



ANNUAL GENERAL MEETING

L/S Martin Longbottom, Hon. Secretary (Pro-Tem) M0EHL,
Bldg 512, HMS Collingwood, Newgate Lane, Fareham,
Hants, PO14 1AS

Notice is hereby given of the RNARS next Annual General Meeting:

Venue:

The AGM of the RNARS will take place on 10th October 2020 starting promptly at 14:00 using online facilities. The online facilities will be made available before this time ensuring that those who wish to attend can connect to the 'system' in good time.

Apologies:

To be sent to Martin Longbottom, Hon. Secretary, M0EHL, see inside front cover for contact details.

Attendance:

Members attending online must supply their name, call-sign, membership number, and address. The normal pleasantries in the morning are not possible due the ongoing circumstances beyond our control.

Voting:

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

Accommodation:

Not advisable on this occasion

Technical requirements:

With reference to the Special Notice overleaf, you will need to have access to a desktop PC or a laptop running Windows 10, a PC camera (webcam) and a microphone. In a lot of cases laptops have these devices integrated into their casings. Closer to the time a bulletin will be released informing members where to find Zoom on the internet, how to download the program and importantly, appropriate security which will allow members to join the AGM via the internet. Bear in mind this is a private meeting of the Society where only members can attend through online facilities.

PTO

AGM VENUE - SPECIAL NOTICE

THE CORONA VIRUS PANDEMIC & THE AGM

In the current environment of the government's health and safety measures calling for personal distancing and self-imposed isolation, the Committee has discussed the risks to the RNARS membership in an open meeting of the Society at the annual AGM held at HMS Collingwood.

At the Committee meeting on June 18th 2020 the Committee unanimously decided that the risks to our members during such an open meeting are too great for the vulnerable members of our Society to attend. The decision to cancel this open event and run an 'e-conferencing' facility instead has been considered and found to be a reasonable risk free environment in which to hold an AGM. As such, the alternatives broached were Skype and Zoom, both of which we know some of our members are familiar with. The Committee has tentatively opted for Zoom because it has an initial zero cost price tag, and does appear to be a more stable platform where a larger number of people can join a meeting. Further details will follow in sufficient time before the AGM.



Royal Naval Amateur Radio Society

Chairman: David Firth M0SLL

Hon. Secretary (Pro-Tem) Martin Longbottom M0EHL

Tel: 01329-717627

RNARS 2020 AGM Proxy Vote Form

I _____ being a fully paid-up corporate member of the RNARS hereby nominate the Chairman of the Society (David Firth) or

_____ to act as proxy and vote in my name at the Annual General Meeting of the Society.

1 The person nominated as proxy must also be a fully paid-up corporate member of the RNARS.

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

Member's name: _____

RNARS Nr.: _____

Callsign: _____

Date: _____

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RNARS

NEWSLETTER



Royal Naval Amateur Radio Society

Promoting amateur radio in the Royal Navy since 1960



**Amateur
Radio
Society**



Summer 2020

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Front Cover: RFA Tidespring

Tidespring was formally dedicated into the RFA in Portsmouth on 27 November 2017. She has successfully conducted sea trails and passed through Flag Officer Sea Training (FOST). The first RN warship to actually receive fuel from Tidespring was HMS Westminster on 11 June 2018 and she has subsequently been actively supporting NATO warships. Tidespring has been busy in the North Atlantic and Norwegian Sea supporting US Navy 5th Fleet destroyers in 2018. The first fuel to be passed to the carrier HMS Queen Elizabeth was on 23 June.

savetheroyalnavy.com

Back cover: Radiographic social distancing information

MEMBERSHIP MATTERS

Joe Kirk

A very warm welcome to our new members, and to re-joining members.

New Members		
Andy Craven	M7XRN	5093
Mik Carlone	IZ2FME/MM0FME/N2FME	5094
Christopher Howell	M0TXB	5095
Bob Wilkins	M7RWW	5096
Dave Chaplin	G4YBO	5097
Re-joiners		
Tony Hamilton	2E0SBS	4929
Tom Frawley	EI3ER	2234
Tony Magon	VK2IC	0548
Changes		
Cathy Lacey	From 2E0WVL to M0WVL	5089
Resigned		
Chris Douglas	GD3ZEX	2324
John Hughes	G4KGT	1364
Ken House	2W0KPH	4928
Silent Keys		
Robin Woodbridge	M0GMI	4902
Nina Webster	GM4RXW	2254
Marc Litchman	G0TOC	4876
Ron Hamstead	G4RTH	2011

Congratulations to M0WVL - Cathy Lacey on receiving her Full Licence

RNARS Officers & Committee

Patron: Admiral Sir Philip Jones KCB		
President: Commodore Paul Sutermeister DL RN		
Chairman	*David Firth, M0SLL	chair-RNARS@mail.com 02392 553744
Hon Vice Pres' & Net Lists	Mick Puttick G3LIK 21 Sandyfield Crescent, Cowplain PO8 8SQ	mick_g3lik@ntlworld.com 02392 255880
Treasurer	Adrian Mori 2EØJVM 33 Valerian Road, Southampton SO30 0GR	Ade.mori64@gmail.com
Gen Sec.	VACANT	
Membership Secy & website	Joe Kirk G3ZDF 111 Stockbridge Road Chichester PO19 8QR	G3ZDF@btinternet.com
Committee	Doug Bowen, Wally Walker, Kevin Lamb, Steve Legg, Martin Longbottom, Bob New, Mike Moore	
Ex-Officio	WO1 Daz' Holmes	HMS Collingwood
RNARS Managers		
Newsletter Editor	Chairman*	
Commodities & Postal NL	Mike Moore 63 Homewater House, Hulbert Road, Waterlooville, HANTS PO77JY	Charlie24374@yahoo.com
HQ Shack Manager	Steve Legg M6WVV. Asst. Alan Campbell M6LFM	
Awards	Ian Pitkin G4KJD Clover Cottage, Kenny Ashill, TA19 9NH	thecloverpress@yahoo.com
Call list	Sid Will GM4SID 53 Bishop Forbes Crs, Aberdeen, AB21 0TW	gm4sid@outlook.com
RNARS Overseas Representatives		
Australia	VACANT	
Canada	VACANT	
USA	Mike Rioux W1USN	
QSL Managers		
UK	VACANT	
Australia	VACANT	
Germany	MF Runde DLØMF	
New Zealand	Nigel Hardy ZL2TX, PO Box 15078, Otaki Railway, Otaki, 5542, N Z	
QSL Card Print	UX5UO – Website: www.QRZ.com	

SUBSCRIPTIONS INFORMATION

Special Notice Regarding Your Subscription

Those members who use automatic banking facilities with dates other than 31st of March or April 1st, please contact your bank to change the date of your subscription payment. In this way you are helping to reduce the workload on our Membership Secretary and Treasurer. Thank you.

Subscriptions:

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

Overseas members: Subscriptions via PayPal is preferred, see above for details.

Newsletter by e-mail: If you receive email Newsletters your annual subs are reduced to £5. Contact the Membership Secretary for details.

The society banks with Lloyds 272 London Road, Waterloo, PO7 7HN.

Sort code: 30 99 20 - Account number: 00022643 -

IBAN: GB92 LOYD 3099 2000 0226 43 & BIC: LOYDGB21271.

GDPR: Your details will be held on the society's database by the Membership Secretary. The committee requires your permission with regards to the release of your personal information held on the database to be used only by the Society.

The RNARS is grateful to Phil MØVSE and Wayne G6NGV Taylor of **Shine Systems** for hosting our web site free of charge: www.rnars.org.uk

RNARS-Newsletter - THE Royal Naval Amateur Radio Society's MEMBER'S JOURNAL

Editorial: David Firth, M0SLL

Distribution: Doug Bowen, G0MIU, Joe Kirk, G3ZDF

Proof readers: Doug Bowen, G3TUI, Joe Kirk, G3ZDF, Mike Moore, M6POY

Envelope Stuffers: HQ Shack members

All contributions to RNARS-Newsletter should be emailed to M0SLL@mail.com or alternatively to chair-RNARS@mail.com. All material is subject to editing.

RNARS-Newsletter is published by the Royal Naval Amateur Radio Society as its official journal to all members of the Society. The expression of views within this newsletter do not necessarily represent the views of the RNARS. The RNARS is affiliated to the RSGB.

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CHAIRMAN'S CHAT



David Firth
M0SLL@mail.com

Phoning around it is becoming obvious that many of us have to go out for brief excursions, because there are vital chores to be done. Whether it be shopping for the necessities of life, prescriptions to gather in, caring for others, and the making of alternative plans for existence until we get the all clear from our government telling us that this brutal pandemic is over. All public shows and rallies have been cancelled (as if we didn't know that already), and there is a good deal of wisdom for doing that. To those of you who are working outside either putting up new aerials or doing a spot of aerial maintenance, and to everyone concerning the reason for this lockdown may I please ask you all to stay safe and well.

At the time of writing we have received the sad news of the death of our former Membership Secretary, Marc Litchman, G0TOC, at the end of March. He had been ill for some time, in and out of intensive care, but lost the battle for life. I am sure that you will want join me in sending our condolences to his family. He was, by all accounts, a keen amateur radio enthusiast and will be sorely missed by his family and friends.

