RNARS

NEWSLETTER

Royal Naval
Amateur Radio
Society

Winter 2018

< CONTENTS >

Front Cover:
HMS Dundas, launched at Whites, IOW in 1953, the first of several *Blackwood*-class frigates designated as Type-14. The *Dundas* being the first to be commissioned, on 9th March 1956. Considered suitable for ASW work she spent time at Portland with the 2nd Frigate Squadron where she was an ASW training ship for ASW branch personnel. This class of frigate was seen as 'second raters' built in response to the growing Soviet submarine threat in the 1950s. Never seeing any action, she refitted at Gibraltar and attended the fleet review at Spithead in 1977. She was scrapped in 1983

RNARS Officers & Committee



www.rnars.org.uk		
RNARS Officers & Committee		
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SUBSCRIPTIONS INFORMATION

Special Notice Regarding Your Subscription

As much as we would like you to continue being a member of the Society, all subscriptions fell due on April the first. If you have not paid your annual subscription within one month of the due date your membership will lapse. This is unfortunate, and we ask those of you who kindly use the banking facilities of either Direct Debit or Standing Order with dates other than April 1st, to please contact your bank to change the date of your subscription payment to 31st March or to April 1st each year. In this way you are helping to reduce the workload for our Secretaries 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** and 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 the preferred option, see above for details.

Newsletter by e-mail: Members who receive their Newsletter by e-mail can apply for a reduction in their annual subscription. Please contact the Secretary G3ZDF for further details.

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Data Protection: Your details will be held on the society's database by the Membership Secretary. The committee require your permission with regards to the release of any personal information held on the data-base

Items published in the Newsletter do not necessarily represent the views of the RNARS. The RNARS is affiliated to the RSGB.

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**

CHAIRMAN'S CHAT

David Firth
2E0GLL@mail.com

For me it is the children and grandchildren who make Christmas what it is. Right down to the amusement that we have at watching the little darlings playing with the wrappings rather than any of the lovely presents given to them. I'm not expecting an Icom box to appear in a large heavy stocking with the distant sound of sleigh bells receding into the sky, or perhaps just to find a modest digital hand-held nestling among the branches of the Christmas tree. I wonder too, if I will get the time to listen out on the bands to exchange a few words of greeting with some of my contacts. You see, a lot of our members are either looking after ailing spouses or partners while others are living alone for one reason or another, and at this time of year it can be quite lonely for them. Spare them a thought and make contact even though you may live miles apart. It is not only our families, it is for the different friendships that we have made over the years and these can be so encouraging. Let us recapture Christmas by chatting with old friends over the phone or by radio

Digital radio and network radio utilising Wifi hotspots are all catching on so fast it's difficult to know quite what is the best. There is now apparently a digital network dedicated to the armed forces -having seen one such system demonstrated in the HQ shack recently. Amazing technology stuffed into chunky mobile phone cases where once upon a time the analogue equivalent would fill the whole wireless office onboard -in the old days! Could we venture a guess that SDR might shortly be replaced before it reaches maturity?

To all our affiliated members within the RNARS fold and to the Royal Signals and RAFARS, and to all our members, may I wish you all the very best of season's greetings and a prosperous new year of growth and well being.

Best wishes to you all, *David*

MEMBERSHIP MATTERS

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

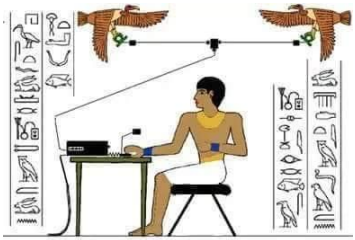
New Members		
David Woodhouse	G6ORL	5050
Mark Lyons	SWL	5051
Tony Parker	G3KAG	5052
Claude Terrier	F5BPL	5053
Roger Clover	G0RMU	5054
Alan Hewitt	SWL	5055
Re-joiners		
David Bondy	G4NRT	4148
Roy Sweeney	G0PMS	4342
Sepp Langer	OE3OLC	4675
James Ilott	G4KWW	1937
Geoff Axford	G4AQZ	3142
Hedley Byers	G7PFX	3967
Barrie Drinkwater	M5AEC	4880
Changes		
Mike Robertson – Callsign corrected	G3USX	3254
George Miles – now Life member	G3NIR	0111
Resigned		
John Hughes	G4KGT	1364
John Wakefield*	M0XIG	4915
Robin Weston*	G4XJS	2194
Gill Weston*	G6ZGK	3677
Silent Keys		
Laurie Harvey	G4XJU	3980
John Green	GM4VUG	2241
Chris Dodd	VK6DV	0615

*Will not renew membership at end of current year

HAPSHETSUT'S SCARAB

From the eyes of Horus

"Hapshetsut!... Hapshetsut!..."
"Yes my king, my glorious ruler!"
"I've been trying to contact General Potifar in the desert, but my brand new Ra sky talker has stopped working!"
"What a shame my dearest, my glorious ruler, but why bother me with such news. I don't understand these things? Now if it was some jewellery..."
"I know how you like to tinker with my bronze age technology, but just leave it alone, will you!"
"Oh, my glorious ruler how you shine when you're angry, my darling Pharoah."
"That's all well and good number one wife, but since you mention it where is the green scarab with the flashing red eyes that used to sit on this sky talker chest?"
"Oooh, I don't know my king, my glorious ruler, was there one there?"
"Look, its fine gold wire antennae are gone... what's that hanging around your neck?"
"Why, I'm not so sure my glorious one. Go and ask your grand vizier Jo-Seph, he knows everything that one."
"By the beard of the ancient pyramid you have my green scarab on that chain around your neck, where did you get it from precious wife?"
"Oh, I found it on the floor my glorious ruler, my Pharoah, It's just a trinket..."
"By the beard of the ancient pyramid that is the mo' dulator from my sky talker. If you do not return it to me this instant I will call the guards..."
"Oh, no, no, not that again, you'll call the guards. I flutter my eyelids in adoration. I relent because I love you, but you only ever speak to that sky talker sitting on yonder dreadful camphor wood chest. Come to me my glorious ruler and I'll give you back your pretty little scarab. By the way my handsome king who made it for you?"
"Made it? Made it? Look here, there's a battle going on over in Kadesh, and you want to know who made the little green scarab mo' dulator? Well, come to think of it he did a rather good job of it."
"Who my glorious ruler, light of my life, lamp of my desire?"
"That funny chap Dio the sand smith. Always inventing such useful things."
"Oh him, he invented a waterwheel last week..."
"I dare say number one wife, but I need to know how General Potifar is getting along over in Kadesh, whether or not he needs more men and weapons, you know -a war!"
"My dear glorious ruler how could I have been so careless. Here, have your sky talker Ra Dio mo' dulator and let there be peace in the kingdom of Egypt tonight..."



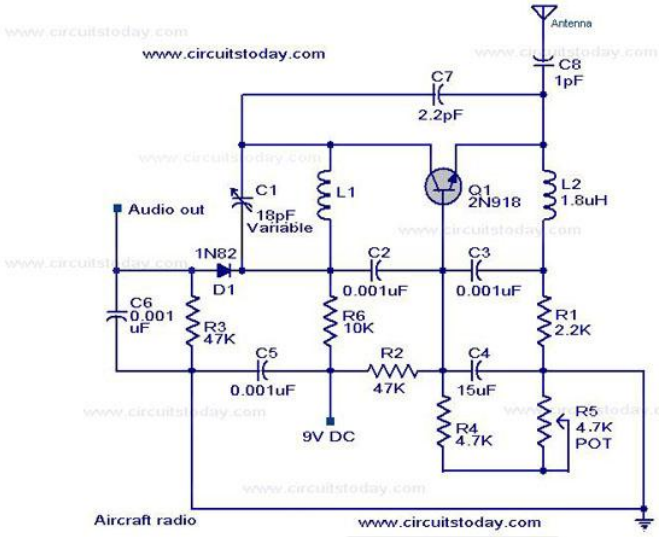
Sigh...

UHF AIRCRAFT RADIO PROJECT

mikeweavercommunications

Here's a low cost radio circuit that can be used to listen to radio conversations between aircraft. The radio circuit based on transistor 2N918 and diode 1N82 receives in the 220Mhz to 400Mhz range. Capacitor C1 and inductor L1 forms the tank circuit for tuning. Diode D1 performs the detection. Transistor T1 performs the necessary amplification. The output audio signal is just enough to drive a small headphone. For driving speakers.

Circuit diagram with Parts list.



Notes.

- Use a 45cm long wire for antenna,
- For L1 make 2 turns of 22 AWG magnetic wire on a 5/32 steel bolt.
- POT R5 can be used for adjusting the sensitivity.
- Assemble the circuit on a good quality PCB. That's an important factor.

Just begging for an audio amp circuit to provide a little more power to drive a loudspeaker... Ed

DIVERSE REPORTS

MILITARY DMR TALK GROUP LAUNCHED BY RNARS

Talkgroup 23527 has been designated the UK Military and Veterans Talkgroup with the help of RNARS member Ian Hutchinson, 2E0IHH - "*after extensive liaison with the Brandmeister network I am pleased to announce the TG23527 is now the UK Mil & Vet Talkgroup.*" Well done Ian!

RNARS on Facebook Aug 2018

World Radio Conference Preparations step up

Next autumn sees the 2019 World Radio Conference (WRC-19) convene, with agenda items regarding the future of 50MHz in Region 1 and Wireless Power charging of electric vehicles being of particular interest to amateurs. The 5MHz band is not an ITU allocation in our Region, so harmonising it with Region 2 & Region 3 amateur allocations is a key goal to enhance activity.

