

**The Newsletter of the
Royal Naval Amateur
Radio Society
Spring 2017**

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Items published in the Newsletter do not necessarily represent the views of the RNARS. The RNARS is affiliated to the RSGB. Web site: **www.rnars.org.uk**

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Chairman's Chat

A familiar call, in my household is 'where's my calculator?' And, until recently, it has been that way for nigh on twenty years or so working in academia. Now that retirement is setting in, it remains one of the few imperatives in the house along with a twitching of the face muscles when I find things stacked up behind doors, piled on or under the stairs or, God forbid, the sound of running water unaccounted for... something left over from my days in General Service. Long after my seagoing days in the WE - Radio Branch, I became a pilot with the intention of joining a well-known bush piloting organisation out in the Pacific islands, but that did not happen and so it left me with the pleasant pastime of hurtling around the skies over southern England or deep into European skies for jollies, including the serious business of flying rallies against club members of other major air lines. It dovetailed well with my occupation at the time with a major operator in the flight simulation world near Gatwick.



Having recently picked up the threads of radio after some, shall we say, almost forty years, I found that my old CB still worked after 35 years of abandonment in a dusty old box kept in the attic, and that my new compact CB has ~ 420 channels and can push out 4W AM or 12W SSB. Wow! Fast forward to late 2015 and within weeks of meeting this 'interesting' character called Joe at Kempton Park, I found myself at what I thought was the Reserve Navigation and Aviation Reconnaissance Squadron, a bit like Air America or, so I thought... er, no, back at school. Mind you, Nigel and Joe were there to keep an eye on me -and I'll never know whether it was a Kalashnikov or his latest mini-aerial project sticking out of Joe's rucksack close to hand, but thanks to those two gentlemen I now hold an Intermediate licence. It goes to show that a calculator can only help you so far down the road, you have to detach yourself from the chair and mess around with bits of this and bits of that until something looks like it is working. It doesn't

matter how old you are - you have to keep learning; trust me, I am an Engineer.

In the months ahead I know that I shall be profiting from the hard work, good will, and determination of those who have endeavoured, over previous years, to maintain a good reputation of the RNARS HQ at HMS Collingwood. It is to their credit that it is a welcoming organisation keen to reflect the positive attitudes and skills of those who are committed to the business of radio communications; both ancient and modern. It is our 'clubhouse' and to that end we have some challenges ahead regarding the future of our tenure at HMS Collingwood due to the intended absorption of HMS Sultan and its impact on the estate. I hope we can come together to show that the RNARS shack at Collingwood is a well maintained and looked after civilian unit which can provide a service to our cousins in uniform as much to our veteran members. An organisation perceived to be giving added value to the naval community at HMS Collingwood.