The immediate response to the lockdown from members at HQ has been the establishment of contact nets for all members of the RNARS to stay in touch. Don't forget our DMR channel, and a couple of other groups on Zello that can be set up and used on a mobile phone: one is an informal chat channel and the other is mainly for trainees who want to brush up on their voice protocols. Details can be found in *Diverse Reports*. The back cover provides an apt graphic response to emphasise our government's guidance. The HQ shack has to remain closed until the all clear, and my personal thanks to those individual members who drop in to check that all is well. I hope you will keep in touch.

Best wishes to you all, stay safe and well

David

NATIONAL SERVICE

John Lambert G3FNZ

When I reached the age of 18 I had to visit the local labour exchange to register for National Service. I duly made the visit and was asked “which service would I prefer?” When I got home my father asked me which regiment I had requested and when I said the Navy he nearly had a fit, he having served in the Army in both world wars and reached the rank of major –He would not speak to me for three days!

I then received a letter requesting me to attend for a medical. This was interesting as well as a very perfunctory check on my general health. We were all given an “intelligence test” by two very old (it seemed to me) Chief Petty Officers. This test was all about fitting round pegs into square holes. I was then told that I had passed the tests and would be accepted in the Royal Navy. The next thing to be considered was what trade I could undertake, so I asked for “electrical.”

In January 1949 I received my call-up papers and on 17 January I travelled by train to the shore establishment HMS Royal Arthur at Corsham in Wiltshire. My time at Royal Arthur was to be 5 weeks and would include medicals, compulsory haircuts, kitting out and various lectures, lots of drill and a further interview regarding trade. At this last I requested a change from “electrical to radio” but I was told that this would require either an Inter BSc or 'Matric' and industrial experience. My reply was that I had General Schools Certificate and industrial experience (I had been working in a research Laboratory on Radar antenna systems), plus I had my City and Guilds for my Amateur licence. Officialdom reluctantly agreed to the change and made me a Provisional Radio Electrician's Mate (PREM). There was one funny incident during my training which occurred when we had to do arms drill. The PO instructor quickly realised that I was well versed in this due to my service in my school JTC, so he made me stand in front of the squad to demonstrate. All went well until it came to “present arms” and when I demonstrated this the very old Lee-Enfield rifle I was using fell apart! I was told to take it back to the weapons store, and when he saw it the GI nearly exploded. But he soon calmed down and saw the funny side of it.

Having completed my 5 weeks indoctrination I was told that I would have to go to Devonport to HMS Defiance, this being a training establishment on the far side of the estuary and comprised three main “hulks” and a subsidiary vessel to supply power to the other three. The three main vessels were called: Andromeda, Vulcan and Inconstant. The Inconstant was the most interesting, having been built in 1861 of iron and with steam engine as well as sails. When she was in commission in the RN she was the fastest ship in the fleet in both

steam and under sail, and because she was so fast she could not keep station with the fleet. This training establishment was mainly for torpedo ratings, but there was a small radio capability for National Service personnel. This capability was a subsidiary to HMS Collingwood at Portsmouth.



HMS Vulcan & Defiance (Lt HW Tomlin)

All the accommodation was in the very old mess decks and it was a job to find a space to sling one's hammock, some had to sleep on the mess tables –not very nice!!! All the living spaces were alive with cockroaches which entered your bedding and sometimes into your food –not nice when you found half a cockroach and wondered where the other half was. Our training was interspersed with standard navy duties

such as sentry duty at the local shore establishment, deck scrubbing using bare feet and cold water, mess duties including peeling potatoes, and various parades including Captain's parade on Saturday morning.

Having joined Defiance I was put into a class that had already started which put me two weeks behind, but it was all very basic stuff so I soon caught up. Most technical instruction was held at the local shore establishment which was a huttet arrangement called "Wilcove." This required everybody to scramble onto a launch in order to traverse the hundred yards of water that separated Defiance from the land. The course became more interesting when it went on to radio and we were instructed on the B28 (made by Marconi as the CR100). We then continued with radar and studied the type 291 Radar and from time to time we had an exam where the results determined our future assignments and advancement prospects. I seemed to do quite well as I got three months advancement.



Once a month one received a long weekend pass including a travel warrant to have time at home. This started on Friday afternoon and one had to be back on board Defiance by 8AM on Monday. I had to catch the midnight train from Paddington (this was known as the "milk train") Upon arriving at Plymouth North Road station at about 6AM it was a case of legging it down to Flagstaff steps to catch the tender back to Defiance.

I had decided that my spare time could be well used improving my capability with Morse which presented some problems as there were no facilities for such an activity. Needs must, so I teamed up with one of my messmates who was interested and we used to find a place on deck in order to send to each other using a key and buzzer combination. There was no facility for listening to radio transmissions so we had to be content with sending messages to each other. I applied for a Morse test, which would be at the Post Office HQ in Plymouth, and having received a date was given leave to go to Plymouth to take the test. I did pass and applied for a licence which duly arrived at my home, but as I was under 21 it was issued to my Father with me named as the operator.

After 5 months training on Defiance I received a draft chit to proceed to HMS Pembroke at Chatham, Kent. This establishment was a naval barracks and the home of the Chatham division of the Royal Navy. Life here was not very interesting as most occupants were in transit to and from various other establishments or ships. During my brief stay at Pembroke I discovered that there was a local Amateur radio club, known as MARTS, and I decided to make a visit. The club met in a hall in Luton road, Chatham and when I entered (in uniform) I was asked "why was I there?" I explained that I was a licenced "Ham" and the atmosphere changed dramatically. I soon became a member and made many friends, sometimes being invited to a meal before attending a meeting.

After a couple of weeks I received a draft chit to join HMS Crossbow in Chatham Dockyard. Crossbow turned out to be a Weapon class Destroyer only just over one year old. This was very exciting and I was to be one of a team of three under the control of the Electrical Officer. Everybody on board were full time personnel and so I was very privileged to be a member of the crew (being a National Service rating). Life on Crossbow was much more interesting (and no cockroaches) and there was a lot to learn as all the equipment was more modern than that upon which I had been trained i.e. the radio receivers were all type B40 and B41 most of the radar was microwave, there was one type 291 but it was never used.



HMS Crossbow

Soon after joining Crossbow I was asked to overhaul the IFF aerial on the mast crosstree. There was no such thing as health and safety in those days, nor were there such things as safety harnesses, so out on the crosstree I was so busy hanging on that not much actual work was done. At

this time Crossbow was in dry dock but we were soon to leave and we proceeded out of the yard and into the river Medway. We were part of the 4 Destroyer Flotilla and were to take part in anti-submarine exercises in the Atlantic. This was with both British and American subs; all very interesting using our Squid projectors (duds) which on landing in the sea ahead of us released a yellow dye and after we had lobbed a hand grenade over the side to advise the target sub of our attack, the sub would release a smoke flare and if it surfaced inside the dye it would indicate a hit.

One night whilst doing manoeuvres in the Atlantic in very rough sea conditions we broached and much of our upper deck gear including the whaler and the sailing dingy were lost overboard, but fortunately nobody was hurt. During this "cruise" we visited Londonderry in Northern Ireland but were not allowed to land which was a shame, but the trip up the river was very pleasant. We then visited the river Clyde and anchored near the Isle of Arran. A lot of the crew came from Glasgow and so cleared off for a visit home. This left me doing substitute duty for one of the electrical ratings which presented no problems until there was a call for all duty hands to stand to positions. I had no idea what I had to do but was told to go onto the bridge and to man the telephones linking various parts of the ship. I was confronted by a number of phones and as it was all a mystery to me I just repeated any message received very loudly with a "SIR" on the end. This seemed to satisfy everybody and so we had an uneventful trip further up the Clyde.

We returned to Chatham for some checks and for Christmas leave. I still had some 6 months left to serve and wondered "what next"? This turned out to be another trip with Crossbow as she was to be part of the Home Fleet summer cruise to the Mediterranean, and we were to be part of the destroyer escort for HMS Vanguard the last British Battleship. What a magnificent sight! The trip across the bay of Biscay was not as was traditional as it was a flat calm all the way to Gibraltar where, on arrival, we berthed alongside and were able to admire the view of the "rock" from close up. During the first day we were visited by the C in C of the Home Fleet Admiral Vian -of Cossack fame. I was in the radar maintenance room when the door opened and in he came and was asked "what are you doing?" I managed to give a reasonable story.

My first visit ashore was an eye opener as in the town all the cars were not allowed to use their hooters, but the drivers hung their arm through the window and banged their hand hard against the side of the door. There were many shops selling souvenirs and also plenty of bars. On one afternoon several of us decided to explore further so we climbed up the rock to where the apes were prancing about. We continued our climb and at one point were overtaken by a couple of army chaps who offered us a lift in their jeep. We

were pleased to accept and they took us for a tour of the rock including some of the underground caves.

Crossbow was chosen to be a Liberty boat for the Fleet and was to take liberty men from the fleet to Tangier and upon arrival at Tangier we berthed alongside, and all the liberty men went ashore. Our crew was given half day leave to divide the crew into some morning and the rest afternoon. I went in the afternoon and Tangier was quite an eye opener as it seemed to be mainly bars and houses of ill repute. I subsequently wrote to my parents telling about the visit and got into terrible trouble from my Grandmother for writing such rubbish! When it was time to return to Crossbow we found that she had been moved and was now anchored in the bay. An open launch had been arranged and most arrived back on board safely. I say "most" but some were too drunk to stand and many of us had to help them on the way back to Gibraltar. As we started to leave Tangier a small rowing boat was sighted with two people waving like mad. This turned out to be two of our officers who had "missed the boat"

During my time on Crossbow I became the ship's cinema operator. This was a voluntary position and gave me a few shillings per week paid by the ships social fund.

