor.

What happened? The most probable cause is that your orbiting capacitor had been without power for many years and had depolarized. A previous owner may have fitted a choice ten amp fuse because the one amp one 'kept blowing by itself'. As a result you have probably got a burnt out mains transformer, damaged rectifier and possibly cosmetic damage caused while the capacitor ejected itself from the cabinet.

The lesson here is that BEFORE you switch on, check all the input wiring and mains fuses. If the mains fuse is either blown or higher than that originally fitted it's a good bet that problems lurk ahead. Check the rectifiers and other components for signs of burning or overheating. Finally you MUST reform the HT capacitor(s) properly. How do you do that? There are many solutions including a bulb in series with the HT supply. If you are lucky this may work however the unit described here will slowly reform the capacitor(s) without undue heat or stress.

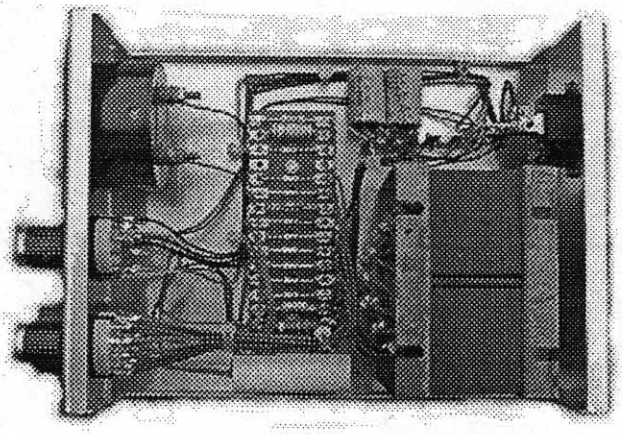
The "Capacitor Doctor" is simply a 700-volt DC supply with a potential divider across its output. Various taps can be selected with the available current restricted. This current is monitored with a small 5mA meter. Use of a voltmeter, either built-in or external, is recommended to monitor the voltage directly across the capacitor under test. As a bonus a leakage tester has been included which can be used to check high voltage capacitors or insulation etc...

Operation of the unit is straightforward. Make sure the subject capacitor is fully discharged by checking it with your voltmeter. First disconnect the capacitor from its circuit leaving it in-situ if possible. Ensure the "Capacitor Doctor" is set to off and then connect the supply leads. Set the voltage selector to the lowest setting and connect a voltmeter to the capacitor terminals.

Switch on the "Capacitor Doctor" and slowly increase the voltage setting until the reading on your voltmeter begins to rise. As you increase the voltage ensure you do not exceed the working voltage of the capacitor. You will eventually reach a point where the output voltage does not rise but the current drawn does. At this stage you must leave the capacitor to reform until the voltage rises and the current drops. This could take several hours so be patient. The process seems to improve if you occasionally switch off the unit to discharge the capacitor and then restart the procedure. On completion the capacitor should be at its working voltage and the current drawn less than a milliamp or so. Now switch off the unit to discharge the capacitor and reconnect its leads.

If you wish to test the leakage of a capacitor or transformer say, the "L" position is used with the leads connected. No adjustment is either required or recommended. After about an hour if the neon is still glowing brightly or flashing then the capacitor is most probably faulty. If you see an initial blink then the neon remains unlit, chances are the capacitor or device under test is in order. Check the voltage has reached the capacitor's working voltage.

Construction of the unit is very simple and the author's tester was built from 'junk box' components with the exception of the Maplin aluminium case. No particular layout can be recommended but do take into account that the components must all withstand a maximum of 1000 volts. The following photograph shows the layout of the author's unit.