David Firth

(Raleigh, Collingwood, Barrosa, Terror, Pembroke, Dark Hero, Antrim, Victory, Ariadne, Hecla, Drake, RNPS, Cochrane and Sultan)

~~~~~

### **International Naval Contest 2016 - RNARS Participants - Results**

#### **CW**

| Position | Callsign  | Mem No | Points |
|----------|-----------|--------|--------|
| 5        | GM4SID    | RN1629 | 93825  |
| 10       | G3RFH     | RN173  | 48290  |
| 15       | G3LIK     | RN4    | 42168  |
| 34       | G3ZNR/QRP | RN4496 | 11250  |
| 46       | HZ1PS     | RN1440 | 4120   |
| 52       | UA2FT/6   | RN770  | 770    |
| 55       | OK1FCA    | RN468  | 468    |

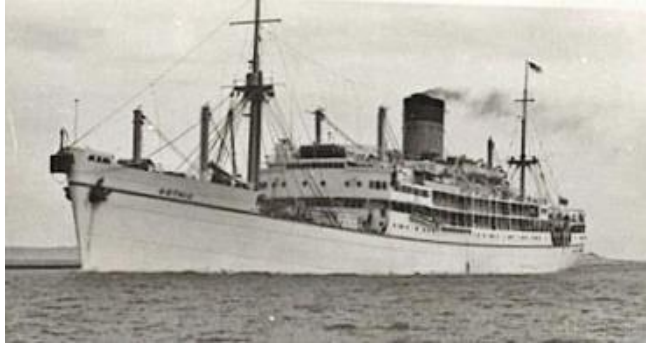
#### **SSB**

| Position | Callsign | Mem' No | Points |
|----------|----------|---------|--------|
| 3        | G3PRI    | RN4328  | 93     |

## **Royal Tour 1953-54 - SS Gothic (Royal Yacht)**

Reproduced with the kind permission of the Radio Officers Association publication 'QSO' and the author WG Williamson.

Shortly after the end of the Second World War, the Shaw Savill company built seven vessels with similar hulls, twin screw steam turbines with maximum speed of 18 knots carrying refrigerated cargo.



One of them was Gothic/MAUQ that could carry 85 passengers and had a design speed of 20 knots. In July 1951, the ship had been chosen to be the Royal Yacht for a tour of Australia and New Zealand and conversion work was carried out at Cammel Lairds on Merseyside. This included repainting the entire ship in white, apart from the funnel which retained the Shaw Savill colours of buff with a black top. This particular tour was cancelled due to the death of King George VI. After this first five-month refit in Birkenhead, the royal suites were sealed off from the rest of the passenger accommodation. Most of the furniture for the royal apartments was put into storage in Cammel Lairds. Gothic then returned to commercial service but with her passenger capacity limited to fifty-two passengers. The government paid Shaw Savill a holding fee of £125,000 to retain her as a future Royal Yacht as required.

Later it was decided that the ship would be used for the Royal tour of Australia and New Zealand in 1954 by the Queen and the Duke of Edinburgh. The ship therefore returned to Cammel Lairds in Birkenhead for dry docking and refurbishment for the Royal Party. She arrived on the 18<sup>th</sup> August 1953 and remained until the 13<sup>th</sup> October 1953. She then went to Greenock where she spent a week on the Clyde carrying out transmitter tests and other essential testing of equipment.

Why was the Gothic chosen for this task? Royal Yacht Britannia was not yet completed and the other vessel considered, the battleship HMS Vanguard, had too deep a draught to enter some of the Australian and New Zealand ports. And Gothic had the necessary capacity to carry the royal party plus a Royal Navy complement which included seamen, signallers and technical staff plus a Royal Marine band. For example, three WRNS officers were on board to handle all the cypher work.



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It was recognized that the normal commercial wireless room equipment on the Gothic would be insufficient to meet the communication needs of the tour. With members of the Queen's Household and Royal Navy staff on board, diplomatic and naval traffic would be high throughout the period of the tour. The Dundee Courier carried a report in which it stated that there was more than 100 people in the Royal party. It must also be mentioned that press interest in the tour was massive and their coverage would be extensive. The press considered it essential to be able to transmit photographs from the ship by radio back to their offices. This had never been done before. The BBC also required use of the airwaves for two "live" broadcasts back to their London studios every day. (Godfrey Talbot, a well-known BBC commentator and his assistant named Goves sailed with the ship). Reporters from Reuters, Exchange Telegraph, The Times and Australian newspapers were also on board.

Gothic was of course already fitted with a full complement of radio equipment by the Marconi International Marine Company to comply with requirements under the existing Radio Regulations. It was decided therefore that the additional equipment would be installed in the vessel while she was in dry dock at Cammel Lairds. This extra equipment was sourced and installed by the Marconi Wireless Telegraph Co Ltd (MWT). At the heart of this extra equipment was a high power transmitter (7 kW) manufactured by MWT and given the designation SWB 11 X. The MWT company had designed this particular transmitter for use in land

installations for long distance point to point communication. It was considered the perfect transmitter to meet the communication requirements of the Royal Tour.

Consequently, this equipment was installed on board Gothic by one of MWT's engineers, Mr. A. J. Corbett, he also sailed with the ship during the tour. It was the first time a transmitter of this power had been fitted to a merchant vessel. The transmitter was versatile, being able to handle Morse telegraphy, radiotelephony and it could also deal with picture transmissions, i.e. facsimile.

Obviously for two-way communication, a receiver is required, in this instance three were used, one used for monitoring and transmission checking while the second, a CR150/3 was used as a general traffic receiver. The third was a CR150/5 was used by the BBC for their specific requirements during commentaries.

Some modifications had to be made for the tour. For example, the SWB 11 X transmitter being so powerful generated lots of heat when transmitting. It was therefore housed in a separate compartment equipped with special ventilation and heat dissipation systems i.e. air conditioning. This room was originally a children's play room and located just forward of the funnel. This transmitter was remotely controlled from the forward wireless room apart from frequency changing which was done manually. When used for telephony the set could be modulated from any of the several BBC commentary booths.

The Gothic's normal radio room was located on the starboard side of the bridge deck and originally fitted with a Marconi Marine Oceanspan transmitter. This was replaced by a Worldspan transmitter specially adapted to transmit high speed WT. This was used for the normal traffic from the ship but could be used to handle overflow press when the SWB 11 X was in use for high priority traffic. Three receivers were in use, a Mercury and two Electras. A Marconi Yeoman (CR300/2) receiver already installed was retained for the tour. Aerial splitter arrangements were specially made for the Gothic. This allowed any or all receivers to be operated from the main receiving aerial. Built in receiver protection systems automatically protected the receivers when transmitters were in use. Heavy duty insulators were fitted to the main mast rigging to reduce induced EMFs when the transmitter was operating. Warning



lights were fitted to the base of the mainmast which flashed to warn the crew that shocks and sparks could be expected.

In his book, *Royal Standard Red Ensign*, Gothic's Master, David Aitchinson (apparently his nickname in the company was "Dismal Dave") devotes just two paragraphs to radio matters. "When transmitting, the SWB 11 electrified the after end of the ship. In spite of large insulators, it was dangerous to touch anything connected with the mainmast. We had some trying moments, as when the winches were electrified and we were unable to take in the ropes prior to leaving port, which event SWB11 was to broadcast to the world."

Ex-Manchester Ship Canal pilot Harry Hignett was a navigating officer with Shaw Savill and wrote the following account of his association with the Gothic during the dry docking. I was to be a temporary Relieving Officer for half a year. This meant anything from a coasting voyage as Third or Second or Chief Officer or standing by as Relieving Officer on vessels in dock anywhere but London. I was instructed to join the Gothic in Cammell Lairds, Birkenhead. She was to prepare to take up her sailing as Royal Yacht carrying the Royal Party to Australia, Fiji and New Zealand.

The Gothic went immediately into the dry dock nearest to Cammell Laird's floating basin, and within twelve hours rested on the blocks.

In dry-dock the Gothic was shut down electrically with a supply from the shore, no heating or cooking apparatus to be used. The ship was closed down overnight and I left every evening after walking the whole ship with a security guard usually about 2100 hours.

The equipment fitted to the Gothic was ordered by the Admiralty. The normal radio equipment was completely inadequate and therefore enhanced with a 6 kW HF transmitter. Whenever this was in action there were problems. The whole of the ship's rigging became alive and was inclined to spark. Anyone touching the rails could receive a shock. I understood that a number of the deck crew would be stationed around the vessel to warn anyone to 'stand clear' whenever the transmitter was to be used. The radio was tested one afternoon, just after a rain shower. No. 2 starboard derrick was in its normal position on its cradle on the forepart of the bridge deck. When the transmitter opened up, there was

quite a spark between the end of the derrick and the bridge deck housing. One of the security men picked up a loose hatch wedge and thrust it between the derrick and the housing. There was an immediate cloud of steam and then smoke and someone ashore shouted “FIRE”. In three minutes there were two fire engine units alongside, prepared to douse everything in sight. There was no fire, only a slightly charred wedge!

This response by the fire brigade was no fluke as this article from the Birkenhead News of Wednesday 9<sup>th</sup> September 1953 headed, “Firemen test dash to Royal ship”. Six machines of the Birkenhead Fire Brigade raced to Cammel Lairds shipyard on Monday after receiving a call; “fire on the Gothic, the liner which will take the Queen and Duke of Edinburgh on the Australian tour in November”. It was a test call, although the men did not know it and was part of the careful plan to ensure that every precaution is taken for the wellbeing of the Gothic. She is of 15, 902 tons and has come to Birkenhead to be fitted for the Royal cruise. Later on Monday the test was repeated.

Mr. A.R.G. Wray the Chief Officer of the brigade said that every day each oncoming watch has a fifteen-minute lecture about the liner. A diagram is used to illustrate the talk so that every fireman will have an intimate knowledge of the layout of the vessel. The test runs will continue at intervals while the Gothic is in Birkenhead.

Other vessels were also in Cammel Lairds at this time as the repair yard was very busy, included HM submarine Upstart, the tanker Badapur, the short sea trader Ousel, the dredger WD 52, and the Delta.

After leaving the dry dock, Gothic was moved to the wet basin for the final days of her refit. The wet basin was busy and contained the Ark Royal, Esso Oxford/GQNK and two new tankers, the British Crusader/GPKC and the Hemidonax/GPZW. Altogether the Gothic was in Cammel Lairds for eight weeks before sailing to the Clyde for pre tour tests. On the 13<sup>th</sup> October 1953 she left Lairds and the weather report for that day gave a moderate NW to W wind with occasional rain, some fog patches but otherwise poor or moderate visibility. The pre-tour trials proved successful, the vessel anchored off Greenock each evening and the Gothic returned to Liverpool on the 21<sup>st</sup> October to get a final “touching up” and to load some heavy cargo before sailing to London.

On direct orders from the Queen, the Gothic carried 6,300 tons of general cargo and on the 10<sup>th</sup> November 1953 she sailed from London for Kingston, Jamaica. It was here that the royal party joined the ship. After transiting the Panama Canal her ports of call included Suva, Tonga, Auckland, Wellington, Sydney, Hobart, Melbourne then some other ports and then Fremantle, Cocos Islands, Colombo then Aden. The Queen then flew from Aden to Tunisia using a BOAC Argonaut aircraft finally picking up the new Royal Yacht Britannia in Malta for the return to UK.

Portsmouth Evening News 26<sup>th</sup> Feb 1953 reported that the figure of £450,000 was set aside for charter of vessel and for adapting it and preparing it for the tour. This sum was part of the Naval Estimates. When this tour was postponed the adaptations already made were retained and in the next year's estimates, £415,000 was allocated for extra work and for chartering of the ship. The Australian government contributed £200,000 to costs of the tour while receipts from cargo was estimated to be £125,000.

The Sydney Morning Herald for Sat 28<sup>th</sup> November 1953 reported that; an AWA spokesman said yesterday that it was the first time a 7 kW transmitter had been installed in a merchant vessel. Because of limited space was available to accommodate the type of aerial needed to absorb this aerial power. Marconi designed a super-efficient aerial system. The article went on to say that for the duration the Gothic was in Australia, Amalgamated Wireless engineers would be responsible for maintenance of her radio equipment. Four Marconi Radio Officers were on board the Gothic for the tour. The Chief RO was C.H. Roberts (Charlie) who later became a senior man in Marconi Marine being the Depot Manager at Lowestoft and Newcastle. 2<sup>nd</sup> RO was A.J. Cade, The 3<sup>rd</sup> RO was M. D. J. Pilgrim (Don) became a service engineer at



2<sup>nd</sup> RO AJ Cade

Chief RO CH Roberts

3<sup>rd</sup> RO MDJ Pilgrim

Marconi's Southampton Depot. The 4<sup>th</sup> RO was D.C. Clayton. Rumour says that after the tour the surplus Marconi gear ended up in Riversdale College in Liverpool but this has not been proved.