This job required me to visit various messes in the evening, taking with me a portable projector and a screen in order to show whatever films were available. On Sunday evenings I had to do the same in the wardroom and was always given at least one glass of beer –very nice.

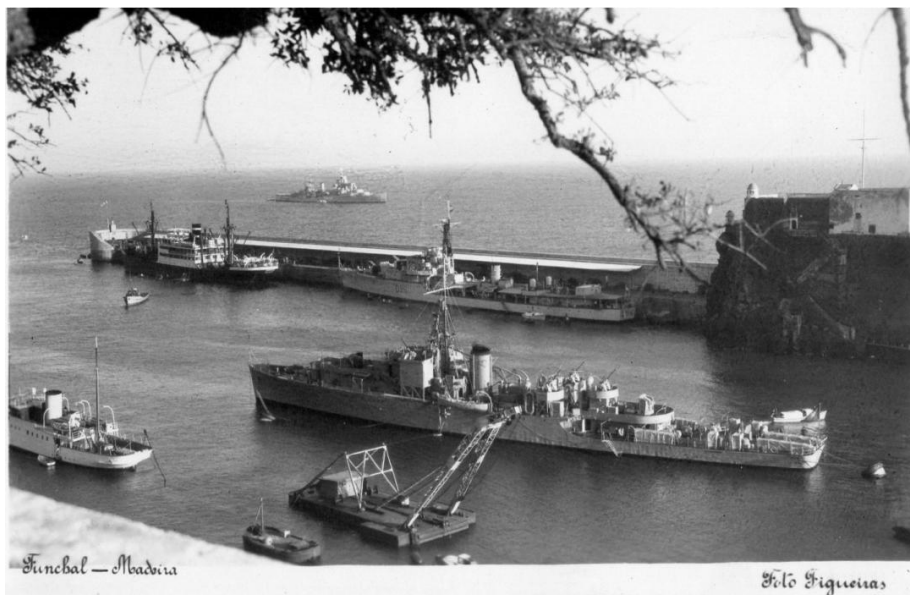


HMS Crossbow at Algiers Harbour

After Gibraltar we moved further into the Med and stopped at Algiers, which gave us a view of a totally new culture, this being a much divided city with a walled centre area into which we were not allowed to go –there being guards on the entrance gates to stop non locals. There was not much to see so returned to the ship. We then proceeded to Toulon in southern France which was French naval base, and it was still littered with the wrecks of French warships. We were in one of the destroyer pens and alongside us we could see the remains of a sunken destroyer. Going ashore here had mixed interest as we could not find a proper shopping area. I had a bit of a set to with another sailor who had had a bit to drink and insisted in showing me a knife

that he had bought. He waved it and it caught me on the nose which bled profusely and rather spoilt my run ashore.

Our last visit was to Madeira where we were made most welcome and were able to go swimming in special areas which were considered to be safe from sharks, etc. We also were invited to a concert but although it was very colourful, as it was in the local language, it rather left us cold. I had discovered the address of a radio amateur in the capital, Funchal and decided to pay him a visit. I hired a taxi and when I arrived I rang his door bell. I was ushered into a room full of women who were obviously holding some kind of meeting. My card giving my official call sign was then taken to be given to the master of the house. He soon appeared and made me most welcome, I was taken to his radio room (his shack) shown his equipment and introduced to several of his radio friends.



During my time on Crossbow I undertook a Navy correspondence course for City and Guilds Radio, this I completed and then had to take the exam. The exam was held on board HMS Abercrombie which was a laid up monitor berthed in the river Medway alongside Anchor wharf of the dockyard. I was shown into a small cabin, given the exam papers and left to get on with it. No problem, nice and quiet and I duly passed.

We now returned to Chatham and as my time for national service was nearly up I had to leave Crossbow and return to Pembroke. This was very short lived

as I had to go to the dockyard to work on several reserve fleet ships. Those of us doing this work lived in one of the reserve ships. This accommodation left a lot to be desired and the washing facilities ashore were filthy and I soon had developed Impetigo. I was bundled off to the Royal Naval Hospital (now the Medway Maritime hospital) where I was pumped full of penicillin, which cured the impetigo but left me allergic to penicillin for the rest of my life. I then left the hospital and returned to Pembroke to go through the necessary formalities to obtain my release. I was given five weeks demob leave and informed that I would have to do three reserve training sessions each lasting three weeks in the future. But for the time being I was back as a civilian. However, due to the outbreak of war in Korea the government extended national service by 6 months. Fortunately I had already completed my discharge procedures and so this did not apply to me !!! After demob I was recalled for my first three weeks of reserve training at HMS Defiance and it was mainly a revision of the original training I had previously undergone -not very interesting.

The next three week session was also on Defiance and was more interesting as it included instruction on the main transmitter used on Destroyers and larger ships. This transmitter included the drive unit known as 5AB or a 5ABA. This was a “partial crystal control” unit and was the forerunner of the frequency synthesizer. We were told that we were not allowed to touch this unit and that if it required any help it had to be returned to stores for onward return to the manufacturer. This made me laugh as I was working for that firm and I had done a lot of work on this unit and was responsible for some of its upgrades, this caused quite a stir when I informed the instructor.

The third recall was to go Portsmouth to join an aircraft carrier, but as I was studying and due to take my final exams, the college principal wrote to the Admiralty asking for a deferral. I received a letter cancelling my recall and absolving me from all further service.

John



RSGB YOUTH AWARD



The RSGB has announced the addition of a new award to their awards portfolio, ***'specifically designed for those aged under 26'***. The Youth Award encourages young people to build on their own on-air experiences, whether it be listening on SDR, contesting, building aeriels or working different modes including satellites. Three levels are on offer: Bronze, Silver and Gold. For more information go to

<https://rsgb.org/main/operating/amateur-radio-awards/youth-award/>

DIVERSE REPORTS

RNARS Contact Nets During Lockdown

The idea has been put up by some of our members with the intention of supporting each other during this time of isolation. We have a list of frequencies on page 41 of the Newsletter at the bottom of which is a list of 'scene of activity frequencies' that we do not use very often. It covers all the amateur bands, and everyone has a copy.

RNARS SCENE OF ACTIVITY									
FM	145.40								
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

The club call signs that we have for this purpose are: G3BZU and G3CRS

Kevin Lamb (G4BUW) is operating in the south as **G3CRS/A** and Stephen Palmer (GM0EQS) will be operating in the north as **G3BZU/A**.

RNARS CONTACT NUMBER - 01329-717627 and answer phone:

An answer phone has been setup for the duration of the lockdown because the HQ Shack is currently unmanned. If anyone wants to make enquiries or wants to chat they can leave an initial call here. Martin Longbottom has kindly set this up for our members.

Regarding Veteran Farewells, Clive G3YTQ

Thanks for another interesting NL. WRT funerals: you might like to note that any veteran, irrespective of rank, who has served more than 22 years or has a campaign medal is entitled to the services of a bugler, free of charge, at their funeral. This is subject to operational commitments/availability. Queries should be directed to:



RM School of music 02392-54-7553
philip.hobby122@mod.gov.uk

Above is an extract from the Association of Royal Navy Officers Year Book 2020

Clive, RNARS 690

MARC LITCHMAN SK

Marc Litchman, G0TOC, 29 March 2020

RadCom Technical Editor | April 16, 2020

Marc Litchman, G0TOC passed away on the evening of Sunday 29 March 2020. Marc had been in poor health for several months and didn't recover from a major operation after a lengthy period in Intensive Care at St Bart's Hospital, London.



Joining Loughton & Epping Forest Amateur Radio Society (LEFARS) in 1995, Marc had many roles within the society but most members knew him as the friendly welcoming Training Manager (Exam Secretary) on joining the club. He was involved in over 40 Foundation courses, 32 Intermediate courses and many exams at all levels. Whilst the RSGB HQ was at Lambda House, Potters Bar, he undertook a supporting role in the QSL bureau sorting cards and afterwards as G7 Series QSL Sub-Manager. Marc liked QSL cards! He had boxes of them in his house, as XYL Lorraine will attest.

Marc was also LEFARS Secretary for many years, until 2018, and its QSL manager. Part of his legacy is the series of cards we have for the varied events the club participated in. Marc created the club's website and maintained it, as part of the Admin team at LEFARS, until recently when he left the committee as his health began to fail.

Marc also had key roles with the RNARS (Affiliated) London (HMS Belfast) Group including QSL, web and Awards manager, RNARS QSL Manager and latterly Chingford Sea Cadets as Radio Instructor.

The committee and members of LEFARS pass on their sincere condolences to Marc's widow Lorraine and children.

Tribute by John Ray, G8DZH
LEFARS Newsletter Editor

DIVERSE REPORTS

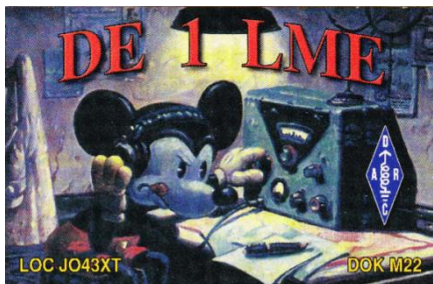
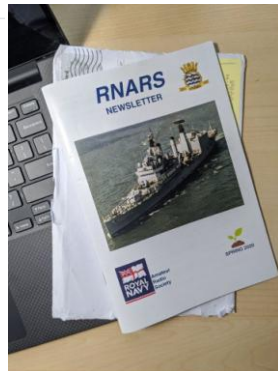
HMS Belfast In Lockdown

RNARS (London Group) now working with alternative call signs: **G4HMS/A** and **G7HMS/A** (SSB, CW, Data), as members take up the challenge by operating from home. QSL cards will be as normal for GB2RN. Enquiries to Douglas Goodison, G0LUH.

