







Royal Naval Amateur Radio Society

Promoting amateur radio in the Royal Navy since 1960

INC 2020 RESULTS ARE IN!









2

< CONTENTS >

Contents

Membership Matters	Joe Kirk G3ZDF	3
RNARS Officers & Committee	Who we are	4
Subscriptions Information	Special Offer	5
Chairman's Chat	David M0SLL	6
Bygone Days	Doug Turk G3PQC	8
From our QSL Manager	Pete Milsom G4GSA	10
Sea Story	Eric Bray M0HFF	11
QRSS: Everything you need to know	Amateur Radio Wiki	17
SDR Or just baroque pop technology	Ed	19
RSGB Consultation	Direct Entry to Full Licence	23
Diverse Reports	Club and Members' News	24
HMS Belfast	Editorial	26
RNARS New Logo	Committee	27
In The News	News from here and there	29
OfCom Proposes New EMC Regs	New Licecnce Ts & Cs for all	31
RSGB Contest Club	RSGB	32
INC 2020 Summary of Results	Alberto Mattei IT9MRM	35
RNARS Nets	Mick Puttick G3LIK	41
RNARS Commodities	Mike Moore M6POY	42
MF Runde ev Nets	Our Affiliated Friends	47

Front Cover: HMS Cornwall

HMS Albion is an amphibious transport dock of the Royal Navy, the first of the two-ship Albion class built by BAE Systems Marine in Barrow-in-Furness. Albion was launched in March 2001 by the Princess Royal. Her sister ship, Bulwark, was launched in November 2001, also from Barrow. Displacement: 19,560 tonnes, 176metres in length. Propulsion: twin diesel-electric system comprising two Wartsila Vasa 16V 32E diesel generators, two Wartsila Vasa 4R 32E diesel generators, two shafts, two slow-speed electric motors and a bow thruster. The top speed is 18kt/21mph/33kph. In addition to her crew complement she can carry 405 Royal Marines (710 overload). Major refit 2014–2017

Back Cover: HMS Spey

River-class patrol vessel. Launched December 2016 by BAE Systems Naval Ships. Commissioned 7th January 2021. Her displacem2nt 2,000 tonnes, length 297ft, beam 43ft, draught 12.5ft. Speed 24kn. Armament: 1x30mm DS30B gun, 2 x GPMG, 2 x mini-guns. Merlin capable flight deck. Last of class to be commissioned.

MEMBERSHIP MATTERS

Joe Kirk

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

NEW MEMBERS				
Paul Whittaker	2E1FLD	5117		
Jack Turner	GI4LZR	5118		
James Hale	MM7WWM	5119		
Steve Harvey	G0NVW	5120		
Rob Darby	M0VBD	5121		
Les Sidebottom	VK2CPC	5122		
Rev. Thomas Cundy	M7SHF	5123		
Tom Johnston	G2NV	5124		
Paul Daly	MM7PWO	5125		
Dave Thomas	GW4XUE	5126		
Martin Vowles	2E0GUC	5127		
Everett Williams	SWL	5128		
RE-JOINERS				
Bill Owens	G8UTC	1542		
	SILENT KEY			
Fred Robins (was lapsed)	G3GVM	4381		
Michael Prince (Life member)	GW7EUL	0890		
Andy Levy	M5ALG	4869		
Dick Hardy (Life member)	G3TIX	0298		
Roy Clayton	G4SSH	2770		

RNARS CONTACT NUMBER - 01329-717627 (answer phone)

RNARS Officers & Committee

Patron: Admiral Si	r Philip Jones KCB	
President: Commo	dore 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.	Martin Longbottom Building 512, HMS COLLINGWOOD, Newgate Lane, Fareham, Hants, PO14 1AS	Secretary@rnars.uk 01329 717627 A/phone
Membership Secy & website	Joe Kirk G3ZDF 111 Stockbridge Road Chichester PO19 8QR	G3ZDF@btinternet.com
Committee	Doug Bowen, Wally Walker, Kevin Lamb, Steve L Bob New, Mike Moore, Pete Milson	egg, Martin Longbottom,
Ex-Officio	WO1 Mark Gower	HMS Collingwood
RNARS Managers		
Newsletter Editor	Chairman*	
Commodities & Postal NL	Mike Moore 63 Homewater House, Hulbert Road, Waterlooville, HANTS PO77JY	commoditiesmras@gmal.com
HQ Shack Manager	Steve Legg M6WVV. Asst. Alan Campbell M6LFM	
Awards	lan 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 R	Representatives	
Australia		
Canada		
USA	Mike Rioux W1USN	
QSL Managers		
UK	Pete Milsom G4GSA	pete.milsom@virgin.net
Australia		
Germany	MF Runde DLØMF	
New Zealand	Nigel Hardy ZL2TX, PO Box 15078, Otaki Railwa	y, Otaki, 5542, N Z
QSL Card Print	UX5UO – Website: www.QRZ.com	
	1	1

SUBSCRIPTIONS INFORMATION

Special Notice Regarding Your Subscription



E-NEWSLETTER VIA EMAIL REDUCES YOUR MEMBERSHIP SUBS TO JUST TO £5.00! UNBEATABLE OFFER

Subscriptions can 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, Waterlooville, 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**

MEMBERSHIP SUBS ARE DUE ON APRIL 1ST - DON'T BE LATE!

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

Editorial: David Firth, MOSLL Distribution: Doug Bowen, GOMIU, Joe Kirk, G3ZDF Proof readers: Doug Bowen, Joe Kirk, G3ZDF, Mike Moore, M6POY Envelope Stuffers: HQ Shack members -Christmas edition by Joe Kirk

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. © Royal Naval Amateur Radio Society, RNARS, All rights reserved. Badge and title RNARS

CHAIRMAN'S CHAT



David Firth M0SLL@mail.com



The shocking news that the HMS Belfast London Group has been dismissed from HMS Belfast without notice is more than just a trifle sudden, it came without prior warning or facility for discussion beforehand. Doubtless the IWM is in serious financial difficulty due to a complete absence of footfall and the subsequent loss of significant income, but instead of thinking about asking the London Group to perhaps work with them to develop the BWO into something akin to their vision for turning it into 'an attraction,' they decided to tell the London Group to leave immediately, and to take all their belongings with them! Maybe panic is taking hold at the IWM.

It comes as a body blow to the pride of those working voluntarily as skilled specialists onboard HMS Belfast to realise that the owner did not value their work as a part of the life of the ship as a whole. In that the IWM have sorely misunderstood the real story behind any vessel; the people who give them life. That this rather very special community enthusiastically gave Belfast a name of worldwide fame and recognition is a great credit to them all. It is not just going to hurt them, but the name of HMS Belfast as well. The London Group brought many visitors to their ship from around the world who first knew of her through their radio contacts with the BWO crew using her special callsign, GB2RN. Free advertising for this rather special maritime heritage. Though the nature of this dismissal will evoke much feeling among members, we must remember to temper this jarring moment in our minds with the fact that they have enjoyed 45 years of occupancy in grace and favour since they arrived with the ship when it docked in London all those years ago. In this regard the HMS London Group will always be remembered for doing what they did best; advertising the ship and amateur radio in the Royal Navy. I ask everyone to be on the lookout for them. If somebody knows of vacant premises (heritage or otherwise) either close to or afloat on the river Thames please contact Gavin Keegan their Chairman with pertinent information -no time wasters please.

Take care everyone, stay safe and well

David



IN THE ROYAL NAVY







G4FBS Horndean & District Amateur Radio Club 9H1MRC Marconi Amateur Radio Circle (MARC) GB2CAV HMS Cavalier VK4RAN HMAS Diamantina M0VOP Rotor Radar Society, Portland GB2BP Bletchley Park Amateur Radio Society MX0SBV Blind Veterans UK G4GXK Saltash Amateur Radio Club G4COF Kelly College Amateur Radio Club M0SSC TS Superb Stafford & Rugeley SCC M0SCL TS Acord, London Area Sea Cadets M1BED Bedford & District Amateur Radio Club

RNARS AFFILIATED SOCIETIES

GB2RN HMS Belfast (London) Group



www.rnars.org.uk

The results of the international Naval Contest are in, see who is involved. A large number of people of different navies from around the world

Are you a Royal Marine or Veteran? Want to join, become a Radio Op?



BYGONE DAYS

Doug Turk G3PQC



HMS Starling

The photo of me was taken in 1965 and I was licensed in 1961. The Radio Amateur Licence in those days consisted of a 3 hour radio theory paper and Morse test at 12 wpm. One had to pass the theory exam which consisted of two parts - 2 compulsory questions on Regulations and 8 questions on radio theory. We had to get the questions right on Regulations otherwise the candidate failed even if the questions were right on the theory! If a pass certificate was granted we then had to pass the Morse test on a separate day. Both the written paper and the Morse test were held at the Post Office in London.

We were told that sometime in the next year or two a Post Office engineer would call without any warning to inspect the radio equipment and sure enough one turned about a year later - the only thing he found was that I was not correctly using was a recognised log book- so quickly purchased one! I note that the first entry in my log book was: G3PHO - PETER, QTH - SHEFFIELD, -RST 579, at 0030 - 0100 on 17/12/61. On TOP BAND. We were limited to Top Band for one year at 10 watts power output before we were allowed on the HF bands. All of the equipment in the photo was made by me except the CRIOO and a Geloso VFO TX.



Middle Watch again Doug?

The CRIOO was a superb CW receiver and most of the ships I served in used them until they were replaced by the B 40/41. I purchased the CR 100 in Lisle St. in London, and in those days one could buy all types of ex WD equipment.