Given that all this high-powered equipment had been installed it would be of interest to know how it performed during the tour. Fortunately, Charlie Roberts the 1<sup>st</sup> RO gave his impressions of the voyage which was published in the Marconi Mariner (Nov/Dec 1953 edition). This article is too long to reproduce in full here. Roberts starts off by noting that although ten days were spent in the Clyde for wireless trials it was on the outward voyage from London to Kingston that things “settled down”. He notes that the Worldspan with its small twin inverted “L” type aerial did, as he put it, “reach out”. This aerial was 138 feet in length and had a height of 112 feet above the waterline. Due to flag requirements, an aerial between the masts was not allowed. He noted that with ships dressed overall and when leaving or entering port it became difficult to clear traffic with no aerial.

Apart from that difficulty he states that they had no problems in clearing traffic to Portishead Radio even when well out into the Pacific Ocean. Press messages for London and Australia had strict deadlines so the Gothics ROs would communicate with the RCA stations of Chatham/WCC and San Francisco/KPH for daylight traffic. Awaru/ZLB gave them quote, “a wonderful night time service”. This was augmented by traffic through Sydney/VIS. Roberts seemed particularly keen on the All-Empire cheap Presse rate of a penny a word from any Commonwealth station to anywhere in the Commonwealth via Cable and Wireless or its equivalents.

Conditions in the wireless room could become uncomfortable when temperatures rose over the 100°. The transmitter casing became very hot, but the equipment kept working. In another paragraph he writes, “On the 5<sup>th</sup> April we were off the Cocos and VPK was never on the air so much. He was most helpful and useful, for we gave him some of our Press traffic which went direct on to the cable to Britain, a further illustration of the Commonwealth cheap press rate”. He writes that the Worldspan was often busy for hours with the Gothic and Naval traffic and notes they had no spare 500 kc/s channel.

After leaving Ceylon they were using Portishead once again with little difficulty. They did encounter some problems in not being able to keep schedules on occasion. This was due to the receiving frequencies being sequestered for official purposes. They also had occasions when the receiving station had difficulty in reading them, a change of frequency would have cured this problem, but again official traffic precluded this. Roberts is very effusive to all the coast station staff his team worked throughout the tour and he records that they gave him every help possible.

Roberts was invited to dine with the Queen on two occasions during the tour and notes that the members of his team were each given a special medallion struck for the tour for their work during the voyage.

The RN communication party consisted of:

|                                |                  |
|--------------------------------|------------------|
| Commander RRB Mackenzie MBE RN | CPO Tel V Fisher |
| L Tel Castle                   | L Tel Sanders    |
| L Tel Wright                   | Tel Campbell     |
| Tel Houldsworth                | Tel Pidgeon      |
| CYS R Bailey                   | L Sig Ashworth   |
| L Sig Green                    | L Sig Major      |
| L Sig Milligan                 | Sig Chatterton   |

The RN cypher party consisted of:

Lt Cdr NEF Dalrymple-Hamilton MBE DSC RN, 2<sup>nd</sup> Officer J Bevan, WRNS, 3<sup>rd</sup> Officer S Rigby WRNS and 3<sup>rd</sup> Officer D Wilson WRNS

The telegraphists and the signallers worked a four watch system throughout each twenty-four hour period. Some details of their experiences were published in a RN amateur radio society publication and summarised below.

Several RT contacts daily with London and Barbados. Later with Fiji, Wellington, Sydney and Melbourne. Daily radio picture transmission to any of the above stations except Fiji. There were several routine scheduled contacts with Whitehall on CW for exchange of traffic and press.

The SWB11 transmitter compartment was described as “cramped” and the set was running almost continuously under the loving hands of Mr. Corbett, the Chief Tel, and L/Tel Sanders. They transmitted over

seventy-eight pictures on the outward trip using a Muirhead “Belin” picture transmitter. The writer went on to note that when the SWB 11 was operating anything metallic in the after part of the ship is energised. He related the story about Geoff Talbot who was broadcasting from the poop deck below the aerials while the transmitter was blasting away and to his chagrin, the steel band of his headphones grew “quite hot.”

The navigational equipment on the Gothic included: Radiolocator Radar, Lodestone Direction Finder, Visagraph and Echometer.

The sound reproducing equipment (SRE) was specially designed manufactured and installed to provide broadcasts and entertainment throughout the vessel. It had three receivers, an Oceanic and two Electras and an amplifier rack assembly. It also included a double turntable gramophone and a wire-recorder for recording programs which could be rebroadcast later. Forty-eight loudspeakers were situated throughout the ship.

Given that in today’s maritime industry a ship’s radar is in operation twenty-four hours a day, a newspaper report from the Sunderland Daily Echo and Shipping Gazette of 23<sup>rd</sup> April 1954 is of interest. Approaching Aden, the watches on the Gothic were doubled as a very violent tropical thunderstorm broke over the ship. Heavy lightning with thunder started at 6 am and the torrent of rain blotted out the four escorting ships. It was reported that given the prevailing weather conditions it was considered prudent to switch on the radar!

The origins of this transmitter appear to have been from a long line of Short Wave Beam (SWB) transmitters developed by the Marconi Company in the 1920s for use by broadcasting stations around the world. A Mr. William (Bill) Barbone was the development engineer responsible for the production versions of the SWB 8 X and the SWB 11 X. He notes on a post at the Marconi Veterans website, “Also I seem to remember that the use of the Worldspan transmitter was its first operational use and there was a great deal of panic in the lab to get it fully up to performance for the Gothic”.

The SWB 8 transmitter was used by the military during the war and there is an account of 16 transmitters being located at Deal and used to jam the guidance system of V2 rockets. The SWB 11 was widely used

by the RAF during the 1950s. They were also used by the BBC for broadcasting and it is known that at least one was used by a police force for communications using SSB RT on 2626.5 kHz but restricted in power to 3.5 kW by the GPO. It appears to have been very popular and well-made as this quote by a former RAF technician shows, “The Marconi built quality was second to none.”

#### SWB11-X Brief Specification:

Use: Point to point communications. The SWB11-X provides the same functionality as its low power edition, namely the SWB-8X.

Power output: 7 kilowatts

Frequency range: 2 to 27 MHz on CW, FSK and DSB telephony

a) 2 – 22.2 MHz

b) 22.2 – 27 MHz

SSB operation

a) 4 – 22.2 MHz

b) 22.2 – 27 MHz

Frequency control: 10 crystal controlled position plus a Master Oscillator. A two valve Franklin oscillator was mounted right at the bottom of the transmitter where temperature change was minimal. 807 valves were used for the harmonic generator stage of the transmitter. Drive units HD 12 (FSK) and SSD 2 (SSB) could be fitted as required but SSB could not be used below 4 MHz.

#### Worldspan Brief Specification

Power Output: 700 watts on some bands

Frequency Range: 365 to 540 kHz and 3 to 23 MHz

Modes: CW / MCW / AM

Frequency control: Crystal Worldspan was an Oceanspan with a linear amplifier.

#### Some Gothic firsts

Most photographed MN ship in the world during the 1953/54 tour.

Only Merchant ship to be used as a Royal Yacht. Her Master Capt. David Aitchinson was given a knighthood at an investiture on board. (KCVO)

The Overseas Telecommunications Commission (OTC) was established by Australia in August 1946. It had various name changes since but now Telstra Corporation Limited. An interesting note from their website giving a brief history includes: 6 December 1953: Melbourne facsimile

section received the first-ever picture for publication from a ship at sea (the Royal Yacht Gothic en route to Fiji).

The fact that the SWB11X was the first time a land based transmitter was put on a merchant ship is a bit suspect. In January 1945 the Cunard liner SS Franconia was berthed in Liverpool docks and over a ten day period the ship's smoke room was converted into an additional wireless room. Two Marconi type SWB 88\* transmitters were installed, no mean feat as each individually weighed a ton and the hull had to be cut with oxy-acetylene torches to get them on board. The Franconia then sailed for The Crimea where she was used a communications and headquarters ship by Winston Churchill and the British delegation at the Yalta Conference.

Reference sources:

Marconi Mariners of 1953/54

Shaw Savill's Magnificent Seven, by Andrew Bell and Murray Robinson

Mr. Harry Hignett, ex Manchester pilot

Portsmouth Evening News 26<sup>th</sup> Feb 1953

Royal Standard Red Ensign by David Aitchinson

RNARS - [rnars.org.uk](http://rnars.org.uk)

Wirral Archives

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## **Important subscription information**

By now you'll have read the cover page with regards to annual subscriptions. Late payment of subscriptions causes a lot of additional work for officers of the society in keeping records up to date especially for distribution of the postal and e-mail versions of the Newsletter.

For several years, the membership officer has had to send out over one-hundred reminder letters each year to late payers, this is an additional and unnecessary expense to the RNARS.

Late payment was debated at the 2016 AGM and remitted to the committee who have decided that this year, eight weeks will be the cut off and a four-week limit will be phased in for 2018. No payment will result in no Newsletter.

**Ensure you pay your subscription before or on the first of April.**



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

### **New Members**

|                  |        |      |
|------------------|--------|------|
| Howard Felstead  | MØHJF  | 5023 |
| Ian Sweet        | M6FGP  | 5024 |
| Duncan Robertson | MMØCMV | 5025 |
| Alan Brocking    | MØHYI  | 5026 |
| Robert Goodall   | 2EØITN | 5027 |

### **Re-joiners**

|                  |        |      |
|------------------|--------|------|
| Ted Avery        | G3WBB  | 4372 |
| Bill Owens       | DF4KWO | 2243 |
| Andrew Wells     | VE3WEL | 4395 |
| Bruce Keeling    | G4EUW  | 2630 |
| Jerry Williams   | AA1XX  | 4755 |
| Bob D'imperio    | N4XAT  | 4783 |
| Simon Young      | M6SMY  | 4977 |
| Terry Stow       | GØSWS  | 3286 |
| Bert Jacobs      | ON4CBM | 4334 |
| Christi Van Elst | ON4CBI | 4637 |

### **Changes**

#### **Resigned**

|              |       |      |
|--------------|-------|------|
| Bernard Ager | M6BRZ | 4917 |
|--------------|-------|------|

#### **Silent Keys**

|                        |        |      |
|------------------------|--------|------|
| Nigel Auckland         | MØNAF  | 4911 |
| Ivor Morgan            | MØIMJ  | 1532 |
| Alfred Beer            | GØGPO  | 3230 |
| John Keeley            | GØMFB  | 3530 |
| Dafydd (Dave) Williams | G3CCO  | 4514 |
| Ken Ward               | GMØKTJ | 2738 |



Due to space constraints, the minutes of the 2016 AGM will appear in the Summer edition of the Newsletter.

## **RNARS CW Activity Contest 2017**

|             |                                                                                                                                                                                                                      |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Date & Time | 1200(Z) Saturday 18 <sup>th</sup> November - 1200(Z) Sunday 19 <sup>th</sup> November 2017                                                                                                                           |
| Bands       | 3.5 – 7 – 14 – 21 - 28 MHz                                                                                                                                                                                           |
| Exchange    | RST & Navy Number (use only one throughout the contest)                                                                                                                                                              |
| Scoring     | 10 points with each Naval station: RNARS – MF – INORC<br>MARAC – MFCA – OEMFA – YOMARC – FNARS – BMARS<br>ACRS – ROA - PNARS.<br>One point for all non-naval contacts.                                               |
| Multiplier  | Each RNARS signing member's country worked – count only once regardless the number of bands you work them on. VE, VK,W,ZL, ZS call areas plus GB2RN, GB3RN, GB4RN all count as a separate country for this activity. |
| Logs        | Separate log for each band if sent by post                                                                                                                                                                           |
| Logs to     | Mick Puttick G3LIK, 21 Sandyfield Crescent<br>Cowplain, Waterlooville, PO8 8SQ                                                                                                                                       |
| Email       | mick_g3lik@ntlworld.com                                                                                                                                                                                              |
| Logs        | Logs to be received by 31 <sup>st</sup> December 2017                                                                                                                                                                |

## **Results of the RNARS CW Contest - 2016**

| Posn | Callsign | RNARS  | QSO | Points | Multi | Total |
|------|----------|--------|-----|--------|-------|-------|
| 1    | OE4PWW   | CA135  | 47  | 290    | 5     | 1450  |
| 2    | GB4RN    | RN4    | 31  | 166    | 5     | 860   |
| 3    | G3RFH    | RN173  | 18  | 160    | 4     | 640   |
| 4    | G3ZNR    | ROA213 | 11  | 120    | 2     | 240   |
| 5    | HZ1PS    | RN1440 | 10  | 73     | 3     | 219   |
| 6    | DK7FX    | CA149  | 10  | 100    | 2     | 200   |
| 7    | OE6NFK   | RN4582 | 2   | 40     | 2     | 80    |
| 8    | PA0VLA   | RN944  | 1   | 10     | 1     | 10    |