From **David Corney**:
'Arrived just in time for the weekend. Perfect'.

Yet another happy customer. Thanks David

Something else to smile about



**Best wishes from Jürgen H Timcke in Switzerland
They are in lockdown too**

OOPS! Corrections to his last article on the study of compound 9V batteries.
See page 35

Congratulations to M0WVL - Cathy Lacey on receiving her Full Licence

Our Commodities Manager, Mike will still take orders by email.

SEA STORY - continued**Eric Bray M0HFF**

In mid-January, when we were getting bored with cockie hunts, (cockroach), and Chit-chat races, (little lizards that made that noises as they called to one another), we were evicted from our life of laziness in the barracks, and crammed back into the tin boxes of our newly painted and spotless messes, on Hermes, a mess at a time. We exchanged our old bedding and loan gear for new kit, abruptly snatched back into the discipline of shipboard life, with duty watches, and uniforms. After the casual routine of barracks, where we wore civvies, or next to nothing, as the temperature dictated, it came as a rude shock to some, and caused some upset to those who were slow to adapt.

On the first Monday in February, we sailed into another 'war' with the Far East fleet, which consisted mostly of the Dutch and the Yanks. The only occasion of interest to us was when we went to Nuclear Attack Stations, where the bare minimum of crew was about. The rest of us, wearing full number eights, anti-flash gear, and gas-masks, were crammed deep in the bowels of the ship, below the waterline, where, in theory, we were safe from radiation poisoning and flash-burns. In truth, we sweated like pigs because the air conditioning had been switched to recirculation, so that any 'external particles' couldn't be drawn in. (I think that was inclusive of oxygen molecules!)

The interesting bit was where the deck-head hatch clanged open, and someone threw in a teargas bomb to ensure that we were wearing our respirators. It also found out those who had dismantled the filter canister and discarded the innards, to reduce the effort of inhalation! They rapidly discovered that there were half a dozen stokers sitting on the hatch, after it had clanged shut again, to prevent any escape. After five minutes, the hatch was opened, and an S.B.A. came in, to tend those who were in dire need of breathable air. He was followed by a Leading Hand, who took the names and numbers of those needing assistance, then told those afflicted to report to the Master's office, at the end of the exercise. The Master passed them on to Duty Officer's defaulters. He passed them on up to the First Lieutenant's table. He in turn referred them to the Captain, where they were each given a month's number nine punishment. Nines is a miserable affair, It starts at six a.m., with a roll-call of defaulters, who have to be clean-shaven, wearing clean no 8's, and have polished boots. After roll-call, at sea, they are dismissed to perform their normal duties, until twelve-thirty, when they are mustered again, and turned to the task of scrubbing out the main drag, an onerous task, as there is a constant procession of feet travelling along it in both directions. Should we be in harbour, while the rest of us have our heads down, or have gone ashore, the Men under Punishment, (MuP's) are first in line for store ship duties, and any and all heavy and dirty tasks that come up. Then they have another

muster at 1830, for which they have to be in evening rig, and again at 2300, half an hour after 'lights-out'. Plus they have to be on hand for any odd task that comes up, throughout the day or night. Should they be on watch when called, they are allowed to report in by telephone. Lateness, dirtiness, scruffy clothes, or unkempt appearance earns extra days of punishment. Usually their pay is docked, as well. The actual tasks are not that wearing, really, although usually menial, messy, smelly, or dirty. It is the constant hassle of musters, and trying to stay spotless, that wears you down, plus the early starts, and late finishes, that add to the general tiredness and lack of sleep.

We fought our way around the islands and peninsulas until we reached Hong Kong in late March. There, we did the lines of daisies bit again, under the blazing sun, as we slid warily into the harbour, picking a way through the melee of surface traffic. Boats of every shape and size fought for a right of way, only giving way when they saw that WE had no intention of doing so! Sampans, Freighters, Junks, Hydrofoils, motorized tree trunks, and sail-driven ocean Liners jostled and dodged, as we made our way to our berth. When we finally tied up, it was store ship time, again. A dockyard crane swung container-loads of goods onto the flight deck, while we trudged wearily down one brow, collected something, and trudged wearily up the other, round and round. It is amazing how many toilet rolls two thousand men can use in two months! When I say that we stored ship, I really mean that the Hong Kong Chinese did most of it, while we merely showed them where to put the load that they carried, and then kept out of the way. For little men, built like a bundle of pipe-cleaners, they were remarkably strong, carrying twice the load that we could, balanced in a teetering heap as they trotted swiftly up, down, and round all day. We were exhausted just watching them!

While storing ship was in progress, the Market Traders moved in, laying a square of carpet in any space that they could find that was wide enough, then covered the area with their wares, and hoped for business. Shore leave for the off-watch half saw a mass migration of bodies heading for the bars and evening pastimes in various orders. Hong Kong bears a remarkable similarity to a market square at the peak of trading, but all day every day! The streets are stuffed to bursting with a pushing, shoving throng of bodies, all intent on being somewhere else five minutes ago. Every inch of space between the modern tower blocks is jammed full with tin shacks, which are either peoples' homes, or business premises, or both! Weaving between the people are the wheeled traffic of rickshaws, cars, bicycles, trishaws, trucks, buses and trams. (Not that the trams can weave!) Progress is maintained by generous use of the horn, probably because the brakes have given up from over-use, making the streets a land-borne replica of the harbour. The rich people, mostly of European extraction, live in the silent, air-conditioned tower blocks, and rarely

venture down to the streets, except to move to another tower block in a chauffeured car, usually an air-conditioned, silent, Rolls-Royce.

To see the masses scratching for an existence, you wouldn't know that Hong Kong is one of the world's centres of finance and business. The money that changes hands in the Penthouses does not migrate down to street level. Hong Kong has its very own mountain, which serves the country very well. The higher your status, the higher above the streets you live, and what could be higher than a tower block on top of a mountain? At the other end of the scale, the poorest of the poor live on the permanently floating ghetto of the boat city. It fills every inch of the collection of inlets and bays, and spills out into the seaway. It is probable that many of its occupants have never stepped onto dry land in all their short lives.

The mountain also provides a view over most of the Island, and across to Kowloon, where the notorious Kai Tak airfield resides. In some ways, Kai Tak resembles the airfield at Gibraltar, except that, instead of starting and ending in the sea, with land on either side, Kai Tak has the ocean on three sides, and a mountain at the end! It is therefore a strictly one way strip, no matter which way the wind blows. You approach over the bay, aimed directly at the massive chevrons carefully positioned on the flank of the rock, your wheels skimming over the rooftops. Then, at the last instant, you crank round hard to the right, and if the Gods are pleased, the runway appears in front of your nose as you roll level. You dive slightly, scraping between and over the tower blocks, as your speed decays, and dump the aircraft onto the runway, banging into reverse thrust at the first tyre squeak, then as soon as possible, you stand on the wheel brakes, as well, before you go splash!

Public access to Hong Kong Mountain is by foot, or funicular railway. Two sets of open-framed carriages fitted with bench seats on pivots are the rail cars. A thick wire cable runs from the front of the car, following guides to maintain it in the centre of the track alongside the linear gear that engages with the worm gear under the carriage. At the top of the gradient, the wire runs around a pulley, then couples to the front end of the other set of carriages. The bottom gradient is quite mild, but it rapidly steepens, which is why the bench seats are on pivots. As the car tilts skywards, the seats are free to rotate, so that they remain more or less level. The weight of the climbing car is roughly counterbalanced by the descending one on the other end of the wire rope. A very brief observation will reveal that there is only one set of tracks, which might suggest a collision is inevitable at the mid-point, but it is not so. Half way up, or down, there is a station, where the tracks divide briefly into two, then reunite. It is also the point at which those who mistakenly thought it a good idea to walk up or down, can change their minds, and ride the rest of the way! Novel as the journey may well be, but smooth and quiet it is not! The

electrically motorized car grinds and sparks its uneven way along in a series of jerks and shudders, the amount of grinding and sparking depending on whether the driven car is climbing or descending, and how well matched the weights are. The counter-weight car has the better ride, as it is devoid of the grinding and sparking, but instead has an unpleasant bouncing motion, as the cable suffers the strain like a huge spring. It also lacks the distinct smell of frying electric motors, and the ozone from sparking commutators!

Having reached the top, there is little there except the tower blocks, finished in varying degrees of splendour, the view of the island, and the way down again! There is not even a souvenir shop at the top. Naturally, the tower blocks are closed to non-residents. The lowly ones merely require a passkey to gain admittance, while the better ones have a Maitre de guarding the entrance, keeping the riff-raff out. The only thing going for the plateau is the cool, fresh, breeze which is vastly better than the stink of the streets below, where hot sewers compete with Chinese butcher's shops. The resulting heady 'fragrance' ranges from the merely 'high' to the breathtaking! Competing with that are the smells of the street cafes, which cook the produce while you wait, (if you dare!), adding to the stink of unwashed bodies, diesel fumes, spices, and all the other odours of too many people crammed into too small a space.

