RAGCHEW

MAY 2019

FROM THE EDITOR - G4CIB

Winter is now well behind us and what better time to head off to the hills for some /P operating so in this issue I've put together some thoughts on the practicalities of operating outdoors which I hope newcomers to the hobby will find of interest as well as old hands.

Tony, G4HBV continues his research into Prisoner of War Radios and suggests a circuit which would have been used to receive short wave broadcast transmissions.

Tom, G3XMM has been rummaging further into his cupboards and discovered a mystery key which he would welcome more information as to its history.

Along with **Anne 2E1GKY,** I recently attended the RSGB AGM in Birmingham and a report appears in this issue.

Anne, 2E1GKY and **Mike, G6OTP** recently attended the **Gloucestershire Repeater Group AGM** recently - a short report appears in the issue.

Malcolm G6UGW explains for the benefit of newcomers to the hobby the features of both Amateur and Broadcast bands. In the first of this series he covers the 80 metre Amateur band and the 60 metre Broadcast Band.

The **UKAC** series of contests are still attracting a good number of participants and I'm hoping to be more active during the summer months. Read more in **Contest Round Up.**

The Sporadic E season is almost upon us and the **Spring Club Challenge** will enable entrants to grab some DX on 50MHz (6 metres) and 70MHz (4 metres). The Challenge will run from Saturday 18th May to Saturday 29th June inclusive. If you have never operated on 6 or 4 metres then do give it a try. I know **Dave G4BCA** who is organising the Challenge would like to see some new call signs appearing in the entrants.

The full rules are posted on the GARES web site.

Finally, following on from celebrating my 50 years as a member of GARES also the IET (Institution of Engineering and Technology) a little while ago, I received a package recently containing an engraved call-sign badge as a token of 50 years membership of the RSGB which I shall wear with pride.

73 and good DX!

Brian G4CIB

RSGB AGM - Birmingham
By Brian G4CIB

The RSGB Annual General Meeting was once again held at Jury's Inn, Birmingham on Saturday 27th April, scheduled to start at 12.00 noon. The venue is easily reached from New Street Railway Station so **Anne 2E1GKY** and myself "let the train take the strain". The business of the AGM was very brief, basically confirming all the resolutions published before the AGM in "Radcom". The presentation of trophies to the various recipients is always of interest and enables faces to be put to call signs. A buffet lunch was provided for attendees and there was plenty for everyone and to suit all tastes. After lunch we were treated to a superb presentation on the Es'hail - Qatar Oscar 100 geostationary satellite. Weighing some 6 tonnes, the satellite was launched from Cape Canaveral, Florida, last November. It carries the first geosynchronous Amateur Radio payload. Es'hail-2/P4A was developed jointly by the Qatar Amateur Radio Society (QARS) and Es'hailSat (the Qatar Satellite Company), with AMSAT-DL as the technical lead. Now at its final position of 25.9° E and with the narrow and wideband transponders having been successfully tested last December, the transponders were recently opened for general use.

The tracking station at Goonhilly hosts an SDR receiver which can be accessed on the following link: **https://eshail.batc.org.uk/nb/** And here is the link to the presentation given at the AGM: **https://wiki.batc.org.uk/images/0/0d/RSGB_AGM_V2.pdf**

Following this presentation, a Question and Answer session was held, and a question I had raised in advance of the AGM was addressed, namely did the RSGB have plans for members to be able to access the RSGB Bulletin / Radcom archive on the web site along the lines of the facility offered to members of the ARRL (American Radio Relay League). At the moment, RSGB members have to purchase a CD for something they have probably already paid for with their subscription (Radcom). The response was that there are commercial considerations to be taken into account - book and CD sales bring in a considerable income to the Society - but it is recognised that the archive should be accessible on line to members. Watch this space! Consideration is also being given to the format and venue for future RSGB AGMs, including the idea that it should take place at one of the major Amateur Radio gatherings e.g. the National Hamfest or the RSGB Convention.

Having plenty of time in hand before our train returned to Cheltenham, we were able to spend some time socialising and Anne was able to meet up with the various staff members she deals with in her role as our Examination Secretary, including **Elaine Richards G4LFM**, "Radcom" Managing Editor, **Steve Thomas M1ACB,** the RSGB General Manager and **Carol Meredith** who is involved with Examination administration.