RSGB

STUNNING WEATHER AT RNARS HQ Field Event in November

Joe Kirk, Andy Cowley, John Taylor, Clive Eggington, Alan Campbell, David Firth, Chris Wilkinson.

Our 'Trial' Field Event on the 23rd of November was quite an introduction to going native with a mixed bag of aerials, cables, and wires all in the name of our pastime. The very old hands soon leading the way connecting radios to batteries and aerials. All turned up with their own 'black boxes' of radio hardware. Aerials evoked quite a fascination with a 10m monopole, a delta loop, a 6m fishing pole and a screwdriver fitted to the back of a camper van. The weather was balmy and good fun was had by all! A noteworthy occasion were the shouts of joy by Andy Cowley and Joe Kirk as they contacted an amateur somewhere in the LEBANON! **Well, they deserved it.**

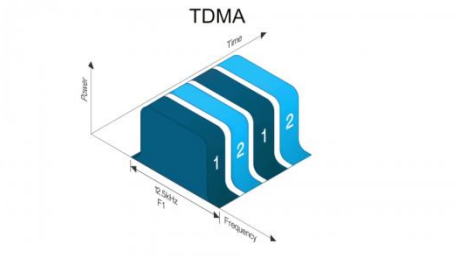
DMR AN EXPLANATION

Ian Hutchinson 2E0IHH

As a self-confessed member of the digital age, I quite often find myself explaining topics of computer-based or other technical subjects. As a member of an engineer branch (of which CIS now have to count themselves) I also find myself explaining technical issues onboard on a regular basis. However none of the aforementioned subjects present such a challenge to explain than DMR. I am an avid user of DMR, and I would hope to count myself as quite proficient in its use, but to explain how it works is another matter. To clarify, it isn't that I don't know how it works – I can conjure up several pictures in my head of network diagrams and radio circuits that achieve the result we are observing, but to put it into words is excruciating. This is mainly due to the over-use of jargon, which I will try to keep to a minimum. But enough of my excuses – let's give this a shot!

What is DMR?

Digital mobile radio is an open digital mobile radio standard defined by the European Telecommunications Standards Institute -ETSI. It was originally designed for commercial use, to allow for different groups of users to be contacted by a central base-station (where a manager or supervisor would be based.) DMR uses a 12.5kHz channel bandwidth, that is split into two 6.25kHz TDMA timeslots. The technical abilities of DMR are split into three tiers, with amateur use falling under Tier 2 and may be used within the frequencies of 66–960MHz.



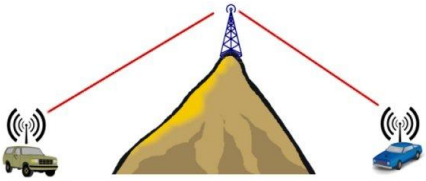
What can we do with DMR?

This is the question that really sets DMR apart from analogue radio, because by its very nature DMR is digital. The transmission path can be continued by digital means, be that networks or inter-connected networks (i.e. the internet) to reach its destination. This opens up a world of possibilities where they did not necessarily exist before. A DMR radio on its own will perform much as any other radio – it will transmit and can be received and will work in a simplex conversations, so long as both parties are using similar parameters in their sets. The interesting part comes when the signal is received by something other than a HT.

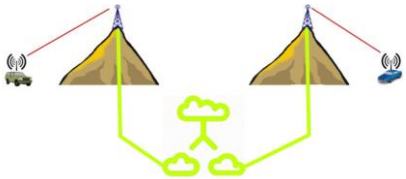
DMR Repeaters

DMR repeaters function much as any other repeater – they have a transmit leg and a receive leg, on separated frequencies so that if you have line of

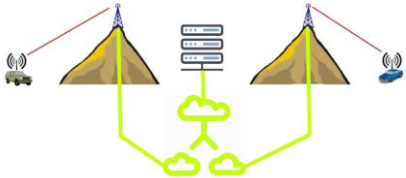
sight to the antenna – you can receive the signal and transmit your signal to the repeater. However, this is where the similarities come to an end.



The first change that can be noticed with a DMR repeater is that more than one person can use it at once, because as previously mentioned, the DMR signal is split up using Time Division Multiple Access (TDMA). This means that instead of having one 12kHz transmission being transmitted from the repeater – there are two 6 kHz signals being sent to your HT. The DMR radio then chooses which signal to listen to, based on your settings, and you hear the signal. When it comes time to transmit, your HT sends your signal using one of the 6kHz TDMA channels.



The channels are called Time-slots (the first piece of DMR specific jargon).
Using the settings on your HT you can order the repeater to deliver a number of different services in this *time-slot.* The first thing you can do is to connect through to another repeater. Your signal is taken by the repeater, transferred through the internet to another repeater and is then transmitted using the antenna at that repeater. Because this is internet connected, there is no limit where this signal can go. Users from the UK can connect to Australia, to France, to their friends down the road or anywhere with an internet connection and a repeater, or (as I will cover later) a hotspot – this could even potentially cover the maritime environment (via satellite).



The next thing that these repeaters can do is connect to a Master Server. There are a number *Master Servers* across the world and these servers host a number of TalkGroups. *Talkgroups* are in a similar vein to a net. A number of users will connect their sets to a *Talkgroup* in order to talk to each other, usually in a specific area or regarding a specific topic. For example, **Talkgroup 23527 has been designated the UK Military and Veterans Talkgroup**, while group Talkgroup 2350 is a UK Wide Talkgroup. Similarly anyone can be connected to a Talkgroup, and you may find yourself talking to people from weird and wonderful places in the world.

Hotspots

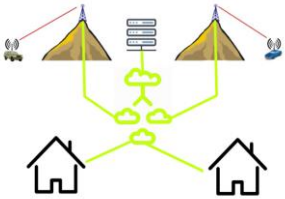
To achieve all of this however, one does not necessarily need to be within range of a repeater. DMR users have the option to use a device called a Hotspot. Much like a Wi-Fi hotspot this device will create a small-area, personal repeater in order to allow an amateur to connect to the repeaters and Talkgroups across the world. This device only requires one *timeslot* (as there is only one user) but will connect any DMR HT to the internet, and therefore the user's choice of repeater or Talkgroup. This means that users who are not mobile, in theory, have no reason to clog up the repeaters.

So is DMR cheating?

This is a question I get asked by a lot of those to whom I shall refer to as, "purists". My answer is very simple, DMR is only cheating if you try to claim that it is something that it is not. If you are trying to say you have made a QSO with someone in a far-flung land then you are not lying, however if you are trying to say that you used skill and knowledge to do so – then you have yourself to live with. Does it remove skill from the amateur? Only if the amateur is too idle to attempt other methods.

In the end it would very much surprise me if we ever saw contests being run on DMR or even if we actually saw QSO cards being exchanged as a result of DMR – because the results would mean nothing. But if you want to make contacts, rag-chew, or even just converse – DMR is a good way to go, especially with the price of equipment falling every day, and the availability of infrastructure increasing.

In conclusion



DMR is a capability being used almost to its full potential. The reach of DMR is truly global; sometimes when other methods cannot be used. Whilst initially it can seem confusing, once used it is very rarely abandoned. Personally, I have made contacts with DMR users across the globe and I enjoy nothing more than plugging in my hotspot and having a good old rag chew on any given Talkgroup. I also find it especially comforting to connect back to one of my repeaters at home (I am a Northern Traveller) and catch up with friends and oppos over a cup of tea. With the number of DMR users rising sharply every week it is my opinion that DMR has a very bright future indeed!

Ian*

***Talkgroup 23527** -Diverse Reports

SS FRESHSPRING

I have been approached by a supporter of the former RFA Freshspring looking for information about the kind of radio equipment that was installed onboard.

RFA Freshspring was a Fresh-class water tank vessel of the Royal Fleet Auxiliary. She survives in civilian hands as the SS Freeshspring, the last surviving example of the Fresh-class ships. The last of fourteen ships, she was used to carry fresh water out to larger ships (Wikipedia), being maintained by National Historic Ships UK which is a government funded, independent organisation. She was sent to Malta in 1950 to serve with the RFAs and spent many years there supplying boiler water with other supply duties associated with the RN. This supporter would very much like to obtain some equipment to install on the Freshspring - to help make her 'complete' and any help in doing this would be very much appreciated. The Freshspring left Newnham on Severn on 6 July 2016 for repairs in Sharpness, before being taken to her new home in Bideford. Any information about the equipment installed on the Freshspring or where such equipment could be found should be sent to Michael Mills, chusan1956@gmail.com or 07966 433865.

Joe G3ZDF, Hon. Sec.

RNARS AWARDS

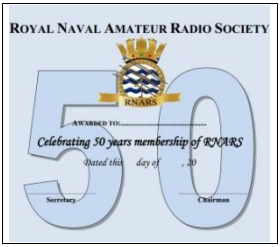
Joe Kirk G3ZDF 0585

The RNARS offers a range of awards. Some are just for Members, some of them are for contacting Members and some are geographically-based such as the Hampshire County Award. Claims for awards should be sent to our Awards Manager, Ian Pitkin, G4KJD, Clover Cottage, Kenny, Ashill, Nr Ilminster, Somerset TA19 9NH.

Good luck!