BYGONE DAYS



HMS VENGEANCE Crown Copyright

I parked the car just off Piccadilly Circus, purchased the CRIOO and carried it back to the car - what a weight it was! I decided to modulate the transmitter using AM modulation and one day I asked the next door neighbour "do I ever cause interference on your radio!" She replied, "Well I did hear you one day talking to someone in the Channel Islands"! Those were the days!

I joined the RNARS in about 1968 hence the number 145.The RNARS Net is now efficiently run by Ken Randall G3RFH -and would you believe that both Ken and myself were on the same L/Tels course at HMS

Mercury in 1954! You may be interested in the ships I served which were HM Ships Starling, Vengeance, Grenville, Morecambe Bay, Ladybird, RNZNS Rotoiti, Maidstone, and Britannia and I ended up at Whitehall W/T.

I Joined the RN in 1950 and went to HMS Mercury for training and who should be in the same "Nissen Hut'?, but none other than Peter O'Toole (Lawrence of Arabia) he was doing his National Service as an Ordinary Signalman.

I hope you find this article interesting -



HMS Grenville

© Royal Navy

we must contribute to the magazine even if you believe it may not be of interest, and keep the RNARS active.



HMS Morecombe Bay (Crown Copyright)

Yours Aye, Doug RNARS 145

P.S:

I May have some of the details re the Amateur Radio Exam not quite correct as my memory is not too good now!

email:doug.turk@ntlworld.com

FROM OUR UK QSL MANAGER

Pete Milsom G4GSA

I have recently taken over this position and thought that I had better introduce myself to the membership. My interest in radio began as a child with my Father building a valve medium wave receiver which I thought was amazing. Then followed an H.A.C. one valve short wave receiver with plug in Denco coils. A lot of time was spent listening on that. Go on a few years and I joined the RN as an Artificer Apprentice and found myself at HMS Fisgard at Torpoint. When we were asked what branch we wanted to go forwards into, the whole class decided that we wanted to be REAs in the Fleet Air Arm !! This is what happened and saw me at HMS Daedalus, RNAS Yeovilton, RNAS Portland and eventually on board HMS Kent, a County Class Destroyer.

After twelve years in the RN I decided I would like to see what civvy street was like, actually that came as a big disappointment. On leaving I became a branch manager for SMC which was fine for a while but I soon got bored being a shop keeper. I then joined a marine electronics company called A.N.D. and for twenty years trotted off around the world fixing deep sea ships and some very luxury yachts. Although we did cover all the electronics on board my main interests were gyro compasses (Anshultz) and fire/engine room systems (Autronica) So that is a brief history of my working career but not the end and that is worthy of another story sometime.

Amateur radio wise I got my first licence G8LLG and then upgraded to G4GSA in 1978. I am active on cw and data modes and like to activate light houses and islands. I am very keen on collecting qsl cards, LOTW is alright but I prefer to have a card. Having just taken over the position of QSL Manager please e-mail me or phone if you have any questions. The details are in the front of the magazine.

73 de Pete, RNARS 524



SEA STORY

Kuala Lumpur

Eric and his pals end up in a jungle bar close to KL where they get a briefing on the ground rules of their encampment's routine...





On the wall behind the bar, a sign

proclaimed – 'House Rules!' One pint for lunch, and two later, or three in the evening. Rum ration for those entitled, at noon. Anyone found drunk and disorderly will be banned from the bar. (The next nearest bar is in K.) No tick, no credit cards, no cash advances, no cheques cashed. On a separate board was displayed the opening times, 1200 to 2359, except Sundays, 1201 to 2358. At intervals along the bar were little bowls, filled to overflowing with quinine pills, instead of peanuts.

When we were well into our pints, the Chief banged on the bar. "Right lads, pay attention!" He had a swig, to wet his throat. "There's no morning roll-call. Breakfast is from eight until ten. Lunch is twelve until one. Tea at four. Evening meal at eight. The bar sells nutty and soft drinks out of hours. There's nothing but jungle outside the camp, so don't go wandering off. Use your mossie nets, you'll need them! If you hear something like a woman screaming don't go looking it's a troop of baboons, and they'll eat you, if you go out there! Everyone back here for ten tomorrow, and I'll allocate your jobs. Goodnight!"



I woke as dawn cracked the dark sky apart, to the earsplitting screams of a woman in mortal agony. "Wossa time?" Someone else was awake, too. "About five-thirty." A chit-chat, intent on capturing its breakfast, missed its footing and fell, to land with a soft plop on my mossie net. It rolled down the slope, and flopped to the floor, where it scurried off, making its tiny chattering noise. Outside, the baboon screamed again. Another one, further off, replied. That kicked off the

dawn chorus. Screams, croaks, whistles, honks, a bong like a bell, and other noises, greeted the rising sun. The cicadas laid down their steady rhythm section rasp, as every creature that could make a noise shouted at the world, -"This is my patch. Keep off!" The cacophony lasted about ten minutes, and then tapered off into silence, except for the cicadas, which kept up their steady rasping. A last, a lone hoot echoed around. "I Bet it's a female!" Someone muttered, "they always have the last word!" Then silence. We drifted off to sleep again, surrounded by the heady aroma of jungle plants as they opened their flowers to the new day.



I woke up again much later to the steady scraping of a stiff brush on concrete. A Malay, naked except for ragged shorts, was sweeping up. A few ribald suggestions were made in his direction, which he ignored. "Shake close, bang boots on floor before put on!" He cautioned. "Bleakfast finish half hour." It was nine-thirty. I shook my clothes, dislodging a

nesting chitchat. Someone else found an enormous red beetle, with huge jaws, in a boot. The Malay picked it up, and tossed it out into the grass outside. "He no hurt, just look bad!"



Breakfast was an omelette, or a full fry-up, or cereals, or all three. Make your choice, and watch while it was cooked to your preference. Don't forget the quinine tablet with the coffee or tea! At ten, we were all in the pavilion, being issued with our jobs for the week.

"Who's got a driving licence?" One hand wavered uncertainly, wary of the missive – Never volunteer for anything! "You? Ok,

you're on the tractor lawn-mower. Go with Charlie here, he'll show you where everything is. You, you're a big chap, log-chopping detail. Go with Johnny, and you two!" A Malay like a splinter off a match led the three away.

"You, the E.M. Go with Micky Jones, and try to keep the truck going!" That left two of us. "You, Sparks, you don't look like a drinker, so you get the pool cleaning. Off you go with Fred. And you, you can help the barman to re-stock the shelves."

'Fred' led me to the middle of three sheds, where an assortment of buckets, mops, squeegees, nets, and bottles of chemicals resided. "Hokay, man. Ev'y day, you come stlaight here, I come, I do, you watch, you carry, Hokay?"

"Ok." I said my name.

"I gurgleglug-click. You say Fled, is easier!"

"Ok, Fred!"

"First, we catch lubbish. Get bucket." He said picking up a fine-mesh net on a long pole, then led me around the back of the pavilion, and across a football pitch. A tractor-mower was starting its first cut, driven by the Malay called Charlie, while his helper, with the driving licence, sat on a wheel arch, working hard at doing nothing. At the pool, Fred said, - "Put down here." Then he

wandered round, peering into the murky depths of the pool. "What are you looking for?"

"You see, maybe. No go swim before bleakfast, though!" He flashed a cheery grin. "Why not?"

"You see!"

Satisfied. Fred began scooping out dead leaves, and the drowned corpses of moths and insects that had strayed into the pool, using the net, which he emptied into my bucket. Eventually, he said, "Hokay. Back to shed." We wandered back, then he hung his net up to dry, and then pulled on a pair of thick rubber gauntlets. In another bucket, he mixed an eye-watering concoction of chlorine and something else, which he carried to the pool, while I carried two dinghy paddles. Fred poured the mixture into the pool, then began swirling the water with a paddle, so I copied him, with the other, mystified. "Hokay, stop paddle." As the water settled, all the suspended muck began to precipitate out. "Hokay, leave ten minute. Go back to shed." We took the paddles and the bucket back, then Fred wheeled out a hand-cranked pump, fitted with a long vacuum cleaner hose that ended in an even longer aluminium tube. The outlet of the pump emptied into a fine-mesh gauze filter. "You bling." I dragged the pump, while Fred carried the hose and tube. At the pool, he put them together again, then pushed the ally tube into the water. "You pump, I do." I began cranking the handle, sucking water and sludge up the tube, so it spilled through the filter. The sludge stayed behind, while the water fell to the concrete surrounding, then made its way back into the pool. With that done, as we cleaned the filter, back at the shed, we learned to talk to each other. "Be guicker tomorrow, not do number three day."

The time was 11.15. "Do you live here?" I asked.

"No. In village, down road."

"I didn't see a village, when we came up in the truck."

"Is not on road, only down road."

"Oh. What is your village called?"

"Village!"

"Yes, but what is its name?"

Y

"Village!" Fred grinned, then made some noises consisting of a click, glottal stops, and a gargle. "You not say!"

"cl – gl – gg?" Fred burst into laughter and when he stopped we sat in silence for a minute, while I watched a humming-bird flitting about. It was the first one I'd seen. It was coloured fluorescent green, and was no bigger than a budgie chick, but with a long, slender beak like a tube. They really do hum! "Is wings, wave very fast, make song." Fred advised. I watched it manoeuvre very precisely in front of a blossom, its tail wagging as it positioned itself at the throat of a tube-like crimson flower. "Girl-bird. He drink flower juice, make go, like petrol for truck engine." "We call a girl she. A boy is he."

"Boy bird not so shiny, has black feet."