At the bottom, with a little searching, you can purchase anything that can be manufactured, the length of wait depending on the complexity. If you can produce the drawing, or a sample, it can be manufactured. It is all 'kitchen table' engineering, but has remarkable accuracy and quality, and it can even bear the original manufacturer's name! So, you really can buy a Rolex 'Oyster' for the grand sum of £20, although it isn't really a Rolex. You would be hard pushed to tell the difference using the naked eye. Further in towards the centre is where the proper shops are, selling genuine products. It was here that I replaced my cheap schoolboy Timex watch with a Seiko automatic, which was self-wound by the movements of the wearer. It had a steel link bracelet, and a fold-over clasp, and cost me the equivalent price of £10. What I couldn't find was anything vaguely edible to the European palate! I later learned that all the European style restaurants were in Kowloon, so, sore of foot, and with stomach growling, I headed back to Hermes, and the NAAFI.

We stayed in Hong Kong for a week, then picked our way out, through the chaos of the bay, and went to war again. In June we returned to Singapore for a two-month maintenance stop. As we had been away from the U.K. for a year, now, we were all due some leave. We were offered the choice of flying the wife and children, if any, out to Singapore, and the use of a self-service chalet for a week, or seven days in a 'rest camp' up in the hills beyond Kuala Lumpur. Not having a wife, and not wishing to bring my parents out, I chose the latter, and put in my application. I was then told that the other JRO's and I

were being sent to a training school, if memory serves - it was called Kranji, on the Bukit Timor road, a short way around the island, for advancement training. So, I stuffed some basic kit into a hold-all, and joined all the JRO's from all three branches, in the back of a three-ton truck that was devoid of bench seats, or anything else! We rattled, bounced, and lurched our way through the dockyard, and up towards the causeway, turned left, and hung on to our hats with one hand, while the other clung to the side rails, as we hurtled along a narrow ribbon of tarmac. We weaved between ox-carts, cyclists, pot-holes, trishaws, and very determined trees, for about three miles, passing through ramshackle villages of mud-brick huts with corrugated iron roofs, to another Military camp, which was marked by a pair of enormous aerial towers, a few buildings, lots of space, and not much else. We were greeted with the familiar "Get yer 'air cut! The barber shop is over there, 'ere's a chitty to be signed by all departments. Don't lose it, 'cos you have to hand it in when you leave! There's a map on the back. We start at eight-o' clock tomorrow!"

Eric

Naval & Military Clubs & Societies

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Navy News magazine
Warships magazine
Electronic Warfare (Golliès) site
Signal Schools of the Royal Navy



BRANCH NEWS - In Brief



Plymouth Naval base helps produce masks for local NHS

Sailors and dockyard workers in Plymouth are working around the clock to meet the unprecedented demand for face masks from the NHS.

They have joined a city-wide effort involving the university, colleges, Plymouth Science Park and individual technical enthusiasts, harnessing 3D printing technology to produce components for face shields. Specialist workshops with 3D printers in Devonport Dockyard are running 24/7 to produce the vitally-needed protective equipment as part of the military response to the pandemic. The Royal Naval Reserve maintains a transportable workshop with three 3D printers which were introduced last year and are designed to support the Fleet's operations around the globe.

For the past fortnight, engineers Chief Petty Officer Gareth Chilcott and Leading Engineering Technician Ben 'Axel' Foley – who work in the dockyard for defence firm Babcock Marine by day and volunteer as reservists with Plymouth unit HMS Vivid – have been producing face visor headbands for the masks.

"During this unprecedented time we really feel that the whole country is pulling together and we all owe great gratitude to all NHS and care workers and it's been a privilege to be able to do our little bit," said Ben.



royalnavy.mod.uk April 2020

BRANCH NEWS - In Brief

New patrol ship HMS Forth debuts in South Georgia

This is the first sight of the Royal Navy's new patrol ship in one of the most starkly beautiful and remote places on the planet to fly the Union Flag.



For the first time since arriving in the South Atlantic,

HMS Forth crossed 850 miles of icy ocean to patrol the waters around South Georgia. The distant archipelago forms part of the territory 2,000-tonne Forth, which arrived in the Falklands at the turn of the year as the islands' new patrol ship, must reassure and, ultimately, protect.

royalnavy.mod.uk April 2020

HMS Audacious arrives at Clyde home

HMS Audacious, the fourth of the Royal Navy's Astute-class submarines, has arrived at her new home at HM Naval Base Clyde.

The new submarine and her 98-strong crew arrived at the Naval Base in Argyll and Bute today (April 7), flying the White Ensign after sailing from BAE



Systems in Barrow-in-Furness. Welcoming the vessel to her new home were members of the Submarine Flotilla – SUBFLOT – based at Clyde.

"It is with great excitement that we welcome HMS Audacious to the Clyde, joining her three sister submarines," said Commodore Jim Perks OBE, Head of the Submarine Service. "HMS Audacious represents an ever-improving example of the world-leading Astute class submarine. She is right at the cutting-edge of technology, built here in the UK by our own people. She will provide the country with remarkable security at sea to protect our nation's interests."

royalnavy.mod.uk April 2020

BRANCH NEWS - In Brief



savetheroyalnavy

The Fleet Air Arm rises to the challenge of COVID-19 crisis

Helicopters of the Royal Navy are being deployed in various ways to assist in the fight against the COVID-19 pandemic. Training has involved practice approaches and landings at hospital sites in their preparations for casualty evacuations of patients with the virus from remote areas. Since there is a dearth of FAA news the following picture is a reminder of branch's capabilities.



HMS Ark Royal on Her Return From the Falklands

savetheroyalnavy

BRANCH NEWS - In Brief

Royal Marines Assault Engineers on explosive Arctic missions!



Royal Marines Assault Engineers are blasting their way through the ice and snow on explosive missions in the Arctic Circle.

The engineers of 45 Commando have been on advanced demolitions training – working on how best to sabotage the enemy in the Arctic – and testing their close-quarters battle skills in one of Norway's state-of-the-art facilities that includes a train and 150ft ship to battle through. These commando specialists provide engineering support to all Royal Marines units and their skill-set is key to the way the Green Berets are evolving into the Future Commando Force (FCF). As part of FCF tactics, small, lethal teams will carry out destructive raids on enemy infrastructure. Central to that is the ability to incapacitate and disrupt adversaries but also gain access to wreak havoc. That is where Assault Engineers come into their own and bring a unique ability to the battlefield.

royalnavy.mod.uk February 2020

BRANCH NEWS - In Brief

F-35 take-off in Portsmouth Harbour



The roar of the most advanced aircraft in Britain's arsenal reverberated around Portsmouth Harbour this lunchtime as an F-35 launched from HMS Queen Elizabeth.

It's the first time the jet has been seen over the home of the UK's new carrier force, despite being

based in the UK since June last year; it has made appearances at air shows, including over Yeovilton. As a result, the rare sight drew crowds around the harbour shoreline – and nearly one million viewers watching the take-off live on social media. They waited for Petty Officer Aircraft Handler Wayne Slack to marshal the F-35 into position before the high-pitched whine of the Pratt & Whitney F135 engine turned to a roar and the jet thundered into the sky

The Military Times

Forward Looking Sonar (FLS) for naval forces



Maritime technology specialist Sonardyne International Ltd has launched a new navigation & collision avoidance capability for surface and underwater naval and defence operations with its new Vigilant forward looking sonar (FLS). Providing live and past vessel track, detailed 3D bathymetry out to 600 m and advanced warnings of navigational obstacles on and

beneath the waterline out to 1.5 km, Vigilant FLS offers naval forces with unprecedented situational awareness.

Compact in size and easy to mount, Vigilant is suitable for a range of naval platforms, from military ships to diver delivery systems (DDS) entering challenging operational zones. It provides an early warning of hazards, from rocks and wrecks to sand banks and otherwise unseen, below-the-surface obstacles, over a 90 degree field of view. For unmanned surface vehicles (USV) of the type increasingly being employed to conduct intelligence gathering and over-the-horizon reconnaissance missions.

Global Military Communications

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INC 2019 RESULTS

With apologies from the editor -now that he has found how to make very big things very much smaller...

