

The Newsletter of the
Royal Naval Amateur
Radio Society
Summer 2015



Leydene House today; once the Wardroom of HMS Mercury
Picture by Doug GØLDJ, for more info see:
<http://tinyurl.com/n9kfmtw>

www.rnars.org.uk
The RNARS is affiliated to the RSGB

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Subscriptions: Please ensure your name and RNARS number appears on all transactions.

UK: £15 or £5 per year due on the first of April and to be sent to the Membership Secretary. Cheques and postal orders to be made payable to “*Royal Naval Amateur Radio Society*”; bankers orders are available from the treasurer. Subscriptions can also be made via **PayPal** through the RNARS website. Click on the *How to Join* page: www.rnars.org.uk

USA: Payment can be sent to Bill Cridland, address on page two.

All other overseas members: Subscriptions in sterling (GBP) by international money order to the Membership Secretary.

Newsletter by e-mail: Members who receive their Newsletter by e-mail can apply for a reduction in their annual subscription. Please contact the editor for further details. See editorial (QRT) for contact information.

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Website Hosting: The society is very grateful to Bob Jennings for hosting the **RNARS** website. g3nxv@grendonvillage.org.uk PO Box 1, Atherstone, Warwickshire, CV9 1BE.

Data Protection: Your details will be held on the society’s data-base by the membership secretary. The committee require your permission with regards to the release of any personal information held on the data-base. If no such instructions are received, it will be assumed that you have no objection to the release of these details to other members of the committee.

Items published in the Newsletter do not necessarily represent the views of the RNARS.



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Formal notice of the RNARS Annual General Meeting

The AGM of the RNARS will take place on 10th October 2014 starting at 14:15 in the Senior Rates' & WOs' Mess, HMS Collingwood.

Apologies: To be sent to Joe Kirk; General Secretary, see inside front cover for contact details.

Gate Security: Members attending must supply their name and address to Mick Puttick well in advance. If bringing your own car, you must also supply Mick with the registration number, make, model and colour. Mick's contact details are on the inside front cover.

Voting: You may vote on resolutions at the AGM either in person or by appointing a representative or proxy. The Chairman will act as your representative and follow any voting instructions given. If you do not want the Chairman of the AGM to act as your representative and wish to nominate someone else, write to the Secretary and inform him who that person is at least one week prior to the AGM. Give clear instructions to your representative for each item on whether you wish to vote "For" or "Against". A proxy voting form is supplied on the rear cover.

Accommodation: Service accommodation may be available. Members wishing to enquire about service accommodation should in the first instance contact Mick Puttick as soon as possible and no later than two weeks prior to the AGM.

Additionally, below are the contact details of the local tourist information office that retains a list of B & B's and suitable hotels, they can provide listings on request. The society cannot be held responsible for the quality of the accommodation, but please note that the list is approved by the local tourist information services.

Gosport Tourist Information Centre
Bus Station Complex, South Street
Gosport, PO12 1EP
Tel: 023 92522944
E-mail: tourism@gosport.co.uk

Chairman's Chat

Another busy period for the committee preparing for HMS Collingwood's Open Day; which takes a lot of organising, negotiating and much preparation of equipment to ensure there are no glitches on the day. Fortunately we have a dedicated team, albeit a small. I could do with more local members to keep the society moving forward and making our presence known, not only to attract members but to convince the 'powers to be' that we are well to the fore. This is essential if we wish to retain our position within HMS Collingwood. When you consider that in the Portsmouth area we have the bulk of the membership, you would have thought we would be overwhelmed with helpers. Even at the AGM we have more members from outside the area attending than locals.

This year in an effort to attract more members to the AGM we have decided on a more ambitious program.

11:30 Up-spirits in the HQ shack

12:00 Lunch, funded by the Society in the WO & SR Mess

13:00 Presentation on D Star by G8PUO. It is possible that a representative from ICOM will also be in attendance

14:15 AGM

It is extremely important that anyone who is attending and requires lunch inform Mick G3LIK by 26th September so that he can confirm numbers with the caterers.

I did ask at the last AGM for every member to try and recruit one member. Nigel, our shack manager is leading the field, with nine new members so far. The Newsletter alone is worth £5 a year if you take it electronically. I prefer it that way as I like viewing the pictures in full colour. If you have not recruited a member yet, please try to make the effort.

We are an international society with members worldwide and yet there seems to be a sad lack of communication between members. We have frequencies nominated for members to make contact but it is my experience that very few actually use them. I have spent many hours in the HQ Shack calling CQ on 14.052, and in three years have only ever worked one member. It is sad to see from some of the comments I read that our nets are so poorly supported. As I now live in an apartment, the lack of an antenna makes operating from home rather difficult, hence I take advantage of the HQ shack, which of course any member in the area can do and would be most welcome.

Doug

Editor's ditty

Breaking with my normal layout adding my few lines nearer the front rather than the tail end as some members don't seem to read my epistles!

Firstly, as always my grateful thanks to all who take the time to send in articles no matter how great or small, all submissions are welcome. For the first time ever, I have a very small surplus of items and have held back a couple of articles for the next edition. But please, if you have anything you think would be of interest to the membership, don't hold back, please send it in. E-mail is the preferred way of sending articles and photographs to me.

Please remember, **Wally Walker is our Membership Officer**. Wally deals with all issues relating to subscriptions which are due on the **first of April each year**, not the anniversary date of when you joined the society, so please don't send enquiries regarding subs to me. Payment methods are listed at the top of page three, so there should be no excuses for failing to pay your subscriptions on time and very importantly, at the correct rate.

As the editor, I hold the list of e-mail addresses for all who receive their newsletter as a PDF attached to an e-mail. Wally holds the postal details for members who pay the higher membership rate to have their newsletters delivered in the post. This is the list that Doug Bowen and his wife use to send out the postal newsletters, so if you've changed address and not told Wally, you won't be reading this if you receive your newsletter in the post; my grateful thanks to Doug and his wife for taking on this role, and of course Wally.

Members who receive their newsletter in the post should also note there is a delay of a few days between the e-mail version going out and the time taken to print the hardcopy and get it in the post. So please don't waste your time contacting me to drip that your friend has received his e-mail version and you are still waiting on your copy by post.

Contacting me

E-mail: rnars@colinsmagic.com (**ONLY** enter **RNARS** in the subject)
Post: 26 Crathes Close, Glenrothes, KY7 4SS

Mobile: 07871 959654

Home: 01592 774085

When e-mailing me, please don't expect an instant acknowledgment, I might be away to some remote spot or sailing and I won't have access to my e-mail accounts.

If you want to save yourself a few pounds, you can choose to have your **newsletter delivered by e-mail** and in full colour, please follow the instructions below.

- 1 – Open a blank e-mail from the address you want the newsletter sent to.
- 2 – Address the e-mail to: **rnars@colinsmagic.com**
- 3 – **ONLY** enter the following in the subject: **Newsletter Subscription**
- 4 – In the body of your e-mail, please state your name, postal address, call-sign if any and your RNARS membership number, do not enter into correspondence in your e-mail.
- 5 – Send your e-mail.

DON'T send an e-mail from your own account on behalf of another member or members; all you'll do is add your own e-mail address to the system. One member took it upon himself to send in an e-mail with the details of eight members who wanted their newsletter by e-mail. He now gets eight newsletters by e-mail and the eight members receive zero squared and still complain bitterly in the belief they have been added to the list.

Thanks and hope you have a good summer.

Colin

Just after setting out the Newsletter, sad news came in concerning the passing of much respected RNARS and London Group Member; **Bill Jennings** GØIEC.

Bill's second instalment of his operating experience from HMS Belfast is included in this edition with part three to follow as a tribute to Bill and his support of the RNARS, London Group and the Newsletter.

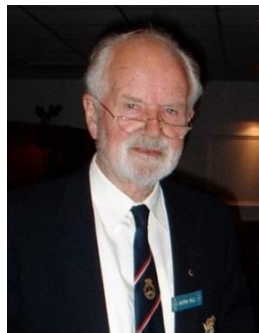
I am certain Bill will be missed by his family and many friends.



Obituary: Bill Hall G4FRN

“This is G4FRN with the UK Maritime Mobile net, standing by”. No longer will those words be heard on the twenty metre amateur radio band.

It is with great sadness that I report the death of Bill Hall, or G4FRN as he was known to the marine radio community. After a head injury and short time in hospital, Bill fell silent on 15th of February 2015 having been on air virtually daily until his accident.



Operating from a spare room furnished with an impressive array of radio equipment, Bill took over as net controller some thirty years ago. No one is exactly sure when or can remember him taking anything other than a short break. As a point of contact and source of critical information on weather, port entry procedures and news from home, it was greatly valued by cruising sailors from the Red Sea, Mediterranean and all parts of the Atlantic.

My first contact with Bill was in 1987 when sailing south to Gibraltar with my wife Di and daughter Lucy. Although I knew of the net, I had never actually heard it. This was because the frequency on which it operated (14.303MHz) is most effective at distances of more than a 600 hundred miles or so from the transmitter. As a result and contrary to what one might expect from the name, the United Kingdom is one place where the net is not easily heard. However as we made our way South, signals became clearer and the daily scheds soon became part of our daily routine. We discovered many new cruising friends, some of whom we are still in contact with and tapped into information sources that even today would be difficult match by other means.