I was able to catch up with **Dave G4IDF**, a regular UKAC entrant, **Martyn G3UKV,** our Region 5 Representative, who was manning the RSGB Book stall, and a face from the past - **Geoff G3TQF** who was at Rugby College of Engineering Technology from 1965-1968 along with yours truly. It was the first time I had met him since leaving the college and I still managed to recognise him after all this time!

All too soon it was time to head back to New Street Station for the train home.

Anne 2E1GKY at the RSGB AGM

Gloucestershire Repeater Group AGM
By Anne 2E1GKY

I attended the AGM along with **Mike G6OTP,** but have to report that it was not well attended, with several key Committee members absent. It was reported that with the shutting down of the GB3UK repeater on Cleeve Hill, the equipment cabin, antennas and cables had been sold. The Group are looking into suitable alternative locations. There are currently 21 members of the Group and the annual subscription remains at £15.

If you regularly use the other repeaters operated by the Group - **GB3CG** and **GB3GH** - (both located on Churchdown Hill) then please do join the GRG or make a donation to help defray running costs.

The GRG web site may be found at:-

https://www.grg.org.uk/

Just arrived at Birmingham New Street Station, Anne 2E1GKY alongside the train

WANTED

A copy of April 2003 "Practical Wireless"

Please contact the Editor G4CIB

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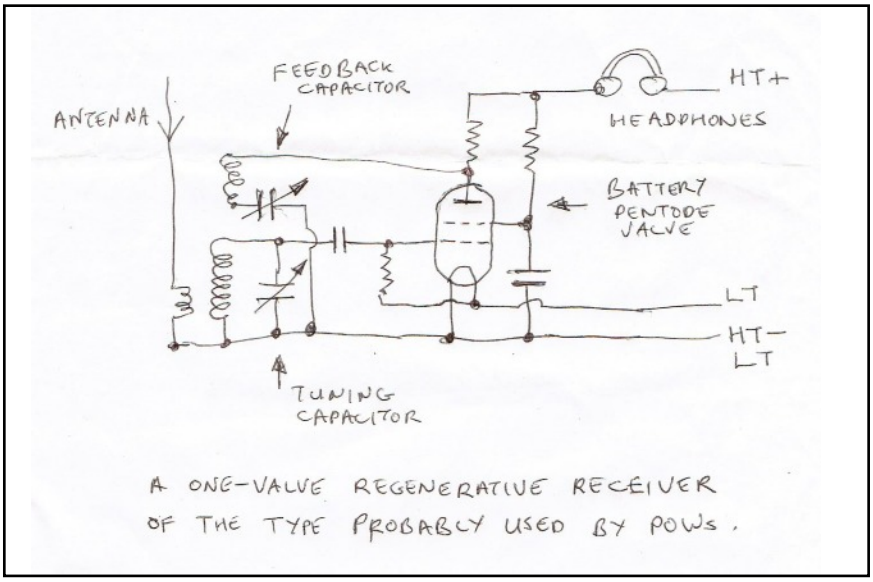
POW RADIOS - Part 2 by Tony G4HBV

Brian, G4CIB has loaned me “Prisoners of the Japanese” by Gavan Daws. This is not a book for the squeamish - I couldn’t read parts of it. There are, however, some details about POW radios contained in this book. Often a radio was hidden in the false bottom of a water canteen, the top half being filled with water. Short wave was used to receive All India Radio, Sydney or the BBC Overseas service from London. Americans listened to San Fransisco. Most POW radios were built by the POWs themselves (of a type I will describe later). One American POW actually modified a medium-wave portable to cover short wave - but this was exceptional.

One American POW got the job of fixing looted radios that the Japanese had acquired. This gave him access to a workshop outside camp, so parts for POW radios were smuggled into camp. After the POW radio was found at Kanchanaburi (see previous article) and the vicious reprisals meted out, some radios were abandoned for fear of discovery. However many were still operated and systems of security were thought up. For instance one set was always kept disassembled with its parts stored separately, and only assembled at night for use, when lookouts were posted to warn of approaching Japanese.

I have acquired another book “Escape and Evasion” by Ian Dear dealing with World War 2. MI9 was set up in England during the war to deal with, among other matters, contact and help for POWs. The book states that a couple of camps had built transmitters, but MI9 had given orders that these should only be used in an emergency and this never occurred. POWs in Germany were able to communicate back to their home country authorities via code in letters allowed home. One such letter requested the circuit diagram of a transmitter and this was delivered hidden in a hair brush in a POW relief parcel. The Americans smuggled radio parts hidden in baseballs in these relief parcels.