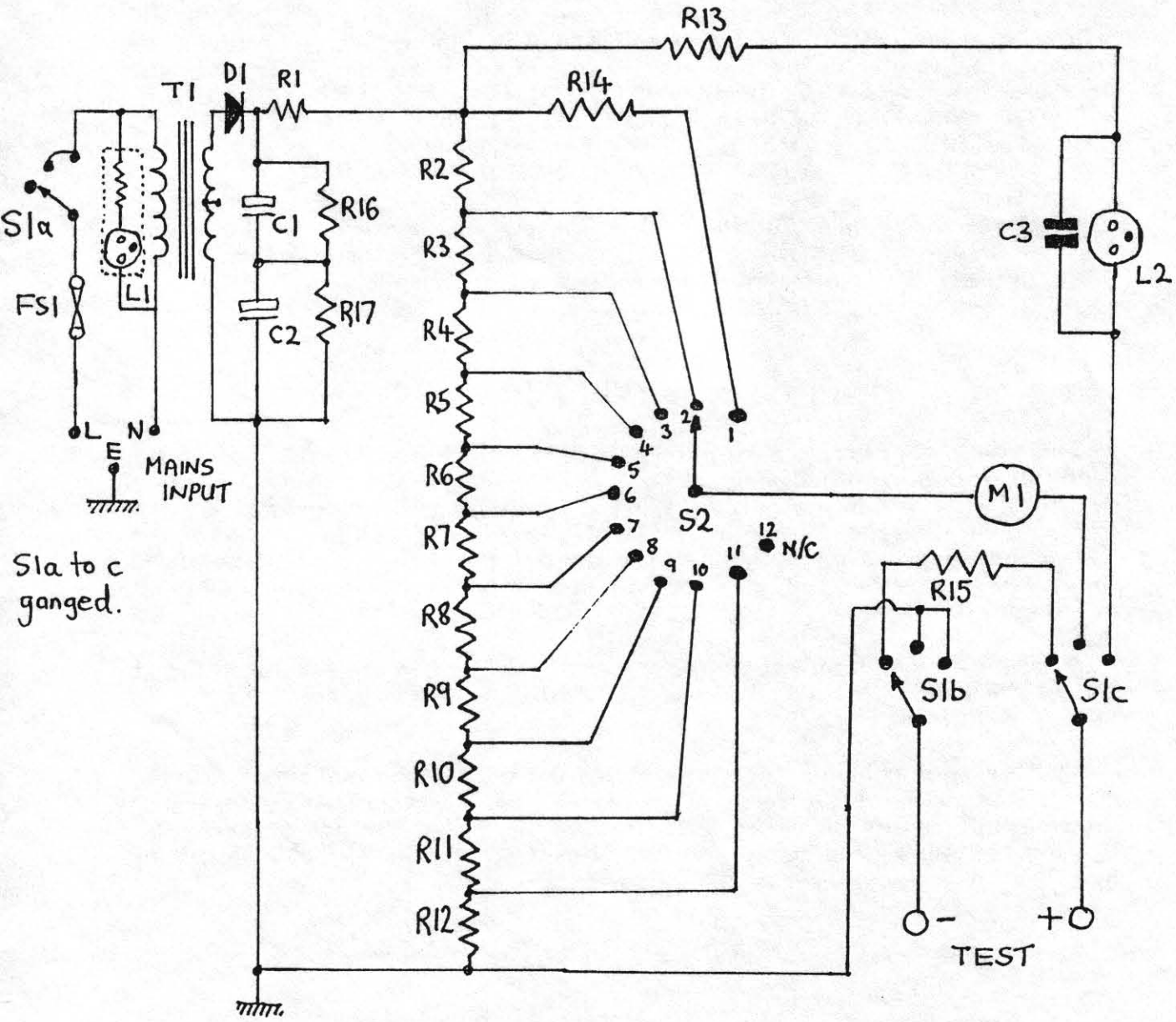


The tester uses a surplus mains transformer and meter. All resistors and power supply components are mounted on groupboard or tagstrip. Reference to the circuit diagram and front photograph will clarify the layout.

List of Components

R1	18K 1W	*(All resistors 1/2 watt unless otherwise stated)*
R2 to R13	1M	
R14	180K 1W	
R15	1K5 3W	
R16 and R17	270K 1W	
C1 and C2	10uF 450v electrolytic	
C3	0.25uF 1000v tubular	
D1	1N4007	
L1	Neon indicator with internal resistor	
L2	Neon indicator with internal resistor **removed**	
S1	4 pole 3 way rotary switch	
S2	1 pole 12 way rotary switch	
T1	Surplus mains transformer with 250-0-250v winding	
M1	Surplus 5mA moving coil meter	
FS1	500mA anti-surge 250v fuse	

Circuit Diagram



Another Expedition.

From the QST magazine for January 1953 and an EUGer's letter we have the following info on a peripatetic 640 receiver, a marine journey this one which took in over TEN THOUSAND MILES !

New Zealander Dr Thomas R. A. Davis accompanied by his wife and two sons sailed the 48 foot ketch 'Miru' from Wellington in New Zealand to Boston Mass; in the USA. Throughout the voyage complete reliance for communications was placed on the home built 30 watts amateur radio transmitter which operated in conjunction with the Eddystone 640 receiver.

Remember that this was 1953, long before the existence of any of today's radio Navaids. Contacts with Amateurs were relied upon during the five months long voyage for all news and information. The 640 also provided accurate time signals for navigational purposes.

It is understood that the 30 watts transmitter was powered by the same 12 volts psu which provided the HT supply for the 640. This was a vibrator driven supply.

'Doctor Tom' undertook the perilous voyage to take advantage of a $3000.00 fellowship awarded him at the Harvard School of Public Health. Amongst the stations which contacted him and assisted him in navigating the 'Miru' during its passage were,- W1s AVY, BB, BDM, BNS, CPI, DBE, JAK, LBH, LIB, MB, ME, SIB, TOP. W2s DZH, HQB, IAW, IKE, KW, PFL, RWJ, VFM, YEF, ZDB, ZI, ZM. W3s BET, CPL, CRR, GH, KFQ, NNQ, QEP, QHS. W4s AAM, BRB, CQG, FV, MT, MVP, NV, OGX, OPS, RHC, RSF, RWM, US, VMU, WS.

Dr Davis was guided into the dock at the end of the voyage at the Science Museum in the Charles River Basin, where a gala Boston welcome for the 'Miru' polished off an extraordinary achievement in seamanship. W1 BB.

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Double Superhet 640.

This non-EUGer has recently purchased a 640 which is in pretty good external condition with no external mods at all. And yet, inside the whole set has been transformed. It is now a double superhet and appears to have been converted as per the February 1967 article in the SWM. This is deduced by the fact that as well as the normal booklet belonging to the 640 there is a Roneo copy of the SWM article together with some handwritten notes used when re-aligning the new double superhet.

All is not well with the set though as tracking appears to be well off at the HF end of the bands, sufficiently so for the 640 to be quite 'dead' along the top third of each range.

Consideration is being given to returning the set to its normal single superhet state if the necessary 'bits' can be collected. It is intended to do some tests showing both before and after specifications since it is the new owners belief that the 640 was a good enough performer as it was, without all this 'tarting up' modification.

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Oversize Transistors Maybe ?

A recent listen on 14 Mc/s was to a QSO between a UK amateur and an amateur in one of the ex Soviet Bloc countries. The Russian chap had a pretty good command of the english language albeit with just a touch of an american accent. Impossible really to fault HIM !

The english chap however would insist on referring to transistors as SILICONE devices, not silicon. He used the term a number of times whilst describing his forays into the DIY receiver building part of the hobby.