Although amateur radio has on occasions been successfully used to summon help in an emergency, it is better used in less urgent situations. Take for example the elderly German, Joe and Eunice sailing from Gibraltar to Madeira. The weather was rough and Eunice had fallen and broken some ribs that may have punctured internal organs. It would be days before they could reach a safe destination

during which time Joe would have to look after Eunice and manage the boat. By calling the net Joe was put in touch with a marine medical service in Madrid who advised on treatment for Eunice over the next few days. When they arrived in Funchal, an ambulance was waiting and evacuation at sea and possible loss of their boat was avoided.

Then there was the boat that made an unscheduled stop at a Red Sea port, was boarded by local officials and detained ashore. Fortunately the boarding party arrived at the time of the UK Net and the skipper had the presence of mind to inform Bill of their situation. Their fear was that their boat would be plundered and they would be jailed indefinitely and the world would be ignorant of their fate, however this was not to be. Bill had gone on to notify British authorities of their plight so they could not be ignored. A few days later they were released and reunited with their boat.

It is impossible to say just how many cruising boats and crews have been helped over the years by Bill and the UK Net. Numbers must run into hundreds if not thousands but what made this net exceptional was the unflappable professionalism of its operators.

Bill's gift was of tact and diplomacy, of knowing what to say and what not to say in a difficult situation; a rare gift and sad loss to the cruising community as well as his family and world-wide friends, to whom all possible sympathy accompanies this sad news.

Mike Harris (VK7AAA KB2SED GØHOC)

You never know who you'll meet when you are out and about as **Phil Manning** discovered when he visited the Watercress Heritage Steam Railway.

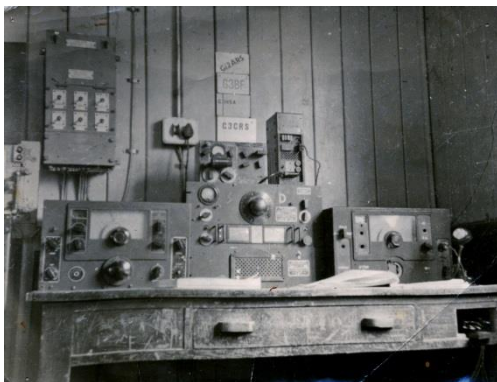
Resplendent in his railway uniform was none other than fellow member and railway volunteer, **Nigel Auckland** (MØNAF).



Me and my shack



John MØHTE operating from the Royal Marine Museum



Here's a picture I was sent by e-mail. Unfortunately I lost the e-mail but believe it was of HMS Collingwood club station G3CRS in the late 1940's.

Photographic contributions to "me and my shack" always welcome.

Memories of RNB Chatham

I visited RNB Chatham the other day and took photographs of the "sacred" parade ground. I call it sacred because in its day it was dubbed so. I recall one day leaving Anson Block descending the steps down the right hand corner, then dawdling at an angle across the parade ground to the entrance of drill shed to see if I had a draft on the notice board. Half way across the parade ground I heard a whistle being blown and up on top road a loud voice yelling; "*THAT MAN, DOUBLE*". I looked up and a CPO was addressing me; I obeyed without question.

The situation nowadays because it is a university is totally different. The entrance gates to the barracks and the Main Gate with its archway are still in place.

On a separate occasion (not that I was in Chatham Barracks very often), I managed to stay in the wrong half of the London to Chatham train and got carried on to the Sevenoaks Line when it split at Swanley Junction. I got back to Swanley but was adrift for seven bell leave. I

found the Station Master and he gave me a chit explaining my absence, I still thought I would be up for punishment. On entering the barrack gates and entering the realm of the Regulating Branch to collect my station card, I found them troubled with some sort of problem. I asked for my card and waving my chit in the air, the Regulators appeared to just want rid of me; I was very relieved to get my card and go.



RNB Chatham then, and now.



Newsletter always a good read, cheers, *Brian G2FSH 4633*

Results of the International Naval CW contest 2014

1	OE4PWW	CA135	313.875	31	G3UFO	MF1072	20.440
2	DL3RHN	MF1056	242.104	32	DJ1PQ	MF558	19.803
3	LY2MM	MI426	225.918	33	DJ7QW	MF351	17.686
4	DF4BV	MF742	214.230	34	DB1LI	MF1089	16.986
5	OH2RL	FN16	201.000	35	CT1APP	PN31	14.140
6	G3RFH	RN175	112.340	36	OH1SJ	FN58	10.602
7	R1NW	RN4263	110.124	37	DD1WG	MF839	10.411
8	HA2RQ	MF582	99.180	38	DL2LBG	MF374	10.050
9	DG7EE	MF956	76.615	39	PA1FR	MA427	10.044
10	CR7AJL	PN80	73.344	40	PA3CHM	MA26	9.772
11	CT1GZB	PN1	73.304	41	ON5JD	BM117	9.672
12	OH1LD	FN1	63.240	42	DK6LH	MF739	9.522
13	DL2NY	MF462	62.363	43	OH1UP	FN31	9.477
14	IZ1CLA	IN477	61.568	44	DL1GQE	MF620	8.532
15	IZ0EUX	MI865	53.418	45	PA0VLA	MA55	8.418
16	IK2CZQ	IN534	51.900	46	DJ9WB	MF25	6.292
17	DK9HE	MH1066	50.150	47	ON7CK	BM124	5.852
18	CT1ELZ	PN070	47.355	48	PA3EVY	MA164	5.786
19	SP6LV	MF814	46.787	49	IK7TVE	IN348	5.654
20	YO3AAJ	YO03	46.116	50	PA0XAW	MA375	5.104
21	DL3DBN	MF933	43.974	51	DL1RL	MF721	5.080
22	DL9CM	IN575	36.900	52	DL5HCS	MF308	4.887
23	DL1HBL	MF876	36.305	53	OE7CMI	MF1035	4.080
24	PA0MBD	MA422	33.168	54	DJ1IZ	MF332	3.910
25	DK7FX	CA149	28.056	55	DL8NBM	MF231	3.618
26	ON4CBM	CA82	26.712	56	CT1GZB	PN77	2.145
27	I6HWD	FN40	25.370	57	OE6NFK	CA58	1.872
28	G3ZNR	RN4496	23.569	58	OE1TKW	CA109	1.180
29	OH8UL	FN48	23.312	59	YO4AAC	YO25	497
30	PA3EBA	MA112	21.712	60	I7ALE	IN471	168



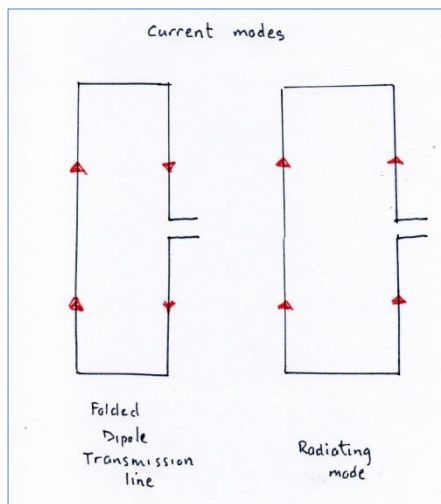
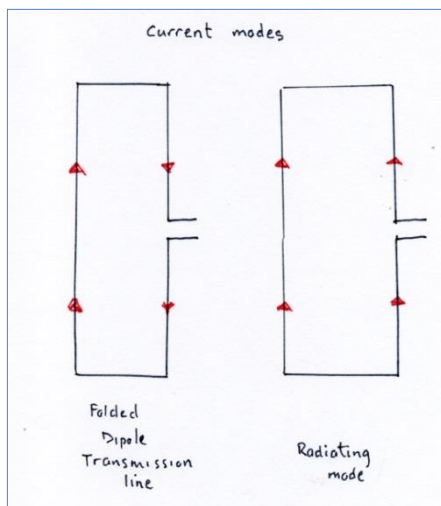
G5IJ Antenna

Ever since I read the technical topics article in RadCom for March 1996 I have been 'hooked' on the principle of the G5IJ aerial and have never been without one. Principally, the concept enables amateurs with a restricted 'plot' to erect and use a random length, (or lengths), of wire and achieve acceptable results. I have also had the pleasure of demonstrating the building of the coil / transformer to several amateur radio Societies, with significant 'take up' in some areas. Remember, Today's catchphrase is 'Try it'

The principle of the aerial is based on a folded monopole or dipole, controlled (fed) by a homemade transformer which converts the current distribution to a 'push-push' pattern rather than the normal dipole push-pull format. (Figure 1).

Once you have grasped (or conveniently ignored) this concept the difficulty is in the actual construction of the transformer. If you have in the past constructed a transformer based on a toroid you should have no problems.

The constituents of the transformer. An Amidon T 200/2 HF toroid (or similar).



Sufficient 20swg enamelled wire to wind 2 parallel windings of 27 turns around the toroid. A length of RG58 or UR43 about 1.5 m long plus sufficient to get from the transformer mounting position to the rear of your Tuner or transmitter.