"In England, where I come from, the females, the girl birds, are dull, it is the males, the boy birds that are shiny, and colourful."

"You have these there?"

"Humming-birds, no. We have all kinds, but not these.

Some are a lot bigger."

"We have chicken, too." The stilted conversation went round in circles as we described birds to one another, neither of us likely to see many of the other country's species. "Old sailor man has c'nary. All yellow. Shout all time. "Fred said. "Is number two, number one get out, fly." He waved at the jungle. "No see again, prob'ly eat for dinner!" We watched the tiny birds, and the huge butterflies, flitting about. This was a crazy place, with birds the size of English bumble-bees, and insects the size of dinner plates. "Lift foot!" Fred said, suddenly. "No, other! See?" He made a writhing motion with a hand. I peered, and saw grass. "See what?" Fred pointed with a twig. Something twitched, reared up, then slid away, weaving around the grass blades. "You call snake. Him eat beetle. Think your foot is stone to hide. He bite very bad, hurt, but not bite, too little, unless have to." The tiny snake looked like a green garden worm, about a quarter of an inch round, and six or seven long. "I didn't see it until you showed me."

"Yes. You not see like our people. You not go in trees, get bite or hurt real bad!"

"I think you might be right!"

"Yes." It was a matter-of-fact statement, not one of self-importance.

A large mottled bird with a wingspan of several feet, swept across the clearing. "What kind of bird was that?"

"Big bird, eat monkey."

"What is its name?"

"I no ask, it not stop!" Fred grinned, demonstrating that the English sense of humour was understood by his people. "You English peoples, everything has name, every little flower, every beetle, everything. We just have good, bad, no use, food, names."

"Then how do you know which is which, when you talk to your own people?" I asked. "Just do, in head!" He smiled again. "You peoples, talk, talk, talk, never listen!" He pointed at the cricket pavilion. "Is dinner! You go now, come tomorrow."

"Ok." I wasn't quite sure whether he was poking fun, or telling me off, but I paid more attention to where I was putting my feet, as I went.

After lunch, I discovered there was a library of sorts, mostly consisting of moth eaten paper-back books that had been left by previous residents. Amongst them was an A4 ring binder, with loose-leaf pages inside on which someone

RNARS Newsletter | Spring 2021

had begun cataloguing the plant and animal life, with great artistic skill. The person had tentatively named the family group, cross-referenced to a book that was not on the shelves. I passed the heat of the afternoon leafing through it, trying to match up the sketches to the things I could see through the window and door. Two different writing styles provided the written notes, so whoever had done this had had his or her work continued by a second person, both of them had spent a considerable time here, as the work covered several seasons. (Did the jungle have seasons? I knew of two, Hot, and Monsoon!)



After tea, when the intense heat had backed off a few degrees, a couple of the more energetic of us decided to try out the pool. I was questioned as to its depth, and the exact location. I ended up showing them where it was located. The question of what to wear cropped up, as we stood looking at the inviting,

clear water. "Have you seen any women about the camp?" "No."

"Well, then!" The speaker dropped his clothes where he stood, walked hastily to the edge over the scorchingly hot concrete surround, and dove neatly in, cleaving the water like a pro. The neat dive turned into a sack of spuds halfway down, followed by a frantic thrash to the side, and a hasty

evacuation. The diver stood, shivering violently, whooping for breath. "Cor!" He spluttered, "It's bloody freezing!" I said nothing, because I knew from this morning that the water was about eighty degrees cooler than the air! Toes and fingers were tentatively dipped, then the would-be swimmers decided better of it, and went sun-bathing instead!

"What'cha do this morning?" I was asked. "I carried a bucket of drowned moths. How about you?"

"Me? I pushed a green button, and then a bit later, I pushed a red one, to turn an electric grindstone on and off, so 'whatsisname' could sharpen his axe."

"Yeah, an' I watched him do it, in case he strained a finger!"

"That truck was made in 1928! It's a pile of junk, but it still goes. It must have been here before the war, because there's Jap picture writing carved in it!"

"I bet this place was a P.O.W. camp!"

"Yeah."

"Don't those grass-hoppers ever shut up?"

"What a row, this morning!"

"I thought the country was quiet."

"City boy!"

"Yokel!"

"It's too hot to fight over it."



Mickey Jones, the truck-driver, wandered over. "Keep your kecks on, boys. The wimmen from the village get offended easy. It's against their religion to go naked in public."

"What women?"

"Because you can't see them, don't mean they can't see you. Put yer pants on!"

"Fred was telling me that we don't see things the way they do."

"Who's Fred?" The diver was hopping about on one leg, as he tried to put his boxers back on, without the benefit of a towel to dry himself on, first. "Fred's the Malay I'm working with, bloody know-it-all. Every time I did something, he said, 'not like that, like this!"

"Was he right?"

"Yeah!"

"It's the evening meal in ten minutes, anyway." Mickey said, triggering a mass migration to the pavilion.

Later, I found myself a comfortable spot near a hedge covered in climbing plants of differing kinds, and watched the antics of the Humming-birds. I admired the colours and patterns of them and the enormous butterflies that flitted about. After a while, I noticed that the birds were the same few constantly flitting about, but re-visiting the same blossom at intervals. This group seemed to prefer the large orange coloured flowers with the yellow throat, like the sketch in the loose-leaf file, where the artist had tentatively named as; - Brugmansia X spp, whatever that meant. There was a similarly shaped, creamy white variety, with a perfume to knock your head off at forty paces. They all had woody stems, and broad, oval leaves with saw-tooth edges, rather like our nettles, but much larger. Competing with them was a creeper plant that was covered in masses of tiny white star-shaped flowers, with a hint of orange in the centre. Again, it had a powerful, heavenly scent. This plant was used by the insects, which brought in the other kinds of birds that went whizzing past my head as I sat there, rather like the Martins and Swifts do, at home. Occasionally they passed so close to me that I felt the pressure-wave of their flight. As the evening air cooled, the mossies came out of hiding and began to bite, so I retired to the shelter of the clubhouse. Our electrician was fiddling with an ancient valve radio, getting occasional plops and hisses from the speaker. He messed around with it for a while, until he accidentally touched a metal cap on a valve, and got a ninety volt jolt up his arm for his trouble! After that he gave up with it, declaring that it was deceased. As he turned away in disgust, the dials lit up, and it hissed away gently to itself. I carefully tuned around the dial I found a station playing pop music, but with the announcements in Malay. "It takes a Radio Operator to operate a radio!" I gloated, then retreated under a barrage of guinine pills and empty tiger beer cans...

Eric

QRSS: Everything You Need to Know

QRSS is a CW mode in which the receiver bandwidth is drastically reduced

and the rate at which code is sent is slowed beyond normal hearing by ear. It is named for QRS, a Q-code indicating "send more slowly."

As received noise is directly proportional to the receiver bandwidth, so the use of bandwidth for less than 1Hz is common in QRSS. This primarily serves the needs of QRP (low-power) operation, as it allows extremely weak signals to be received and decoded in the presence of high levels of background noise.



Morse code dot lengths of anywhere from a few seconds to a minute or more have been successfully employed; while a significant improvement in weaksignal performance is observed, the amount of data transferred is severely constrained.

Due to the narrow bandwidth used, frequency stability is critical at both the receiver and transmitter. A crystal-controlled reference using a crystal oven to maintain constant temperature is therefore recommended.

Fast Fourier Transform demodulation

Mathematically, a fast Fourier transform is a calculation which, given a digitized waveform as input, calculates the signal strength at each frequency in the sample. By connecting an SSB receiver to a computer sound card, a received signal may be captured and the signal level at each frequency displayed vs. frequency and time by software.

A computer may store a received signal and replay it at a faster speed; it may also be used (with FFT software) to generate a "waterfall" or "curtain" display graphically. Brightness or color may be used to indicate signal strength while X: Y axes represent time and frequency. (Axes are assigned so that time runs horizontally for a "curtain" graph and vertically for a "waterfall" – the two graphical depictions are otherwise identical).

RNARS Newsletter | Spring 2021

As FFT demodulation of CW allows multiple frequencies within the passband to be monitored and displayed simultaneously, it will display a received signal even in the case of frequency drift and can display multiple adjacent-channel signals side-by-side if all fall within the passband.

Dual-frequency CW

The timing for standard International Morse code is:

- Dot: one dot-time "on", followed by one dot-time "off"
- Dash: three dot-times "on", followed by one dot-time "off"
- The space between characters is three dot-times "off"
- The space between words is seven dot-times "off"

A dash (including inter-symbol spacing) therefore takes twice as long to send as a dot. One approach used in QRSS is a non-standard system in which a dot and a dash are the same length but are transmitted on slightly-different frequencies. This scheme permits the time between individual symbols to be reduced, as well as reducing the length of a dash – but at the cost of allowing slightly-wider bandwidth. As two frequencies are used, each of the pair is subject to noise and interference.

Applications

QRSS has served primarily in applications such as CW beacons, where only relatively small amounts of data need be transmitted. While it has been used on various HF bands, it is most useful on bands where radio amateur allocations are very narrow or strictly limited in power (such as the 136kHz allocation in the United Kingdom, cited as having stringent power limits

A very limited bandwidth and a 2200-meter wavelength where most practical transmitting loops provide just a small fraction of one percent of power efficiency). Transmitters are typically small QRP or QRPp devices of homebrew design; some stations have used 1 RPM clockwork as a motor to turn a mechanical disk on which a beacon's callsign is encoded.

QRSS techniques have been applied to other digital and facsimile modes, including the Hellschreiber frequency-vs-time facsimile plotting system (as the same demodulation techniques which apply to the CW "curtain" and "waterfall" graphs apply to Hellschreiber).

