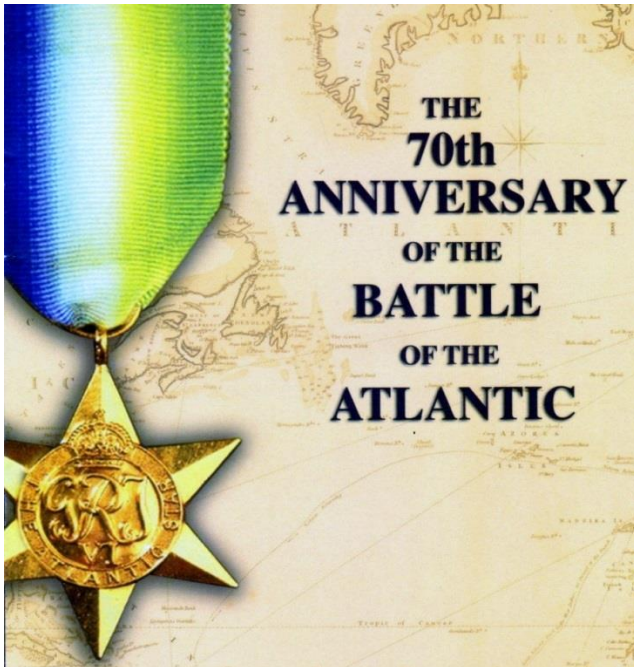


The Newsletter of the
Royal Naval Amateur
Radio Society

Winter 2013



See page 15
www.rnars.org.uk

The RNARS is affiliated to the RSGB

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

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

Important message from the Membership Secretary

Members who have not paid their subscriptions for 2013 following delivery of this Newsletter will be considered to be lapsed or resigned.

Members who have not made the correct subscription payment or ensured that their payment date is the **FIRST** of April each year, will also be considered to have lapsed. If paying by bankers order, check the amount payable **NOW**.

To ensure continuity of membership, read page 4 and complete the form on the back page, photocopies acceptable.

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From The Membership Secretary: Due to the high number of members who have failed to update their details with the society, I am asking everyone to fill in the form on the back page (photocopies acceptable) so that I can check and update records. I know several members have changed postal address and some have failed to change their subscription dues when paying by standing order. Therefore, I'm asking everyone to return their form as soon as possible rather than leave it and maybe forgetting about it. **Do It Now.**

Important Subscription News: The committee has found that the e-mail distribution of the Newsletter is very cost effective, and therefore members who receive the Newsletter in this way will only have to pay an annual subscription of five pounds; yes that's correct, five pounds starting on the first of April 2014.

Appreciating that not all members have access to e-mail, they can still receive a printed version of the Newsletter at the continuing rate of fifteen pounds per year.

If you pay your subscription by bank standing order, to take advantage of the reduced rate and receive your Newsletter by e-mail you'll need to contact the Treasurer for a new bankers order, fill it out and send it to your bank and at the same time ensure you cancel any previous order. The Treasurer's contact details are listed on page two.

To receive your Newsletter as a PDF attached to an e-mail, **you must** follow these instructions in full:

- Open a blank e-mail
- Address your e-mail to: **rnars@colinsmagic.com**
- In the subject **ONLY** enter: **Newsletter Subscription**
- In the body of your e-mail only enter: Name, RNARS number, call-sign and postal address
- Do not enter into any correspondence when subscribing

The system I use is automated and any deviation from the instructions above will result in the blocking and deletion of your e-mail and I won't see it. In most cases I reply to subscription requests within a few days unless I'm away sailing and do not have access to my e-mails, so if you don't receive an acknowledgment after twenty-one days, check you followed the above instructions and if needed, resend.

On receipt of an e-mail subscription, I pass the information onto Wally our membership officer to allow him to make adjustments to his records and also Doug Bowen who retains the postal list for the printed version of the Newsletter.

Chairman's Chat

Had things worked to plan your new chairman would have been writing this piece. Unfortunately the best laid plans of men and mice often go astray and for me it would appear I am no exception. When you read the AGM report all will become clear. One gratifying feature in the societies long life is the length of service of most of its officers and committee: they stay on, doing in the main a job they enjoy for the benefit of members. However, new blood is not only essential but necessary, otherwise the ruling body can become either tired or dictatorial, and that is why I was extremely pleased to welcome Nigel, MØNAF, onto the committee at the AGM. He will prove a great asset. He has put a tremendous amount of time and effort over the past year into the modernisation of the shack; welcome aboard Nigel.

Once again I would remind all members (I sometimes wonder if they ever read my piece?) to check they are paying the correct subscription. For those who pay through the bank please check that the amount you allocated is up to date with present fees. Very important now we have reduced one of the subscriptions which take place on the 1st April next year. I would once again remind all that if you want to receive your Newsletter electronically you have to inform the editor in accordance with the instructions found in every newsletter. Only you can make the application otherwise it will not be actioned. For new members this is not done automatically when you join. You **MUST** e-mail the editor you require your newsletter electronically using the format described.

I would remind you all that if you have grievance to make on how the society or events should be run, please write or contact the secretary and state your case. The Yahoo forum, or on air, is not the place for personal moans. Better still take over and show us all how it should be done.

I sincerely hope you all took advantage of the superb weather we have had this year and serviced your masts and antennas so that you can rest easy over the next few months.

On behalf of all the officers and committee I would like to wish you all a very happy festive season and trust those close to you have taken note of all you electronic requirements and informed that mystic fellow, with his red coat and hearty laugh, what to leave in your shack come Christmas eve.

73, DE *Doug*

Jeffrey Eric Russell, G4MSR, RNARS 2000

Jeff was born on 26th February 1922 in Bedworth on the outskirts of Coventry. He had two brothers and a sister. In May 1938 at the age of sixteen he joined the Royal Navy as a Boy Telegraphist.

Making the hazardous wartime trip from Portsmouth to Scapa Flow to join the light cruiser HMS Glasgow he arrived to find that she'd sailed without him. During the rest of his service, he visited many places in the world. On 29th April 1940, during Jeff's time on HMS Glasgow they evacuated King Haakon and Crown Prince Olav of Norway and members of the Norwegian Government from the town of Molde together with part of the Norwegian gold reserves. It was a difficult task and was hampered by the town being on fire after a German bombardment. The King and the Crown Prince were transferred to the UK and later returned to Norway.

Jeff was very proud of the letters he had received from the Norwegians as a result of their efforts on board HMS Glasgow in 1940. Years later he was invited back to Norway together with some of the HMS Glasgow veterans. The whole party were treated like royalty and were even piped aboard one of the Norwegian vessels where they had lunch.

He was married and, sadly, he lost his first wife but later, in 1987, he met Julie through some friends. After only one week Jeff proposed to Julie and they were married that year and eventually moved to Keyworth near Nottingham from where Jeff spent many hours on the radio. One of the friends from Worcester that had introduced them told me that he was taught Morse by Jeff. Last year Jeff and Julie celebrated their Silver Wedding anniversary.

Jeff and Julie enjoyed travelling to many places. They have many friends who are all of the same opinion that Jeff was a gentleman and had a very good sense of humour. He was an accomplished CW operator and could be heard on most bands and also used to join in the Sunday morning 80metre RNARS SSB news net.

Jeff died on 2nd June 2013 at the age of 91. My wife Maggie and I were privileged to be asked to join in the celebration of Jeff's life at Nottingham. Whilst there we also met Harry G4PTN, another RNARS member who was a long-time friend of Jeff and Julie; indeed they holidayed together often over the years. RIP Jeff: we were very pleased to know you in life and to remember you at this sad time.

Bill G3TZM RNARS 328

Home Made ATU

Just to get the terminology right, an ATU (Antenna Tuning Unit) does not actually 'tune' the antenna. This can only be done by adjusting the elements of the antenna. What it does do is provide a means of obtaining a match between the nominal 50Ω output from the rig and whatever impedance the end of the antenna feeder presents at the point of connection at the shack end. So it should really be called an 'Antenna Matching Unit' (AMU) but we will stick with popular convention and call it an ATU.



I have always been interested in trying to get most of my hard earned RF power into the antenna and to this end I have usually built my own ATUs.

My first home built ATU, back in 1962, was built from parts I obtained from a surplus TGY transmitter, to match an inverted 'L' antenna. This antenna enabled me to wipe out most TV's within half a mile radius and is the reason why, ever since, I have favoured balanced antennas.



The only problem with using a balanced antenna is that to be most efficient in the transfer of RF power from rig to antenna you need to use a balanced ATU. Not an unbalanced ATU with a balun on the output – this is a most inefficient method of matching a balanced antenna and even commercial ATU makers are beginning to put

their baluns on the input of the ATU. But that alone doesn't make it a 'balanced ATU'.

The components of a balanced ATU i.e. variable capacitors and coils, have to be isolated from the chassis and each other, and a symmetrical layout adopted in the construction of the ATU to maintain the balance the input balun has provided.

However, my next homebuilt ATU was a 'Z-Match Coupler' bought as a kit of parts for the princely sum of £7 from Olympic Radio which was a small one man firm operating out of a garage in Bournemouth, about 4 miles from where I was living at the time. This ATU worked very well indeed and was my only ATU for many years, including when I was VP8HF/MM on-board HMS Protector and ashore on Candlemas Island in the South Sandwich group 1964. I was still using it in Malta 1970 when I was 9H1CB.

I took up residence in the Isle of Man in 1972 and was using a G5RV antenna but when the WARC bands were made available I found that the G5RV antenna wouldn't tune to the new bands. This is where I was introduced to the Doublet balanced antenna. I had space for 135ft top and open wire feeder, all homemade, and using the ancient Z-match coupler was able to put out a good signal on all bands.

This is when I got interested in other balanced ATU's and I read an article by Richard Measures AG6K "A Balanced Antenna Tuner" published in QST in February 1990.