I was then, and still am wondering just what impression this gave the chap at the other end of the QSO. Did he realise the boob being perpetrated by the englishman ? or even worse does he himself now go around referring to those pesky devices as silicone transistors ? believing that he, the foreigner, must have been wrong and that the english chap was correct ?

Reminds me of the early years when so many would insist on calling them TRANSITORS, leaving out the last S. And can you recall all those references to geranium trannies ?

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EB35 Lights.

A reminder from Ben that if you are operating your EB35, EC10 or similar set from dry batteries and you need scale lights ON whilst operating then a useful ploy is to short out the dial light switch contacts and to reduce current consumption to an acceptable level swop the two filament bulbs for four series wired high luminance LEDS with a 100 ohm half watt resistor to drop the 'spare' one volt (4 x 2 volts + 1 volt = 9 volts.). This will give an approximate 20 milliamps consumption.

Ben says that he has done this for his EB35, and using green LEDS he now has a nicely illuminated scale which allows of operating in the dark when he is 'caravanning'. A nice convenience which improves the 'user-friendliness' of his EB35 whilst not altering the outside appearance of the set, a mod which is immediately reversible as he has left the two filament bulbs and wiring taped inside the set.

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Eavesdropping.

I know that I am not the only EUGer who does this as my mail contains references to the 11.175 Mc/s GHFS channel used by both the RAF and USAF, maybe also by other NATO airforces.

This particular channel and one slightly higher are regularly used by transport planes leaving and arriving in UK airspace. I have also heard C.130s in touch with Aviano in Italy giving simple info such as ETA and 'light' or 'heavy' in clear language. Much other info appears to be passed using pre-arranged but apparently anodyne phrases. Give it a listen, you may get 'hooked'.

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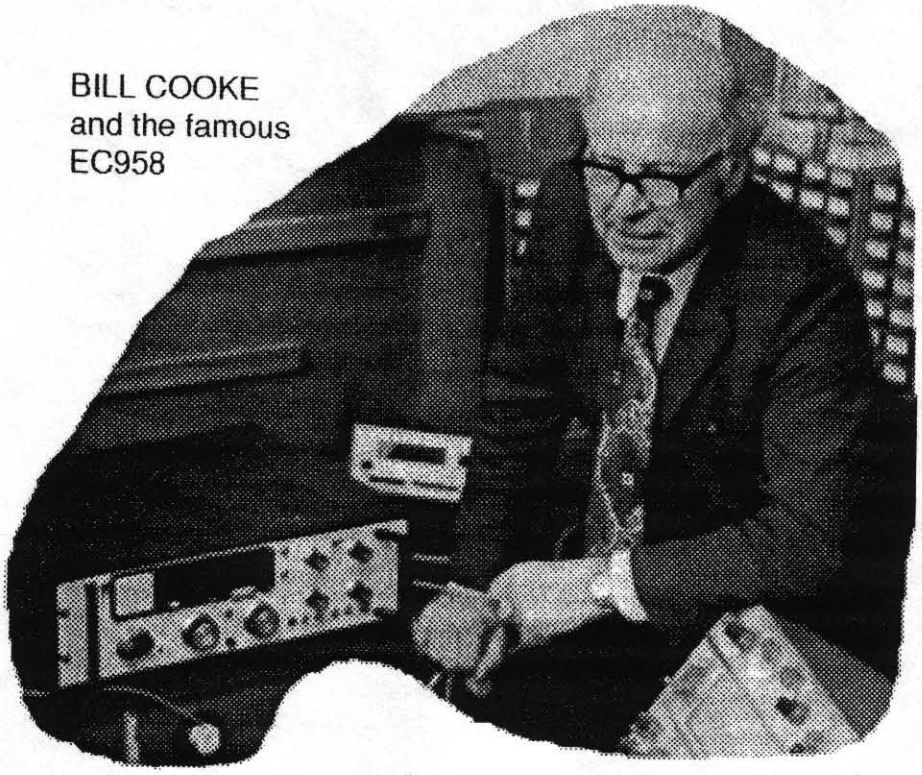
THE COOKE REPORT

Part Eight



BILL COOKE
and the famous
EC958

In our previous episodes we followed the life and times of Bill Cooke's work at Stratton's Wireless Department, better known to us as 'Eddystone Radio'). We started with his childhood in the 'twenties and joining the Company as a new boy in 1936, to becoming Chief Engineer in 1947 and through until it was sold to the Marconi Company in 1965. The solid state revolution was well under way and in this month's episode Bill recalls the effects of a new owner and the results of new technology.

THE VALVE BOWS OUT . . .

"Last month I described how our early solid state products were a mixed blessing; they gave us invaluable experience in the field of technical understanding, but they didn't work as well as the valve sets! The first success, and it was a major one, was the EC10 compact communications receiver and its broadcast sisters, the EB35, 36 & 37. The series remained in production for 14 years (until 1977) and were the last Eddystone radios you could buy in the shops. The last valve set, the 830-series, had ceased production in April 1973.

"Arthur Edwards, G6XJ, the Company's Sales Director, was a keen yachtsman and initiated the development of a transistorised receiver specially for small boats. The 'EY11 Yachtsman' was based on the EC10 and had a direction-finding facility. A prototype was constructed but it was never considered to be a commercial proposition. However the EC10/EY11 formed the basis of a receiver with full DF facilities for MIMCO (Marconi International Marine Company), made for them only, under the name of 'Seaguide'.