I think that all the POW radios constructed in the camps were probably of one type, a simple regenerative detector of the sort that many of our older club members would have built for themselves in their schooldays. Operating on short wave, such one-valve sets, with high resistance headphones and a short wire antenna would have been sensitive enough to receive the stations I referred to earlier. You can see from the diagram that only twelve parts are necessary and the HT supply, depending on the valve type, could be as low as 20 volts or so and thus consist of a series of torch batteries. If Army-type low-resistance headsets or telephone receivers were used then it would have needed another valve as an audio amplifier.



A ONE-VALVE REGENERATIVE RECEIVER OF THE TYPE PROBABLY USED BY POWs.

Editor’s note - this link http://www.zerobeat.net/qrp/powradio.html will take you to an article entitled “Construction of Radio Equipment in a Japanese POW Camp” and is a transcript of a recording by Lieutenant Colonel R G Wells, on the construction of radio equipment whilst in a Japanese Prisoner of War camp after the fall of Singapore.

Contest Round-Up

By Brian G4CIB

Members have once again been entering the VHF UKAC series of contests and towards the end of April, GARES is in 23rd position in the Local Clubs overall table. Gary M0XAC and myself have submitted entries on 50MHz, M0XAC and Les G0ULH on 70MHz, M0XAC, G0ULH and Brian G4CIB (/P) on 144MHz, and M0XAC, G0ULH and Matt 2E0MFH on 432MHz.

In March I entered the 144MHz UKAC from Lundy but was defeated by the weather after only 2 qsos. My 144MHz entry in April was my first this year from the home qth, and with 5 watts from my FT817ND my best dx was GD8EXI.

In the 80 metre Club Championship we are currently in 10th position out of 45 clubs listed. Many thanks to Martin G4ENZ, Gary M0XAC and Bob M0NQN for their efforts on SSB, CW and Data.

If you feel you would like to have a bash but need some guidance, ask any of the call signs above and they will give you the benefit of their experience. If you do decide to enter, make sure your points are allocated to **Gloucester Amateur Radio and Electronics Society.**

From The Archives

The GARES Junk Stall at Longleat Rally - 1990s

Pat, G3MA and Vernon G0HTO look on while Alan G4IFF relieves a punter of some cash!

It looks like Graeme G0EEA and George G7GQC in the background, Jenny G7JUP hidden behind the lamp

This stall provided a good income to the club coffers for many years

A Marconi Mystery Key
By Tom G3XMM

Another key from the back of the cupboard! It was given to me many moons ago “to get me started” when I was first licensed and what a splendid gift it has turned out to be. I am in the process of cautiously cleaning it up, trying to ensure that I do not remove the patina of more than a hundred years. However the exact identity of the key is something of a mystery.

So what do we know about it? It is a big key - the ebonite base measures approximately 8” by 3.5” and “the works” are predominately of brass and copper. The heavy duty keying contacts are of silver and the space contact at the rear of the key is actuated from the main mechanism via a rubber foot. The mechanism appears to be identical to that of the Air Ministry Type B spark keys that were produced by the Marconi Company in the very early years of the 20th Century. Unfortunately there is no type number or any other identification on the key and I suspect it was originally installed inside some sort of protective container. If so the type number would probably have been marked on the outside of the container. So the puzzle remains unsolved. Perhaps there is someone out there who can suggest the answer and may even have it in physical form sitting at the back of a cupboard!

The Bands Explained - Part 1 - 80 metres and 60 metres

By Malcolm G6UGW

I hope that this series will be useful to beginners to the hobby by explaining the characteristics of the various Amateur and Broadcast bands. I will start with the 80 metre Amateur Band and the 60 metre Broadcast Band.

80 Metre Amateur Band - Frequency range 3.5MHz - 3.8MHz

This band, normally used for distances of 50 to 500 miles has occasional openings up to 3000 miles at night. CW is from 3.5MHz - 3.6MHz, phone from 3.6MHz - 3.8MHz.

60 Metre Broadcast Band - Frequency range 4.75MHz - 5.06MHz

This is primarily a domestic band broadcasting to local listeners. However, it is often possible to receive such signals at considerable distances. The 60 metre region is designated as the “Tropical Band” since many of the stations using it are located in South and Central America. On occasions, the central and southern parts of Africa are also heard. Best reception on this band is during the winter months in the early morning.