This ATU consisted of a balun made from a 30ft length of RG213 coax wound on a 5 inch diameter plastic gas main pipe about 2 feet long, into 2 identical roller coaster inductors with a variable capacitor across the output balanced feeder connections. The two roller coasters had to turn exactly together, so were linked by a

toothed plastic belt on toothed pulleys, (see picture below). Richard also mentioned that it would be advisable to have a switching arrangement so that the variable capacitor could be moved from the output side of the coils to the input side when the output impedance is low.

I built this ATU on a piece of thick plywood so that the problem of isolating the coils and variable capacitor from chassis and each other did



not arise. I also wanted to see if the unit would work before getting into the metal bashing stage – although Richard advises that a balanced tuner should be built in a wooden or other non-conductive enclosure. In fact, I have tried this circuit in wooden and metal enclosures and found no detectable difference in performance.

Well, it did work very well and tuned my doublet on all bands including 160m, something my Z-match coupler couldn't do. I now built the unit into a metal enclosure which was of manageable size but I still had the very large balun sitting alongside external to the case. After a while I tried a homebrew 1:1 balun wound on a T200 toroid and this seemed to work OK and was built into the enclosure along with a directional coupler to provide SWR and power readings.

I then got to reading lots of literature on baluns, some conflicting but most indicating that I had the wrong type of balun. Apparently I was using a voltage balun instead of a current balun. The current balun induces equal currents into the feeder and is less prone to losses due to heat or saturation. A lot of this was over my head and I accepted what the 'experts' said.

After reading an article by W2DU published in QST in which he describes a 1:1 current balun consisting of 50 FB-73-2401 ferrite beads threaded on a piece of RG303/U coax, I decided this was the

way to go. I don't think there is anything significant in this type of coax except that the ferrite beads are a nice sliding fit on it.

Quite a few years passed however, before I could get back to constructing ATUs and in the meantime most of my components (junk!) were disposed of. My interest was aroused by the arrival on the Amateur market of the MFJ 974 balanced ATU.

I very soon downloaded the schematic diagram and found that it was a balanced 'T' arrangement and used a W2DU current balun on the input (50 ferrite beads on RG303/U coax). It used a switched taps coil instead of a roller coaster, probably to keep the cost down, and 2 variable capacitors in each leg, 4 capacitors all told and each pair linked by toothed pulleys so that as one capacitor increased in value, the other would decrease.

I reckoned I could build one of those quite easily, except for the capacitors. So I sent an e-mail to MFJ asking if these capacitors were for sale on their own. The reply told me that everything used in their products was for sale. I ordered four capacitors and then built my version of the 974. This worked very well indeed and was much more efficient than the Z-match.

I used this ATU for several years including on club NFD contests, but I was still thinking about the double rollercoaster circuit. Biggest problem was obtaining suitable rollercoasters. They had to be identical in value. No one in the UK makes them anymore and the odd ones that turn up at rallies are very expensive and usually unknown inductance and never two identical ones.

I also came across an article by PAØFRI who had graded various types of symmetrical ATUs according to their efficiency. He tested 14 different ATU circuits for maximum current in the feeders using 3 different antennas with three different lengths of feeder. Top of his list was a simple ATU consisting of a 1:1 balun into a tapped coil with a variable capacitor across the feeder terminals. The second most efficient circuit was the balanced 'L' arrangement, A2.

Perusing the product list on the MFJ website I discovered a rollercoaster of 28uH at a reasonable price. Bearing in mind the reputation MFJ equipment has for poor construction, their parts are

good quality for the price. So I ordered 2 rollercoasters, a turns counter and a cross needle SWR meter. I already had a 500pf transmitting variable capacitor and obtained the 50 ferrite beads from Sycom (now no longer with us, but there are several other suppliers in UK) and the RG303 from Westlake.

Assembling all the parts to decide on the layout, I was guided by some photos of the interior of the Palstar BT1500A balanced 'L' tuner. I incorporated a ceramic wafer switch to move the capacitor from output to input of the coils to provide for the antenna impedance being high or low. The SWR bridge (directional coupler) was based on a design by David Stockton G4ZNP which used a variation of the Bruene bridge to provide reflected and forward power voltages for the cross needle meter. Big advantage of this circuit is that it is not frequency sensitive and once set up, requires no further adjustment.

I built all this into a KW Electronics KW2000A case which I had in my junk box. All in all it worked very well indeed and I was very pleased with it. I used it for a couple of months and took it to my local club to let members see it. One member was so taken by it that he made me an offer I couldn't refuse and I very reluctantly sold it to him.

However, it wasn't all bad news for I decided to build another one and include some improvements in the MKII version. Using two rollercoasters, turns counter and cross needle meter from MFJ again, the 50 ferrite beads for the input choke balun, I was almost there. I noticed that the Palstar design used a variable capacitor that had 2 sections of value 960pf and 65pf. The combined values being used on the lower bands and the lower value only, being used on the higher bands especially 10m where very little capacitance is needed and the minimum value of the capacitor is very important.

In my junk box I had an ex-MOD variable capacitor which I'd had for years and had been used in various projects. This transmitting type variable capacitor was so constructed that it could be taken apart and rebuilt to whatever value was required. Took a lot of figuring out but I eventually rebuilt this capacitor to be split stator with values of 500pf and 100pf. I chose the value of 500pf as this value worked fine in the first version of the ATU with the same value of the two coils.

I incorporated a two wafer ceramic switch to select high or low impedance and also high or low capacitance. After discovering that strapping the feeders together, my doublet put out a better signal on 160m, I decided to build in another ceramic wafer switch to strap or unstrap the feeders to save fiddling about at the back of the ATU to change the feeders over. I built another directional coupler to the same design as the previous one and then set about a metal cabinet to accommodate all these parts.

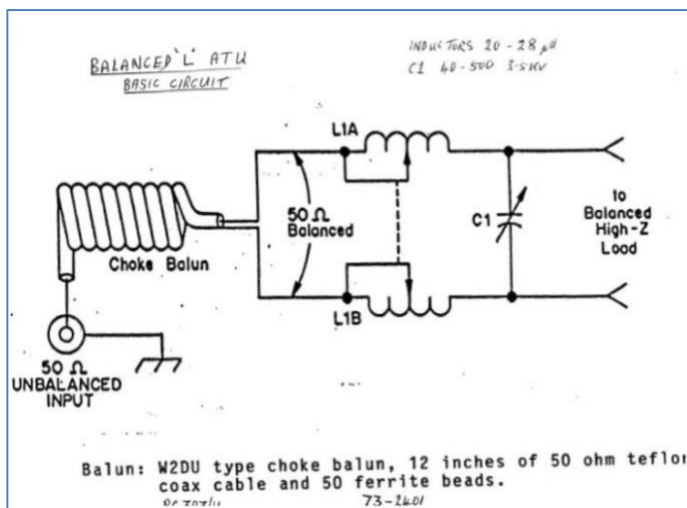
It is a well-known fact that coils should be at least one diameter apart to avoid inter action, so this determined the width of the cabinet. The variable capacitor fitted just right between the two coils and the two ceramic switches were mounted on the extreme right of the layout. The two coils were linked by a plastic toothed belt so that they turned together in synchronisation. The material for the belt must be non-conductive as the coils and capacitor have to be insulated from the chassis and each other.

The performance was just as good as the first version but it soon became clear that having to operate two switches as well as the other controls was a bit inconvenient especially as I kept forgetting to set the switches to their correct settings and wondering why it wouldn't tune! Also the layout meant the cabinet was rather wide and made the ATU look a bit cumbersome.

Having further study of the Palstar BT 1500A layout and schematic diagram, I could see that they used big open type relays operated by push buttons on the front panel to select high or low capacitor value and high or low impedance. It did mean that a low voltage power supply had to be connected to the ATU which I thought would be rather inconvenient.

Further thought told me that if I used 12 volt relays they could be supplied from the power supply that powered the rig. I discovered the type and specification of the Palstar relays and that they cost £40 each!! So I studied the specifications of many different relays in catalogues etc, and finally settled on a relay sold by CPC in Preston costing around £9 each including plug in sockets. I chose plug in socket types to enable the connections to the screw up terminals to be made before installing the relays.

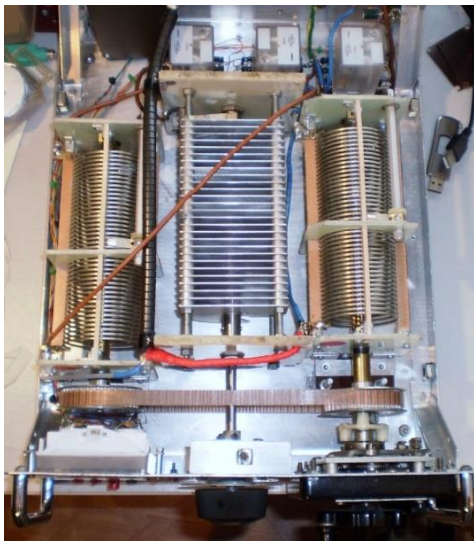
And so yet another rebuild, this time incorporating the 3 relays operated by push buttons on the front panel. One relay shifts the variable capacitor from output to input of the coils (high impedance or



low impedance), another selects the high value of capacitance or the lower value and the third relay straps the feeder terminals or puts the feeders into 'normal' mode. I installed an LED above each push button to give positive indication of whether the button was 'in' or 'out' and also one to switch the power on or off. At the power supply socket on the rear panel, I installed a voltage regulator circuit to maintain the relay voltage at 12 volts, the same as in the Palstar ATU, and this also supplied the power for the LEDs.

Palstar use a 1:1 balun which is wound on a pair of toroid rings and mounted under the variable capacitor which makes the cabinet about 3 inches higher than mine. Using the W2DU balun takes up very little space as it is connected between the output of the SWR bridge and the input of the roller coasters, which on the MFJ types is at the front of the coils. It would have been preferable to have had this connection at the rear of the coils so as to cut down the lead length which can increase stray capacitance. However, the ATU has been in use for over 18 months now with no problems. With the improved layout and siting the 3 relays at the rear of the cabinet I was able to reduce the width of the unit so that it looked about the same size as my rig (Kenwood TS870) and other units sitting on my operating desk.