QRSS Grabbers

A QRSS grabber is a dedicated receiver that collects and decodes cross signals.

www.amateur-radio-wiki.net/qrss/

Ed

SDR OR JUST BAROQUE POP TECHNOLOGY



Software Defined Radio (SDR) is a quite youthful participant in the hobby stemming out of new technology with an old theme embedded at its heart. You see, someone had the fiendish idea of taking a TV receiver dongle and using it as a rather nice all wavebands radio by taking advantage of its onboard digital signal processing (DSP). It just needed a bit of software here and there, and Bob's your uncle. Yes, you're right, it sounds a bit Heath-Robinson, but it sort of works, erm... the dark side of the force!

SDR is a radio that does not exist in the real world as a function of radio circuitry per se, and there are a lot of people out there who pass themselves off as knowing everything about the subject except that they do not a little knowledge is very dangerous really lands with a thump in the world of radio. What makes me grumpy in radio circles are those individuals or organisations who they feel they don't have to explain how things work and lead us down the pathway to nowhere when it comes to new technology. The technology disease that has been around for several years is the one that sucks us into buying potentially great pieces of kit, but leaves us hanging high and dry without an instruction manual. For this very reason the SDR dongle can be one of the greatest disappointments. Except my i-7300 which is a really brilliant high end SDR which came with a manual and within its pages was a pointer to the company's website from where I could download the full manual if I wanted to. Not so with RTL-SDR it's a big headache that can turn into one of our hobby's great nightmares! It looks good, but it can only function at a certain level.

Phase one - buying a dongle, getting it to work

Scene 1 QDM, QDM, QDM, Where Am I, Luke Skywalker

It's like buying a car or a PC without a user's manual, I mean; where does one start? This is where the rubber hits the road in modern technological developments. The worst part of the 80%-20% philosophy in manufacturing that came over here from the US in the 1970s -the customer does the last 20% of the QA cycle! In the HQ shack I watched people struggle to get their purchases working. From the most inept driver software which configures your PC before you download and run the software 'radio' to the missing of vital instructions to get everything working, it took them days to figure out. I observed club members helping each other out and rooting around on various

RNARS Newsletter | Spring 2021

websites until everything worked in the end. They could receive everything from 24MHz right up to SHF. The results were impressive. In similar fashion my first attempt a few months later didn't go too



badly after all is said and done, but the software installation could have had a decent set of instructions. I bought the Nooelec SDR dongle (R820T SDR & DVB-T) and tried to marry it up with the software program called SDR-sharp (SDR#). It turned out to be more of an exceptionally hideous and notorious wreck of a program that would not run. Joe Kirk suggested SDR-Console - what a dream by comparison. It downloaded and ran at the second attempt (no manual to speak of), but it worked, DAB radio, amateur bands, FM, VHF,UHF, all the way up to 1.2GHz. Found 11 metres on the way up...

Moving swiftly on, I was well satisfied, I had a complete radio in a USB stick. This meant that I could slip into the spare room and listen-in when I couldn't get into the shack. The only downside was that the dongle could not go below 24MHz. Later on, Joe offered me a USB 50MHz frequency converter; heaven! All the way down to LF and back and the aerials to hand. Later, I did chance my arm by downloading the *SDR# community download -with plug-ins*, and bless me it worked from the word go. A bit chunky with a lack lustre user interface compared to SDR-Console, but it worked! A good position to be in thought I. However, neither piece of software worked in the shack... SDR-Console had no facility to work HF and SDR# was as coy as ever with multiple error messages leering at me from the monitor screen on starting. The inhouse team was winning, but the shack team was floundering three goals down. In that case proceed with the working system and go with that for the time being...

Phase two -The Idea From Hell

'Master, I have a cunning plan.'

'Yes, Baldrick, what is it?'

'How about getting one of those new-fangled RTL-SDRs with HF built in, and then extending your options for satellite reception?'

'What a splendid idea Baldrick, remind me to kick you for stealing my idea.' 'Yes, Master.'

Scene 2 May The Force Be With You

Six months after the initial installation began, I was tempted again and bought an integrated SDR, the RTL-SDR (RTL2832U R820T2+BIAS T+HF) for about £18 including vat, I should have learned from the others that sometimes it pays to leave well alone. I had already installed the required software to get the original SDR working. All I had to do was plug in the new



gadget, connect an aerial and run the software, *et voila* -it worked! Hello, what's all this noise then? It didn't help when a fortnight later I had been listening to some chatter on 20metres and nipped out to answer a pending call of nature. When I returned to the shack there was silence, the kind of hush that Herman's Hermits used to sing about, sort of baroque pop they called it, but something had definitely gone pop hereabouts in the shack I can tell you. No HF functionality, dead as a parrot... (poor old Dodo's worn out)

'What's that you say, you own a parrot? Oh...'

Well, rapid fettling here and there followed, but to no avail. I checked the settings, checked the aerials checked VHF and UHF -noisy, but I could just hear that old familiar voice of Volmet South, "5 oktas, ten thousand feet," -and all that. The following morning a forensic examination determined that a very stiff and dead parrot was indeed plugged into the PC! Shortly afterwards I read the sad news from an internet page that my SDR was a clone -not the real thing, and not only was it dull of hearing, but wait for it, very noisy and potentially short lived. The howl was so loud that they launched the lifeboat across the water in Cowes, mother dropped her gin on the brand new white carpet and the cats hid in dark places. I shelved the project there and then. absolutely chokker! I looked more closely at the cover. Now I knew it was a clone for sure, because it had four tiny screws to hold each end-plate in place, the genuine article only has two at each end -donner und blitzen! That's what pop baroque technology does for you. It looks good, but doesn't last long. There was another kind of hush ringing in my ears as I slowly and with dreadful purpose stretched out my arm towards the gin, wavered over to a bottle of slivovitz and then fell upon an old childhood favourite of apricot brandy -it's a long story about dissimilar liquids used to generate electricity...

Just after Christmas had ended was when the second part of Baldrick's idea took root, and as Captain Bertorelli of 'Allo Allo' would say:



"Whadda-mistaka ta-maka," when I very carefully placed an order for the genuine article at a price of £55 or thereabouts. They say the road to hell is paved with good intentions and trust me I had just unknowingly stepped on to it as I plugged it in to the PC, and ran the program. To my great delight

RNARS Newsletter | Spring 2021

everything worked well. Lower noise baseline, better sensitivity and higher gain for a better signal to noise ratio. What could be better? It wasn't very good at decoding RTTY. Well, you win some, you lose some on the road to success. A week into the new year and it was time to tinker with satellite mode. All that was needed was a suite of three programs; a signal decoder, a satellite tracker, and something called a VAC program. By the way, this new little gadget runs much cooler than the others which is a good sign that augured well for the project's completion.

- Step one I downloaded Orbitron the satellite tracker and checked it out fascinated by all those satellite tracks flickering across the LCD screen including the ISS. Wunderbar!
- Step two Came the download of the VAC program. It is a nifty little thing that fools your PC into thinking that you have an audio connection between the front and back sockets of the PC. It's a software cable if you like.
- Step three The satellite signal decoder program wxtoimg download.

The significant aspect in all of this activity had been a total absence of detailed instructions from the RTL-SDR website. Just a series of glib statements along the lines of *download and run* at the end of links to third party websites. If you've ever watched the kids movie, 'Finding Nemo,' you will know of the nature of the desperate plight I had entered into, I was getting lost. It felt like I was being hunted by CS Lewis's character from his eponymous satire, 'The Screwtape Letters,' and it was almost as if his nasty little nephew Wormwood was prodding me along this pathway as I slogged my way through the internet trying to get to the bottom of it without finding what I was looking for. In the end I relented and just ran the decoder program only to find that it locked-up after following the limited advice from a well meaning, but amateur and ineffectual you tube program. With rising disappointment I download the decoder software from another website and ran it with the same result. Much like Sheriff Eustace P Coltrane in the cult movies 'Smokey and the Bandit' I was hearing alarm bells going off in the background! Time to take stock I thought and walked away from the car crash looming ahead of me.

I dashed off a missive asking for help on the Face-book page for RTL-SDR enthusiasts. They responded very quickly with all kinds of helpful advice, but in the main I had tried everything they had offered up. Stalwarts that they are, bravo! I even looked at a Russian satellite website where embedded right in the middle of it emerged a familiar theme; '...very old software not updated...' Definitely no chance there! Overall what had gone wrong?

RNARS Newsletter | Spring 2021

Beware of websites that offer products that are only half finished is what went wrong. The RTL-SDR website simply is a net to get people to buy SDR dongles, but apart from that there is nothing of substance. Every hardwaresoftware integrated product is only half-made if the other part does not come with it. Hardware without software is nothing and vice-versa. While it has lots of pictures and seemingly endless advice, all of the software has to be obtained from third party websites -that is the problem. A lot of words that say very little and no evidence of full installation instructions should have been an obvious clue. Don't get me wrong, I think SDR is a brilliant idea, but in the main poorly supported at this end of the market. A final check of the software revealed there were several different versions on the aforementioned thirdparty websites, indicating poor configuration control at source. Judging by the Face-book page many people have also gone down the same route and found the same non-functioning result. I will stop there, there's crispy parrot and pancakes on the menu tonight -can't miss that. Now you know what baroque pop technology is all about. I know I should have acquired one of the more expensive SDRs that comes with a software bundle. Something like SDR-Play, but I didn't wait ... Hoisin sauce anyone?

Health and safety information

This is a gentle hobby unconnected with any avian activities, not a single parrot was harmed at any time during the writing of this article.