Class B (all bands CW)			
	Call	Naval	Points
1	LY2MM	MI426	188.264
2	OE4PWV	CA135	152.488
3	PA0JLS	MA031	126.592
4	DF4BV	MF742	109.228
5	IN3FHE	IN577	54.720
6	DL1AQU	MF1114	53.613
7	IK3T2B	IN572	49.875
8	YO3AAJ	YO3	46.569
9	GM4SID	RN1629	46.138
10	DL2HUM	CA031	41.030
11	R1NW	RN4263	39.150
12	DK6LH	CA141	36.792
13	DL1GQE	MF620	33.402
14	PA3CNI	MA14	33.234
15	HA2RQ	MF582	32.784
16	DJ7FM	MF1109	32.181
17	DL2NFC	MF923	31.590
18	G3RFH	RN175	31.000
19	DG7EE	MF956	28.198
20	I22FME	IN656	26.532
21	I20XZD	MI1394	23.124
22	DK7FX	CA149	20.720
23	I3SY	MI1336	18.532
24	ON4CBM	CA082	17.816
25	DM2AA	MF1074	14.190
26	I6FDJ	IN342	14.042
27	HB9DAR	CA111	12.028
28	HB9ASZ	MF419	11.451
29	PA2PCH	MA467	10.962
30	I20EUX	MI865	10.730
31	DF2WZ	MF325	8.164
32	PA3BFH	RN2455	7.296
33	DL2AMF	MF508	7.250
34	DJ1PQ	MF558	6.575
35	PA5P	MA451	6.325
36	OE1TKW	CA109	6.050
37	DK6ZK	MF1136	6.024
38	DJ6TK	MF328	5.808
39	DL4ZZ	MF1111	5.520
40	IK2CZQ	MF1105	5.478
41	DL8NBM	MF231	5.126
42	YO4ATW	YO58	5.092
43	DF1RL	MF721	4.032
44	YO4GJS	YO099	3.762
45	IK1RDN	IN639	3.440
46	G3ZGC	RN508	3.280
47	G0IBN	RN3314	3.196
48	OH8UL	FN048	2.912
49	DL1NGL	MF1028	2.576
50	DJ1IZ	MF332	2.415
51	G4EUW	RN2630	2.325
52	PA0VLA	MA055	2.325
53	OE7CMI	MF1035	2.265
54	CT7ASQ	PN087	1.729
55	OE3SOB	CA099	1.716

Class B (all bands CW)			
	Call	Naval	Points
56	OH7QR	MF1062	1.452
57	OE6FYG	CA015	1.254
58	OK1FCA	RN4639	1.020
59	DL1NL	MF779	640
60	CT1DBS	PN082	360

Class A (all bands mixed mode)			
	Call	Naval	Points
1	DJ2IT	CA152	78.525
2	DL0MFM	MF975	72.708
3	DL6OCH	MF1075	37.410
4	OH1LR	FN8	25.280
5	OE3FFC	CA143	7.225
6	OE6LUG	CA153	2.296
7	DL2RPS	MF1083	791
8	OH1LD	FN1	150
9	OE1WED	CA079	40

Class C (all bands SSB)			
	Call	Naval	Points
1	DL2BJW	MF894	810
2	OE6FTE	CA156	665

Class D (all bands SWL)			
	Call	Naval	Points
1	OE1-1001007	CA065	33.390
2	OK1-31457		9.352
3	DE7WAB		1.096
4	OM4ANO		848

Class E (Naval Clubstations)			
	Call	Naval	Points
1	DL0MFF	MF875	227.582
2	OH1NAVY	FN150	199.704
3	DL0MFM	MF1090	134.200
4	DL0MFB	MF550	50.864
5	DL0MF	MF1000	48.360
6	OE6XMF	CA100	45.780
7	DL0MKH	MF1180	45.630
8	DL0MFS	MF600	42.579
9	DL0MFX	MF1060	32.489
10	DK0MHD	MF1005	29.050
11	CS5DFG	PN150	20.160
12	CS5SUB	PN200	18.612
13	DL0SFK	MF1080	11.418
14	DL0SMD	MF995	7.410
15	CS5NRA	PN100	5.620
16	DL0MFH	MF900	4.385
17	YO4AAC	YO25	355

INC 2019 RESULTS

Class F	(Non Naval)	
	Call	Points
1	HB9EWO	44.226
2	SF6W	40.608
3	YU5T	32.508
4	LY5O	25.368
5	LY3B	23.556
6	DL2OM	20.992
7	HA8WP	20.636
8	R1LN	16.014
9	UF5D	13.213
10	DL2HWB	12.544
11	UT5NR	10.620
12	YO4SI	9.282
13	DM4JA	8.845
14	OG3G	8.086
15	9A6W	7.840
16	OE3CHC	7.392
17	LZ5N	5.773
18	HF100PIP	5.588
19	S58MU	5.544
20	HB9CLT	5.460
21	EA7KB	4.199
22	UW7CF	3.816
23	EU8F	3.504
24	SQ9FQY	3.128
25	OE3IDS	3.060
26	M0SEV	2.976
27	M0BUI	2.565
28	PA7RA	2.114
29	G3TZM	2.064
30	OE1CIW	1.963
31	RN2FQ	1.898
32	LZ2CH	1.704
33	IT9RZU	1.692
34	F5NLX	1.464
35	DA3T	1.386
36	YL2LW	1.380
37	OM3WZ	1.221
38	US3LX	1.221
39	DL1YPF	1.040
40	RD1T	855
41	RN4SC	846
42	SD1A	744
43	DG0KS	704
44	SO5WD	640
45	R1QE	525
46	DL2ZA	490
47	OE6VWG	450
48	RA7R	426
49	YO7LYM	416

Class F	(Non Naval)	
	Call	Points
50	OE3MCS	360
51	DR50DIG	360
52	OE6STD	300
53	PD7CJT	265
54	DH1PAL	250
55	PH100AC	160
56	RN1AO	160
57	PA0WKI	90
58	LZ3R	48
59	DD7UW	40
60	UA4FDL	14
61	LU8VCC	11
62	DH8MS	10
63	DB6MC	10
64	OZ1D	5
65	RU6YJ	5
66	DL2EI	2
67	DL1NKB	1
68	PY4XX	1



IN THE NEWS

Ed

Explosives attack on Covid-19 response meeting highlights threat of sustained insurgency campaign in southern Thailand



On 17 March, a double explosive device attack targeting a government meeting at the Southern Border Provinces Administration Center in Yala, southern Thailand, wounded 20 people. The attack occurred as hundreds of local officials gathered to discuss the response to Covid-19 viral outbreak, indicating

willingness and ability on the part of the perpetrators to react swiftly and take full advantage of the emergency conditions created by the global pandemic.

Boukje Kistemaker - JTIC, March 2020

Report on CIA ownership of cryptography company raises questions for Swiss government

The H-460 desktop cipher machine developed by Hagelin in Switzerland during the late 1970s is pictured in the Crypto Museum in Eindhoven, in the Netherlands, on the 30 January 2020. Crypto AG, a predecessor of Crypto International, was a Swiss company that was secretly owned by the CIA in a highly classified partnership with German intelligence. The US [had] restricted the sale of the most secure machines to a list of states approved by the United States.

Jahi Chikwendiu/The Washington Post via Getty Images



Neil Ashdown - Jane's Intelligence Review, March 2020

Costs mount for repairs to Russian carrier Kuznetsov

The head of Russia's United Shipbuilding Corporation (USC), Alexei Rakhmanov, on 3 April announced that the cost of damage from a fire on board the aircraft carrier *Admiral Kuznetsov* on 12 December 2019 now amounts to RUB500 million (USD6.6 million), the state run RT television has reported.



IN THE NEWS

Speaking to RT on 13 February, Rakhmanov had previously estimated the cost at about RUB300 million, while the privately-owned *Kommersant* newspaper valued the damage at RUB95 million on 18 December 2019. These costs are in addition to those of a major overhaul and upgrade of *Kuznetsov*, for which the preparatory work began in October 2017. On 29-30 October 2018 the PD-50 floating dock in Murmansk sank after a crane fell on the vessel's deck.

Bruce Jones, London - JDW, April 2020

Typhoons intercept Russian bombers for third time in one week

For the third time in six days, Typhoon aircraft from RAF Lossiemouth and RAF Coningsby have been scrambled to intercept Russian military aircraft. The Ministry of Defence say that two Russian Tupolev Tu-160 Blackjack strategic bombers approached the UK Flight Information Region (FIR), north



of the Scottish coast before flying down the west coast of Ireland. These scrambles have been caused by the Russian aircraft entering the UK FIR, the UK's controlled zone of international airspace. Monitoring this zone ensures the safe passage for all other aircraft, including civilian transatlantic airliners that are under UK civilian air traffic control.

UKDJ George Allison, March 2020

Sea Venom missile in firing trial off French coast

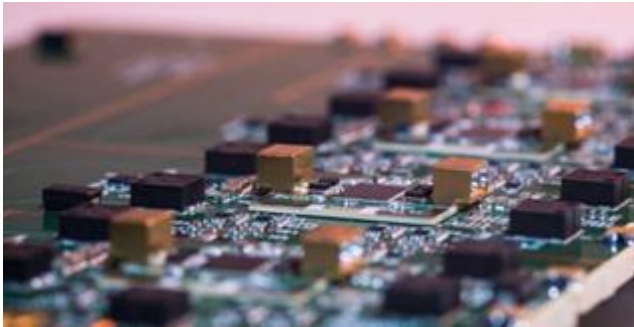


The anti-ship weapon is being developed by the UK and France to equip British and French helicopters. MBDA say they have achieved the milestone at the DGA Essais de missiles test site near Ile du Levant, off the south coast of France.

UKDJ George Allison, March, 2020

IN THE NEWS

BAE demo small form-factor radio circuit technology in US project



BAE Systems say they have demonstrated new small-form-factor semiconductor technology designed to sense radio frequency and communication signals in battle environments using a drone.

The Hedgehog technology, which was used in this exercise to sense radio frequency and communication signals in congested and contested battle environments in conjunction with an unmanned aerial system, is a collection of general-purpose, reconfigurable MATRICs chips in a software-defined radio system, the company said in a statement.

"In a recent military exercise attended by representatives from multiple research labs and military service branches, BAE Systems successfully demonstrated new, powerful small-form-factor semiconductor technology. The Hedgehog technology, which was used in this exercise to sense radio frequency (RF) and communication signals in congested and contested battle environments in conjunction with an unmanned aerial system, is a collection of general-purpose, reconfigurable MATRICs™ chips in a software-defined radio (SDR) system.