Mercury Award	The award is for contacting or hearing members of the RNARS on or after 1st October 1960. It is issued on a points basis of 1 point per member heard or worked per band. Two points are given for RNARS special calls (i.e. GB3RN, GB2PLY etc.) and 2 points for contacts with RNARS members above 30 MHz. The Award is issued in 3 classes: Class I requires 20 points, the minimum for G stations Class II requires 10 points, the minimum for EU stations. Class III requires 5 points and is only for stations outside Europe Stickers are available for 30, 40, 50, 60, 70, 80, 90, 100, 150, 200, 250, 500, 750 & 1000. There is no fee for stickers except SAE or 1 IRC
World Wide Award	This award is for contacting or hearing members of the RNARS in 10 DXCC countries and on at least 2 continents after 1st October 1960. Stickers are available for 25, 50, 75 & 100 Countries and 3, 4, 5 & 6 Continents. A member signing /MM can be claimed if close to the shores of a missing continent but does not count for a missing country
Hampshire County Award	This award for contacting or hearing ANY stations (not only RNARS) in the English County of Hampshire. (Please note that the Isle of Wight does not count) on or after 1st October 1960. Each station counts 1 point with RNARS special stations counting 2 points. The award is issued in 3 classes: Class I - UK 50 points, EU 20 points, DX 15 points. Class II - UK 30 points, EU 15 points, DX 10 points Class III - UK 20 points, EU 10 points, DX 5 points.
Kaleidoscope Award	This award is for contacting or hearing RNARS members, using the last letter of the callsign to spell out: “ROYAL NAVAL AMATEUR RADIO SOCIETY”. No more than one member may count for any single letter. All contacts valid on or after 1st January 1986. Example: G4JBR, G4SFO, G3ZAY, GW4MVA, G3VLL = ROYAL etc
International Navy Award	**International Navy Award** became available from 1st January 2004, therefore **NO QSO BEFORE 2004**. It is available to all Amateurs and Short Wave Listeners

	Class One: Work or Hear 10 RNARS Members, 10 MF Runde Members, 3 INORC Members and 1 MARAC Member. **Plus** one member from ANARS or BMARS or FNARS or YO-MARC or MFCA. **Class Two**. Work or Hear 5 RNARS Members, 5 MF Runde Members and 1 INORC member. **Plus** one member from ANARS or BMARS or FNARS or MARAC or YO- MARC or MFCA. **Class Three**. This class is for DX stations **outside Europe only**. Work or Hear 3 RNARS members, 3 MF Runde Members plus one member from ANARS or BMARS or FNARS or INORC or MARAC or YO-MARC or MFCA. **Joker** -A contact with a valid Museum Ship not listed above (see Historic Ships on this site) counts as a missing contact. Only one per application will count i.e. 10 x RN, 10 x MF, 3 x INORC, 1 x MARAC, 1 x Joker instead of missing Club.
RNARS Digital ('BITS') Award  	The award is for contacting or hearing members of RNARS in any digital data mode, PSK, RTTY, MFSK, SSTV for example on any band. For a full list see http://hfradio.org.uk/html/digital_modes.html Scoring will be 1 point for every member heard or worked per mode per band with 5 points for every special call or NOV call such as GB3RN, GB2RN, GB2PLY or GB6COD. Different speeds within the same mode will be classed as the same mode, e.g. PSK 31 and PSK63 are the same and RTTY Normal and Inverted are the same mode. Like the Mercury Award this award is issued in 3 classes: Class I – 60 points Class II – 40 points Class III – 20 points. In addition anyone with 100 points will be awarded a special decorative plaque. The awards will be known as the RNARS BITS Awards. As Wikipedia says "*A bit is the basic unit of information in computing and digital communications*". The term bit is constructed from **b**inary dig**it**.

	Awarded to members who have completed 50 years of continuous membership of the Society. Applications to be made to Wally, Membership Secretary.
Robert Sharpe (G3AWY) Award 	Presented by Mrs Winfred Sharpe at the 1976/77 AGM in memory of her late husband Robert Sharpe, G3AWY. The award to be presented annually for the best construction article featured in the Society Newsletter.

SEA STORY - continued

© Eric Bray M0HFF

Bagsy called, “What time are you on watch next?”
“First Dog, why?”
“Well, you’ve got three minutes to get up there!”
Feeling rattled I threw my un-ironed suit onto my bed, zipped the bag shut, and bolted for the door. I made it to the EWO just as the second hand ticked onto 12. “Cutting it a bit fine!” LRO Burfman stated.
“Sorry, LRO. I had just got to the front of the iron queue, too!”
“Watch the clock, in future!” He waved a hand at the UA9. “Get logging!” Pete Snark was on the UA8, and coached me through the routine a couple of times, until it ‘sunk in’. I started with the strobes from astern, reasonably assuming that they had gone past, so would already be in the log, and would give me a check that I was operating the gear correctly. That done, I worked through the targets from ahead, in between waiting for Pete to allow me to use the UAZ when he wasn’t. LRO Burfman had a pair of headphones on, plugged in to a B40, which was tuned to Radio 1. A new strobe began to pulse, on the lower, frequency, CRT, so I pressed a switch which caused a marker to appear on the screen, then tuned the frequency knob to put the marker over the strobe. The new target then appeared on the upper, bearing, screen. I turned the manually controlled cursor round, to put an engraved line over the strobe, and read off the bearing. I didn’t recognize the radar, which was pulsing twice a second, making a tat, tat, tat, sound. I switched it through to the UAZ, and took the other readings. “Pete, what’s this one? I don’t recognize it?” I held the ‘phones so he could hear the audio. “Anti-sub helicopter, by the sound of it!” He said. “It’s probably flying the mail out to us. What’s the bearing?” He reached for the Action Intercom microphone, and reported it to the bridge. “Roger.” The voice sounded bored stiff. Shortly after, we changed course, heading more across wind, so that there would be less turbulence across the flight deck, while the chopper landed. We could hear the hammering noise of the rotors, as the pilot picked his moment, then it fell silent again, apart from the incessantly roaring fans, and the slow, regular creaking noises from the superstructure,

as Hermes rolled back and to. The compass repeater ring ticked back again as we resumed our original course. Hermes was just idling along at low speed, while all kinds of checks and tests were being performed.

Taff the Tiff poked his head round the door. “Everything Ok?”
“So far, Taff.” Dave replied.
“You know where to find me.”
“Yeah, in your pit, your feet up and your head down!”
Thash ri’!” Taff made a gesture, and disappeared. Dave had just put his headphones back on when the phone rang. He picked the handset up. “EWO? – Evening, Chief! - Yeah, fine. – No, you just missed him! - Ok, right.” He put the set down again, glanced at the clock, then re-tuned the B40 to Radio Caroline. Outside, a jet engine began screeching, then the helicopter chopping noises began, and faded away into the distance, taking the radar strobe with it.
At five to six, Bagsy came in, and took over from me, following the LRO’s instructions. I spent ten minutes showing him how to work the gear, as he had been given less instruction on it than I had! Then down to the mess, for a short while, until feeding time. There was a choice of boot-sole and chips, or lumpy brown stuff, and chips, so obviously some of the ‘chefs’ were better at the task than others! After that, I had to go back to the EWO for the First watch, eight to midnight. I took over from Bagsy. “They’re all logged except that one, which is just fading in, now.” He put the engraved cursor over the strobe. “It’s too weak yet.”
“I see it.”

When everyone had settled down, after the changeover, I tried for the new contact again, now that it was stronger. Slowly, the numbers came, and filled in the spaces in the log; ARP 2.5 seconds, 9.4 Gigahertz, (9,400 Megahertz), Pulse length was 0.5, the NIXI reading was 1237. I juggled the reciprocal tables, then looked the numbers up in the book. Then did it again, disbelieving. And again. “Hey, Pete, this one’s a Russian!”
“Yeah? Let me see.” He juggled the dials, and got the same reading. “Oh, yeah, it’s a 'Don' or' Don 2', common as fleas on a dog. Tell the bridge just in case!”
“Who, me?”
“You found it!” He went back to his paper, propped up on the UA8. “Er, ah!” I hesitantly reached for the A.I. mike, and with a trembling voice, reported my contact. “Roger. Got it on the plot, Ops?”
“Not for certain, Sir, there are about six in a cluster, over there.”
“Keep an eye on it, EWO.”
“R –r –roger, s-sir!”
“Do you have a stammer?”
“N-no. S-sir!”
“It sounds like it, from here.” Pete took the mike off me. “Bridge, EWO, RO Snark here, that was one of the new boys, over.”
“Roger.” Bridge was bored again.
“B-bearing 210, now, over.”
“Roger, still several possibilities.” Over the next two hours, I gave several more bearings to the Russian, until the Bridge said they could see its lights.

Eric M0HFF

MORSE APPRECIATION ?

Kevin Lamb – G4BUW

Why is it that Morse code remains a bit of an addiction with so many radio amateurs globally? Is it the Morse key rhythm? The buzz of communicating in different way? Getting through to distant and other stations, when voice just wouldn't? The challenge of applying an unusual skill in varying conditions?

Morse is definitely an acquired taste and I can understand why it's not everyone's passion.

My Dad, Ron, taught me Morse when I was a 12 year old short wave listener. The Royal Navy had taught him for his World War 2 service on a minesweeper (converted trawler), as a 'Bunting Tosser' handling flag and Aldis lamp communications. He trained at HMS Collingwood near Fareham, Hampshire, in 1942, and the Sparrow's Nest naval establishment in Lowestoft. I remain extremely grateful for him having got Morse into my brain's motor programme at an early age.

Frequently listening to amateur and maritime Morse communications certainly helped me to develop my skills. Fellow members, especially Geoff, G3JUL, of the Echelford Amateur Radio Society ('EARS' -then based in Ashford, Surrey), were highly instrumental in the advancement of my Morse ability. Safety notices transmitted on the 500 KHz marine band by North Foreland Radio – call sign GNF, near Broadstairs on the Kent coast, and Niton Radio - GNI on the Isle of White, were particularly helpful.