Spring is Sprung - Time for some /P Operating

By G4CIB

One of the joys of living in Glorious Gloucestershire is the wonderful opportunities we have to leave behind the city or urban sprawl and head for the countryside to not only enjoy the scenery but indulge in some /P operating. Now that the light nights are with us, and hopefully warmer weather, don't forget on club nights we have the use of the playing fields at Churchdown School to try out antennas and equipment. Also the club has a good working relationship with the Crickley Hill Country Park enabling us to use this site on Bank Holiday Mondays and occasional week-end contests. Many local high spots are accessible on foot and afford ample scope for using VHF/UHF hand-held transceivers. Painswick Beacon, Cleeve Hill, May Hill, Churchdown Hill and a bit further afield, Bredon Hill and the Malvern Hills all offer exhilarating views, good walking and of course the opportunity of participating in SOTA (Summits of the Air). If, however, you are content to operate from a car with a car-mounted antenna then it's just a matter of finding a convenient lay-by or pull-in. But beware of field gateways - Murphy's Law will come into play and within minutes of setting up, a tractor will appear from nowhere needing access to the field!

Obviously if your /P operating requires larger antennas to be erected, some site investigations will be required and permission obtained from the land owner. This need not be an insurmountable problem as long as you approach the land owner with courtesy and if permission is granted, when you have finished operating, leave the site as you found it. I have an arrangement with a local farmer to use a piece of land to operate /P and it's within a mile of home and is about 100m higher than my home location, although I must admit I have not used it as much as I would have liked what with one thing and another.

Another opportunity to operate /P of course is when you are in holiday. I have fond memories of holidaying in the 1970s in Teignmouth - I had just acquired my call sign (G8CIB) and in the evenings would head for Haldon Moor above Teignmouth and Dawlish and set up my 2 metre station comprising an ex-Army R209 receiver with a 2 metre converter designed by G3HBW and a home-built 2 watt AM (amplitude modulation) transmitter. The antenna as I recall was an 8 element J-Beam yagi on a small aluminium mast. Haldon Moor was off the beaten track with few visitors and then it was no problem to just pull off the road and set up the station. I understand that the area of land I used to operate from all those years ago is now owned by the National Trust with a car park and various facilities so operating there with such a set-up now would be a problem.

More recently several club members, including Les G0ULH and Dave G4BCA have successfully operated from holiday cottages in Devon and Cornwall and of course for many years Leta G4RHK and I have activated Lundy Island.

The photo left shows a 6m dipole at G4BCA's holiday cottage in Bude

On the practical side - do prepare a list of items needed as there is nothing more frustrating than getting to your operating site and find that you have left that vital adaptor at home. That happened to me on Lundy last year when I forgot to take an in-line PL259-PL259 adaptor and had to do a "bodge"! Not only do I have a list but also a specific box with all the various leads, adaptors and other stuff needed, but I have been known to "borrow" stuff from the box and forget to put it back. So my solution? An inventory list which stays in the box and is regularly cross-checked with the contents. Having listed all the items required, set up the station at home on the lawn or whatever and then check what you have used against your list and correct any anomalies.

I started this article in early April and whilst tapping away on the keyboard in the shack I heard Mick 2E0WMP/M calling CQ on 144.300MHz. I gave him a call and we quickly established contact, QSYing to 144.325MHz. It turned out that Mick was operating from Clee Hill in Shropshire and he reported that it was snowing heavily! During the qso he told me that he had posted a picture on QRZ.com and subsequently gave me permission to reproduce it for this article. He also emailed me later to tell me that he had had to be towed out of a snowdrift by a tractor! As you can see from the photo on the left below, Mick uses a compact 4 element beam on a heavy base obviating the need for guys.

The photo below right shows Mick operating under more favourable conditions at the end of April when he reported that he had worked some good DX on 144MHz SSB.

From the Archives

G4AYM/P operating on a 2 metre contest from the top of May Hill in the early 1980s.

I recall that we obtained permission from the National Trust to operate here via **Steve G4HFT.** As there is no vehicular access to the summit of the hill, all the equipment was man-handled to the summit with the aid of a trolley constructed by **Tony G4HBV.**

The equipment was an FT480R and a 12 element Tonna antenna.