~~~~~

Remarks

GB4RN: Some very strong European stations, but found it a struggle with the LZ contest. All stations will receive a Certificate. Do not think it is worth the effort each year with so few participants. I will try this one last year and see who participates.

G3ZNR: Only heard two RN stations for multiplier.

HZ1PS: Conditions not the best that's for sure but never mind, still had fun and as always.

PA0VLA: Spent six hours calling CQ but the only station I heard was G3RFH.

OE6NFK: It was great to activate OE in the RNARS contest.

G3RFH: I'm wondering if it is time to call it a day, with so little interest from members, it is not worth the effort.

The editor accepts no responsibility for any errors and omissions in the results or promulgated dates.



Henry (MØZAE) came up with a caption for the picture of our retiring Chairman and President taken at the AGM; *"I don't recall press-ups being this hard"*.

~~~~~

Several interesting names were put forward for the Newsletter. However, there were a number of members who held the opinion that the present simple title should remain.

So unless there's any overriding objection, what I propose to do is continue to use the title "Newsletter".

## **Characteristic curves of different parallel resonant circuits**

Dipl.-Ing. Jürgen H. Timcke, HB9ANE, RN 3493  
www.juergen-h-timcke.ch jhtimcke@gmx.ch

If we speak about a parallel resonant circuit it is mostly such one with  $L = \text{const}$  and  $C = \text{variable}$ , in general used for receiver tuning. Less used for this purpose is the design with  $L = \text{variable}$  and  $C = \text{const}$ . It is well-known and really nothing new that the increase or decrease of the value of one of these variable components, coil or variable disk capacitor, influences the frequency of resonance. But: has this also an influence on the tendencies of the characteristic curves and if “yes”, in which way? Goal of this treatise was to find an answer to this question and to investigate, additional for comparison, a parallel resonant circuit with  $L = \text{variable}$  and  $C = \text{variable}$  but with always constant frequency of resonance.

### **Introduction**

Note 1: Partially I made the following simplifications of the text and the text of the captions:

- < Parallel resonant circuit (circuits): PRC (PRCs)
- < Frequency of resonance:  $f$  (“f”)
- < Characteristic curve (curves): curve (curves)
- < PRC with  $L = \text{const}$  and  $C = \text{variable}$ : PRC 1
- < PRC with  $L = \text{variable}$  and  $C = \text{const}$ : PRC 2
- < PRC with  $L = \text{variable}$  and  $C = \text{variable}$ : PRC 3
- < HF Square Wave Signal Generator: Signal Generator
- < Grid Dip Meter: GDM

The design of the 3 investigated parallel resonant circuits and their appertaining abbreviation shows figure 1

Note 2: To show the curves of the values  $L - C - f - \Delta f_{0,7} - Q_{0,7} - L \times C$  and  $X_C - X_L - X$  in diagrams it is required to present them referred to a meaningful value which can be calculated for all PRCs and therefore used for the abscissa: this is neither  $L$  nor  $C$ , but the  $L/C$ -ratio. Consequently all curves of the before mentioned values are presented dependent on the  $L/C$ -ratio.

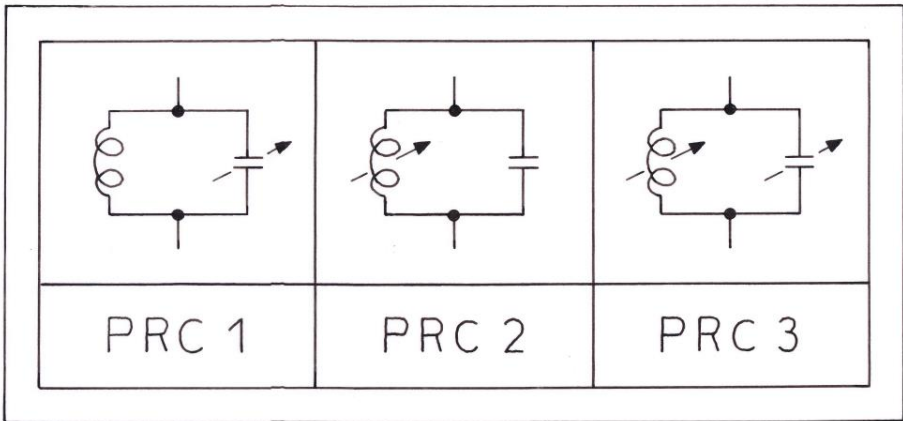


Figure 1  
Design of PRC 1, PRC 2 and PRC 3

In the diagrams presented in the following chapter „Comparison“ can be seen very clearly all the various curves of PRC 1 and PRC 2

### **Comparison**

All curves, also the calculated ones (e.g. like  $Q_{0,7}$ ), presented in the diagrams of this treatise, are based on measured data.

Figure 2 shows the curves of the mostly used PRC 1 and figure 3, for comparison, that ones of PRC 2

To avoid substantial descriptions I present the different tendencies (rising or falling) of the various curves, dependent on the L/C-ratio, summarizing, in a table, figure 4

Well, so far to the curves of the two PRCs presented in figure 2 and figure 3. Both are no new scientific findings at all for skilled radio amateurs with sufficient knowledge and experience.

Because of this the question arises: why I presented them here? The answer can be found in the chapter „Results of the investigations“.

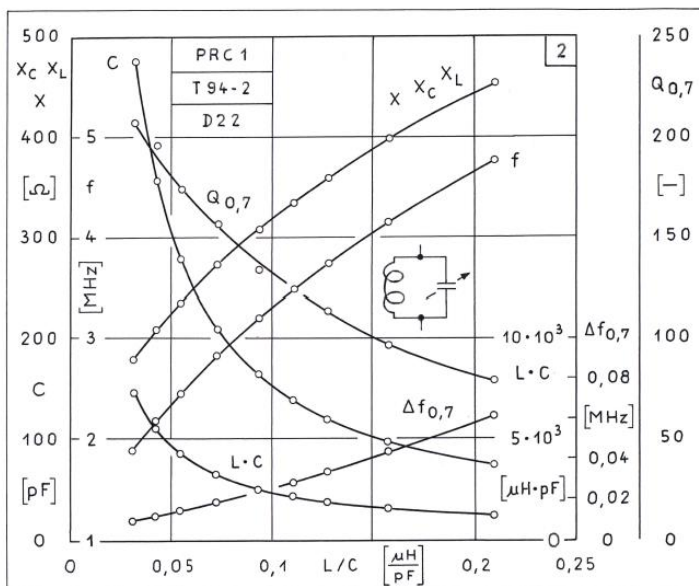


Figure 2  
Curves of PRC 1, dependent on the L/C-ratio

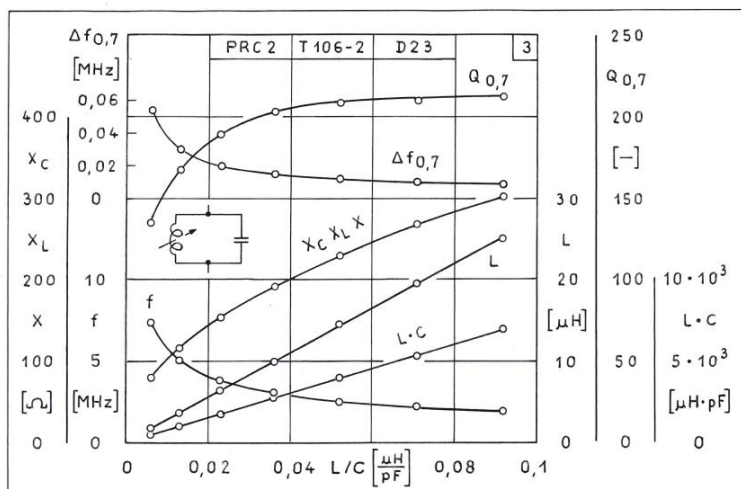


Figure 3  
Curves of PRC 2, dependent on the L/C-ratio

| 4 |                  | Parallel resonant circuit                                           |         |                           |         |
|---|------------------|---------------------------------------------------------------------|---------|---------------------------|---------|
|   |                  | Figure 2: PRC 1                                                     |         | Figure 3: PRC 2           |         |
|   |                  | L = const<br>C = variable                                           |         | L = variable<br>C = const |         |
|   |                  | Tendency of the characteristic curves<br>dependent on the L/C-ratio |         |                           |         |
|   |                  | rising                                                              | falling | rising                    | falling |
| 1 | f                | x                                                                   | –       | –                         | x       |
| 2 | $\Delta f_{0,7}$ | x                                                                   | –       | –                         | x       |
| 3 | $Q_{0,7}$        | –                                                                   | x       | x                         | –       |
| 4 | L                | –                                                                   |         | x                         | –       |
| 5 | C                | –                                                                   | x       | –                         |         |
| 6 | L x C            | –                                                                   | x       | x                         | –       |
| 7 | $X_C$            | x                                                                   | –       | x                         | –       |
| 8 | $X_L$            | x                                                                   | –       | x                         | –       |
| 9 | X                | x                                                                   | –       | x                         | –       |

Figure 4  
Tendencies of the curves of PRC 1 and PRC 2,  
dependent on the L/C-ratio

### The difference between theory and practice

The Thomson equation shows that the product  $L \times C$  is the key-value which determines for a resonant circuit the frequency of resonance. Two extreme cases are e.g. possible:  $L = 1 \text{ } [\mu\text{H}]$  and  $C_{\text{max}} \text{ } [\text{pF}]$  or  $C = 1 \text{ } [\text{pF}]$  and  $L_{\text{max}} \text{ } [\mu\text{H}]$ . In both cases the maximum value for C and L can be, theoretically, any value between 1 and xxx.

### Example 1

|            |              |                   |                 |                     |
|------------|--------------|-------------------|-----------------|---------------------|
| L = 1 [μH] | C = 500 [pF] | LxC = 500 [μHxpF] | f = 7,118 [MHz] | L/C = 0,002 [μH/pF] |
|------------|--------------|-------------------|-----------------|---------------------|

### Example 2

|              |            |                   |                 |                   |
|--------------|------------|-------------------|-----------------|-------------------|
| L = 500 [μH] | C = 1 [pF] | LxC = 500 [μHxpF] | f = 7,118 [MHz] | L/C = 500 [μH/pF] |
|--------------|------------|-------------------|-----------------|-------------------|

Of course such a PRC one can calculate, but it does not work in practice.

Why did I present these two examples which are nothing new for the reader? The reason is: I was interested to build and investigate a PRC like such one: at the starting point of the measurements a very low capacity and a coil with the maximum possible inductivity. This I could realize with an available ring core, size T130-2: maximum 78 windings of enamelled copper wire of  $d = 0,6$  [mm], winding close to winding, were possible, covering an angle of contact of  $\varphi \approx 300$  [°].