On receiving my amateur radio licence in 1972, it was (and still is!) so marvellous to get on the air and communicate with people all over the world using, pretty much, a common language i.e. with internationally understood abbreviations and the 'Q codes' etc. After building a 10 watt valve transmitter for the 160 and 80 meter bands, it was even more fulfilling. I was always amazed that we could even talk, albeit on a very limited basis, with Russians during the 'cold war'.

I frequently communicated with radio amateurs who were Merchant Navy Radio Officers. With a passion for the sea (greatly kindled by my Dad), and radio, and Morse, I decided that would be a great job for me, so I did my Marine Radio General Certificate training at the London Electronics College in Earl's Court, and then the Department of Trade and Industry Radar Maintenance Certificate, at Southampton Polytechnic College. Marconi Marine at Chelmsford, Essex, gave me a job, and so off I went for 4 years working on a variety of ships and did some time at Plymouth polytechnic college (now

university) for my Advanced Marine Electronics Certificate. I reckon I was very fortunate to travel the globe being paid to do what had started out as a hobby!

Morse at sea was certainly an eye-opener on very many occasions, especially when helping vessels in distress and other urgent situations. Communicating regularly with Portishead Radio (then the UK's global HF maritime radio station at Burnham on Sea, Somerset) and foreign coast radio stations, was certainly interesting and often amusing. Many stories could be told, but here are a few.

One evening in 1977 when working on SS Texaco Plymouth (GDYU), a crude oil tanker, Adelaide Radio (VIA), took from me a very important ship's stores order telegram of around 900 words. The other operator and myself exchanged 'phews' at the relief of getting the telegram eventually confirmed, after battling for nearly an hour through intense static. We took on all the stores at Botany Bay. A friend subsequently mentioned to me "How appropriate" it was for that to be my first port of call! I wrote to the VIA Station Manager expressing my gratitude and received back a letter of thanks from a high ranking official in the Australian Overseas Telecommunications Commission.

The Radio Operator at Conakry, Guinea, suddenly appeared on board our ship MV Apapa Palm (GXUA), a general cargo vessel, when we were in port there in 1979. He demanded 20 US dollars or the equivalent in cigarettes, for clearing a telegram that I had sent him a few hours before we arrived, despite the fact that Marconi Marine paid all radio traffic fees. We gave him a few cans of beer and gently guided him off the ship.

Communication with GB2SM – the original Science Museum 'exhibition station' founded and run by G3JUL, was a welcome relief when off of the Nigerian coast on Apapa Palm, waiting for days on end to go into Lagos. The port facilities there were very badly managed and it was not unusual for ships having to wait many weeks before being able to dock. I remember we had to keep watches for pirates. Armed locals aboard small boats with high powered outboard motors had, I understand, often caused problems to anchored merchant ships.

For all the wonder of maritime Morse, it was clear that satellite communications technology would ultimately herald the end of it for commercial communications. I sometimes wonder how many more years Morse will be in use on the amateur bands, as the population that grew up with it, passes on. Over the years, I have retained an interest in Morse and still get a thrill from it, especially on the Sunday morning EARS 160 metre CW net with Pat – M0AAC, G3JUL and others. Thank you folks. Long may the sound of Morse be with us!

Pictures (left to right)
Bencher paddle key (originally owned by Dennis, G3KKQ; silent key). A treasured possession; Dennis was very much a Morse expert.

RSGB Centenary Special Edition Vibroplex American paddle key.

Electronic keyer unit; designed and built by former colleague and brilliantly innovative electronics engineer, David Robinson. It has exceptionally strong power line filtering designed in by Dave, after I'd told him that I had experienced some keyer units occasionally 'running away with themselves' because of RF pick-up.

Marconi Marine straight key; used on my first ship SS Texaco Plymouth, and presented to me by my Senior Radio Officer boss, Chris Redstone, when I 'paid off' the vessel as a new replacement key had been delivered to the ship. I very much treasure this precision engineered piece, which includes small ball bearing rings/races. Paul – G3VCN, reminded me at the 2018 RNARS AGM that the key base and cover metal is brass.

Standard issue 1960s (so I am advised) Navy straight key which I bought on-line and restored.

Kev.

100 YEARS TO THE DAY 11/11/2018

Editorial

As a young boy I was brought up reading ***Fragments From France*** by Bruce Bairnsfather. His cartoons full of irony and of the black humour that serving men adopt as a defence against the horrors of armed conflict went straight over my head. We thought them amusing, my brother and I, as we laid out on the floor in front of an ancient electric fire, gently turning over the tattered pages. We could not have known then of the shocking conditions that millions of men had to put up with or indeed, how they died. We really loved those cartoons and I remember one that silhouetted a British Tommy stumbling over the wreckage of a building holding his rifle diagonally across his chest -no other details, just a black silhouette with a full moon in the background, of a soldier returning from patrolling the wire entanglements perhaps. Underneath this rather stark picture were three lines of dialogue printed in bold characters:

"HALT! WHO GOES THERE!" "@*^&#~%+"©....." "PASS FRIEND"

To those who were there, they knew so well what it was about. More than words can say. The humour gave them hope and I suspect a safety valve. Growing up we learned of the poems of Siegfried Sassoon, Rupert Brooke and many others, and through the medium of their poetry and the diaries of others we learned by degrees what they witnessed, and from those who returned, they never spoke about them.

My maternal grandfather was a sailmaker who was called up to serve with the RFC; his skills needed to look after the flimsy canvas coverings of those early aircraft of our infant Air Force. Somewhere down the line he was seconded into the army to bolster up the ranks of men whose lives had been wasted by this pointless war. He was at Mons in 1918 when, two months later, he was gassed. He was sent home with little to look forward to. No social security, no handouts, and certainly he found the words 'a land fit for heroes' nothing more than an empty jingle. He survived until the early 1960s fighting for every breath he could take, and every time we saw him he looked cheerful for our benefit. We never knew, we were his future, and he never burdened us with his memories of the battlefield. Then one day I saw the same look in the face of one of our serving naval veterans onboard who had been captured in Singapore -the thousand-year look. We can all say, 'Thank you, Granddad, for keeping us safe,' because we owe a great debt to all those who stepped in to fill the ranks of our armed services. We can give an answer to misguided commentators who see Armistice Day and the poppy as a celebration of war. Who do not see the poppies in the way that we do as they fall. Who do not count them where each one tells of a life lost. They do not hear the words *'we*

will remember them' nor do they understand the comradeship and the meaning behind the words of the sacrifices made; *'for your tomorrow we gave our today.'* We can say that the day and its symbol of the poppy, belongs to the fallen and to their families, and it is to us who have filled the ranks long after they are gone, the veterans upon whom falls the responsibility to preserve this national day of remembrance and the symbol of a red poppy for each life lost. Those of us who are the grandchildren of the Great War are the last links with those who lived and fought through it and with those who did not come home.

In Flanders fields the poppies blow
Between the crosses, row on row,
That mark our place; and in the sky
The larks, still bravely singing, fly
Scarce heard amid the guns below.

We are the Dead. Short days ago
We lived, felt dawn, saw sunset glow,
Loved and were loved, and now we lie
In Flanders fields.

Take up our quarrel with the foe:
To you from failing hands we throw
The torch; be yours to hold it high.
If ye break faith with us who die
We shall not sleep, though poppies grow
In Flanders fields

John MCrae

The 63rd (ROYAL NAVAL) DIVISION

The (63rd) Naval Division 1914 - 1919

The Royal Naval Division, formed in September 1914, fought on land alongside the Army in the First World War. It consisted of personnel brought together from the Royal Naval Reserve, Royal Fleet Reserve, Royal Naval Volunteer Reserve, a brigade of Royal Marines, Royal Navy and Army personnel.

BRANCH NEWS - In Brief

Naval squadron re-forms after 60 years to test cutting-edge weaponry

There's an old name back on the roster of Fleet Air Arm Squadrons to test cutting-edge weapons and sensors for Britain's air power; 744 Naval Air Squadron will be instrumental in introducing the Navy's new 'eyes in the sky' – Crowsnest Merlin – to front-line service over the next 18 months, plus the RAF's upgraded Chinook Mk5s and Mk6s.

Navy News

Augmented reality combat systems for warships unveiled by BAE Systems

The firm says that these innovations will help naval personnel improve their decision making in the future battlespace, allowing them to respond more readily to threats. They will also be designed so a vessel's combat systems can be easily updated, helping to maintain operational effectiveness for many years to come and reducing through-life support costs.

ukdj

Missing Argentine submarine discovered - Russian fake news claim the British sank her

Argentina has announced that it has found the missing submarine ARA San Juan a year after it disappeared with 44 crewmen aboard. Russian fake news media outlet Sputnik had claimed that the sinking of Argentine submarine ARA San Juan was caused by a British deep-sea mine deployed during the Falklands War. The problem? Britain didn't lay any mines.

ukdj

IN THE NEWS!