A two section 'Choc block connector.
Small cable ties and some hand tools.
Construction of the transformer

Take the 20swg wire and lay the lengths out together to ensure that they had both the same measurement. Actually it is preferable to make a long 'hairpin' loop it is easier to control.

Anchor the 'far' end and grip the near end in the chuck of your electric drill. Take up the slack by going away from the anchor point, then carefully, and slowly operate the drill to make turns of about 2 inch in this twin wire.

Anchor one end of the twin wire to a point on the toroid and from there wind the secondary as neatly and has closely and evenly as possible. You should be able to complete 27 turns.

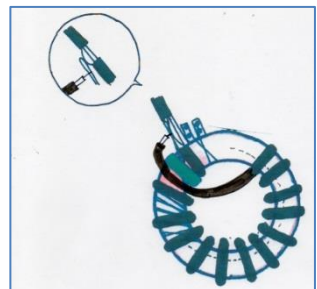
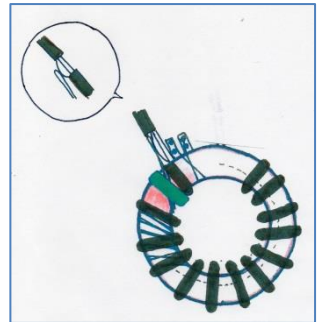
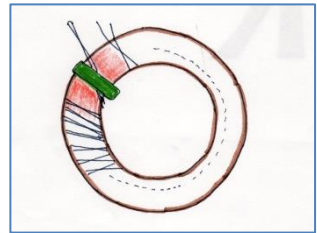
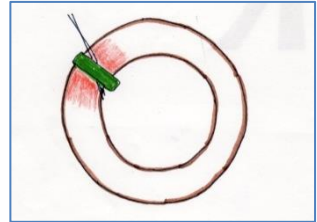
Once you have that number of turns secure it, separate and tin the wires and fit them into each side of the Choc block.

It matters not which side goes to which.

Fitting the Faraday screen.

Bare the end of the coax, leaving about 1cm of the inner core of exposed and tinned. Cut back and insulate the outer braid.

At a point .1 .3 m from the end of the coax take off the black plastic outer of the coax for about 1 cm.



Where you have exposed the inner insulation lift but do not break the braid and, carefully shielding the inner insulation, tin the braid.

Anchor the coax at a convenient point and wind as many turns as you can over the bifilar winding ensuring that the exposed end of the inner coax and the 'Hairpin' end of the bifilar winding are all soldered together at the one point.

Testing: if you cannot contain your excitement I suggest that you solder your preferred coaxial connector to the end of the cable, prop the transformer up on the windowsill and use it to act as a receive aerial, or indeed as a QRP transmitting device. If you can wait that long put a couple of wires in the Choc block stretch them out to the nearest tree, or whatever. Here comes the catchphrase 'Try it: One wire or two? - Vertical or horizontal? - Low or High? - Dipole or Loop?

All I would say is that they have all been tried. I personally have used an inverted V fan of wires of varying lengths. An 80m and a 40m loop around the garden and house. A dipole cut for 20m and a fishing rod 10m vertical. Each' worked'

Pictures of toroids I have used; including one 'beefy' one robbed from a large screen TV, capable of a lot of Watts.



I really do suggest that if you are interested in this aerial, that you obtain a copy of pages 84, 85 and 86 of techtopics in Radcom March 1996. I will help all I can if anyone gets stuck.

Do remember to try it!

Roy Walker GØTAK / 2E1RAF

A very warm welcome to our new members and up-dates

New Members

Frank Marschke	DL3NSM	4978
Leslie Olney	M6DHQ	4979
John Roberts	MØJTR	4980
Hans Helmut Frielinghaus	DH6HF	4981
Russ Tribe	G4SAQ	4982

Re-joiners

Tim Strickland	G4EOA	4867
Christian Shroeder	DG5BKA	4589
Mick Grant	GØTZE	4100
Gordon Price	M1BBU	4507
Flemming Christensen	G4MJC	1982

Changes

No reports

Silent Keys

Doug Rands	M5SST	4197
Bill Saunders	MIØXMN	4745
Bill Hall (Life Member)	G4FRN	0937
Bob Wilson	GM4FIB	0883
Brian Leach	G3DXY	4530
Harry Butler	G4JSW	2545
Derek Riddle	G4BMR	0897
Ian Dodd	G3MLY	1230
Dave Hamilton	MØBVE	4529
John Bourne	G3LNK	4094
Bill Jennings	GØIEC	3526

Resigned or lapsed

John Gaynor	VK2NCE	1283
Geoff Clarke	VK2DPE	4856

Membership application forms are available to download from the RNARS web site: <http://tinyurl.com/o6q9f77> why not print off a couple of forms and leave them at your local radio club? If you don't have access to the internet, ask a friend to print some for you?

Rally Reports

Norbreck (Blackpool)

I arrived just after 07:30 and got a parking space near the main door. Got all set up with the help of passers-by as Fred and Peter didn't arrive until much later. Crowds seemed thinner this year (you could get to the front of a stall without pushing, shoving or squeezing!) and there were more empty spaces. We had twenty members who signed in, the same number as last year. I met the four members of the Isle of Man ARS manning their stall and had quite a chat with them. They promised to return next year.

The weather in the morning was raining and blowing, but by mid-afternoon the sun came out. I packed up at 14:30 after an enjoyable day. Next year the rally will be on 17th April, same venue. Hope to see more of you there.

73 de Ken G3RFH RNARS 175

Kempton Park

As usual the Rally was well attended. I had asked the organiser to put our stand next to the other service organisations but in the event the Royal Signals were not there and it was just RAFARS and us. We were right in front of the bar but even though it was not open for business it did provide a useful shelf on which to keep some of our gear.



Phil, Mike, Doug and Joe at the Kempton Park rally

We had 17 sign in and although one person took an application form they would not complete it on the spot even with the inducement of a tot. 'Up Spirits' was at 11:30 and a few members just happened to be in the vicinity at that time. Commodity sales were slow.

All the usual vendors were there including two I had not seen previously, QSL Concepts who had a range of QSL designs and Tecadi

a German company offering a range of antenna accessories including some reasonably priced UV resistant guy ropes. The major manufacturers were all demonstrating their range of radios. The RSGB as usual had quite a big stand and had bowls of free sweets. The next rally at Kempton Park will be on 8th November.

Joe G3ZDF

No reports from **HMS Belfast Easter week**, however Carl Mason (GW4VSW) sent in a picture of himself taken during the event. Clearly Carl was so keen to operate; he didn't bother taking his pyjamas off when taking over the morning watch.



And some of the others who turned up for the drinks and sandwiches at the London Group AGM. Thanks to Mick Puttick for the pictures.



Glyn GWØANA



Bob GØFEK



George G4NFT

HMS BELFAST - BWO Part Two

I usually started my “watch” on 7020 Kcs a popular catchment area at that period, with perhaps, a quick check on the Bubbles, though I have to confess, my main modus was CW. I then moved on to 14052 Kcs to establish what could be gleaned there. However, although I aimed for RNARS, they did not always bite the bait. Nevertheless, I was not short of takers.

During the course of the day, and outside the shack door, visitors constantly come and go, and this is another delight of the watch, the opportunity of chatting to individuals from countries various , some with strange sounding names.

My watch might begin with straight forward on air communication, then mayhem would develop outside the shack door, this would probably herald of the arrival of a school visit. I used to love these sessions, at times hilarious. There is always a teacher or leader in charge of the groups.

During those early visits, I used to give a brief resume of how a signal moved to the other side of the world, and followed this by requesting a pupil to tell me their Christian name, for instance, the name “Ben”. My oral response was “Dahditditdit Dit Dahdit”.

My Hometown is Caterham, in the county of Surrey, and for many years I have been a member of the local Amateur Radio Club. Some of our members are RAFARS, and their Headquarter is based on Kenley Aerodrome. As you may know, this was a top fighter station, alongside Biggin Hill, during WWII. The Airfield is just around the corner from my Home. Unbelievably, the RAFARS Club in situ do not have a radio station, what a waste. However, there are two significant events which they choose to commemorate each year, firstly, the surprise Luftwaffe attack on the airfield in August 1940, an unguarded moment, when they slipped beneath the radar screen, resulting in devastation, and heavy casualties. Secondly, “Battle of Britain Day”. The Caterham Radio Club, set up a station, on both of these occasions, housed in a tent for CW, and a van for VHF.

It was on one occasion that I noted that my RAFARS colleague was handing out to interested spectators, copies of RAFARS info which

included the Morse code, a great idea, which I plagiarised. Accordingly, I ran off a couple hundred leaflets, on the ship's photostat machine, and in due course handed a copy to each student, and to the teacher or leader, a QSL card, with HMS BELFAST, emblazoned.

On an occasion, when explaining the function of a Morse key, it occurred to me, why not make it live. Yes, common sense you may say, but one can only "make do and mend", with that which is to hand. It was my practice to bring two keys of my own. Although a primitive arrangement, it was a success, and again fun, not only for the students, but also parents and grandparent.