### Another kind of a PRC: PRC 3

The goal of these investigations was to find out the tendencies of the curves of the values, mentioned before in the chapter „Introduction“, Note 2, of a PRC 3 at always constant frequency of resonance.

The available variable disk capacitor has a minimum capacity of  $C = 15,7$  [pF] and the built ring core coil a maximum inductivity of  $L = 67,2$  [μH] which leads to a calculated frequency of resonance of  $f = 4,900$  [MHz] and, to mention it already here, a measured frequency of resonance of  $f = 4,010$  [MHz] (f - difference: influence of the additional wiring capacity!).

The procedure of the various measurements was:

- ⇒ Starting with  $L_{\max}$  and the variable disk capacitor on its position  $C_{\min}$
- ⇒ Reduction step by step the inductivity and increase the capacity so far until the frequency of resonance was the same as at the starting point.



How one can reduce the inductivity of ring core coils? This can be read in my article „Study on ring core coils“ (RNARS Newsletter, Summer 2009, pages 12/30).

### **Ring core coil with different inductivity taps**

Several series of measurements were carried out with always changing (but repeatable!) inductivities. Therefore the decrease of the inductivity by means of reduction of the number of windings had to be ruled out (otherwise more ring core coils had been needed!).

I realized the following solution: 15 short pieces of stranded wire (of different colours) were soldered on the windings of the ring core coil, always with the same distance (number of windings) between these taps, see figure 5

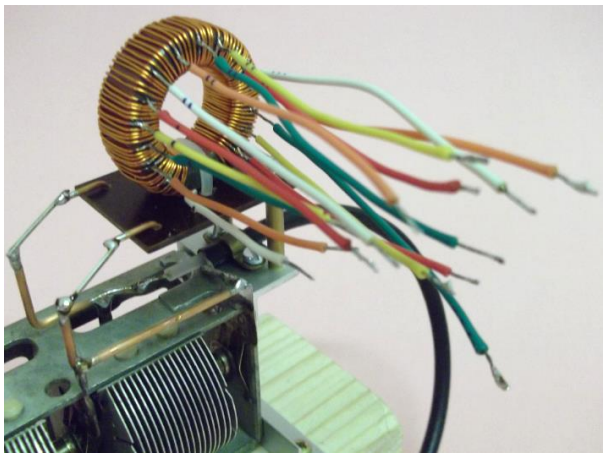


Figure 5

PRC 3 with the soldered on short pieces of stranded wire to tap the different inductivities

These short stranded wires were, step by step, connected with the variable disk capacitor. A very simple manner to reduce the inductivity and, not only very important, but a MUST for these kind of measurements: repeatable without any L -difference at the different taps! This was confirmed with several L-checks before starting the series of measurements.

I started the first measurements (still to see in figure 5) with 15 taps at the ring core coil, but the results showed that 6 (with larger distances between) are sufficient for the determination of the tendencies of the curves of PRC 3

## Measurements

The value of „f“ at the starting point of the measurements (PRC 3 with  $C_{\min}$  and  $L_{\max}$ ),  $f = 4,010$  [MHz], was on the one hand determined by means of my home-brewed „HF Square Wave Signal Generator“ (see my article in the RNARS Newsletter, Summer 2008, pages 9/23), and the oscilloscope (Votcraft 632 FG) on the other hand to indicate the highest voltage-value, that means confirmation of the frequency of resonance which showed the mentioned Signal Generator.

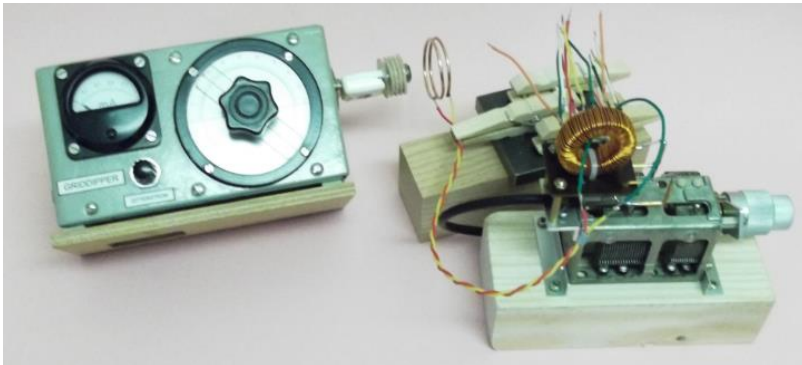


Figure 6  
Comparison-check of the frequency of resonance with the Grid Dip Meter, using a link coupling to the ring core coil of the PRC 3

PRC 3 was always connected to the oscilloscope by means of a probe „100:1“.

The application of the oscilloscope was also for that reason required to determine exactly the higher and lower frequency at 3dB voltage drop of „f“ (indicated at the Signal Generator) to calculate with this data  $\Delta f_{0,7}$  and with them the quality factor as known:  $Q_{0,7} = f / \Delta f_{0,7}$

Partially were made comparison-checks (to avoid any kind of errors of measurement) during the various measurements of the frequencies of resonance indicated at the Signal Generator. These were carried out with my precision Grid Dip Meter, for which I have exact calibration curves for each of its coils, that means frequency ranges. For the transmission of the high frequency from the GDM to the ring core coil of PRC 3 a link coupling were used, see figure 6



Figure 7  
Measuring set-up for GDM-measurements

The measuring set-up for GDM-measurements can be seen in figure 7

The component analyser, atlas LCR 40, next to PRC 3, is connected to the ring core coil to measure the inductivity. It was also used for C-measurements on the variable disk capacitor.

## Results of the investigations

Figure 8 shows the curves of PRC 3, like those in figure 2 and figure 3 they are presented dependent on the L/C-ratio.

To avoid also for these results a substantial description I marked the different kinds of the tendencies (rising, falling, constant) of the various curves, summarizing, again in a table, figure 9, which is an extension of figure 4

The symbol „cross with circle“ indicates of which of the 3 investigated PRCs the tendencies of the curves are similar. For the comparison are of interest only the values  $\Delta f_{0,7}$  and  $Q_{0,7}$  which are important to judge the high-frequency-technical behaviour of these different PRCs.

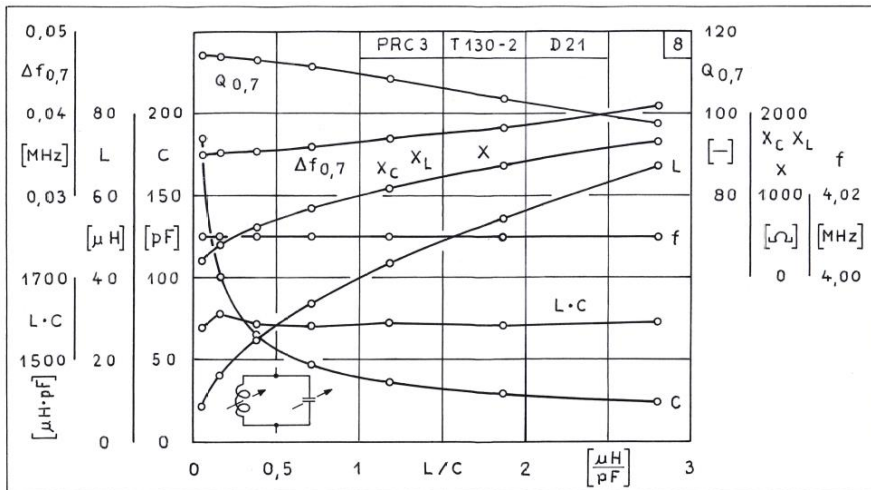


Figure 8  
Curves of PRC 3, dependent on the L/C-ratio

| 9 |                  | Parallel resonant circuit                                        |         |                           |         |                              |         |          |
|---|------------------|------------------------------------------------------------------|---------|---------------------------|---------|------------------------------|---------|----------|
|   |                  | Figure 2: PRC 1                                                  |         | Figure 3: PRC 2           |         | Figure 8: PRC 3              |         |          |
|   |                  | L = const<br>C = variable                                        |         | L = variable<br>C = const |         | L = variable<br>C = variable |         |          |
|   |                  | Tendency of the characteristic curves dependent on the L/C-ratio |         |                           |         |                              |         |          |
|   |                  | rising                                                           | falling | rising                    | falling | rising                       | falling | constant |
| 1 | f                | x                                                                | –       | –                         | x       | –                            | –       | x        |
| 2 | $\Delta f_{0,7}$ | ⊗                                                                | –       | –                         | x       | ⊗                            | –       | –        |
| 3 | $Q_{0,7}$        | –                                                                | ⊗       | x                         | –       | –                            | ⊗       | –        |
| 4 | L                | –                                                                |         | x                         | –       | x                            | –       | –        |
| 5 | C                | –                                                                | x       | –                         |         | –                            | x       | –        |
| 6 | L x C            | –                                                                | x       | x                         | –       | –                            | –       | x        |
| 7 | $X_C$            | x                                                                | –       | x                         | –       | x                            | –       | –        |
| 8 | $X_L$            | x                                                                | –       | x                         | –       | x                            | –       | –        |
| 9 | X                | x                                                                | –       | x                         | –       | x                            | –       | –        |

Figure 9

Tendencies of the curves, dependent on the L/C-ratio

Symbol „cross with circle“: similarity of the tendencies

In figure 10 can be seen that the tendencies of the curves of  $\Delta f_{0,7}$  and  $Q_{0,7}$  of PRC 3 are analogous to those of PRC 1

The ascending slopes ( $\Delta f_{0,7}$ ) as well as the descending slopes ( $Q_{0,7}$ ) of these curves seem to be very different. However, the reason is that they are both referred to the same numerical values at the Y-axes!

A surprising result? No, in no way! And why not?

For each tap of L at PRC 3 the appertaining C has to be adjusted to reach always a clearly defined frequency, in this case  $f = 4,010$  [MHz], and because of that, expressed into other words: the high-frequency-