Saab hits out at MoD over AWACS replacement

In hard-hitting letter to MPs Defence company Saab has made a stinging attack on the MoD over its decision to start talks with Boeing about a £2bn purchase of early warning radar jets without holding a competition for the contract. Saab was offering its "Erieye" system mounted on an Airbus A330 jet - an aircraft type already in service with the RAF

The Telegraph, Alan Tovey

HMS Tamar launched on the Clyde

The fourth of five new Offshore Patrol Vessels being built for the Royal Navy has been officially launched on the Clyde in Glasgow. The 'launch' consisted of lowering the vessel into the water from a special barge, the barge picked up Tamar from Govan, just up the river from Scotstoun, last week. A mixed Royal Navy-civilian crew will put the 2,000-tonne vessel through her paces off the west coast of Scotland after months of training and preparation.

ukdj, George Allison

Expert outlines potential form of an independent Scottish military

Former Royal Tank Regiment Colonel and now an SNP defence spokesman Stuart Crawford has said that the military of an independent Scotland shouldn't feature fast jets, big surface ships, tanks or nuclear weapons. Instead, it should exploit international alliances and specialise in areas that would benefit NATO, to make it a more attractive member despite lower spending... Reducing its defence spending from £3.2bn to £1.2bn... falling below the requisite level for NATO membership and NATO spending targets... offering Lossiemouth as a NATO/European base or leasing Faslane.

ukdj, George Allison

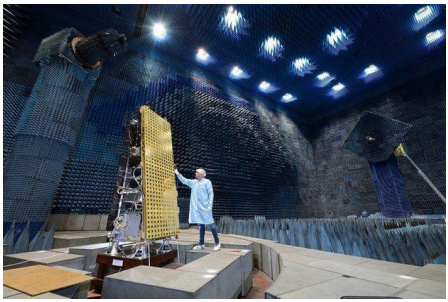
UK Threatens to Block Galileo Tracking Stations in response to the EU Commission's policy of blocking Britain's access.

The UK Defence Secretary, Gavin Williamson, has threatened to stop the EU using UK overseas territories for Galileo infrastructure...which includes sensory uplink and telemetry tracking & control stations. On lst October the Defence Secretary issued the first public warning that Brussels would be prevented from basing Galileo ground stations in the Falklands, Diego Garcia or Ascension unless Britain is given full Galileo access after leaving the EU... after saying in March that he was 'deeply disappointed' by the European Commission's (EC's) move to freeze Britain out.

Navigation News

Meanwhile:

Space Agreement Between UK and Australia



In October 2018 it was announced that Australia and the UK will collaborate on activities including communications technologies, spatial awareness and satellite navigation. A Memorandum of Understanding was signed at the IAC International Astronautical Congress in Bremen, Germany. This MoU sets out a framework for co-operative activities and the sharing of IT and personnel between both nations including the NovaSAR earth observation satellite...

The Times/Guardian

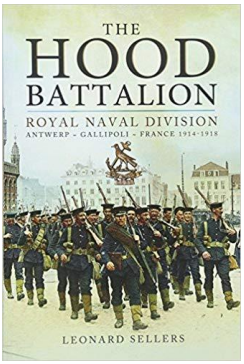
Fake News As A Social Disease

Researchers contend that fake news inserts itself into the civil discourse by exploiting basic human traits. The more important of these include: **Confirmation Bias** and motivated reasoning and **Thought Bubbles.**
Referring to information that supports our world views, and to the way we organise ourselves on social media, around people with whom we agree.

E&T Magazine

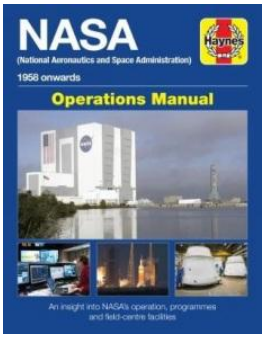
BOOKS CORNER

The Hood Battalion by Leonard Sellers



The Royal Naval Division, of which the Hood Battalion formed part, was raised at the beginning of the First World War and was made up of officers and men of the Royal Naval Volunteer Reserve, stokers of the Royal Fleet Reserve and seamen of the Royal Naval Reserve. Its 'father' was Winston Churchill, then First Lord of the Admiralty; Mr Asquith, the Prime Minister, christened it 'Winston's Little Army'. It was quite unlike any other formation in that these were soldiers who adhered to all the traditions and the practices of the Royal Navy, or if you like, sailors who went to war as soldiers.

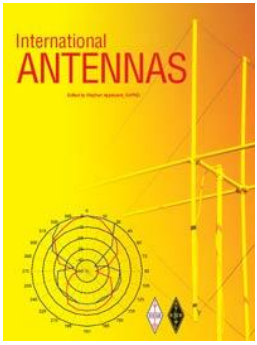
NASA Operations Manual: 1958 Onwards



Dr David Baker, an Englishman, worked with NASA on the Gemini, Apollo and Shuttle programmes between 1965 and 1990 and has written more than 80 books on spaceflight technology. His previous titles for Haynes include NASA Mars Rovers Manual, International Space Station Manual, NASA Space Shuttle Manual, Apollo 13 Manual, Soyuz Manual, Rocket Manual and Hubble Space Telescope Manual. He lives in East Sussex.

International Antennas

Edited by Stephen Appleyard G3PND



International Antennas has an emphasis on practical rather than theoretical. These articles have been written by experienced radio amateurs who have been so pleased with the performance of their particular antenna, that they have been moved to put pen to paper to share this experiences, covering 17 bands from VLF through to 70cm.

ICOM-7300 Calibration

ICOM Manual

Calibration is very easy to perform and the user must be careful to remember that adjustments to calibration should only be carried out when required. This procedure covers the best approach to check the calibration of the unit which is to follow the preferred method in the i-7300 user manual. There may be variations on this theme, but the manufacturer's set procedures are there for a good reason. In general terms, the process might involve tuning to a known radio station that transmits on preset frequencies for the purposes of transmitting accurate timing signals controlled by atomic clocks.

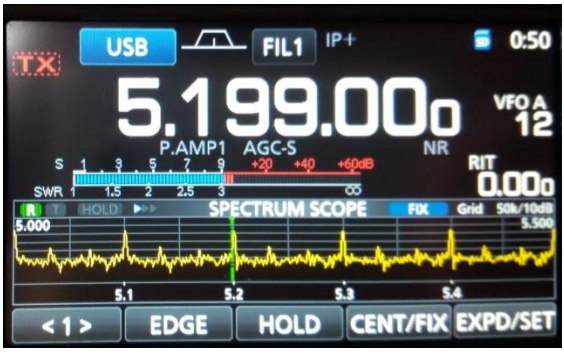


Figure 1 - Calibration Markers

The 7300 has its very own internal calibration function that is simple to set up and use. The preferred method requires the user to change a few settings on the 7300 such as filtering and other modes to configure the Rx so that it is set to a known standard. The user then offsets the receiver tuning by 1KHz so that the generated tone can be heard on the speaker. The internal calibrator provides clear markers every 100KHz, (Fig. 1) so you are very spoiled for choice. If like me you rarely hear clock timing signals, this calibration facility makes a huge difference should you need to check your equipment for precision across the bands. Hopefully, that will not happen in a very long time to come.

The procedure is the same for any frequency that you choose. For better results I switched out the aerial so that there was no background noise from elsewhere, only Rx noise. Crucially, don't forget to switch off the calibrator when you have finished!

Receiver Setup say, on 2.5MHZ for example.

1. Clear Twin PBT settings by pressing the centre knob
2. Set Filtering to FIL1
3. To switch the calibrator on use the menu button:
   MENU SET FUNCTION CALIBRATION MARKER ON.

Frequencies are best tuned in Centre/Fix mode with a bandwidth of plus/minus 2.5KHz, so initially tune to 2.5MHz CW or AM to locate and hear the audio signal.

Figure 2 - Tuned To The 2.5MHz Marker

4. Now change mode to USB. If all is well you will see the marker at exactly -1.5KHz, on the graticule (Fig. 3)

5. Now re-tune for an off-set frequency of 2.499MHz which should bring the audio signal back into range as you tune onto this new frequency. The audio at this point should be precisely 1KHz which correlates to a scale reading on the spectrum scope of -0.5KHz on the graticule. Your test results should be the same and, all is well. (Fig. 4)

Figure 3 - Tuned To 2.5MHz USB

6. You can check further for accuracy by selecting the audio presentation screen via the MENU button. (Fig. 5)

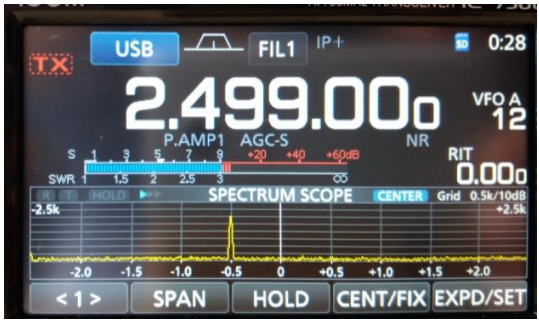


Figure 4 - Offset to 2.499MHz USB

7. You should see two images on the audio scope screen. Using the EXPD/SET button to expand the audio scope to display the two other signals in full view. On the left you should see the marker at 1KHz, while on the right, adjust the TIME and LEVEL buttons to produce a steady sine-wave on a scale of

1mS /Div. One cycle should be 1mS and since f=1/t we can confirm that f=1KHz.

8. I suggest that these observations should be noted for future reference as and when if it is suspected that the rig's calibration is out.

I have noticed on my machine and one or two others that the factory setting to the calibration appears to be 26%, but normally I would not think of tinkering with the fine adjustment unless there was a serious reason to do this, especially when the Rx and Tx share the same circuitry.

Figure 5 - Confirmation of Calibration

Caveat Emptor.

ORDINARY MEN

Wendy Jennings

A Tribute to Bill Jennings G0IEC (LG 345 / RNARS 3526)

Marc Litchman writes:

"Wednesday" Bill Jennings G0IEC (LG 345 / RNARS 3526) was an HMS Belfast stalwart, operating in the BWO for many years. Bill became SK in June 2015...

I thought that some of dad's old friends at HMS Belfast would like to see him again "in the shack" but this time outside the walls of Caernarfon Castle where the film ***Ordinary Men*** which was inspired by and dedicated to him was shown as part of the Armistice Day commemoration.

The film shows recorded highlights from an evening of music, art, imagery and poetry in Beaumaris Church last year. The church commissioned Bill's granddaughter, Ellie to write new music to commemorate the local men who died in the Great War 1914-18. There is more information in the programme, so I hope you get the chance to take a look.

