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Reserve Telegraphists for HM Navy

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On a visit to the RNARS shack in June, I espied a large wooden sign (**Figure 1**). After some discussion, it was agreed that the sign could be transferred to the Communications Branch Museum and Library [1] in Mercury Building, HMS Collingwood. The transfer had a caveat that I write about who they were. Read on.... In the interwar period, there were several types of wireless reservists; Royal Fleet Reservists, Royal Naval Volunteer Reservists and Royal Naval Wireless Auxiliary Reservists (RNWAR). The latter eventually became Royal Naval Volunteer Wireless Reservists RNV(W)R. This article concentrates on the RNWAR and RNV(W)R.

Royal Naval Wireless Auxiliary Reserve (RNWAR)

On Page 176 of the Wireless World dated 26 August 1932 [2] we find an article headed "Amateurs to co-operate with HM Forces". The article goes onto to say, "The Secretary of the Admiralty announces the institution of a Royal Naval Wireless Auxiliary Reserve (RNWAR)...to be recruited largely from wireless amateurs owning transmitting sets". The object of the RNWAR was to provide a reserve of operators trained in Naval procedure, for Naval Service afloat or ashore in war or emergency. The organization divided the country into Areas, Districts, Sections and Units. The Units were to have a maximum of five transmitting stations and were the subject of organized training sessions, exercising the handling of W/T traffic according to Naval practice. The RNWAR was administered through the machinery of a committee whose President was the Admiral Commanding Reserves...."

The formation of the RNWAR, which had been broached several times before 1932, was the result of painstaking work on the part of officials in the Admiralty and representatives of interests including the Radio Society of Great Britain, especially John Clarricoats G6CL, H Bevan Swift G2TI and AE Watts G6UN as well as the editor of the *Wireless World*, Hugh S Pocock.

Although the RNWAR was an officially endorsed organization, it was not a reserve organization as such and its members were not members of HM Forces. Although the "Officers" had no powers of military command, they did appear in the Navy List. The RNWAR could not be called out by Royal Proclamation. The officers were known as District Commanders and District Officers, later called Section Lieutenants. As to ratings, there were a number of "ratings", all of whom had to be British Nationals:

- Unit Petty Officer
- Operator First Class
- Operator Second Class
- Watcher 1st Class
- Watcher 2nd Class

All but the Watcher 2nd Class had to achieve a minimum Morse speed of 10 words per minute over five minutes of plain language, three minutes of four-letter code and three minutes of four-figure cypher.

With the exception of the Watcher 2nd Class, they all had to provide their own receiver which had to be capable of receiving "all amateur and naval bands". The Watcher 2nd



Figure 1. The large wooden sign (photo: CJC Kidd)

Class was very much seen as a learner in all domains and required no equipment or Morse skills to join. The Morse speeds requirements for Operators 1st Class and above were gradually increased and, by 1935, stood at 15 WPM. Further information on their qualification and advancement are shown in **Figure 2**, extracted from **[3]**

All personnel had to learn and abide by Wireless Signalling Instruction 120/122 -1934, BR 162B. Unfortunately, to date, no copy has come to light.

Discussion of uniform, pay and conditions of service was also commenced along with the RNWAR's requirement for Commissioned Officer and Thin Stripe Warrant Officer. However, after some deliberation, Section Lieutenants were classified as CPOs rather than WOs.

As can be imagined, not everything went smoothly including resignations because long-promised components for transmitters were not supplied and lack of information on sea training periods and the consequent inability for the reservists to book time off civilian work, caused much stress