technical behaviour of PRC 3 and PRC 1 is very similar concerning these two important values!

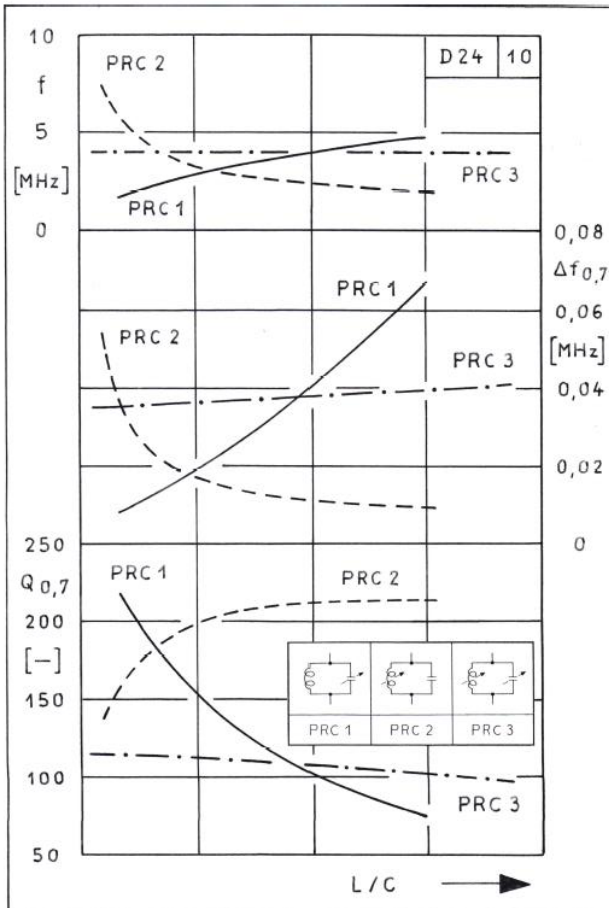


Figure 10  
 $f$ ,  $\Delta f_{0,7}$  and  $Q_{0,7}$  of  
 the  
 3 PRCs,  
 dependent  
 on the  $L/C$ -ratio  
 (the  $L/C$ -ratio  
 without  
 numerical values,  
 but  
 with an arrow to  
 indicate the  
 tendency  
 of the increase)

The question now arises: what is the reason of this similar behaviour? It can be explained as follows:

To reach with PRC 1 a certain frequency at  $L = \text{const}$  (which corresponds e.g. to some tap at the ring core coil with  $L = \text{const}$  of PRC 3) the required

C has to be adjusted in the same way as at PRC 3: with the variable disk capacitor, this means that the adjustment procedures are identically.

In figure 10 another very interesting fact in connection with  $Q_{0,7}$  of PRC 1 can be seen: with increase of the L/C-ratio the tendency of the  $Q_{0,7}$  - curve of PRC1 is falling and that one of PRC 2 is rising. With reference to these curves the statement: „The higher the L/C-ratio the higher Q“ (quotation from [3]) can be understood only in this sense that it is valid only for PRCs according to PRC 2: with L = variable and C = constant.

## **Bibliography**

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- 4 Helmut Pitsch Lehrbuch der Funkempfangstechnik, Band 1, 3. Auflage 1959. Akademische Verlagsgesellschaft Geest & Portig K.-G., Leipzig
- 5 Jürgen H. Timcke (HB9ANE) Study on ring core coils (Collection of measurements data)

Drawing, diagrams, table-drafts and photography: Author

Tables: Carmen Aschinger,

Layout: Author (Draft), Rolf Rüttimann

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HMS Belfast

The London Group committee apologise for the delay, but arrangements have now been confirmed for the 2017 Easter activity week, which starts on Monday, 17th April, through to Sunday, 23rd April.

3C mess will be available for those wishing to stay on board. Members wishing to do so should use the online booking form available in the "Members' Only" area of the **www.gb2rn.org.uk** website. The 2017 London Group AGM takes place on board HMS Belfast on Friday, 21st April at 1100hrs. All RNARS members are invited to attend.

Marc Litchman G0TOC

A Fishing Trip; or life in a brown suit with cod head soup

In 1959 when I joined the RN and signed up for the Communications branch there were three specialisations, general, tactical and electronic warfare. I chose electronic warfare as it sounded more interesting and exciting. I received basic communications training in HMS Mercury including learning to receive and touch type Morse using a 'blind' keyboard with the characters on the keys covered up. This was followed by some specialist EW training in the North Camp where I learned to use the FH4 HF DF equipment which had been developed towards the end of WW II and which had been particularly successful against U-Boats. I also learned to operate the UA3/4 a broadband receiver which operated in the S, C and X bands and which could give a reasonable bearing on any radar that was picked up by the set of 'horn' aerials on the mainmast.

On completion of basic training I was drafted to HMS Hermes (R12) for its first commission. The electronic warfare staff on Hermes consisted of a killick and three junior rates. Our office was the third wireless office as the electronic warfare office (EWO) on most ships was known. The killick was a Coder(S) who had trained as a Russian linguist and who had signed on after completion of his National Service. He told me about the signals intelligence sub-specialisation whose members moved in and out of electronic warfare and who were taught different languages and learned the elements of signals intelligence and traffic analysis.

Next, I was drafted to The Derry Squadron, to HMS Falmouth (F113) an anti-submarine frigate which was still on its first commission and which had been almost split in two when it was hit midships by an RFA while working up in Portland. During my time on Falmouth I volunteered for the signals intelligence sub-specialisation and sometime later I was drafted to RAF Tangmere near Chichester.

RAF Tangmere was the home of the Joint Services Language School and of the separate RN Language School. The rate of attrition in the training was quite high - twelve of us started on the course, two of us completed it. I had six months of intensive language training in Russian followed by a period of consolidation in RAF Gatow in Berlin where I was attached to the Army Intelligence Corps and where I was obliged to wear Army

battle-dress. The reason given at the time was that my colleague and I would be too prominent and visible in our bell bottoms and white hats. This was at the height of the Cold War.

This was followed by two years in submarines; 'O' boats, doing 'sneakies up north' as they were known.

I was then invited to go on a fishing trip. At this time there were many Russian trawlers around the coast of the UK which were festooned with a variety of aerials, often 'trawling' in areas of naval activity and whose purpose in UK waters was fairly obvious. The Admiralty decided to fund a regular fishing trip by a trawler and guaranteed them a minimum value of catch. If the trawler caught less the Admiralty would fund the difference but if they caught more then it would not cost them anything. The trawler chosen was Arctic Galliard, a Hull trawler belonging to the Boyd Line.



A colleague and I from Tangmere went to London to meet the organiser of the trip; Commander Brooks.



Arctic Galliard

We were told to wait under the clock outside the Army and Navy store in Victoria where we would be met and taken to the meeting. We were briefed on what we would be doing and told when we would be sailing.

Prior to this I knew little if anything about customs and practices on trawlers. I learned that irrespective of how long they were away at sea they would only be back in Hull for five tides. I learned that every

member of the crew was paid on a results system, no catch, no pay. The proportion of the value of the catch that each person got, from the skipper to the deckie-learner was laid down. I found out that one of the subsidiary jobs of the Radio Officer was to boil the cod livers to extract the cod liver oil. Every member of the crew was entitled to send a certain number of telegrams home each week and surprisingly they were able to send them in code. Each member of the crew had their own code book.

On the journey to the White Sea the nets were cast off the Lofoten Islands to catch fish for the galley. That was the year I celebrated my birthday with cod head soup.

Once we sailed round the North Cape and passed Murmansk the trawl was put out and we sailed up and down the coast. My colleague and I had installed our listening and recording gear in the Radio Office and we got on with what we had to do while fishing went on all around us. We were not the only trawler in the vicinity. This all took place in June and being so far north we had almost permanent daylight. According to the skipper, the catches were pretty good, mostly flatfish. At one point when we were outside the 12-mile limit a Russian Naval patrol boat started to come close so my colleague and I prepared to dump all our equipment overboard in the event we were boarded. Our small group would have had a hard time explaining what we were doing on the trawler and the owners and crew would not have been happy either as there was a strong likelihood the trawler, its crew and their catch would have been impounded.

The rest of our trip was pretty uneventful. We returned to Hull, removed all our equipment and headed back to Tangmere. The Admiralty had guaranteed a minimum value of catch of £14,000 (that's around £250,000 at today's prices). Because the ship arrived back when no other trawler had landed any flatfish for a few days the catch was sold for £16,000 so the Admiralty did not have to subsidise the trip in any way and got what was in effect a free ride.

All in all, a very interesting and informative fishing trip and from the crew's point of view quite a profitable one too.

Joe G3ZDF

CQ DE HM Submarine Otus

An article recently appeared in “The News”, published in Portsmouth.

The article by Tim King a retired defence correspondent concerned a former RN submarine he stumbled upon whilst on holiday in Germany.



HMS Otus was rescued from a UK breakers yard and is now a museum vessel in Sassnitz on the island of Rugen in Germany.