Another BWO tactic I employed was the use of 2 Mtrs. I would arrange for a known operator to standby, and with a group of students at the BWO entrance a two way communication would ensue.

Bill/GØIEC/3526/LG345

Can you answer these six tea break questions sent in by Carl DePoy?

A sport in which the spectators and participants don't know the score or the leader until the contest ends?

North American landmark constantly moving backward?

Only two vegetables that can live to produce on their own for several growing seasons?

A fruit with its seeds on the outside?

Three English words beginning with the letters "DW"?

The only vegetable or fruit never sold frozen, canned, processed, cooked, or in any other form but fresh?

Answers:

Boxing - Niagara Falls, the rim is worn backwards about two and a half feet each year due to the millions of gallons of water that rush over it every minute - Asparagus and rhubarb - Strawberry
Dwarf, dwell and dwindle - Lettuce.

Improve for your VHF handheld; add a bit of wire

I had read a couple of articles that stated it was possible to improve the performance of a VHF handheld with a simple mod to the antenna. It sounded too easy so I decided to check it out using my radio and a selection of antennas. I also made a wire with an eye ring on the end, the eye being big enough to fit over the SMA connection on the radio. When this was done it made contact to the earth side of the antenna mounting. The wire was measured and cut so as to be the same length as a telescopic whip that I had acquired.

I took measurements using my field strength meter. Although this would only give a relative reading and not an absolute one, it would be good enough to indicate any improvement that might take place. I recorded the reading with both the FS meter



and the radio in fixed positions that did not move during the test.

As can be seen, by creating the earth side of the dipole of a few pence worth of wire and an eye connection the radiated power is vastly increased; an interesting and entertaining couple of hours.

Antenna	Meter Reading
Supplied Rubber Duck	1
Diamond SDR771	2
Diamond SDR779	4
Telescopic	2
Telescopic as Dipole	70

Nigel Auckland MØNAF

Sea Story - Part Three published by and copyright of Eric Bray; held back due to lack of space in previous editions.

First light

Carefully following my written instructions, I dragged my kit-bag from the train at a little station platform in the middle of nowhere. 'Petersfield', the signboard claimed, although the man on the p.a. called it 'pidd'rsfailed'. Nobody else got off, or on. The guard blew his whistle, then waved a green flag. With a rising whine of electric motors, the train rumbled and sparked off, leaving me standing on the deserted platform.

I waited, as instructed, but nobody came to meet me, despite what the instructions claimed. After an age, I heaved my bag up onto my shoulder, in the approved fashion, then staggered down the platform, crushed under the canvas bag of kit that weighed fifteen pounds or so more than me. I half-fell down the underpass steps, then buckled under my load partway up the other side, where I sank to the de- the floor in a trembling, gasping, sweaty, heap. The ticket collector surveyed me for a minute, then put his cup of tea down with a sigh, rubbed his aching back, reached down, plucked my sack of kit off me, and tossed it to the top with a practiced flick of one arm. The other hand plucked the travel warrant from my shaking grasp. "Murk-ri?" he mumbled.

"Thank you!" I gasped, as I scrambled up the steps, following the bag.

"Ar zed Murk-ri?"

"Sorry?" Was he a foreigner? I failed to understand a word of his broad Hampshire accent.

He sighed with desperate disgust at yet another foreign intruder into his ordered lazy life. "Ar zed ar go'ne Murk-ri?"

A pause, "Murk-ri, the ray-dee-yow scowl?"

"Oh!" The penny dropped. "Mercury!"

"Wot ar zed!"

Yes. There was supposed to be-."

"In't pub!" He looked at me. "Car'nt g'win, eh?"

"Er, no." I guessed at his words.

"Truck outsize." He pointed at a green army truck with a canvas back, like those you see in old war films.

"The army truck?"

“Ar.”

“Oh, thanks.”

He hoisted my bag and slapped it onto my shoulder, nearly flattening me again with the impact, then gave me a gentle shove to start me staggering in the right direction, with a departing “Gor bluddy ‘ell!”

At two-fourty, two sailors dressed in faded number eights emerged from the pub, and ambled across to the truck. “Only you?”

I looked around. “It seems so.”

“Funny bugger! Why’s your kit not in? Come on!

Chop chop! You’re wasting time!”

I struggled to lift my bag again, then his mate took pity, and chucked it and me into the back, one hand each. A minute later the engine coughed into life, gears clashed, and then the truck lurched off, nearly pitching me out again. We rattled and bounced off down the road, through the town, and out into the country. I was being flung from side to side as we careered down the twisty lanes, then without warning we swerved hard left, then hard right, the tyres howling as we braked sharply. I was still picking myself up when the tailgate crashed down, and the driver’s mate yelled, - “All out!” Ten seconds later, the truck shot off, leaving me standing in midair, as I tried to drag my kit bag out. The truck roared off, tailgate flapping, as I descended inelegantly to the tarmac.

I looked around, seeing a low-slung building, with two Petty Officers standing by a doorway. They were dressed in number 2 suits, with white belts, and white gaiters. They gazed at me with barely controlled smirks. One crooked a finger at me. “In ‘ere, son. Leave your kit there, for now!” ‘In ‘ere’ proved to be the main gate, the fire station, the guardhouse, and a few other minor things.

“Got yer papers?”

“Papers? I’ve got a Daily Mirror I-.”

“Not that, you dimwit!” The other Petty Officer snarled. “Your joining papers!”

“I was given this envelope, at Raleigh. I don’t know what’s -.”

“Agh! Another six-week wonder! Hold your left hand out!”

Puzzled, I did.

“At least it knows left from right!”

“Relax, son. He’s just pissed off because he’s on duty tonight.” The more kindly one took the crumpled envelope I offered, opened it, discarded most of the contents, and then placed the remaining couple of sheets of paper into a wire tray.

“That’s that lot filed down!” He poked the bin with most of the documents in, with a toe. “Do you know where you are?” “Somewhere in England, Sir?” I’d seen too many Prisoner of War movies.

“No. Purgatory, that’s where you are! The arse-hole of Hampshire.” He grinned, “Freeze your nuts off in winter, and sweat ‘em off in summer. The rest of the time, it’s pissing down!”

“Or a screaming gale!” The other one added. “That’s the beauty of living on top of a hill in the middle of nowhere!” He bashed the desk with a clenched fist, making me and the wire trays jump. “Fucken’ place!”

“Come on, I’ll show you to your mess, so you can get sorted out, then you come back here for your Duty Watch, Station Card, and stuff.” The friendly P.O. scooped up my bag as though it was a feather. “Jeez, what’s in here, a corpse?” “No, Sir, just my -.”

“I’m not a Sir. Sirs have funny hats and gold braid everywhere. I’m Pots, or R.S.”

“Yes Sir, R.S. Sorry Si – R.S.” (At Raleigh, everyone was called Sir.)

“It stands for P.O. Telegrapher, or Radio Supervisor, our new name.”

He led me across the road, up a flight of steps, round a group of wooden sheds, - “That’s the Jenny’s quarters, they’re out of bounds to you!” - across another road, then along a footpath that crossed a patch of lawn, to the centre one of five detached houses. We went in, up the stairs, - “Heads and bathroom!” - and into a room that held a foul smell, ten bunk beds, ten lockers, and nine bodies. “Here you are. Can you find your way back?”

“Yes Si – R.S.”

“Don’t take too long.” He dumped my kit-bag onto the floo – deck, and left me to it.

“Er, Hi!” I introduced myself. Eight faces glared indifferently, one ignored me completely. “Which is my locker?”

“The empty one, you thick git!” One of the hostile faces snarled, as he heated a table-knife blade over a candle, then applied it to the toe of a boot. That explained the smell.

One locker was unlocked, a door hanging open. Inside was an assortment of cleaning gear. Nine were closed, and fastened with assorted padlocks.

Nine beds were made, one had a bare mattress on the wire mesh frame. With a struggle, I heaved my kit-bag up onto it, then saw another, smaller locker, on the floo – deck, in a corner. It had battered, twisted doors, and was stuffed with bald scrubbing brushes, spilled cans of metal polish, and a wad of wire wool. I put two and two together, transferred the junk from the other locker, then closed the doors and attached my own lock. Someone sniggered.

A Welsh voice said, “Alright, you’ve had your fun, is it! Now leave it.” To me, he said, I’m the Mess Leader. He looked around. “This bunch is alright, really! Where are you from?”

“Raleigh.”

“No, Boyo. Where are you really from?”

“Oh, Manchester.”

“Where’s that?”

“North west. Between Liverpool and Blackpool, then in a bit.”

“I never heard of it.”

“Where’re you from?”

“Llgarglespitgn!”

“Where?”

“Wales, in the Valleys.”

“Oh. Never heard of it.”

“Not many have.” He went back to his letter-writing.

“Including the bloody Post Office!”

Somebody said, “Where’s Wales?”

“In the fuckin’ sea, you daft Geordie bugger!”

Geordie dumped the boot he was trying to melt, and advanced on a skinny lad who was sitting on a locker. “Call me daft again, an’ I’ll fuckin’ cut you!”

“Hey!” The Welshman sat up. “Pack it in, George, or I’ll flatten you, myself!”