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CHAPTER V QUALIFICATIONS FOR ENGINEERY & ALWANDEMENT 40. All enrolments and advancements will be made under the authority of the S.N.W.A.R. Committee. Tatcher 2nd Class Candidates for enrolment as Watcher 2nd Glass must carry out the provisions of Chapter IV; no test for either transmission or reception is required. A watcher 2nd class failing to qualify as Watcher 1st Glass within one year from the date of enrolment will cease to be a ment of the Reserve. Watcher 1st Class Candidates for enrolment as, or advancement to, Watcher lat (a) Carry out the provisions of Chapter IV. (b) Possess receiving apparatus capable of use on all smateur and Naval H/F bands.* (c) Be capable of receiving in Morse Plain Language, English made for 5 minutes, 4-letter groups for 5 minutes, 4-figure groups for 3 minutes, at a speed of 10 words of plain language or 10 groups per minute. Telegraphist Candidates for advancement to Telegraphiat must carry out the provisions of Chapter IV and (a) he in possession of a transmitting set and hold either an amateur transmitting licence endorsed for R.N.W.A.R. work, or a special R.N.W.A.R. transmitting licence, and be able to Transmit and Receive in Morse Plain Language English made for 5 minutes, 4-letter groups for 5 minutes, 4-figure groups for 5 minutes, at a speed of 12 words or 12 groups per minute. (b) Possess receiving apparatus capable of use on all anateur and navel H/P bands.* (c) Pass an elementary practical examination in Naval (4) Must be recommended by their Unit Petty Officer or Section Lieutenant through their District Commander, unless examined in one of H.M. Ships or Naval Establishments. Telegraphist (Qualified) To pass for Telegraphist (Qualified) candidates must satisfy following conditions:-(A) Must have served as Telegraphist for at least 3 months. * 1,900 Ke/s - 20,000 Ke/s

The RNWAR's big moment came during the Fleet Review of 1935; 200 or so members of the RNWAR were embarked in ships of the Home, Mediterranean and Reserve Fleets. Most went to the Reserve Fleet where, generally speaking, they were seen as "...keen and intelligent...". The men had no recognized uniforms but they were provided with a telegraphists badge with the letters RNWAR under the symbol. Some of those in the Reserve Fleet found the routine very strenuous and the accommodation cramped. The Admiralty actually apologized for this and said that any future training would probably be in fully commissioned ships. Two members found conditions so bad "... everything filthy and food scarce..." [3] that they resigned. The reports -to the Admiral Commanding Reserves - by Squadron Commanders and Commanding Officers of ships to which RNWAR personnel were sent, were very favourable

By July 1936, membership of the RNWAR was 549 (including 9 Honorary Members) and consisted of 130 1st Class Operators (7 Honorary),, 138 Second Class Operators, 178 Watchers 1st Class and 332 call signs had been issued.

(B) Must pass the following test —

Transmit and Receive in Morse, Plain Language, English,
4-letter groups and 4-figure groups, each for five
(D) Must pass practically in Naval Procedure and taking charge
following qualifications as vacancies occur.

(A) Must have served as Telegraphist (Qualified) for at least
1 year.

(B) Must pass practically in Naval Procedure and taking charge
of a Unit (Practical test).

(C) Must be recommended by their District Commander.

46. Officers
Appointments of officers, including honorary officers are made
on the recommendation of the R.N.W.A.R. Committee.

47. Fully enrolled District Commanders will be granted a Reserve
commission in peace time if they so desire, provided they pass the
necessary examinations.

Figure 2. Extract from ADM 116_3703 Royal Naval Auxiliary Wireless Reserve Policy. The National Archive Kew and reproduced here under the Open Government License v3.0

A.C.R. has authority to advance members specially although not

Officer numbers were 3 District Commanders, 4 Honorary District Commanders, 10 Section Lieutenants, 3 Honorary Section Lieutenants and 51 Unit Petty officers. Honorary Officers and Ratings were described as "...those who for various reasons, such as age, are not available for service on mobilization..."

At this time, 282 members had constructed, at their own expense, transmitting sets, many to a design by GA Exeter, a design that has yet to be traced. There were also five transmitters in training centres built to a Signal School design. Components for this transmitter were sourced from both the Navy and by local purchase. All transmitters were designed to work on 2507.5 kc/s or its second harmonic 5015 kc/s. Additionally, the Post Master General authorized Operators 1st Class and above to work on 55 Mc/s – unfortunately no further details of this work have been found.