During the Tim King’s visit, Mario (DJ8NU MF 1054) and Rudiger (DL3RHN MF 1056) were operating a temporary amateur station. Both are keen to contact former crew members of HMS Otus especially those who hold amateur licences.

Mario (DJ8NU) intends to support the 2017 international museum ships on the air event from Otus between 20th and 21st May. RNARS members interested in visiting and helping to operate are asked to contact Mario who may also be able to help arrange basic accommodation.

Mario Kricheldorf
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Neubrandenburg, Germany
E-mail: mkdj8nu@gmail.com
Tel: +49 395 5683 258

I’ve since discovered that at least one RNARS member served aboard Otus; our General Secretary Joe Kirk.

Me In My Shack

Not a picture of members in their shack, but three RNARS members and two of their friends in a branch Weatherspoons in Guzz where they meet up once a fortnight for a “Last of the Summer Wine” gathering to swing the lamp.



Left to right: Alan G4BLY - Ralph G4ALY 2154 - Paul G3VCN 327
Trevor G3ZYY 436 - Fred G3YJQ



And for good measure Steve Small sent in a couple of pictures of himself, see Steve's letter on page forty.

If you have a facial picture of yourself, preferably in your shack, please send it in, it helps others put a face to voice or CW note.

Nigel Auckland - MØNAF

Nigel MØNAF (who passed away on the 27th November 2016) was a dedicated and hardworking member of the RNARS.

Nigel was a great believer that it is what you put into a club not what you take out; he religiously followed this principle from the day he enrolled into the society.

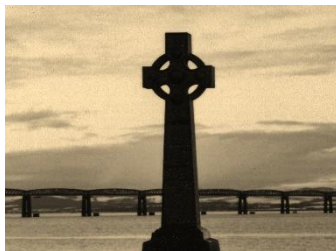
Nigel joined the RNARS on the 11th February 2012. He was introduced into the fold at HMS Collingwood by two RNARS members who had overheard a remark made that he would like to be involved in communications. On being introduced to the shack and its members, together with being briefed on how to obtain a licence, he immediately signed up and became a regular visitor. He was determined to obtain his full licence within a year but due to examination dates it took 13 months.

Having now obtained his full licence, and being fully familiar with all the equipment, he was made a key holder and spent many hours operating GB3RN and partaking in all the activities arranged by the HQ team. He also became very involved in the training of others taking their Foundation licence.

He became a committee member and took over the duties of Shack Manager which he undertook with great enthusiasm. He was responsible for much of the work carried out to modernise the shack as well as being very involved with setting up the D Star repeater.

He will be greatly missed and remembered with much affection. RIP Nigel.

Doug Hotchkiss



Rally Reports

Kempton Park Rally November 2016

The number of service organisations represented at Kempton Park Rally is getting less and less. This time we were the only ones present. We had a pitch nearly as far from the entrance as was possible but we were on the route to the Caterham bring and buy stall which seemed to attract quite a lot of traffic. We had a page and half of sign ins; not all current members it has to be said but then it is a Visitor's Book. One new member was signed up; Ian 2E0DUE, ex FAA CREA and some application forms were handed out. The stand was manned by Phil G1LKJ and myself G3ZDF.



Left to right: G3ZDF - G3NIR - GØEHO - G4CJY

At 11.30 we observed the tradition of “Up Spirits”. The picture shows some of those who happened to be around the stand at this time. The rally was just the usual stands with the exception of Martin Lynch but then their main showroom is not too far away so they probably feel it is not worth their while attending. Of the major manufacturers Icom were there but neither Yaesu nor Kenwood turned up. There was one stand that was showing an interesting board that could be used for a DMR or DStar hotspot using a Raspberry Pi. I contacted Colin G4EML about the module he had on display and here's what he said.

I was the one displaying the systems with Denis on Sunday. Our main purpose was to promote the use of DMR as we are both involved with the UK DMR Phoenix network. www.opendmr.co.uk

The two systems I had on display were examples of the Multi Mode Digital Voice Modem (MMDVM) project which is the brainchild of Jonathan Naylor G4KLX. This is an open sourced project to build a modem which will handle DMR, DStar, Fusion and P25 digital modes and will allow you to build a repeater or a hotspot using a normal FM radio. The cost of doing this is much less than purchasing a commercial repeater and so we see this as a way to encourage the growth of the network. I have no connection with the development of this project apart from being a close follower and occasional contributor since the early days.

The MMDVM system uses two easily available boards to run the software, an Arduino Due for the Modem and a Raspberry Pi to control it and provide the internet connection. The only part that is not standard is a small interface board which plugs into the Arduino and connects to the radio. I have made boards for my own use and for a few friends and I have a couple left over; that was the part I was offering for sale for £25 at Kempton.

The MMDVM software project itself can be found on Github and it also has a Yahoo group which has a lot of discussions and information. In fact the group is so active that it can be quite confusing to a newcomer. MMDVM is still in development and things are changing fast so there is not yet a simple description of how to get it all going.

*Basically it is as follows: Raspberri Pi running MMDVMHost Software ---
> Arduino Due running MMDVM Modem Code ---> Interface board --->
Two FM radios for a repeater or one radio for a Simplex Hotspot. You can then access the Repeater or Hotspot using your normal DMR or Dstar or Fusion or P25 radio. The Raspberry Pi links to the internet to provide connection to the various networks.*

Joe G3ZDF

Coulsdon Amateur Transmitting Society (CATS)

I attended the Coulsdon Rally near Croydon in South London; it's a new venue not far from Caterham on the Hill. A lovely location and chalk and cheese with regards to where they used to be in a Scout Hut.

Only four members signed in; myself, Fred G3ZJY, Doug G0LUH, and Alan 2E0VAV. We had visitors to our table; Kevin G0PEK and his daughter Lauren M6HLR, who have featured in Radcom due to their SOTA activators.

Phil G1LKJ 2954

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## **Letters to the Editor**

Dear Editor;

I wonder if any members would be able to shed any light on what ever happened to CRS Terry Foxton, CRS Dave Driscoll and FCCY Paul Kitchen, all of them were influential in my service as a communicator.

My memory was stirred whilst reading through the Communicator magazines that can be found on the RNARS website. I served with CRS's Foxton and Driscoll on HMS Hermione during the second commission (1971 – 1975) and FCCY Kitchen whilst on FO Medway Staff (1975-76).

I can be contacted by e-mail: [steveg4hje@blueyonder.co.uk](mailto:steveg4hje@blueyonder.co.uk)

*Steve Small G4HJE*

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Dear Editor;

Following SM's letter about RNARS nets in the last issue, can you allow me to throw in my two-pennyworth please?

When calling "CQ navy" or "CQ RN" to start a net, there may be many SWL's and operators who are not members listening in, who think that the net has official sanction from the RN. Therefore, deviations from the standard list of licence approved phonetics not only reflects upon the operator concerned, but the society and the RN. I cannot understand why some amateur operators feel the need to deviate and use un-official phonetics when there is a perfectly good system to use.

I repeat. poor operational practices reflect upon the operator, RNARS and the Royal Navy. Like SM, I'm off to find some protective headwear.

*HR*



## **QRT – Closing Down**

As always, I'll kick off with my grateful thanks to all contributors. Without members sitting down and composing a few lines there wouldn't be a Newsletter. A few lines about life in a blue suit or a radio related item all helps to fill the pages; please don't leave it to a few regulars. Joe Kirk's training and clandestine meeting outside the Army and Navy store, life in a brown suit and a fishing trip made an interesting article. I wonder if there's a renegade KGB officer still looking for Joe?