"Baldrick,"

Amateur Radio is a great hobby

"Yes, Master, ouch!"

RSGB CONSULTATION - DIRECT ENTRY TO FULL LICENCE

Key Features

- A direct route of entry to Full licence privileges.
- Uses the same books as the three-tier suite of courses.
- The examination provides a complete backbone of theoretical knowledge.
- May be used within 6th form schools and colleges to enrich the Science and Technology curriculum. Assessment is by 2½ exam comprising 75 questions.

Pass mark is 50%. For more information login to the RSGB website and search for *direct entry to full licence rsgb consultation*



Kev Lamb G4BUW

HQ Station Callsign Activity



How fortunate we are to have a fantastic HQ radio station based at the Royal Navy's training establishment, HMS Collingwood near Fareham in Hampshire. Multiple people have done a tremendously good job over many years, in developing, maintaining and operating the station; a great example of enthusiasm, skill and passion!

The epidemic has led to tight access restrictions being imposed on the station. Very frustrating but of course totally understandable. When the RNARS Committee asked for people to operate an HQ callsign from an alternative address (/A), I offered to help, because of being very fortunate to have a good location and HF station at my home location, 25 miles north of the HQ. Little did I know at the time, how this would all pan out.

Since the 31st May 2020, I have put G3CRS/A ('Collingwood Radio Society') on the air, mainly 80M SSB. My operating times have, and at the time of writing, continue to be somewhat sporadic to fit in with personal and business commitments. Err...well, not just that; I have to say that the weather is a bit of an influencer as my radio shack is in a garden cabin that takes quite a while to warm up – but the occasional tot helps!

What happened after the initial casual CQ calls on 80M, was pretty much breath taking. 'Pile-ups' of stations wanting to contact the HQ callsign! I can remember thinking, "You better get your act together here, Kev"; operating procedure being the name of the game together with acting effectively as an RNARS representative. Luckily, my brain's 'motor program' kicked in from many years back, when I was a support operator at the original Science Museum station, GB2SM in South Kensington, London which was set up in the 50's and run for many years by Geoff Voller, G3JUL. It seemed like the whole world always wanted to talk with GB2SM. Fantastic! The 4 element HF beam on the museum roof, fed by high power Collins equipment, certainly did a good job.



At G3CRS/A I am primarily using an old Yaesu FT990 transceiver, into an Ameritron AL82 amplifier, feeding a multi-band inverted v aerial which is about 35 feet up at the apex. The location is on a hill top overlooking Alton, Hampshire and, thank goodness, with a low noise level. An IC 7100 transceiver into a Sirio 3 element beam is used for 4m. Over 500 QSOs have been made so far, mainly UK but some DX also including Australia and New Zealand. It has been a challenge to contact as many

stations as possible to give RNARS and station information *in balance with* having a 'bit of a chat' with people. It certainly is a privilege to be able operate on behalf of the RNARS but also, there is another important point to mention. I gained my full amateur radio license in 1972, but don't think I have been so much on the air than over the last 9 months. Lock down has made me more grateful than ever for amateur radio. After all, us humans need to talk with each other; it's a fundamental part of what we are. All radio modes are good for this of course, but especially voice! I am always interested in hearing about other people's stations, where they live and what they do, especially their interests. It has been particularly rewarding to talk with people who live on their own, and those with disabilities – for whom radio can be such a highly positive experience.

Thank you to all those that have encouraged me to operate the station and given me their moral support, especially RNARS Chairman, David Firth, MOSLL. It is gratifying that several people contacted by G3CRS/A, have since joined the RNARS. Welcome to you! Long may the good spirit of amateur radio and maritime communications live on. **Kev**



Closure of HMS Belfast London Group's Bridge Wireless Office BY IWM effectively dismisses the RNARS London Group without notice.



The IWM, who own HMS Belfast, confirmed an earlier communiqué of 2020 to close down the BWO operation and to remove all their equipment as soon as possible.

While the pandemic lockdown gives the group some breathing space, This surprise and somewhat abrupt move without notice, has been taken by the IWM as a result of losses in revenues

due to the severe impact of the Covid-19 pandemic, explained Director-General Diane Lees in a letter to the London Group's Chairman, Gavin Keegan. Citing both financial and operating threats as the cause for the IWM's need to 'transform its operations and review the interpretation and space requirements ...' She goes on to say that the *review of the interpretation of HMS Belfast... will refresh and refocus the BWO.* -and that is why the RNARS has been asked to remove all of its equipment, since it does not conform to what the IWM wants to offer for public display, because the equipment is not part of the 'estate.' This is a severe blow to the London Group who has been in operation for 45 years. They are now seeking suitable premises either on or close to the River Thames in London.

Matthew Cotton Batten (RNARS 5088) of RCSCC Quinte reports: "One of my cadets involved with my Sea Cadet Communications initiative has passed his federal telegraphy test with 100%"



Congratulations to Belleville Sea Cadet PO2 Duncan (VA3FSY), as the first cadet in Canada to receive his federal Morse Code operator license endorsement. His examiner is quoted as reporting "He has a particularly good fist -perfect character formation & spacing steady speed." As one of the cadets that obtained his Amateur Radio License, Duncan Culliton went on to study Morse Code adding that endorsement to his license. Well done!

Matthew-VE3ZQW RCSCC QUINTE-VA3GKY

New SSB Group Les – VK2CPC (cc'd) has offered to start a VK/ZL/G etc. SSB net on Sundays 11:00 UK time 14.329, which started Sunday 28th February on a 'suck it and see' basis.

Steve Legg Reports

This morning on our local 9am EV net here in io90, I tried my Alinco DX8 on super low power (1 watt) to drive my 10m to 4m transverter. I was interested to see if 1 watt would run it as 3 to 5w is recommended. I was very pleasantly surprised that it works, 1w input equals 7w output, this was still getting me out to all the usual operators on the net



albeit maybe just 1 s point down in some cases. Audio was reported as a 5, clear and crisp using the standard Alinco mic. So if you have an Alinco and wanted to give 4m ago but concerned it would not power a transverter then think again. Below, a strong signal from a net user 2.5 miles away and the transverter in use.

NEW RNARS LOGO



At the last Committee meeting on February 4th it was proposed that we look at a new design of our logo. It achieves a couple of things in the redesign bearing in mind there have been comments about current logo where the Yagi array's artwork extends beyond the circumferential ropework, and the rather exposed and sharp points to the swallow tails at the end of the ribbon underneath. Notwithstanding, it now conforms to what is expected in the design of naval crests.

MEMBERSHIP STATS

Our Membership Secretary, Joe Kirk reported on current membership Levels at the 4th of Ferbruary Committee meeting.

Type of membership	Current	Free	Life	Total
Affiliate	15	5	0	20
Associate	126	1	13	140
Corporate	365	3	65	433
Family	8	0	0	8
Honorary	1	1	0	2
Total	515	10	78	603

Captain's/Commander's Rounds

Secretary Martin Longbottom reports that there was a clean bill of health for the HQ shack during Rounds on the 9th of February. Also, Steve Legg has been in and powered up the rigs in the bays to see that they were working without any problems. The heating remains on, and our Block Manager, Dale is currently keeping a very good weather eye open for us regarding our aerials and the general state of the building. The region has been experiencing low temperatures, with gales, driving rain and a significant wind-chill factor. The main concern is -as it always has been, getting back into the shack on a normal basis. As you can expect, the authorities will not allow non-



essential personnel back onboard for some time to come. Access passes to HMS Collingwood will not be issued until the all clear is given. However, they are aware that should there be any critical/essential maintenance in the mean time, we are keen to gain entry should anything go seriously wrong. It's important to keep our networks going and to make the effort to stay in touch with each other. *Nil carborundum...* and all that.

Bob New

Bob and his other half have been ill with Covid-19, but I am glad to write that both are recovering at home and now feeling much better though tired out. Of the two, Bob was worst affected and quite poorly for a while. However, talk of warm jam doughnuts and hot coffee perked him up no end. If you've got a spare moment or two give him a buzz on the blower.

Ian Hutchinson

GREAT NEWS from Ian, MOLIH who announced just before the end of January that he has passed his leadership course. Congratulations on your attainment; L/CIS. Well done!





Les Sidebottam, **VK2CPC** (QTHR) has offered to start a VK/ZL/G etc. SSB net on Sundays 11:00 UK time on 14.329MHz.

IN THE NEWS

HMS Spey Joins The Fleet

The final of five new offshore patrol vessels has formally joined the Royal Navy in a short ceremony to raise the White Ensign for the first time on HMS Spey.



She was delivered to Portsmouth Naval Base in October from BAE Systems' shipyards on the Clyde for the final stages of construction before Spey's crew took custody of her yesterday afternoon. Spey's first Commanding Officer, Lieutenant Commander Ben Evans, said: "It is such a privilege to lead Spey's complement through the coming trials and training programme and bring her to operational status. In spite of the considerable disruption caused by the pandemic, the Royal Navy has received the fifth and final offshore patrol vessel and our job now is to prepare ourselves and Spey for whatever



operations we are assigned."

No guests were invited for the ceremony to change the Blue Ensign – denoting a ship in government service – for White, and only essential personnel were on board with Spey, which is expected to depart Portsmouth next month for the first time. Uisge Spè

Mod RN Jan 2021

Contract awarded for drone jammers for Royal Navy ships

The Ministry of Defence has awarded a £2 million contract to [US based Kirintec] to fill an urgent capability requirement to provide counterunmanned air system (C-UAS) radio frequency jammer equipment, training and support to the Royal Navy. The contract covers an initial

quantity of up to 11 C-UAS RF Jammers including the provision of 1 years in service support and spares, to commence at the point of delivery and acceptance.