Music and images can sometimes tell a more powerful story than words. Paul Nash was a War artist in the First World War and his paintings graphically depict the horror of the trenches. Some of them appear in the film alongside the music Ellie wanted to use to honour the local men who fought and died in the Great war a hundred years ago – not to glorify them, but to remember their humanity and the reality of their lives cut short.

The footage of a hand keying the Morse communication is that of Bill who was a Chief Telegraphist in the Royal Navy in the Second World war and as "Wednesday" Bill on HMS Belfast for nearly 25 years. He encouraged Ellen to write music incorporating Morse code which she does here using both actual Morse and musical interpretations of it to reflect on communication and failure of communication which can lead to war. His photo appears on screen at the end of the film. Here is a link to the film: (https://vimeo.com/251359168)

Wendy

FALKLANDS JOURNAL Pt 1.

Dr Stephen Palmer GM0EQS/Ken Randall G3RFH

By kind permission from the Falkland Islands Journal

Royal Naval and Amateur radio communications in the Falkland Islands and the South Sandwich Islands in 1953 and 1962 (including an account of two tragic deaths in 1963)

Introduction

In recent years, there has been a revolution in the way we communicate electronically. The internet, the World Wide Web, iPhones, Tablets, and a host of social media software, have brought about huge changes to both our everyday voice communications and to the way we exchange of large amounts of data, information and images/video. Military communications have been similarly transformed in the past two decades.

Because of the swiftness that these changes in communications have taken place, it is easy to forget that only a few years ago mobile phones did not exist, and that the early mobile phones were bulky and heavy, with short ranges and limited capabilities. In the days before satellites, long range communication used the short wave (HF) bands – firstly using Morse Code and subsequently with systems that used slow and noisy teleprinters. Reliable teleprinter links to the South American mainland and to the UK only came to the Falkland Islands in the early 1970s, as part of the infrastructure investment required for the European Space Research (ESRO) project in the Falkland Islands.

Before the arrival of ESRO in the Falkland Islands, and its need for faster speed in communications, the universally used Morse Code reigned supreme. Morse Code was the mainstay of long-range communications in the Falkland Islands for many years. The Falkland Islands Dependency Survey (known as FIDS – the forerunner of the British Antarctic Survey) also made extensive use of Morse Code:

The function of [the] 'control base' was to streamline communications between the FIDS bases and the commercial radio station [callsign] VPC, in Port Stanley. Our callsign was ZHF77 and twice a day we would contact all the other bases in turn, and they would pass us their outgoing messages in Morse Code and we would copy and file every base's incoming signals from Port Stanley. This meant we acted as a buffer, so that Radio Operators from other bases could contact us at any time for any of their incoming messages they might have missed. We alone transmitted out the collection of other bases

signals to Port Stanley, thus cutting down the cost of working the commercial station. [Comment: "Most of the radio traffic was metrological data – all in a five-figure numerical code, in a set format - except the last group of five which was often a chess move"

Radio Amateurs (so-called 'Radio Hams') have used Morse Code since the earliest days and amateur radio enthusiasts continue to maintain today the traditions and skill of using Morse Code. There are many expeditions (called 'DX Expeditions') to unusual and rarely visited locations for the specific reason of operating ham radio stations, and Morse Code is one of the modes used on these expeditions to communicate to fellow radio amateurs world-wide. Experience has shown that when transmission conditions are bad, Morse can often get through when everything else has failed. The Royal Naval Amateur Radio Society (RNARS) was founded in 1960, and it has many keen members – drawn from both serving and former members of the Royal Navy.


Candlemas Island

Ken Randall (b. 1932) served as a Radio Communicator; Ken is also a long-standing member of the RNARS (Callsign: G3RFH;RNARS No.175). In 1953 and 1962 he served in two ships that operated in the waters around the Falkland Islands and the South Sandwich Islands. In 1953 Ken served in HMS Nereide, and in 1962 he served in HMS Protector. During his service in HMS Protector he took part in the expedition to investigate Candlemas Island, in the South Sandwich Islands group. In both ships, he made extensive use of the Morse Code - both in official radio communications and as an enthusiastic amateur radio operator. This article is based upon Ken's personal account of these two trips and tells a story that is fresh, vivid and unique. The article recalls many familiar Falkland Islands names – and it is also a story that recounts a tragic accident which resulted in the death of two members of the crew of HMS Protector. During Ken Randall's service in Nereide and Protector, both ships were involved with incidents arising from Argentine aggression and territorial claims. I have interspersed Ken Randall's narrative with information provided by various sources - including official reports found in files held in the Jane Cameron National Archives, in Stanley, and in the National Archives, in Kew.

This article also refers to the internationally agreed Callsign of the Falkland Islands, South Georgia and the British Antarctic Territory. These callsigns are variations of VP8. The callsigns for the world's nations are determined by the

International Telecommunications Union (ITU), founded in 1865 and now the United Nations agency that co-ordinates radio activity for all spectrum users.

HMS Nereide

Ken Randall writes: “I first went to the Falkland Islands in September 1953, onboard HMS Nereide, a frigate in which I served two years of [a] foreign commission; based in Simon's Town, South Africa.”

HMS Nereide was a Modified Black Swan Class Sloop (Pennant: F64) built at Chatham Dockyard, but completed at Yarrow Shipbuilders Ltd., Scotland. She was laid down on 15 February 1943 and launched on 29 January 1944. The ship was commissioned into the Royal Navy on 3 May 1946. After serving much of her time at sea in South African and East African waters, she was scrapped on 18 May 1958. In 1953 Nereide served as the Falkland Islands guardship for six months. The ship’s crest is preserved at the Simon’s Town Dockyard, South Africa.

Ken Randall continues: “A Royal Flight from UK to Australia was taking place and all the frigates based in the West Indies were to be stationed along the flight path. This meant withdrawing the frigate on Falklands Guardship duty and so we were detailed to cover it. We had to embark six months’ food supplies and as we only usually carried three months’ supplies, they had to empty a couple of [ammunition] magazines to get it all in. We also had twenty tons of potatoes stowed on the upper deck destined for the Falklands. We were grossly overloaded when we sailed from Simon’s Town.”

The Nereide had spent seven years in continuous service in South African waters, and the Captain reported that ‘the ship was given a rousing send off by the staff and officers in the Simon’s Town Dockyard’. The Captain also commented: ‘to say that the ship was stowed to capacity would be an understatement’. Nereide arrived at Montevideo on 3 October 1953; she left on 6 October 1953, with 150 bags of mail for the Falkland Islands. The ship arrived at Stanley on 10 October 1953.

Ken Randall continues: “When we were just south of Tristan da Cunha it was my 21st birthday – in the middle of a typical South Atlantic storm! However, we safely made it to Montevideo and after four days we sailed south for Port Stanley.

I was a telegraphist at this time with no interest in amateur radio. Our main job was to provide the usual radio communications required on a warship, but in addition we were required to monitor all [Argentine] Navy frequencies and to this end we received two extra telegraphists from the ship we were relieving, HMS Veryan Bay.

We had a pile of English-Spanish dictionaries at the watch position so that if any Spanish plain language came in it could be interpreted. All the [Argentine] Navy ships had to send a weather observation message every three hours and the first part of these messages was the position and time that the observation had been made. So it was easy for us to maintain a plot of where all their ships were. We did notice however, that when they wanted to say something important that they changed transmission from Morse code to radio telephony and gabbled away in very fast Spanish. We could usually pick out a few words especially if they mentioned a place name or geographical location.

One night we were anchored at Port Stanley when a message was received that the [Argentine] had set up a camp on Joinville Island, a territory which was claimed by UK. So we embarked our twenty Royal Marines (billeted at the old Naval wireless station) and a portable Nissen hut and set off to rendezvous with RRS John Biscoe(1) at Hope Bay. We arrived early and the Bay was smooth and clear of ice. But a couple of hours later just before John Biscoe arrived, the tide had turned and the bay was beginning to fill up with ice. Our ships sides were only very thin steel, and any whiff of ice and we had to steer well away from it. We were in danger of getting trapped when John Biscoe arrived and managed to carve a safe path for us.

We put a landing party ashore and as was the practice in those days, served the Argies with a diplomatic protest note which meant they could present a counter diplomatic note in 90 days. In the report which was sent to the Admiralty, it said the Argies' officer in charge was a young Sub-Lieutenant and he said he thought they were all going to be killed!

Comment: It is worth noting that in the previous year there was a more serious incident when an Argentine party fired shots over the heads of a BAS party unloading stores from John Biscoe at Hope Bay.

Ken Randall continues: On a visit to South Georgia, after visiting Grytviken, we went around to the whaling village at Leith. In those days, 1953, the whaling industry was still in full swing. Most of the people there were Norwegian and although we were only alongside the pier there for six hours, we played three football matches against them and lost all three! But the stink there - it was a couple of days' steaming before we managed to get the smell out of the ship.

Whilst in Port Stanley we always kept a loudspeaker watch on the Camp Radio, with Syd Summers manning the Port Stanley end, and it was quite quaint to hear all the gossip going back and forth and shopping lists being sent over the air. In those days the only aircraft was the Beaver which flew around all the camps with doctor/dentist/shopping etc. Mail and supplies used to come in on the SS Fitzroy about every six weeks from Montevideo or Punta Arenas. One time we were on our way to Montevideo for four days visit and catch up with mail, when the evening before arrival we passed SS Fitzroy heading to Port Stanley. We exchanged identities and never thought anymore of it until we arrived in Montevideo to be told by the British ambassador that our mail was on the Fitzroy!