“Yeah, pack it in. We’ve just finished polishing the deck, and we don’t want your blood on it!” another lad added. “You try it, and I’ll break your arm!” The one sitting on the locker said. He seemed relaxed, yet tense at the same time.

George waved the burnt knife at him, from a safe distance. “I’ll get you, you skinny git!”

“Any time.”

“That is enough!” The Welshman over-rode the voices.

“Ah, fuck it!” George backed off, and went back to mutilating his boot.

“I’m Slinger.” Locker-top continued. “Get your kit sorted, and I’ll show you what’s where, but hurry up, it’s nearly teatime!”

“Thanks.” He seemed a handy guy to be mates with.

Slinger and I returned to the Gatehouse, where I was issued with a piece of coloured card, folded into halves. Inside was typed my name, serial number, class, mess, and today’s date. “That’s your watch card. Don’t lose it!” Then I was given a Xerox copy of a map of the camp, showing where things were, and another card, for a bedding issue. Slinger took me to the bedding store, from which I collected a pillow, a mattress cover, two blankets, and a counterpane, in exchange for the card. On the way back to the mess, he pointed out the laundry, the barber shop, the NAAFI, the canteen, the Dentist, the Sick bay, and a few other useful places.

I dumped my bedding onto my mattress, then chased after Slinger and the rest, to join a long queue at the canteen door, eventually getting served with a mug of orange stuff, and a ‘sticky bun’, a spiral of bread, sprinkled with sugar, and sporting a couple of currants. A kind soul might have called them a cup of tea, and a ‘Danish’ pastry.

Back in the mess, after, I assembled my bed in the approved manner, put my kit into my locker, and then found that the kit-bag was supposed to go onto the bed-frame, under the mattress.

I had barely finished rebuilding my bed, when the mess-room door crashed open, and a P.O. with an armful of

gold stripes strutted in. He glared round the room, then opened with the classic lines, - “Right, then, you ‘orrible shower!”

We soon discovered that he was the Instructor destined to attempt to turn us into Radio Operators. “I’m R.S. Metcalfe!” He declared, as introduction, “And you are?” He pointed at the nearest body, working round everybody until he got to me. “Ah, yes. The stray sheep!” That was me christened. From then on, I was ‘Baa’. “Right, then. We start properly tomorrow. Who knows any Morse code?” He looked around hopefully. “No-one? Who can type?” He got the same response. “Can anybody read?”

Puzzled, we hesitated, then a few hands went up, uncertainly.

“Right, it’s kind of you to volunteer! The rest of you stay put, you three come with me.”

A few minutes later they came back, loaded down with a pile of books, a car battery, a stack of cards, and a tangle of wires.

The books were for writing in, the cards proved to be print-outs of the alphabet, one lot had the Morse code symbol that matched the letter, the next had a semaphore version, and the third was a list of coloured flags, and their meanings. While we were given one of each, each, and puzzled over what they were meant to be, R.S. Metcalfe had assembled his battery, and the wires. He drew our attention with a sharp RAZZZ! from a buzzer.

“It’s a bit crude, but it works!” He declared, when we shut up. “With this, I am supposed to teach you the basics of the Morse code, as invented by a Mr. Samuel Morse, way back in the dark ages, or was it last year? Anyway, Morse was invented for sending messages down telegraph wires. This other bit is a Morse key. It is a kind of spring-loaded rocker switch. When I press this knob, two contacts contact.” He grinned weakly.” Yeah, well, they do! And it makes a RAZZZZ buzzing noise. It also splatters stray r.f. across the radio spectrum, to the RAZZZZ annoyance of those in North Camp, RAZZZZ. Look at the card with the Morse RAZZZ code printed on it. You will see that it is made up of a mixture of hyphens and full stops. The RAZZZ mixture makes up one

letter, or symbol. We call 'em dots RAZ and dashes

RAZZZZZ. A dash RAZZZZZ is three times the length of a dot RAZ. In between each letter, we leave a little space, and in between each word, we leave a longer space.

Now, we could start a, b, c, RAZ RAZZZ, RAZZZ

RAZ RAZ RAZ, RAZZZ RAZ RAZZZ RAZ, but there is a way that I think is easier, and that is, the opposites. RAZ What's that?"

"You had beans for tea?" Geordie ventured.

"Letter 'E' RAZ, 'T' RAZZZ. 'I' RAZ RAZ, 'M' RAZZZ RAZZZ. 'S' RAZ RAZ RAZ, 'O' RAZZZ RAZZZ

RAZZZZ. See, it makes it easy to remember. Say it with me, and hear the sound, - E T I M S O H.

We went round a few times.

"Now we get to the next bit, RAZ RAZZZ is 'A', and RAZZZ RAZ is 'N'. He worked on through the alphabet, failing to see another R.S. enter the door, carrying a metal box with a stiff wire loop on the top of it.

"Ah, it's you, bugging up my lesson!"

"What did I say!" R.S. Metcalfe replied. "I knew it would bring them running!"

"I take it that this is your new class?" The newcomer asked.

"That indeed is my misfortune! This gent is R.S.

Higgins, who will be taking you some of the time."

"And this is your other first lesson. Anything that makes an electrical noise can be located, with the right equipment!" R.S. Higgins turned the box he held round, so that we could see a large meter on the side.

R.S. Metcalfe pressed his key, creating a RAZZZ! The meter on the box jumped up for the duration, then subsided at the cessation of the noise. "See! No wires." He switched on the mess lights, which also made the needle jump, but immediately drop back. "If you could hear the output from the detector, that would be a click, while the buzzer would be a rasp." He turned to R.S. Higgins. "We're about done here, anyway."

"Ok, I'll be seeing you, in the bar!" R.S. Higgins left with his box of tricks.

"So, ah, you have all Sunday to learn Morse from

those cards, and the other symbols, too. The fourth card, which I haven't given out yet, because I don't have any, is supposed to be a typewriter keyboard. On Monday, we start properly!"

"Er, Sir, you said we start tomorrow!"

"Not Sir, son. I'm R.S. Sirs are Officers who think they are Gentlemen, while we are Gentlemen who pretend to be Officers, unless real Officers are about! Tomorrow you start with drill, then it's a haircut parade, then dental parade, then the medics get a go at you. After that, we'll see. He unclipped his Morse key. "You, grab that battery, and bring it." He pointed at Geordie.

We all had haircuts, at three shillings a go, even though some of us were already nearly bald, then waited in line for the dentist to do his thing, poking, prodding, and giving us toothache. Some came away with appointments for further treatment. Then it was on to the medics, who demanded that we strip, then they counted our arms, legs, spots, moles, orifices, embarrassed us (Cough!), then had us dress the lower half. We lined up again, and had our arms used as pincushions.

Two of us fainted, and a couple more went pale and wobbly. After that, we were marched back to the mess, where we lounged, very carefully, studying the cards, and trying to make some sort of sense of them. Smitty, who had been very pale and sweaty after the injections, began to make funny gasping noises, and went a mixture of red and purple colours. Taff told him to stop bugging about. Smitty fell to the floor, drenched in sweat. Taff looked more carefully, then dove downstairs, to the telephone, where he summoned medical help. An ambulance rolled up, then Smitty was carted off to the sickbay.

Later, two duty patrolmen turned up with a pair of bolt-cutters, forced his locker open, packed his kit, and took it away. Apparently, he had suffered an adverse reaction to the chemicals, but would be ok. He would be staying in for observation, and would re-join the next starter intake in a fortnight.

On Monday, we began the course properly, starting with a thing christened MKX. This stood for Morse Key eXercises, in other words, the R.S. using a Morse key to send letters to us, which we had to write down. We didn't use the buzzer, now, though, because we were in a proper classroom,

fitted with an oscillator, an electronic whistle, and lots of sets of Bakelite and steel headphones, which very quickly became known as skull-crushers, because of the vice-like grip they applied to the ears.

The second lesson, in a different classroom, was BKX, or Basic Keyboard eXercises. This turned out to be the typing class! The thing that made the task difficult was, the keys on the typewriter all had their letters removed, so we were faced with four rows of blank black pads. We were expected to remember where the letters were. In a fair world, the top row would be numbers, then the ones beneath would be a, b, c, etc, but no, they were all jumbled up! They went QWERTY instead, so how we were supposed to guess is anyone's guess! We were allowed to use our crib cards, at first. A different R.S., with a badge consisting of crossed flags, took us for this lesson. We learned that he was an R.S. (T), or Tactical, also known as Bunts. He carried a length of broom handle, with which he beat out a tempo we were expected to type to, on anything that was within reach. It was usually a desk-top, but it could be someone's knuckles, if they were too slow, missed a beat, or got the typewriter keys snarled up, all of which were easily done.

Finger muscles aching from the abuse and unaccustomed exercise, we were marched off to lunch.

After lunch, we were split into two groups, each of which was marched off in different directions. We ended up on either side of a valley that ran across the far end of camp, standing on a concrete platform that sported a wooden boat mast, and a 'honeycomb' box of flags and bits of rope. From there, we were supposed to send messages back and forth, under the watchful gaze of two L.R.O. (T)'s. As we were destined to become (W)'s, not too much emphasis was placed on this part of the course, it was more for exercise of the physical variety, and a breath of fresh air. The result was, as the flags became mixed up, the class became more of a farce than a force to be reckoned with. We strung together whatever flag came to hand, with no regard or understanding of its meaning.