Drone to give British patrol vessels 'eyes in the sky'

HMS Tamar has made extensive use of a small Puma remotely piloted aircraft during trials as the ship practices for 'constabulary duties' when she deploys for the first time this summer. **UKDJ 2021**





UKDJ George Allison Jan 2021

IN THE NEWS

GCHQ has launched a cyber operation to disrupt disinformation around [Covid] vaccines being spread by Russia and other hostile states.

False information about vaccines has increased during the corona virus pandemic, with Russia identified as one of the main spreaders of such content.



According to Lucy Fisher in the Times, the UK spy agency is now using tools developed to stop material created by Islamic State from spreading against anti-vaccine propaganda. Russia has been linked to a number of malicious activities online associated with corona virus. Earlier in the year, Defence Secretary Ben Wallace committed to supporting NATO's efforts to combat COVID-19 in a video conference with Allied defence ministers.

"GCHQ has begun an offensive cyber-operation to disrupt anti-vaccine propaganda being spread by hostile states, The Times understands. The spy agency is using a toolkit developed to tackle disinformation and recruitment material peddled by Islamic State, according to sources... It is the latest move by cyber agents to counter activity linked to Moscow whose aim is to exploit the pandemic in order to undermine the West and boost Russian interests. The government regards tackling false information about inoculation as a rising priority as the prospect of a reliable vaccine against the corona virus draws closer... GCHQ has been told to take out anti-vaxers online and on social media. There are ways they have used to monitor and disrupt terrorist propaganda."

Abstract: UKDJ 2020*



New UK Space Commander named

The inaugural commander of the United Kingdom's new Space Command has been announced as Air Commodore Paul Godfrey OBE who will be promoted to the rank of Air Vice-Marshal, say the Royal Air Force. Space Command will be a Joint Command, staffed from all three Services

of the Armed Forces, the Civil Service and key members of the commercial sector at RAF High Wycombe.

*George Allison UKDJ Feb, 2021

IN THE NEWS

French Military Seeks Radio Receivers / Jammers

The French Defence Ministry has a tender out for radio jammers that can be drone-mounted. The government's Defence Innovation Agency has put out a request for proposals in search of a small, low-power warfare device that can find radio communication transmitters while mounted on a fixed or rotary-wing drone and possibly disable the signals through jamming... The devices are expected to be capable of detecting any number of transmitters operating between 30 MHz and 6 GHz and able to transmit their findings in real-time to a receiving station on the ground. Bidding is being limited to companies within the European Union.

icqpodcast-Feb, 2021 Colin Butler

SDR Play Posts Warnings About Fakes (Feb 14 2021)

Just a reminder that there are a lot of scams and fake SDRplay devices out there on the internet. Our RSP1A in particular has several imitations – some are real attempts to duplicate the functionality by copying the design. Other fake postings are "cut and paste" mis-representations of genuine SDR play resellers' web pages. These can be really hard to notice. A site called calvinpus.com has recently been carrying product items which mimic a genuine reseller's artwork and product description. So be careful. The fake copies may not work with the latest SDR play software including SDR uno. There will be no technical support even if you get some limited functionality using out of date software.

www.sdrplay.com/beware-fake-sdrplay-devices/

A new form of space weather: Earth Wind

There's a new form of space weather--and it comes from our own planet. Electrified "Earth wind" is streaming through space, much like the solar wind but different. A new study just published in the Astrophysical Journal Letters reports that Earth wind might actually make water on the Moon.

Get the full story on today's edition of <u>Spaceweather.com</u>.

Free downloadable PC software...

It's a map with ICQ zones, prefixes and a Live Geochron. It might just float your boat: <u>DX Atlas: Amateur Radio software</u>

OFcom Draft UK Amateur Radio licence Ts & Cs Revamp - ICNIRP

Ofcom have published guidance for EMC monitoring and enforcement for amateur radio licence holders. All of us must assess our equipment for conformity to acceptable radiation limits, but the price is that operators have to keep records for all their transmitters, ready for inspection! Sending us emails.

RSGB CONTEST CLUB

RSGB Contest Club

Who are we and what do we do?

The Contest Club is for any RSGB members who are interested in taking part in amateur radio contests but is particularly aimed at those who are not already members of a radio club or group that encourages contesting. Membership is open to all RSGB Members.



Contest Club members who are not members of another participating Affiliated Society are welcome to enter any of the relevant contest series as representatives of the Contest Club – which is in the General Category of clubs. To join the Contest Club, you do not need any previous experience of contesting and you will not be obliged to enter any of the Affiliated Society events on behalf of the club.

The club is affiliated to the RSGB as well as being organised from within the RSGB contest committees. The Club committee consists of the Chair of the RSGB HF Contest Committee, the Chair of the RSGB VHF Contest Committee and the Chair of the RSGB Contest Support Committee.

Membership is open to any licenced RSGB Member and there are no joining fees or subscriptions.

Discussion Group

The Club has an online discussion group which members are welcome to join. This is used to circulate news relating to all of



the RSGB and International Contests and to coordinate use of the historic call signs that the club holds. Also this is a good forum to use for advice on any aspect of contesting.

How to Join

If you are an RSGB member and would like to join the RSGB Contest Club please send an email with your RSGB membership number to **ContestClub@rsgbcc.org**. Please address any queries or requests to use the club callsigns to the same address.

RSGB VHF/UHF/SHF CONTESTS - ABSTRACT

RSGB - Contest Committee

144MHz UKAC					
Date	05-Jan-21	Time (UTC)	2000-2230		
Date	02-Feb-21	Time	2000-2230		
Date	02-Mar-21	Time 2000-2230			
Date	06-Apr-21	Time	1900-2130		
Date	04-May-21	Time	1900-2130		
Date	01-Jun-21	Time	1900-2130		
Date	06-Jul-21	Time	1900-2130		
Date	03-Aug-21	Time	1900-2130		
Date	07-Sep-21	Time	1900-2130		
Date	05-Oct-21	Time	1900-2130		
Date	02-Nov-21	Time	2000-2230		
Date	07-Dec-21	Time	2000-2230		
Band	2m				
Modes	Modes SSB, CW, FM, AM, JT6M, ISCAT and FSK441				
Exchange	Exchange RS(T), Serial Number (starting at 001 on each date) and a 6 character (e.g. IO92JL) locator				
Scoring -visit website	One Point p	er Kilometre (B4)			
UK Contest Callsigns	Not allowed				
Sections					
Open					
(AO)		Standard licence cor	nditions and no antenna restrictions.		
Restricted					
(AR)	The power output must be not more than 100W PEP (50W on 4m) at the final output stage or external amplifier connection to the antenna.				
	Only one antenna may be used. Stacked or bayed antenna are not allowed. Backfire or parabolic dish type antenna must not exceed 2 metres in diameter.				
Low Power					
(AL)		output stage or exter	must not exceed 10W PEP at the final rnal amplifier connection to the antenna.		
Only one antenna may be used Stacked or bayed antenn arrays may not be used. Backfire or parabolic dish typ antennas must not exceed 2 metres in diameter					
General Rules					
Visit website General Rules for RSGB VHF/UHF/SHF Contests 2020 (rsgbcc.org)			RSGB VHF/UHF/SHF Contests 2020		
Special Rules for this Contest:					

RSGB VHF/UHF/SHF CONTESTS

SPECIAL RULES

These contests are timed to coincide with the last two hours of a number of European activity contests, with an extra half hour at the end to encourage intra UK&CD activity. They take place on Tuesdays from 2000-2230 local time with 144 MHz on the 1st Tuesday of the month, 432 MHz on the 2nd Tuesday, 1.3 GHz on the 3rd Tuesday, and 13cms to 3cms on the 4th Tuesday and on Thursdays from 2000-2230 with 50MHz on the 2nd Thursday and 70 MHz on the 3rd Thursday in the month.

When operating on 2320MHz, please observe the guidance below to avoid interference to the Primary user.

www.rsgbcc.org/vhf/rules/20rules/13cmschange.shtml

A UK&CD station is required to be at one or both ends of a QSO for it to be valid.

Please submit an entry after each session in which you are active.

On bands 23cms and below scores will be normalised for each section in each session as follows.

Score for each section/session = ((number of entrants+1)-(position of entrant))*1000/(number of entrants)

On bands 13cms and above the scores will be normalised for each section as follows. Score for each band/session = 1000 * square root of (Score achieved divided by session leader score).

Any entries with a zero score will be given a zero normalised score and will not be included in the count of the number of entrants in that section/band for the purposes of calculating other normalised scores.

The maximum number of sessions that will count towards the final individual scores will be EIGHT. Only the lowest scoring entries are discarded.

Note that ALL sessions count towards your club score.

It is impossible for you to determine your best sessions without knowing everyone else's scores, so please submit your logs and scores from all sessions in which you were active and allow the adjudicator to calculate your best sessions.

Stations may change section and move location between individual activity periods.

Certificates will be awarded to the overall winners and runners-up in each section and on each band in the same way as per the general rules. No certificates will be awarded for the individual events. A certificate will be awarded to the station who provides the most stations with the best DX on each band across the year (the SHF contest will count as a single band).