"Arthur, who had been with the Company since the nineteen-twenties, felt he was too old a dog to learn the tricks of new masters. He decided the time had come to retire and he travelled the world on merchant ships visiting old friends (remember that he was a confirmed bachelor). In particular he went to see Maurice Mason, who had retired from G.C.H.Q. as head of research and returned to his homeland New Zealand. Arthur spent many months there; he also wrote to me many times during his travels. He returned home to England and planned another trip but regretfully died of cancer the following year.

A NEW BROOM AT THE MILL . . .

"After some months of Marconi ownership Dick Carroll was appointed Works manager at Eddystone's. In fact he was more of a fire-cracker than a works manager and this tended to have an effect on company politics. Harold Cox, the Technical Director who had ruled the roost for nearly 40 years found his decisions being questioned - Harold never took kindly to being queried! He left the Company and spent the rest of his life concentrating on his family, grandchildren, and gardening. He visited me regularly and kept up his interest in Eddystone.

"Dick Carroll was soon appointed Managing Director of the Company and things stabilised somewhat. One of the first things Marconi did was to adopt a new company logo: the stylised lighthouse you see on the front of this newsletter. They also looked at the costings which resulted in increased prices for some models.

"At about this time G.E.C. (Marconi's parent company) appointed Tom Mayer Managing Director of Marconi. Tom was to become a strong supporter of Eddystone, even to the extent of including service with Stratton towards the 40-year Marconi watch award!

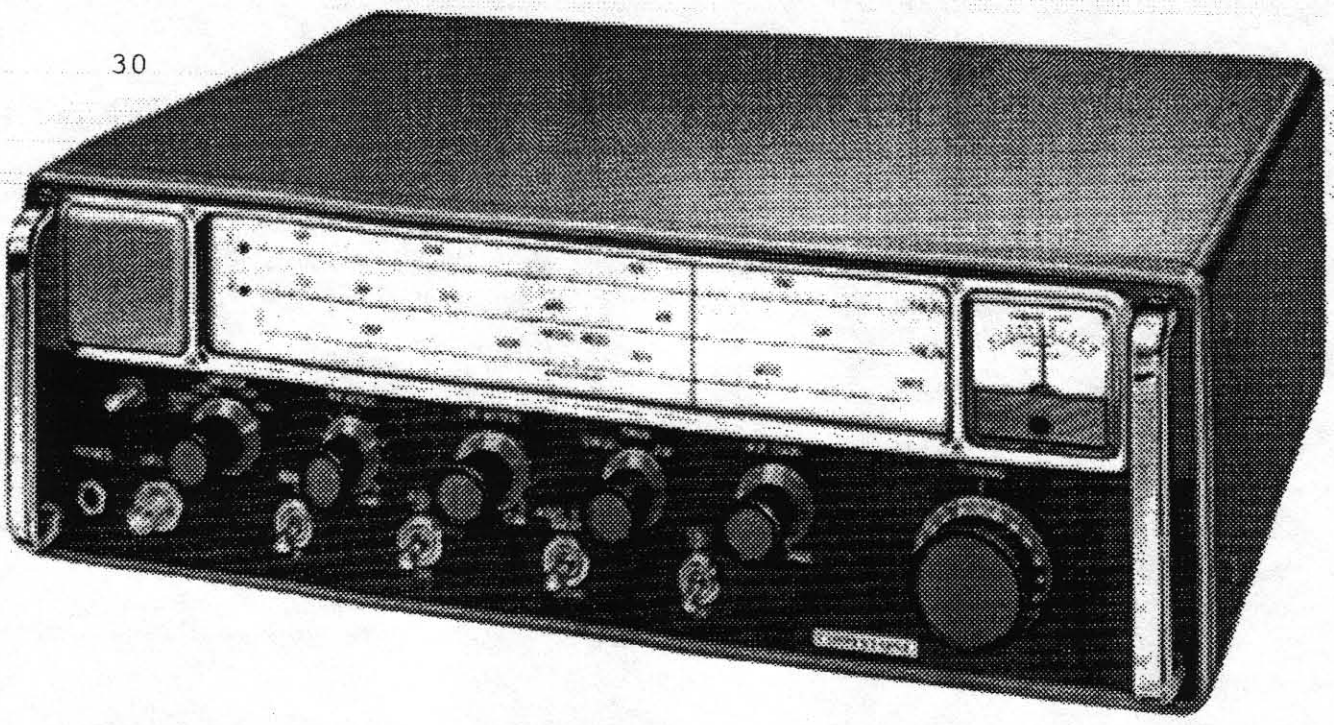
THE VHF COMMUNICATIONS RECEIVER GOES SOLID-STATE . . .

I'd been working in co-operation with Marconi's on and off since 1939. The result was that they held less mystery for me than for many of the old brigade, several of whom decided it was time to seek pastures new (or turn out to grass) during this early period. But from a technical standpoint things continued quite smoothly.

"Our solid-state research into VHF/UHF had started before the take-over and we were well ahead with the 990 series. Transistor technology really started to hum in the sixties, especially low-noise VHF devices. We were working to replace the 770 series of VHF/UHF valve sets which had been running most successfully for well over a decade. The 990 series sets were, I believe, the first band-switched transistorised VHF sets at that time in the world and proved very successful in military and aeronautical applications, as well as in the laboratory.

"Word is that you can still find them in use by third-world Air Traffic Controllers (including North Korea - but that's another story). And there's no reason why not! Some of the VHF aeronautical AM channels, like International Distress and Emergency on 121.5 MHz, haven't changed in fifty years and all airfields have it.

A 990R using crystal control (it has provision for eight crystal channels) could probably go on for ever if it was never switched off (and they never are in A.T.C. use).



THE EDDYSTONE 990-SERIES WAS A WORLD BEATER

THE TRANSISTOR COMES OF AGE . . .