To be continued.

The rise and demise of the service signal form

I have recently, with the assistance of fellow members of RNARS, RSARS and RAFARS, been conducting a search for interesting signals ephemera; the sort of pieces of paper that we professional signallers discard when of no further interest. So far I have collected either original copies or electronic copies of the following documents. What have you got that may be of interest to me?

Field Service Pocket Book dated 1914 (reprinted, with amendments, 1916) was originally issued to Captain W B R McCardine (I believe that was his name) that contains 290 pages as of very small point script printing which must surely have required a candle and a magnifying glass to read in the trenches. Unfortunately I have been unable to find details of the Captain and what unit he joined more importantly did he survive? Unfortunately nothing much of radio/Signals interest therein. Were Naval Officers of that era issued with a similar document?

The evolution of the message form

Possibly the earliest document which have evidence of is an electronic copy of a message form dated 21 April 1918 from the balloon section at Bailleul reputedly

reporting the shooting down of a Fokker Tri-Plane at Le Hamel (The Red Baron). This is plainly a fabricated copy but it

[illegible]

possibly displays the type of message form used at the time. The later RAF form 96 issued, I suggest is clearly after the founding of the Royal Air Force but prior to 1937. I think it has traces of its Royal flying Corps origins in that, at the top right hand corner it has a block where of the postage stamp is to be affixed, harking back to the RFC primary mode of communication which was by letter!

Form 96 has printed spaces for 7 lines each of five groups. I had presumed that on the merger of the Army Signal Service and the Royal Naval Air Service on 1 April 1918 to form the Royal Air Force it would

naturally follow that there was a duplication of paperwork and no doubt the Senior Service would be likely to assume dominance. All naval documentation, I have learned, was at that time, and subsequently issued with a form number beginning with the letter S. I had presumed therefore that the earliest numbered forms follow the chronological line. I was clearly wrong. Here is my current presumption based on the documents that I have seen.

The message form RAF 96A appears in the AP 10811 RAF Pocket Book 1937. It is essentially the same document as the 96 but omits the postage stamp reference and has 6 lines of 5 groups allocated for the text in its small edition but in a larger version it has the capacity to take 80 groups. A separate form 96A subtitled S575A. (Naval) is of similar design but capable only of 60 groups. This was, I believe, printed in March 1942.

RAF form F Sigs 52.
(Large) (opposite)

This is the message format that I grew up with in the RAF in 1956. It has 15 lines for text with no subdivision for groups. An alternative version (small) was issued with only 5 lines for text. Interestingly I never saw this small message form in 30 years of service.

Security Classification	Special handling caveat				
Message Form	Serial No.	F/Sigs 266 (Revised 3/90)			
Line 1	File store ref:				
2	Routed by				
3 DE	Time				
4	Prepared by				
Precedence : Action / Info Routine		Time			
DTG :	Z Month Year	For single transmission Transmitted to			
Routing indicators	From:	Channel No / system			
	To:	Time			
		Operator			
		Message instructions			
		Security classification			
		SIC(s)			
Internal distribution:					
Page <input type="checkbox"/> of <input type="checkbox"/> pages	File No. or reference	Releasing Officer's signature Name (BLOCK letters) Rank/Grade Branch and telephone No.			
Have you referred to a classified message? State yes or no in box <input type="checkbox"/>	Drafter's name and Rank/Grade (in BLOCK letters)				
	Branch and telephone No.				
for OPRT use <input checked="" type="checkbox"/> R	filing time/TOR	System	Operator	Final check Operator	
Security Classification					

Form F/Sigs 266

Another large format signals for one introduced in March 1990, it has the same foolscap 'footprint' as the Sigs 52 but only 8 lines of text. The rest of the space is taken up by, what I consider to be, excessive administrative functions.

[illegible]

Message Form S 1320C (For use with Sierra. 1320b revised October 1935) I have one lonely copy of this, clearly an ex Naval form, both by its content and its serial number. This is a large format message form segregated for groups. The final group number for each lateral line starting at 55 incrementing by 5 to a total of 150 groups. The printer is GBR Ltd and what appears to be a serial number is as 51-7271.

I presume that the form S. 1320a is the 'First ' page starting at 5 to 50 groups; has anyone seen one? Please get in touch with me: g0tak.walker@btinternet.com

Roy Walker 2E1RAF

William Albert Porter

Earlier this year our Editor received a package of papers from Mrs Ann Craven. It consisted of 14 Exercise Books, together with a diary extract and copy of the Royal Navy Record of her father William Albert Porter, who had trained as a Wireless Mechanic. She thought that the training notes in the exercise books might be of interest. The Editor passed the package to me. It is interesting to see what was being taught to embryo wireless engineers at that time.



William Albert Porter was born at Devonport on 5 December 1923 and he was conscripted into the RN on 8 December 1942, 3 days after his 19th birthday. He is described as being a Student.

Initially he was sent to HMS ROYAL ARTHUR for basic training. I found this interesting as my father was also conscripted into the RN, and like Bill Porter was sent initially to HMS ROYAL ARTHUR. This was established at what had, pre-war, been a Butlin's Holiday Camp at Skegness. This sea side resort used to advertise as "Skegness is so Bracing!" - ad speak for it being a breezy place, with winds coming off the North Sea! Like Bill Porter my father found himself there in December; not the warmest time of the year, and accommodation was in the unheated Chalets.

On 2 January 1943 he reported to HMS SHRAPNEL and started technical training at Cardiff Technical College. He was there until 7 May. The Exercise Books are his notes of the course, which covered the usual basic radio topics. The books are well written with clear diagrams. I suspect that they were compiled by copying from the training publications. He was clearly no slouch as his exam marks show: 30 April 1943

General Electrical Practice	74 (50)
General W/T Practice	72 (50)
Special Pulse Circuits	89 (50)
Workshops	88 (50)
TOTAL	81 (65) – Passed

I was intrigued that one of the books contained setting up details on a range of radio transmitters and receivers eg R1155, T1154, R1083, and R1116. These are all what I thought to be RAF equipment. There is no reference to Navy radios. I then noticed that on his Record his service number with a Portsmouth Division had been altered to a different number with Fleet Air Arm as his Division. That made sense as Naval Aircraft would probably be carrying RAF type equipment.

On 8th May, Bill Porter was posted from Cardiff to HMS ARIEL. This was the home of the Air Radio and Air Mechanics training establishment at Risley (also called Culcheth) near Warrington in Lancashire. Again he seems to have done well in the exams: 30 July 1943

Theory	85 (50)
Fault Finding and making good Defects	89 (50)
Oral	85 (50)
TOTAL	86 (60)
Buzzer at 10 wpm	97 (90) - Passed

I was interested to note that he had been taught Morse Code by sound. I would not have thought that Morse knowledge would be a requirement for a Wireless Mechanic. Having passed his course he was promoted to Leading Radio Mechanic on 31 July 1943.

He stayed at HMS ARIEL until 9 August when he was posted to HMS VULTURE, otherwise known as RNAS (Royal Naval Air Station) St Merryn, in Cornwall. However on 10 November 1943 he was posted to HMS BLACKCAP, RNAS Stretton, in Cheshire, where he served until 26 July 1944.

There are copies of reports between 19 May and 30 June, where it appears that he along with a PO and a Mechanic formed a team checking on American aircraft, presumably shipped over to Liverpool in a part dismantled state. They were dealing with aircraft such as Beechcraft Expediter, Hellcat, Corsair and Avengers. They were checking the radio fit, modifying to suit UK conditions, checking for shortages and deficiencies. This entailed reports to both the Admiralty in London and back to the USA. In some cases there was a shortage of technical manuals and the team produced instructions and layout diagrams.

On 31 July 1944 he was promoted to Acting Petty Officer and on that day was moved to HMS WAXWIN a shore base between Dunfermline and Kingseat. It was the RN Overseas Draft Station!

The diary extract starts on Wednesday 26 July 1944, when he was returning from, I assume, embarkation leave. It seems that by now he was married! It gives detail of daily activity, basically marking time until 22 August when he, and others, were marched to the railway station, and then by train to Greenock to board a transport, RMS Otranto lying at anchor. The RMS Otranto was a 20,000 ton passenger ship built in 1929 by Armstrong Vickers at Barrow in Furness for the Orient Line's service from UK to Australia.

They sailed at 9 pm on 24 August 1944. Curiously enough my father also sailed to the Far East in the Otranto and I wonder if it was the same sailing!

The Diary gives the day to day routines; passing Gibraltar at 1 am on 1st September, Algiers on 2nd, Alexandria on the 6th to arrive at Port Said at 1000 on 7th September. Transit of the Suez Canal brought them to Port Suez on the 11th. They anchored off Aden on 14th and arrived at Bombay on the 20th. From the diary it seems that so far it had been boring! However at Bombay he transhipped to Nevassa, which he describes as a “horrible little coal burning trooper. Food frightful. Cockroaches”! My father was perhaps luckier as he stayed aboard Otranto and arrived in Sydney, Australia where he spent the rest of the war.