Items are best sent via e-mail, on disc or a USB stick. Photographs can be sent by e-mail or the postal system for me to scan and return. Several short items makes for a more varied Newsletter, so give it a go and don't worry about the spelling and grammar, I can sort that out. I'm sure many of you will have a wee story to tell about service life or a small mod you've made to an item of equipment. Or a picture of yourself in your shack, remember to face the camera please, I could fill the Newsletter with many shots of the back of a non-descript head thumping away on a key or talking into a microphone. But please do not send in items as PDF's. PDF are normally set out in A4 size and very difficult to copy from and into A5.

Since the AGM Marc Litchman has taken over from Wally Walker as Membership Officer. Please help Marc keep the records up to date by letting him know of any changes to your postal address or callsign. Marc's contact details are on page two if you need to get a hold of him. Please help Marc to keep the database up to date.

Time to sign off this edition and start work on the Summer issue. Incidentally, I'm in mourning just now; my pet mouse Elvis died yesterday; he was caught in a trap.

*Colin*

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**When using the above e-mail address, only put RNARS in the subject.** Anything other than RNARS or additions to RNARS results in your mail being automatically deleted, this is to prevent infected e-mails from hacked e-mail accounts.

## RNARS Nets

All frequencies +/- QRM. DX nets are GMT; UK nets are GMT or BST as appropriate. The list is compiled by Mick Puttick G3LIK  
mick\_g3lik@ntlworld.com – 02392255880.

| UK      | Time Local | Frequ         | Net                  | Control                     |
|---------|------------|---------------|----------------------|-----------------------------|
| Daily   | 2359-0400  | 145.727       | Midnight Nutters     | Vacant                      |
| Sun     | 0800       | 3.667         | News 0830            | G3LIK                       |
|         | 1000       | 7.065         | Northern Net         | GM4VUG                      |
|         | 1100       | 145.4         | Cornish Net          | GØGRY                       |
|         | 1100       | 7.02          | CW Net               | G4TNI                       |
| Mon-Sat | 1030       | 7.065 / 3.743 | Bubbly Rats          | GØGBI GØOKA<br>GDØSFI MØZAE |
| Mon     | 1400       | 3.575 / 7.02  | QRS CW               | GØVCV                       |
|         | 1900       | 7.088 / 3.743 | North West-News 2000 | GØGBI                       |
| Tue     | 1900       | 7.028 / 3.528 | CW Net               | G3RFH                       |
| Wed     | 1400       | 3.74 / 7.088  | White Rose           | G4KGT                       |
|         | 1930       | 3.743         | SSB News 2000        | GØOAK                       |
|         | 2000       | 145.4         | Stand Easy           | Vacant                      |
| Thur    | 1900       | 3.542         | Scottish CW          | Vacant                      |
|         | 2000 GMT   | 1.835         | Top Band CW          | GØCHV G4KJD                 |
| Fri     | 1600       | 10.118        | CW                   | SM4AHM                      |
| Sat     | 0800       | 3.74/7.088    | GØDLH Memorial Net   | GØVIX                       |
| DX      | Time GMT   | Frequ         | Net                  | Control                     |
| Sun     | 0800       | 7.015/30555   | MARAC CW             | PA3EBA/PI4MRC               |
|         | 1430       | 21.41/28.94   | RNARS DX             | WA1HMW                      |
|         | 1800       | Echolink      | Echolink             | VE3OZN / K8BBT              |
|         | 1900       | 14.33         | N American           | WA1HMW                      |
| Mon     | 0930       | 3.615         | VK SSB               | VK1RAN/VK2RAN               |
| Wed     | 0118-0618  | 7.02          | VKCW                 | VK4RAN                      |
|         | 0148-0648  | 10.118        | VK CW                | VK4RAN                      |
|         | 0800       | 3.62          | ZL SSB               | ZL1BSA                      |
|         | 0930       | 7.02          | VK SSB               | VK5RAN                      |
|         | 0945       | 7.09          | VK SSB               | VK1RAN/VK2RAN               |
| Thur    | 1430       | 21.41         | RNARS DX             | WA1HMW                      |
| Sat     | 0400       | 7.09          | VK SSB               | VK2CCV                      |
|         | 1330       | 7.02          | VK CW                | VK2CCV                      |
|         | 1400       | 7.09          | VK SSB               | VK2CCV                      |
|         | 1430       | 21.41         | RNARS DX             | WA1HMW                      |

### RNARS activity frequencies

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

## RNARS Commodities

| <b>Item</b>                                                                                                                 | <b>Price</b>           |
|-----------------------------------------------------------------------------------------------------------------------------|------------------------|
| <b>Body Warmer</b> , embroidered with the new RNARS logo, your name and callsign.<br>Colour: Black only<br>Sizes: S to XXXL | £30-00<br>P&P<br>£3-00 |
| <b>Polo shirt</b> , embroidered with new RNARS logo, your name and callsign.<br>Colour: Navy only<br>Sizes: S to XXXL       | £16-00<br>P&P<br>£3-00 |
| <b>Sweatshirt</b> , embroidered with the new RNARS logo, your name and callsign.<br>Colour: Navy only<br>Sizes: S to XXXL   | £16.00<br>P&P<br>£3-00 |
| <b>Fleece jacket</b> , embroidered with new RNARS logo, your name and callsign<br>Colour: Navy only<br>Sizes: S to XXXL     | £21-00<br>P&P<br>£3-00 |
| <b>Gold blazer badge</b> with<br><b>new RNARS logo</b>                                                                      | £10-00<br>P&P<br>£2-00 |
| <b>Lapel badge</b> with <b>new RNARS logo</b>                                                                               | £2-00<br>P&P<br>£1-00  |
| RNARS Tie with <b>old logo</b>                                                                                              | £4-00<br>P&P<br>£2-00  |
| RNARS Log Book                                                                                                              | £4-00<br>P&P<br>£2-00  |

Size in inches:

Small 36-38

Extra Large 42-44

4 Extra Large 48-50

Medium 38-40

2 Extra Large 44-46

Large 40-42

3 Extra Large 46-48



**RNARS Commodities Order Form**  
**PLEASE write clearly and use block CAPITALS**  
**Photocopies of this form are accepted**

Call-sign | RNARS No: \_\_\_\_\_ | \_\_\_\_\_  
 Name: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 \_\_\_\_\_  
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 Telephone: \_\_\_\_\_  
 \_\_\_\_\_

Advisable to check before ordering as to availability in your size.

| Item Description                                                    | Size | Colour | Qty | Price | P&P | Sub Total |
|---------------------------------------------------------------------|------|--------|-----|-------|-----|-----------|
|                                                                     |      |        |     |       |     |           |
|                                                                     |      |        |     |       |     |           |
|                                                                     |      |        |     |       |     |           |
|                                                                     |      |        |     |       |     |           |
|                                                                     |      |        |     |       |     |           |
| <b>Total Payment £</b>                                              |      |        |     |       |     |           |
| Enclose cheque payable to: <b>Royal Naval Amateur Radio Society</b> |      |        |     |       |     |           |

Overseas members, please add £5 to cover additional postage.

Send orders to: Doug Bowen GØMIU  
 14 Braemar Road, Gosport, PO13 0YA  
 E-mail: g0miudoug@btinternet.com

Please allow fourteen days for delivery and while these prices are correct when going to press, prices do vary and are subject to change.