"Another transistorised set which had its origins before the takeover was the EC958 high-stability general coverage HF/LF receiver. The Diplomatic Wireless Service (D.W.S.) had been using our sets for years, particularly the 730, 830, and 880. They also used those of our rival, Racal, who had adopted the Barlow-Wadely loop system of drift cancellation.

"In the early 'sixties the D.W.S. gave me the chance to look at a French receiver, called the 'Stabilodyne'; a LF/MF/HF set with exceptionally low drift. (The D.W.S. always preferred to deal with British companies, understandably!) So I had the opportunity to study the receiver and its handbook (and what a large set it was!). I visited D.W.S. again in the company of Don Ford, a young development engineer of exceptional ability. Together we examined the set (a product of, I believe, Les Materiels Telephoniques - L.M.T.) and the seeds were sown for the design of the hugely successful 958 series.

PROBABLY OUR BEST SET EVER . . .

"It was during this period that we had become part of the GEC/Marconi Company and they were very interested in this project. We began to have qualms as to whether we were infringing our rivals' patents, but the Marconi lawyers had everything stitched up. Our rivals used wide-band front ends; ours were fully tuned and our locking and interpolation oscillators were unique. It worked better and avoided any conflict. The set was so successful that we had to get Marconi to make initially two batches of 250 for US... It was certainly one of our best ever products and quite capable of competing with any 10KHz to 30MHz receiver throughout the world.

"In the late 'sixties we won a large order to develop a version of the 958 for the Canadian Government. It amounted to £350,000, a large sum in those pre-inflation days when you could buy a new Austin Mini for about £350 (before tax). It was designated the 958/3CAN and the deal was handled by Conway Electronics of Western Toronto. In 1970 I accompanied the first batch to Canada to oversee the acceptance testing. (We wouldn't want them to use it wrongly, would we?).

"Throughout this period we continued to manufacture components for the homebrew ham and SWL. One of our most distinctive and successful products was the Type 989 linear slow-motion dial. You remember; the slide-rule dial with the logging scale,

BILL COOKE (in the snazzy hat) CHIEF ENGINEER OF EDDYSTONE RADIO STANDS WITH FRED WAGNER, CHIEF ENGINEER OF CONWAY ELECTRONICS, OUTSIDE 88-90, ARROW ROAD, WESTERN TORONTO

a smaller version of the one used on our valve sets of the 'fifties and sixties. It was specified for countless projects by the RSGB and SWM. The famous Collins Company of Cedar Rapids, Iowa, placed an order with us but insisted on a special modification . . .

"As with all Eddystone slide-rule scales, the legend 'Made in England' was proudly displayed under the logging scale. The result was that Collins customers might have thought the sets were now British made. We had to move England's credit to the back of the dial!"

In his next report Bill (who didn't take his callsign GWØION until after he retired) looks at the changing world and the factors which caused Eddystone to enter the world of Transceivers and Broadcast Transmitters.

EDDYSTONE RADIO 1967, DEVELOPMENT DEPARTMENT
(L to R) Don Ford: Senior Development Engineer; Bill Cooke, Chief Engineer; Jack Gwynne, Chief Buyer; Bill Scarle, Chief Draughtsman.
THE RECEIVER UNDER DISCUSSION IS THE 990R

Wear your Eddystone Badge with pride, now that the Phoenix has risen!
Send £2 taped on a piece of card to Graaeme G3GGL.
You will receive in return a neat silver, white, and blue Lighthouse.

Marconi Badged 910.

Trevor has been the owner of this set for some years but has only recently seen and handled an 830/5 receiver.

The reason behind his letter is to suggest that this 910 was a pre-cursor to the 830 range. It appears to have most of the facilities offered by the 830 except that it is housed in the older style of case with the 'fluted' front panel as per the 840 sets.

The 910 was covered in Issue 37 of June 1996 and I did then have some correspondence about this similarity with the 830. Whereas the 910 was designed and built for Marconi the 830 was primarily an Eddystone Model.

If you look at the very similar frequency coverage, the double superhet with tunable second IF, then there are similarities. Who can fault a Company for going on with an improved version of what was already a good design ?

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Replica Chassis.

From several EUGers comes the suggestion that both chassis/front panel and cases for those replica sets may be constructed much more easily than of yore.

In the old days panel and chassis bashing involved the use of aluminium sheet but today there is a far more easily worked alternative. Pat suggests the use of fibreglass sheet, either copper plated as used for etched PCBs or without. The advantage of the copper plated type is that the various pieces can be soldered together to form an integral front panel and chassis, or a complete case for the receiver. Spray cans can be used to produce whatever kind of finish is required.

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Corroded Joints.

These soldered joints which have either become totally open circuit or simply intermittent - and the cause of noise - can often be the most difficult faults to trace.

Despite many years in the hobby James had recent cause to swear and curse corrosion when his 730/4 began to oscillate. Not a high pitched whistle but what we used to term 'motor-boating', a sort of 'chugging' sound.

The usual method of locating such faults has always been to prod the suspected areas with something hard, but non-conducting. In this case there was no miraculous cure, nor any sign of a change in tone.

What was noticed was that with the AF gain turned right down the note disappeared, almost. Just heard very faintly. Turn up the pot ever so slightly and it was back on at full volume.

It was decided that this was indicative of the fault being in, or in the vicinity of, the pot itself. Nothing for it but to set to and completely unsolder all of the

connections to the AF gain pot, not an easy task in a set like the 730. The pot was eventually removed and tested. Good job too ! When at full anticlockwise the track was apparently open circuit with no continuity from bottom of the track to the top end (two outer tags), and none at all to the wiper. When the spindle was turned there was continuity between wiper and top end only. Since no spare was available it was a case of waiting. Only a couple of weeks later was it possible to obtain a replacement and to solder it back into the 730. The problem had gone away.