In 1936, proposals got underway to revise terms and conditions and to bring personnel of the RNWAR into the RN Volunteer Reserve, which necessitated an Act of Parliament. This revision saw operators having to undergo courses at the Signal Schools to bring them up to RNVR WT2 (Petty Officer Telegraphist) and WT3 (Leading Telegraphist) standards. RNVR or Shore Wireless Service personnel ran the courses for these qualifications at one of 12 RNVR training centres. But this left the remaining 22 towns (units) without appropriate training [3].

At the same time, staff work was under way to let the RNVR W/T Branch, at that time about 200 strong against a requirement of 675 men, die out with its work being handed over to members of the RNWAR.

Also in 1936, a number of very successful 14-day training courses were held in HMSS Portsmouth, attended by 84 members of the RNWAR with a 70% pass rate,

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By Late 1937, there were Training Centres in Portsmouth, Brighton, Bristol, Milford Haven, Swansea, Exmouth, Birmingham, Leicester, Coventry, Grimsby, Northampton, Rugby, Blackpool, Chester, Newcastle, Manchester, Bradford, Fleetwood, Liverpool, Scarborough, Sheffield, Aberdeen, Dundee, Belfast, Southend, Colchester, Felixstowe, Great Yarmouth, Norwich and Cambridge.

These centres were equipped with:

- 1 Transmitter
- 1 Receiver
- 2 Aerial Masts
- 1 Aerial
- 1 Cupboard
- 1 Clock (non-electric)

Tables

Forms or chairs

Linoleum

Morse Kevs

Headphones

Buzzers

Shunts

Other items to meet local conditions – approved at the discretion of the Admiral Commanding.

A draft of the Regulations for the RNV (Wireless) Reserve was produced and circulated in 1937 . Some details from these regulations and surrounding discussions are as follows:

- The RNV(W)R is formed for the purpose of providing a reserve of trained W/T operators for naval service in a war.
- In general, the Reserve consists of and is officered by persons interested in wireless.
- Divided into Districts, each with a number of sections and each section consisted of a number of units.
- There is a deal on uniform the ratings badge was the telegraphists badge but with the letters RNVWR below.
 They were also issued with a lapel badge, which could be worn whilst they were in plain clothes (civvies).
- There was a series of examinations, courses and time served periods which enabled them to progress from Telegraphist through Trained Operator, Wireless Telegraphist 3rd Class (Leading Telegraphist) WT 2nd Class (Petty Officer Telegraphist). Their qualifications lasted from two to three years after which they had to requalify.
- They could visit the WT office of ships in harbour, without prior notice on production of their RNVWR badge, provided the Officer of the Watch granted permission.
- There is much on admin' including, LSGC badges, service certificates, discipline, efficiency grants, discharge and retirement, etc.
- In 1937 Uniforms were issued to all RNWAR members. Ratings wore the Telegraphists badge with the letters RNWAR underneath the "wings". Officers wore RNVR Officers uniform but with a device above the curl: vis: "W" within a laurel wreath in gold.

The Office of the Admiral Commanding Reserves periodically issued a list of RNWAR members along with their addresses, details of the organisation, call signs, ranks and ratings. That dated 31 December 1937 [4] shows that there were nine districts. Number 9 District, Southend had, by far, the greatest number of members concentrated in a small geographical area. Extracts from

the document are given in **Figure 3**. It is also worth noting that the frequencies in use had changed and the nets were now using frequencies between 3.7–3.9 Mc/s, each District having its own allocated frequency.

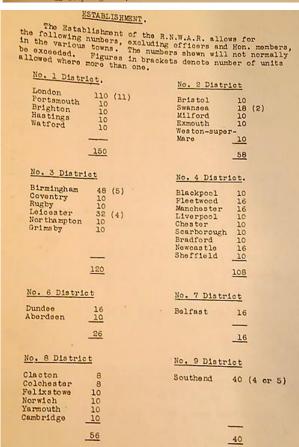


Figure 3. Extracts from CAB-1-28. Courtesy of Communications Branch Museum and Library HMS Collingwood. Continued on next page