INC 2020 SUMMARY OF RESULTS

Alberto Mattei IT9MRM

INTERNATIONAL NAVAL CONTEST 2020 - CLASSIFICA di Alberto Mattei, IT9MRM - Coordinatore Nazionale ARMI & Award Manager



This edition of the International Naval Contest in the era of COVID expressed a lot of enthusiasm in the people who participated in the contest. Although there is a lot of difficulty due to the unstable propagation, the result was more than satisfactory. This is evidenced by the fairly high number of participants, compared to previous years. It certainly could have been higher, had it not been for two important contests at the same time (the Italian "40 & 80 meters" and the ARRL 10-Meter Contest). In any case, the number of participants, especially I wanted to thank all the partici-

from the "naval" extraction, was far beyond our expectations, Although the annual appointment is now reported in most contest calendars, the advertising given on social channels (Facebook) has given its contribution. The most present team was that of our dear German friends who are always present in NAVAL activities. Congratulations to the winners in the various categories, to mention the "top gun" of category B, our LY2MM AIbinas Staraitis - MI426 who for the fifth consecutive year is the absolute king of "CW Naval".

pants, as you may have noticed there are no control logs, I wanted to insert everyone (even those with two ontact to log), they too deserve to be included and to receive the diploma. The appointment is for December 2021. this time the handover is with the Austrian friends of the MFCA. To them I send my "good wind" BRAVO ZULU at all.

*For COVID all stations operating in category E (Multi Op) this year are valid in Single Op.

Subscribe to the Facebook page dedicated to the International Naval Contest, this is the address: https://www.facebook.com/groups/274923186932073

For a complete listing of the contest's results visit the RNARS website at WWW.RNARS.ORG.UK

NAVAL CLUB RESULTS



MARINE FUNKER CLUB AUSTRIA

N°	CALL - NAME - ID NAVAL	CAT	Tot. Points
1	OE4PWW - Walter Pap - CA135	В	185606
2	DJ2IT - Ernst Metzker - CA152	A	56290
3	DK7FX - Edmund Kollmann - CA149	в	36108
4	OE6XMF - MFCA Club station - CA100	E	21040
5	DK6LH - Gunter Hellwig - CA141	в	20254
6	OE1TKW - Helmut Klein - CA109	В	18837
7	OE3IDS - Wilhelm Dambock - CA157	В	18648
8	OE1-101007 - Helmuth Abel - CA65	D	16252
9	ON4CBM - Jacobs Bert - CA82	в	10472
10	OE3SOB - Siegfried Otter - CA99	в	4180
11	HB9DAR - Josef Mazzel - CA111	в	3927
12	0E3FFC - Franz Filzwieser - CA143	в	3009
13	OE6LUG - Lothar Haus - CA153	A	2520
14	DL4BCG - Paul Hag - CA160	В	1190
15	ON7CK - Jaak Cocquyt - CA123	в	855
16	OE6FTE - Alexander Kriz - CA156	с	456
17	F5VHQ - Günther John Trummer - CA81	в	275
18	OE1WED - Gerhard Weissenboeck - CA079	в	90



ITALIAN NAVAL OLD RHYTMERS CLUB

N°.	CALL - NAME - ID NAVAL	CAT	Tot. Points
1	ISOPGF - Giovanni Papi - IN523	В	21600
2	PA7RA - Rien Aarden - IN612	в	18886
3	IS0HQJ - Franco Atzori - IN529	В	15804
4	IK2UJF - Ermanno Ferrari - IN327	В	1053



MARINE RADIO AMATEUR CLUB

Nº	CALL - NAME - ID NAVAL	CAT	Tot. Points
1	PA2PCH - Ad Wouterson - MA467	В	23268
2	PA0JED - Jan Elburg - MA352	в	12384
3	PA3CW - Dick Hissink - MA457	в	10680
4	PASP - Rinus Pitstra - MA451	в	5607
5	PA2CHM - Cornelis H. Murre - MA026	в	3077
6	PA3EEG - Ruud In T Veld - MA436	в	1859
NAVAL CLUB RESULTS





NUCLEO DE RADIOAMADORES DA ARMADA

N٥	CALL - NAME - ID NAVAL	CAT	Tot. Points
1	CT1ELZ - Manuel Antonio Pires - PN70	В	13530
2	CS5NRA - Nucleo de Radioamadores da Armada - PN100	E	10672
3	CT1DRB - David Quental - PN044	В	8019
4	CT4GN - Jose Costa - PN020	в	120



FINNISH NAVAL AMATEUR RADIO SOCIETY

N°	CALL - NAME - ID NAVAL	CAT	Tot. Points
1	OH1WR - Rauno Kekalainen - FN2	В	34200
2	OH1LD - Arto Halonen - FN1	А	8050
3	OH1LR - Kalle Senvall - FN8	А	4720
4	OH1PP - Pekka Paavilainen -FN007	А	120



YO - MARINE AMATEUR RADIO CLUB

Nº	CALL - NAME - ID NAVAL	CAT	Tot. Points
1	YO4DW - Cornelius Sporis - YO16	В	25413
2	YO4MM - Dumitru Lesovici - YO85	В	1529
3	YO4AAC - George Savu - YO25	В	500

NAVAL CLUB RESULTS





MARINE FUNKER

N°	CALL - NAME - ID NAVAL	CAT	Tot. Points
1	DLOMFF - Club Station Minesweeper DENEB - MF875	E	337095
2	DK0SN - Klubstation OV Bremerhaven - MF990	E	172725
3	UY500 - Yuri Onishenko - MF627	в	101397
4	DLOMFS - Clubstation Marinefunker - MF600	E	101304
5	DLOMFH - Club Station MV Cap San Diego - MF900	E	94527
6	DLOMFM - MF Club station - MF975	E	74576
7	DG7EE - Gun Vogel - MF956	в	57180
8	DLOMFB - MF Club station - MF550	E	57167
9	DL7NDS - Denis Schoett - MF1155	А	56298
10	DL1AQU - Michael Mohr - MF1114	в	54369
11	DLOMF - Klubstation Marinefunker-Runde - MF1000	E	49320
12	DL6OCH - Henrick Bartels - MF1075	А	44700
13	HA2RQ - Zoltan Narai - MF582	в	38790
14	DLOMFW - MF Club station - MF950	E	37526
15	DLOMFL - Club Station Marinefunker Runde - MF850	E	36245
16	DL2NFC - Christian Fiedler - MF923	в	35955
17	DF1RL - Helmut Schaar - MF721	в	27945
18	DLOSMD - German Coast Radio Clubstation - MF955	E	23184
19	DLOMFX - MF Clubstation - MF1060	E	19800
20	DL2NY - Gunter Wahmann - MF462	в	16275
21	DL1ALN - Thomas Schmidt - MF569	в	14484
22	DL2LQC - Falco Kohorst - MF749	в	14110
23	G4BSW - Nigel Hadley - MF1137	в	12736
24	DL1BJO - Robert Grosschopff - MF1119	в	10136
25	OH7QR - Erkki Simila - MF1062	в	10080
26	DL2BRN - Hans-Joachim Bolk - MF1102	в	9693
27	IK2CZQ - Antonio Benzoni - MF1105	в	8937
28	HB9ASZ - Bernhard Pfander - MF419	в	8397
30	DM2AA - Ralf Baerwinkel - MF1074	в	8112
31	OE7CMI - Martin Crepaz - MF1035	в	8096
32	DL1GQE - Erich Schneider - MF620	в	7952
33	DLODMB - MF Clubstation - MF995	E	5940
34	DL1NL - Fred Hatzius - MF779	в	5140
35	DL2AMF - Reinhard Stuck - MF508	в	4360
36	DG3BCZ - Florian Meyer - MF1121	в	2288
37	DL4MFR - Hans-Ulrich Buschl - MF1157	с	1496
38	DF6LP - Jutta Landwehr - MF776	в	1120
39	DG1EHM - Michael Rupprich - MF1146	с	760
40	DL8BEL - Peter Lambert - MF689	в	680
41	OZONAVY - MF Clubstation - MF795	E	40
42	DE7WAB - Wolfgang Andres - MF1118	D	15

INTERNATIONAL NAVAL CONTEST RESULTS





ASSOCIAZIONE RADIOAMATORI MARINAI Italiani

N٩	CALL - NAME - ID NAVAL	CAT	Tot. Points
1	LY2MM - Albinas Staraitis - MI426	в	198198
2	SV1ENG - Antonis Parashis - MI1646	в	49500
3	IT9YBL/QRP - Andrea Angelillis - MI1148	С	26425
4	IZOEUX - Mercurio Salvatore - MI865	в	25212
5	IZ0XZD - Antonino Grimaldi - MI1394	в	22080
6	ISOFQK - Patrizio Bina - MI461	в	19418
7	TA2DA/3 - Sabri Saygiligil - MI1379	в	19075
8	IT9SDU - Salvatore Mangiagli - MI1620	в	8372
9	IMOSDX - Piergiorgio Nonnis - MI095	в	5334
10	IK2YRA - Carlos Wenzel - MI1487	в	5073
11	IT9IFI - Sergio Fleres - MI1107	в	3751
12	IZ7LOW - Roberto Pepe - MI1611	с	2380
13	ISOFAP - Alessandro Attanasio - MI1617	с	1690
14	IK7TVE - Pasquale De Ceglia - MI184	в	1210
15	ISOHMZ - Luca Mura - MI1519	с	1160
16	IT9PPX - Giovanni Patanè - MI121	А	909
17	IW9FI - Carmelo Petrone - MI923	А	900
18	IU1LPW - Gianni Rollero - MI1483	А	664
19	IT9ASD - Ivan Fresta - MI1002	в	609
20	IT9HRL - Rosario Romano - MI1622	с	553
21	IWOBTN - Giovanni Messore - MI251	с	164
22	IT9BRY - Amerigo Muscuso - MI1014	в	98
23	IU2CKU - Christian Bianchi - MI1601	А	46
24	IK8VHP - Delio Orga - MI1616	А	40