By now curiosity had got the better of him and so the pot was opened up, a bit of a destructive process but when opened up it was found that whilst the track appeared to be okay there was some corrosion in the area where the tag was riveted to the track. A reddish-brown residue covered the rivet and the tag end. By roughly manipulating the tag it was possible to regain some continuity on an intermittent basis. A few months on the repair appears to have been a success.

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EP20 Panadaptor.

Like any other 'oldie' these items of equipment are beginning to feel their age and in the case of this EP20 the cure may be quite simple.

The EUger complains of the spot/display drifting off the CRT screen to the right. It starts almost immediately after warm up, can be corrected by the controls but then the control comes to the end of its travel and the spot carries on drifting until there is just a blank screen.

Like any other oscilloscope with an electrostatic deflection system the static deflection voltages are fed directly from the HT line whilst the signal deflection voltages are fed via high voltage blocking condensers. With age these condensers do go leaky and this can lower the plate volts thus deflecting the spot. I suppose the feed resistors might also go high but this sounds to me like leaky condensers. A simple case to prove, diss them and check their integrity with a DVM on Hi-ohms. Replacements need to be of AT LEAST the same voltage rating preferably higher and they need to be modern polyester types not old paper types.

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Subscriptions.

If you HAVE paid your subs for this current year then you may be interested in knowing that despite our now being 'on our own' and no longer able to get copying done for us by Eddystone, we are in a pretty good financial state.

We ended the year with a small surplus which it has to be said is all down to Graeme's organisational and administrative abilities. well maybe a bit to do with his being from Yorkshire too ! This is good news for EUG and EUGers and the fact that we do not need to increase our subs again is a credit to Graeme.

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RADIO RAMBLINGS

Jottings from my Notebook

By

Graeme Wormald

G3GGL

A SIGH OF RELIEF . . .

Well, we've all heard the good news that after a 'near death experience' Eddystone Radio has been resuscitated at the graveside and is now back in business, a wholly owned subsidiary of Ashley Cole's Megahertz company of Cambridge.

More good news is that they are to stay on the same site in Birmingham and continue manufacturing the 6200 LF/HF super-high grade communications scanning receiver. (To remind you of its specifications we are enclosing another leaflet - with the wrong address! In case any member wishes to acquire one, the current phone number is 0121 471 2600, price c.£3k). The Orion 7000 HF radiotelephone (which we exhibited at the NVCF last month) will be given a decent burial; its market has dwindled to non-commercial proportions with the advent of briefcase satellite telephones.

The VHF/FM broadcast transmitter market will continue to be exploited and the Company's pledge to the future of Digital Radio will remain. Our congratulations to General Manager Matt Parkes for putting the ailing company back on the road to recovery.

THE S.640 MAKES THE GRADE

Last week I was doing a little research into my early years as a licensed ham. It consisted of thumbing through a bundle of fading QSL cards and noting what British hams were using as station receivers in 1950. My licence arrived on 16th Dec 1949, which just makes me one of that select band of old-timers who can claim to have been on the air in the first half of the Century! In my case on forty metres, which was by far the most popular band for new hams in those days.

That was when the band covered 7.0-7.3 mc/s, before the loss of 2/3 of it to the broadcasters in the mid-fifties. A great disservice to British amateurs, if only on the grounds of getting a dipole in the back garden! A 66-footer can be squeezed into most plots. Our North American cousins still have the full 300 kc/s (as well as 500 kc/s on eighty). But enough of my whinging; let's look at the order of merit:-

Eddystone S.640	13 sets
Marconi R.1155 (ex RAF bomber)	10
USA BC348 (ex USAAF bomber)	6
USA National HRO (ex lend-lease)	5
R.107 (British Army)	3

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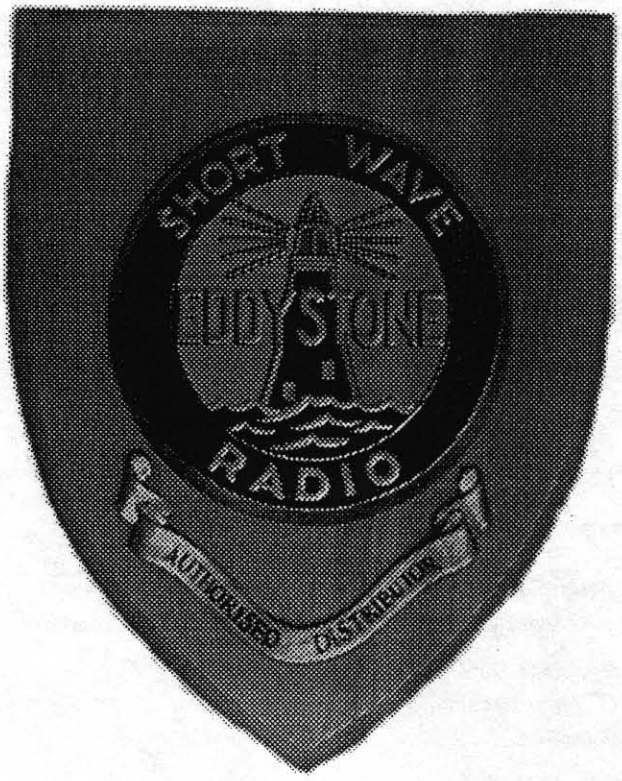

COLLECTORS' ITEM PAR EXCELLENCE!

This Shield once adorned the walls of countless radio shops around the British Commonwealth

Keep your eyes open, you never know when you may see one in a car boot sale!