The turns counter in use is ex- US surplus which has been in my junkbox for years. Originally I used the MFJ turns counter but when I rebuilt the ATU incorporating the relays, I had to move the rollercoasters and variable capacitor nearer to the front panel and this meant that the MFJ turns counter would not fit into the space available. Perhaps one day if I decide to rebuild it again!! I might put it into a slightly deeper box and then be able to use the MFJ turns counter, which has a mechanical digital readout.



At the recent Norbreck Rally in Blackpool held in April this year, I entered the ATU in the Constructors Competition as a last minute gesture, just to show what could be built at home. I was absolutely flabbergasted when later in the afternoon, it was announced that I was the overall winner of the Competition!

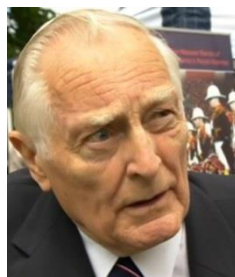
Since then I have come across an article by PA1HFO describing a similar ATU but he has added a circuit to the output feeder connections which indicates the current flowing in each leg of the feeder, the object being to get an LED (or a meter) in each leg to show whether the currents are equal or otherwise. So that will be the next bit to add on but I think I will use two strings of ten LEDs to give a clearer display of the feeder currents.

Though not a blow by blow account of how to build an ATU, I hope this article will inspire some of you to have a go. I am not an expert and my 'metal bashing' skills are not all that great but with minimal tools I think I have built a presentable and functioning unit. Certainly a lot of people at the Blackpool Rally thought so.

Ken Randall G3RFH RNARS 175

70th Anniversary of the Battle of the Atlantic Liverpool May 2013

Winston Churchill said; *“The Battle of the Atlantic was the dominating factor all through the war. Never for a moment could we forget that everything happening elsewhere depended ultimately on its outcome.”* He also said; *“Battles might be won or lost, but our power to fight, to keep ourselves alive, rested on the outcome of the struggle for control of the Atlantic”*



Being an island nation our whole being was greatly dependent on our ability to access the sea. The Germans were well aware of that fact and were determined to deny us that access and prevent ships carrying vital food and war supplies across the Atlantic. The Battle of the Atlantic was the longest continuous military campaign of the whole war lasting from September 1939 until the defeat of Germany in 1945.

Here are a few facts that will show the devastation and suffering that took place during those years.

Merchant Ships lost	5,000
Allied Warships lost	175
Allied Merchant seamen lost	30,000
Allied sailors and airman lost	36,000
Axis U-Boats destroyed	757
Axis sailors lost	28,000

I became involved in August 1942 at the tender age of fourteen as a galley boy in the Merchant Service. In truth you had to be fifteen years old to join the MN but no one was actually counting in those dark days, so I managed to slip in. Due to my surname and as a former sea cadet, it was assumed I knew all about our main armament; two



Hotchkiss machine guns. I was quickly accepted and after my second voyage, I changed over to Deck Boy, gaining my Efficient Deck Hands certificate within a few months.

I was greatly surprised when I received an invitation from the Battle of the Atlantic Organising Committee to attend the Commemorative Service at the Liverpool Anglican Cathedral and the other functions that had been planned. How they came upon my name I have no idea, but when I gave it more thought I realised that there could not be too many veterans of that period around and I was possibly one of the youngest that was still sitting upright on my perch; if only just.

Liverpool was without doubt the centre of operations throughout that period and suffered badly as a result with constant bombing. It was also obvious during the commemorations that the residents, both young and old, were very conscious of just how difficult life had been during those dark days and proud of what the city had achieved.

No matter where we veterans went, we couldn't walk ten yards without someone coming up to shake our hand and say, "Thank you for all you did". I lost count of the times I was stopped to be photographed with them and their children. It would not be an exaggeration to place it in three figures. In fact on my last day in Liverpool I deliberately removed my medals so that I could wander around and view the many exhibits and be totally ignored.



I think attending the Cathedral will stand out as the high light of my visit. I was unaware that I had been singled out to meet Her Royal Highness; the Princes Royal on completion of the service.

On arrival at the Cathedral I was met by a young Midshipman who informed me he had been detailed to look after me through all the proceedings. He then conducted me to my seat which was at the very front of the Cathedral and within touching distance of where Her Royal Highness and other dignitaries such as the First Sea Lord, Lord Lieutenant of Merseyside, High Sheriff of Merseyside and Lord Mayor of Liverpool were sitting. The Cathedral was packed with many having to stand as well as a few hundred outside. No complaints from me as the seats provided for this high powered group as well as myself were extremely comfortable. Twenty veterans had been selected to meet with Her Royal Highness on completion of the service and we were ushered into a private room after the service whilst the congregation stood to allow us passage with Princess Ann leading the way.

At the reception we were offered coffee and canapés and each of us spent at least five minutes talking to the Princess. She was keen to know where we served and it might have been my imagination, but she appeared to spend more time with those who had served in merchant ships. There were three other merchant seamen there making up our small group. On completion of this private session we were led out onto the steps of the Cathedral to take our place in the VIP stand. (My faithful midshipman in attendance throughout the whole procedure to make sure I was in the right place at the right time!) On completion of the march past we were bussed to the Town Hall and served an enjoyable lunch.

The next formal function to attend was at the Liverpool Philharmonic Hall for a charity concert by the band of the Royal Marines, Portsmouth, and once again received VIP seating and attention. This resulted in being invited to visit the Royal Marine School of Music at Portsmouth and attend the South Coast proms the following month. Here again I was given the full VIP treatment as well as being interviewed on TV.



My last official engagement, to give it a name, was a 40's Party at St Georges Hall where once again the RM Band performed together with other entertainers.

I declined the invitations to visit various ships as it would have prevented me visiting a few old haunts and events that I was keen to visit, particularly the Western Approaches Museum. This is where Admiral Sir Max Horton controlled the battle from. I'd heard a lot about this very secret underground bunker but until now had never known exactly where it was. If you're ever in Liverpool this is a well worth visit for those interested in maritime history, you will find it in Rumford Street. Another place I was keen to visit was the Mersey Maritime Museum; here is a place you can spend a full day visiting as there is so much to see.



I was also wanted to attend an illustrated talk by Wren Mary Hatten at the museum. She talked about the top secret work carried out under the streets of Liverpool.

I would like to thank all those who organised this event and in particular the wonderful people of Liverpool who made all the veterans very welcome. Should they decide to celebrate its 100th anniversary I will certainly have my bath chair serviced and make my way there?

Battle of the Atlantic. VE & VJ Party
40's Themed
with the Band of her Majesty's Royal Marines Portsmouth
at
St. Georges Hall, Liverpool
on
Monday 27th May 2013
14.00 - 17.00

Application Form / Tickets £12
Mrs P. Brown, 35 Winston Drive
Noctorum, Birkenhead CH43 9RU
Please enclose a stamped addressed envelope.
Tickets on sale January 2013.

RNARS Charity No. 117794

Doug Hotchkiss

G5RV Aerial Revisited

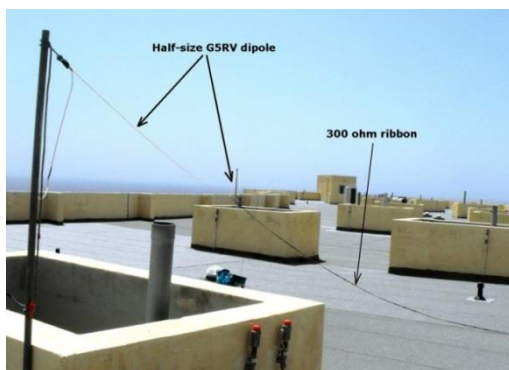
Facts and figures about this versatile aerial. As long ago as 1946 Louis Varney (G5RV) invented this aerial. It has become one of the most popular and widely used multi-band antennas in the world. However, it is sad to note that many thousands have been sold on every continent but he never made a penny from any of the sales. Louis died in the year 2000 at the age of 89 and I was fortunate enough to attend his funeral in Brighton to pay my respects to him for providing me and a number of my friends and family with hours of enjoyment on the radio both at home and abroad.

At home means here at the G3TQM QTH where I have a full size G5RV squeezed into my garden. It also means the locations at which I have installed one of the full-length dipoles on many occasions over the years, for example GX4IPA for the International Police Association at a Warwickshire Police HQ open day; the RIS/RSGB meeting at the NEC; GB5ØRN and GBØCGT in Coventry and GB1ØØFAA for the RNARS; GB4LBP in the Lake District, and many more events. We managed to secure the call GBØNYX for the submarine HMS Onyx when it was at Birkenhead. I was honoured at the time to operate the station there using the on-board G5RV.

Abroad means a half-size one at 9H1BX in Malta. My uncle Fred, 9H1GR also had a full size one at his QTH in Valetta and a half-sized one at his flat in St Paul's Bay both of which I installed.

Unfortunately, he died in 1999 and the aerials were never used there again. At my last visit to Malta in

May 2013 I installed my half-sized G5RV and operated with the aerial itself about 8 feet (3.8 metres) off the roof and with the feeder virtually horizontal. After one contact with Mick G3LIK on twenty metres, I was immediately called by a station in New Zealand. On another occasion on twenty, after a contact with Rupert G4XRV, I



was called by and worked K6XX in Santa Cruz, California, followed immediately by a call from VK7BC (RNARS) in Tasmania.

The G5RV dipole aerial was designed by Louis Varney for the twenty metre band (14MHz) long before the advent of the WARC bands but it works well on all bands from 80 to 10 metres including the WARC bands. The beauty of the aerial for me is that you can use any length of 50Ω coax from the end of the 300Ω ribbon feeder.