ROYAL NAVAL AMATEUR RADIO SOCIETY

N°	CALL - NAME - ID NAVAL	CAT	Tot. Points
1	OZ1RDN - Fregate HDMS Peder Skram - RN4565	E	16835
2	G3RFH - Ken Randall - RN175	в	15159
3	G4YBU - Tim Price - RN5031	в	12705
4	PAOVLA - Jo J.M. van Laarschot - RN944	в	11552
5	G4EUW - Bruce Keeling - RN2630	в	10005
6	DK9MOS - Maren Lorenz- RN4946	С	4928
7	G3ZGC - R. Jolliffe - RN508	в	3978
8	PAOXAW - Age de Jong - RN967	в	3816
9	OK1FCA - Stanislav Antos - RN4639	в	1520
10	GOIBN - Andrew Kersey - RN3314	в	651
11	GW4BEQ - Doug Hotchkiss - RN626	в	52

INTERNATIONAL NAVAL CONTEST RESULTS

CLUB	ANNO	CAT. A	CAT. B	CAT. C	CAT. D	CAT. E	CAT. F	TOTALE
MARAC	2006	2	60	6	2	11	27	108
ARMI	2007	9	53	3	1	8	32	106
RNARS	2008	6	70	3	4	9	44	136
PN	2009	15	56	4	6	10	64	155
MF	2010	10	65	12	5	11	115	218
INORC	2011	7	66	5	6	6	80	170
MFCA	2012	11	59	5	9	7	112	203
BMARS	2013	8	61	6	3	12	69	159
FNARS	2014	8	60	3	2	16	68	157
MARAC	2015	16	57	3	1	11	84	172
ARMI	2016	13	61	4	3	11	116	208
RNARS	2017	5	61	6	0	16	135	223
PN	2018	10	44	5	6	12	79	156
MF	2019	10	59	2	4	17	69	161
ARMI	2020	12	75	10	5	16	106	224

ANNO	NAVAL	INDIPEND	TOTALE
2006	80	28	108
2007	73	33	106
2008	89	47	136
2009	87	68	155
2010	100	118	218
2011	85	85	170
2012	85	118	203
2013	88	71	159
2014	88	69	157
2015	88	84	172
2015	91	117	208
2017	88	135	223
2018	72	84	156
2019	90	71	161
2020	115	109	224

International Naval Contest 2021 See you in December! Sponsor:

Thank you to all operators who represented us under the RNARS banner, well done!

Thank you Alberto for coordinating everything.

- 11

RNARS Nets

Mick Puttick G3LIK

Contact: mick_g3lik@ntlworld.com - 02392 255880 for all changes								
UK	UTC	Freque		Net			Control	
Daily	0001-040				ight Nutter			VRU
Sun	0800	3.6			t (news: 08	330)		LIK
	0930	3.7			OM Net			GD0SFI
	1030	7.068/			lorthern SS			WO
	1100	702	20	RNA	RS CW ne	et		TNI
Mon-Sat	1030-1330	30 3.7487.068 The Bubbly Rats Net			P/G0GBI/ /M0ZAE			
Mon	1400	3.5	75		S CW Net		G0\	/CV
	1900	3.748 7.088			SB Net (Ne 2000)	ews:	G0	GBI
	1930	145.400) (S16)		S Cornish buth / Liza		G4V	VKW
Tues	1600	7.068/	3.740	Tues	day HQ Ne	et	GB:	3RN
	1900	7.028/	3.528		RŚ CW Ne		G3F	RFH
Wed	1400	3.7	48	Stan	d Easy Ne	t	M6L	WO
	1700	TG 2	3527		sday DMR			LIH
	1900	3.7			nesday Ne			VIX
Thurs	1900	3.5			ish CW Ne			??
	2000	145.575			Scottish 2r			<ΤJ/Ρ
change	2100 GM			RNARS Top Band CW				GOCHV
Fri	1600	10.1			30m CW			AHM
Sat	0800	3.7			Memorial		GOVIX	
DX					trol			
	0800	7.015/3		MA	RAC CW			/PI4MRC
•	11:00	14.3	329	S	SB - Les		VK2CPC* W1USN/GD0SFI/	
Sun	1430	14.329		RN	IARS DX		GM7ESM	
	1800		Echolink		cholink		VE3OZN / K8BBT	
	1900	14.	14.33		N American		WA1HMW	
Mon	0930	3.6		VK SSB		VK1RAN/VK2RAN		
	0118-0618	3 7.0)2		VKCW			RAN
	0148-0648	3 10.1	10.118		VK CW		VK4RAN	
Wed	0800	3.6	3.62		ZL SSB		ZL1BSA	
	0930	7.0	7.02		VK SSB		VK5	RAN
	0945	7.0)9	VK SSB			VK1RAN/VK2RAN	
Thur	1430	14.329	±QRM	RNARS DX			W1USN/GD0SFI/ GM7ESM	
	0400	7.0)9	١.	/K SSB		VK2	
	1330	7.0			/K CW			CCV
Sat	1400	7.0			/K SSB			CCV
•	1430	14.329			IARS DX		W1USN/	GD0SFI/
RNARS SCENE OF ACTIVITY					ESIN			
FNA 4	45.40	KN.	AK3 30	ENE OF A			1	1
	45.40		40.442	44.050	40.007	04.050	04 007	00.050
	.824 3.5	-	10.118		18.087	21.052	24.897	28.052
SSB 1	.965 3.6		7.088	14.294	14.335	18.15	21.36	28.94

*NEW NET ON SUNDAYS run by Les Sidebottom based in NSW down under in Oz.

COMMODITIES PAGES

Order Form is at the back



A variety of items are available from the RNARS storeroom with many of them being personalised if you wish.

> Mugs, key rings, Lanyards & Clothing

Really nice RNARS Branded head gear embroidered hats with your call sign on one or even both sides of your head. From £12







RNARS Newsletter | Spring 2021

COMMODITIES PAGES

Mike Moore M6POY







The ideal birthday or anniversary present...





RNARS Branded Fleeces & Polo Shirts





RNARS Branded Gilet with your name and c/s Perhaps?



RNARS Newsletter | Spring 2021

COMMODITIES PAGES

Mike Moore M6POY









Great Caps! From £12





Just the thing to keep you warm in the shack when it gets cool outside

RNARS COMMODITIES

Mike Moore M6POY

Download order form - (http://www.rnars.org.uk/Commodities.html)				
Item	Price			
Gilet/body warmer w/ embroidered RNARS logo, Name and callsign. Taped seams. Waterproof & windproof, Double zip for easier fastening. Sizes S to 4XL Colour: Black	£68.50			
Navy cotton/polyester polo shirt w/ embroidered RNARS logo, Name and callsign. Sizes: S to XXXL Colour: Navy only	£25.00			
Sweatshirt , embroidered with the new RNARS logo, your name and callsign. Colour: Navy only Sizes: S to XXXL	£20.00			
Fleece jacket embroidered with RNARS logo, name and callsign. Colour: Navy only Sizes: S to XXXL	£25.00			
NEW! White long-sleeved shirt with RNARS logo & your callsign on the pocket	£38.00			
Baseball cap with RNARS Logo	£12.00			
-with your callsign on one side	£17.00			
-with your callsign on both sides	£22.00			
Baseball hat -plain	£12.00			
Gold blazer badge with new RNARS logo (p&p £2)	£11.00			
Lapel badge w/ new RNARS logo (p&p £1.00)	£2.50			
RNARS Tie	£4.00			
Lapel badge w/ new RNARS logo (p&p £1.00)	£2.50			
RNARS Log Book	£4-50			
Lanyard with RNARS & your callsign	£5.00			
Mug with RNARS logo & your callsign	£15.00			

Post & Packing is at UK rates:

Payment with order please Small to medium items £7.00 Large to Extra Large £8.50 Outside UK +£10.00

Please complete the Order Form and include your RNARS Membership Number. Note that some orders can take up to 3 weeks. If you wish to pay by PayPal the RNARS PayPal account email address is rnars.treas@gmail.com

You can download a copy of the order form our website at: Size in inches:



Small 36-38	Medium 38-40	Large 40-42
Extra Large 42-44	2 Extra Large 44-46	3 Extra Large 46-48
4 Extra Large 48-50	-	-

ORDER FORM

RNARS| Commodities

PLEASE write clearly and use block CAPITALS

Photocopies of this form are accepted

Call-sign | RNARS No:

Name:

Address:

Post Code:

Telephone:

Email:



Advisable to check before ordering as to availability in your size

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

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

Send orders to: Mike Moore M6POY 63 Homewater House, Hulbert Road Waterlooville, Hants PO77JY E-mail: commoditiesrnras@gmal.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

MF RUNDE ev Nets

Skeds, Nets and Frequencies

Saturday *	0800 LT	3565 kHz	CW- Bulletin
Sunday *	0800 LT	3625 kHz	SSB-Bulletin
Tuesday Key-Net	1730 LT	3565 kHz	CW-Straight-
Wednesday **	1730 LT	3625 kHz	SSB-Chat-Net
Thursday	1730 LT	3565 kHz	CW-Net

 * The callsign DLØMF is operated by different TMs (Traffic Masters)
 ** The callsign DLØMF and MF Club Stations are operated by different

NCS (Net Control Stations)

```
CW – Frequencies: 3565, 7025, 14052, 18095,
21052, 28052 kHz
SSB – Frequencies: 3625, 7060, 14335, –––
21360, 28320 kHz
```

last update 11/2020



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

For those who want something a little different

HMS SPEY P234 JOINED THE FLEET JANUARY 2021



© CROWN • RN