After six months we were relieved [on 1 February 1954 by HMS St Austell Bay] and by popular request from the ships' company, we called at Montevideo and then Portsmouth. We'd been away from home for two and a half years and were not interested in calling anywhere else on the way to Portsmouth."

HMS Protector

HMS Protector At Montevideo

Ken Randall continues: "My next visit to the Falklands came eight years later, in 1962. The previous year I was in the Royal Naval Signal School, not doing anything in particular, when I heard that the Petty Officer Telegraphist on Protector was due for relief when they came home in May 1962. I put in a request to be that person. I was sent for by the Drafting Liaison Officer who said that if I got the draft to Protector, would I be willing to be a cryptography instructor until I went. I said I would - if I got Protector. So, it was left like that and two weeks later my draft for Protector came through. So, I was a crypto instructor for seven months until I joined Protector in Southampton, in May 1962."

HMS Protector (A146) was the Antarctic patrol vessel of the Royal Navy between 1955 and 1968. She was built in 1935 as a fast net layer. After conversion for Antarctic duties the ship weighed 3450 tonnes and had a flight deck fitted – suitable for operating two Whirlwind helicopters. Protector made its first trip to the Falkland Islands and the Antarctic in 1955. The ship made a further thirteen visits to the Antarctic and the Falkland Islands in the following years. Protector was sold for scrap in 1970. During her service in the South

Atlantic the Protector became a much-loved ship for the people of the Falkland Islands.

Ken Randall continues: “I was in charge of the communication department, responsible for all radio and visual communications and I had a staff of one Leading Telegraphist and five telegraphists and one Leading Signalman. My boss was the Navigating Officer, Lt. Barry Wilson (now Vice-Admiral KCB retired) who knew very little about communications and relied on me to tell him the truth, which I always did and we got on very well.

It was at this time I passed the exams for Radio Amateur [RAE] and my licence came through just before we sailed. I’d had to get the Captains’ permission to operate from onboard and I set up my small station in the 3rd wireless office (which wasn’t used) down aft at the front end of the helicopter hangar. This was also my sleeping billet and was very convenient as it had a direct line telephone to the main wireless office.” In an email, Ken Randall later commented:

“When I took over the communications department on Protector in 1962, I was told that they had a terrible reputation for communications unreliability and missing skeds [i.e. fixed time and frequency schedules]. So, newly amateur radio licensed and very keen on all things radio, I determined to erase that reputation. First thing I did was to put a resonant antenna on the 89Q [A US-made Naval transmitter and receiver] which was used on ship to shore [contacts] which improved things. I lectured my staff on good sked keeping and when we first arrived in Port Stanley I went ashore to the BAS Office and met Ted Clapp and introduced myself. First thing he did was to get a bottle of whiskey out of his desk drawer. We couldn't go wrong after that! When we returned after our first trip 'down south' I saw him again and he said things were much improved. It was mainly Morse communications, but there were several occasions when the Captain wanted to speak to a base commander when we used voice.”

Ken Randall continues: “When we arrived at Port Stanley, I went ashore to visit the BAS office at Government House and met the BAS operations officer who turned out to be an ex-Petty Officer Telegraphist - Ted Clapp. We also got on like a house on fire and very quickly Protector got into the routine required when ‘down south’ as it was called.”

Ted Clapp commented about BAS communications (and the central role played by Morse Code) at that time thus:

ZHF88 (the BAS callsign), which was completely divorced from VPC (the callsign of the commercial civilian radio station), carried out four times a day

contact between all the FIDS/BAS bases to collect four hourly weather observations, and to arrange times for ordinary base, and personal traffic (telegrams, home contacts etc.). The weather observations collected by Stanley were passed electronically up to the Stanley Met. Station - who twice a day produced a whaling forecast for the Southern Atlantic Waters - which we, the Radio Office, transmitted by Morse to all and sundry. The Met. Office also broadcast direct a voice version of the Whaling Forecast specifically for the South Atlantic whaling ships

The routine base contacts made were [so that we could] pass, to and from Base, admin messages, personal telegrams, for forwarding to the UK - and base personnel personal messages, between them and their UK relatives. Under the SCAR agreements, all main stations around the Antarctic perimeter, such as FIDS Stanley, were classified as Mother Stations and the bases or establishments on the Antarctic Continent were classified as Daughter stations. In the early 70's Stanley BAS, began a gradual conversion from Morse to Radio Teleprinter operations which became the standard for our comms. systems.

Ken Randall continues: "I also called at the Post Office to take out a Falklands amateur radio licence but was told the Superintendent of Posts & telegraphs was off the island at that time. Very disappointed at this, there was nothing I could do but a few days after we'd sailed for 'south' I received a telegram from him, allocating me a callsign VP8HF and saying I owed him five shillings when next in Port Stanley!

The Drake Passage was as rough as ever and the scenery was as outstanding as it ever was. One thing about Protector, although she wasn't an icebreaker, she could tolerate loose pack ice and so I got to see a whole lot of places that the Nereide could only dream of. For instance, cruising down the Gerlache Strait with its overhanging ice cliffs and very narrow passage was spectacular, requiring most of the ships company to spend the day on the upper deck like tourists. At the end of that first spell we went home via the west coast of South America and through the Panama Canal which was another occasion when the ships company spent the day on the upper deck".

To be continued:

50MHz CONVERTER

Guy de ON6MU

Receive singals from the "Magic Band" on your shortwave receiver!

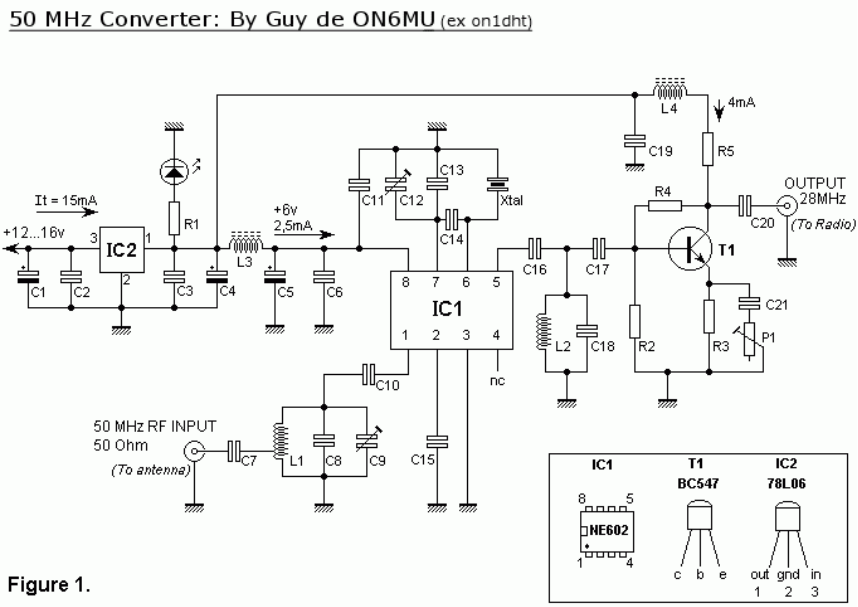


Figure 1.

This is a very sensitive 50MHz converter allowing you to receive the entire "Magic Band" from 50MHz to 52MHz on your general coverage receiver 28MHz to 30MHz. It receives all types of modulated transmissions. It all depends on the receiver used. I've tested this project on a all mode Yaesu FRG-100 receiver. Within certain limits you can change the output frequency to suit your needs. The converter is very stable, low noise, and low power consumption, and can be compared to many commercial 50 MHz receivers.

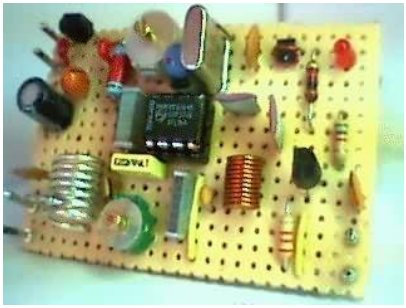
This is for you if you have an HF rig without the capability to receive the 6m band. For a complete breakdown of the project; component list, functional description, PCB and coil winding details, etc, go to the link provided. **Ed**

http://users.belgacom.net/hamradio/schemas/50MHz_converter_on6mu.htm

50 MHz converter technical specifications

- Frequency range at least from 50.000 MHz to 52.000 MHz
- 50 MHz in = out 28 MHz (or 26MHz when using 24MHz LO Xtal)
- Power supply = 9...18v max
- Total power consumption = 15mA (LED included)
- Power consumption IC1 = 2,5 mA
- Sensitivity = 0.22uV at 12dB SINAD
- Mixer noise figure = 4,6dB
- Input impedance = 50 Ohm
- Output impedance = 50...600 Ohm
- Local oscillator 22MHz
- Frequency stability = +/- 5Hz
- Operating ambient temperature range = -40 to +85°C

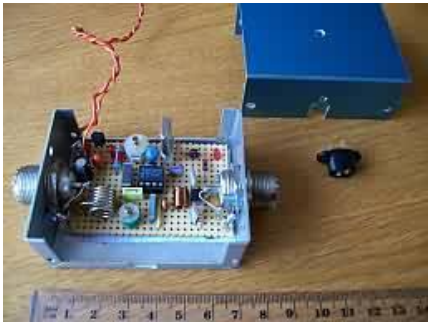
The heart of the converter has been built around Philips SA602 (NE602 or NE612), a twice balanced mixer oscillator. This IC finds his applications in layer capacity communication systems, cellular radio applications, RF data left, VHF-transceivers, broadband LAN's ed. IC in an ordinary 8-pin dual-in-line can be bought implementation (DIP) or 8-pin SO surface-mount technology miniature. Both are low cost. SA/NE602 has a very low load of only 2.4mA! The total load current amounts to only 15mA. Therefore, it can be powered by a battery can be used.