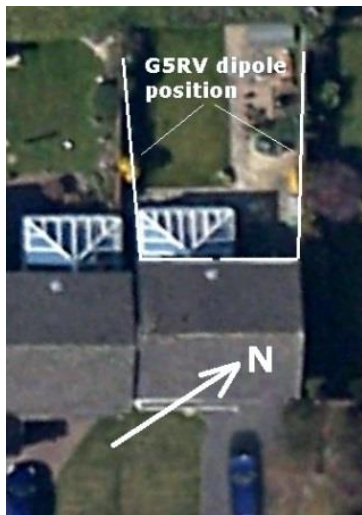
The full-size G5RV antenna measures 102 feet across the top and is centre-fed with a 34 feet length of 300Ω ribbon feeder. The centre frequency of the full-size version is 14.150 MHz. The length of 102 ft was calculated from the long-wire antennas formula for which is: $492 \times (n - 0.05) / f = \text{total length in feet}$ where n is the number of $\frac{1}{2}$ wavelengths and f is the frequency in MHz. Therefore, substituting the frequency into the formula gives: $492 \times (3 - 0.05) / 14.15 = 102.57$ feet

The frequency of 14.150 is around the centre of the 20 metre band allowing for both CW and SSB operation. Most people round down the figure to a simple 102 feet but you could round up to 103 feet to slightly reduce the operating frequency. This is where the ATU comes in – whether it is cut dead accurately or rounded down or up, the external ATU will reduce the SWR to the minimum on each band. At home I use a Yaesu FT1000MP transceiver which has its own built-in ATU and an external Yaesu FC902 ATU. A SWR of 1:1 is achieved on all bands. In Malta I use the LDG automatic ATU, Yaesu FT100 and half-sized aerial with the same results.

Now 102 feet (31.4 metres) is a long length with a 33 feet (10.15 metres) feeder to install in most gardens. Often it is too much for portable situations where there isn't a suitable tree or other structure on which to hang the aerial so that it can be configured to fit. At my home the aerial is in the form of a square 'U' in plan at gutter level and the feeder runs horizontally across the loft. The

theorists say it shouldn't work but it does. Anyone who has heard my signal on 80 metres in the RNARS SSB net will have heard how good it is on that band. My log books are full of contacts on the other HF bands all over the world showing that it *DOES* work.

The half-size version is 51 feet (15.69 metres) across the top, has a 300Ω ribbon feeder of 15 feet 3 inches (4.69 metres) and is often referred to as the "Junior" version of the G5RV dipole. It works from 40 metres up and even tunes on 6 metres. Given these dimensions, anyone can make a full or half-size G5RV for themselves as I have done on a number of occasions. It is, of course, much easier to buy one ready-made and there are a number of suppliers around the world. My last half-size G5RV was bought for the 9H1BX QTH from Moonraker as it uses the stranded PVC covered "Flexweave" which is made to last and works extremely well.



Additionally, it can be used in inverted V form just as successfully. This I have done on a number of occasions. The last major events where this happened were at the special event stations in the Lake District for GB4LBP and at the Royal Naval Air Station Yeovilton.

However, beware – there are those who insist that you cannot use this aerial without a balun. This is a complete fallacy. It would appear that someone has been trying to sell baluns in large numbers. I have never used a balun with any of my G5RV half- or full-sized dipoles simply because it doesn't need one, and, that inserting a balun causes losses which you can ill afford with such a "compromise" aerial.

So, there's a potted history of the aerial, some idea of the design and a little indication of the many uses to which it can be put. If you haven't had the faith in one or have been put off by the 'fairy tales' about this aerial, I hope that this article goes some or all of the way

to you giving it a try. Thousands of them around the world can't all be wrong. A friend of mine, who shall remain nameless, often asks me if I am still using: "that dummy load for an aerial". The answer is a resounding YES!

Bill Mahoney

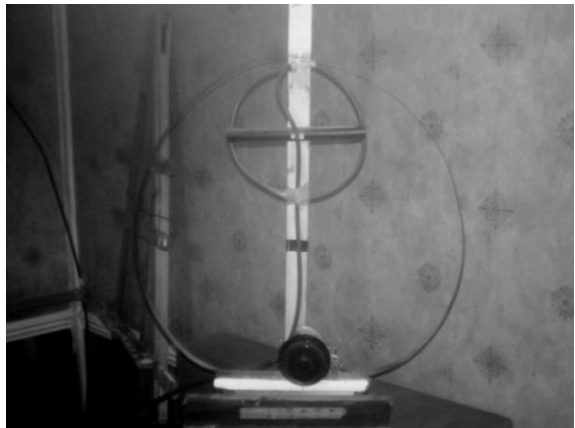
My Loop Aerials

Number One: 1.8 metres in diameter. Sense loop 600 mm. The format of connections is as shown on many web sites. The capacitor is about 200pf variable and connected across the main loop. This loop can be used on 80m 40m 20m and 15m; as a stand-alone.



Number Two: 500mm in diameter, and the sense loop 200mm this is made in exactly the same way with a variable capacitor of about 150pf. This is good for 40m 20m and 15m.

To improve reception and directivity place the small loop about 30 cm from the centre of the large loop. Use the small loop as the driven



element; tune the small loop for max sig to noise; and then do the same with the large loop. A distinct increase will be noticed in the signal to noise, although not actually physically connected. This arrangement is a useful indoor antenna system.

John MØAEK

Pictures & Report From HMS Collingwood Open Day



Ray, Janet & Doug



ATV operations



Digital operations



HMS Collingwood Open Day

Open Day at Collingwood was on the 1st June this year and for a change it was the glorious first of June as the weather was superb, unlike last year when the event was cancelled due to heavy rainfall throughout the previous month making the playing fields unsafe for car parking and other events. Albeit on the actual day the sun shone with wall to wall blue skies.

From an RNARS point of view this is the one day we are on full display to the hierarchy of the establishment and our chance to show them how essential we are to the establishment by providing training in communications and as a powerful tool to promote the image of the service worldwide through amateur radio and television.

To achieve this careful planning, organising and presentation is of top priority. It would be true to say the planning begins from the moment the present Open Day is completed, as a 'wash' up takes place immediately afterwards and improvements, problems and experience gained during the day are discussed and recorded as a basis for the next event.

Serious planning took place in January and the decision was taken that digital modes attracted the most interest and our earlier tentative introduction to amateur television proved so successful and caused quite a stir with the powers to be at the last Open Day that this would be the mode we would concentrate on this year. The Forces Broadcasting Service on that occasion were also impressed and had particularly asked to be attached to us this year, resulting in them setting up stall adjacent to the HQ Shack and shared facilities with us.

The first job to be undertaken was the complete refurbishment of the VHF/UHF mast and associated antennas. Bill G3TZM wrote an article on this in the summer edition of the Newsletter, what he did not say was that this was no easy task and took four days' work going late into the evening on one occasion.

I have nothing but praise for Julia GØIUUV, Christine M6UBI, Simon GØIEY, Frank GØLFI, Nigel MØNAF who did a round trip daily of some 45-50 miles to carry out the work. When you consider we have some seventy members who live in the area, and many much nearer,

who have been in the Society many years, it was left, with the exception of Simon, to this small group who have only been in the Society around a year to do the work. Needless to say the article written by Bill inviting local members to take advantage of the facilities have so far resulted in the grand total of zero responses.

Joe G3ZDF took over the responsibility for setting up the PSK31 and Echo Link stations, together with all the associated paper work involved to obtain the special licence and printing of QSL cards. Doug GØMIU also helped out with the general “lifting and shifting”.

If you think the ladies were only there because of their husbands and looked after the tea boat, think again. They were heaving and pulling feeders and attaching them as well as using hand tools with as much effort as the men. Later this same team did most of the work of manning cameras and equipment on the day. Nigel in addition to the above did most of the “chippy” work on his own over the week end preferring to work without the distraction of other activities around him.

It was during this period of activity that the local ATV repeater on the Isle of Wight was closed down which would have left our well laid plans of transmitting ATV live along the South Coast and Northward a non-starter, upsetting our carefully prepared plans for this mode. It was therefore decided to set it up the repeater at the HQ Station causing a considerable amount of extra work that had not been planned for. Fortunately the Horndean team accepted this additional burden without a murmur. Peter G3PYP took charge of this side of the operation and together with Frank stripped and removed all equipment from the IoW site and set it all up in the shack store room. This in itself created a considerable amount of work as many alterations had to be made to accommodate it all.

Problems never come singularly; three days before the event the grass cutting contactors damaged the mast at the northern end of the shack removing the anchor points of the two G5RV antennas. To repair the damage would require the use of a “cheery picker” mobile platform, not only would this be costly but could one be obtained in time? Persuasion and a heavy hand was needed to resolve this problem so one poor unfortunate unnamed was delegated to make what appeared impossible, possible.

Fortunately it would appear the choice of person given the task was a good one as not only was the work done and on time but also at no cost to the RNARS. Apart from him being “old navy” when the impossible was only something that took a little longer to resolve, he is still waiting for all those pints that no one thought to offered. Sad world!

The day before the big event was used to carry out a full rehearsal ensuring all would go well on the day. Peter G3PYP was in overall charge of ATV production and transmission, Nigel MØNAF was designated as controller of the camera teams who he controlled by radio on 70cms, making sure they were always in the correct position to film events as they took place, this meant he had to keep in constant communications with the OIC running the events so that any changes or delays of events could be catered for. Joe G3ZDF took charge of data mode transmissions which left Mick G3LIK and Ray G3KOJ to look after the HF side. Chris MØKTT operated the VHF slot but trade here was slow.



Rosie, our hard working Ex Officio came up trumps and supplied a team of senior rates to accompany the camera crews so that should any queries or information be required concerning the activities being filmed, they were there to provide it. I think Christine and Julie, two of the camera crew, rather liked having a couple of “sailors” (their words), to look after them. Rosie was also our star performer as she introduced the world to ATV at the beginning of transmissions. We will be sad to lose her as she leaves the service before next year’s event. She is without doubt one of the best liaison officers we have had since taking up our berth in Collingwood, and will be a hard act to follow.

We were also lucky in having Alan, MØSNT, a former merchant navy radio officer, who set up a “learn Morse” booth to encourage youngsters to try their hand on the key and send their name in CW correctly, winning a RNARS T Shirt and key ring, providing they

came up to standard. Watching Alan teaching children was a joy, as within minutes he had them eating out of his hand and soaking up his stories like sponges. I think a couple of their mothers fancied their chances as well. Not sure about the CW part though in their case!!