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GUIDE TO	LOCALITY	OF I	NDIVIDUAL CAI	L SIGNS	
District	Call	Signs	inclusive	9	pare
1	M A 1 N K 1	to to	M J 8 N R 8	M H l to P C l to	M H 8 P D 8
2	M K 1	to	M R 8	M O 1 to	M 0 8
3	MS1 PF1 PY1	to	M Z 8 P J 8 P Z 8	PZ1 to	P Z 8
4	N A 1 N W 1		N J 8 N Z 8	N D l to N G l to N X l to P X l to	N G 8
6	NSl	to	N A 8	N T 1 to N V 1 to	
7	P A 1	to	P B 8	PB1 to	P B 8
8	PNl	to	P U 8	PS1 to	
9	PK1 PV1		P M 8 P W 8	PV1 to	P V 8
Notes: (1)	Distand alway	rict Train	does not inc Commanders, ning Centres and with the and I are al	Section Li , whose Cal figure 9.	ieutenants, 11 Signs

Figure 3. Continuation

The discussions about reorganising from the RNWAR to the RNV(W)R were long and protracted, continuing into 1938. Some quotes from contemporary documents held in the National Archive [3] and [5] are given below and in Figure 4:

"...The RNV(W)R will probably attract, in the main, a well-balanced and superior type of entrant, at least comparable to the active service CPO..."

The designation R.N.V.(W).R.was considered preferable as appearing to indicate that the body was not quite a W/T Section of the R.N.V.R. (which slready existed). The A.C.R. stated that the R.N.V.A.R. were inclined to look down upon the R.N.V.R.W/T Section as being less qualified and the less the new body seemed to be part of the R.N.V.R. the better.

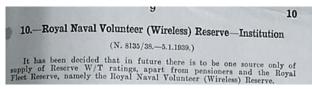
The Regulations are now being XXM produced as a matter of urgency. Type has already been set up and any change of designation would involve a considerable number of alterations and consequent delay in production.

On the assumption that, in these circumstances, the First Lord would not desire to press his objection, no action is being taken to make any change.

First Lord dated 16th Dec. 1938.

Figure 4. Courtesy of the National Archive reproduction licensed under the Open Government License v3.0

By late 1938, and fearing competition for suitable candidates from the RAF Civilian Wireless Reserve, the RNV(W)R was born and an Admiralty Fleet Order (AFO) was issued on the 5 January 1939. Some extracts from various official documents can be seen in **Figure 5**.



- 2. This Reserve is composed of members of the Royal Naval Wireless Auxiliary Reserve which has been reconstituted as from 1st January, 1939, as the Wireless Section of the R.N.V.R. and thus becomes subject to the provisions of the Naval Forces Act, 1903.
- The Reserve is administered directly by the Admiral Commanding Reserves, and is designed to be a self-contained organisation.
- 4. The present R.N.V.R. Telegraphist branch will cease to exist as such but volunteers will be accepted for transfer into the R.N.V.(W.)R. and units formed where feasible in R.N.V.R. drill ships or establishments.
- When undergoing naval training members of R.N.V.(W.)R. will wear naval uniform with a distinctive badge, except that Acting P.O. Telegraphists not yet fully qualified will wear plain clothes.
- 6. It is pointed out that members of this Reserve are usually unaequainted with Service routine and customs and, except for receiving instruction in saluting and other essential matters during their first period of naval training, will be largely dependent on the assistance given to them by active service personnel in the observance of naval procedure generally.
- 7. Regulations and Instructions for the government of the R.N.V.(W.).R. will be issued to ships and establishments concerned in due course.

Members holding the rating of Telegraphist and above who are in possession of Short Wave Transmitting Sets licenced by the General Post Office for R.N.V.(W).R. work, receive an annual allowance of £2 towards the upkeep of the set. This allowance is paid half-yearly in arrears.

Applications are considered from the following towns:— Aberdeen, Belfast, Birmingham, Blackpool, Bradford, Brighton, Bristol, Cambridge, Chester, Colchester, Coventry, Dundee, Exmouth, Felixstowe, Fleetwood, Great Yarmouth, Grimsby, Leicester, Liverpool, London, Manchester, Milford Haven, Newcastle, Northampton, Norwich, Portsmouth, Rugby, Scarborough, Sheffield, Southend, Swansea and Weston-super-Mare.