The SA602A is a low-power VHF monolithic double-balanced mixer with input amplifier, on-board oscillator, and voltage regulator. It is intended for high performance, low power communication systems. The guaranteed parameters of the SA602A make this device particularly well suited for cellular radio applications. The mixer is a “Gilbert cell” multiplier configuration which typically provides 18dB of gain at 45MHz. The oscillator will operate to 200MHz. It can be configured as a crystal oscillator, a tuned tank oscillator, or a buffer for an external LO. For higher frequencies the LO input may be externally driven. The noise figure at 45MHz is typically less than 5dB. The gain, intercept performance, low-power and noise characteristics make the SA602A a superior choice for high-performance battery operated equipment.

50 MHz converter Parts List

IC1 = NE602, NE612, SA602A*, SA612A *8 lead DIL or surface mount
IC2 = 78L06
T1 = BC547
C1 = 10uF/25v
C2 = 100nF
C3 = 100nF
C4 = 10uF/25v
C5 = 47uF/16v (tantaal)
C6 = 47nF (polyester)
C7 = 47pF
C8 = 22pF
C9 = 0...22pF (green)
C10 = 2n2
C11= 4.7nF
C12 = 0...40pF (white)
C13 = 47pF (poly)
C14 = 39pF (poly)
C15 = 47nF (polyester)
C16 = 330pF
C17 = 330pF
C18 = 100pF*
C19 = 4.7nF
C20 = 470pF
C21 = 470pF
P1 = 100 Ohm
R1 = 1k
R2 = 2k2
R3 = 100 Ohm
R4 = 5k6
R5 = 1k2
P1 = 100 Ohm



Important: use only an antenna designed for 50MHz A simple dipole of around 3 meters in length (two times 1,45 meters) will work just fine if the propagation is there.

Coil specifications:

L1 = 7 winding 1mm silver 9mm coil diameter (drill 7), tap on 1,5 winding from the cold end.
L2 = 10 winding 0,5mm enamel 5mm coil diameter (drill 4). Can be tweaked if needed to change the bandpass range.
L3, L4 = chokes (RFC) 10uH +/- or use a ferrite bead

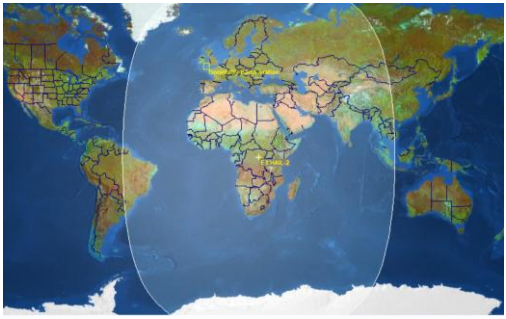
Caveat Emptor

AMATEUR SATELLITE UPDATE

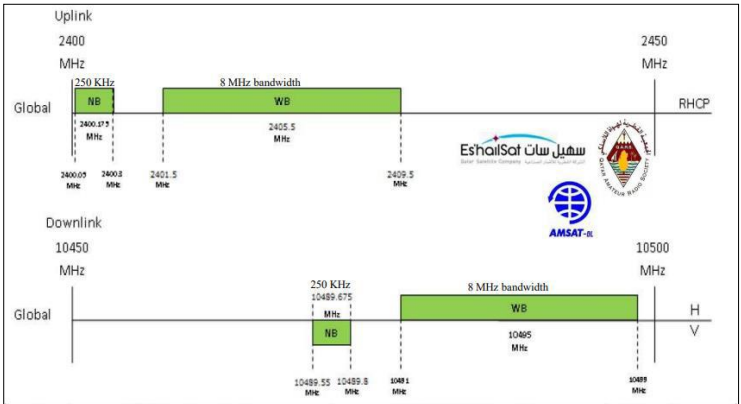
ukamsat.files.wordpress.com

Es'Hail-2 Launching

At the time of writing this report the... latest news is that **Es'Hail-2** has been launched. The coverage of this spacecraft will be constrained by the radiation pattern of the antennas being used for the uplink and downlink. We understand that these are horns and that they have been designed to have "global" coverage. The map shows the potential coverage down to 0 degrees of elevation for the ground station antenna. The two transponders will provide 24/7 coverage for both narrow band and wide band signals.



This chart shows the two transponders, their pass bands and uplink and downlink polarisations. Note that, unlike the linear transponders on most other amateur satellites, these transponders are not inverting.



Xpdr	U/L FREQUENCY (MHz)				D/L FREQUENCY (MHz)				LO	BW
No	Pol	Begin	Center	End	Pol	Begin	Center	End	(MHz)	(MHz)
NB	RHCP	2400.05	2400.175	2400.3	V	10489.55	10489.675	10489.8	8089.5	0.25
WB	RHCP	2401.5	2405.5	2409.5	H	10491	10495	10499	8089.5	8

Es'hail-2 Narrowband Transponder – Provisional Operating Guidelines
The narrowband transponder is intended for conventional analogue and narrowband digital signals. No transmissions should be made beyond the nominal edges of the transponder passbands. In particular, no operation should take place below the lower beacon which will be on 10489.55 MHz nor above the upper beacon on 10489.80 MHz. These will both transmit data at 400bps BSPK in a similar format to that used on the AO/10/13/40 P3 missions.

No uplinks should result in downlink signals that are stronger than these beacons. In the event that such signals are detected, they will be marked by a "LEILA" siren. When they have been marked by "LEILA", operators should immediately reduce their uplink power (ERP). More information about this LEILA-2 system can be found at: https://www.amsat.org/pipermail/amsat-bb/2016-June/059217.html

No FM transmissions should be made to Es'hail-2 as these would use excessive power and bandwidth. It will be possible to "see" the transponder passband by the use of a webSDR system that is being established at the Goonhilly Earth Station in Cornwall UK. This is provided by the BATC and AMSAT-UK. We are most grateful to Goonhilly Earth Station Ltd for their support. The url for this facility will be announced before operations commence.

Wideband Transponder – Provisional Operating Guidelines & Bandplan
These operating guidelines and proposed bandplan are designed to enable the most efficient use of the 8MHz wide transponder for all users. It is expected that these initial guidelines will be further developed after commissioning.

Coordination
Due to the very large number of variations of transmission parameters, it is essential that all users notify their transmission parameters on the co-ordination chat room page that has been established by AMSAT-UK and the BATC. This facility, and the spectrum monitor system, is also being established at the Goonhilly Earth Station in Cornwall UK. The url for this facility will be announced before operations commence

Transponder Usage
As a general principle, the transponder should be only be used for short-duration tests and contacts.

RNARS Nets

Mick Puttick G3LIK

All frequencies are +/- QRM. DX nets are GMT; UK nets are GMT or BST as appropriate. The list is compiled by Mick Puttick G3LIK mick_g3lik@ntlworld.com – 02392 255880 **who must be informed of all changes**.

UK	Time Local	Freq	Net	Control
Daily	2359-0400	145.727	Midnight Nutters	Vacant
	24/7	TG23527	DMR Service/Veterans	
Sun	0800	3.667	News 0830	G3LIK
	1030	7.065	Northern Net	Vacant
				GØGRY
	1100	7.02	CW Net	G4TNI
Mon-Sat	1030	7.065 / 3.743	Bubbly Rats	GØGBI GØOKA GDØSFI MØZAE
Mon	1400	3.575 / 7.02	QRS CW	GØVCV
	1900	7.088 / 3.743	North West-News 2000	GØGBI
	19:30	145.400	Cornish Net -Falmouth	G4WKW
Tue	16:00 1900	7.068 / 3743 7.028 / 3.528	HQ Shack CW Net	GB3RN G3RFH
Wed	1400	3.74 / 7.088	White Rose	G4KGT
	1930	3.743	SSB News 2000	GØOAK
	2000	145.4	Stand Easy	Vacant
Thur	1900	3.542	Scottish CW	Vacant
	2000 GMT	1.835	Top Band CW	GØCHV G4KJD
Fri	1600	10.118	CW	SM4AHM
Sat	0800	3.74/7.088	GØDLH Memorial Net	GØVIX
DX	**Time GMT**	**Frequ**	**Net**	**Control**
Sun	0800	7.015/30555	MARAC CW	PA3EBA/PI4MRC
	1430	21.41/14.329	RNARS DX	WA1HMW/GD0SFI/W1USN
	1800	Echolink	Echolink	VE3OZN / K8BBT
	1900	14.33	N American	WA1HMW
Mon	0930	3.615	VK SSB	VK1RAN/VK2RAN
Wed	0118-0618	7.02	VKCW	VK4RAN
	0148-0648	10.118	VK CW	VK4RAN
	0800	3.62	ZL SSB	ZL1BSA
	0930	7.02	VK SSB	VK5RAN
	0945	7.09	VK SSB	VK1RAN/VK2RAN
Thur	1430	21.41/14.329	RNARS DX	WA1HMW/GD0SFI/W1USN
Sat	0400	7.09	VK SSB	VK2CCV
	1330	7.02	VK CW	VK2CCV
	1400	7.09	VK SSB	VK2CCV
	1430	21.41/14.329	RNARS DX	WA1HMW/GD0SFI/W1USN

RN Activity Frequencies

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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Doug Bowen GØMIU

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4 Extra Large 48-50

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RAFARS & Royal Signals ARS Nets

RAFARS	Time	Freq	Control
Daily	1100 A 1830 A	3.71 3.71	GØSYF GI4SAM 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	?
First 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	

HMS ARGYLL - TYPE 23 'DUKE' CLASS FRIGATE