The day went well although very tiring for those of us who were there bright and early to carry out final checks as well as the clearing up at the end of the day. It was good to see MØCAA in attendance. Clive when he is not away sunning himself in the in warmer climates, or yachting, which is quite a lot, always spends time at the shack and ready to lend a hand. MØKJB, Keith, G7ARJ, John and MØJDL also clocked in so we had enough hands around to keep things going. Apologies if I have missed anyone who was actively engage, especially on the ATV side, but as we had visitors as well who were members, and you were part of the team operating away from the shack I cannot picture you in my mind's eye, getting old!

Doug

Welcome to our new members and up-dates

New Members	Marconi Radio Circle (Coro' to Steven French 9H1SF)	9H1MRC	4937
	Gail Inglis	MM6SZA	4938
	Rick Knowles	G4HQA	4939
	Peter Lamb – Also VP8DNY	M1AYI	4940
	London Area Sea Cadets TS Acorn	MØSCL	4941
	Mike Bookham	M6TXT	4942
	Nathan Bookham	M6IVS	4943
	James Bookham	M6OBJ	4944
Re-joiners & Reinstated	John Hawkins	VK6AU	1172
	Stephen Adams - Was GØOMM	K4STA	3630
	Colin Burton	VK6BQ	4552
	Mike Thompson	GD3JIU	2288
Changes	Steven French	9H1SF	4898
	Dave Bishop - Was 2EØVNK	MØVNK	4870
	Mark Atfield - Was 2EØZPT	M6MEA	4871
	Ron Kirby G3VQS - Was 2EØKAN	G3VQS	4894
	Ken House – Was MW6CDV	2WØKPH	4928
Silent Keys	Bernard Spencer	G3SMW	3511
	Jimmy McEachran	GM3XGX	4352
	Norman Whitehead	G4HL	2273
	Ed Dennett	GØEDM	1353

McMichael Rally

Early start again, 07:00 when we hit the road, already 18° centigrade, looks like it's going to be a hot day! Three quarters of an hour to get to the site on near empty roads.

Tables already set up for the traders when they arrive, so it doesn't take too long to get the stand set up ready for the day. The adjacent table was as usual reserved for RAFARS, they decided to pitch tent outside; at least we didn't have to put on sunscreen!

The Boot sale section was bigger than ever this year, it did however cause quite a lot of NON-radio items to appear. There were bargains to be had if you could find them. An awful lot of just plain rubbish does creep in these days though; I guess there's something for every taste? The RNARS stand saw a steady flow of visitors, ten members signing in plus one poor lost RAFARS member who insisted in doing so! Commodities were relatively slow at moving despite knock-down prices. A couple of two for one offers did tempt some people, and several T-shirts were sold to non-members, good for advertising! All in all we sold £25 worth. One or two interested in joining and membership forms were handed out.

Once the Martin Lynch and other raffle had taken place soon after lunch, things soon went very quiet with traders already packing up. The temperature by this time had climbed to 29° C, which really was too hot.

My sincere thanks to John G4KGT who offered to "sit in" whilst I had a look around and stretch my legs. Thanks also extend to Andy M5ALG and his willing team of volunteers from the BBRC and RADARC organisations who do all the hard work in making sure that everyone who visits the rally does so in safety. To those who have never been to this rally, you are missing out, see you there next year?

Dave G4JBE 0434

Milton Keynes

Drove through driving rain, and arrived at 07:30. The rain continued all through the Rally, varying from hard to drizzle. I run this rally in conjunction with BADARC, using a shared pitch.

This Rally was at a new venue, and was well run for a first time by MKARS. Considering the weather they did an excellent job.

Only two members signed in Baz – GWØSFI and Des – G3LCS. Come on member's support these small Rallies or they will die.

Glenn GØGBI 3481

Glenn also represented the society at the **Huntingdon** rally, where the weather was much better. Arrived at 08:30 and found my table and assisted by a friendly Air Cadet to carry the equipment in; many thanks.

Three members signed in, George G3LPT, Dave G4LJG and Don MØVNR.

RSGB National Hamfest

RNARS loyalists Wally G4DIU and Allen 2E1HHA arrived on site at approximately mid-day ready to set up the stand only to find that we had been moved to another part of "club-land", but this time with our backs to the main door at the end of the George Stephenson Pavilion but as the weather was



"The name's Walker; not Uncle Albert"

very good it didn't really matter as the doors were wide open anyway and the breeze was negligible.

On Friday Morning we arrived again to welcome the general public and more specifically our members, and who should be first on the scene but Sid GM4SID all the way down from Aberdeen and I am very pleased to report that Sid has been the first to sign our visitors book at this and previous gatherings, thank you for your solidarity. There were twenty-two members who signed in on Friday and a good few members from Scotland and Wales swelled the numbers which is a very good turnout for a Friday, I was well pleased with the showing.

On Saturday Allen and I turned in good time to polish off more tea and coffee before settling down to greeting the visitors throughout the day which was made so much better by the arrival of the minibus from Portsmouth with a dozen or so members for which we have to thank Julia GØIVY for organising the trip. On the commodities front we managed to sell £72-00 worth.

I managed to hand out two membership application forms. One of the recipients had been told he wasn't eligible for membership having been a trawler-man. I am aware of the name of the person who told him this erroneous rubbish, but I shall not divulge it here, needless to say I hope that the perpetrator is as disgusted with himself as we all are.

There were not so many traders this year inside the pavilion, but there were a much larger group of traders outside on the grass where the weather was excellent, the ice-cream and burger vendors doing a roaring trade.

On the whole, once again, it was a good rally even though the major stall holders were down a bit on last year. We are already booked in for next year. Let's see if we can if we can continue the trend of increasing the numbers of members attending this really important rally, or like so many in the past - it will fail to gain the backing of the major traders and will ultimately fail, like so many others in the past.

All the very best to you all for Christmas.

Allen 2E1HHA and Wally G4DIU



Book Review: The extraordinary wartime exploits of the British code breakers based at Bletchley continue to fascinate and amaze. In the bestselling 'Station X' Michael Smith tells us the astonishing true story of the breaking of the Enigma cipher. In 'The Emperor's Codes' he continues the story as he examines how Japan's codes were broken and the consequences for the Second World War. The book is particularly poignant for followers of naval history.

The book moves across the world from Bletchley Park to Pearl Harbour; from Singapore to Colombo; and from Mombasa to Melbourne, describing just how the Japanese codes and ciphers were broken and how the lives of the code breakers, both professional and personal, were affected. It tells the stories of John Tiltman, the eccentric British soldier turned code breaker who made many of the early breaks into Japanese diplomatic and military codes; Eric Neve, the Australian sailor recruited to work for the British who pioneered breakthroughs in Japanese naval codes; and of Oshima Hiroshi, the hard-drinking Japanese Ambassador to Berlin, whose candid reports to Tokyo of his conversations with Hitler and other high-ranking Nazis were a major source of intelligence in the war against Germany.

Using the memories of those at the forefront of this battle, Michael Smith reveals a gripping and previously untold story from the Second World War. Published by Bantam Press ISBN 0-593-04781-8



Can You Help?

A request for help from Tom Waters (GØGQJ 3571) who is looking for information concerning Cmdr JE Ironmonger OBE known as Ted and who held the call G8PO. It's known that Ted's wife Milly passed away some years ago. The last known address for Ted is, 18 Monks Way, Fareham.

Both Ted and Tom used to regularly join in nets with amateurs in the USA.

If you have any information, please pass it onto Tom. Telephone: 01872 572535 or e-mail: thomas933@talktalk.net

And following a previous call for help from Al MØDNU regarding **Morse training nets**, I received the following from Dave MMØDYX. MEG(S), Morse Enthusiasts Group (Scotland) run a slow and fast Morse net on 3.555 MHz every Monday at 19:00 to 20:00 local, the net controller is Doug GMØAIR. RNARS members are welcome to call in. (Rumour has it that Doug served in the US Navy!)

RRS James Clark Ross visits Dundee

Marine communications aboard merchant vessels has changed a lot since I first went to sea. Nowadays merchant seafarers have the delights of personal e-mail and the 'net rather than the variances of HF radio telephone which you had to book in advance to call home. So it was by e-mail that RNARS member Mike (GMØHMQ) informed me that RRS James Clark Ross was due to visit Dundee. For those that missed Mike's interesting article a few years ago, Mike is the communications officer aboard.

Gillian and I took up Mike's kind invitation and met up with another six of Mike's invited friends for a tour. Starting with a safety brief, we first of all headed for the engine control room. Almost clinical in its appearance, this is in total contrast to the engine rooms I once knew; down on the plates in a hot oily atmosphere with no air conditioning or sound proof control room.



Our tour included a plethora of workshops and science labs to cater for all the various experiments and equipment required by the scientist embarked.



Our penultimate visit before retiring to the saloon for a drink was the bridge and monkey island; festooned with radar scanners

and aerials for everything from UHF to HF. There's also a couple of satellite dishes for digital communications.

Mike's cabin is just abaft the bridge and his amateur equipment neatly fits into the space previously taken up by marine HF radios, amplifiers and aerial switches. Nowadays the GMDSS DSC HF radio equipment is located on the bridge and used by the watch keeping officers, although Mike tests the DSC facility once a week.



As well as carrying out research, James Clark Ross is also a cargo vessel supplying the UK Antarctic bases, with all their needs from fuel to food. To serve some of the bases, JCR carries what resembles a landing craft on the cargo deck.



Whilst aboard, Mike keeps his web site (www.gm0hcq.com) up to date with everything from the vessel's position to the daily menu. He also has a large collection of images from Antarctic wild life to the bases RSS JCR visits and supplies.

Thanks for an interesting evening Mike, much appreciated.