The Hedgehog demonstration was in support of the Defense Advanced Research Projects Agency (DARPA) Distributed RF Analysis and Geolocation on Networked System (DRAGONS) research. The DRAGONS program is designed to deliver a drone-integrated, small form factor signal identification and geolocation capability. This research and the underlying research on MATRICs and Hedgehog was developed with funding from DARPA."

UKDJ George Allison, March 2020

IN THE NEWS

The case for a new amphibious assault ship to replace HMS Ocean



With Brazil having acquired the amphibious assault ship HMS Ocean, let's take a look at the viability of replacing her.

HMS Ocean, is currently the 'PHM Atlântico' in the Brazilian service -is a 22,000 tonne amphibious assault ship, formerly the UK's helicopter

carrier and fleet flagship of the Royal Navy. She was designed to support amphibious landing operations and to support the staff of Commander UK Amphibious Force and Commander UK Landing Force.

How should the UK go about procuring and prioritising certain naval assets to achieve its security objectives? With a resurgent Russia, trouble in the Middle East, threat of nuclear confrontation in the Asia-Pacific, and the ability to patrol Britain's strategic interests in the Baltic, Mediterranean, Caribbean and the Atlantic Ocean, as well as the possibility of projecting power in the Pacific –it is necessary to have an amphibious assault vessel.

UKDJ Oliver Steward, March 2020

New Coastal Forces museum earmarked for Gosport, celebrating the Royal Navy's 'Spitfires of the Sea' will open in Gosport next year.



The Coastal Forces Museum – featuring two restored vintage launches as well as a wealth of contemporary memorabilia – will breathe life into a disused mine

store at Priddy's Hard as the site undergoes an 18-month transformation, completing regeneration work begun more than 20 years ago. The huge site on the western shore of Portsmouth Harbour was home to one of the Navy's most important ammunition and armament depots until closure in 1988.

www.royalnavy.mod.uk

IN THE NEWS

Rohde & Schwarz Integrated Communications System for the Royal Navy's Type 26 Frigate



A main focus at DSEI on booth S1-350, Rohde & Schwarz will equip the Royal Navy's Type 26 frigates with integrated communications systems, built around NAVICS, under a new contract from BAE Systems.

The systems interconnect the distributed on-board voice terminals as well as all other subsystems for internal and external communications via a uniform IP network, using of ruggedized, conventional IT technology with accreditable security provided by Rohde & Schwarz. This allows for the number of voice terminals to be reduced and ATEX smart-phones to be employed within security-critical environments. The system is operated by an intuitive graphical user interface (GUI).

The full spectrum of external communications for GCS provided by Rohde & Schwarz consists of:

- HF communications, providing extended range beyond line-of-sight (BLOS) communications, tactical voice communications and the exchange of high grade messages;
- V/UHF Line of Sight Communications, providing line-of-sight (LOS) voice and data communications with military and civilian air, sea and shore assets;
- Land Forces Tactical Communications, providing tactical communications with land forces; and
- Integration of 3rd party external communication – Military SATCOM (MILSAT), Global Maritime Distress and Safety System (GMDSS), Civil SATCOM, Video Teleconferencing (VTC).

navalnews.com Xavier Vavas seur , Sep 2019

IN THE NEWS

Nautech electronics develops Diver DACAD Systems advanced diver data acquisition solutions for the naval industry.



Diver DACAD Systems in the business of manufacturing Diver Tracking and Monitoring Systems has developed a cutting-edge solution that enables users to keep track of divers, as well as monitor parameters such as range, depth, and bearing. The primary function of the Diver DACAD™ system is diver operational safety.



The Diver DACAD (Data Acquisition Communication and Display) System accurately locates divers within a range of up to 2km, providing enhanced operational safety during missions. The system can also provide vital information such as dive time, depth, water temperature, diver's heart rate, as well as various air and gas pressures.

naval-technology.com

SITUATIONS VACANT

COMMITTEE VACANCY

Minutes Secretary

As the job title implies, it comprises a small set of tasks centred around the taking of minutes at our Committee meetings and AGMs. The post-holder will be responsible for:

1. Posting advance notices and agendas for both Committees and AGMs.
2. Taking minutes on these occasions and sending typed copies to Committee members.
3. Publishing minutes approved by the committee.

It is essential that the post-holder has good listening and writing skills.



LOOKING FOR VOLUNTEERS

Overseas Representatives

Australia and Canada

QSL Managers

Australia and the UK

OUR PATRON

Admiral Sir Philip Jones, GCB, ADC, DL

First Sea Lord (1SL) From April 2016 to June 2019

After service in the South Atlantic in 1982 during the war in the Falklands, Admiral Jones commanded the frigates HMS *Beaver* and HMS *Coventry*. He went on to be Flag Officer, Scotland, Northern England and Northern Ireland, Commander United Kingdom Maritime Forces and Assistant Chief of the Naval Staff before being appointed Fleet Commander and Deputy Chief of the Naval Staff.



Awards: Knight Grand Cross of the Order of the Bath
Commander of the Legion of Merit (United States)



HMS Coventry



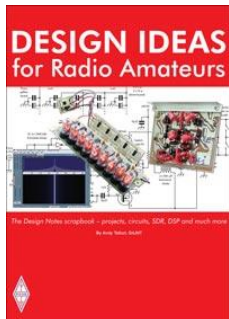
HMS Beaver

Admiral Jones was appointed Knight Commander of the Order of the Bath (KCB) in the 2014 Birthday Honours. He was appointed a Deputy Lieutenant (DL) of Hampshire in February 2019, and awarded the United States Legion of Merit in the degree of Commander in May 2019.

Admiral Jones was advanced to Knight Grand Cross of the Order of the Bath (GCB) in the 2020 New Year Honours, and retired from the navy on 3 January 2020.



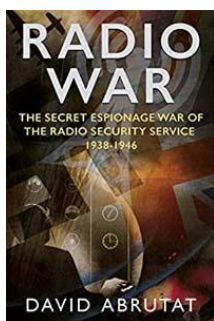
BOOKS CORNER



Design Ideas for Radio Amateurs

The Design Notes scrapbook - projects, circuits, SDR, DSP and much more **By Andy Talbot, G4JNT**

The Design Notes column in The Radio Society of Great Britain (RSGB) Journal RadCom has been a favourite amongst the Members of the Society. Each month Andy Talbot, G4JNT has covered a huge variety of topics in his inimitable, interesting style. Presented here in a scrapbook style is the entire collection of first ten years of Andy's Design Notes column. (RSGB members discount)

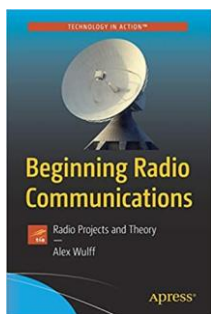


Radio War

The Secret Espionage War of the Radio Security Service 1938-1946. **By David Abrutat**

Many books have described the work of Bletchley Park and even the work of GCHQ and SIGNIT but Radio War extends this into the work carried out by that voluntary interceptors (VI) many of whom were radio amateurs and RSGB members. It describes the secret operations, the stations used and so much more. (24% off for RSGB members)

Beginning Radio Communications: Radio Projects and Theory (Technology in Action) By Alex Wulff



Understanding radio communications systems unlocks a new way to look at the world and the radio waves that connect it. Through easy-to-understand instruction and a variety of hands-on projects, this book gives the reader an intuitive understanding of how radio waves propagate, and how radio communications networks are constructed. This book also focuses on the world of amateur, or "ham," radio, a global network of hobbyists that experiment and communicate with radio waves. The reader can learn what amateur radio is, how one can obtain an amateur radio license, and how amateur radio hardware works.

ODDS N ENDS

OOPS - Corrections!

In his last article on the study of compound 9V batteries by Jürgen H Timcke, we had a few minor errors:

The caption to Figure 25 should have read as follows:

Figure 25 - Influence of the loading time t on UL (curve 25A), J (curve 25B), R_i (curve 25C) and the temperature t (curve 25D), $R_a = 34.1\Omega$, GP-battery number 4

Also the Bibliography at the end became scrambled a bit in the transcription before going to the printer:

- [1] Fachkunde für Funkmechaniker, Teil 1, Neunte Auflage, VEB Verlag Technik, Berlin
- [2] Lehrgang RADIOTECHNIK, Dr.-Ing. Paul Christiani, Technisches Lehrinstitut und Verlag, Konstanz
- [3] Elektrotechnik, Elektronik, 5. Auflage 2003, Verlag Europa Lehrmittel, Europa-Nr.: 3141X, Haan-Gruiten

(Es tut mir leid, der himbeergeist war am tag zu warm...) -ich hoffe das alles klar ist.



Jürgen in Switzerland tells me that the Swiss equivalent of our lockdown poster campaign is a cat and mouse as shown.

Löli = dolt or 'Baldrick' in the colloquial sense

"Two metres distance Baldrick!"

INTRUDER ALERT!

Why does the RAF intercept aircraft outside sovereign UK airspace?

Every minute of every day, Typhoon fighters at RAF Coningsby and RAF Lossiemouth, along with a Voyager tanker at RAF Brize Norton are on Quick Reaction Alert ready to respond to any unknown aircraft headed for UK airspace. They are controlled by Control and Reporting Centres at RAF Boulmer and RAF Scampton with the operation commanded from the National Air and Space Operations Centre at RAF High Wycombe. RAF controllers also work alongside their civilian counterparts to build a 'Recognised Air Picture' and to thread intercepting aircraft through civilian traffic if required.