Nevassa sailed in convoy with heavy escort on 25 September and arrived at Colombo in Ceylon (now known as Sri Lanka) on the 28th. He went to “Rat Camp” where he marked time doing routine camp chores until 14 October when he was posted to HMS UKUSSA.

This was otherwise known as RNAS Katukurunda and was located near the town of Kalutara in Sri Lanka. Established in 1944 by the Fleet Air Arm of the Royal Navy at its peak it was the largest Royal Naval Air Station, staffed by 300 Officers, 3000 sailors and 100 women from the Women's Royal Naval Service. It serviced more than 100 aircraft at any given time whilst maintaining an aircraft repair yard.

The diary is full of comments on repairs to aircraft radio equipment. Many are referred to by the serial number eg FN857 so what they were is not known. He did work in Beaufighters, Seafires, Wildcats, Harvards, Corsairs and Avengers.

On 21st January 1945 he joined HMS UNICORN at Colombo. This ship was the first Royal Navy Aircraft Carrier to be purpose built for use as a Repair and Maintenance vessel for aircraft. However she was fitted with a full length flight deck to enable landings or launch of existing types of carrier borne aircraft and so could also be deployed for operational use as a fleet carrier. Her hangars were intended to house any type of aircraft used by the RN including amphibians which could be embarked by crane and launched from a catapult. The lifts were

large enough to accommodate the larger amphibians. This ship saw operational service as a Fleet Carrier during WW2 and could act as a landing platform if any accompanying Fleet Carrier was unable to land aircraft after action damage. Maintenance workshops with ample capacity for carrying stores required for aircraft maintenance and repair as well as for ship equipment were provided.

Again there was repair work on Seafires, Corsairs and Wildcats. He went back to HMS UKUSSA on 30th January 1945 and on 29 April 1945 was posted to HMS BAMBARA, situated in eastern Ceylon approximately 4 miles south west of the city of Trincomalee. This seems to have been a joint establishment as the Royal Air Force had initially established an airfield which it called RAF Station China Bay in March 1942.

The routine is as before but with different aircraft. He mentions Beaufighter, Martinet, Reliant, Swordfish, Barracuda, Avenger, Wildcat. Whilst at HMS BAMBARA he is promoted to Petty Officer on 3 May 1945.

He left Ceylon on 12 April 1946 and was posted to HMS DAEDALUS III, the accommodation and release centre at Lee on Solent, being discharged on 10 August 1946.



William second from the left

This is not meant to be a biography, but the diary in particular gives insight into one man's experience in the RN; the frenetic activity and the spells of boredom. Bill Porter went on to be a school teacher, with English his specialty. He died on 19 March 1998.

Bill Wright GM3IBU

What's It All About?

A glimpse into the world of digital radio

I think it's safe to assume that most, if not all of you, are aware of the various modes that we radio amateurs have at our disposal, i.e. AM, FM, SSB, CW, SSTV, etc., just to name a few.

Many amateurs in the UK managed to get on to VHF (2 metres), and later onto UHF (70cms), by use of surplus PMR (Professional Mobile Radio) which has been around in the UK since 1947. As time went on radio amateurs took advantage of the surplus PMR radios when they came on to the market. Many of these were converted for use on the VHF and UHF amateur bands

Then along comes digital which has been around for a while. Satellite communications have used digital means for many years. Then, on the amateur bands, who can forget the noises produced by packet digital data transmissions on 2 metres and the amount of *TNC's (terminal Node Controllers)* available, published lists of nodes, etc.?

The introduction of digital PMR products is bringing great benefits to the users of professional radio. Digital modulation provides a wide range of advantages by enabling the exchange of more complex information, resistance to radio interference and better audio quality. It wasn't long before it was considered to be a secure and safe way of converting speech transmissions. The emergency services here in the UK transferred over to digital some time ago after first shifting from just above Band 2 (88- 108 MHz) to 'high-band' VHF and UHF.

Digital radio is, however, bringing a degree of complexity in that there are many different types of protocols now on offer – DMR, dPMR, NXDN, TETRA, P25 – some standardised and some proprietary including Yaesu's "System Fusion". Some amateurs devised new D-STAR (Digital Smart Technologies for Amateur Radio) offering digital voice and data communication using FDMA (see "The technical bit" below). It was developed in collaboration with JARL (Japan Amateur Radio League).

None of these protocols are compatible with each other and all bring different attributes to the table. All, however, are more efficient in terms of use of spectrum and also improve voice quality at the edges of

a coverage area when compared to analogue systems due to the efficiencies of digital processing.

The DMR (Digital Mobile Radio) standard was first published in 2005 and has been widely adopted by radio manufacturers and users. The Digital Mobile Radio Association has conducted some research which shows that DMR has become the leading digital Professional Mobile Radio technology in operations-critical sectors such as transport and industrial, and they have more terminals in use than any other digital technology. Major manufacturers include Motorola, Kenwood, Vertex, Tait, Harris, Simoco, Hytera and others but ‘copies’ are being made by some other Chinese manufacturers. It would appear that that Icom is the only company to date that manufactures D-STAR compatible radios.

Needless to say many amateurs worldwide have taken up DMR. One of the principal benefits of DMR is that it enables a single 12.5 kHz channel to support two simultaneous and independent calls, achieved using TDMA (see “The technical bit” below).

The technical bit: Broadly speaking there are two underlying technologies to the various digital protocols:

FDMA (Frequency Division Multiple Access) - used by NXDN and dPMR, and TDMA (Time-Division Multiple Access) - used by DMR, TETRA and P25 Phase 2

In FDMA, a channel corresponds to a frequency band and individual channels are assigned to individual users. So, in FDMA the entire bandwidth is divided in different frequency bands or channels which, on request, is allowed to each user. No user can share the same frequency band at the same time. ‘Guard bands’ are maintained between adjacent signals to minimise cross-talk between channels. User A has 100% use of a small slice of spectrum and user B has 100% use of another small slice of spectrum

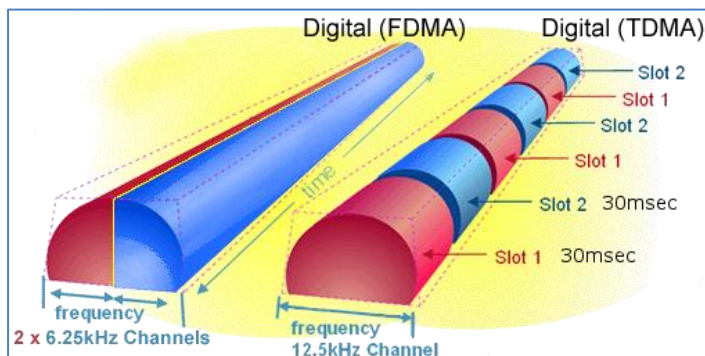
On the other hand, TDMA divides up spectrum using time slots; user A gets a few milliseconds of access to the bandwidth, then its user B’s turn. There are a number of consequences of these two approaches. DMR uses TDMA and many of its advantages come from this choice.

In TDMA, one user takes all the frequency bandwidth but during a precise interval of time. Therefore, different users can transmit or receive messages, one after the other in the same bandwidth but at different time slots. Each user occupies a cyclically repeating time slot and a TDMA channel may be thought of as a particular time slot that recurs every frame, where a number of time slots comprise a frame.

A very simple example to illustrate this can be two users each speaking a rhyme. Take one saying: “Mary had a little lamb” in slot 1 and the other saying: “Hickory dickory dock” in slot 2. Each sender’s information (speech) is cut into small packets of data and transmitted one after the others. For example:

Mary Hickory had dickory a dock little the lamb etc. Of course, in reality, the time slots are very short but this does illustrate the principle. Once the packets are received at the other end, the digital processing re-assembles them into normal speech.

The difference between FDMA and TDMA is shown in the adjacent diagram.



What next?

It is important that the user

understands some basic differences in systems technology in order to make the right choice. Some differences in specific products are the result of the way different vendors have implemented features. Others are due to fundamental differences in the underlying technology used by the protocol. These underlying differences impact system scalability, power efficiency, feature possibilities and both access to and use of spectrum.

In my own case I reviewed the various systems and, having been in the PMR business in the past, decided to go for DMR. We are seeing equal or better coverage with DMR compared to an analogue repeater at the

same location and antenna and certainly with better quality audio when in fringe areas. I've had a few surprises at the number of RNARS members who are on DMR and had some interesting contacts elsewhere.

There are a number of things you have to do before going to the digital modes, particularly DMR where you have to obtain an ID number. This can be obtained from DMR-MARC whose details are listed at the end. A DMR ID is similar to a phone number. You program it into your radio then, like phone number ID, others will see you show up on their displays. If the radio is programmed in a certain way, then the call sign belonging to the transmitted ID appears in the display. One of my radios has over 800 active DMR UK calls in the memory. Also, live logs are available so that you can see if you are really accessing the repeater(s) and who else was on the air.