(continued from previous page)

Homebrew	3
USA BC454 (Ex USAAF Command Rx)	2
RCA AR88 (ex lend-lease)	2
W.S.18 (British Army packset)	2
USA BC342 (US Army ground station)	1
B2 (S.O.E. Spyset)	1
Eddystone 358X	1
TOTAL...	49

An interesting little analysis; as much for those which it includes as well as for those it doesn't. Only a radio ham would go on the air using a W.S.18 receiver! The S.640 is the only one which could be bought as a new set; the rest were Govt Surplus.

EUG EIGHTY-METRE NET; A REVIEW

When we started the EUG Net in 1996 it was on the First Sunday of each month, on SSB at 10.00 local time. We then made an AM test period at 09.45. Sundays were so busy that we then made a 'First Thursday' Net to make contact in the clear. It is now possible to look back and see how it's been going. Without quoting facts and figures, it's like this: the AM tests on both days are poorly supported. I would suggest that they are dropped and that those who wish to test or work on AM join in the Vintage and Military AM Net every Saturday morning at 09.30 local on 3625. This Net is very well supported and lasts for a good hour or two. It originally started as the Military Wireless Amateur Radio Society (M-WARS) net, but due to a members'

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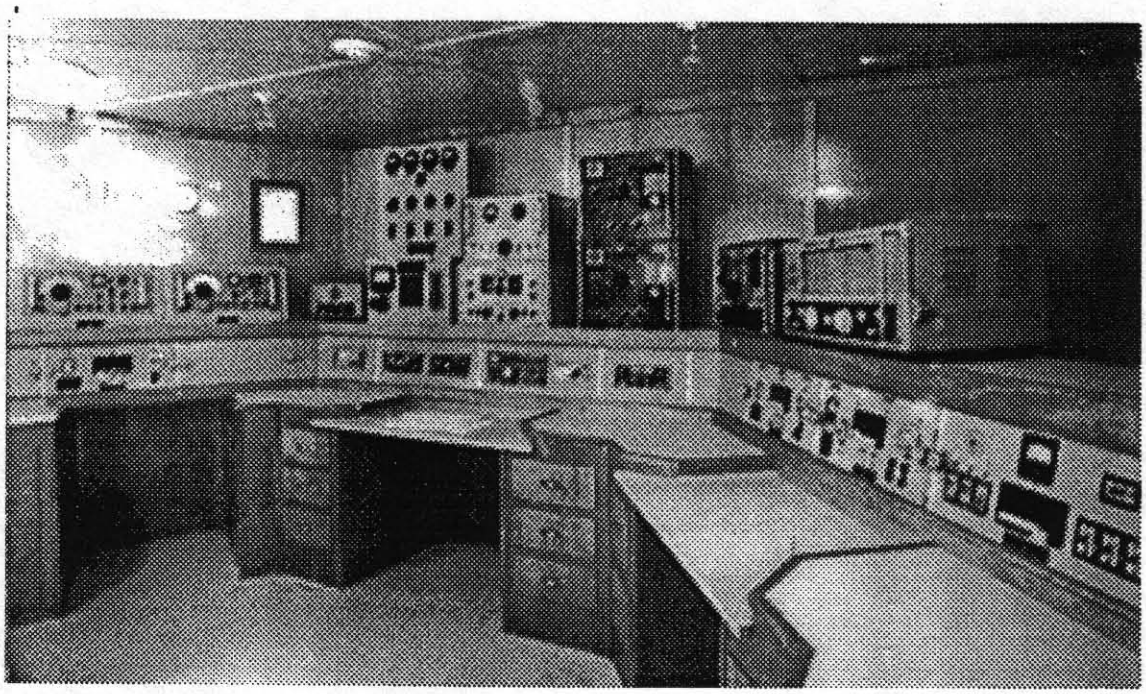

Gary McSweeney, Gi4CFQ, sent us a QSL from W6RO, the Club Station of the R.M.S. 'Queen Mary', moored at Long Beach, CA. On the card was a 1" high photo of the Wireless Room. Simon G8POO enlarged it digitally and look what he found! (Top right) The Stratton-built 'IMR 54', known (incorrectly!) as the Model 700.

(continued from previous page)

revolt it was disowned by the committee! A new Vintage & Military club is in the process of being formed (M-WARS continues, but without an AM net, only CW and VHF nets.) and the AM net welcomes all vintage fans, as well as being a bit of a novelty for vintage receivers to monitor

Secondly, the Thursday nets are not well supported. I don't know why, because the band is much quieter than Sundays and many of our members are gentlemen of leisure. But it hasn't taken off and I am suggesting we let it slide and concentrate on our First Sunday Net, SSB, at 10.00 local, on 3695 (+/- QRM). This net usually attracts about half a dozen members (which is about all I can control!). So there we go. If anybody wishes to do otherwise, please say so. If any member would like to take over a net, also please say. We're very free and easy about it!

EDDYSTONE SPECIFIED

Last month's feature, whose origin was a slight mystery if you remember, was soon tracked down by EUG detectives. It had first appeared as a battery version in the Wireless World early in 1938, and then in a mains form a few months later. This was the one we featured but the text had been re-set. It seems that it must have been re-printed in some sort of booklet form; a bit like the Eddystone Short Wave Manuals, perhaps.

(continued)

MYSTERY EDDYSTONE . . .

This advert was featured in the SWM for May 1951. It looks a very close relative of the well-known Stratton S.440B which I was using on 2 metres in 1952. So why had I missed this advert? Possibly because I was in the RAF changing training camps at the time.

But somebody must have snapped up this bargain and got it going on "TWO".