The system is ready to respond to two threats: terrorism (such as the world saw on a 9/11) and military aircraft from potentially hostile foreign states. Countering the latter is a collective NATO responsibility carried out by the NATO Air and Missile Defence System. This is controlled by two Combined Air Operations Centres, one in Üdem, in



Germany and the other in Torrejón, Spain. NATO members contribute the necessary aircraft with those unable to do so being helped by other NATO members. For example, the RAF deployed Typhoons to Estonia and Iceland last year and will deploy to Lithuania this year as part of its contribution to NATO air policing.

But why intercept outside sovereign airspace?

A country's sovereign airspace extends 12 miles beyond its coastline, sitting above its territorial waters. However, there are 3 main reasons why unknown or potentially hostile aircraft must be intercepted before they reach this point.

The first is flight safety. Whilst sovereign airspace only extends 12 miles from the coastline, countries are responsible for ensuring the safety of civil aviation, including the provision of ATC services, within areas known as Flight Information Regions or FIRs. These extend well beyond the 12-mile limit. Russian long range aviation often transits the London and Scottish FIRs without filing a flight plan, talking to ATC or 'squawking' (operating their transponders). This makes them effectively invisible to civilian ATC and is very dangerous as airliners are also flying through this airspace. By shadowing Russian aircraft, the intercepting aircraft can show ATC where they are, allowing controllers to move airliners safely out of the way.



The second reason is because of the speed at which aircraft travel. An aircraft flying at 600 knots will travel 12 miles in little over a minute. Waiting until an unknown or hostile aircraft has entered sovereign airspace before intercepting is too late. It leaves insufficient time to safely carry out the intercept, visually identify the aircraft, provide all the required information back to decision-makers, and carry out any necessary action. Russian aircraft will normally be intercepted by the Norwegian Air Force and then handed over to RAF aircraft ensuring they are continually shadowed.

The final reason is to demonstrate capability and intent. One of the reasons Russia carries out these exercises is to test NATO and the UK. A failure to intercept would be interpreted as weakness and encourage further probing.

When would the UK intercept then? When they crossed the 12-mile limit? When they crossed the coastline? When they were ranging at will across the UK? Maintaining the integrity of its airspace is a fundamental requirement of any state, just as maintaining the integrity of its land and territorial waters. This requires the RAF to intercept aircraft as far out as possible, identify them and shadow them, working closely with NATO partners to do so.

UKDJ Andy Netherwood, 2020

RNARS Nets

Mick Puttick G3LIK

Contact: mick_g3lik@ntlworld.com – 02392 255880 **for all changes**

UK	UTC	Frequency	Net	Control					
Daily	0001-0400	145.725	Midnight Nutters	M0WRU					
Sun	0800	3.667	SSB net (news: 0830)	G3LIK					
	0930	3.715	IOM Net	GD3LSF GD0SFI					
	1030	7.068/3.748	RNARS Northern SSB net	M6LWO					
	1100	7020	RNARS CW net	G4TNI					
Mon-Sat	1030-1330	3.748/7.068	The Bubbly Rats Net	GX3WTP/G0GBI/ G0OKA/M0ZAE					
Mon	1400	3.575	QRS CW Net	G0VCV					
	1900	3.748 (Pri) 7.088 (sec)	N.W. SSB Net (News: 2000)	G0GBI					
	1930	145.400 (S16)	RNARS Cornish Net (Falmouth)	G0GRY					
Tues	1600	7.068/3.740	Tuesday HQ Net	GB3RN					
	1900	7.028/3.528	RNARS CW Net	G3RFH					
Wed	1400	3.748	Stand Easy Net	M6LWO					
	1700	TG 23527	Wednesday DMR Net	M0LIH					
	1900	3.748	Wednesday Net	G0VIX					
Thurs	1900	3.542	Scottish CW Net	???					
	2000	145.575 (S23)	RNARS Scottish 2m Net	GM0KTJ/P					
	2100 GMT	1.84	RNARS Top Band CW	GM0KTJ/P					
Fri	1600	10.118	RNARS 30m CW Net	SM3AHM					
Sat	0800	3.748	G0DLH Memorial Net	G0VIX					
DX	GMT	Frequency	Net	Control					
Sun	0800	7.015/30555	MARAC CW	PA3EBA/PI4MRC					
	1430	14.329 ±QRM	RNARS DX	W1USN/GD0SFI/ GM7ESM					
	1800	Echolink	Echolink	VE3OZN / K8BBT					
	1900	14.33	N American	WA1HMW					
Mon	0930	3.615	VK SSB	VK1RAN/VK2RAN					
Wed	0118-0618	7.02	VK CW	VK4RAN					
	0148-0648	10.118	VK CW	VK4RAN					
	0800	3.62	ZL SSB	ZL1BSA					
	0930	7.02	VK SSB	VK5RAN					
	0945	7.09	VK SSB	VK1RAN/VK2RAN					
Thur	1430	14.329 ±QRM	RNARS DX	W1USN/GD0SFI/ GM7ESM					
Sat	0400	7.09	VK SSB	VK2CCV					
	1330	7.02	VK CW	VK2CCV					
	1400	7.09	VK SSB	VK2CCV					
	1430	14.329 ±QRM	RNARS DX	W1USN/GD0SFI/ GM7ESM					
RNARS SCENE OF ACTIVITY									
FM	145.40								
CW	1.824	3.52	7.02	10.118	14.052	18.087	21.052	24.897	28.052
SSB	1.965	3.66	3.74	7.088	14.294	14.335	18.15	21.36	28.94

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

RAFARS & RSARS Nets

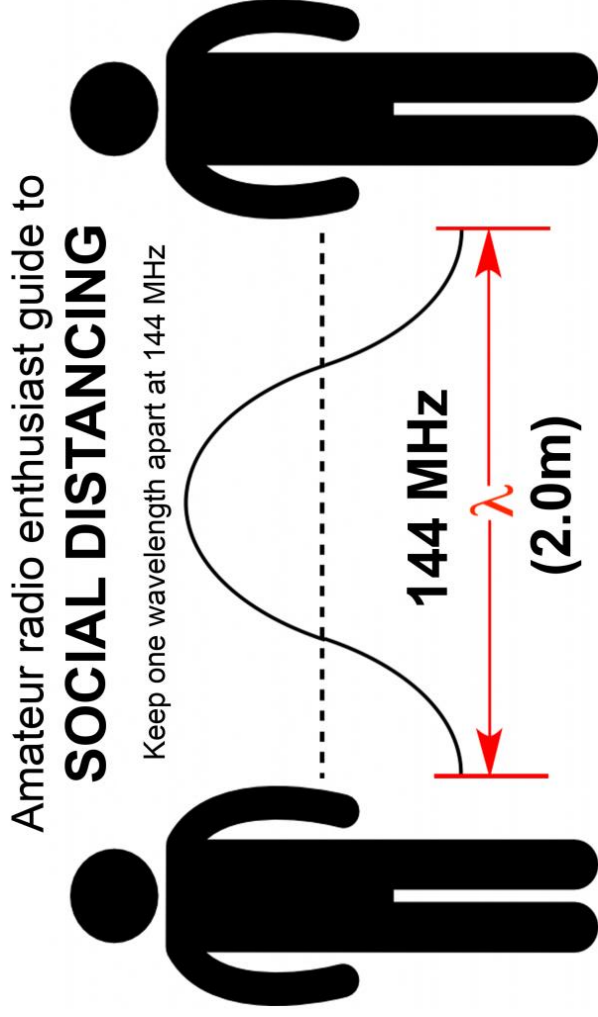
RAFARS	Time	Freq	Control	
Daily	1100 A	3.71	GØSYF	GI4SAM
	1830 A	3.71	G3HWQ	MØRGI
Monday	1900 A	3.7	G3PSG	GØBIA
Tuesday	0730 A 1400 A 1900 A	14.27 7.015 3.567	G4IYC	
Wednesday	1500 Z 1530 Z	14.29 21.29	?	
Thursday	1830 Z	14.17	ZC4RAF	
Friday	0730 A	14.055	CW Net	
Sunday	0900 Z	5.403	?	
1st Monday of the month	1000 A	3.71	?	
RSARS Nets	Time	Freq	Control	
Monday - Friday	1000 A	7.17	GW3KJW	M3VRB
Monday	1830 A	3.585	GM3KHH (RTTY)	
Tuesday	1400 A	7.17	MØOIC	
	1600 Z	14.18	G4BXQ	
Wednesday	0600 Z	14.143	Various	
	1030 Z	3.615	?	
	1830 A	3.565	GM3KHH	
	2030 A	1.946	2EØBDS	
Thursday	1400 A	7.17	GØRGB	
	1800 A	3.743	G6NHY	
Friday	1830 A	3.583	GM3KHH (PSK31)	
	1830 A	3.565	High speed CW	
	2000 Z	14.055	CW	
Saturday	0600 Z	14.143	SSB	
Sunday	1000 A	3.565	G3JRY (Slow speed CW)	
	1100 A	7.17	GW4XKE	
	1100 A	3.745	GM4FOZ	
Joint Service Net	Time	Freq	Control	
Sunday	0900 A	5.4035	G3RAF	
Tuesday	1900 A	5.4035	G3RAF	
Daily 24/7	DMR-TG23527	DMR TG23527		

CQ CQ CQ... GB3RN... QSO...



RNARS: UK Military & Veterans net on DMR TG23527 Wednesdays at 17:00 local

The Government Advise: 'Stay at home, but if you have to go out keep away from other people by at least 2m



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