Colin (Editor)

AGM Report

Present: G1LKJ, President, G4ZMP, M0KTT, G0JSC, Helen, M0LRE, G4TNN, G3LIK, G3ZDF, G4BEQ, G0TOC, G0LFI, G0PSE, M0IMJ, G0IUY, G0IEY, 5Z4/G3RDR, M1AFM, 2E0JVM, G3PYB, GOLDJ, M0COA, G3APO, G4PZV, G0MIU

Apologies: M0HFF, G3PQC*, G4CJY, PA0VLA, G3XGE, PA5UL, G3VCN , G3RFH , G0VFE , G3KOJ, VK6BQ, G0IEC, DK9OS , G4DIU , VK6APW/HZ1PS, G3TZM, ZL2GKB , GM6HGW, G4UJR , Stephen Palmer 2436, KB7NJV , SWL , G4KJD, VK3QU, G0FBA, M0MGF , G0RNO , G3WQG , M0CPH, G6DGK, M0NAF, M6UBI *Doug wishes it to be known that his reasons for non-attendance is that unless the AGM in future is held in an hotel or ROYAL MARITIME CLUB where we can really get together and make a weekend of it, he will not be attending any future AGM's at Collingwood unless accommodation is available.

Chairman's introduction: Mr President, Vice President and fellow members welcome to this 53rd AGM and thank you for attending on this rather bleak day. The meeting is now in session and I will call on our President to start the ball rolling.

President's report: Good afternoon ladies and gentlemen. I add my welcome to those of the Chairman to the 53rd Annual General Meeting of our Royal Naval Amateur radio Society. I would like to thank the Committee for the lunch they provided. As ever my report reflects on what the Society has been doing over the past year and you have been busy. The shack has been modernised, is a vast improvement and is about to become an examination centre for amateur radio licences. The pole mast was knocked down by the contract gardeners, but repaired by HMS COLLINGWOOD. The Sea Cadets are coming onboard and big efforts are being made to inspire interest in new entries entering the Service with the aim of ensuring the Society's future and many of you have been involved in enhancing the image and awareness of the Society by representing it at events around the country.

Your Committee has worked hard to make the Society the success that it is and I congratulate them. Things do not just happen. Although I do not want to single anyone out, I must mention the Editor of the Newsletter, who does an excellent job in producing an interesting and easily readable publication. He has his problems, as he continues to tell us, but he does need articles and we are interested in your tales and experiences in the Service, within reason.

My one cause for concern is that as technology advances, the need for the basic skills that we use in the Society are becoming unnecessary and a dying art and our recruitment for new members will become more difficult due to this and the diminishing size of the service.

The Chairman thanked the President and said that we fully appreciate him travelling down from Yorkshire to be with us. It puts those who live relatively locally to shame. It is member activity that makes a successful a society or club, otherwise, regardless of how hard the officers and committee work it can soon wither. He said it was nice to see the HMS Belfast team well to the fore but it is a pity that Lester, due to poor health, is not with us today. Please pass on our regards to him and I trust it will not be too long before he is back on form.

Minutes of the last AGM: Proposed by Marc G0TOC and seconded by Peter G3RDR and agreed unanimously.

Chairman's report including Silent Keys: Before giving my report I would ask you to stand for one minutes silence as a mark of respect and in memory of those members who have crossed the bar since the last AGM: GM3CFS, G3LHB, VK6OH, GM4BKV, G2DBT, SWL, G4MSR, EI7H, G3DAC, G4SNY, VK2FJW, OZ1EHC, GM3LGM, GM0DJI, G0MMD, G3AHX, G3MLD, G3SMW, G7HFH, TA1AN, G0SMW, G0KXN, GM3XGX, OE6ESG, GMOLTQ, G0RVW, G7IZS,

I would like to thank the committee for all their hard work over the past year, without this hard working group this society would not function. I am proud of the present team who have been extremely loyal even if occasionally they attempt to give me a hard time. Our secretary is to be congratulated on maintaining the very professional RNARS web site, and I am always surprised at some of his additions. The first time I heard CQ belting out I immediately checked my rig as I could not remember it being left on.....only to find the CW was coming from the web site. I wonder if our President had placed his cursor over his flag?

Secondly I would like to thank the dedicated group from our affiliated club, The Horndean and District Amateur Radio Club for all their support over the past year. They have been the main stay in the setting up of the ATV, maintenance of antennas and shack. They were also the responsible for providing the majority of working hands which made Collingwood Open Day such a success. When you consider they had to travel some thirty miles daily, which they did over several consecutive days, at no charge to the society I might add, to assist in the setting up and running of the Open day, they are to be admired.

Julia GØIUUY, their social secretary, also organised a successful minibus, driven by Nigel MØNAF, both RNARS members, to the Newark Rally, which many of us took advantage of to visit and support the RNARS team who manned the stand.

I would also like to pay a particular thank you to our editor, Colin, GM6HGW for all his hard work in producing a very excellent Newsletter, which we take for granted, but those who have been in the position of producing any form of club journal or newsletter will know it is

not an easy task, nor helped by the moans and groans of the few. Doug GØMIU also deserves grateful thanks as he is the man responsible for getting the Newsletter printed, enveloped and addressed, before trudging down to the Post Office to post them. Not forgetting commodities of course.

We have had a few ups and downs over the year but all in all it has been very successful. The downs have been mainly the poor health of some of the team, in particular, Wally G4DIU our membership secretary who has certainly hit rough weather for several months. I was very concerned at one point and had made alternative plans for taking over his duties. However, he refused, and insisted he would continue his duties, albeit I know it took a lot out of him. Fortunately he survived the storm and is back on form. I can say that with confidence as he now back to his old tricks of giving me a hard time, especially at Newark.

Ray, G3KOJ, our shack manager has also suffered ill health, but like Wally, has refused to give in.

Mick, our Vice President has also had a few bad turns but has never failed to assist when asked. I owe him my gratitude as once again he took on the whole responsibility for arranging all aspects of this AGM. You may show your gratitude to him by buying all the tickets for the raffle he is running. Thanks Mick.

On the up side the shack has been completely updated and mast and antennas replaced or serviced. One of the largest and most time consuming has been taking over the ATV repeater from the Isle of Wight and installing in the shack. For that we owe a great deal to Peter G3PYB, and his team.

Open Day was a great success and once more cemented good relations with the powers to be. Essential as this ensures our safe residents within the establishment.

The Collingwood Radio Society G3CRS has been reformed and meets on a regular weekly basis.

The committee having undertaken a hard look at our finances and out goings have decided that as from April next year all those who have taken advantage of having their Newsletter electronically will only pay £5 annual subscription. Those having hard copies will remain at £15, but if postage increases at the rate it has done over the past year there is no guarantee that this rate can be maintained. Postage and printing is our major expenditure. Ideally if we all received the newsletter electronically, with the advantage of having it in full colour and instant delivery, everyone would gain. Even if the only way you could receive it, due to lack of a computer, it costs nothing to set up an e-mail address at the local library so you could download and print it there and still make a good saving after paying for the printing. The down side of course it would mean a little effort on the part of those using that method.

Finally I would like to thank you all for attending today and trust you have taken advantage of visiting the shack, buying commodities at a never to be repeated price, as well as having an enjoyable lunch.

Secretary's report: Sad to report that the Submarine Club which has met here in the HQ Shack on Wednesdays has wound itself up due to declining membership numbers.

Discussions are still taking place on what to do with the assets of HMS Plymouth group. Bill G3TZM is heading a small group trying to contact as many members as possible.

Some 32 members replied to the membership survey earlier in the year. I summarised the main themes for the Committee and they were discussed at successive meetings.

Membership Secretary's report: PayPal: in my capacity as Membership Secretary I am getting fed up with the organisation called PayPal as they seem incapable of carrying out the simple instructions we require to enable us to be able to identify from whom the various sums of money which they have passed in to the Society. It is all very well of PayPal to explain to us how to transfer monies between accounts if they do not do as asked. Surely it is not too much to ask that they include the Name, Call-sign and/or RNARS Number to each entry on their Statements, so as to put a name to the payee. I would like to propose the dropping of this method of paying Subscriptions in future unless the simple requirements above are met.

I would like to invite all paying members to fill in the new form which will appear in the News Letter to state that they wish to remain as members of the RNARS and to let the Society know what their status is :- ie Corporate - Associate - Affiliate and Life or Family membership, etcetera.

I would like to invite more of the membership to put forward their names to help out with such popular activities as manning stands at the various rallies and shows round the Country. It should only take up about one day per year, and is by no means an arduous task for any-one. It would also mean that many more members would get to know many more of their friends within the Society. It would also show that some of the membership were prepared to do SOMETHING instead of sitting around and just grumbling about those who do do SOMETHING for their Club.

I sometimes wonder, just how many of our members do actually read the various publications and News Items which appear on the web-site and also in the News Letter, because it is my experience that a lot do not read or answer the various items especially those dealing with the annual subscriptions, as a good number of our members are still paying incorrect amounts of money to the Society - these members will be lapsed as of the 2013 A.G.M. Anyone paying an incorrect amount above that required, will, as of the same date will be considered to have donated the excess cash to the Society funds. In future ALL subscriptions will become due " ON OR

BEFORE THE FIST DAY OF APRIL" annually, anyone who does not follow this ruling (which is stated on the Conditions and Regulations of the Society) will automatically be considered to have lapsed.

We are, like many other Clubs/Societies, all getting older and I have no doubt, feeling that things are getting on top of us and that we should be relaxing and enjoying our Hobby, using whichever means of communication we desire. We are therefore likely to run out of membership in the not-too-far future unless we put our minds to publicising our Society amongst the younger Amateurs and even helping where we can to enhance the Hobby, in its many facets, to everyone we can to ensure that this Hobby does not die away due to lack of interest. I am sure that I have missed out a lot of other items which need to be voiced, but no doubt some of the others will tell me sooner or later. Wally G4DIU RNARS 391 Commenting on Wally's first point about PayPal the Secretary Joe (G3ZDF) said that he was currently working with our Treasurer to resolve the problems with PayPal and he hoped to have reports available for Wally of who paid what when.