Figure 5. Courtesy of the National Archive.
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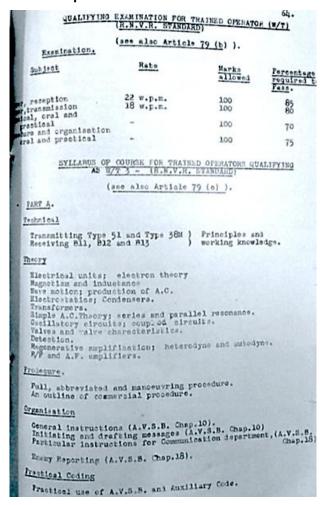


Figure 6. Trained Operator Course syllabus

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PART H. Revision of Part A and in addition:fuchnical. Transmitters. Types 43, 48 and 49 (Capabilities and principles only) Receiver Outfit CN. Principles or Wavemeters. Fractical tuning with 056 and elementary Encowledge of 07, 08 and 055.

D/F. Elementary knowledge of the use of D/F and D/F technical and practical. Transmitters; general principles and classification. Fower supplies; production of I.C.W. Bethols of modulation. Wavemoters. Organisation. A.V.S.B. Part III in full except chapters 19 and 20. A.V.W.S.I. in full, omitting long messages, batch working, D/C method, W/T guards. Practical Coding. Auxiliary Code: Recoding tables. International Code, Fart 2. Fis.B. and A.B.C. Tables. Fleet Code Examinations. Subject Rate. Fuzzer, receiving 22 w.p.m.
Buzzer, transmitting 18 w.p.m.
Theory and technical
paper
Procedure and organisation paper
Technical (oral) Precedure (practical) -Syllabus of Course for B/T 3, Qualifying for B/T.2. (N.H.V.N. Standard) (see also Article 7) (1) PART A. Technical | As for W/T 3 but in greater detail. Procedure A.V.W.S.I. in full. Practical Coding
A.V.S.B. Fart 1.
Auxiliary Code and Escoding Tables
Auxiliary Code and Part 2.
International Code, Part 2.
Esval Appendix to International Code (very briefly)

PART B Revision of Part A and in addition:-Technical. As for W/T.3 but in greater detail. Organisation. Fractical Coding. P.S.B. and A.B.C. Tables. Bayal Aircraft Code. Administrative Code. Pleet Code. Coding Instructions. A.V.C.I. in outline. Note: One hour's cabinet watchkeeping and log keeping is to be done in each forthight of the courses. Messages read and log used are to be produced at the practical procedure examinations. 1. Stendard Suzzor Exercises at 22 w.p.m. are made daily and a percentage of 85% is required for the W/1.5 examination and 90% for the W/1.2 smallation. A high standard of transmitting is also required. Examination. Percentage required to Pass. Rate. Subject. 90 Buzzer, receiving 22 w.p.m.
Buzzer, transmitting 18 w.p.m.
Theory end
technical paper
Frequence and 85 70 Procedure and organisation paper - Cral Practical procedure -

Figure 6. Continuation. Courtesy of the National Archive. Reproduced here under the Open Government License v3.0

At the time of the transition from RNWAR to RNV(W)R, the peacetime establishment [6] of the Reserve was

- 8 District Officers/Lt RNV(W) R
- 21 Section Officers/WO Telegraphists/ Commissioned Telegraphists
- 1200 Ratings including CPO and PO Te

The syllabus for the Trained Operator Course (**Figure 6**) shows that obtaining these ranks and ratings was no mean feat.

Information on the transmitters and receivers mentioned in the above documents can be found at [7] and [8].

In the late 1930s, advertisements began to appear in the *Wireless World* for transmitters receivers suitable for use by members of RNWAR (**Figure 7**).

THE "SERVICE" TRANSMITTER

Designed by Harmony House, for R.A.F.C.W.R. and R.N.W.A.R. use (other bands if desired), built by specialists, and sold at a price within the reach of everyone. Write to-day for particulars.

We will build and design any transmitting equipment for you, or construct to your own specification.