DMR has a capability to have Talk Groups which can be local, regional, national or world-wide. With the scanning facilities in radios it is possible to hear activity on the channels such that you shouldn't miss your friends when they call you.

As the title suggested, this is only a glimpse into the world of digital two-way radio. You can discover a completely new side to amateur radio that was never before possible with conventional FM systems. Gone are the days of stupid signal reports like "you are 5 and 1". How can anybody be perfectly readable when signals are barely perceptible? DMR, for example, has three states of signals: perfectly clear and very good quality; broken up digital; no signal at all.

If only Marconi knew what he started! What's it all about? The answer is the efficient use of the spectrum.

More information can be found at:

D-STAR

<http://tinyurl.com/o33gtx>

DMR

<http://www.dmr-marc.net/> and <http://www.dmr.uk.net/>

Yaesu System Fusion

<http://tinyurl.com/q4d4j8k> and many more including Facebook and Twitter where the modes have their own pages, etc.

Bill Mahoney RNARS 328

Reviewed by John Baxter, G8VIQ, PMR Engineer

Web Watch

Have you found an interesting web site, pass it on and I'll share it in the Newsletter. If you receive your Newsletter by e-mail, you should be able to click directly on the URL's below to open the web site.

HMS Warrior live web cam, with twelve paused views from the mizzen mast: **<http://www.hmswarrior.org/webcam>**

Birth of weather forecasting: **<http://tinyurl.com/mvs98wc>**

HMS Cabbala with a picture of Anna GØDID: **<http://tinyurl.com/nsrp7ze>**

RN Met School: **<http://tinyurl.com/ksm3msj>**

Caption Competition



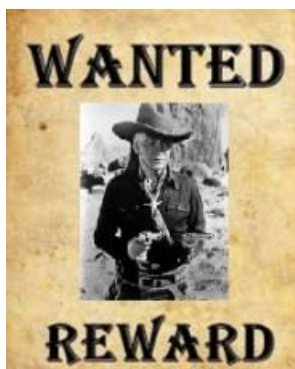
The winner of the last caption competition: Henry (MØZAE) with; "It's a new knot: the sedan hitch".



Let's see what caption you can come up with for this picture. No prizes other than the winning caption and your name in the next issue.

My contact details are on page five.

Employment advertisement from **Practical Wireless**, don't all rush to apply, the ad' is from 1972 when a copy of PW cost all of £0-20, or in pre decimal money; four shillings! The June edition cost £3-99, still good value, more so when my name and call appears on page forty-eight.



A reward of 500 microfarads is offered for information leading to the arrest of this desperate criminal; Hop-A-Long Capacity.

This unrectified criminal escaped from a western primary cell where he had been clamped in ions awaiting the gauss chamber. He was charged with the induction of an eighteen turn coil named Millihenry who was found choked and robbed of valuable joules. He is armed with a carbon rod and is a potential killer. If encountered, he may offer a series of resistance. Capacity is also charged with driving dc motor over a Wheatstone bridge and refusing to let the band-pass. The electromotive force spent the night searching for him in a magnetic field, where he had gone to earth. They had no success and believed he had returned ohm via a short circuit He was last seen riding a kilocycle with his friend eddy current who was playing a harmonic.

Situations Vacant

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The future holds good opportunities for established (i.e. pensionable) status, service overseas and promotion.

Training courses commence every January, April and September. Earliest possible application advised.

Applications only from British-born UK residents up to 35 years of age (40 years if exceptionally well qualified) will be considered. Full details from:

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GOVERNMENT COMMUNICATIONS
HEADQUARTERS,
Room A/1105, Oakley Priors Road,
CHELTENHAM, Glos. GL52 5AJ
(Telephone: Cheltenham 21491, Ext. 2270)**

Help Please

I am a member of HMS Cavalier radio group and volunteer in the Chatham Historic Dockyard. We have a fully equipped BWO on Cavalier and use it for special event days under call sign GB2CAV. Also in the yard we have an 'O' class submarine; HMS Ocelot. We have been tasked with trying to fit out the wireless office of Ocelot as the equipment was removed before coming into the yard in 1992.

Therefore we are seeking as much information as we can about the wireless office as to what equipment did it have; and more to the point, we want to try to obtain as much of the said radio and other equipment. If there are any former submariner radio operators with answers, we would be delighted to hear from you by e-mail: davidhesketh@talktalk.net

Many thanks, *David Hesketh*

RAFARS Nets

With an invitation to RNARS members to join in.

RAFARS Nets	Time	Freq	Control / Notes
Daily	1100 A	3.71	G2AFV G3HWQ
	1830 A	3.71	GI4SAM MØRGI
Monday	1900 A	3.7	G3PSG GØBIA
Tuesday	0730 A	14.27	
	1400 A	7.015	
	1900 A	3.567	G4IYC
Wednesday	1500 Z	14.29	
	1530 Z	21.29	
Thursday	1830 Z	14.17	ZC4RAF
Friday	0730 A	14.055	CW Net
Sunday	0900 Z	5.403	
First Monday of the month	1000 A	3.71	

RAFARS Calling Frequencies (MHz)								
1.855	1.993	3.515	3.71	7.015	7.045	10.112	14.055	14.27
18.07	18.11	21.055	21.29	24.892	24.93	28.065	28.590	

Joint Service Net

Day	Time Local	Frequ	Control
Sunday	09:00	5.4035	G3RAF
Tuesday	19:00	5.4035	G3RAF

RNARS Nets




All frequencies +/- QRM. DX nets are GMT; UK nets are GMT or BST as appropriate. The list is compiled by Mick Puttick G3LIK
mick_g3lik@ntlworld.com – 02392255880.

UK Nets	Time Local	Frequ	Net	Control
Daily	2359-0400	145.727	Midnight Nutters	Vacant
Sun	0800	3.667	News 0830	G3LIK
	1000	7.065	Northern Net	GM4VUG
	1100	145.4	Cornish Net	GØGRY
	1100	7.02	CW Net	G4TNI
Mon-Sat	1030	7.065 / 3.743	Bubbly Rats	GØGBI/GWØSFI GØOKA/MØZAE
Mon	1400	3.575/7.02	QRS CW	GØVCV
	1900	7.088 / 3.743	North West-News 2000	GØGBI
Tue	1900	7.028 / 3.528	CW Net	G3RFH
Wed	1400	3.74 / 7.088	White Rose	G4KGT
	1930	3.743	SSB News 2000	GØOAK
	2000	145.4	Stand Easy	Vacant
Thur	1900	3.542	Scottish CW	Vacant
	2000 GMT	1.835	Top Band CW	GØCHV/G4KJD
Fri	1600	10.118	CW	SM4AHM
Sat	0800	3.74/7.088	GØDLH Memorial Net	GØVIX
DX	Time GMT	Frequ	Net	Control
Daily	0800	14.303	Maritime Mobile	Vacant
	1800	14.303	Maritime Mobile	Vacant
Sun	0800	7.015/30555	MARAC CW	PA3EBA/PI4MRC
	1430	21.41/28.94	RNARS DX	WA1HMW
	1900	14.33	N American	WA1HMW
Mon	0930	3.615	VK SSB	VK1RAN/VK2RAN
Wed	0118-0618	7.02	VK CW	VK4RAN
	0148-0648	10.118	VK CW	VK4RAN
	0800	3.62	ZL SSB	ZL1BSA
	0930	7.02	VK SSB	VK5RAN
	0945	7.09	VK SSB	VK1RAN/VK2RAN
Thur	1430	21.41	RNARS DX	WA1HMW
Sat	0400	7.09	VK SSB	VK2CCV
	1330	7.02	VK CW	VK2CCV
	1400	7.09	VK SSB	VK2CCV
	1430	21.41	RNARS DX	WA1HMW

RNARS activity frequencies

FM	145.4								
CW	1.824	3.52	7.02	10.118	14.052	18.087	21.052	24.897	28.052
SSB	1.965	3.66	3.74	7.088	14.294	14.335	18.15	21.36	28.94

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NEW Logo Fleece jacket embroidered with RNARS logo, Name and Callsign Colour: Navy only Sizes: S to XXXL	£21-00 P&P £3-00	Clothing items marked “New Logo” are embroidered with your Name & Callsign as above.
NEW Logo Gold blazer badge	£10-00 P&P £2-00	
New Logo Lapel badge	£2-00 P&P £1-00	
RNARS Tie with old logo	£4-00 P&P £2-00	
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**Royal Naval Amateur Radio Society
RNARS 2015 AGM Proxy**

Chairman: Lt Cdr Doug Hotchkiss, MBE QCB RN G4BEQ
Hon. Secretary Joe Kirk G3ZDF 111 Stockbridge Road
Chichester, West Sussex PO19 8QR

I _____ being a fully paid-up corporate member of the RNARS hereby nominate the Chairman of the Society (Lt Cdr Doug Hotchkiss MBE QCB RN G4BEQ) or _____ to act as proxy and vote in my name at the Annual General Meeting of the Society. The person nominated as proxy must also be a fully paid-up corporate member of the RNARS.

The proxy will be void if I attend the meeting in person.

Member's name: _____

RNARS Number: _____

Callsign: _____

Date: _____

Signed: _____