Treasurer's report

The Accounts were proposed by G4ZMP and seconded by M0IMJ and agreed unanimously. The Treasurer commented on the low rates of interest we were receiving on our deposits and asked whether it was worthwhile considering alternative forms of deposits. He was authorised to investigate whether we as a club could invest in alternative forms of deposit and if we were so authorised then to look at specific ones.

Due to limited space within the Newsletter, a full set of the audited accounts and balance sheet are available on request.

Ex Officio's report: This has been another busy year for me but I have really enjoyed acting as your liaison. I regularly feed back to the Command in Collingwood on the work that you are doing so that they are fully apprised of your efforts. The work that was achieved during this year's Open Day was very well received by the Command who have yet again applauded your ingenuity with the live data feed and also the individual stills of the public.

The Open Day 2014 is already in the planning stage, so please let me know of any logistical requirements early so that I can let the planning team know in ample time.

This is my last report for the AGM as I will (honestly) be leaving the RN 30 April 2014. My relief is Chris Kirstenson who will be in the seat from 14th March. I will ensure that the importance of the liaison role is reiterated to him during our hand over and that he is introduced to you all before I finally disappear.

I will also be liaising with Phase 2 Training Squadron and will (if permissible) continue to bring down the new CIS ratings so that we can continue to build interest in amateur radio for future generations.

Announcement and presentation of RNARS Awards: Before asking the President to present the awards, and we have quite a few, I would just like to take up a little of your time to talk about a particular member who has served this Society with great dedication and loyalty for many years. You will remember that last year we honoured Mick, G3LIK, by making him Vice President in appreciation for all the hard work and dedication he has put in over the years. Due to his superb operating and the many awards he has won, plus the fact he has travelled to many countries promoting the RNARS he has earned the unofficial title of 'Mr RNARS'. His call is very well known worldwide and he has possibly the most well-known English call worldwide. As someone was once heard to say "Everyone knows Mick".

It would be true to say we also have another person, who possibly has a call not as prominent as Mick's, is still very well known. I am talking about Diana, GØRNO, and our Data Communications Manager. She keeps a sharp eye on the activities that go on line and anyone who over steps the mark is quickly brought to heel. She is always on hand to help anyone new or having difficulty in managing data/computer problems. Her weekly news bulletins are published without fail keeping all up-to-date with all our activities. If Mick has earned the title Mr RNARS, then Diana is surely our 'Lady RNARS' I am therefore proposing we should honour Diana, as we did Mick, and make her a Life Member and present her with this engraved bowl. The committee fully back this proposal. Thank you. Joe has produced a special life membership certificate which some of you might like to sign with your compliments before it is framed and forwarded to her. Proposal agreed unanimously.

Before the next item of the election of officers I would like to make a short statement. It had been my intention to stand down at this AGM for the reason I gave in the last Newsletter. However, there was not a large queue forming up to take over this office. At our last committee Ray, G3KOJ, offered his services rather than see the Society left headless. He did however stress that he would only take this role if I would remain in the back ground as his advisor and to assist if heavy guns were required. Since then he has been informed that he is in need of a major operation which will put him out of action for some time. As a compromise I have agreed, subject to your approval, to remain Chairman for another year with Ray as Vice Chairman. My intention is that once Ray is back on his feet he will in all effect take over the chairman's role and I will take a back seat, but remain available to step in if he feels he is getting into too deep water. However, I must stress, if appointed, I will definitely be stepping down at the next AGM.

Each year the Committee awards the G3WNJ Trophy (also known as the Merit Award) to a member they consider has contributed significantly to the Society. This year the Trophy is awarded to Nigel Auckland, MØNAF for his work in refurbishing the HQ Shack, his regular attendance in the Shack and his operating of GB3RN.

RNARS Certificates of Merit were awarded to:

WO1 Rosie Dodd Julia Tribe GØIUY Simon Tribe GØIEY
Christine Cotton M6UBI Frank Cotton GØLFI Peter Blaeborough G3PYB

Shack Manager: Welcome to all of you who have made it to this year's AGM. I hope that you have been able to visit the RNARS HQ shack and seen the changes that have taken place since your last visit, especially the new layout of the operating bays.

Since last year's AGM, a great deal of hard work has been put in transforming the shack in HMS Collingwood, and the carrying out of maintenance to the towers and the many aerials.

With the acquisition of the Amateur Television group to the RNARS HQ Station and their membership to the RNARS, the ATV group have brought with them their expertise in carrying out the maintenance to the VHF tower and the aerials. A new VHF rotator and Yagi for 2 mtrs and 70cms has been fitted and has replaced the old ones on the VHF tower. The ATV switching boxes and antenna have also been attached to the VHF tower.

The HF 3 element Yagi has been refurbished. This was under taken by a committee working party. One of the old G5RV antennas has been replaced with a new one and a new antenna for the PSK31/digi bands has been installed. Your RNARS HQ station shack is there for you to use and enjoy.

QSL Manager Bureau Report: Since the 2012 AGM the QSL bureau has received 348 cards, which is a 68% decrease from the 1,096 reported last year. This is mainly due to the tailing-off of incoming GB5ØRNARS cards - compared to 2012 when 527 were received, only 107 GB5ØRNARS cards have come-in in the past year. The remaining 241 non-GB5ØRNARS cards handled by the bureau were for 77 callsign holders and of these, the recipients for whom I received 10 or more cards were; the London Group 30 (31 in 2012), GB3RN / HQ callsigns 16 (19) and Peter HZ1PS 10 (18). No other members received 10 or more cards. The majority of these 241 cards were of course received from RNARS members. The highest volume senders being; Bob N4XAT sending 41 cards, the London Group 33, the HMS Cavalier group 29, Mick G3LIK 15, Stan GM4BKV (now SK) 11 and GB3RN / HQ callsigns 11. A further 36 member-member cards were also received from 12 members and 53 cards were received from the RSARS bureau for 27 members. No cards were received from either RAFARS or FISTS bureaus. One card, from an Italian amateur was also sent directly to me for GB3RN and 11 cards were erroneously sent from the RSGB bureau.

During the past 12 months I have seen the lowest amount of QSL activity since taking on the role as bureau manager in 2008. I don't know how the other service bureaus are currently faring, but I will endeavour to contact my counterparts at RSARS and RAFARS and will report my findings to the committee, in due course.

Since the last AGM 205 cards have distributed either by post, here at Collingwood or at the London Group AGM to 47 members; a 79% decrease, when compared to the 957 cards distributed over the previous period. The callsigns for which 10 or more cards were distributed are; GB2RN / LG Calls 30, GB50RNARS Nov (Carl GW0VSW) 19, GB50RNARS Dec (Mick G3LIK) 14 and GB50RNARS Apr (LG GB2RN) 13. I have also sent 10 cards, from 3 members, to the RSARS bureau and 1 card to the RAFARS bureau - and that was one that was erroneously directed to me via a RSARS member. I'll take this opportunity to thank Bob D'Imperio N4XAT (4783) for taking the uncollected cards for US members back to the States after this year's LG AGM and for posting them on at his own expense.

The number of cards in the bureau currently stands at 234 and of these 55 are for 19 overseas members and 102 are for 64 UK members, who either have no SSAEs or have made no provision to collect. The bureau also holds 917 SSAEs for 266 callsign holders.

PayPal payments remain an option to cover the cost of overseas postage with the balance of each subscriber's postal funds openly viewable on the RNARS QSL Bureau Yahoo! Group online lookup service, which also continues to provide an up-to-date, do-it-yourself status checking facility of the movement of all incoming and outgoing cards and SSAEs through the bureau. Please, however, feel free to check with me your QSL card and / or SSAE status here after the AGM, when I also hope be able to off-load a number of cards.

Data Comms. Manager's Report: I send out a weekly eNews bulletin to the RNARS Yahoo Group group. These bulletins include the latest membership changes, information about RNARS events and other snippets of news. "Stop Press" items of news may be sent out at any time.

Membership of the RNARS Yahoo Group is limited to current members of the society. The group's URL is: <http://groups.yahoo.com/group/RNARS>. Any items sent to me for possible inclusion in a bulletin should be relevant to the RNARS, to the amateur radio activities of RNARS members or to our service backgrounds. Please quote the URL source of information where possible.

Any member who becomes lapsed, or who resigns from the society, is removed from the group membership list but can of course re-subscribe once they are again "current" or who rejoin the society. The other main source of RNARS associated news is to be found on the society's website, where Joe G3ZDF, the RNARS webmaster, maintains a "scrolling news" section on the front page. It is well worth checking the site regularly for links to RN associated news and for announcements of interest to members of the society.

My thanks to all those who send me updates and snippets for the news, and especial thanks to the RNARS Committee and Managers for all they do on our behalf.

Web Site Manager: Firstly, on behalf of the Society I would like to thank Bob Jennings G3NXV for continuing to host the website free of charge and with very high levels of uptime.

The website continues to evolve. I have made a few cosmetic changes to the website including adding sound. The right hand column has a summary of propagation conditions and links to a Contests site and DX-News site. Some more historical copies of The Communicator have been added and can be downloaded as PDF. Hans-Juergen DK9OS has helped reduce the size of the scanned magazines to make them quicker to download.

The rolling news is updated on an almost daily basis with headlines and links to items related to naval or radio matters or both included. Suggestions always welcome on what can be improved and/or included.

Newsletter Editor's Report: Greeting and sorry I can't be with you all. As Newsletter editor, I very much appreciate the positive feedback I receive and realise that for many members who can't get on the air or access the internet, the Newsletter is their only contact with the society.

There are several regular contributors who can always be relied upon to pass on items of news or articles of interest; my sincere thanks to them and our Chair and the rest of the committee for their continued and valued support. However more contributors are always needed; it's simple, no articles; no Newsletter. In spite of contacting affiliated clubs for their news, I've yet to receive a reply or acknowledgment. Please spare a thought for your editor and your Newsletter. Even a few pictures from the AGM will be much appreciated.

E-mail distribution of the Newsletter works well as long as members leave sufficient space in their mailbox and advise me of changes to their e-mail address. Additionally it helps when members follow a few simple instructions when subscribing to the e-mail Newsletter list.