HARMONY HOUSE SOUND AND SERVICE

116 Cambridge Road, Southport Tel. 8621



Figure 7. Advertisements that appeared in Wireless World in the late 19930s

Pages 38 to 40 the 1938 edition of the Eddystone Shortwave Manual [9] give details of a circuit and the construction of a 25-watt transmitter (Figure 8) deemed suitable for use by members of the RNWAR and the Royal Air Force Civilian Wireless Reserve (RAFCWR)

Not to be left, out the Shortwave Magazine also published, in 1938, details of a suitable transmitter, designed by the editor, Austin Forsyth G6FO [10] Pages 24–26 and Pp 36.

I have not been able to trace any meaningful history of the RNV(W)R activities during WWII, with a couple of exceptions, regrettably due to members becoming casualties.

After the War, the Communications Training Centres continued to operate. However, I have not found a

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complete list of them nor the numbers of personnel involved.

A GENERAL PURPOSE CRYSTAL CONTROLLED C.W. TRANSMITTER

COVERING THE RNWAR AND RAFCWR BANDS AND ADAPTABLE FOR THE 1.7, 3.5, 7, AND 14 MC/S AMATEUR FREQUENCIES. 20 WATTS INPUT. A.C. MAINS OPERATED.



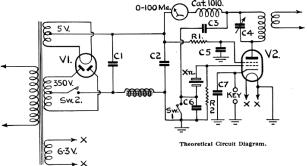


Figure 8. The Eddystone transmitter [9]

In January 1952, a recruiting article (**Figure 9**) appeared in the *Wireless World*. The equipment on offer, after joining, appears to include an HRO Senior, a 5G HF transmitter, headphones, Morse key plus other unidentified items.



Figure 9. Image of a RNVWR station from the 1952 recruiting article [11]

At a slightly later date, somewhere around 1955, personnel were issued with B28 (CR100) receivers with a two-valve transmitter inserted into the lid, The transmitter was known as "AP63993 Adaptor Unit Transmitter. For Attachment To B28" One un-corroborated source says the unit was designed by Lt Compley-May.

The RNV(W) R was amalgamated with the RNR in 1958, when the latter changed from VR to R. Communications Training Centres were still in existence in the 1970s. Tracing their details is an ongoing task. Some information

is contained in various editions of "The Communicator" [12]

The RNR Regulations for 1971 [13] state that:

- A Transmitter and receiver will be issued to Radio Operators 2nd Class and above as long as it is only used for RNR communications purposes.
- A wireless callsign will be issued, on application.
- An allowance of up to £3, per annum will be paid for the maintenance of private transmitting sets, situated in their own homes and used on Reserve frequencies. The monies are to defray the cost of electricity consumed when the set is in operation. Why was it not paid for RNR-supplied sets? The allowance was only paid if the reservist carried out 24 Drills at home each year.

Conclusion

It is evident that there is still much research to do but I hope I have done enough to fulfil my part of the bargain with the RNARS.

References

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- https://worldradiohistory.com/UK/Wireless-World/30s/Wireless-World-1932-08-S-OCR.pdf N.B. the displayed page number is 274 as the advertisements bulk out the pages and are not counted by WW in their index.
- ADM 116_3703 Royal Naval Auxiliary Wireless Reserve Policy. TNA Kew
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- ADM_120_212 Admiralty; Office of the Admiral Commanding Reserves.... Royal Naval Volunteer Wireless Reserve 1937.
- Regulations for the RNVWR Admiralty Dec 1938 Communications Branch Museum and Library HMS Collingwood
- https://www.rnradioandradar.co.uk/CommsColLeft/T ransmitters/transmitters.htm
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- https://worldradiohistory.com/UK/Short-Wave-UK/30s/SWM-1938-12.pdf#search=%22r.n.w.a.r%22
- https://worldradiohistory.com/UK/Wireless-World/50s/Wireless-World-1952-01.pdf
- https://www.commsmuseum.co.uk/communicator.ht m. An example of this type of information is the article in Volume 12 No 1 Pp58
- BR 60 RNR Regulations 1 October 1971 –Articles 0944 and 0945. Portsmouth History Centre-Portsmouth Central Library.

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