It would have been about an inch wider and taller than the S.440B. The specification is exactly the same except for the 2-ECC91 (6J6) which must be an error, it should be 2-6N7.

The meter looks exactly like the one on the Eddystone 358, as does the meter selector switch below it. The holes are for inserting the trimming tool to align the multipliers and P.A.

The S.440B had a bank of jack sockets in one end in lieu of the switched meter. I think this would be the only difference.

EUG AT THE NEC

On Sunday 9th May the User Group had a stand at the National Vintage Communication Fair, and a huge write-up in the Fair newspaper (I'm very pleased to say). Your conductor was present, along with Chris G0EYO, Simon G8POO, Ron G8URU, and Dave Simmons, our new archivist and spares keeper.

We were very surprised to find Centre Electronics (Howard Turner) in attendance, after wishing him goodbye in our last issue. All was revealed when Mrs Turner announced that she had no intention of emigrating south of Watford! So you can still go to Howard for valves and non-Eddystone items.

35 members signed the register. They came from all corners of the land but by far the most distant traveller was Brian Cauthery, VE3DFC, from Canada. *END*

"IN PRAISE OF EDDYSTONE"

Whilst visiting the Eddystone factory before it was sold I came across a huge ledger, the sort you see in Dickensian offices. It was choc-full of letters from customers extolling the virtues of their radios. Hundreds and hundreds of them. So I asked Christine to copy some of them for your enjoyment:

FROM: Radio-National, Brussells. 18th April, 1952. "... in 1951 we sent a Model '680' for a scientific mission to the Belgian Congo. We are very pleased to advise you that the mission has returned to Europe. In spite of the extremely unfavourable climatic conditions and a disastrous flood during the stormy season on the Equator, the receiver has not undergone damage and its performance is still excellent."

FROM: Mr. M. Wace, Claremount Ave., Montreal, Canada. 27th April, 1952. "A year ago I bought one of your fine Eddystone '670' Marine Receivers, it's a really first class radio and we have nothing to touch it on this side."

FROM: Mr. C. J. White, Motor-Vessel 'La Pampa', Mid-Atlantic. 28th June 1952. "I am now listening on my '670' Receiver to the B.B.C. on 17.65 Mc/s to Rex Austen giving a commmentary of the Lawn Tennis from Wimbledon, and I guarantee the reception is as perfect as you may receive the programme from the Home Service in the United Kingdom. I saw quite a number of your Communications Receivers in several Radio Shops in Boston, and I had quite a long conversation with one salesman. He said if it was his choice he would take an 'Eddystone' in preference to any American Receiver."

FROM: Lt. Col. J. R. L. Owen, Public Works Dept., Iwo, Nigeria. 31st July 1952. "I am a very pleased possessor of one of your Eddystone Wireless Sets - Serial No. CA0198, Model '710'."

FROM: Mr. Louis J. Agresti, Syracuse, New York. 19th July 1952. "During a recent visit to England, I purchased an Eddystone Model '750' Radio Receiver... You are to be commended highly for the smooth, easy tuning mechanism and the beautiful workmanship throughout. Many visting 'Hams' have heaped praise upon it and have asked where they might procure one also. The continuously variable selectivity control and its unusual signal-to-noise ratio has provoked many compliments from them."

FROM: Mr. A. M. Andersen, Mandoliana Island, British Solomon Islands. 30th October, 1952. "I have been a constant user of your Eddystone Receivers since 1937. First of all I had the 'All World Four', then the 'All World Eight' and now for the past two years have had unbroken success with the 'All World Six, Model 710', Serial No. CA0192. But it is about the original 'Four' that I write to you, for I still have it after its many adventures with me during the War as a Coastwatcher in the Solomans and New Guinea. The 'Old Girl' never let me down be it under the sea, on the sea, and at times five thousand feet up in the hills. The lift-up lid case is battle-scarred with shrapnel dents but I reckon she would still work if I could get new valves and coils."

DOESN'T IT SOUND GREAT! ***More Praise Next Month - Graeme.***

IMPORTANT NOTICE CONCERNING EDDYSTONE SPARES AND HANDBOOKS

Now that EUGer Dave Simmons has taken over supply of the above items members should contact him direct for Service Handbooks and spare parts (including valves). Letters or E-mail sent to Graeme G3GGL will incur delay as they will have to be forwarded to Dave.

ALL ENQUIRIES FOR SPARES AND HANDBOOKS SHOULD BE MADE DIRECT TO:-

DAVE SIMMONS
Telephone: 01869 347504
E-mail: eddyspare@onet.co.uk
Letters:
Windana House
North Aston
BICESTER
Oxon OX6 4HX, England

PLEASE NOTE THAT THIS IS NOT A SHOP BUT A PRIVATE HOUSE
NO VISITORS EXCEPT BY PRIOR APPOINTMENT
DAVE IS OPERATING ON A VOLUNTARY PART-TIME BASIS
PLEASE ALLOW A FEW DAYS FOR REPLY

****

MEMBERS FREE ADVERTS

WANTED: Circuit with values for Taylor Model 68A AM Sig Gen by Jack Savage. E-mail <su1729@eclipse.co.uk>; 72 West Garth Road, Exeter, EX4 5AW.

WANTED: Scrap 750 for spares, could collect. Contact Ken O'Brien 01305 264688.

FOR SALE: Eddystone 358X (ex Silent Key) Complete with all leads, PSU and full set of coils in original wooden case. £50. Requires some T.L.C. Prefer buyer collect or rendezvous could be arranged due to weight. Jim McGowan M1CUC 20 Keats Ave., Romford Essex. 01708 340304.

WANTED: Eddystone 958 in G.W.O. and condx. Call Jim M1CUC, 01708 340304.