Awards Manager: Herewith the list of claims for the period in question. In a nutshell it's been another quiet year on the awards front. Anyway the awards issued have been as follows:

International Navy Award:	Frank DL3NSM Gunter DG7EE
Mercury Award:	Brian G3DCO
Kaleidoscope Award:	Peter/HZ1PS

Australian Branch Report: The Australian branch has taken on an Australian Manager Robert Dew VK1DE / VK1RAN to manage the Australian branch. Refer to the summer RNARS magazine for further details about the manager.

Currently Robert is trying to obtain access to the Australian RNARS funds with no success so far. The current society treasurer Eric Leach VK5AFN has been in hospital for extended periods and has not been able to be of much help. A new account with the Commonwealth Bank of Australia is to be opened in the near future for Australian branch society use.

Membership is falling from 28 in November 2010 to around 12 today. We are not sure who is still a member of the society. The proposal is to contact the 2010 listed members to try to increase membership. We are having the same problems regarding membership as head office.

Use of the special Australian society call sign VK/RAN is active in the Australian Capital Territory (VK1RAN) and New South Wales (VK2RAN). VK5RAN operated By Eric Leach may become inoperative if Eric is transferred to a nursing home.

On our services day, (ANZAC DAY) VK3RAN was operative. We believe that the only regular net is run on Saturdays at 0400 GMT to 0500 GMT by Ron Hanel VK3MRH with some success with up to 19 odd participating each Saturday. We may have to extend the net name from RNARS to the ROYAL AND AUSTRALIAN ARMED FORCES net in the hope of increasing membership. Copies of the RNARS awards have been received to get some idea for an Australian branch award, again hoping to increase interest in the RNARS.

Date of next AGM: 11th October 2014 The Meeting closed at 15.09.

QRT – Closing Down

Firstly, my sincere apologies for the date mix up when promulgating the AGM in the Summer issue. I take full responsibility for this error. Having said that, an early draft of the Newsletter goes out to a number of committee members and they missed it as well. But that's no excuse, I made a blunder and hope it didn't cause anyone any inconvenience.

As always my thanks to all who have sent in articles, more are always needed. I also want to make mention of the help and support Doug Hotchkiss has given me during his time as Chairman, and not forgetting another stalwart of the society; Arthur "Wally" Walker who in spite of health problems keeps me up to speed on membership additions and changes. And if you receive your Newsletter by post, spare a thought for Doug Bowen and his wife who deals with printing and enveloping the Newsletter before taking them all down to the post office for posting.

When I took over as editor, it was because no one else was prepared to take on the job. In my earliest editorial I made it clear that due to the very limited time I would have for the Newsletter, I would only accept articles in digital format; e-mail or on a CD/DVD ROM. I just don't have time to type

out lengthy items. Judging by some recent correspondence, clearly there are a few who are not happy with this, well the answer is quite simple, if you can do better, please step forward and take over. Staying on the subject of complaints, for those who have criticised the number of holiday reports or Second World War articles in the Newsletter, if I receive them and there's nothing else to fill the Newsletter, which is normally the case, I'll use them. I repeat, if you are not happy with this, I will gladly stand down if there's anyone out there willing to take on the role of editor?

With more members electing to receive their Newsletter by e-mail, I can't stress strongly enough how important it is to follow the instruction on page four. Additionally, don't compile a list of names of friends and fire them off to me in one e-mail. I need individual e-mails from each member.

Now for a quick reminder, Doug Bowen arranges the printing and retains the mailing list for postal distribution of the Newsletter. If there are any problems receiving your Newsletter by post, contact Doug in the first instance. Mick Puttick edits the net list and advises me of any changes; so please contact Mick about changes to nets, please don't send me an angry e-mail pointing out inaccuracies.

If you were looking for pictures from our wedding, sadly, it didn't take place. Nothing drastic, just a reallocation of domestic arrangements; in other words, Gillian moved into my place when she started a new job at Dundee University. So wedding plans are on hold just now and looking at dates next year, which I'll leave in her hands as long as it doesn't interfere with my sailing!



Closing date for the Spring 2014 Newsletter will be the last week in February; please don't leave things until the last minute if you have anything you wish to submit.

Nothing more remains, but to wish everyone all the very best for Christmas and a guid New Year when 2014 comes whinging round the corner.

Regards, *Colin*.

Contacting the editor

E-mail: rnars@colinsmagic.com
Remember; only enter "**RNARS**" in the subject.
Telephone: 01592 774085
Mobile: 07871959654
Postal Address: 26 Crathes Close, Glenrothes, KY7 4SS

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, **if there are any inaccuracies contact Mick Puttick, NOT the editor.**

UK	Time Local	Freq	Net	Control
Daily	2359-0400	145.725	Midnight Nutters	Vacant
Sun	0800	3.667	SSB-News 0830	G3LIK
	1000	7.088	Northern Net	GM4VUG
	1100	145.4	Cornish VHF Net	GØGRY
	1100	7.02	CW Net	G4TNI
Mon-Fri	1030-1330	3.743 / 7.065	Bubbly Rats	GØHMS/GØGPO
Mon	1400	3.575 / 7.02	QRS CW	GØVCV
	1900	3.742	North West-News 2000	GØGBI
Tue	1900	3.528	CW Net	G3LCS
Wed	1400	3.74 / 7.088	White Rose	G4KGT
	1930	3.743	SSB & News 2200	GØOAK
	2000	145.4	Stand Easy	Vacant
Thurs	1900	3.542	Scottish CW	Vacant
	2000 GMT	1.835	Top Band CW	GØCHV/G4KJD
	2000	145.575	Scottish 2M	GMØKTJ/P
Fri	1600	10.118	30M CW	SM3AHM
Sat	0830	3.74 / 7.088	GØDLH Memorial Net	GØVIX

DX	Time GMT	Freq	Net	Control
Daily	0800	14.303	Maritime Mobile	G4FRN
	1800	14.303	Maritime Mobile	G4FRN
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 CW	VK5RAN
	0945	7.09	VK SSB	VK1RAN/VK5RAN
Sat	0400	7.09	VK SSB	VK2CCV
	1330	7.02	VK CW	VK2CCV
	1400	7.09	VK SSB DX	VK2CCV
	1430	21.41	RNARS DX	WA1HMW
Sun	0800	7.015/3.555	MARAC CW	PA3EBA/PI4MRC
	1430	21.41/28.94	RNARS DX	WA1HMW
	1900	14.33	N American	WA1HMW
Wed/Sat/Sun	1430	21.41	DX Net	WA1HMW/EA5AVL/K4XAT

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

RNARS Commodities List and Order Form
Write clearly and use block CAPITALS

RNARS No: _____
Call-sign: _____
Name: _____
Address: _____

Post Code: _____
Phone: _____

Item	Colour	Qty	Size	Price	P&P	Total
Sweatshirt Old Logo	Grey/Navy			£5-00	£2-50	
Sweatshirt New Logo	Navy			£15-00	£2-50	
Polo Shirt Old Logo	Navy/White			£5-00	£2-50	
Polo Shirt New Logo	Navy			£15-00	£2-50	
Tie				£4-00	£1-00	
Baseball Cap				£4-00	£2-70	
Gold Blazer Badge	(New style)			£10-00	£0-70	
Gold Blazer Badge	(Old style)			£5-00	£0-70	
Lapel Badge				£1-00	£1-00	
Log Book				£3-00	£2-50	
Total Enclosed						

Please check before ordering as to available, sizes and colour with regards to the old stock of sweatshirts and polo shirts. New style polo shirts can be personalised with name and callsign: rnarscommodities@btinternet.com

Small 32-34, Medium 36-38, Large 40-42, X-Large 44-46+

Please send completed form together with PO or cheque made payable to RNARS to: Doug Bowen GØMIU, 14 Braemar Road, Gosport, PO13 0YA

Overseas members, please add £5-00 to cover additional postage. Please allow fourteen days for delivery and while these prices are correct when going to press, prices do vary and are subject to change.

RNARS Shack Clock

The clock is nine inches outside diameter in a white plastic casing and has a quartz movement (requires one AA battery not included). Each clock is personalised with your callsign, RNARS logo and the 500 KHz (red) & 2182 KHz (green) silence periods as per the image. Each personalised clock costs £12 and £5 for UK postage and packing; after the Royal Mail has increased their charges by £3-00 !



Orders from overseas members may be possible, please e-mail me for more information and I will advise you of prevailing postal and exchange rates: **rnars@colinsmagic.com** and remember to only put **RNARS** in the subject. At the time of going to press the exchange rate and surface postal charges approximate to USA \$40-00.

UK orders are normally processed within fourteen days of receipt of order. Complete and send the form below with a cheque or postal order to the value of £17 made payable to "**Colin Topping**" to the following address: 26 Crathes Close, Glenrothes, KY7 4SS

I would like to order a shack clock personalised with the RNARS logo and my callsign. **(Please print carefully)**

Name: _____

Call & RNARS No: _____ | _____

Postal Address: _____

Post code: _____

Telephone No: _____

E-Mail: _____

RNARS Membership Check

Please complete in **BLOCK** capital letters. On completion send it to:

Mr A Walker, RNARS Membership Secretary
26 Sketchley Court, Dogwood Avenue, Bulwell, NG6 7DL

Name: _____

Callsign: _____

RNARS Number: _____

Postal Address: _____

Post / Zip Code: _____

Country: _____

I wish to remain a member of the RNARS and agree to pay my annual subscriptions by the first of April each year.

I will pay my subscription at the rate of **£15-00** for delivery of the Newsletter by post or **£5-00** for delivery of the Newsletter by e-mail (**delete as required**). If paying by cheque or postal order, please include your name, callsign and RNARS number on the back. Life members are exempt from paying subscriptions, but are asked to fill in this form in order to synchronise the membership list.

If requesting delivery of your **Newsletter by e-mail**, in addition to the above, **you must subscribe to the distribution list** as per the instructions on page four.

Signed: _____

Date: _____